

**BEFORE  
THE TENNESSEE PUBLIC UTILITY COMMISSION  
AT NASHVILLE**

Piedmont Natural Gas Company, Inc.  
Petition for an Adjustment of Rates,  
Charges and Tariffs Applicable to Service  
in Tennessee

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Docket No. 20-00086

**DIRECT TESTIMONY  
of  
WILLIAM H. NOVAK**

ON BEHALF OF

**THE CONSUMER ADVOCATE UNIT  
OF THE  
FINANCIAL DIVISION  
OF THE  
OFFICE OF THE TENNESSEE ATTORNEY GENERAL**

*November 30, 2020*

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Attachment WHN-1	William H. Novak Vitae
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1    ***Q1. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND***  
2           ***OCCUPATION FOR THE RECORD.***

3    A1. My name is William H. Novak. My business address is 19 Morning Arbor Place,  
4           The Woodlands, TX, 77381. I am the President of WHN Consulting, a utility  
5           consulting and expert witness services company.<sup>1</sup>

6

7    ***Q2. PLEASE PROVIDE A SUMMARY OF YOUR BACKGROUND AND***  
8           ***PROFESSIONAL EXPERIENCE.***

9    A2. A detailed description of my educational and professional background is provided  
10           in Attachment WHN-1 to my testimony. Briefly, I have both a Bachelor's degree  
11           in Business Administration with a major in Accounting, and a Master's degree in  
12           Business Administration from Middle Tennessee State University. I am a  
13           Certified Management Accountant and am also licensed to practice as a Certified  
14           Public Accountant.

15

16           My work experience has centered on regulated utilities for over 35 years. Before  
17           establishing WHN Consulting, I was Chief of the Energy & Water Division of the  
18           Tennessee Public Utility Commission (the Commission) where I had either  
19           presented testimony or advised the Commission on a host of regulatory issues for  
20           over 19 years. In addition, I was previously the Director of Rates & Regulatory  
21           Analysis for two years with Atlanta Gas Light Company, a natural gas  
22           distribution utility with operations in Georgia and Tennessee. I also served for

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<sup>1</sup> State of Tennessee, Registered Accounting Firm ID 3682.

1 two years as the Vice President of Regulatory Compliance for Sequent Energy  
2 Management, a natural gas trading and optimization entity in Texas, where I was  
3 responsible for ensuring the firm's compliance with state and federal regulatory  
4 requirements.

5  
6 In 2004, I established WHN Consulting as a utility consulting and expert witness  
7 services company. Since 2004, WHN Consulting has provided testimony or  
8 consulting services to state public utility commissions and state consumer  
9 advocates in at least ten state jurisdictions as shown in Attachment WHN-1.

10

11 ***Q3. ON WHOSE BEHALF ARE YOU TESTIFYING?***

12 A3. I am testifying on behalf of the Consumer Advocate Unit (Consumer Advocate)  
13 of the Financial Division of the Office of the Tennessee Attorney General.

14

15 ***Q4. HAVE YOU PRESENTED TESTIMONY IN ANY PREVIOUS PIEDMONT***  
16 ***RATE CASES?***

17 A4. Yes. I presented testimony in Dockets U-85-7355, U-87-7499, 89-10491, 91-  
18 02636 and 11-00144 concerning either Nashville Gas Company or Piedmont  
19 Natural Gas Company (Piedmont or the Company) rate cases. In addition, I  
20 advised the TPUC Commissioners on various issues in the rate case for Docket  
21 No. 03-00313 where I did not present testimony.

22



1 ***Q5. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS***  
2 ***PROCEEDING?***

3 A5. My testimony will support and address the Consumer Advocate's concerns,  
4 positions and recommendations with respect to the Petition filed by Piedmont to  
5 increase its rates and charges. Specifically, I will address the following:

- 6 1. The Consumer Advocate's Attrition Period methodology and resulting  
7 Revenue Deficiency.
- 8 2. The Consumer Advocate's proposed attrition period revenue and gas cost  
9 calculations, including the Company's proposed integration of its  
10 forecasted Integrity Management Rider (IMR) revenues and the  
11 Unprotected Excess Accumulated Deferred Income Tax (ADIT) Refund  
12 revenues into base rates;
- 13 3. The Consumer Advocate's proposed attrition period rate base calculations;
- 14 4. The Consumer Advocate's proposed Taxes Other Than Income Taxes;
- 15 5. The Consumer Advocate's position on the Company's cost recovery  
16 proposal for Gas Technology Institute funding;
- 17 6. The Consumer Advocate's proposed Revenue Conversion Factor;
- 18 7. The Consumer Advocate's proposed Rate Design; and
- 19 8. The Consumer Advocate's position on the Company's proposed tariff  
20 changes not related to rates.

21  
22 ***Q6. WHAT DOCUMENTS HAVE YOU REVIEWED IN PREPARATION OF***  
23 ***YOUR TESTIMONY?***

1 A6. I have reviewed the Company's Petition filed on July 2, 2020, along with the  
2 testimony and exhibits presented with its filing. In addition, I have reviewed the  
3 Company's workpapers supporting its attrition period calculations. I have also  
4 reviewed the Company's responses to the Consumer Advocate's discovery  
5 requests. In addition, I reviewed previous Commission's Orders associated with  
6 the Company's deferrals related to pension funding, environmental costs, and  
7 flood restoration costs. I also reviewed the Commission's Order in Docket 19-  
8 00107, and other dockets cited in that Order, regarding the Company's IMR  
9 mechanism. Finally, I reviewed the Commission's Order in Docket No. 18-00040  
10 regarding the Commission's decision related to Unprotected Excess ADIT  
11 Refunds.

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16 *[Testimony continues on next page]*  
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## **I. ATTRITION PERIOD METHODOLOGY AND REVENUE DEFICIENCY**

**Q7. WHAT TEST PERIOD AND ATTRITION PERIOD HAVE YOU ADOPTED FOR THIS CASE?**

A7. The Company has proposed the twelve months ended March 31, 2020 as its test period with attrition adjustments through the twelve months ending December 31, 2021, and I have adopted these same review periods for the Consumer Advocate's proposed test period and attrition period. However, while I have adopted the historical financial results for the twelve months ended March 31, 2020 as the test period, I have also considered the financial data for the prior six years for calculating the Company's going-level attrition year forecasts for revenues, expenses and rate base. This consideration of historic data in developing a going-level forecast is in stark contrast to Piedmont's methodology of only examining the test period data and then adjusting that amount for growth and/or inflation.

**Q8. WHAT IS YOUR RECOMMENDATION FOR THE REVENUE DEFICIENCY CALCULATION FOR THIS CASE?**

A8. As shown on Attachment WHN-2, Schedule 1, which contains the Consumer Advocate Exhibit and is summarized below on Table 1, my recommendation for the revenue deficiency required to produce an overall return of 6.60% is a \$-3,795,187 reduction to current rates.

<b>Table 1 – Revenue Deficiency/(Surplus) Calculation<sup>2</sup></b>		
	<b>Piedmont</b>	<b>Consumer Advocate</b>
Rate Base	\$917,782,054	\$867,593,665
Operating Income at Current Rates	\$42,839,172	\$60,178,324
Earned Rate of Return	4.67%	6.94%
Fair Rate of Return	7.10%	6.60%
Required NOI	\$65,173,539	\$57,261,182
NOI Deficiency	\$22,334,367	\$-2,917,142
Revenue Conversion Factor	1.339565	1.300995
<b>Revenue Deficiency/(Surplus)</b>	<b>\$29,919,130</b>	<b>\$-3,795,187</b>

In addition to this this revenue surplus, a separate increase of \$35,853,030 will need to be made to reflect the conversion of the Integrity Management Rider (IMR) to base rates from a separate surcharge. I discuss the details for both of these changes later in my testimony.

*[Testimony continues on next page]*

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<sup>2</sup> Consumer Advocate Exhibit, Schedule 1.

1                   **II.     ATTRITION PERIOD REVENUES & GAS COST**

2

3     ***Q9.   MR. NOVAK, WHAT IS YOUR RECOMMENDATION FOR THE***

4                   ***REVENUE CALCULATION THAT THE COMMISSION SHOULD***

5                   ***ADOPT FOR THIS CASE?***

6     A9.   As shown on Attachment WHN-2, Schedule 8, which contains the Consumer

7           Advocate Exhibit and is summarized below on Table 2, my recommendation for

8           the revenue calculation is \$218,775,853. This amount contains adjustments for

9           weather, customer usage and customer growth. This amount also reflects the

10          impact of transferring the forecasted IMR surcharge to base rates.

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15                               *[Testimony continues on next page]*

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<b>Table 2 – Attrition Period Revenue Summary<sup>3</sup></b>			
<b>Tariff</b>	<b>Piedmont</b>	<b>Consumer Advocate</b>	<b>Difference</b>
<b>Sales &amp; Transportation Margin:</b>			
301 – Residential	\$68,020,490	\$68,157,846	\$137,356
302 – Small General Service	27,918,496	27,936,438	17,942
352 – Medium General Service	8,499,034	9,172,391	673,357
303 – Large General Service	1,870,648	1,958,724	88,076
304 – Interruptible Service	42,011	43,682	1,671
313 – Firm Transportation	3,996,635	3,966,693	-29,942
314 – Interruptible Transportation	4,306,604	4,384,195	77,591
310 – Resale Service	16,734	17,105	371
Special Contracts	259,159	266,705	7,546
<b>Total Base Rate Margin</b>	<b>\$114,929,811</b>	<b>\$115,903,779</b>	<b>\$973,968</b>
Gas Cost	61,472,254	62,349,477	877,223
<b>Total Base Rate Revenue</b>	<b>\$176,402,065</b>	<b>\$178,253,256</b>	<b>\$1,851,191</b>
<b>Other Revenues:</b>			
Warranty Operating Margin	0	2,617,065	2,617,065
IMR Rider Elimination	35,853,030	35,853,030	0
ADIT Refund Elimination	-9,333,185	0	9,333,185
Other Miscellaneous Revenue	1,120,277	2,052,502	932,225
<b>Total Other Revenue</b>	<b>\$27,640,122</b>	<b>\$40,522,597</b>	<b>\$12,882,475</b>
<b>Total Revenue</b>	<b>\$204,042,187</b>	<b>\$218,775,853</b>	<b>\$14,733,666</b>

***Q10. PLEASE DESCRIBE THE MAJOR AREAS OF DIFFERENCE BETWEEN THE COMPANY'S AND YOUR CALCULATION OF THE ATTRITION PERIOD BILLING DETERMINANTS FOR TOTAL SALES & TRANSPORTATION REVENUE.***

A10. Although the Company and I adopted different models to forecast the attrition billing determinants, the differences between the two calculations are relatively minor. The primary difference between these two forecasts is due to my

<sup>3</sup> Consumer Advocate Exhibit, Schedule 1.

1 application of weather normalization to the industrial tariffs where the Company  
2 chose to omit this adjustment.<sup>4</sup> As shown in detail on Attachment WHN-3,  
3 Schedule 1 and summarized below in Table 3, I first began with the Company's  
4 test period sales and transportation volumes of 314,123,102 therms, 2,263,019  
5 bills and 242,351 billing demand units.<sup>5</sup> I then adjusted each of the Company's  
6 tariffs for normal weather, annualized customer usage and customer growth to  
7 arrive at attrition billing determinants of 346,625,370 therms, 2,329,139 bills and  
8 268,292 billing demand units.

<b>Table 3 – Summary of Consumer Advocate Attrition Period Billing Determinants</b>				
	<b>Test Period</b>	<b>Weather Adjustment</b>	<b>Customer Growth</b>	<b>Attrition Period</b>
Bills	2,263,019	0	66,120	2,329,139
Billing Demand	242,351	0	25,941	268,292
Therms	314,123,102	25,182,874	7,319,394	346,625,370

9  
10 I have also included a detailed comparison with the Company's attrition period  
11 billing determinants on Attachment WHN-3, Schedule 1. This comparison is  
12 summarized below on Table 4.

<b>Table 4 – Comparison of Company and Consumer Advocate Attrition Period Billing Determinants</b>			
	<b>Company</b>	<b>Consumer Advocate</b>	<b>Difference</b>
Bills	2,326,219	2,329,139	2,920
Billing Demand (Dkt)	243,039	268,292	25,253
Usage (Therms)	341,677,909	346,625,370	4,947,461

13

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<sup>4</sup> In addition, the Company made certain errors related to its calculation of normal weather. See Company responses to Consumer Advocate discovery requests 1-10 and 1-11 for further details.

<sup>5</sup> Billing Demand Units refers to peak day capacity subscribed to by the Company's firm industrial customers on Rate Schedules 303 and 313 and 310.

1 ***Q11. HOW DID YOU COMPUTE THE CONSUMER ADVOCATE'S WEATHER***  
2 ***ADJUSTMENT?***

3 A11. I used a simple linear regression calculation of heating degree days to sales per  
4 bill. This is the same weather normalization methodology adopted by the  
5 Commission in the last rate cases for Atmos Energy Corporation, Kingsport  
6 Power Company and Chattanooga Gas Company as well as the last rate case for  
7 Piedmont.<sup>6</sup>

8  
9 I then prepared separate weather normalization calculations for each of the  
10 Company's tariffs shown in Table 2 above. A summary of my weather  
11 adjustments, as well as the detailed calculations, are included on Attachment  
12 WHN-4, Schedule 1 for WNA tracking purposes on the Company's residential,  
13 small commercial and medium commercial tariffs.

14  
15 ***Q12. DO YOU TYPICALLY MAKE WEATHER NORMALIZATION***  
16 ***ADJUSTMENTS FOR INDUSTRIAL TARIFFS IN A RATE CASE?***

17 A12. No. Typically, industrial tariffs are not weather sensitive since the gas usage for  
18 these customers are usually devoted to product output. In addition, the gas usage  
19 of these customers is typically curtailed during the peak winter heating season  
20 making it inappropriate for a weather normalization adjustment. However, in this  
21 case, I discovered a strong relationship between weather and industrial customer  
22 usage as shown by the correlation factors in Table 5.

23  

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<sup>6</sup> Respectively, Commission Docket Nos. 14-00146, 16-00001, 18-00017 and 11-00144.



<b>Table 5 – Test Period Weather Correlation Percentages</b>	
<b>Tariff</b>	<b>Weather Correlation</b>
301 – Residential	93.57%
302 – Small General Service	93.14%
352 – Medium General Service	95.16%
303 – Large General Service	98.51%
304 – Interruptible Service	51.04%
313 – Firm Transportation	96.51%
314 – Interruptible Transportation	98.48%
310 – Resale Service	97.79%
Special Contracts	87.08%

As can be seen in Table 5, with the exception of Rate 304 (which only has 2 customers) and Special Contracts (which only has one customer) all of the industrial tariffs had a test period weather normalization correlation greater than 90%. I therefore included a weather normalization adjustment for these industrial tariffs which accounts for most of the difference in the gas usage forecast between the Company and myself.

***Q13. IS THIS WEATHER CORRELATION FOR INDUSTRIAL CUSTOMERS JUST A TEST PERIOD OCCURRENCE?***

A13. No. I made weather normalization calculations for each of the last six years and found similar weather correlation for each of the industrial tariffs.

***Q14. WHAT FACTORS DO YOU ATTRIBUTE TO THE STRONG WEATHER CORRELATION FOR INDUSTRIAL CUSTOMERS SHOWN IN TABLE 5?***

A14. In my opinion, it appears that the Company has over-subscribed to its pipeline capacity and storage assets. These costs are typically paid for by the residential

1 and commercial customer classes along with those industrial customers electing  
2 firm service. In contrast, industrial customers generally elect for interruptible gas  
3 service which means that their service can be curtailed (typically on the coldest  
4 days) in exchange for a lower tariff rate. However, Piedmont has not curtailed the  
5 gas usage for any of its interruptible industrial customers since 2015. This means  
6 that these industrial customers are in effect receiving firm service at lower  
7 interruptible rates.

8

9 ***Q15. WHAT ACTION DO YOU RECOMMEND THE COMMISSION TAKE***  
10 ***REGARDING PIEDMONT'S APPARENT EXCESS PIPELINE AND***  
11 ***STORAGE CAPACITY?***

12 A15. It is certainly beyond the scope of this rate case to fully address Piedmont's  
13 pipeline and storage assets. However, the Commission may want to consider this  
14 issue in a separate docket. For now, it is appropriate to adjust the test period  
15 usage of these industrial customers for the impact of normal weather.

16

17 ***Q16. HOW HAVE YOU ADJUSTED THE ATTRITION PERIOD BILLING***  
18 ***DETERMINANTS FOR EXISTING INDUSTRIAL CUSTOMER USAGE?***

19 A16. I adjusted industrial customer usage by individually analyzing the usage of the  
20 Company's 25 largest customers. Where I felt that it was necessary, such as a  
21 large swing in gas usage or a material tariff transfer, I adjusted the test period  
22 usage to take these changes into account. I then compared my own adjustments  
23 with those proposed by the Company. For the most part, I felt in this Docket that

1 the Company had properly adjusted for any test period anomalies and tariff  
2 transfers within the industrial customer group.

3

4 ***Q17. HOW WERE SALES VOLUMES FOR ADDED CUSTOMERS***  
5 ***COMPUTED?***

6 A17. A historical average of added customers was first calculated. This historical  
7 average of customer additions was then multiplied by an average normalized  
8 usage volume per customer giving additional attrition period sales volumes for the  
9 residential and commercial rate classes.

10

11 ***Q18. HOW WERE THE ATTRITION PERIOD BILLING DETERMINANTS***  
12 ***TRANSLATED INTO REVENUES?***

13 A18. The attrition period billing determinants shown on Table 4 were multiplied by the  
14 existing base tariff rates and the PGA rate based upon the Company's demand and  
15 commodity gas costs at June 2020. This gives total attrition period gas sales and  
16 transportation revenues of \$178,253,256 as shown on Consumer Advocate  
17 Exhibit, Schedule 8 and summarized above in Table 2.

18

19 ***Q19. HOW WAS THE CONSUMER ADVOCATE'S COST OF GAS***  
20 ***COMPUTED?***

21 A19. I began with the attrition period throughput volumes and billing demand  
22 discussed above. These determinants were then priced out at the June 1, 2020

1 PGA rates. This produced \$62,349,477 in gas cost as shown on Schedule 8 of the  
2 Consumer Advocate Exhibit and summarized above in Table 2.<sup>7</sup>

3

4 ***Q20. WHAT IS THE WARRANTY OPERATING MARGIN RELATED TO?***

5 A20. This adjustment for \$2,617,065 is related to the HomeServe program operated by  
6 the Company and is explained in Mr. Dittmore's testimony.

7

8 ***Q21. PLEASE DESCRIBE THE INTEGRITY MANAGEMENT RIDER AND***  
9 ***EXPLAIN WHY ITS ELIMINATION IS IMPACTING ATTRITION***  
10 ***PERIOD REVENUES.***

11 A21. The Integrity Management Rider (IMR) was approved by the Commission in  
12 Docket 13-00118 and provides for an annual adjustment to rates by allowing  
13 Piedmont "...to recover, on an intra-rate case basis, the costs associated with  
14 significant levels of capital expenditures incurred as the direct result of  
15 compliance with federal and state pipeline safety requirements and needed to  
16 insure the continuing reliability of its existing natural gas plant service in  
17 Tennessee."<sup>8</sup> Therefore, in order for the Commission to now consider all plant  
18 investment as a component of rate base in this rate case, the current IMR  
19 surcharge needs to be terminated simultaneously with the implementation of the  
20 new base rates authorized by the Commission in this Docket 20-00086.<sup>9</sup> .

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<sup>7</sup> See WHN Revenue Workpaper R-80-1.00 for specific calculations.

<sup>8</sup> Commission Order in Docket No. 13-00118, May 13, 2014, Page Nos. 2-4.

<sup>9</sup> Piedmont will need to make a separate filing to true-up the final difference between IMR costs and IMR recoveries through the implementation date of new base rates authorized by the Commission.

1 ***Q22. HOW WAS THE ADJUSTMENT FOR THE IMR CALCULATED?***

2 A22. The Company forecasted its IMR activity for November 2019 through October  
3 2020, and then added this amount to the previous IMR activity balances to  
4 produce expected annual IMR revenues of \$35,853,030.<sup>10</sup> This amount was then  
5 included in both the Company and the Consumer Advocate's revenue calculation  
6 shown on Schedule 8 of the Consumer Advocate Exhibit. As a result, the current  
7 IMR balance will now become a component of permanent base rates. However,  
8 Piedmont will still need to make a separate IMR filing to true-up the final  
9 difference between IMR costs and IMR recoveries along with any deferred  
10 amounts.

11  
12 ***Q23. PLEASE DESCRIBE THE ADIT RIDER AND EXPLAIN WHY ITS***  
13 ***ELIMINATION IS IMPACTING ATTRITION PERIOD REVENUES.***

14 A23. The Company's proposed adjustment for the ADIT Rider of \$9,333,185  
15 represents the current annual refund of excess Unprotected ADIT that was  
16 ordered by the Commission in Docket 18-00040. According to the Commission  
17 Order, a total of \$23,571,958 is to be refunded to customers over a three-year  
18 period.<sup>11</sup> The Company is implementing this refund to customers through the  
19 usage adjustments shown below on Table 6 that began in June 2019.  
20

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<sup>10</sup> See the "Integrity Mgmt Rider" tab of the "Sales and Transportation Pro Forma Revenues" spreadsheet included with the Company's response to Minimum Filing Requirement No. 12.

<sup>11</sup> Commission Order in Docket No. 18-00040, August 6, 2019, Page No. 14.

<b>Table 6 – Unprotected Excess ADIT Refund Rate per Therm<sup>12</sup></b>	
<b>Tariff</b>	<b>Refund Rate</b>
301 – Residential	-0.04211
302 – Small General Service	-0.03678
352 – Medium General Service	-0.03678
303 – Large General Service	-0.00685
304 – Interruptible Service	-0.00685
313 – Firm Transportation	-0.00685
314 – Interruptible Transportation	-0.00685
310 – Resale Service	-0.02086
Special Contracts	0.00000

1

2 The Company is now proposing to terminate this refund and apply the annual  
3 impact of \$9,333,185 to base rates.<sup>13</sup>

4

5 ***Q24. DO YOU AGREE WITH THE COMPANY'S PROPOSAL TO***  
6 ***TERMINATE THIS REFUND THROUGH AN ADJUSTMENT TO BASE***  
7 ***RATES?***

8 A24. No. This refund is only temporary and should be completely credited to  
9 customers by May 2022 if left in effect. Since the attrition period in this rate case  
10 runs through December 2021, it would appear to be unnecessary to alter the  
11 current refund timing. Therefore, I recommend that the Commission deny the  
12 Company's proposal to end this refund by rolling it into base rates.

13

14 ***Q25. HOW DID YOU COMPUTE OTHER MISCELLANEOUS REVENUES?***

<sup>12</sup> WHN Revenue Workpaper R-110-1.00.

<sup>13</sup> The Company's adjustment of \$9,333,185 is calculated by taking the individual refund rates shown in Table 7 and then applying these rates to the Company's projected attrition period usage. See WHN Revenue Workpaper R-60-1.00 for specific calculations.

A25. Other Miscellaneous Revenues primarily consist of forfeited discounts and miscellaneous service charges. To compute these amounts, I examined the historical average of these accounts over the last six years and then applied this average change to the attrition period. This produced \$2,052,502 in Other Revenues as shown on Consumer Advocate Exhibit, Schedule 8 and summarized below on Table 7.

<b>Table 7 – Comparison of Company and Consumer Advocate Forecast of Other Revenues<sup>14</sup></b>			
	<b>Company</b>	<b>Consumer Advocate</b>	<b>Difference</b>
Forfeited Discounts	\$816,982	\$1,747,193	\$930,211
Miscellaneous Service Charges	303,295	305,309	2,014
<b>Total Other Revenues</b>	<b>\$1,120,277</b>	<b>\$2,052,502</b>	<b>\$932,225</b>

***Q26. WHAT IS CAUSING THE LARGE DIFFERENCE IN THE FORFEITED  
DISCOUNTS COMPONENT OF OTHER REVENUES?***

A26. In this case, Piedmont has proposed to increase the time for customers to pay their bills from 12 days to 25 days before the forfeited discount provision expires.<sup>15</sup> The Consumer Advocate recommends approval of this tariff change because it will allow customers more time to take advantage of discount payment timing on their bills. However, in computing their attrition period forfeited discounts forecast, the Company reduced the total forecast by 52% to reflect the additional 13 days that customers will have to pay before the forfeited discount provision

<sup>14</sup> WHN Revenue Workpaper R-65-1.00.

<sup>15</sup> Direct testimony of Company witness Powers, Pages 8-9.

1 expires on their bill.<sup>16</sup> The Company has presented no evidence to support an  
2 actual reduction in total forfeited discounts that is tied an extension of time to pay.  
3 Further, the Company was unable to demonstrate a historic dilution in forfeited  
4 discounts from their payment policies in other states.<sup>17</sup> As a result, I have not  
5 included a reduction in forfeited discounts related to the Company's proposed  
6 changes in payment terms.

7  
8 ***Q27. MR. NOVAK, ARE THERE ANY ISSUES OR CONCERNS WITH THE***  
9 ***REVENUE CALCULATION THAT NEED TO BE BROUGHT TO THE***  
10 ***COMMISSION'S ATTENTION?***

11 A27. Yes. My investigation found that the Company had implemented "Minimum  
12 Margin Agreements" to certain customers without Commission approval. In  
13 addition, the Company is proposing to change the PGA billing demand between  
14 customer classes within this rate case. Finally, the establishment of a separate  
15 rate for the Company's Special Contract customer appears to no longer be  
16 justified.

17  
18 ***Q28. PLEASE DESCRIBE THE MINIMUM MARGIN AGREEMENTS THAT***  
19 ***HAVE BEEN IMPLEMENTED BY THE COMPANY.***

20 A28. The Company has executed at least three contracts with its industrial customers  
21 that it refers to as "Minimum Margin Agreements." According to the Company,  
22 "Customers asked to execute a minimum margin agreement essentially provide a

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<sup>16</sup> An additional billing period of 13 days / 25 total days = 52% per Company workpapers.

<sup>17</sup> See Company's response to Consumer Advocate discovery request 2-92.



1 guarantee to the Company that if it does not use the amount of gas its feasibility  
2 analysis is based upon, which is provided by the customer, it will keep Piedmont  
3 whole with respect to the margin loss incurred as a result of its under-usage.”<sup>18</sup>  
4 The Company has included revenues of \$252,305 in this rate case that are related  
5 to these Minimum Margin Agreements.<sup>19</sup> However, these Minimum Margin  
6 Agreements are essentially a gas surcharge to these customers that are not  
7 provided for in the Company’s tariff, which means they have no legal authority.  
8 As a result, it is my recommendation that the Commission direct that these funds  
9 (along with any previous collections prior to the test period) be refunded back to  
10 these customers along with interest and penalty.

11  
12 ***Q29. PLEASE DESCRIBE THE CHANGE IN PGA BILLING DEMAND RATES***  
13 ***BETWEEN CUSTOMER CLASSES THAT HAS BEEN PROPOSED BY***  
14 ***THE COMPANY.***

15 A29. Typically, only base margin rates are adjusted within the context of a rate case.  
16 However, in this case, Piedmont is proposing to adjust the Purchased Gas  
17 Adjustment (PGA) billing demand rates as well as the base margin rates.<sup>20</sup> The  
18 Company’s proposed change in PGA billing demand rates as well as the impact of  
19 these proposed changes is shown below on Table 8.

<sup>18</sup> Company response to Consumer Advocate Data Request 1-23.

<sup>19</sup> See the “Minimum Margin Agreements” tab of the “Sales and Transportation Pro Forma Revenues” spreadsheet included with the Company’s response to MFR No. 12.

<sup>20</sup> Direct Testimony of Company witness Couzens, Page 12, Lines 5-9.

<b>Table 8 – Company Proposed Change in PGA Billing Demand Rates<sup>21</sup></b>			
<b>Tariff</b>	<b>Current Rate/Dkt</b>	<b>Proposed Rate/Dkt</b>	<b>Impact<sup>22</sup></b>
301 – Residential	\$0.7577	\$0.7823	\$319,992
302 – Small General Service	0.7577	0.7323	-151,623
352 – Medium General Service	0.7577	0.7394	-44,214
303 – Large General Service	8.2829	6.7158	-140,611
313 – Firm Transportation	8.2829	8.3617	13,929
310 – Resale Service	8.2829	1.3372	-12,502
<b>Total Impact</b>			<b>\$-15,029</b>

1

2 As shown above on Table 8, this proposed change means that Residential customers face  
3 an increase in rates of approximately \$320,000 on top of the Company’s proposed  
4 increase in base rates.

5

6 ***Q30. DO YOU AGREE WITH THE COMPANY’S PROPOSAL TO CHANGE***  
7 ***THE PGA BILLING DEMAND RATES WITHIN THIS RATE CASE?***

8 A30. No, I do not. The Company’s proposed change in the PGA methodology is  
9 outside the scope of this rate case. I would therefore recommend that the  
10 Commission deny the Company’s request to change the PGA billing demand  
11 rates.

12

13 Further, I would point out that no other gas utility in Tennessee has a mechanism  
14 that allows for variable fixed demand gas cost recovery from different customer  
15 classes. Instead, these demand costs are recovered through the PGA process and  
16 typically included in the commodity PGA for most customers. I would therefore

<sup>21</sup> Company response to Consumer Advocate discovery request 2-97.

<sup>22</sup> WHN Revenue Workpaper R-85-1.01.

1 recommend that all variable fixed demand gas charges be eliminated and that the  
2 Company revert to filing for its fixed gas cost recovery through the PGA.<sup>23</sup>

3

4 ***Q31. PLEASE DESCRIBE YOUR CONCERNS WITH THE RATES FOR***  
5 ***PIEDMONT'S SPECIAL CONTRACT CUSTOMER.***

6 A31. In Docket No. 98-00339, the Commission entered an Order approving a Special  
7 Contract rate for Bridgestone/Firestone in order to address an on-going threat of  
8 bypass by this customer. This original Order was later amended in Docket Nos.  
9 02-01271 and 10-00015. Since the 2010 Docket, the terms of this Special  
10 Contract have been continually renewed by one-year extensions – most recently  
11 on September 28, 2020. However, there has never been any new confirmation  
12 provided to the Commission as to whether the original bypass conditions alleged  
13 by Bridgestone/Firestone are still the same imminent threat that they were in  
14 1998. Based on the data supplied in this docket, it certainly appears that the  
15 current gas consumption by this customer is less than it was in 1998. Further, the  
16 rates for this customer have not changed in over twenty years even though other  
17 customers have seen their rates increase through multiple rate cases annual IMR  
18 filings. As a result, it appears to be time for the Commission to reconsider this  
19 Special Contract.

20

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<sup>23</sup> The variable fixed demand gas cost recovery was established in the Company's 2003 rate case as a means to allow for recovery of different amounts of pipeline demand charges from different customer classes. The sole purpose for the implementation of variable fixed demand charge was to place a higher charge for demand recovery from "standard rate" customers as opposed to "value rate" customers. However, the "standard" and "value" classifications were terminated in the Company's 2011 rate case and the variable fixed demand cost recovery serves no purpose since the rates are identical between customer classes as shown on Table 8.

1    ***Q32.  WHAT ACTION DO YOU RECOMMEND THAT THE COMMISSION***  
2            ***TAKE REGARDING THE SPECIAL CONTRACT?***

3    A32.  I recommend that the Commission give notice to Piedmont and  
4            Bridgestone/Firestone that the rates for the current extension of the Special  
5            Contract in Docket 10-00015 will expire at the end of the renewal period.<sup>24</sup>  Prior  
6            to this expiration date, Piedmont and Bridgestone/Firestone can make a new  
7            docket filing to demonstrate whether or not bypass remains an imminent threat.  
8            Absent such a filing, Bridgestone/Firestone will revert to Piedmont’s regular tariff  
9            rates.

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14                           *[Testimony continues on next page]*  
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<sup>24</sup> October 27, 2021 according to the filing letter of September 28, 2020 in Docket 10-00015.

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A33. The development of the Consumer Advocate's proposed Rate Base is shown on the Consumer Advocate Exhibit, Schedules 2 and 3 and summarized below on Table 9 totals to \$867,593,655. This Rate Base, which is composed of net plant and working capital components, represents the net investment upon which the Company should be allowed the opportunity to earn a fair rate of return.

*[Testimony continues on next page]*

<b>Table 9 – Attrition Period Rate Base<sup>25</sup></b>		
<b>Item</b>	<b>Piedmont</b>	<b>Consumer Advocate</b>
<b>Net Plant Investment:</b>		
Utility Plant in Service	\$1,545,454,734	1,514,943,650
Construction Work in Progress	42,271,971	54,598,377
Accumulated Depreciation	-506,047,002	-500,540,063
Contributions in Aid of Construction	-5,828,754	-5,828,754
Accumulated Deferred Income Taxes	-191,042,334	-199,960,353
<b>Net Plant Investment</b>	<b>\$884,808,615</b>	<b>\$863,212,857</b>
<b>Working Capital:</b>		
Gas Inventory	\$8,763,271	\$7,834,209
Customer Deposits	-4,382,623	-4,367,597
Accrued Interest on Customer Deposits	-313,114	-312,040
Cash Working Funds	-555,056	0
Materials & Supplies	168,196	176,859
Deferred Debits	11,530,729	649,973
Prepaid Insurance	144,542	127,197
Deferred Pension & OPEBs	19,545,529	0
Fleets & Overheads	127,993	128,148
Accounts Payable Related to CWIP	-9,557,776	-9,620,592
Accounts Payable Related to M&S	-21,305	-21,313
Accrued Vacation	-2,412,940	-2,427,542
Lead/Lag Study Requirement	9,935,993	12,213,496
<b>Total Working Capital</b>	<b>\$32,973,439</b>	<b>\$4,380,798</b>
<b>Total Rate Base</b>	<b>\$917,782,054</b>	<b>\$867,593,655</b>

**Q34. PLEASE EXPLAIN THE COMPONENTS THAT MAKE UP THE CONSUMER ADVOCATE'S ATTRITION PERIOD FORECAST OF NET PLANT INVESTMENT SHOWN ON TABLE 9.**

**A34. Utility Plant in Service of \$1,514,943,650.** Utility Plant in Service is the largest component of Rate Base and represents the average amount of utility assets for the attrition year upon which the Consumer Advocate feels that the Company should be allowed the opportunity to earn a return. To compute attrition year

<sup>25</sup> Consumer Advocate Exhibit, Schedule 3.

1 Utility Plant in Service, I began with the test period balance for Tennessee direct  
2 plant and Piedmont allocated common plant and then increased this amount by the  
3 three-year average of historic net plant additions. In contrast, the Company has  
4 calculated attrition year Utility Plant in Service by taking the test period balance  
5 and then adding their budgeted capital expenditures for 2020 and 2021.

6

7 ***Q35. HOW DOES THE THREE-YEAR AVERAGE OF HISTORIC NET***  
8 ***ADDITIONS TO UTILITY PLANT IN SERVICE COMPARE WITH THE***  
9 ***COMPANY'S BUDGETED AMOUNTS?***

10 A35. As shown on Table 10 below, the three-year average of historic net additions for  
11 Tennessee plant produces \$32,553,522 less in utility plant in service for the  
12 attrition period than the Company's budget forecast. However, the three-year  
13 average of historic net additions for common plant produces \$9,366,875 more in  
14 utility plant in service for the attrition period that the Company's budget  
15 forecast.<sup>26</sup>

16

17

18 *[Testimony continues on next page]*

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<sup>26</sup> These common net plant additions are allocated to Tennessee at 15.67% for the Attrition Year. See WHN Rate Base Workpaper RB-10-1.00 for details of this calculation.

<b>Table 10 – Comparison of Historical Average and Company Budget Plant Additions for the Attrition Period<sup>27</sup></b>		
<b>Item</b>	<b>Tennessee Net Plant</b>	<b>Common Net Plant</b>
<b>Net Plant Additions:</b>		
12 Months Ended March 31, 2018	\$86,639,981	\$62,948,541
12 Months Ended March 31, 2019	60,879,391	-19,766,946
12 Months Ended March 31, 2020	150,502,715	21,493,189
<b>Average Net Plant Additions</b>	<b>\$99,340,696</b>	<b>\$21,559,261</b>
<b>Average Monthly Additions</b>	<b>\$8,278,391</b>	<b>\$1,796,605</b>
<b>Test to Attr. Period (21 Months)</b>	<b>\$173,846,218</b>	<b>\$37,728,707</b>
<b>Company Budget Forecast</b>	<b>\$206,399,740</b>	<b>\$28,361,832</b>
<b>Difference</b>	<b>\$-32,553,522</b>	<b>\$9,366,875</b>

***Q36. WHY IS IT MORE APPROPRIATE FOR THE COMMISSION TO CONSIDER THE THREE-YEAR AVERAGE OF HISTORIC PLANT ADDITIONS RATHER THAN THE COMPANY'S FORECASTED CAPITAL BUDGET ADDITIONS IN ARRIVING AT ATTRITION PERIOD UTILITY PLANT IN SERVICE?***

A36. Because the Company's forecasted capital budget is just that – a budget at a single point in time that relies solely upon the Company's anticipated expenditures as opposed to the actual experience that has historically taken place. A significant part of the regulatory compact for setting utility rates by using the attrition period concept is to take the test period amounts and adjust for **known or reasonably anticipated changes**. In this vein, I believe that it is certainly more reasonable to consider an average of actually known historic plant additions when estimating future plant expenditures for the rate setting process. While a capital expenditure

<sup>27</sup> WHN Rate Base Workpapers RB-10-2.02 and RB-10-3.02.



1 budget is certainly a useful tool for internal decision making, it is not necessarily  
2 the best measure for use in setting utility rates.

3

4 ***Q37. PLEASE CONTINUE WITH YOUR EXPLANATION OF THE***  
5 ***REMAINING COMPONENTS OF NET PLANT INVESTMENT.***

6 A37. **Construction Work in Progress of \$54,598,377.** This item represents plant  
7 currently under construction that will soon become used and useful in providing  
8 utility service to the Company's customers. To project Construction Work in  
9 Progress (CWIP), I took the test period balance for Tennessee direct plant and  
10 Piedmont allocated common plant and then deducted \$370,816 associated with  
11 incentive compensation.<sup>28</sup> In contrast, the Company has calculated their attrition  
12 year CWIP from their projected capital expenditures for 2020 and 2021. As with  
13 Utility Plant in Service, I feel that Piedmont's budget-based approach to  
14 forecasting CWIP is incorrect because it relies solely upon the Company's  
15 anticipated budget expenditures as opposed to the actual experience that has  
16 historically taken place.

17

18 **Accumulated Depreciation \$-500,540,063.** This item represents the amount of  
19 depreciation which has accrued over the life of the various capital assets included  
20 within Utility Plant in Service as described above. Like Plant in Service,  
21 Accumulated Depreciation is composed of two different components –

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<sup>28</sup> See direct testimony of Consumer Advocate witness Alex Bradley and workpaper AB-2 for a calculation of the incentive compensation adjustment to CWIP.

1 accumulated depreciation related to direct plant located in Tennessee and  
2 accumulated depreciation related to indirect plant that is allocated to Tennessee.

3  
4 In this case, the Company has proposed new depreciation rates for the Direct  
5 Plant located in Tennessee. As shown on Attachment WHN-5, the impact of  
6 these new depreciation rates will decrease depreciation expense by approximately  
7 \$2.9 million annually based on the asset values at March 31, 2020. In addition,  
8 the Company's depreciation study recognized that certain assets had been over-  
9 depreciated by approximately \$156,000.<sup>29</sup> The Company has proposed to  
10 amortize this excess depreciation over a five-year period.<sup>30</sup> The proposed  
11 depreciation rates appear reasonable, and I have reflected these new rates within  
12 my calculation of depreciation expense for direct plant. The new Tennessee  
13 depreciation rates and Piedmont's existing depreciation rates on common property  
14 produced \$34,723,870 in depreciation expense after amortization of the excess  
15 depreciation balance.<sup>31</sup> This \$34,723,870 in net depreciation expense is reflected  
16 on the Income Statement in the Consumer Advocate's Exhibit, Schedule 6.

17

18 ***Q38. HOW DID YOU CALCULATE THE DEPRECIATION EXPENSE FOR***  
19 ***INDIRECT PLANT?***

20 A38. The Company has two different types of indirect plant where depreciation is  
21 calculated and allocated to Tennessee. The first type of indirect plant is related to

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<sup>29</sup> WHN Rate Base Workpaper RB-20-2.81.

<sup>30</sup> Company Exhibit DAW-2, Page 71.

<sup>31</sup> WHN Rate Base Workpaper RB-20-1.00.

1 Piedmont assets that are allocated to North Carolina, South Carolina and  
2 Tennessee. The second type of indirect plant is related to Duke Energy Business  
3 Services (DEBS) assets that are allocated to all of the holding company's  
4 affiliates.

5  
6 ***Q39. HOW DID YOU CALCULATE THE DEPRECIATION EXPENSE FOR***  
7 ***INDIRECT PLANT ALLOCATED TO TENNESSEE FROM PIEDMONT?***

8 A39. It appears that the Company has no authorized depreciation rates for the Piedmont  
9 indirect plant in service that is allocated to Tennessee. Although the Company  
10 certainly has resources at its disposal for the Commission's consideration of  
11 depreciation rates on allocated plant, it chose not to make any provision for this  
12 deficiency. For this case, I used the Company's existing unauthorized  
13 depreciation rates to compute depreciation expense on allocated plant. However,  
14 I recommend that the Commission order the Company to have a depreciation  
15 study conducted on its allocated plant for consideration in future cases.

16  
17 ***Q40. HOW DID YOU CALCULATE THE DEPRECIATION EXPENSE FOR***  
18 ***INDIRECT PLANT ALLOCATED TO TENNESSEE FROM DEBS?***

19 A40. Like the Piedmont indirect plant described above, it also appears that the  
20 Company has no authorized depreciation rates for the DEBS indirect plant in  
21 service that is allocated to Tennessee.<sup>32</sup> In addition, the Company is unable to

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<sup>32</sup> DEBS depreciation expense is allocated to Tennessee as a component of Administrative & General Expense instead of Depreciation Expense. See Company response to the Commission's Minimum Filing Requirement No. 58 for further details.

1 provide any calculations showing the DEBS depreciation expense on indirect  
2 plant by asset by month that would substantiate the charges allocated to  
3 Tennessee.<sup>33</sup> Finally, the Company has not demonstrated any incremental benefit  
4 to Tennessee customers through the allocation of DEBS indirect assets that were  
5 previously fully allocated to the Duke Energy's electric utilities prior to its  
6 acquisition of Piedmont. As a result of the deficiencies described above, I have  
7 eliminated the entire attrition period depreciation expense of \$1,803,342  
8 associated with DEBS indirect plant.<sup>34</sup>

9

10 ***Q41. WHY HAS THE COMPANY FAILED TO OBTAIN AUTHORIZATION***  
11 ***FOR THE DEPRECIATION RATES ON THE DEBS INDIRECT PLANT***  
12 ***ALLOCATED TO TENNESSEE?***

13 A41. The Company responded to this issue as follows:

14 *A depreciation study for DEBS assets has not been conducted. The depreciable*  
15 *lives of Service Company assets are developed on a case-by-case basis based on*  
16 *input from various parties, including engineering estimates, tax lives,*  
17 *manufacturer's warranties, etc. Depreciation and amortization on Service*  
18 *Company assets is automatically calculated and recorded each month by*  
19 *PowerPlan on an individual asset basis as opposed to using a group depreciation*  
20 *approach.*<sup>35</sup>

21

22 As can be seen, Company's reply to this request was not completely responsive.

23 The Company could have easily presented its existing depreciation rates on DEBS

24 assets to the Commission for approval. Instead, the Company chose to ignore the

---

<sup>33</sup> Company response to Consumer Advocate Discovery Request 3-8g.

<sup>34</sup> This adjustment to Administrative & General Expense of \$-1,803,342 is shown in the "Reconciliation of Consumer Advocate Attrition Period A&G Costs" of Consumer Advocate witness Dittmore's direct testimony.

<sup>35</sup> Company response to Consumer Advocate Discovery Request No. 3-8h.

1 oversight of the TPUC to review the basis for charges allocated to Tennessee. As  
2 with the Piedmont depreciations rates, this deficiency could readily be overcome  
3 by requiring the Company to present a depreciation study to the Commission in a  
4 separate docket, if it wasn't for the Company's inability to provide a monthly  
5 calculation of depreciation expense on DEBS indirect assets on an asset-by-asset  
6 basis.

7

8 ***Q42. WHY IS THE COMPANY UNABLE TO PROVIDE A CALCULATION OF***  
9 ***THE DEPRECIATION EXPENSE ON AN ASSET-BY-ASSET BASIS FOR***  
10 ***ITS DEBS INDIRECT PLANT?***

11 A42. The Company responded to this issue as follows:

12 *As stated in the response to CA DR3-8h, the monthly depreciation expense for*  
13 *DEBS assets is calculated on an individual asset basis, not using a group*  
14 *depreciation approach. PowerPlan is programmed to calculate depreciation*  
15 *expense each month on each asset based on the life of that asset. PowerPlan then*  
16 *aggregates the total amount calculated for all DEBS assets and posts a journal*  
17 *entry to record depreciation expense. **The system cannot be queried to retrieve***  
18 ***depreciation expense by asset by month.***<sup>36</sup> [Emphasis added.]

19

20 As can be seen from the response above, the Company is unable to corroborate its  
21 depreciation expense on DEBS indirect assets. In essence, the Company is saying  
22 that they are not going to share with the Commission either the depreciation rates  
23 or the depreciation calculation used to allocate DEBS indirect plant costs to  
24 Tennessee. As a result, I am recommending that the DEBS depreciation expense  
25 allocated to Tennessee of \$1,803,342 be excluded from A&G expense.

26

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<sup>36</sup> Company response to Consumer Advocate Discovery Request No. 3-8h.

1    ***Q43. DOES THE DEBS INDIRECT PLANT PROVIDE ANY INCREMENTAL***  
2                   ***BENEFIT TO TENNESSEE OVER WHAT WAS PREVIOUSLY***  
3                   ***PROVIDED FROM THE PIEDMONT GENERAL PLANT PRIOR TO ITS***  
4                   ***ACQUISITION BY DUKE ENERGY?***

5    A43. Based upon the evidence in the record provided by the Company, I can find no  
6           incremental benefit from the \$1,803,342 DEBS depreciation expense allocated to  
7           Tennessee. Specifically, there appears to be no type of offsetting charges from  
8           existing Piedmont depreciation expense to offset the new DEBS depreciation  
9           expense. As a result, it appears that the Company is now allocating the cost of its  
10          existing general office (Piedmont) along with that of another general office  
11          (DEBS). Prior to the acquisition of Piedmont, the DEBS indirect plant was  
12          allocated only to Duke Energy's electric utilities. I could certainly better consider  
13          the additional allocation of DEBS indirect plant to Tennessee if the Piedmont  
14          general office costs were not already being allocated. Again, for this reason and  
15          others previously mentioned, I recommend that the Commission exclude  
16          \$1,803,342 related to DEBS depreciation expense allocated to Tennessee from  
17          A&G expense.

18  
19   ***Q44. PLEASE CONTINUE WITH YOUR EXPLANATION OF THE***  
20                   ***REMAINING COMPONENTS OF NET PLANT INVESTMENT.***

21   A44. **Contributions in Aid of Construction \$-5,828,754.** This item represents non-  
22          investor supplied funds that were dedicated to constructing utility plant. Because

1 these funds were not provided by the Company, it is appropriate that they be  
2 deducted in computing Rate Base.

3

4 **Accumulated Deferred Income Taxes \$-199,960,353.** This item represents the  
5 net amount of income tax (federal and state) that the Company has deferred  
6 payment on primarily due to the use of accelerated depreciation methods to  
7 compute tax depreciation expense as well as regulatory liabilities associated with  
8 tax rate changes. I have included the impact of accelerated depreciation based on  
9 the Consumer Advocate's proposed additions to Utility Plant in Service which  
10 accounts for most of the difference in this calculation when compared to the  
11 Company's forecast. In addition, adjustments were made to the test period  
12 balances to exclude certain costs which is discussed in detail in the direct  
13 testimony Mr. Dittmore.<sup>37</sup>

14

15 The aggregation of Utility Plant in Service, Construction Work in Progress,  
16 Accumulated Depreciation, Contributions in Aid of Construction and  
17 Accumulated Deferred Income Taxes produces \$866,607,021 in total net utility  
18 plant as shown on Table 9.

19

20 ***Q45. PLEASE EXPLAIN THE COMPONENTS OF WORKING CAPITAL.***

21 A45. A second component of Rate Base is Working Capital. Working Capital  
22 represents the average amount of capital supplied by investors in the Company

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<sup>37</sup> These adjustments are listed on Rate Base Workpaper DND-RB-2.

1 that is over and above the investment in net plant that is necessary to provide  
2 utility service.

3  
4 **Gas Inventory \$7,834,209.** This item represents the carrying value of gas in  
5 storage to serve the Company's customers. As this gas is consumed, it is charged  
6 to the customer through the Purchased Gas Adjustment. However, the carrying  
7 value of gas in storage represents an investment on which the Company should be  
8 allowed to earn a reasonable return. I used the average test period balance to  
9 project gas inventory. In contrast, the Company chose to increase this test period  
10 amount by an inflation factor. Since gas is a commodity that is not specifically  
11 subject to inflation adjustments, I would recommend the Consumer Advocate's  
12 test period balance as the most appropriate forecast for gas inventory.<sup>38</sup>

13  
14 **Customer Deposits \$-4,367,597.** This item represents amounts advanced by  
15 customers to the Company for the privilege of obtaining utility service. These  
16 deposits therefore represent a source of non-investor supplied funds which the  
17 Company has available to finance a portion of its utility investment and should  
18 therefore be included as a deduction in computing Rate Base. Consistent with  
19 other Rate Base calculations, I increased the test period amount by a compound  
20 customer growth factor to calculate Customer Deposits.

21

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<sup>38</sup> Of particular note, we were unable to reconcile the Company's test period balance of gas inventory for certain months to its books. This discrepancy is the cause for most of the difference between the two calculations. See WHN Rate Base workpaper RB-35-1.00 for further details.



1        **Accrued Interest on Customer Deposits \$-312,040.** This item represents the  
2        interest accrued on Customer Deposits and owed to the customer when the deposit  
3        is refunded. Since this accumulated interest is owed to the customer, it represents  
4        a source of non-investor supplied funds which the Company has available to  
5        finance a portion of its utility investment and should therefore be included as a  
6        deduction in computing Rate Base. Consistent with other Rate Base calculations,  
7        I increased the test period amount by a compound customer growth factor to  
8        calculate Accrued Interest on Customer Deposits. On the Income Statement, this  
9        methodology produced \$262,056 in Interest Expense on Customer Deposits as  
10       shown on the Consumer Advocate Exhibit, Schedule 6.

11  
12       **Cash Working Funds \$0.** The Company has elected to include its average cash  
13       balance for the test period in Working Capital. A provision for Cash working  
14       funds was not included in the Company's prior rate cases nor of any other  
15       comparable utilities. Since Cash Working Funds are not associated with an  
16       investment in utility plant, I have excluded them from Working Capital.

17  
18       **Materials & Supplies \$176,859.** This item represents the carrying value of  
19       miscellaneous materials and supplies and represents an investment on which the  
20       Company should be allowed to earn a reasonable return. Consistent with other  
21       Rate Base calculations, I increased the test period amount by a compound  
22       customer growth factor to calculate the attrition period Materials and Supplies  
23       balance.

1        **Deferred Debits \$649,973.** This item is composed of five separate deferrals  
2        shown below in Table 11.

<b>Table 11 – Attrition Period Deferred Debits<sup>39</sup></b>			
<b>Deferral</b>	<b>Test Period</b>	<b>Piedmont Attrition</b>	<b>C/A Attrition</b>
Deferred Hedging Costs	\$487,570	\$487,570	\$487,570
Deferred Rate Case Costs	38,070	818,333	0
Deferred Environmental Costs	412,311	339,009	339,041
Deferred Pension Funding Costs	15,220,904	9,885,817	-176,638
Deferred Flood Restoration Costs	50,753	0	0
<b>Total Deferred Balance</b>	<b>\$16,209,608</b>	<b>\$11,530,729</b>	<b>\$649,973</b>
Hedging Cost Amortization	\$0	\$0	\$0
Rate Case Cost Amortization	82,485	327,333	0
Environmental Cost Amortization	243,756	135,604	135,612
Pension Funding Cost Amortization	2,686,344	3,954,327	-70,655
Flood Restoration Amortization	109,966	0	0
<b>Annual Amortization</b>	<b>\$3,122,551</b>	<b>\$4,417,264</b>	<b>\$64,957</b>

3  
4        **Deferred Debits - Deferred Hedging Costs \$487,570.** As shown in Table 11,  
5        the forecasted balance of Deferred Hedging Costs is equal to the test period  
6        balance without adjustment. The Company’s tariff allows for recovery of hedging  
7        costs through the PGA/ACA mechanism.<sup>40</sup> The average test period amount  
8        included here allows the Company to recover the carrying costs related to hedging  
9        activities. Because the hedging costs are recovered through the PGA/ACA  
10       mechanism, there is no amortization of these costs included in base rates.

<sup>39</sup> WHN Rate Base Workpaper RB-65-1.00.

<sup>40</sup> WHN Rate Base Workpaper RB-65-2.01.

1        **Deferred Debits – Deferred Rate Case Costs \$0.** The Company has estimated  
2        its total costs for this rate case to be \$982,000. The detail of these costs along  
3        with my own forecast is presented below in Table 12.

<b>Table 12 – Comparison of Projected Rate Case Costs<sup>41</sup></b>		
<b>Item</b>	<b>Piedmont</b>	<b>Consumer Advocate</b>
<b>Outside Legal Expenses:</b>		
McGuire Woods	\$500,000	\$289,000
Waller, Landsden, Dortch & Davis	35,000	20,230
<b>Total Outside Legal Expenses</b>	<b>\$535,000</b>	<b>\$309,230</b>
<b>Consultant Expenses:</b>		
Alliance – Depreciation Study	\$82,000	\$47,400
Scott Madden – Return on Equity	100,000	57,800
Scott Madden – Annual Mechanism	60,000	0
Management Applications – Lead/Lag	75,000	43,350
Management Applications – CCOSS	75,000	0
<b>Total Consultant Expenses</b>	<b>\$392,000</b>	<b>\$148,550</b>
<b>Other Expenses:</b>		
Notice Requirement – The Tennessean	\$15,000	\$15,000
Company Travel Expenses	40,000	40,000
<b>Total Other Expenses</b>	<b>\$55,000</b>	<b>\$55,000</b>
<b>Total Estimated Rate Case Cost</b>	<b>\$982,000</b>	<b>\$512,780</b>

4  
5        In Consumer Advocate discovery request 1-43, the Company was asked to  
6        provide the source and support for these costs. In their supplemental response,  
7        the Company provided the contracts for each of the law firms and consultants.  
8        However, with the exception of Alliance Consulting, only the hourly rates were  
9        provided instead of the cost details shown in Table 12. This led me to conclude  
10       that the Company has no support for its estimated costs in Table 12.

<sup>41</sup> WHN Rate Base Workpaper RB-65-3.01.

1 In the Alliance Consulting response, the estimated cost was \$39,500.<sup>42</sup> I've  
2 increased this amount by 20% to consider the time associated with providing data  
3 responses and presenting testimony which produced a total cost of \$47,400 which  
4 is 58% of the Company's estimate of \$82,000 for this consultant. As a result, I  
5 have reduced all of the Company's projected legal and consultant costs to 58% of  
6 the Company's estimate in Table 12, except as noted below.

7  
8 In the Management Applications Consulting contracts, I eliminated the costs  
9 related to the Class Cost of Service Study since the Commission has never  
10 accepted a Class Cost of Service Study to set rates. As a result, these costs are  
11 imprudent and unnecessary and should be excluded from recovery.

12  
13 In the Scott Madden Annual Mechanism Consultant Contract, I eliminated this  
14 cost entirely because it does not pertain to this rate case.

15  
16 These adjustments resulted in total estimated rate case costs of \$512,780 as shown  
17 on Table 12. Amortizing these costs over a three-year period results in an  
18 attrition year balance of \$427,316 and an annual amortization of \$170,928.<sup>43</sup>

19  
20 However, instead of considering estimated rate case costs within the context of  
21 this proceeding, I would instead recommend that the Commission consider  
22 developing a separate surcharge for recovery of these costs outside of base rates.

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<sup>42</sup> Company response to Consumer Advocate discovery request 1-43.

<sup>43</sup> WHN Rate Base Workpaper RB-65-3.00.

1 As shown on Attachment WHN-6, this type of procedure is currently used by the  
2 Texas Public Utility Commission. One advantages of a separate surcharge is that  
3 it would consider known costs at the conclusion of this rate case instead of  
4 estimates. In addition, a separate surcharge would restrict the Company to just  
5 the recovery of known rate case costs and would then terminate as opposed to  
6 being a continuing base rate adjustment.<sup>44</sup> As a result of these advantages, I am  
7 recommending that the Commission omit estimated rate case costs and the related  
8 amortization from base rates and instead set a separate surcharge to recover these  
9 costs in a separate docket.

10

11 **Deferred Debits – Environmental Costs \$339,041.** The Company was  
12 originally allowed to defer their environmental costs in Docket 92-16160.<sup>45</sup> In its  
13 last rate case, the Company was granted annual cost recovery of environmental  
14 costs of \$243,760.<sup>46</sup> The net of the new costs and existing amortization since the  
15 last rate case results in an average deferred balance for environmental costs of  
16 \$339,041 as shown on Table 11. Amortizing these costs over a three-year period  
17 results in an annual amortization of \$135,612.<sup>47</sup>

18

19 **Deferred Debits – Pension Costs \$-176,638.** This item is discussed in Mr.  
20 Dittemore's testimony.

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<sup>44</sup> For an example of this condition, see the Direct Testimony of William H. Novak, Page 14, Line 9 -13 in Docket 20-00111 regarding the proposed utility acquisition by Tennessee-American Water Company. In this case, it was pointed out that Tennessee-American Water Company had continued to recover approximately \$1.1 million in rate case expenses from 2012 that were fully amortized by 2015.

<sup>45</sup> See Company response to Consumer Advocate discovery request 1-85.

<sup>46</sup> TPUC Docket No. 11-00144.

<sup>47</sup> WHN Rate Base Workpaper RB-65-4.00.

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**Deferred Debits – Flood Restoration Costs \$0.** The Company was allowed to defer their flood response costs in Docket No. 10-00185. These costs were fully amortized by the end of the test period. As a result, there are no longer any costs associated with this previous deferred debit.

***Q46. PLEASE CONTINUE WITH YOUR EXPLANATION OF THE  
REMAINING COMPONENTS OF WORKING CAPITAL.***

A46. **Prepaid Insurance \$127,197.** This item represents the carrying value of certain insurance expense policies that are paid in advance and then amortized over their useful life and represents an investment on which the Company should be allowed to earn a reasonable return. To project the attrition period balance of Prepayments, I’ve amortized the existing balance in this account and also included the most recent premium paid by the Company.<sup>48</sup>

**Deferred Pension & Other Post-Employment Benefits \$0.** This item represents the accrued net asset values of the Company’s employee retirement benefits. The attrition amounts forecasted by the Company and the Consumer Advocate, as well as the amount recognized by the Commission in the Company’s last rate case in Docket No. 11-00144 is shown below in Table 13.

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<sup>48</sup> WHN Rate Base Workpaper RB-70-1.00.

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TPUC Docket No. 20-00086	40	Novak, Direct
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<b>Table 13 – Components of Pension &amp; Other Post-Employment Benefits</b>			
	<b>Piedmont<sup>49</sup></b>	<b>Consumer Advocate<sup>50</sup></b>	<b>Docket 11-00144<sup>51</sup></b>
Pension Assets	\$7,517,149	\$0	\$0
Other Post-Employment Benefits	12,028,380	0	2,138,265
<b>Total</b>	<b>\$19,545,529</b>	<b>\$0</b>	<b>\$2,138,265</b>

1       The Commission has a long-established policy of only allowing rate recovery of  
2       the minimum required contribution for pension and OPEB expenses.<sup>52</sup> In this  
3       Docket, the Company is proposing to recover the accrued asset values for both  
4       deferred pension and Other Post-Employment Benefit (OPEB) expense as shown  
5       above in Table 13. The Consumer Advocate is recommending that pension  
6       expense on the income statement be limited to cash contributions only resulting in  
7       no accrued assets in rate base. The Consumer Advocate is also recommending in  
8       this Docket that OPEB expense also be limited to cash contributions on the  
9       income statement, resulting in no accrued assets in rate base.

10  
11       ***Q47. DID THE COMPANY RECORD ZERO (\$0) IN PENSION AND OPEB***  
12       ***EXPENSE ON ITS BOOKS FOR THE TEST PERIOD?***

13       A47. No. Piedmont recorded the accrued calculation of its pension and OPEB expense  
14       that is provided by its actuary in accordance with specific Financial Accounting  
15       Standards Board (“FASB”) requirements.

<sup>49</sup> Company response to MFR No. 12, “Working Capital Adj” spreadsheet, Tab “F”.

<sup>50</sup> WHN Rate Base Workpaper RB-75-1.00.

<sup>51</sup> Docket No. 11-00144, Company response to MFR No. 25, “Working Capital” spreadsheet, Tab “Summary”, summation of Accrued OPEB Liability of \$2,076,441 and Accrued SEBP liability of \$61,824.

<sup>52</sup> See specifically Commission Docket No. 92-14631, Investigation of Proper Regulatory Treatment of Other Post-Employment Benefits for Utilities Regulated by the Tennessee Public Service Commission.

1    ***Q48. IS THE COMMISSION REQUIRED TO FOLLOW THIS SPECIFIC***  
2           ***ACCOUNTING METHODOLOGY FOR RATE SETTING PURPOSES?***

3    A48. No. Public Utility Commissions generally have broad latitude in setting the  
4           accounting methodology for public utilities under their jurisdiction. Financial  
5           Accounting Standard #71 (“FAS 71”) recognizes that regulatory bodies may in  
6           fact set rates using a methodology that departs from other accounting  
7           pronouncements. Specifically, FAS 71 reads in part as follows:

8                   *This Statement may require that a cost be accounted for in a*  
9                   *different manner from that required by another authoritative*  
10                  *pronouncement. In that case, this Statement is to be followed*  
11                  *because it reflects the economic effects of the rate-making*  
12                  *process—effects not considered in other authoritative*  
13                  *pronouncements.*<sup>53</sup>

14  
15       Therefore, the choice of which accounting methodology to adopt for setting rates  
16       is completely within the Commission’s discretion.

17  
18    ***Q49. WHY SHOULD THE COMMISSION ADOPT THE COMPANY’S***  
19           ***MINIMUM REQUIRED CONTRIBUTION FOR RATE SETTING***  
20           ***PURPOSES?***

21    A49. Beyond confirming the rate setting policy on pension and OPEB expenses that the  
22           Commission has applied consistently to other utilities, there are several reasons  
23           that this policy should be extended to Piedmont.

24  

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<sup>53</sup> Financial Accounting Standards Board, Statement of Financial Accounting Standards No. 71 – Accounting for the Effects of Certain Types of Regulation (December 1982). FAS 71 has since been updated to Accounting Standards Codification 980 (ASC 980).



1 First, adopting the minimum required contribution most closely matches today's  
2 cost with today's customer. The minimum required contribution is also generally  
3 not subject to the same changes in assumptions for market conditions as the  
4 actuary's recommended contribution.<sup>54</sup> Finally, the minimum required  
5 contribution is typically a more stable and consistent amount and therefore more  
6 appropriate for setting rates for the near-term future. I therefore recommend that  
7 the Commission adopt the Company's current funding requirement of zero (\$0) as  
8 the appropriate level of pension and OPEB expense for the attrition year.

9

10 ***Q50. PLEASE CONTINUE WITH YOUR EXPLANATION OF THE***  
11 ***REMAINING COMPONENTS OF WORKING CAPITAL.***

12

13 A50. **Fleet & Overheads \$128,148.** This item represents the carrying value of certain  
14 costs that will eventually be allocated to the Company's different operating  
15 divisions. The timing of when these costs are first incurred and when they are  
16 allocated to the appropriate cost centers represents an investment on which the  
17 Company should be allowed to earn a reasonable return. To project the attrition  
18 period balance, I've taken the average test period amount and increased it by a  
19 compound inflation factor.<sup>55</sup>

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<sup>54</sup> These assumptions include discount rates, inflation rates for health care services, the level and type of health care benefits offered to future employees, employment levels, employee turnover and retirement rates, disability rates, eligibility dates, the mix by age and sex of employees, and the expected return earned on plan assets.

<sup>55</sup> WHN Rate Base Workpaper RB-80-1.00.

1        **Accounts Payable Related to CWIP \$-9,620,592.** This item represents an offset  
2        to Construction Work in Progress (CWIP) discussed previously. Because a  
3        portion of CWIP is always unpaid-for, it represents a source of non-investor  
4        funding that should be deducted in computing Working Capital. To project the  
5        attrition period balance, I have taken the average test period amount of the  
6        Company's accounts payable related to CWIP and then increased it by a  
7        compound inflation factor.<sup>56</sup>

8  
9        **Accounts Payable Related to M&S \$-21,313.** This item represents an offset to  
10       Materials & Supplies (M&S) discussed previously. Because a portion of M&S is  
11       always unpaid-for, it represents a source of non-investor funding that should be  
12       deducted in computing Working Capital. To project the attrition period balance, I  
13       have taken the average test period amount of the Company's accounts payable  
14       related to M&S and then increased it by a compound inflation factor.<sup>57</sup>

15  
16       **Accrued Vacation \$-2,427,542.** This item represents employee vacation costs  
17       that have been accrued. Since the full amount of Salary and Wages has already  
18       been recognized on the Income Statement, the Accrued Vacation costs need to be  
19       deducted in computing Working Capital. To project the attrition period balance, I  
20       have taken the average test period amount and increased it by a compound  
21       inflation factor.<sup>58</sup>

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<sup>56</sup> WHN Rate Base Workpaper RB-85-1.00.

<sup>57</sup> WHN Rate Base Workpaper RB-90-1.00.

<sup>58</sup> WHN Rate Base Workpaper RB-90-1.00.

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**Lead/Lag Study Requirement \$12,213,496.** This item is discussed in the direct testimony of Consumer Advocate witness David N. Dittimore.

The aggregation of the various components of Working Capital total to \$4,380,798 as shown on Table 9. When this amount is added to the Consumer Advocate’s projected Net Plant Investment of \$863,212,857 discussed previously, it produces a total Attrition Period Rate Base of \$867,593,655 as shown on Table 9. This represents the net investment upon which the Company should be allowed the opportunity to earn a fair rate of return.

*[Testimony continues on next page]*

1 **IV. TAXES OTHER THAN INCOME TAXES**

2

3 ***Q51. MR. NOVAK, WHAT IS THE CONSUMER ADVOCATE'S PROPOSED***

4 ***FORECAST OF TAXES OTHER THAN INCOME TAXES FOR THIS***

5 ***CASE?***

6 A51. The development of the Consumer Advocate's provision for Taxes Other Than

7 Income Taxes is shown on the Consumer Advocate Exhibit, Schedule 10 and

8 summarized below on Table 14.

9

<b>Table 14 – Comparison of Taxes Other Than Income Taxes<sup>59</sup></b>		
<b>Item</b>	<b>Piedmont</b>	<b>Consumer Advocate</b>
Property Tax	\$6,657,411	\$6,238,733
Franchise Tax	2,512,377	1,680,391
Gross Receipts Tax	548,256	1,421,993
Payroll Tax	1,514,067	1,543,427
Allocated & Other Taxes	-6,699	0
<b>Total Taxes Other Than Income</b>	<b>\$11,225,412</b>	<b>\$10,884,544</b>

10 To project Taxes Other Than Income Taxes, I examined the historic taxes paid for the

11 past six years and then projected future expenditures based on past amounts. In contrast,

12 the Company attempted a price-out forecast based upon various components of its

13 attrition period investment, revenue and expenses. As shown on Table 14, the total

14 difference in Taxes Other Than Income Taxes is relatively minor and driven by the

15 different forecasting methodologies used by the Company and myself.

16

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<sup>59</sup> WHN Expense Workpaper E-50-1.00.

1 V. COST RECOVERY PROPOSALS

2

3 ***Q52. MR. NOVAK, HAS PIEDMONT PROPOSED ANY PARTICULAR***

4 ***PROGRAMS IN THIS RATE CASE WHERE IT SEEKS COST***

5 ***RECOVERY?***

6 A52. Yes. The Company has proposed a \$100,000 contribution to the Gas Technology

7 Institute (GTI) to fund research and development activities.<sup>60</sup> As shown on

8 Consumer Advocate Exhibit, Schedule 7, the Company is then asking to recover

9 this \$100,000 contribution through increased rates. This is the same proposal that

10 the Company made in its last rate case that was rejected by the Commission.<sup>61</sup>

11

12 ***Q53. DOES THE CONSUMER ADVOCATE SUPPORT THE COMPANY'S***

13 ***PROPOSED COST RECOVERY FOR GTI?***

14 A53. No. This program would result in an involuntary tax on gas consumers since it is

15 not necessary in order to provide utility service. Furthermore, the potential

16 benefits of GTI funding are illusory at best since any successful research would

17 ultimately be marketed to manufacturers in the distant future. As a result, I

18 recommend that the Commission deny the Company's contribution request for

19 this program.

20

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<sup>60</sup> Direct testimony of Company witness Powers, 5-7.

<sup>61</sup> Tennessee Public Utility Commission Docket No. 11-00144.

1 **VI. REVENUE CONVERSION FACTOR**

2

3 ***Q54. MR. NOVAK, PLEASE EXPLAIN THE COMPONENTS THAT MAKE UP***

4 ***THE REVENUE CONVERSION FACTOR.***

5 A54. The Revenue Conversion Factor represents the multiple needed to convert any

6 required operating income deficiency found by the Commission to the revenues

7 necessary to produce that income. More simply stated, any rate increase granted

8 by the Commission will require a further increase for taxes and some other fees

9 that are based on income and the Revenue Conversion Factor takes these items

10 into account. As shown on Consumer Advocate Exhibit, Schedule 14 and

11 summarized on Table 15 below, the Consumer Advocate's Revenue Conversion

12 Factor is 1.300995.

13

<b>Table 15 – Revenue Conversion Factor</b>		
<b>Item</b>	<b>Amount</b>	<b>Balance</b>
Operating Revenues		1.000000
Add Forfeited Discounts	0.009804	0.009804
<b>Balance</b>		<b>1.009804</b>
Less Uncollectible Ratio	-0.001949	-0.001968
<b>Balance</b>		<b>1.007836</b>
Less State Excise Tax	-0.034600	-0.034871
<b>Balance</b>		<b>0.972965</b>
Less Federal Income Tax	-0.210000	-0.204323
<b>Balance</b>		<b>0.768642</b>
<b>Revenue Conversion Factor (Row 1 / Final Balance)</b>		<b>1.300995</b>

14

15 ***Q55. DID THE COMPANY'S REVENUE CONVERSION FACTOR ALSO***

16 ***CONSIDER THESE SAME COMPONENTS?***

1 A55. Not entirely. The Company omitted the forfeited discount ratio in their  
2 calculation.<sup>62</sup> The Company also included the Commission's inspection fee and  
3 the Tennessee Gross Receipts tax as a component of the Revenue Conversion  
4 Factor. The Commission has traditionally included the forfeited discount ratio as  
5 a component of the Revenue Conversion Factor, and the Company offers no  
6 rationale in their testimony for excluding it. The Commission has also  
7 traditionally treated the inspection fee and the Tennessee Gross Receipts tax as  
8 prepaid taxes for the following year instead of including it as a component of the  
9 Revenue Conversion Factor. Again, the Company offers no rationale in their  
10 testimony for this treatment. As a result, I recommend that the Commission adopt  
11 a Revenue Conversion Factor of 1.300995 to be applied to any operating income  
12 deficiency that may be found.

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16 *[Testimony continues on next page]*  
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<sup>62</sup> See Company response to Consumer Advocate discovery request 1-8.

1 **VII. RATE DESIGN**

2

3 ***Q56. MR. NOVAK, PLEASE SUMMARIZE PIEDMONT'S RATE DESIGN***  
4 ***PROPOSAL TO RECOVER ITS REVENUE DEFICIENCY.***

5 A56. The Company has proposed using a Class Cost of Service Study to set rates for  
6 each of its tariffs.

7

8 ***Q57. PLEASE BRIEFLY EXPLAIN THE PURPOSE OF THE ALLOCATION***  
9 ***PROCESS IN THE COMPANY'S CLASS COST OF SERVICE STUDY.***

10 A57. The purpose of any Class Cost of Service Study ("CCOSS") is to arrive at the cost  
11 of serving each customer class and present a systematic approach to allocating  
12 this cost (or total revenue requirement) to the different classes of customers. The  
13 CCOSS then provides a measure of guidance for the Commission to consider how  
14 to adjust individual rates for each customer class to produce the total revenue  
15 requirement.

16

17 ***Q58. HAVE YOU REVIEWED THE COMPANY'S PROPOSED CLASS COST OF***  
18 ***SERVICE STUDY IN THIS CASE?***

19 A58. Yes. The Company has developed a CCOSS that classifies each element of rate  
20 base and income to its different tariffs using 112 separate allocation factors.<sup>63</sup>

21 The result of the Company's CCOSS proposes an increase in base rates of 23.9%

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<sup>63</sup> See Company response to Minimum Filing Requirement #42, "Piedmont Natural Gas TN COS 6-22-20 PRO-Confidential" spreadsheet, "Allocation Factor Description" tab.



1 for residential customers while only proposing a 14.4% increase for commercial  
2 customers and a 12.6% increase for industrial customers.<sup>64</sup>

3

4 ***Q59. DO YOU AGREE WITH THE COMPANY'S CCROSS METHODOLOGY IN***  
5 ***THIS CASE?***

6 A59. No. The assignment of 112 individual allocation factors to each element of the  
7 Company's cost of service is inherently judgmental, and the Company has not  
8 introduced any evidence to fully explain its rationale for each individual  
9 allocation assignment. For example, the Company has allocated a significant  
10 portion of its costs based upon peak day consumption, meaning that almost all of  
11 these costs will be allocated to residential and small commercial customers  
12 without any discussion or evidence as to why such an allocation is appropriate. I  
13 could easily justify allocating many of these same costs based upon the total  
14 throughput of each customer class which would then allocate a majority of the  
15 costs to industrial customers. Since the Company has not provided any rationale  
16 for its individual allocation choices it is impossible to determine its rationale for  
17 cost allocation.

18

19 Finally, other factors beyond just the cost of service need to also be considered in  
20 allocating costs. These other factors include value of service, product  
21 marketability, encouragement of efficient use of facilities, broad availability of  
22 service functions, and a fair distribution of charges among users. Since it is

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<sup>64</sup> Direct testimony of Company witness Couzens, Page 13, Table 3A. These changes exclude the impact of the elimination of the existing IMR surcharge.

1 impossible to properly consider each of these other factors, it follows that no  
2 mechanical or mathematical formula can ever be applied to the cost of service that  
3 would translate it directly into rates.  
4

5 ***Q60. HAS THE COMMISSION EVER ADOPTED A CCROSS FOR THE***  
6 ***PURPOSE OF SETTING RATES?***

7 A60. No. To my knowledge, the Commission has never adopted a CCROSS for any of  
8 the utilities that it regulates.  
9

10 ***Q61. HOW DO YOU PROPOSE THAT THE COMMISSION ALLOCATE THE***  
11 ***COMPANY'S REVENUE REQUIREMENTS TO EACH CUSTOMER***  
12 ***CLASS?***

13 A61. I would recommend that the Consumer Advocate's projected revenue  
14 deficiency/(surplus) of \$-3,795,187 be allocated evenly across-the-board to all  
15 customer classes, including Special Contract customers, based upon the ratio of  
16 each customer class' attrition period margin to the total attrition period margin.  
17 The Consumer Advocate believes that an across-the-board change in rates to all  
18 customer classes more equitably spreads the benefit or burden of any change in  
19 rates and is preferable to the Company's CCROSS results. My complete revenue  
20 deficiency allocation is presented on Consumer Advocate Exhibit, Schedule 15.  
21

22 Consumer Advocate Exhibit, Schedule 15 shows the revenue change in two  
23 different phases. The first phase represents the allocation of the revenue

1       deficiency/surplus of \$-3,795,187. Allocating this amount across-the board  
2       results in a -3.27% decrease in base rates to all customer classes.

3  
4       The second phase represents the allocation of the current IMR surcharge to base  
5       rates. This increase in base rates is materially offset by the simultaneous  
6       elimination of the IMR surcharge. Allocating the IMR surcharge across the board  
7       results in a 31.98% increase in base rates to all customer classes.

8

9       ***Q62. WHAT SPECIFIC RATE DESIGN DO YOU PROPOSE?***

10      A62. As mentioned above, I recommend that the proposed revenue deficiency, along  
11      with the impact from the IMR surcharge elimination be allocated evenly across-  
12      the-board to all customer classes including Special Contract customers based  
13      upon the ratio of each customer class' attrition period revenue to total attrition  
14      period revenue. As to specific tariff rates, most of this increase to base rates is  
15      being driven by the elimination of the IMR surcharge. Since the IMR surcharge  
16      is already applied on a volumetric rate, I would recommend that the rate increase  
17      also be applied on a volumetric rate. This proposed rate design should minimize  
18      the volatility on the customer's bills from what they are currently paying. A copy  
19      of my complete proposed rate design is contained on Attachment WHN-7.

20

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1 **VIII. TARIFF CHANGES**

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3 ***Q63. MR. NOVAK, COULD YOU PLEASE BRIEFLY SUMMARIZE THE***

4 ***TARIFF CHANGES THAT THE COMPANY HAS PROPOSED OTHER***

5 ***THAN CHANGES IN RATES THAT HAVE NOT BEEN PREVIOUSLY***

6 ***DISCUSSED.***

7 A63. Yes. The Company is proposing to eliminate the publication of the base rates

8 approved by the Commission from each of the Rate Schedules in the tariff.<sup>65</sup> The

9 Consumer Advocate is opposed to this change because we believe that including

10 this information helps provide clarity to the customer.

11

12 The Company has proposed eliminating the category of optional backup sales

13 service currently offered to its customers on Rate Schedules Nos. 301, 302 and

14 352.<sup>66</sup> I have reviewed this proposed change and am not opposed to its approval.

15

16 The Company has also proposed to eliminate the servicing of food service

17 equipment, leased water heaters and air conditioners as a “Free Service” from its

18 tariff.<sup>67</sup> I have reviewed these proposed changes and am not opposed to their

19 approval.

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<sup>65</sup> Exhibit PKP-1 and PKP-2 attached to the direct testimony of Company witness Powers.

<sup>66</sup> Direct testimony of Company witness Powers, Page 8, Lines 1-3.

<sup>67</sup> Direct testimony of Company witness Powers, Pages 11-12.

1 The Company has also proposed to eliminate certain language in its tariff relating  
2 to termination of service and rely instead on the language in the Commission's  
3 rules.<sup>68</sup> I have reviewed this proposed change and am not opposed to its approval.

4

5 The remaining non-rate changes to the Company's tariff appear to be  
6 administrative in nature. I have reviewed these proposed changes. However, at  
7 this time I have no opinion as to whether they should be accepted or rejected.

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12 *[Testimony continues on next page]*

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<sup>68</sup> Direct testimony of Company witness Powers, Pages 12-13.

1 **IX. RECOMMENDATIONS**

2  
3 ***Q64. MR. NOVAK, COULD YOU PLEASE SUMMARIZE YOUR***  
4 ***RECOMMENDATIONS TO THE COMMISSION.***

5 A64. My recommendations are as follows:

- 6 • I recommend the Commission accept a revenue deficiency/(surplus) of \$-
- 7 3,795,187 as detailed on the Consumer Advocate Exhibit, Schedule 1 and
- 8 summarized on Table 1 of my testimony.
- 9 • I recommend the Commission accept an adjustment to increase base rates by
- 10 \$35,853,030 to reflect the impact of eliminating the IMR surcharge. I also
- 11 recommend that the Commission require the Company to make a final true-up
- 12 filing to reconcile the difference between the IMR costs and collections.
- 13 • I recommend that the Commission accept the Consumer Advocate's attrition
- 14 period billing determinants of 2,239,139 bills, 268,292 dkt of billing demand
- 15 and 346,625,370 therms as shown on Table 3 of my testimony that produces
- 16 \$115,903,779 in attrition period margin and \$62,349,477 in attrition period
- 17 gas cost for a total of \$178,253,256 in base rate revenue as shown on Table 2
- 18 of my testimony.
- 19 • I recommend that the Commission open a separate docket to consider the
- 20 appropriate level of Piedmont's pipeline and storage capacity.
- 21 • I recommend that the Commission reject the Company's proposal for an \$-
- 22 9,333,185 adjustment to move the existing ADIT refund that was authorized

1 in Docket No. 18-00040 into base rates and instead order the Company to  
2 continue with its existing refund rate to customers.

- 3 • I recommend the Commission adopt \$2,052,502 as the appropriate attrition  
4 amount of Other Miscellaneous Revenue.
- 5 • I recommend that the Commission find that the Company has no authority to  
6 require its customers to enter into “Minimum Margin Agreements” and that  
7 all funds previously received from these agreements be refunded to these  
8 customers along with any interest or penalties.
- 9 • I recommend that the Commission reject the Company’s proposal to change  
10 the PGA billing demand rates to the different customer classes within the  
11 context of this rate case.
- 12 • I recommend that the variable fixed demand gas charges be eliminated from  
13 base rates and that these costs instead be recovered completely through the  
14 Purchased Gas Adjustment.
- 15 • I recommend that the Commission give notice that the current special contract  
16 with Bridgestone/Firestone that was approved in Docket 10-00015 will expire  
17 at the end of the current renewal period.
- 18 • I recommend that the Commission adopt the components of the Consumer  
19 Advocate’s rate base forecast of \$867,593,655 shown on Consumer Advocate  
20 Exhibit, Schedule 2 and summarized on Table 9 of my testimony.
- 21 • I recommend that the Commission reject the Company’s proposal for rate  
22 recovery of a \$100,000 contribution to GTI funding.

- 1       • I recommend that the Commission approve the Company's proposed  
2       depreciation rates for Tennessee plant.
- 3       • I recommend that the Commission adopt \$34,723,870 as the appropriate level  
4       of Depreciation Expense as shown on Consumer Advocate Exhibit, Schedule  
5       6.
- 6       • I recommend that the Commission require the Company to have a  
7       depreciation study conducted on its indirect common plant that is allocated or  
8       charged to Tennessee.
- 9       • I recommend that the Commission exclude \$1,803,342 in DEBS depreciation  
10      expense allocated to Tennessee as Administrative & General Expense.
- 11      • I recommend that the Commission open a separate docket for the purpose of  
12      evaluating the appropriate level of rate case costs and establishing a separate  
13      surcharge for recovery.
- 14      • I recommend that the Commission adopt \$262,056 as the appropriate level of  
15      Interest on Customer Deposits as shown on Consumer Advocate Exhibit,  
16      Schedule 6.
- 17      • I recommend that the Commission adopt \$10,884,544 as the appropriate level  
18      for Taxes Other Than Income Taxes as shown on Consumer Advocate  
19      Exhibit, Schedule 10 and summarized on Table 14 of my testimony.
- 20      • I recommend that the Commission approve a revenue conversion factor of  
21      1.300995 as shown on Consumer Advocate Exhibit, Schedule 14 and  
22      summarized on Table 15 of my testimony.



- 1           • I recommend that the Commission allocate the Consumer Advocate's revenue  
2           deficiency and the IMR elimination evenly across-the board to all customer  
3           classes including special contract customers as shown on Consumer Advocate  
4           Exhibit, Schedule 15.
- 5           • I recommend that the Commission adopt a rate design that applies the revenue  
6           deficiency allocated to each customer class to the volumetric commodity rates  
7           as shown on Attachment WHN-7 to my testimony.
- 8           • I recommend the Commission reject the Company's proposal to remove the  
9           publication of base rates from its tariff.

10  
11   ***Q65. DOES THIS COMPLETE YOUR TESTIMONY?***

12   A65. Yes, it does. However, I reserve the right to incorporate any new information that  
13   may subsequently become available.

IN THE TENNESSEE PUBLIC UTILITY COMMISSION  
AT NASHVILLE, TENNESSEE

IN RE:

PIEDMONT NATURAL GAS  
COMPANY, INC. PETITION FOR AN  
ADJUSTMENT OF RATES, CHARGES,  
AND TARIFFS APPLICABLE TO  
SERVICE IN TENNESSEE

DOCKET NO. 20-00086

AFFIDAVIT

I, WILLIAM H. NOVAK on behalf of the Consumer Advocate Unit of the Attorney General's Office, hereby certify that the attached Direct Testimony represents my opinion in the above-referenced case and the opinion of the Consumer Advocate Unit.

William H. Novak  
WILLIAM H. NOVAK

Sworn to and subscribed before me  
this \_\_\_\_ day of \_\_\_\_\_, 2020. 11/24/2020

NOTARY PUBLIC

Terra Allen  
Signed on 2020/11/24 05:06:02 -6:00

My commission expires: \_\_\_\_\_

**TERRA ALLEN**  
Tennessee Notary Public  
Online Notary Public  
Hickman County, State Of Tennessee  
My Commission Expires Sep 28, 2022

Notary Stamp 2020/11/24 05:06:02 PST

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ATTACHMENT WHN-1

William H. Novak Vitae

**William H. Novak**

19 Morning Arbor Place  
The Woodlands, TX 77381

Phone: 713-298-1760

Email: halnovak@whnconsulting.com

**Areas of Specialization**

Over thirty-five years of experience in regulatory affairs and forecasting of financial information in the rate setting process for electric, gas, water and wastewater utilities. Presented testimony and analysis for state commissions on regulatory issues in four states and has presented testimony before the FERC on electric issues.

**Relevant Experience****WHN Consulting – September 2004 to Present**

In 2004, established WHN Consulting to provide utility consulting and expert testimony for energy and water utilities. WHN Consulting is a “complete needs” utility regulation firm able to provide clients with assistance in all areas of utility rate analysis. Since 2004, WHN Consulting has provided assistance to public utility commissions and state consumer advocates in over ten state jurisdictions. Some of the topics and issues that WHN Consulting has presented testimony for include net metering, alternative rate regulation, revenue requirement calculations in rate cases, class cost of service studies, rate design, deferred income tax calculations, purchased gas costs, purchased power costs, and weather normalization studies.

**Sequent Energy Management – February 2001 to July 2003**

Vice-President of Regulatory Compliance for approximately two years with Sequent Energy Management, a gas trading and optimization affiliate of AGL Resources. In that capacity, directed the duties of the regulatory compliance department, and reviewed and analyzed all regulatory filings and controls to ensure compliance with federal and state regulatory guidelines. Engaged and oversaw the work of a number of regulatory consultants and attorneys in various states where Sequent has operations. Identified asset management opportunities and regulatory issues for Sequent in various states. Presented regulatory proposals and testimony to eliminate wholesale gas rate fluctuations through hedging of all wholesale gas purchases for utilities. Also prepared testimony to allow gas marketers to compete with utilities for the transportation of wholesale gas to industrial users.

**Atlanta Gas Light Company – April 1999 to February 2001**

Director of Rates and Regulatory Analysis for approximately two years with AGL Resources, a public utility holding company serving approximately 1.9 million customers in Georgia, Tennessee, and Virginia. In that capacity, was instrumental in leading

Atlanta Gas Light Company through the most complete and comprehensive gas deregulation process in the country that involved terminating the utility's traditional gas recovery mechanism and instead allowing all 1.5 million AGL Resources customers in Georgia to choose their own gas marketer. Also responsible for all gas deregulation filings, as well as preparing and defending gas cost recovery and rate filings. Initiated a weather normalization adjustment in Virginia to track adjustments to company's revenues based on departures from normal weather. Analyzed the regulatory impacts of potential acquisition targets.

**Tennessee Regulatory Authority – Aug. 1982 to Apr 1999; Jul 2003 to Sep 2004**

Employed by the Tennessee Regulatory Authority (formerly the Tennessee Public Service Commission) for approximately 19 years, culminating as Chief of the Energy and Water Division. Responsible for directing the division's compliance and rate setting process for all gas, electric, and water utilities. Either presented analysis and testimony or advised the Commissioners/Directors on policy setting issues, including utility rate cases, electric and gas deregulation, gas cost recovery, weather normalization recovery, and various accounting related issues. Responsible for leading and supervising the purchased gas adjustment (PGA) and gas cost recovery calculation for all gas utilities. Responsible for overseeing the work of all energy and water consultants hired by the TRA for management audits of gas, electric and water utilities. Implemented a weather normalization process for water utilities that was adopted by the Commission and adopted by American Water Works Company in regulatory proceedings outside of Tennessee.

**Education**

B.A, Accounting, Middle Tennessee State University, 1981

MBA, Middle Tennessee State University, 1997

**Professional**

Certified Public Accountant (CPA), Tennessee Certificate # 7388

Certified Management Accountant (CMA), Certificate # 7880

Former Vice-Chairman of National Association of Regulatory Utility Commission's Subcommittee on Natural Gas

## Witness History for William H. Novak, CPA

## Selected Cases

State	Company/Sponsor	Year	Assignment	Docket
Louisiana	CenterPoint Energy/Louisiana PSC	2011	Audit of PGA Filings from 2002 - 2008 of CenterPoint Arkla	<a href="#">S-32534</a>
	CenterPoint Energy/Louisiana PSC	2011	Audit of PGA Filings from 2002 - 2008 of CenterPoint Entex	<a href="#">S-32537</a>
	Louisiana Electric Utilities/Louisiana PSC	2012	Technical Consultant for Impact of Net Meter Subsidy on other Electric Customers	<a href="#">R-31417</a>
Tennessee	Aqua Utilities/Aqua Utilities	2006	Presentation of Rate Case on behalf of Aqua Utilities	<a href="#">06-00187</a>
	Atmos Energy Corporation/Atmos Intervention Group	2007	Rate design for Industrial Intervenor Group	<a href="#">07-00105</a>
	Bristol TN Essential Services/BTES	2009	Audit of Cost Allocation Manual	<a href="#">05-00251</a>
	Chattanooga Manufacturers Association/CMA	2009	Spokesperson for Industrial Natural Gas Users before the Tennessee State Legislature	HB-1349
	Piedmont Natural Gas Company/Tennessee AG	2011	Rate Case Audit - Revenue, Class Cost of Service Study & Rate Design	<a href="#">11-00144</a>
	Tennessee-American Water Company/Tennessee AG	2012	Rate Case Audit - Revenues, Rate Base, Class Cost of Service Study and Rate Design	<a href="#">12-00049</a>
	Tennessee-American Water Company/Tennessee AG	2013-2017	Alternative Regulation - Audit of Budget & True-up Filings, Rate Design	<a href="#">16-00126</a>
	Piedmont Natural Gas Company/Tennessee AG	2013-2017	Alternative Regulation - Audit of Budget & True-up Filings, Rate Design	16-00140
	Piedmont Natural Gas Company/Tennessee AG	2014	Audit of Recovery of Compressed Natural Gas Infrastructure Costs	<a href="#">14-00086</a>
	Piedmont Natural Gas Company/Tennessee AG	2014	Audit of Accumulated Deferred Federal Income Tax	<a href="#">14-00017</a>
	Atmos Energy Corporation/Tennessee AG	2014	Rate Case Audit - Revenues, O&M Expenses, Rate Base and Rate Design	<a href="#">14-00146</a>
	Atmos Energy Corporation/Tennessee AG	2015-2017	Alternative Regulation - Audit of Budget & True-up Filings, Rate Design	<a href="#">16-00105</a>
	B&W Gas Company/B&W	2015	Presentation of Rate Case on behalf of B&W Gas Company	<a href="#">15-00042</a>
	AEP & Kingsport Power/Tennessee AG	2015	Audit of Storm Costs and Rate Recovery	<a href="#">15-00024</a>
	AEP & Kingsport Power/Tennessee AG	2016	Rate Case Audit - Revenue, Rate Base, Class Cost of Service Study & Rate Design	<a href="#">16-00001</a>
Alabama	Jefferson County (Birmingham) Wastewater/Alabama AG	2013	Bankruptcy Filing - Allowable Costs and Rate Design	2009-2318
Illinois	Peoples & North Shore Gas Cos./Illinois Commerce Comm.	2007	Management Audit of Gas Purchasing Practices	06-0556
New Mexico	Southwestern Public Service Co./New Mexico PRC	2010	Financial Audit of Fuel Costs for 2009 and 2010	09-00351-UT
New York	National Grid/New York PSC	2011	Audit of Affiliate Relationships and Transactions	10-M-0451
Ohio	Ohio-American Water Company/Ohio Consumers' Counsel	2010	Rate Case Audit - Class Cost of Service and Rate Design	<a href="#">09-0391-WS-AIR</a>
	Vectren Energy Delivery of Ohio/Ohio Consumers' Counsel	2008	Rate Case Audit - Class Cost of Service and Rate Design	<a href="#">07-1080-GA-AIR</a>
	Duke Energy-Ohio/Public Utilities Commission of Ohio	2009	Focused Management Audit of Fuel & Purchased Power (FPP Riders)	<a href="#">07-0723-EL-UNC</a>
Texas	Center Point Energy/Texas AG	2009	Rate Case Audit - Class Cost of Service and Rate Design	GUD 9902
	Sharyland Utilities/St. Lawrence Cotton Growers Assn.	2017	Rate Case Audit - Class Cost of Service and Rate Design	<a href="#">PUC 45414</a>
North Carolina	Aqua Utilities/PSS Legal Fund	2011	Rate Case Audit - Class Cost of Service and Rate Design	<a href="#">W-218, Sub-319</a>
Washington DC	Washington Gas Light Co./Public Service Comm of DC	2011	Audit of Tariff Rider for Infrastructure Replacement Costs	1027
NARUC	National Association of Regulatory Utility Commissioners	2015	Presentation of Regulatory Issues with Net Metering Customers on Rates of Electric Utilities	

**NOTE:** Click on Docket Number to view testimony/report for each case where available.

**ATTACHMENT WHN-2**  
**Consumer Advocate Exhibit**

**BEFORE  
THE TENNESSEE PUBLIC UTILITY COMMISSION**

	)	
	)	
Piedmont Natural Gas Company, Inc.	)	
Petition for an Adjustment of Rates,	)	Docket No. 20-00086
Charges, and Tariffs Applicable to Service	)	
in Tennessee	)	
	)	
	)	
	)	
	)	

**EXHIBIT OF  
THE CONSUMER ADVOCATE UNIT  
OF THE  
FINANCIAL DIVISION  
OF THE  
OFFICE OF THE TENNESSEE ATTORNEY GENERAL**

*November 30, 2020*



**Piedmont Natural Gas**  
**INDEX TO SCHEDULES**  
For the 12 Months Ending December 31, 2021

	<b><u>Schedule</u></b>
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Income Statement at Current Rates	6
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**Piedmont Natural Gas**  
Results of Operations  
For the 12 Months Ending December 31, 2021

Line No.		<b>Piedmont</b>	<b>A/</b>	<b>Consumer Advocate</b>	<b>B/</b>	<b>Difference</b>
1	Rate Base	\$ 917,782,054		\$ 867,593,655		\$ -50,188,399
2	Operating Income At Current Rates	42,839,172		60,178,324		17,339,152
3	Earned Rate Of Return	4.67%		6.94%		2.27%
4	Fair Rate Of Return	7.10%		6.60%		-0.50%
5	Required Operating Income	65,173,539		57,261,182		-7,912,357
6	Operating Income Deficiency (Surplus)	22,334,367		-2,917,142		-25,251,509
7	Gross Revenue Conversion Factor	<u>1.339565</u>		<u>1.300995</u>		<u>-0.038570</u>
8	<b>Revenue Deficiency (Surplus)</b>	<b>\$ <u>29,919,130</u></b>		<b>\$ <u>-3,795,187</u></b>		<b>\$ <u>-33,714,317</u></b>

A/ Company Workpapers.

B/ CA Exhibit, Schedule 3.

C/ CA Exhibit, Schedule 6.

D/ CA Exhibit, Schedule 13.

E/ CA Exhibit, Schedule 14.

**Piedmont Natural Gas**  
Average Rate Base  
For the 12 Months Ending December 31, 2021

Line No.		Test Period	A/	Adjustments	Attrition Period	A/
	<b>Net Plant Investment:</b>					
1	Utility Plant in Service	\$ 1,317,921,492		\$ 197,022,158	\$ 1,514,943,650	
2	Construction Work in Progress	54,969,193		-370,816	54,598,377	
3	Accumulated Depreciation	-462,673,218		-37,866,845	-500,540,063	
4	Contributions in Aid of Construction	-5,828,754		0	-5,828,754	
5	Accumulated Deferred Income Taxes	<u>-191,737,702</u>		<u>-8,222,651</u>	<u>-199,960,353</u>	
6	<b>Total Net Plant Investment</b>	<b>\$ <u>712,651,011</u></b>		<b>\$ <u>150,561,846</u></b>	<b>\$ <u>863,212,857</u></b>	
	<b>Working Capital:</b>					
7	Gas Inventory	\$ 7,834,209		\$ 0	\$ 7,834,209	
8	Customer Deposits	-4,244,585		-123,012	-4,367,597	
9	Accrued Interest on Customer Deposits	-303,252		-8,788	-312,040	
10	Cash Working Funds	0		0	0	
11	Materials & Supplies	166,593		10,266	176,859	
12	Deferred Debits	16,209,609		-15,559,636	649,973	
13	Prepaid Insurance	209,503		-82,306	127,197	
14	Deferred Pension & Other Post-Employment Expenses	0		0	0	
15	Fleets & Overheads	122,459		5,689	128,148	
16	Accounts Payable Related to CWIP	-9,193,464		-427,128	-9,620,592	
17	Accounts Payable Related to M&S	-20,367		-946	-21,313	
18	Accrued Vacation	-2,305,163		-122,379	-2,427,542	
19	Lead/Lag Study Requirement	<u>12,213,496</u>	B/	<u>0</u>	<u>12,213,496</u>	B/
20	<b>Total Working Capital</b>	<b>\$ <u>20,689,038</u></b>		<b>\$ <u>-16,308,240</u></b>	<b>\$ <u>4,380,798</u></b>	
21	<b>Rate Base</b>	<b>\$ <u>733,340,049</u></b>		<b>\$ <u>134,253,606</u></b>	<b>\$ <u>867,593,655</u></b>	

A/ WHN Rate Base Workpaper RB-1-1.00.

B/ CA Exhibit, Schedule 4.

**Piedmont Natural Gas**  
Comparative Rate Base  
For the 12 Months Ending December 31, 2021

Line No.		<u>Piedmont</u> A/	<u>Consumer Advocate</u> B/	<u>Difference</u>
	<b>Net Plant Investment:</b>			
1	Utility Plant in Service	\$ 1,545,454,734	\$ 1,514,943,650	\$ -30,511,084
2	Construction Work in Progress	42,271,971	54,598,377	12,326,406
3	Accumulated Depreciation	-506,047,002	-500,540,063	5,506,939
4	Contributions in Aid of Construction	-5,828,754	-5,828,754	0
5	Accumulated Deferred Income Taxes	<u>-191,042,334</u>	<u>-199,960,353</u>	<u>-8,918,019</u>
6	<b>Total Net Plant Investment</b>	<b>\$ <u>884,808,615</u></b>	<b>\$ <u>863,212,857</u></b>	<b>\$ <u>-21,595,758</u></b>
	<b>Working Capital:</b>			
7	Gas Inventory	\$ 8,763,271	\$ 7,834,209	\$ -929,062
8	Customer Deposits	-4,382,623	-4,367,597	15,026
9	Accrued Interest on Customer Deposits	-313,114	-312,040	1,074
10	Cash Working Funds	-555,056	0	555,056
11	Materials & Supplies	168,196	176,859	8,663
12	Deferred Debits	11,530,729	649,973	-10,880,756
13	Prepaid Insurance	144,542	127,197	-17,345
14	Deferred Pension & Other Post-Employment Expenses	19,545,529	0	-19,545,529
15	Fleets & Overheads	127,993	128,148	155
16	Accounts Payable Related to CWIP	-9,557,776	-9,620,592	-62,816
17	Accounts Payable Related to M&S	-21,305	-21,313	-8
18	Accrued Vacation	-2,412,940	-2,427,542	-14,602
19	Lead/Lag Study Requirement	<u>9,935,993</u>	<u>12,213,496</u>	<u>2,277,503</u>
20	<b>Total Working Capital</b>	<b>\$ <u>32,973,439</u></b>	<b>\$ <u>4,380,798</u></b>	<b>\$ <u>-28,592,641</u></b>
21	<b>Rate Base</b>	<b>\$ <u>917,782,054</u></b>	<b>\$ <u>867,593,655</u></b>	<b>\$ <u>-50,188,399</u></b>

A/ Company Workpapers.

**Piedmont Natural Gas**  
Lead Lag Results  
For the 12 Months Ending December 31, 2021

Line No.		Consumer Advocate
1	Revenue Lag	52.13 <i>A/</i>
2	Expense Lead	31.39 <i>A/</i>
3	<b>Net Lag</b>	<b>20.74</b>
4	Daily Cost of Service	\$ 588,886 <i>A/</i>
5	<b>Net Cash Working Capital Required</b>	<b>\$ 12,213,496</b>

*A/* CA Exhibit, Schedule 5.

**Piedmont Natural Gas**  
Working Capital Expense Lag  
For the 12 Months Ending December 31, 2021

Line No.		Amount A/	Lag B/	Dollar Days
<b>Revenues:</b>				
1	Sales & Transportation Revenues	\$ 210,311,099	52.22	\$ 10,982,445,576
2	Warranty Revenues	2,617,065	52.22	136,663,134
3	Other Revenues	2,015,294	42.80	86,254,583
4	<b>Total Revenue Lag</b>	<b>\$ 214,943,458</b>	<b>52.13</b>	<b>\$ 11,205,363,293</b>
<b>Operation &amp; Maintenance Expense:</b>				
5	Purchased Gas	\$ 62,349,477	38.57	\$ 2,404,819,328
6	Labor	17,765,383	10.03	178,186,791
7	Incentive Pay - STIP	552,144	256.15	141,431,686
8	Incentive Pay - LTIP	162,595	621.50	101,052,793
9	Employee Pension & Benefits	4,656,962	11.55	53,787,911
10	Prepaid Insurance - Other Injuries & Damages	415,481	0.00	0
11	Prepaid Insurance - Property Insurance	58,922	0.00	0
12	Prepaid Insurance - Liability Insurance	217,627	0.00	0
13	Fleet Expense	752,537	38.54	29,002,776
14	Credit Card Expense	1,988,901	31.63	62,908,939
15	Virtual Company Charges	978,522	31.55	30,872,369
16	Service Company Charges	3,312,491	20.66	68,436,064
17	Outside Services	3,032,774	71.95	218,208,089
18	Regulatory Commission Amortization	462,937	0.00	0
19	Regulatory Commission Expense	994,314	270.00	268,464,780
20	Uncollectible Expense	419,018	0.00	0
21	Other O&M Expenses	6,542,237	42.25	276,409,513
22	<b>Depreciation Expense</b>	<b>34,723,870</b>	<b>0.00</b>	<b>0</b>
<b>General Taxes:</b>				
23	Gross Receipts Tax	1,421,993	-158.50	-225,385,891
24	Franchise Tax	1,680,391	45.00	75,617,595
25	Property Tax	6,238,733	228.98	1,428,545,082
26	Payroll Tax	1,543,427	28.49	43,972,235
27	Sales & Use Tax	0	35.21	0
28	Amortization of Investment Tax Credit	-2,905	0.00	0
<b>Income Taxes:</b>				
29	State Income Taxes	1,658,354	45.00	74,625,909
30	Federal Income Taxes	8,641,307	0.00 C/	0
31	<b>Interest on Customer Deposits</b>	<b>262,056</b>	<b>0.00</b>	<b>0</b>
<b>Return:</b>				
32	Interest on Long-Term Debt	16,310,761	92.94	1,515,922,100
33	Interest on Short-Term Debt	173,519	1.49	258,543
34	Income for Return	37,629,631	0.00	0
35	<b>Total Expense Lag</b>	<b>\$ 214,943,458</b>	<b>31.39</b>	<b>\$ 6,747,136,613</b>
36	<b>Daily Cost of Service</b>	<b>\$ 588,886</b>		

A/ CA Exhibit, Schedule 6 and WHN Expense Workpaper E-1-2.00.

B/ WHN Expense Workpaper E-1-2.01.

C/ Assumes all federal income tax is deferred.

**Piedmont Natural Gas**  
Income Statement at Current Rates  
For the 12 Months Ending December 31, 2021

Line No.		Test Period	A/	Adjustments	Attrition Amount
	<b>Operating Revenues:</b>				
1	Gas Sales & Transportation Revenues and IMR Revenues	\$ 204,501,277		\$ 9,605,009	\$ 214,106,286 B/
2	Other Revenues and Warranty Operating Margin	2,141,270		2,528,297	4,669,567 B/
3	AFUDC	3,152,246		-4,974	3,147,272 C/
4	<b>Total Operating Revenue</b>	<b>\$ 209,794,793</b>		<b>\$ 12,128,332</b>	<b>\$ 221,923,125</b>
	<b>Operating &amp; Maintenance Expenses:</b>				
5	Purchased Gas Expense	\$ 68,307,024		\$ -5,957,547	\$ 62,349,477 C/
6	Operations & Maintenance Expense	53,647,894		-11,327,581	42,320,313 D/
7	Gas Technology Institute	0		0	0
8	<b>Total Operating &amp; Maintenance Expenses</b>	<b>\$ 121,954,918</b>		<b>\$ -17,285,128</b>	<b>\$ 104,669,790</b>
	<b>Other Expenses:</b>				
9	Depreciation Expense	\$ 31,366,960		\$ 3,356,910	\$ 34,723,870 C/
10	Interest on Customer Deposits	254,675		7,381	262,056 C/
11	Amortization of Investment Tax Credit	-2,905		0	-2,905 C/
12	General Taxes	11,103,405		-218,861	10,884,544 E/
13	State Excise Taxes	733,225		1,057,471	1,790,696 F/
14	Federal Income Taxes	-1,580,594		10,997,344	9,416,750 F/
15	<b>Total Other Expenses</b>	<b>\$ 41,874,766</b>		<b>\$ 15,200,245</b>	<b>\$ 57,075,011</b>
16	<b>Total Operating Expenses</b>	<b>\$ 163,829,684</b>		<b>\$ -2,084,883</b>	<b>\$ 161,744,801</b>
17	<b>Utility Operating Income</b>	<b>\$ 45,965,109</b>		<b>\$ 14,213,216</b>	<b>\$ 60,178,324</b>

- A/ Company Workpapers.  
B/ CA Exhibit, Schedule 8.  
C/ WHN Expense Workpaper E-1-1.00.  
D/ CA Exhibit, Schedule 9.  
E/ CA Exhibit, Schedule 10.  
F/ CA Exhibit, Schedule 11.

**Piedmont Natural Gas**  
Comparative Income Statement at Current Rates  
For the 12 Months Ending December 31, 2021

Line No.		Piedmont A/	Consumer Advocate B/	Difference
	<b>Operating Revenues:</b>			
1	Gas Sales & Transportation Revenues	\$ 202,921,910	\$ 214,106,286	\$ 11,184,376
2	Other Revenues	1,120,277	4,669,567	3,549,290
3	AFUDC	3,001,310	3,147,272	145,962
4	<b>Total Operating Revenue</b>	<b>\$ 207,043,497</b>	<b>\$ 221,923,125</b>	<b>\$ 14,879,628</b>
	<b>Operating &amp; Maintenance Expenses:</b>			
5	Purchased Gas Expense	\$ 61,472,261	\$ 62,349,477	\$ 877,216
6	Operations & Maintenance Expense	57,262,661	42,320,313	-14,942,348
7	Gas Technology Institute	100,000	0	-100,000
8	<b>Total Operating &amp; Maintenance Expenses</b>	<b>\$ 118,834,922</b>	<b>\$ 104,669,790</b>	<b>\$ -14,165,132</b>
	<b>Other Expenses:</b>			
9	Depreciation Expense	\$ 35,000,905	\$ 34,723,870	\$ -277,035
10	Interest on Customer Deposits	262,957	262,056	-901
11	Amortization of Investment Tax Credit	-5,077	-2,905	2,172
12	General Taxes	11,225,412	10,884,544	-340,868
13	State Excise Taxes	840,138	1,790,696	950,558
14	Federal Income Taxes	-1,954,932	9,416,750	11,371,682
15	<b>Total Other Expenses</b>	<b>\$ 45,369,403</b>	<b>\$ 57,075,011</b>	<b>\$ 11,705,608</b>
16	<b>Total Operating Expenses</b>	<b>\$ 164,204,325</b>	<b>\$ 161,744,801</b>	<b>\$ -2,459,524</b>
17	<b>Utility Operating Income</b>	<b>\$ 42,839,172</b>	<b>\$ 60,178,324</b>	<b>\$ 17,339,152</b>

A/ Company Workpapers.

B/ CA Exhibit, Schedule 6.



**Piedmont Natural Gas**  
Comparative Revenue Summary  
For the 12 Months Ending December 31, 2021

Line No.	Customer Class	Piedmont A/	Consumer Advocate A/	Difference
<b>Sales &amp; Transportation Base Rate Margin:</b>				
1	(301) Residential	\$ 68,020,490	\$ 68,157,846	\$ 137,356
2	(302) Small General Service	27,918,496	27,936,438	17,942
3	(352) Medium General Service	8,499,034	9,172,391	673,357
4	(303) Large General Service	1,870,648	1,958,724	88,076
5	(304) Interruptible Service	42,011	43,682	1,671
6	(313) Firm Transportation Service	3,996,635	3,966,693	-29,942
7	(314) Interruptible Transportation Service	4,306,604	4,384,195	77,591
8	(310) Resale Service	16,734	17,105	371
9	Special Contracts	259,159	266,705	7,546
10	<b>Total Base Rate Margin</b>	<b>\$ 114,929,811</b>	<b>\$ 115,903,779</b>	<b>\$ 973,968</b>
11	Gas Cost	61,472,254 B/	62,349,477 B/	877,223
12	<b>Total Base Rate Revenue</b>	<b>\$ 176,402,065</b>	<b>\$ 178,253,256</b>	<b>\$ 1,851,191</b>
<b>Other Revenue:</b>				
13	Warranty Operating Margin	\$ 0 C/	\$ 2,617,065 C/	\$ 2,617,065
14	IMR Rider Elimination	35,853,030 D/	35,853,030 D/	0
15	ADIT Refund Elimination	-9,333,185 E/	0 E/	9,333,185
16	Other Miscellaneous Revenue	1,120,277 F/	2,052,502 F/	932,225
17	<b>Total Other Revenue</b>	<b>\$ 27,640,122</b>	<b>\$ 40,522,597</b>	<b>\$ 12,882,475</b>
18	<b>Total Revenue</b>	<b>\$ 204,042,187</b>	<b>\$ 218,775,853</b>	<b>\$ 14,733,666</b>

A/ WHN Revenue Workpaper R-1-1.01.  
B/ WHN Revenue Workpaper R-80-1.00.  
C/ DND Revenue Workpaper DND-Rev-1.  
D/ WHN Revenue Workpaper R-55-1.00.  
E/ WHN Revenue Workpaper R-60-1.00.  
F/ WHN Revenue Workpaper R-65-1.00.

**Piedmont Natural Gas**  
Comparative O&M Expense Summary  
For the 12 Months Ending December 31, 2021

<b>Line No.</b>	<b>Expense</b>	<b>Piedmont</b> <sup>A/</sup>	<b>Consumer Advocate</b> <sup>B/</sup>	<b>Difference</b>
1	Other Purchased Gas Expense		\$ 434,946	\$ 434,946
2	Gas Storage Expense		1,184,776	1,184,776
3	Transmission Expense		2,525,622	2,525,622
4	Distribution Expense		17,012,332	17,012,332
5	Customer Accounts & Service Expense		5,676,429	5,676,429
6	Sales Expense		1,053,990	1,053,990
7	Administrative & General Expense		14,432,218	14,432,218
8	<b>Total O&amp;M Expense</b>	<b>\$ 57,262,661</b>	<b>\$ 42,320,313</b>	<b>\$ -14,942,348</b>

A/ Company Workpapers. Company did not segregate O&M Expenses by account classification.

B/ WHN Expense Workpaper E-1-1.00.

**Piedmont Natural Gas**  
Taxes Other than Income Taxes  
For the 12 Months Ending December 31, 2021

Line No.		<b>Piedmont</b> A/	<b>Consumer Advocate</b> B/	<b>Difference</b>
1	Property Taxes	\$ 6,657,411	\$ 6,238,733	\$ -418,678
2	Franchise Tax	2,512,377	1,680,391	-831,986
3	Gross Receipts Tax	548,256	1,421,993	873,737
4	Payroll Taxes	1,514,067	1,543,427	29,360
5	Allocated & Other Taxes	<u>-6,699</u>	<u>0</u>	<u>6,699</u>
6	<b>Total</b>	<b>\$ <u>11,225,412</u></b>	<b>\$ <u>10,884,544</u></b>	<b>\$ <u>-340,868</u></b>

A/ Company Workpapers.

B/ WHN Expense Workpaper E-50-1.00.

**Piedmont Natural Gas**  
Excise and Income Taxes  
For the 12 Months Ending December 31, 2021

Line No.		<b>Consumer Advocate</b>
1	<b>Operating Revenues</b>	<b>\$ 221,923,125 A/</b>
	<b>Operating Expenses:</b>	
2	Purchased Gas Expense	\$ 62,349,477 A/
3	O&M Expenses	42,320,313 A/
4	Depreciation Expense	34,723,870 A/
5	Interest on Customer Deposits	262,056 A/
6	Amortization of Investment Tax Credit	-2,905 A/
7	General Taxes	10,884,544 A/
8	<b>Total Operating Expenses</b>	<b>\$ 150,537,355</b>
9	<b>NOI Before Excise and Income Taxes</b>	<b>\$ 71,385,770</b>
10	AFUDC	-3,147,272 A/
11	Interest Expense	-16,484,279 B/
12	<b>Net Income Before Income Taxes</b>	<b>\$ 51,754,219</b>
	<b>Tennessee Excise Tax Calculation:</b>	
13	Net Income Before Income Taxes	\$ 51,754,219
14	Composite Excise Tax Rate	3.46% C/
15	<b>Excise Tax Expense</b>	<b>\$ 1,790,696</b>
	<b>Federal Income Tax Calculation:</b>	
16	Net Income Before Income Taxes	\$ 51,754,219
17	Net Excise Tax Expense	1,790,696
18	<b>Net Income Before Federal Income Tax</b>	<b>\$ 49,963,523</b>
19	FIT Rate	21.00%
20	<b>Federal Income Tax Expense-Pre-Adjusted</b>	<b>\$ 10,492,340</b>
21	Less EDFIT Amortization	-1,075,590 D/
22	<b>Net Federal Income Tax Expense</b>	<b>\$ 9,416,750</b>

- A/ CA Exhibit, Schedule 6.  
B/ CA Exhibit, Schedule 13.  
C/ Company workpapers.  
D/ DND Expense Workpaper Summary

**Piedmont Natural Gas**  
Income Statement at Proposed Rates  
For the 12 Months Ending December 31, 2021

Line No.		Current Rates A/	Rate Increase B/	Proposed Rates
	<b>Operating Revenues:</b>			
1	Gas Sales & Transportation Revenues	\$ 214,106,286	\$ -3,795,187	\$ 210,311,099
2	Other Revenues	4,669,567	-37,208	4,632,359
3	AFUDC	3,147,272	0	3,147,272
4	<b>Total Operating Revenue</b>	<b>\$ <u>221,923,125</u></b>	<b>\$ <u>-3,832,395</u></b>	<b>\$ <u>218,090,730</u></b>
	<b>Operating &amp; Maintenance Expenses:</b>			
5	Purchased Gas Expense	\$ 62,349,477	\$ 0	\$ 62,349,477
6	Operations & Maintenance Expense	42,320,313	-7,469	42,312,844
7	<b>Total Operating &amp; Maintenance Expenses</b>	<b>\$ <u>104,669,790</u></b>	<b>\$ <u>-7,469</u></b>	<b>\$ <u>104,662,321</u></b>
	<b>Other Expenses:</b>			
8	Depreciation Expense	\$ 34,723,870	\$ 0	\$ 34,723,870
9	Interest on Customer Deposits	262,056	0	262,056
10	Amortization of Investment Tax Credit	-2,905	0	-2,905
11	General Taxes	10,884,544	0	10,884,544
12	State Excise Taxes	1,790,696	-132,342	1,658,354
13	Federal Income Taxes	9,416,750	-775,443	8,641,307
14	<b>Total Other Expenses</b>	<b>\$ <u>57,075,011</u></b>	<b>\$ <u>-907,785</u></b>	<b>\$ <u>56,167,226</u></b>
15	<b>Total Operating Expenses</b>	<b>\$ <u>161,744,801</u></b>	<b>\$ <u>-915,254</u></b>	<b>\$ <u>160,829,546</u></b>
16	<b>Utility Operating Income</b>	<b>\$ <u>60,178,324</u></b>	<b>\$ <u>-2,917,141</u></b>	<b>\$ <u>57,261,183</u></b>

A/ CPAD Exhibit, Schedule 6.

B/ CPAD Exhibit, Schedule 1.

**Piedmont Natural Gas**  
Rate of Return Summary  
For the 12 Months Ending December 31, 2021

Line No.	Class of Capital	Consumer Advocate			A/
		Percent of Total	Cost Rate	Weighted Cost Rate	
1	Parent Short-Term Debt	4.00%	0.40%	0.02%	
2	Parent Long-Term Debt	45.50%	4.14%	1.88%	
3	Common Equity	50.50%	9.30%	4.70%	
4	<b>Total</b>	<b>100.00%</b>		<b>6.60%</b>	
<b>Interest Expense Short-Term Debt:</b>					
5	Rate Base			\$ 867,593,655	B/
6	Short-Term Weighted Debt Cost			0.02%	
7	<b>Short-Term Debt Interest Expense</b>			<b>\$ 173,519</b>	
<b>Interest Expense Long-Term Debt:</b>					
8	Rate Base			\$ 867,593,655	B/
9	Long-Term Weighted Debt Cost			1.88%	
10	<b>Long-Term Debt Interest Expense</b>			<b>\$ 16,310,761</b>	
11	<b>Total Interest Expense</b>			<b>\$ 16,484,279</b>	

A/ Dr. Chris Klein Exhibits.  
B/ CA Exhibit, Schedule 2.

**Piedmont Natural Gas**  
Revenue Conversion Factor  
For the 12 Months Ending December 31, 2021

Line No.		<u>Amount</u>	<u>Balance</u>
1	Operating Revenues		1.000000
2	Add: Forfeited Discounts	0.009804 <b>A/</b>	<u>0.009804</u>
3	Balance		1.009804
4	Uncollectible Ratio	0.001949 <b>B/</b>	<u>0.001968</u>
5	Balance		1.007836
6	State Excise Tax	0.034600 <b>C/</b>	<u>0.034871</u>
7	Balance		0.972965
8	Federal Income Tax	0.210000 <b>C/</b>	<u>0.204323</u>
9	Balance		<u>0.768642</u>
10	<b>Revenue Conversion Factor (Line 1 / Line 9)</b>		<u><u>1.300995</u></u>

A/ WHN Revenue Workpaper R-65-2.00.  
B/ WHN Revenue Workpaper E-30-1.00.  
C/ CA Exhibit, Schedule 11.

**Piedmont Natural Gas**  
Consumer Advocate Proposed Margin Change  
For the 12 Months Ending December 31, 2021

Line No.	Customer Class	Current Rates A/	Revenue Deficiency B/	Proposed Rates	Percent Change
<b>Sales &amp; Transportation Base Rate Margin:</b>					
1	(301) Residential	\$ 68,157,846	\$ -2,231,780	\$ 65,926,066	-3.27%
2	(302) Small General Service	27,936,438	-914,759	27,021,679	-3.27%
3	(352) Medium General Service	9,172,391	-300,343	8,872,048	-3.27%
4	(303) Large General Service	1,958,724	-64,137	1,894,587	-3.27%
5	(304) Interruptible Service	43,682	-1,430	42,252	-3.27%
6	(313) Firm Transportation Service	3,966,693	-129,887	3,836,806	-3.27%
7	(314) Interruptible Transportation Service	4,384,195	-143,557	4,240,638	-3.27%
8	(310) Resale Service	17,105	-560	16,545	-3.27%
9	Special Contracts	266,705	-8,733	257,972	-3.27%
10	<b>Total Sales &amp; Transportation Revenue</b>	<b>\$ 115,903,779</b>	<b>\$ -3,795,187</b>	<b>\$ 112,108,592</b>	<b>-3.27%</b>
11	Other Miscellaneous Revenues	2,052,502	-37,208	2,015,294	-1.81%
12	<b>Total Revenue</b>	<b>\$ 117,956,281</b>	<b>\$ -3,832,395</b>	<b>\$ 114,123,886</b>	<b>-3.25%</b>
	Customer Class	Proposed Rates	IMR Elimination A/	Final Rates	Percent Change
<b>Sales &amp; Transportation Base Rate Margin:</b>					
13	(301) Residential	\$ 65,926,066	\$ 21,083,569	\$ 87,009,634	31.98%
14	(302) Small General Service	27,021,679	8,641,702	35,663,381	31.98%
15	(352) Medium General Service	8,872,048	2,837,336	11,709,384	31.98%
16	(303) Large General Service	1,894,587	605,901	2,500,488	31.98%
17	(304) Interruptible Service	42,252	13,512	55,764	31.98%
18	(313) Firm Transportation Service	3,836,806	1,227,035	5,063,841	31.98%
19	(314) Interruptible Transportation Service	4,240,638	1,356,182	5,596,820	31.98%
20	(310) Resale Service	16,545	5,291	21,836	31.98%
21	Special Contracts	257,972	82,501	340,473	31.98%
22	<b>Total Sales &amp; Transportation Revenue</b>	<b>\$ 112,108,592</b>	<b>\$ 35,853,030</b>	<b>\$ 147,961,622</b>	<b>31.98%</b>
23	Other Miscellaneous Revenues	2,015,294	0	2,015,294	0.00%
24	Warranty Operating Margin	0	2,617,065	2,617,065	100.00%
25	<b>Total Revenue</b>	<b>\$ 114,123,886</b>	<b>\$ 38,470,095</b>	<b>\$ 152,593,981</b>	<b>33.71%</b>

A/ CA Exhibit, Schedule 8.  
B/ CA Exhibit, Schedule 12.



ATTACHMENT WHN-3

Consumer Advocate Pro Forma  
Billing Determinants

Tariff	Test Period	Weather Adjustment	Customer Growth	Attrition Period
<b>Volumes (Therms):</b>				
301 - Residential	CONTAINS CONFIDENTIAL PROPRIETARY DATA			
302 - Small General Service				
352 - Medium General Service				
303 - Large General Firm Sales Service				
304 - Large General Interruptible Sales Service				
313 - Large General Firm Transportation Service				
314 - Large General Interruptible Transportation Service				
310 - Sale for Resale				
373 - Special Contract				
<b>Total Volumes (Therms)</b>	<b>314,123,102</b>	<b>25,182,874</b>	<b>7,319,394</b>	<b>346,625,370</b>
<b>Bills:</b>				
301 - Residential	2,043,725	0	62,769	2,106,494
302 - Small General Service	210,508	0	2,562	213,070
352 - Medium General Service	6,591	0	777	7,368
303 - Large General Firm Sales Service	619	0	0	619
304 - Large General Interruptible Sales Service	24	0	0	24
313 - Large General Firm Transportation Service	916	0	12	928
314 - Large General Interruptible Transportation Service	588	0	0	588
310 - Sale for Resale	36	0	0	36
373 - Special Contract	12	0	0	12
<b>Total Bills</b>	<b>2,263,019</b>	<b>0</b>	<b>66,120</b>	<b>2,329,139</b>
<b>Billing Demand/Capacity (Dkt):</b>				
301 - Residential	0	0	0	0
302 - Small General Service	0	0	0	0
352 - Medium General Service	0	0	0	0
303 - Large General Firm Sales Service	81,089	0	8,638	89,727
304 - Large General Interruptible Sales Service	0	0	0	0
313 - Large General Firm Transportation Service	159,462	0	17,303	176,764
314 - Large General Interruptible Transportation Service	0	0	0	0
310 - Sale for Resale	1,800	0	0	1,800
373 - Special Contract	0	0	0	0
<b>Total Billing Demand/Capacity</b>	<b>242,351</b>	<b>0</b>	<b>25,941</b>	<b>268,292</b>

SOURCE: WHN Revenue Workpaper R-1-3.01.

## WHN Revenue Workpapers - Comparison of Piedmont and Consumer Advocate Billing Determinants

Tariff	Test Period		Attrition Period		Total Adjustments	
	Piedmont	Consumer Advocate	Piedmont	Consumer Advocate	Piedmont	Consumer Advocate
<b>Volumes (Therms):</b>						
301 - Residential	<b>CONTAINS CONFIDENTIAL PROPRIETARY DATA</b>					
302 - Small General Service						
352 - Medium General Service						
303 - Large General Firm Sales Service						
304 - Large General Interruptible Sales Service						
313 - Large General Firm Transportation Service						
314 - Large General Interruptible Transportation Service						
310 - Sale for Resale						
373 - Special Contract						
<b>Total Volumes (Therms)</b>	<b>314,123,102</b>	<b>314,123,102</b>	<b>341,677,909</b>	<b>346,625,370</b>	<b>27,554,807</b>	<b>32,502,268</b>
<b>Bills:</b>						
301 - Residential	2,043,725	2,043,725	2,104,399	2,106,494	60,674	62,769
302 - Small General Service	210,508	210,508	212,805	213,070	2,297	2,562
352 - Medium General Service	6,591	6,591	6,820	7,368	229	777
303 - Large General Firm Sales Service	619	619	619	619	0	0
304 - Large General Interruptible Sales Service	24	24	24	24	0	0
313 - Large General Firm Transportation Service	916	916	928	928	12	12
314 - Large General Interruptible Transportation Service	588	588	588	588	0	0
310 - Sale for Resale	36	36	24	36	-12	0
373 - Special Contract	12	12	12	12	0	0
<b>Total Bills</b>	<b>2,263,019</b>	<b>2,263,019</b>	<b>2,326,219</b>	<b>2,329,139</b>	<b>63,200</b>	<b>66,120</b>
<b>Billing Demand/Capacity (Dkt):</b>						
301 - Residential	0	0	0	0	0	0
302 - Small General Service	0	0	0	0	0	0
352 - Medium General Service	0	0	0	0	0	0
303 - Large General Firm Sales Service	81,089	81,089	80,958	89,727	-131	8,638
304 - Large General Interruptible Sales Service	0	0	0	0	0	0
313 - Large General Firm Transportation Service	159,462	159,462	160,281	176,764	819	17,303
314 - Large General Interruptible Transportation Service	0	0	0	0	0	0
310 - Sale for Resale	1,800	1,800	1,800	1,800	0	0
373 - Special Contract	0	0	0	0	0	0
<b>Total Billing Demand/Capacity</b>	<b>242,351</b>	<b>242,351</b>	<b>243,039</b>	<b>268,292</b>	<b>688</b>	<b>25,941</b>

SOURCE: WHN Revenue Workpaper R-1-3.00.

**ATTACHMENT WHN-4**  
**Consumer Advocate WNA**  
**Factors**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086****Schedule 1****WHN Revenue Workpapers - Summary of WNA Factors**

<b>Tariff</b>	<b>"R" Value (\$/Therm)</b>	<b>Heat Factor (Therm/DDD)</b>	<b>Base Factor (Therm/Month)</b>
301 - Residential	TBD	0.17475479	11.66855064
302 - Small General Service	TBD	0.58547686	112.35917400
352 - Medium General Service	TBD	7.16673338	1,218.22810972

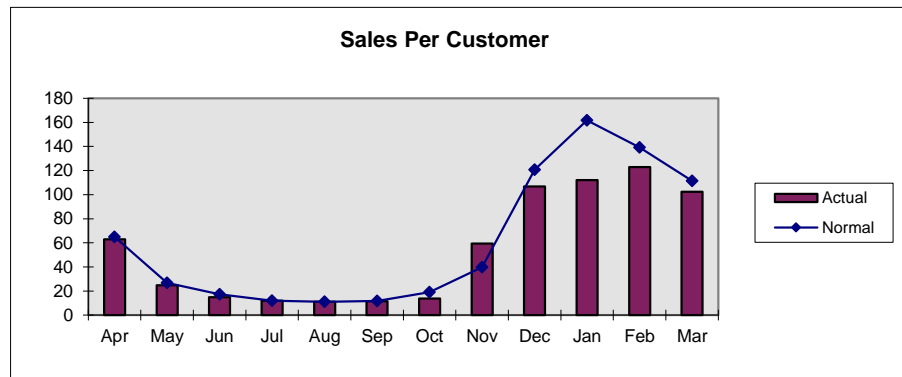
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	10,706,784	170,097	62.9452	291	302
May	4,180,337	169,601	24.6481	87	99
June	2,502,052	169,085	14.7976	0	14
July	2,012,046	169,056	11.9017	0	0
August	1,853,321	168,810	10.9787	0	0
September	1,957,164	168,663	11.6040	0	1
October	2,335,813	168,917	13.8282	30	60
November	10,086,725	170,072	59.3086	434	322
December	18,333,507	171,645	106.8106	491	570
January	19,309,797	172,211	112.1287	465	749
February	21,228,260	172,594	122.9954	687	780
March	17,708,962	172,974	102.3793	458	510
<b>TOTAL</b>	<b>112,214,768</b>	<b>2,043,725</b>	<b>654.3259</b>	<b>2,943</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	11.4100	1.9940	64.9392	11,045,957	339,173
May	12.0800	2.1110	26.7591	4,538,365	358,028
June	13.7700	2.4064	17.2040	2,908,938	406,886
July	0.0600	0.0105	11.9122	2,013,821	1,775
August	0.1000	0.0175	10.9962	1,856,275	2,954
September	1.3000	0.2272	11.8312	1,995,484	38,320
October	30.3100	5.2968	19.1250	3,230,533	894,720
November	-111.5600	-19.4956	39.8130	6,771,069	-3,315,656
December	79.0500	13.8144	120.6250	20,704,680	2,371,173
January	283.7800	49.5919	161.7206	27,850,068	8,540,271
February	92.5600	16.1753	139.1707	24,020,020	2,791,760
March	51.5300	9.0051	111.3844	19,266,610	1,557,648
<b>TOTAL</b>	<b>464.3900</b>	<b>81.1545</b>	<b>735.4804</b>	<b>126,201,820</b>	<b>13,987,052</b>

Regression Output:

Constant	11.66855064
Std Err of Y Est	12.10915860
R Squared	0.93570574
X Coefficient	0.17475479
Std Err of Coef.	0.01448590



SOURCE: WHN Revenue Workpaper R-10-3.12.

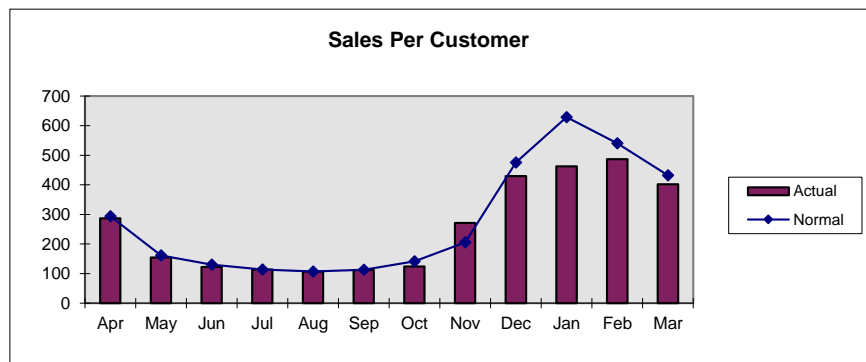
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	5,097,326	17,771	286.8339	291	302
May	2,719,260	17,650	154.0657	87	99
June	2,129,356	17,426	122.1942	0	14
July	1,982,692	17,391	114.0068	0	0
August	1,856,635	17,334	107.1094	0	0
September	1,934,048	17,280	111.9241	0	1
October	2,141,128	17,286	123.8649	30	60
November	4,731,896	17,468	270.8894	434	322
December	7,591,560	17,677	429.4597	491	570
January	8,192,387	17,707	462.6637	465	749
February	8,638,174	17,766	486.2194	687	780
March	7,138,739	17,752	402.1372	458	510
<b>TOTAL</b>	<b>54,153,201</b>	<b>210,508</b>	<b>3,071.3685</b>	<b>2,943</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	11.4100	6.6803	293.5142	5,216,042	118,716
May	12.0800	7.0726	161.1383	2,844,091	124,831
June	13.7700	8.0620	130.2562	2,269,844	140,488
July	0.0600	0.0351	114.0419	1,983,302	610
August	0.1000	0.0585	107.1679	1,857,649	1,014
September	1.3000	0.7611	112.6852	1,947,200	13,152
October	30.3100	17.7458	141.6107	2,447,882	306,754
November	-111.5600	-65.3158	205.5736	3,590,960	-1,140,936
December	79.0500	46.2819	475.7416	8,409,685	818,125
January	283.7800	166.1466	628.8103	11,134,345	2,941,958
February	92.5600	54.1917	540.4111	9,600,944	962,770
March	51.5300	30.1696	432.3068	7,674,310	535,571
<b>TOTAL</b>	<b>464.3900</b>	<b>271.8894</b>	<b>3,343.2579</b>	<b>58,976,254</b>	<b>4,823,053</b>

#### Regression Output:

Constant 112.35917400  
 Std Err of Y Est 42.00264223  
 R Squared 0.93139868  
 X Coefficient 0.58547686  
 Std Err of Coef. 0.05024677



SOURCE: WHN Revenue Workpaper R-15-3.12.

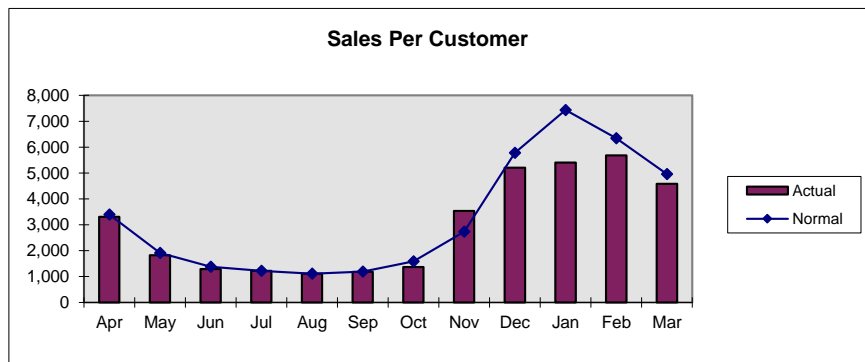
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,520,145	459	3,311.8627	291	302
May	846,135	463	1,827.5054	87	99
June	724,819	564	1,285.1401	0	14
July	688,824	566	1,217.0035	0	0
August	628,147	566	1,109.8004	0	0
September	668,510	566	1,181.1131	0	1
October	773,300	563	1,373.5346	30	60
November	1,999,097	566	3,531.9735	434	322
December	2,969,799	570	5,210.1737	491	570
January	3,067,387	568	5,400.3292	465	749
February	3,240,841	571	5,675.7285	687	780
March	2,609,587	569	4,586.2689	458	510
<b>TOTAL</b>	<b>19,736,591</b>	<b>6,591</b>	<b>35,710.4337</b>	<b>2,943</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	11.4100	81.7724	3,393.6351	1,557,679	37,534
May	12.0800	86.5741	1,914.0795	886,219	40,084
June	13.7700	98.6859	1,383.8260	780,478	55,659
July	0.0600	0.4300	1,217.4335	689,067	243
August	0.1000	0.7167	1,110.5171	628,553	406
September	1.3000	9.3168	1,190.4299	673,783	5,273
October	30.3100	217.2237	1,590.7583	895,597	122,297
November	-111.5600	-799.5208	2,732.4527	1,546,568	-452,529
December	79.0500	566.5303	5,776.7040	3,292,721	322,922
January	283.7800	2,033.7756	7,434.1048	4,222,572	1,155,185
February	92.5600	663.3528	6,339.0813	3,619,615	378,774
March	51.5300	369.3018	4,955.5707	2,819,720	210,133
<b>TOTAL</b>	<b>464.3900</b>	<b>3,328.1593</b>	<b>39,038.5930</b>	<b>21,612,572</b>	<b>1,875,981</b>

Regression Output:

Constant 1,218.22810972  
Std Err of Y Est 427.33541145  
R Squared 0.95158224  
  
X Coefficient 7.16673338  
Std Err of Coef. 0.51121129



SOURCE: WHN Revenue Workpaper R-20-3.12.



## PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

## Schedule 5

WHN Revenue Workpapers - Nashville, TN 30-Year Normal Heating Degree Days

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	25.07	22.93	17.43	9.93	2.77	0.47	0.00	0.00	0.00	1.80	9.53	19.53
2	24.00	23.40	18.07	7.93	2.40	0.20	0.00	0.00	0.00	2.07	10.57	19.13
3	24.30	24.33	21.77	7.73	3.30	0.13	0.00	0.00	0.00	2.53	11.63	18.73
4	25.00	24.77	19.20	9.90	4.00	0.13	0.00	0.00	0.00	2.27	11.40	18.37
5	25.97	25.07	17.97	10.90	3.57	0.07	0.00	0.00	0.07	2.10	11.27	21.77
6	26.57	23.60	17.27	9.83	2.37	0.10	0.00	0.00	0.27	2.53	12.50	23.10
7	27.10	22.90	16.57	8.00	1.70	0.10	0.00	0.00	0.10	3.67	13.33	23.17
8	26.60	23.60	15.73	7.90	0.87	0.00	0.00	0.00	0.10	3.07	14.57	22.63
9	24.57	24.60	15.63	7.90	0.77	0.00	0.00	0.00	0.00	3.00	13.57	21.30
10	23.57	24.40	15.67	6.60	1.40	0.00	0.00	0.00	0.00	3.87	14.20	23.53
11	22.77	23.33	16.90	4.93	1.43	0.00	0.00	0.00	0.07	4.27	13.70	23.47
12	21.70	24.80	15.17	6.03	1.40	0.00	0.00	0.00	0.10	3.90	16.63	22.87
13	23.97	25.43	14.80	7.00	2.10	0.00	0.00	0.10	0.33	3.40	16.40	21.10
14	25.97	23.00	15.23	4.97	2.00	0.00	0.00	0.00	0.13	3.90	15.73	20.57
15	27.30	22.53	13.77	5.90	2.23	0.00	0.00	0.00	0.13	4.37	16.50	21.17
16	27.83	22.60	13.67	5.97	2.00	0.00	0.00	0.00	0.23	6.17	16.00	20.27
17	27.20	23.17	12.40	5.90	1.50	0.00	0.00	0.00	0.17	6.53	15.90	21.10
18	29.40	21.33	11.13	4.20	1.77	0.00	0.00	0.00	0.10	6.30	15.70	23.50
19	28.90	20.40	12.00	4.37	1.23	0.00	0.00	0.00	0.43	8.07	14.53	24.10
20	26.23	17.03	12.43	4.27	0.83	0.00	0.00	0.00	0.43	7.13	15.17	24.13
21	26.27	15.63	13.80	5.07	1.30	0.03	0.00	0.00	0.60	5.90	14.97	21.87
22	25.80	18.67	13.67	4.37	1.17	0.03	0.00	0.00	0.80	6.30	16.67	21.60
23	26.13	17.70	11.67	4.70	0.30	0.00	0.00	0.00	1.13	7.10	17.00	22.97
24	26.97	18.63	11.33	4.40	0.33	0.00	0.00	0.00	0.93	7.87	17.67	25.77
25	27.37	19.33	11.60	3.43	0.53	0.00	0.00	0.00	0.87	7.87	17.47	28.17
26	25.20	21.03	11.13	4.63	0.20	0.00	0.00	0.00	1.23	7.37	17.70	25.93
27	24.47	19.73	10.50	5.10	0.37	0.00	0.00	0.00	1.37	8.67	18.20	23.27
28	24.53	18.87	9.40	4.30	0.47	0.00	0.00	0.00	1.10	9.70	18.63	22.60
29	24.03	4.23	11.13	3.53	0.23	0.00	0.00	0.00	1.90	10.03	17.17	22.37
30	25.67		10.67	2.53	0.17	0.00	0.00	0.00	2.27	8.30	16.83	23.30
31	24.87		10.43		0.17		0.00	0.00		7.60		23.37
Calendar Total	795	617	438	182	45	1	0	0	15	168	451	695
Cycle Total	749	780	510	302	99	14	0	0	1	60	322	570

NON-LEAP YEAR TOTAL	3,407
LEAP YEAR TOTAL	3,420

Note: Degree Days for February 29 must be multiplied by 4 to arrive at the true DDD for this day.

NOTE: AVERAGE IS FOR THE 30 YEAR PERIOD ENDED: March, 2020.

SOURCE: WHN Revenue Workpaper R-75-1.01.

# ATTACHMENT WHN-5

## Impact of Change in Depreciation Rates

## PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

## WHN Rate Base Workpapers - Annual Impact of Change in Depreciation Rates

Account	Plant in Service Mar-20	Current Depreciation Rates	Current Depreciation Expense	Proposed Depreciation Rates	Proposed Depreciation Expense	Depreciation Expense Difference
<b>Intangible Plant:</b>						
20100 - Organization	30,035	0.00%	0	0.00%	0	0
20200 - Franchises and Consents	109,186	0.00%	0	0.00%	0	0
20300 - Miscellaneous Intangible PI	0	0.00%	0	0.00%	0	0
<b>Total Intangible Plant</b>	<b>139,222</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0</b>
<b>Storage Plant:</b>						
26000 - Land and Land Rights	630,064	0.00%	0	0.00%	0	0
26100 - Structures & Improvements	11,095,542	1.90%	210,815	3.68%	408,400	197,585
26200 - Gas Holders	3,031,845	2.22%	67,307	0.19%	5,626	-61,681
26300 - Purification Equipment	6,616,076	2.86%	189,220	3.89%	257,693	68,473
26310 - Liquefaction Equipment	7,431,970	2.86%	212,554	3.64%	270,755	58,201
26320 - Vaporizing Equipment	20,992,590	2.86%	600,388	3.95%	828,750	228,362
26330 - Compressor Equipment	9,651,405	3.30%	318,496	3.08%	297,214	-21,282
26340 - Measuring & Reg Equipment	28,381	2.86%	812	6.61%	1,877	1,065
26350 - Other Equipment	3,898,678	3.33%	129,826	4.00%	156,092	26,266
<b>Total Storage Plant</b>	<b>63,376,551</b>	<b>2.75%</b>	<b>1,729,418</b>	<b>3.55%</b>	<b>2,226,407</b>	<b>496,989</b>
<b>Transmission Plant:</b>						
26502 - Depreciable Land Rights	0	1.25%	0	1.25%	0	0
26510 - Land and Land Rights	1,789,063	0.00%	0	0.00%	0	0
26520 - Rights-of-Way	17,276,744	1.25%	215,959	1.25%	215,524	-435
26620 - S&I - M&R Station Str	1,935,009	2.14%	41,409	2.00%	38,724	-2,685
26700 - Mains	246,058,142	1.45%	3,567,843	1.39%	3,419,789	-148,054
26701 - Mains, Cathodic Protection	3,756	1.45%	54	1.39%	52	-2
26900 - System Meas & Reg Station	36,757,308	2.14%	786,606	2.00%	735,590	-51,016
<b>Total Transmission Plant</b>	<b>303,820,022</b>	<b>1.53%</b>	<b>4,611,871</b>	<b>1.46%</b>	<b>4,409,679</b>	<b>-202,192</b>
<b>Distribution Plant:</b>						
27400 - Non-depr Land & Land Rights	4,572,870	0.00%	0	0.00%	0	0
27401 - Rights of Way	6,141,679	1.25%	76,771	1.38%	85,056	8,285
27500 - Structures & Improvements -	219,208	5.00%	10,960	3.05%	6,687	-4,273

PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Rate Base Workpapers - Annual Impact of Change in Depreciation Rates

Account	Plant in Service Mar-20	Current Depreciation Rates	Current Depreciation Expense	Proposed Depreciation Rates	Proposed Depreciation Expense	Depreciation Expense Difference
27600 - Mains	509,711,616	1.49%	7,594,703	1.58%	8,047,825	453,122
27800 - System Meas & Reg Station	17,813,198	3.08%	548,646	2.89%	515,677	-32,969
27900 - Meas & Reg Sta Equip - City	5,481,557	2.08%	114,016	2.49%	136,251	22,235
28000 - Services	307,668,633	4.08%	12,552,880	2.63%	8,103,319	-4,449,561
28100 - Meters	21,112,557	2.71%	572,150	3.28%	693,223	121,073
28105 - Meters - Meter Acc, ERTs	6,508,708	8.34%	542,826	3.55%	230,946	-311,880
28200 - Meter Installations	19,044,313	2.83%	538,954	3.10%	590,980	52,026
28300 - House Regulators	4,574,792	2.68%	122,604	2.55%	116,641	-5,963
28400 - House Regulator Installatio	3,404,579	2.75%	93,626	2.24%	76,203	-17,423
28500 - Ind Meas & Reg St Equip	5,296,704	2.36%	125,002	2.70%	143,137	18,135
28700 - Other Equipment - Other	0	0.00%	0	0.00%	0	0
<b>Total Distribution Plant</b>	<b>911,550,415</b>	<b>2.52%</b>	<b>22,893,138</b>	<b>2.07%</b>	<b>18,745,945</b>	<b>-4,147,193</b>

General Plant:

28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0	0.00%	0	0
29000 - Structures and Improvements	24,944,431	2.17%	541,294	1.93%	480,968	-60,326
29100 - Office Furniture and Equipm	2,892,886	5.04%	145,801	5.00%	144,644	-1,157
29101 - Electronic Data Processing	0	0.00%	0	0.00%	0	0
29200 - Transportation Equipment	1,909,782	4.55%	86,895	7.61%	145,391	58,496
29204 - Trans Equip - Leased Buyout	44,289	20.00%	8,858	3.62%	1,602	-7,256
29210 - Pass. Cars & Sta Wagons	513,041	4.55%	23,343	11.43%	58,633	35,290
29211 - Trucks 1/2 & 3/4 Ton	7,497,367	4.55%	341,130	11.43%	856,842	515,712
29212 - Trucks 1 & 1.5 Ton	889,189	4.55%	40,458	11.43%	101,622	61,164
29213 - Trucks 2 Ton & Over	2,903,367	6.11%	177,396	4.54%	131,897	-45,499
29217 - Tractors - Diesel	75,736	4.55%	3,446	7.61%	5,766	2,320
29218 - Trailers	117,750	20.00%	23,550	3.62%	4,260	-19,290
29300 - Stores Equipment	0	0.00%	0	0.00%	0	0
29400 - Tools, Shop & Garage Equip	8,113,928	0.03%	2,434	5.00%	405,696	403,262
29500 - Laboratory Equipment	105,879	1.18%	1,249	5.00%	5,294	4,045
29600 - Power Operated Equipment	1,476,727	3.60%	53,162	2.35%	34,641	-18,521
29700 - Communication Equipment	1,198,732	0.32%	3,836	6.67%	79,915	76,079
29800 - Miscellaneous Equipment	800,269	10.24%	81,948	5.00%	40,013	-41,935

PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Rate Base Workpapers - Annual Impact of Change in Depreciation Rates

Account	Plant in Service Mar-20	Current Depreciation Rates	Current Depreciation Expense	Proposed Depreciation Rates	Proposed Depreciation Expense	Depreciation Expense Difference
29900 - Other Tangible Property	0	0.00%	0	0.00%	0	0
<b>Total General Plant</b>	<b>58,051,960</b>	<b>2.84%</b>	<b>1,534,800</b>	<b>5.25%</b>	<b>2,497,184</b>	<b>962,384</b>
<b>Total</b>	<b>1,336,938,169</b>	<b>2.31%</b>	<b>30,769,227</b>	<b>2.09%</b>	<b>27,879,215</b>	<b>-2,890,012</b>

# ATTACHMENT WHN-6

## Texas Public Utility Commission Rules on the Treatment of Rate Case Expense

## CHAPTER 24. SUBSTANTIVE RULES APPLICABLE TO WATER AND SEWER SERVICE PROVIDERS.

### Subchapter B. RATES AND TARIFFS.

#### §24.44. Rate-case Expenses.

- (a) **Recovery of rate-case expenses.** A utility may recover rate-case expenses, including attorney fees, incurred as a result of filing a rate-change application pursuant to TWC §13.187 or TWC §13.1871, only if the expenses are reasonable and necessary.
- (b) **Requirements for claiming recovery of or reimbursement for rate-case expenses.** A utility requesting recovery of its rate-case expenses has the burden to prove the reasonableness of such rate-case expenses by a preponderance of the evidence. A utility seeking recovery of rate-case expenses must submit information that sufficiently details and itemizes all rate-case expenses, including, but not limited to, evidence verified by testimony or affidavit, showing:
  - (1) the nature, extent, and difficulty of the work done by the attorney or other professional in the rate case;
  - (2) the time and labor expended by the attorney or other professional;
  - (3) the fees or other consideration paid to the attorney or other professional for the services rendered;
  - (4) the expenses incurred for lodging, meals and beverages, transportation, or other services or materials;
  - (5) the nature and scope of the rate case, including:
    - (A) the size of the utility and number and type of consumers served;
    - (B) the amount of money or value of property or interest at stake;
    - (C) the novelty or complexity of the issues addressed;
    - (D) the amount and complexity of discovery;
    - (E) the occurrence and length of a hearing; and
  - (6) the specific issue or issues in the rate case and the amount of rate-case expenses reasonably associated with each issue.
- (c) **Criteria for review and determination of reasonableness.** In determining the reasonableness of the rate-case expenses, the commission must consider the relevant factors listed in subsection (b) of this section and any other factor shown to be relevant to the specific case. The commission must decide whether and the extent to which the evidence shows that:
  - (1) the fees paid, tasks performed, or time spent on a task were extreme or excessive;
  - (2) the expenses incurred for lodging, meals and beverages, transportation, or other services or materials were extreme or excessive;
  - (3) there was duplication of services or testimony;
  - (4) the utility's proposal on an issue in the rate case had no reasonable basis in law, policy, or fact and was not warranted by any reasonable argument for the extension, modification, or reversal of commission precedent;
  - (5) rate-case expenses as a whole were disproportionate, excessive, or unwarranted in relation to the nature and scope of the rate case addressed by the evidence pursuant to subsection (b)(5) of this section; or
  - (6) the utility failed to comply with the requirements for providing sufficient information pursuant to subsection (b) of this section.
- (d) **Unamortized rate-case expenses.** Unamortized rate-case expenses may not be a component of invested capital for calculation of rate-of-return purposes.
- (e) **Calculation of allowed or disallowed rate-case expenses.**
  - (1) Based on the factors and criteria in subsections (b) and (c) of this section, the commission must allow recovery of rate-case expenses equal to the amount shown in the evidentiary record to have been actually and reasonably incurred by the requesting utility. The commission must disallow

recovery of rate-case expenses equal to the amount shown to have been not reasonably incurred under the criteria in subsection (c) of this section. A disallowance may be based on cost estimates in lieu of actual costs if reasonably accurate and supported by the evidence.

- (2) A disallowance pursuant to subsection (c)(5) of this section may be calculated as a proportion of a utility's requested rate-case expenses using the following ratio or an appropriate methodology:

- (A) the amount of the increase in revenue requirement requested by the utility that was denied, to
- (B) the total amount of the increase in revenue requirement requested in a proceeding by the utility.

- (3) If the evidence presented pursuant to subsection (b)(6) of this section does not enable the commission to determine the appropriate disallowance of rate-case expenses reasonably associated with an issue with certainty and specificity, then the commission may disallow or deny recovery of a proportion of a utility's requested rate-case expenses using the following ratio or an appropriate methodology:

- (A) the amount of the increase in revenue requirement requested by the utility in the rate case related to the issues not reasonably supported by evidence of certainty and specificity, to
- (B) the total amount of the increase in revenue requirement requested in a proceeding by the utility.



# ATTACHMENT WHN-7

## Rate Design

Tariff	Billing Determinant	Current Base Rate	Current Margin	Revenue Deficiency	IMR Elimination	Proposed Margin	Proposed Rates	Percent Increase
<b>Residential Service:</b>								
<b>Customer Charges:</b>								
Summer	1,219,829	\$13.45	\$16,406,700	\$0	\$0	\$16,406,700	\$13.45	0.0000%
Winter	886,665	17.45	15,472,304	0	0	15,472,304	17.45	0.0000%
<b>Total Customer Charges</b>	<b>2,106,494</b>		<b>\$31,879,004</b>	<b>\$0</b>	<b>\$0</b>	<b>\$31,879,004</b>		<b>0.0000%</b>
<b>Commodity Charges:</b>								
Summer Therms	29,109,162	\$0.24009	\$6,988,819	-429,934	4,061,576	10,620,461	\$0.36485	51.9636%
Winter Therms	100,968,738	\$0.29009	29,290,021	-1,801,846	17,021,994	44,510,170	0.44083	51.9636%
<b>Total Commodity Charges</b>	<b>130,077,900</b>		<b>\$36,278,840</b>	<b>-\$2,231,780</b>	<b>\$21,083,569</b>	<b>\$55,130,628</b>		<b>51.9636%</b>
<b>Total Residential Margin</b>			<b>\$68,157,844</b>	<b>-\$2,231,780</b>	<b>\$21,083,569</b>	<b>\$87,009,633</b>		<b>27.6590%</b>

**NOTE:** Some amounts may not total precisely because of rounding.

**SOURCE:** WHN Revenue Workpaper R-10-1.00.

Tariff	Billing Determinant	Current Base Rate	Current Margin	Revenue Deficiency	IMR Elimination	Proposed Margin	Proposed Rates	Percent Increase
<b>Small &amp; Medium Commercial Service:</b>								
<b>Customer Charges:</b>								
<b>Small Commercial:</b>								
Summer	123,412	\$44.00	\$5,430,128	\$0	\$0	\$5,430,128	\$44.00	0.0000%
Winter	89,658	44.00	3,944,952	0	0	3,944,952	44.00	0.0000%
<b>Total Small Commercial Customer Charges</b>	<b>213,070</b>		<b>\$9,375,080</b>	<b>\$0</b>	<b>\$0</b>	<b>\$9,375,080</b>		<b>0.0000%</b>
<b>Medium Commercial:</b>								
Summer	4,282	\$225.00	\$963,450	\$0	\$0	\$963,450	\$225.00	0.0000%
Winter	3,086	225.00	694,350	0	0	694,350	225.00	0.0000%
<b>Total Medium Commercial Customer Charges</b>	<b>7,368</b>		<b>\$1,657,800</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,657,800</b>		<b>0.0000%</b>
<b>Total Small &amp; Medium Commercial Customer Charges</b>			<b>\$11,032,880</b>	<b>\$0</b>	<b>\$0</b>	<b>\$11,032,880</b>		<b>0.0000%</b>
<b>Commodity Charges:</b>								
<b>Small Commercial:</b>								
Summer Therms	18,713,425	\$0.27387	\$5,125,046	-238,820	2,256,125	7,142,351	\$0.38167	39.3617%
Winter Therms	40,980,607	\$0.32787	13,436,312	-626,113	5,914,874	18,725,073	0.45693	39.3617%
<b>Total Small Commercial Commodity Charges</b>	<b>59,694,032</b>		<b>\$18,561,358</b>	<b>-\$864,933</b>	<b>\$8,170,999</b>	<b>\$25,867,424</b>		<b>39.3617%</b>
<b>Medium Commercial:</b>								
Summer Therms	7,535,012	\$0.27387	\$2,063,614	-96,162	908,435	2,875,888	\$0.38167	39.3617%
Winter Therms	16,625,423	\$0.32787	5,450,977	-254,008	2,399,605	7,596,574	0.45693	39.3617%
<b>Total Medium Commercial Commodity Charges</b>	<b>24,160,435</b>		<b>\$7,514,591</b>	<b>-\$350,170</b>	<b>\$3,308,040</b>	<b>\$10,472,461</b>		<b>39.3617%</b>
<b>Total Small &amp; Medium Commercial Commodity Charges</b>	<b>83,854,467</b>		<b>\$26,075,949</b>	<b>-\$1,215,102</b>	<b>\$11,479,039</b>	<b>\$36,339,885</b>		<b>39.3617%</b>
<b>Total Small &amp; Medium Commercial Margin</b>			<b>\$37,108,829</b>	<b>-\$1,215,102</b>	<b>\$11,479,039</b>	<b>\$47,372,765</b>		<b>27.6590%</b>

**NOTE:** Some amounts may not total precisely because of rounding.

**SOURCE:** WHN Revenue Workpapers R-15-1.00 and R-20-1.00.

## PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

## Schedule 3

## Consumer Advocate Proposed Rate Design - Firm &amp; Interruptible Sales and Transportation Industrial Service (Rates 303, 304, 313 &amp; 314)

Tariff	Billing Determinant	Current Base Rate	Current Margin	Revenue Deficiency	IMR Elimination	Proposed Margin	Proposed Rates	Percent Increase
<b>Firm &amp; Interruptible Sales and Transportation Industrial Service</b>								
<b>Customer Charges:</b>								
Rate 303 - Firm Sales	619	\$800.00	\$495,200	\$0	\$0	\$495,200	\$800.00	0.0000%
Rate 304 - Interruptible Sales	24	800.00	19,200	0	0	19,200	800.00	0.0000%
Rate 313 - Firm Transportation	928	800.00	742,400	0	0	742,400	800.00	0.0000%
Rate 314 - Interruptible Transportation	588	800.00	470,400	0	0	470,400	800.00	0.0000%
<b>Total Large Industrial Customer Charges</b>	<b>2,159</b>		<b>\$1,727,200</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,727,200</b>		<b>0.0000%</b>
<b>Billing Demand:</b>								
Rate 303 - Firm Sales	89,727	\$8.00	\$717,816	\$0	\$0	\$717,816	\$8.00	0.0000%
Rate 313 - Firm Transportation	176,764	8.00	1,414,112	0	0	1,414,112	8.00	0.0000%
<b>Total Large Industrial Billing Demand Charges</b>	<b>266,491</b>		<b>\$2,131,928</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,131,928</b>		<b>0.0000%</b>
<b>Commodity Charges:</b>								
<b>Rate 303 - Firm Sales</b>								
Step 1 - 0 to 15,000 Therms per Month	5,742,666	\$0.09195	\$528,038	-27,565	\$260,405	\$760,878	\$0.13250	44.0953%
Step 2 - 15,001 to 40,000 Therms per Month	2,288,713	0.08466	193,762	-10,115	95,555	279,202	0.12199	44.0953%
Step 3 - 40,001 to 90,000 Therms per Month	359,107	0.05963	21,414	-1,118	10,561	30,857	0.08593	44.0953%
Step 4 - Over 90,000 Therms per Month	109,455	0.02277	2,492	-130	1,229	3,591	0.03281	44.0953%
<b>Total Rate 303 Commodity Charges</b>	<b>8,499,941</b>		<b>\$745,706</b>	<b>-\$38,928</b>	<b>\$367,750</b>	<b>\$1,074,528</b>		<b>44.0953%</b>
<b>Rate 304 - Interruptible Sales</b>								
Step 1 - 0 to 15,000 Therms per Month	207,834	\$0.09195	\$19,110	-998	\$9,424	\$27,537	\$0.13250	44.0953%
Step 2 - 15,001 to 40,000 Therms per Month	63,450	0.08466	5,372	-280	2,649	7,741	0.12199	44.0953%
Step 3 - 40,001 to 90,000 Therms per Month	0	0.05963	0	0	0	0	0.08593	44.0953%
Step 4 - Over 90,000 Therms per Month	0	0.02277	0	0	0	0	0.03281	44.0953%
<b>Total Rate 304 Commodity Charges</b>	<b>271,284</b>		<b>\$24,482</b>	<b>-\$1,278</b>	<b>\$12,073</b>	<b>\$35,278</b>		<b>44.0953%</b>
<b>Rate 313 - Firm Transportation</b>								
Step 1 - 0 to 15,000 Therms per Month	11,456,640	\$0.09195	\$1,053,438	-54,992	\$519,509	\$1,517,955	\$0.13250	44.0953%
Step 2 - 15,001 to 40,000 Therms per Month	6,719,886	0.08466	568,906	-29,698	280,559	819,767	0.12199	44.0953%
Step 3 - 40,001 to 90,000 Therms per Month	2,958,716	0.05963	176,428	-9,210	87,006	254,224	0.08592	44.0953%
Step 4 - Over 90,000 Therms per Month	500,933	0.02277	11,406	-595	5,625	16,436	0.03281	44.0953%
<b>Total Rate 313 Commodity Charges</b>	<b>21,636,175</b>		<b>\$1,810,178</b>	<b>-\$94,495</b>	<b>\$892,699</b>	<b>\$2,608,382</b>		<b>44.0953%</b>
<b>Rate 314 - Interruptible Transportation</b>								
Step 1 - 0 to 15,000 Therms per Month	8,667,771	\$0.09195	\$797,002	-41,605	\$393,046	\$1,148,442	\$0.13250	44.0953%
Step 2 - 15,001 to 40,000 Therms per Month	11,104,770	0.08466	940,130	-49,077	463,630	1,354,683	0.12199	44.0953%
Step 3 - 40,001 to 90,000 Therms per Month	11,962,651	0.05963	713,333	-37,238	351,784	1,027,879	0.08592	44.0953%
Step 4 - Over 90,000 Therms per Month	64,265,711	0.02277	1,463,330	-76,389	721,649	2,108,590	0.03281	44.0953%
<b>Total Rate 314 Commodity Charges</b>	<b>96,000,903</b>		<b>\$3,913,795</b>	<b>-\$204,309</b>	<b>\$1,930,109</b>	<b>\$5,639,594</b>		<b>44.0953%</b>
<b>Total Large Industrial Billing Commodity Charges</b>	<b>126,408,303</b>		<b>\$6,494,161</b>	<b>-\$339,011</b>	<b>\$3,202,630</b>	<b>\$9,357,780</b>		<b>44.0953%</b>
<b>Total Large Industrial Margin</b>			<b>\$10,353,289</b>	<b>-\$339,011</b>	<b>\$3,202,630</b>	<b>\$13,216,908</b>		<b>27.6590%</b>

**NOTE:** Some amounts may not total precisely because of rounding.

**SOURCE:** WHN Revenue Workpapers R-25-1.00, R-30-1.00, R-35-1.00 and R-40-1.00.

Tariff	Billing Determinant	Current Base Rate	Current Margin	Revenue Deficiency	IMR Elimination	Proposed Margin	Proposed Rates	Percent Increase
<b>Resale Service:</b>								
Demand Charges	1,800	8.00	14,400	0	0	14,400	8.00	0.0000%
Commodity Charges	35,976	\$0.07518	2,705	-560	5,291	7,436	\$0.20670	174.9011%
<b>Total Resale Margin</b>			<b>\$17,105</b>	<b>-\$560</b>	<b>\$5,291</b>	<b>\$21,836</b>		<b>27.6590%</b>

**NOTE:** Some amounts may not total precisely because of rounding.

**SOURCE:** WHN Revenue Workpaper R-45-1.00.

Tariff	Billing Determinant	Current Base Rate	Current Margin	Revenue Deficiency	IMR Elimination	Proposed Margin	Proposed Rates	Percent Increase
CONTAINS PROPRIETARY DATA								
Total Special Contract Margin			<u>\$266,705</u>	<u>-\$8,733</u>	<u>\$82,501</u>	<u>\$340,473</u>		<u>27.6590%</u>

**NOTE:** Some amounts may not total precisely because of rounding.

**SOURCE:** WHN Revenue Workpaper R-50-1.00.

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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Operation & Maintenance Expenses**

<b>Account Classification</b>	<b>Test Period</b>	<b>Attrition Period</b>	
Other Purchased Gas Expense (735 - 807)	414,435	434,946	<b>A/</b>
Gas Storage Expense (814 -843)	1,426,043	1,184,776	<b>B/</b>
Transmission Expense (850 - 867)	3,856,867	2,525,622	<b>C/</b>
Distribution Expense (870 - 899)	16,449,964	17,012,332	<b>D/</b>
Customer Accounts & Customer Service Expense (901 - 910)	5,438,191	5,676,429	<b>E/</b>
Sales Expense (911 - 917)	1,065,833	1,053,990	<b>F/</b>
Administrative & General Expense (920 - 935)	24,996,862	14,432,218	<b>G/</b>
<b>Total Operation &amp; Maintenance Expense</b>	<b>53,648,196</b>	<b>42,320,313</b>	
Depreciation Expense	31,366,959	34,723,870	<b>H/</b>
Taxes Other Than Income Tax Expense	11,103,406	10,884,544	<b>I/</b>
Interest on Customer Deposits	254,690	262,056	<b>J/</b>
Allowance for Funds Used During Construction	-3,152,246	-3,147,272	<b>K/</b>
Amortization of Investment Tax Credits	-2,905	-2,905	<b>L/</b>
Gas Technology Institute Expense	0	0	<b>M/</b>
<b>Total Operating Expense Other Than Income Taxes</b>	<b>93,218,100</b>	<b>85,040,606</b>	

A/ WHN Expense Workpaper E-10-1.00.

B/ WHN Expense Workpaper E-15-1.00.

C/ WHN Expense Workpaper E-20-1.00.

D/ WHN Expense Workpaper E-25-1.00.

E/ WHN Expense Workpaper E-30-1.00.

F/ WHN Expense Workpaper E-35-1.00.

G/ WHN Expense Workpaper E-40-1.00.

H/ WHN Expense Workpaper E-45-1.00.

I/ WHN Expense Workpaper E-50-1.00.

J/ WHN Expense Workpaper E-70-1.00.

K/ WHN Expense Workpaper E-65-1.00.

L/ WHN Expense Workpaper E-60-1.00.

M/ WHN Expense Workpaper E-75-1.00.



<b>Account Classification</b>	<b>WHN Forecast</b>	<b>A/ Piedmont Forecast</b>	<b>B/</b>
Other Purchased Gas Expense (735 - 807)	434,946		
Gas Storage Expense (814 - 843)	1,184,776		
Transmission Expense (850 - 867)	2,525,622		
Distribution Expense (870 - 899)	17,012,332		
Customer Accounts & Customer Service Expense (901 - 910)	5,676,429		
Sales Expense (911 - 917)	1,053,990		
Administrative & General Expense (920 - 935)	14,432,218		
<b>Total Operation &amp; Maintenance Expense</b>	<b>42,320,313</b>	<b>57,262,661</b>	
Depreciation Expense	34,723,870	35,000,905	
Taxes Other Than Income Tax Expense	10,884,544	11,225,412	
Interest on Customer Deposits	262,056	262,957	
Allowance for Funds Used During Construction	-3,147,272	-3,001,310	
Amortization of Investment Tax Credits	-2,905	-5,077	
Gas Technology Institute Expense	0	100,000	
<b>Total Operating Expense Other Than Income Taxes</b>	<b>85,040,606</b>	<b>100,845,548</b>	

A/ WHN Expense Workpaper E-1-1.00.

B/ Bowman Workpaper - Revenue Requirement Summary, O&M Summary Schedule.

	A/ Other Gas Expenses	B/ Storage Expense	C/ Transmission Expense	D/ Distribution Expense	E/ Customer Acct Expense	F/ Sales Expense	G/ A&G Expense	Total O&M Expense	
Total Attrition Expense	434,946	1,184,776	2,525,622	17,012,332	5,676,429	1,053,990	14,432,218	42,320,313	
Less Labor Expense	199,488	876,540	857,263	9,017,349	1,676,080	684,441	4,454,221	17,765,383	
<b>Net Non-Labor Expense</b>	<b>235,458</b>	<b>308,236</b>	<b>1,668,359</b>	<b>7,994,983</b>	<b>4,000,349</b>	<b>369,549</b>	<b>9,977,997</b>	<b>24,554,931</b>	
Short-Term Incentive Expense							552,144	552,144	H/
Long-Term Incentive Expense							162,595	162,595	H/
Pensions & Benefits							4,656,962	4,656,962	I/
Prepaid Insurance							692,030	692,030	J/
Fleet Expense							752,537	752,537	J/
Credit Card Expense							1,988,901	1,988,901	J/
Virtual Card Expense							978,522	978,522	J/
Service Company Charges							3,312,491	3,312,491	J/
Outside Services							3,032,774	3,032,774	K/
Regulatory Commission Amortization							462,937	462,937	J/
Regulatory Commission Expense							994,314	994,314	J/
Uncollectible Expense					426,487			426,487	E/
<b>Net Other O&amp;M Expenses</b>	<b>235,458</b>	<b>308,236</b>	<b>1,668,359</b>	<b>7,994,983</b>	<b>3,573,862</b>	<b>369,549</b>	<b>-7,608,209</b>	<b>6,542,237</b>	

A/ WHN Expense Workpaper E-10-1.00.

B/ WHN Expense Workpaper E-15-1.00.

C/ WHN Expense Workpaper E-20-1.00.

D/ WHN Expense Workpaper E-25-1.00.

E/ WHN Expense Workpaper E-30-5.01.

F/ WHN Expense Workpaper E-35-1.00.

G/ WHN Expense Workpaper E-40-1.00.

H/ WHN Expense Workpaper E-1-2.01 and adjustment for Incentive Compensation on AB Expense Workpaper AB-1.

I/ WHN Expense Workpaper E-1-2.01 and adjustment for Employee Transition Costs on E-40-1.00.

J/ WHN Expense Workpaper E-1-2.01.

K/ WHN Expense Workpaper E-1-2.01 and adjustment for Improperly Allocated Costs on E-40-1.00.

SOURCE: Normand Working Capital-Testimony PMN-3, Page 3

	Attrition Period	Lead/Lag Days	Dollar Days
<b>Revenues</b>			
Sales & Transportation Revenues	232,841,052	52.22	12,158,959,735
Other Revenues	1,120,276	42.80	47,947,813
<b>Total Revenue Lag</b>	<b>233,961,328</b>	<b>52.17</b>	<b>12,206,907,548</b>
<b>Operation &amp; Maintenance Expense</b>			
Purchased Gas	61,472,261	38.57	2,370,985,107
Labor	18,601,265	10.03	186,570,688
Incentive Pay STIP	1,708,033	256.15	437,512,653
Incentive Pay LTIP	684,654	621.50	425,512,461
Employee Pension & Benefits - Acct 926	5,039,041	11.55	58,200,924
Prepaid Expenses			
Insurance - Other Injuries & Damages	415,481	0.00	0
Insurance - Property	58,922	0.00	0
Insurance - Liability	217,627	0.00	0
Fleet Expense	752,537	38.54	29,002,776
Credit Card Expense	1,988,901	31.63	62,908,939
Virtual Card Expense - Vendors	978,522	31.55	30,872,369
Service Company Charges	3,312,491	20.66	68,436,064
Outside Services - Acct 923	3,289,810	71.95	236,701,830
Regulatory Commission Amortization - Acct 928	462,937	0.00	0
Regulatory Commission Exp - Acct 928.014	994,314	270.00	268,464,780
Uncollectible Accounts - Acct 904	469,158	0.00	0
Other O&M Expenses	18,573,930	42.25	784,748,543
<b>Depreciation Expense</b>	<b>35,000,905</b>	<b>0.00</b>	<b>0</b>
<b>Other Taxes</b>			
Gross Receipts Tax - Tennessee	997,699	-158.50	-158,135,292
Franchise Tax	2,511,721	45.00	113,027,445
Property Taxes	6,657,411	228.98	1,524,413,971
Payroll Taxes	1,514,050	28.49	43,135,285
Sales & Use Taxes	-6,699	35.21	-235,872
<b>Income Taxes</b>			
Federal Income Taxes	10,860,382	37.50	407,264,325
State Income Taxes	1,853,509	45.00	83,407,905
Provision for Deferred Income Taxes	-6,877,608	0.00	0
Amortization of Investment Tax Credit	-5,077	0.00	0
<b>Interest on Customer's Deposits</b>	<b>262,957</b>	<b>0.00</b>	<b>0</b>
<b>Return</b>			
Interest on Long-Term Debt (Acct 0427460)	17,288,250	92.94	1,606,769,955
Interest on Short-Term Debt (Acct 0430216)	146,845	1.49	218,799
Income for Return	44,737,100	0.00	0
<b>Total Expense Lag</b>	<b>233,961,329</b>	<b>36.67</b>	<b>8,579,783,655</b>
<b>Net Revenue Less Expense Lag</b>		<b>15.50</b>	<b>3,627,123,893</b>
Annual Days	365		
<b>Average Daily Cash Working Capital Requirements</b>	<b>640,990</b>	<b>15.50</b>	<b>9,935,345</b>
<b>Company Calculation</b>			<b>9,935,993</b>





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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Other Purchased Gas Expense**

<b>Accounts</b>		<b>Description</b>
735000	Gas Misc Production Exp	
807000	Gas Purchased Expenses	

**WHN Expense Workpapers - Attrition Period Other Purchased Gas Expense Forecast**

	<b>Test Period</b>	<b>Attrition Period</b>	
Other Purchased Gas Expense - Tennessee Direct Labor	27,835	29,313	<b>A/</b>
Other Purchased Gas Expense - Tennessee Allocated Labor	161,596	170,175	<b>B/</b>
Other Purchased Gas Expense - Non-Labor	225,004	235,458	<b>C/</b>
<b>Total Other Purchased Gas Expense</b>	<b>414,435</b>	<b>434,946</b>	
<b>Alternative Total Calculation</b>	<b>414,435</b>	<b>433,690</b>	<b>D/</b>
<hr/>			
<b>Forecast to use</b>		<b>434,946</b>	

A/ WHN Expense Workpaper E-10-2.00.

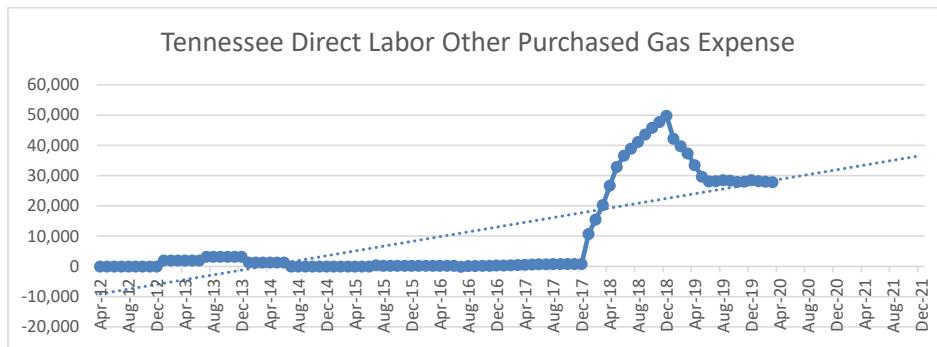
B/ WHN Expense Workpaper E-10-3.00.

C/ WHN Expense Workpaper E-10-4.00.

D/ WHN Expense Workpaper E-10-5.00.

Source: WHN Expense Workpaper E-10-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	1,268	0	190	508	26,687	33,473
May	1,268	0	190	668	32,856	29,658
June	1,268	0	210	736	36,575	28,095
July	0	380	-143	747	38,943	28,207
August	0	190	96	776	41,155	28,553
September	0	190	115	827	43,638	28,379
October	0	190	202	800	45,877	27,907
November	0	190	229	830	47,746	28,041
December	0	190	287	803	49,817	28,491
January	0	190	336	10,674	42,245	28,151
February	0	190	406	15,484	39,705	27,983
March	0	190	472	20,304	37,381	27,835



## Year End Value Forecast:

	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	0	-	-	-
12 Months Ended March 31, 2016	190	190	#DIV/0!	#DIV/0!
12 Months Ended March 31, 2017	472	282	148.17%	1102.00%
12 Months Ended March 31, 2018	20,304	19,832	4201.25%	1419.94%
12 Months Ended March 31, 2019	37,381	17,077	84.11%	29.28%
12 Months Ended March 31, 2020	27,835	-9,546	-25.54%	-25.54%

Zero (0.00%) was chosen as most representative of the Attrition Period

Annual Rate	<u>0.00%</u>	Test Period Amount	27,835
Compound Rate (21 Months)	<u>0.00%</u>	Compound Rate	100.00%
		Attrition Period Amount	<u>27,835</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	394	-9,506
Attrition Period Trend Value	117	<u>36,631</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

Test Period Amount	27,835
Compound Salary & Wage Growth Rate (WHN WP E-110-1.00)	1.053089
Attrition Period Amount	<u>29,313</u>

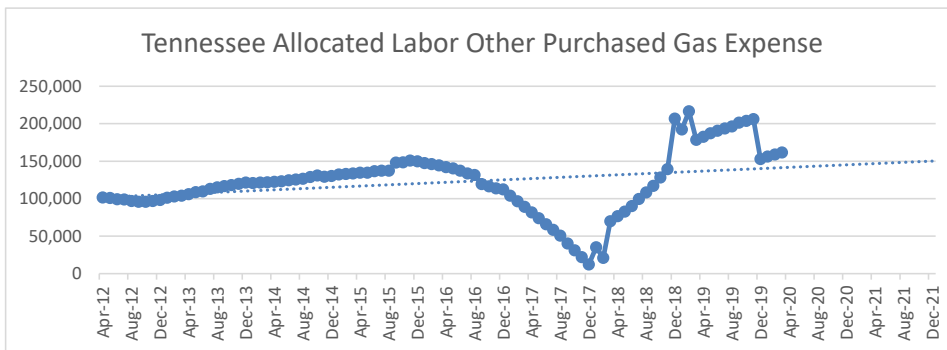
Value to use

29,313



Source: WHN Expense Workpaper E-10-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	122,415	134,812	142,075	81,918	76,819	182,513
May	123,306	134,865	140,525	74,097	82,766	187,312
June	124,440	136,870	137,481	66,080	90,183	190,673
July	125,741	137,350	133,612	58,607	99,557	193,591
August	126,613	137,543	131,639	50,676	108,486	196,607
September	129,149	148,190	119,540	40,416	117,281	201,488
October	130,887	148,723	116,353	31,143	128,442	203,964
November	129,367	150,825	113,786	22,003	139,609	206,327
December	130,237	149,742	112,392	12,189	206,754	153,080
January	132,206	147,595	103,949	35,068	192,564	156,368
February	132,900	146,186	96,455	21,007	216,530	158,875
March	133,867	144,566	89,191	69,971	178,447	161,596



Year End Value Forecast:	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	133,867	-	-	-
12 Months Ended March 31, 2016	144,566	10,699	7.99%	18.75%
12 Months Ended March 31, 2017	89,191	-55,375	-38.30%	21.43%
12 Months Ended March 31, 2018	69,971	-19,221	-21.55%	41.35%
12 Months Ended March 31, 2019	178,447	108,476	155.03%	72.79%
12 Months Ended March 31, 2020	161,596	-16,851	-9.44%	-9.44%

Zero (0.00%) was chosen as most representative of the Attrition Period

Annual Rate	0.00%	Test Period Amount	161,596
Compound Rate (21 Months)	0.00%	Compound Rate	100.00%
		Attrition Period Amount	161,596

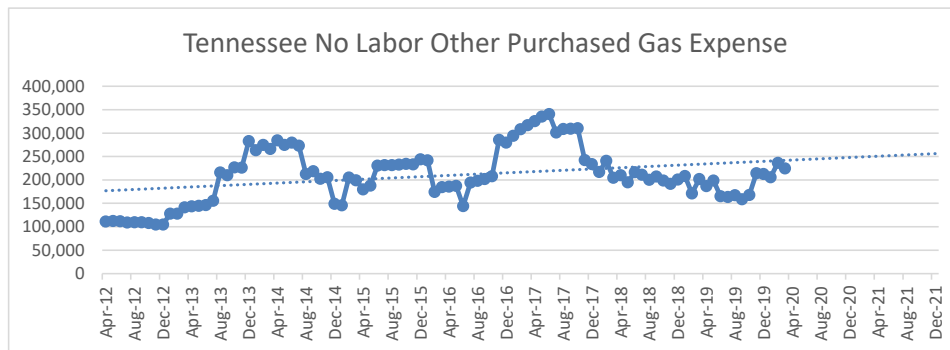
Trend Forecast:	Slope	Constant
Trend Parameters	416	101,425
Attrition Period Trend Value See trend line on graph	117	150,140

Inflation & Customer Growth Forecast:	Test Period Amount	161,596
Compound Salary & Wage Growth Rate (WHN WP E-110-1.00)	1.053089	
Attrition Period Amount	170,175	

Value to use	170,175
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Source: WHN Expense Workpaper E-10-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	284,533	179,880	185,779	325,394	210,105	187,180
May	275,096	187,804	187,619	335,164	195,041	198,775
June	279,838	230,585	144,442	340,712	216,850	165,519
July	273,270	231,599	194,500	301,351	211,197	164,006
August	212,884	231,485	198,111	309,064	200,621	167,402
September	218,599	232,795	201,915	309,519	207,366	159,149
October	202,696	234,322	208,145	310,390	198,850	168,087
November	205,879	233,486	285,743	242,599	191,864	214,742
December	149,028	244,028	279,637	233,656	201,223	212,706
January	145,695	242,171	294,342	217,099	208,720	205,889
February	205,505	174,464	308,415	241,005	171,523	236,357
March	199,490	184,952	316,831	204,939	202,172	225,004



Year End Value Forecast:	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	199,490	-	-	-
12 Months Ended March 31, 2016	184,952	-14,538	-7.29%	7.73%
12 Months Ended March 31, 2017	316,831	131,879	71.30%	11.48%
12 Months Ended March 31, 2018	204,939	-111,892	-35.32%	-8.46%
12 Months Ended March 31, 2019	202,172	-2,766	-1.35%	4.97%
12 Months Ended March 31, 2020	225,004	22,832	11.29%	11.29%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>-8.46%</u>	Test Period Amount	225,004
		Compound Rate	85.67%
Compound Rate (21 Months)	<u>-14.33%</u>	Attrition Period Amount	<u>192,766</u>

Trend Forecast:	Slope	Constant
Trend Parameters	682	176,227
Attrition Period Trend Value See trend line on graph	117	<u>256,054</u>

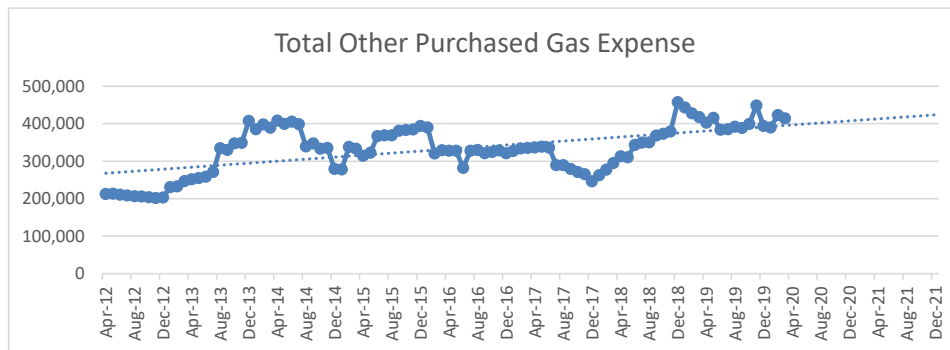
## Inflation &amp; Customer Growth Forecast:

Test Period Amount	225,004
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460
Attrition Period Amount	<u>235,458</u>

Value to use	<u>235,458</u>
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Source: WHN Expense Workpaper E-10-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	408,215	314,693	328,044	336,776	313,611	403,165
May	399,670	322,669	328,334	338,885	310,663	415,745
June	405,546	367,455	282,133	336,484	343,609	384,287
July	399,011	369,329	327,970	289,661	349,697	385,804
August	339,498	369,219	329,846	289,472	350,262	392,562
September	347,748	381,176	321,569	279,718	368,285	389,016
October	333,583	383,235	324,701	271,289	373,169	399,958
November	335,246	384,502	328,713	265,433	379,219	449,110
December	279,265	393,960	321,272	246,647	457,794	394,277
January	277,901	389,956	327,583	262,840	443,529	390,408
February	338,405	320,841	334,232	277,496	427,757	423,215
March	333,357	329,708	335,450	295,213	418,000	414,435



Year End Value Forecast:	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	333,357	-	-	-
12 Months Ended March 31, 2016	329,708	-3,649	-1.09%	5.88%
12 Months Ended March 31, 2017	335,450	5,742	1.74%	7.62%
12 Months Ended March 31, 2018	295,213	-40,237	-11.99%	9.58%
12 Months Ended March 31, 2019	418,000	122,786	41.59%	20.37%
12 Months Ended March 31, 2020	414,435	-3,565	-0.85%	-0.85%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>9.58%</u>	Test Period Amount	414,435
		Compound Rate	117.37%
Compound Rate (21 Months)	<u>17.37%</u>	Attrition Period Amount	<u>486,404</u>

Trend Forecast:	Slope	Constant
Trend Parameters	1,343	266,556
Attrition Period Trend Value	117	<u>423,646</u>
See trend line on graph		

Inflation & Customer Growth Forecast:	Test Period Amount	414,435
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460	
Attrition Period Amount	<u>433,690</u>	

Value to use	<u>433,690</u>
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**Source:** WHN Expense Workpapers E-10-9.10 (Non-Print) to E-1-9.14 (Non-Print).

**Source:** WHN Expense Workpapers E-10-9.10 (Non-Print) to E-1-9.14 (Non-Print).













**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Storage Expense**

<b>Accounts</b>	<b>Description</b>
818000	Compressor Station Expenses
840000	Operation Supv & Eng-OSTG
841000	Operation Labor & Exp
843200	LNG Maint of Structures & Impr
843500	LNG Maint Liquefaction Equip
843600	LNG Maint Vaporization Equip
843800	LNG Maint Measure/Reg Equip
843900	LNG Maint Other Storage Equip
844100	LNG Ops Supv Eng Labor & Exp
846201	LNG Operation Labor & Exp
847800	Maintenance Of Oth Equip-Proc

	<b>Test Period</b>	<b>Attrition Period</b>	
Storage Expense - Tennessee Direct Labor	832,351	876,540	<b>A/</b>
Storage Expense - Tennessee Allocated Labor	0	0	<b>B/</b>
Storage Expense - Non-Labor	593,692	445,868	<b>C/</b>
<b>Total Storage Expense</b>	<b>1,426,043</b>	<b>1,322,408</b>	
<b>Alternative Total Calculation</b>	<b>1,426,043</b>	<b>1,184,776</b>	<b>D/</b>
<hr/>			
<b>Forecast to use</b>		<b>1,184,776</b>	

A/ WHN Expense Workpaper E-15-2.00.

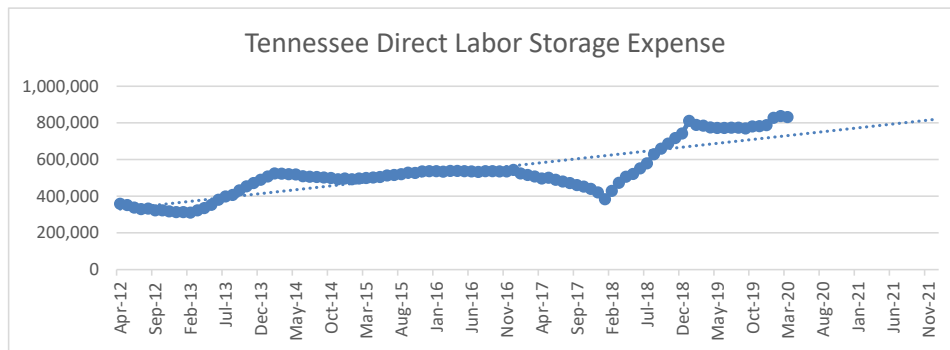
B/ WHN Expense Workpaper E-15-3.00.

C/ WHN Expense Workpaper E-15-4.00.

D/ WHN Expense Workpaper E-15-5.00.

Source: WHN Expense Workpaper E-15-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	521,159	502,090	537,844	497,747	506,245	775,067
May	518,476	505,648	536,613	500,680	522,477	772,519
June	510,022	514,133	536,105	489,534	551,904	772,387
July	506,565	516,230	532,912	480,927	579,550	774,403
August	505,524	520,612	537,465	471,971	629,267	774,577
September	502,764	528,484	537,415	460,951	660,223	769,732
October	500,274	527,909	535,343	452,741	687,360	781,762
November	493,339	535,324	536,071	440,488	718,220	782,424
December	497,709	536,501	544,275	421,277	743,063	787,821
January	492,857	537,374	525,354	384,576	811,952	828,156
February	496,599	533,809	516,257	429,147	789,621	837,617
March	499,473	537,880	508,774	473,708	785,344	832,351



Year End Value Forecast:	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	499,473	-	-	-
12 Months Ended March 31, 2016	537,880	38,407	7.69%	13.43%
12 Months Ended March 31, 2017	508,774	-29,106	-5.41%	14.87%
12 Months Ended March 31, 2018	473,708	-35,066	-6.89%	21.63%
12 Months Ended March 31, 2019	785,344	311,636	65.79%	35.89%
12 Months Ended March 31, 2020	832,351	47,007	5.99%	5.99%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>21.63%</u>	Test Period Amount	832,351
		Compound Rate	140.86%
Compound Rate (21 Months)	<u>40.86%</u>	Attrition Period Amount	<u>1,172,483</u>

Trend Forecast:		Slope	Constant
	Trend Parameters	4,216	325,999
	Attrition Period Trend Value	117	<u>819,316</u>
	See trend line on graph		

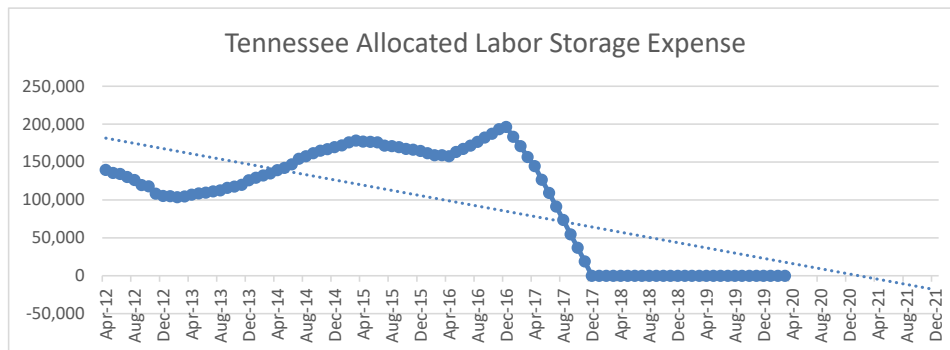
## Inflation &amp; Customer Growth Forecast:

	Test Period Amount	832,351
Compound Salary & Wage Growth Rate (WHN WP E-110-1.00)	1.053089	
Attrition Period Amount	<u>876,540</u>	

Value to use	<u>876,540</u>
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Source: WHN Expense Workpaper E-15-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	139,201	176,997	157,784	144,633	0	0
May	142,273	176,704	163,201	126,623	0	0
June	147,009	175,917	167,363	109,454	0	0
July	154,517	171,686	171,531	91,397	0	0
August	157,692	171,038	176,673	73,594	0	0
September	161,606	169,722	182,250	54,609	0	0
October	164,967	167,250	187,511	36,999	0	0
November	167,125	166,313	193,406	18,795	0	0
December	169,580	164,782	196,300	0	0	0
January	171,989	161,851	183,331	0	0	0
February	176,028	159,140	170,962	0	0	0
March	178,221	158,873	156,556	0	0	0



Year End Value Forecast:	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	178,221	-	-	-
12 Months Ended March 31, 2016	158,873	-19,348	-10.86%	-22.46%
12 Months Ended March 31, 2017	156,556	-2,317	-1.46%	-25.36%
12 Months Ended March 31, 2018	0	-156,556	-100.00%	-33.33%
12 Months Ended March 31, 2019	0	0	0.00%	0.00%
12 Months Ended March 31, 2020	0	0	0.00%	0.00%

Zero (0.00%) was chosen as most representative of the Attrition Period

Annual Rate	<u>0.00%</u>	Test Period Amount	0
		Compound Rate	100.00%
Compound Rate (21 Months)	<u>0.00%</u>	Attrition Period Amount	<u>0</u>

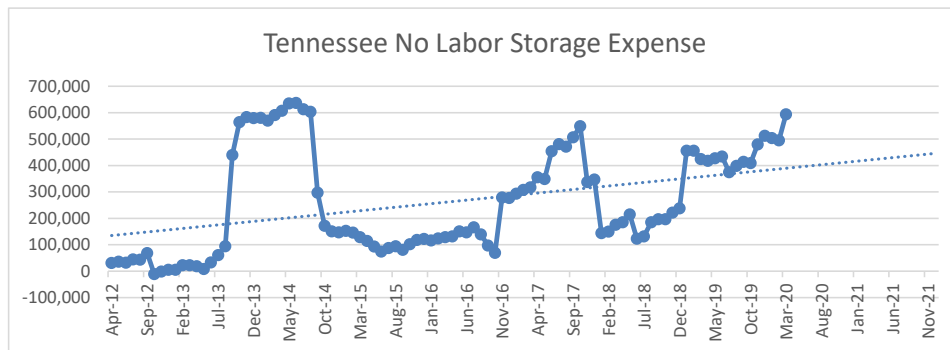
Trend Forecast:	Slope	Constant
Trend Parameters	-1,723	183,257
Attrition Period Trend Value	117	<u>-18,366</u>
See trend line on graph		

Inflation & Customer Growth Forecast:	Test Period Amount	0
Compound Salary & Wage Growth Rate (WHN WP E-110-1.00)	1.053089	
Attrition Period Amount		<u>0</u>

Value to use	<u>0</u>
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Source: WHN Expense Workpaper E-15-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	607,159	114,283	132,097	355,945	185,176	417,666
May	635,388	93,440	150,811	349,432	214,869	427,414
June	636,901	74,792	146,761	454,468	123,406	433,796
July	613,557	87,842	166,063	481,420	131,565	375,261
August	603,557	94,532	139,832	471,943	185,661	398,950
September	297,618	80,964	97,343	507,409	196,476	413,669
October	172,499	102,162	69,866	549,148	197,260	409,641
November	151,470	118,447	279,104	337,768	221,867	480,497
December	147,458	121,816	277,420	347,196	238,385	512,418
January	152,684	116,759	293,480	143,835	456,597	504,083
February	146,041	123,733	308,059	150,066	455,782	495,034
March	129,165	129,434	317,944	175,736	424,742	593,692



Year End Value Forecast:	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	129,165	-	-	-
12 Months Ended March 31, 2016	129,434	269	0.21%	56.52%
12 Months Ended March 31, 2017	317,944	188,510	145.64%	70.60%
12 Months Ended March 31, 2018	175,736	-142,208	-44.73%	45.58%
12 Months Ended March 31, 2019	424,742	249,006	141.69%	90.74%
12 Months Ended March 31, 2020	593,692	168,949	39.78%	39.78%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>45.58%</u>	Test Period Amount	593,692
Compound Rate (21 Months)	<u>92.94%</u>	Compound Rate	192.94%
		Attrition Period Amount	<u>1,145,498</u>

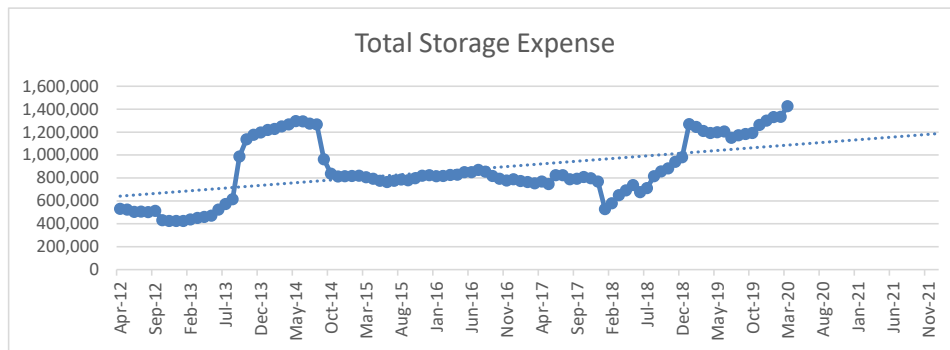
Trend Forecast:	Slope	Constant
Trend Parameters	2,680	132,274
Attrition Period Trend Value	117	<u>445,868</u>
See trend line on graph		

Inflation & Customer Growth Forecast:	Test Period Amount	593,692
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460	
Attrition Period Amount	<u>621,275</u>	

Value to use	<u>445,868</u>
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Source: WHN Expense Workpaper E-15-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	1,267,518	793,370	827,724	768,501	691,421	1,192,733
May	1,296,137	775,792	850,625	746,910	737,345	1,199,933
June	1,293,931	764,842	850,229	823,631	675,310	1,206,182
July	1,274,639	775,758	870,506	823,920	711,115	1,149,664
August	1,266,773	786,183	853,969	787,683	814,929	1,173,527
September	961,988	779,170	817,008	793,145	856,699	1,183,401
October	837,739	797,322	792,720	809,063	884,619	1,191,403
November	811,934	820,084	778,757	797,051	940,087	1,262,921
December	814,747	823,099	788,170	768,473	981,448	1,300,239
January	817,530	815,984	772,340	528,410	1,268,549	1,332,239
February	818,667	816,682	765,454	579,213	1,245,403	1,332,651
March	806,859	826,187	753,450	649,444	1,210,086	1,426,043



Year End Value Forecast:	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	806,859	-	-	-
12 Months Ended March 31, 2016	826,187	19,328	2.40%	16.79%
12 Months Ended March 31, 2017	753,450	-72,737	-8.80%	20.39%
12 Months Ended March 31, 2018	649,444	-104,006	-13.80%	30.12%
12 Months Ended March 31, 2019	1,210,086	560,643	86.33%	52.09%
12 Months Ended March 31, 2020	1,426,043	215,957	17.85%	17.85%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>30.12%</u>	Test Period Amount	1,426,043
		Compound Rate	158.53%
Compound Rate (21 Months)	<u>58.53%</u>	Attrition Period Amount	<u>2,260,748</u>

Trend Forecast:	Slope	Constant
Trend Parameters	4,687	636,389
Attrition Period Trend Value	117	<u>1,184,776</u>
See trend line on graph		

Inflation & Customer Growth Forecast:	Test Period Amount	1,426,043
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460	
Attrition Period Amount	<u>1,492,297</u>	

Value to use	<u>1,184,776</u>
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**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Transmission Expense**

Accounts	Description
850001	Operation Supv & Eng-Tran
851000	System Control & Load Dispatch
852000	Communication System Expenses
853000	Compressor Station Labor & Exp
856001	Mains Expenses
859000	Other Expenses-Trans
861000	Maintenance Supv & Eng-Tran
862000	Maint Struct & Improve-Tran
863000	Transm-Maint of Mains
864000	Maint Compressor Sta Eq-Tran
865000	Maint Of M & R Station Eq-Tran



	<b>Test Period</b>	<b>Attrition Period</b>	
Transmission Expense - Tennessee Direct Labor	572,067	582,699	<b>A/</b>
Transmission Expense - Tennessee Allocated Labor	260,723	274,564	<b>B/</b>
Transmission Expense - Non-Labor	3,024,077	1,633,850	<b>C/</b>
<b>Total Transmission Expense</b>	<b>3,856,867</b>	<b>2,491,113</b>	
<b>Alternative Total Calculation</b>	<b>3,856,867</b>	<b>2,525,622</b>	<b>D/</b>
<hr/>			
<b>Forecast to use</b>		<b>2,525,622</b>	

A/ WHN Expense Workpaper E-20-2.00.

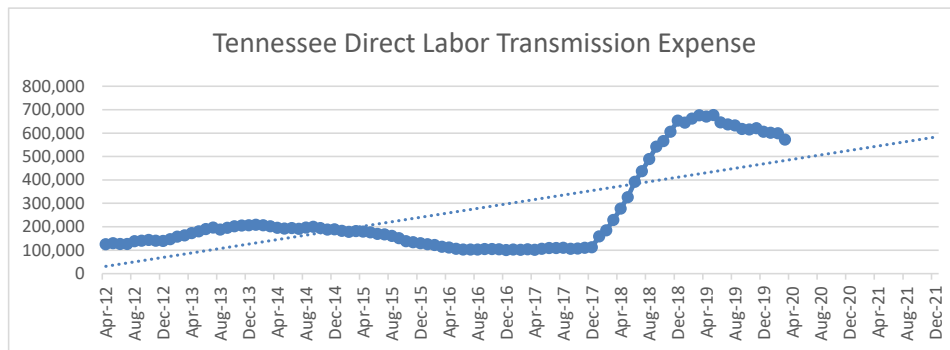
B/ WHN Expense Workpaper E-20-3.00.

C/ WHN Expense Workpaper E-20-4.00.

D/ WHN Expense Workpaper E-20-5.00.

Source: WHN Expense Workpaper E-20-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	195,847	180,099	111,364	102,015	277,767	671,256
May	192,144	176,417	106,393	106,762	326,323	677,124
June	194,789	169,632	103,429	109,347	391,877	645,813
July	191,733	167,928	102,996	109,261	437,958	637,324
August	197,231	160,938	102,700	111,029	489,904	633,471
September	200,242	151,314	105,519	106,098	542,646	618,214
October	194,398	138,555	104,936	107,782	565,729	615,886
November	188,362	134,319	104,138	110,282	605,582	621,273
December	188,914	129,883	100,594	112,217	653,151	606,151
January	182,781	125,409	102,799	159,360	644,931	601,762
February	178,198	122,817	102,240	185,345	661,965	599,451
March	181,716	114,556	104,122	229,660	675,735	572,067



Year End Value Forecast:	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	181,716	-	-	-
12 Months Ended March 31, 2016	114,556	-67,160	-36.96%	50.68%
12 Months Ended March 31, 2017	104,122	-10,435	-9.11%	72.59%
12 Months Ended March 31, 2018	229,660	125,538	120.57%	99.82%
12 Months Ended March 31, 2019	675,735	446,075	194.23%	89.45%
12 Months Ended March 31, 2020	572,067	-103,668	-15.34%	-15.34%

Zero (0.00%) Three-Year Average was chosen as most representative of the Attrition Period

<b>Annual Rate</b>	<b>0.00%</b>	Test Period Amount	572,067
		Compound Rate	100.00%
<b>Compound Rate (21 Months)</b>	<b>0.00%</b>	<b>Attrition Period Amount</b>	<b>572,067</b>

**Trend Forecast:**

	Slope	Constant
Trend Parameters	4,755	26,375
<b>Attrition Period Trend Value</b>	117	<b>582,699</b>
See trend line on graph		

**Inflation & Customer Growth Forecast:**

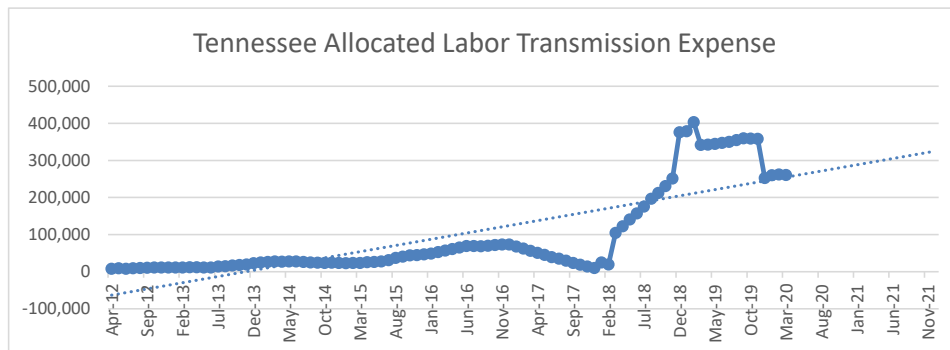
Test Period Amount	572,067
Compound Salary & Wage Growth Rate (WHN WP E-110-1.00)	1.053089
<b>Attrition Period Amount</b>	<b>602,437</b>

Value to use

**582,699**

Source: WHN Expense Workpaper E-20-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	27,178	25,764	61,049	50,972	122,823	342,711
May	27,875	26,305	65,663	45,259	140,748	344,528
June	28,057	28,178	69,747	39,264	157,248	347,350
July	26,259	30,963	69,289	35,212	175,812	350,088
August	25,241	37,068	68,701	30,093	196,666	354,749
September	24,292	40,936	70,214	24,075	212,870	359,835
October	23,803	43,883	71,828	18,747	231,285	359,356
November	24,420	44,852	73,407	14,137	251,394	358,318
December	23,600	47,001	73,300	10,324	376,292	252,615
January	23,396	49,108	68,181	25,118	378,823	260,280
February	23,521	53,008	62,481	19,607	403,188	262,607
March	23,987	57,438	56,285	104,963	341,853	260,723



Year End Value Forecast:	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	23,987	-	-	-
12 Months Ended March 31, 2016	57,438	33,451	139.45%	85.18%
12 Months Ended March 31, 2017	56,285	-1,153	-2.01%	71.61%
12 Months Ended March 31, 2018	104,963	48,678	86.48%	96.15%
12 Months Ended March 31, 2019	341,853	236,890	225.69%	100.98%
12 Months Ended March 31, 2020	260,723	-81,131	-23.73%	-23.73%

Zero (0.00%) Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	0.00%	Test Period Amount	260,723
Compound Rate (21 Months)	0.00%	Compound Rate	100.00%
		Attrition Period Amount	260,723

## Trend Forecast:

	Slope	Constant
Trend Parameters	3,346	-66,419
Attrition Period Trend Value	117	325,069
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

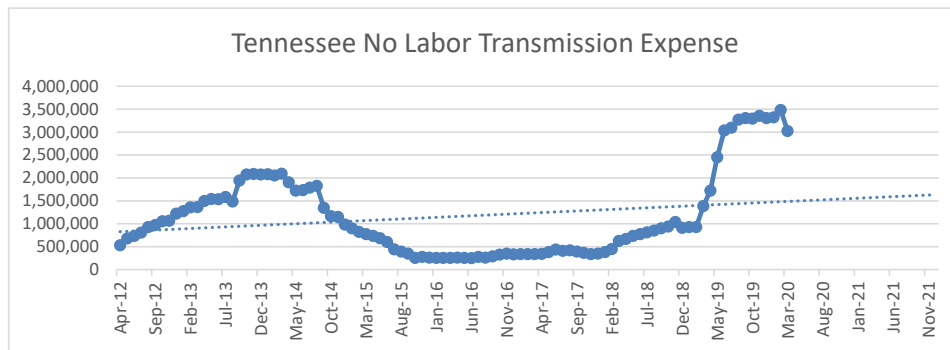
Test Period Amount	260,723
Compound Salary & Wage Growth Rate (WHN WP E-110-1.00)	1.053089
Attrition Period Amount	274,564

Value to use

274,564

Source: WHN Expense Workpaper E-20-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	1,906,898	737,939	262,928	346,126	668,379	1,722,124
May	1,720,972	689,572	256,005	384,374	738,660	2,450,985
June	1,736,282	602,243	252,370	439,585	777,518	3,038,576
July	1,787,964	442,279	276,844	412,412	816,133	3,094,949
August	1,829,975	393,186	261,502	420,867	850,027	3,275,161
September	1,346,882	348,793	291,476	392,867	904,729	3,307,153
October	1,165,998	255,839	329,112	369,607	941,103	3,295,108
November	1,151,526	281,049	353,072	340,562	1,037,234	3,358,465
December	982,800	261,977	335,060	352,730	915,534	3,307,743
January	903,543	258,417	340,616	386,128	931,960	3,320,274
February	823,294	257,089	341,122	451,762	927,744	3,482,361
March	773,777	256,720	341,387	626,044	1,386,374	3,024,077



Year End Value Forecast:	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	773,777	-	-	-
12 Months Ended March 31, 2016	256,720	-517,057	-66.82%	57.82%
12 Months Ended March 31, 2017	341,387	84,667	32.98%	88.99%
12 Months Ended March 31, 2018	626,044	284,657	83.38%	107.65%
12 Months Ended March 31, 2019	1,386,374	760,330	121.45%	119.79%
12 Months Ended March 31, 2020	3,024,077	1,637,703	118.13%	118.13%

Zero (0.00%) Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	0.00%	Test Period Amount	3,024,077
		Compound Rate	100.00%
Compound Rate (21 Months)	0.00%	Attrition Period Amount	3,024,077

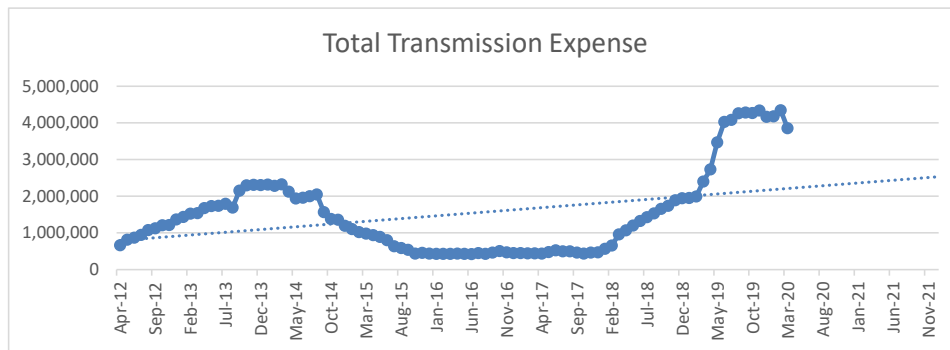
Trend Forecast:	Slope	Constant
Trend Parameters	6,955	820,149
Attrition Period Trend Value	117	1,633,850
See trend line on graph		

Inflation & Customer Growth Forecast:	Test Period Amount	3,024,077
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460	
Attrition Period Amount	3,164,576	

Value to use	1,633,850
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Source: WHN Expense Workpaper E-20-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	2,129,923	943,803	435,341	439,859	1,068,968	2,736,092
May	1,940,990	892,294	428,061	477,142	1,205,731	3,472,636
June	1,959,128	800,052	425,545	528,943	1,326,643	4,031,739
July	2,005,956	641,170	449,129	497,633	1,429,903	4,082,360
August	2,052,446	591,193	432,903	502,735	1,536,597	4,263,381
September	1,571,416	541,043	467,209	463,787	1,660,245	4,285,201
October	1,384,199	438,277	505,877	436,884	1,738,117	4,270,350
November	1,364,307	460,219	471,364	464,981	1,894,209	4,338,057
December	1,195,315	438,861	449,700	475,270	1,944,976	4,166,509
January	1,109,720	432,935	452,341	570,607	1,955,714	4,182,316
February	1,025,012	432,914	446,590	656,713	1,992,896	4,344,419
March	979,481	428,715	442,540	960,667	2,403,962	3,856,867



Year End Value Forecast:	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	979,481	-	-	-
12 Months Ended March 31, 2016	428,715	-550,766	-56.23%	54.95%
12 Months Ended March 31, 2017	442,540	13,825	3.22%	82.75%
12 Months Ended March 31, 2018	960,667	518,127	117.08%	109.25%
12 Months Ended March 31, 2019	2,403,962	1,443,295	150.24%	105.34%
12 Months Ended March 31, 2020	3,856,867	1,452,905	60.44%	60.44%

Zero (0.00%) Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	0.00%	Test Period Amount	3,856,867
Compound Rate (21 Months)	0.00%	Compound Rate	100.00%
		Attrition Period Amount	<b>3,856,867</b>

## Trend Forecast:

	Slope	Constant
Trend Parameters	14,930	778,780
Attrition Period Trend Value	117	<b>2,525,622</b>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

Test Period Amount	3,856,867
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460
Attrition Period Amount	<b>4,036,057</b>

Value to use

**2,525,622**

















**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Distribution Expense**

Accounts	Description
870000	Distribution Sys Ops-Supv/Eng
871000	Distribution Load Dispatching
874000	Mains And Services
875000	Measuring And Reg Stations-Ge
877000	Meas Reg Sta-CityGate-Dist Ops
878000	Meter And House Regulator Exp
879000	Customer Installation Expense
880000	Gas Distribution-Other Expense
885000	Maint Dist Sys Fac- Supv/Engr
887000	Maintenance of Mains
889000	Maint-Meas/Reg Stn Equip-Gas
889001	Maint CNG Fuel Stations-Dist
890000	Maint - Meas/Reg Stn Eq-Indus
891000	Maint M&R equip City Gate
892000	Maintenance of Services
893000	Maint - Meters And House Reg
894000	Maint-Other Distribution Equip

Unregulated Activity - Remove From Test Period

	<b>Test Period</b>	<b>Attrition Period</b>	
Distribution Expense - Tennessee Direct Labor (Net of 889001)	8,285,772	8,725,655	<b>A/</b>
Distribution Expense - Tennessee Allocated Labor (Net of 889001)	276,989	291,694	<b>B/</b>
Distribution Expense - Non-Labor (Net of 889001)	7,694,270	8,051,746	<b>C/</b>
Account 889001-Maintenance of CNG Fueling Stations	192,934	0	<b>D/</b>
<b>Total Distribution Expense</b>	<b>16,449,964</b>	<b>17,069,095</b>	
Alternative Total Calculation (Net of 889001)	16,257,031	17,012,332	<b>E/</b>
Account 889001-Maintenance of CNG Fueling Stations	192,934	0	<b>D/</b>
<b>Total Distribution Expense</b>	<b>16,449,964</b>	<b>17,012,332</b>	
<hr/>			
<b>Forecast to use</b>		<b>17,012,332</b>	

A/ WHN Expense Workpaper E-25-2.00.

B/ WHN Expense Workpaper E-25-3.00.

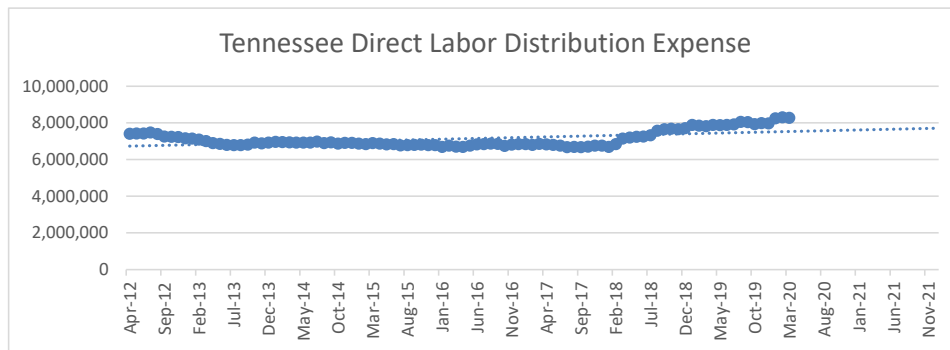
C/ WHN Expense Workpaper E-25-4.00.

D/ WHN Expense Workpaper E-25-6.00.

E/ WHN Expense Workpaper E-25-5.00.

Source: WHN Expense Workpaper E-25-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	6,934,481	6,877,444	6,700,641	6,830,158	7,202,718	7,889,110
May	6,926,041	6,826,957	6,756,640	6,807,448	7,250,162	7,878,690
June	6,934,420	6,846,455	6,832,609	6,760,414	7,260,717	7,888,500
July	6,986,151	6,779,884	6,843,602	6,677,944	7,335,187	7,923,993
August	6,907,868	6,796,783	6,878,875	6,697,959	7,575,500	8,062,562
September	6,946,685	6,801,040	6,861,306	6,675,824	7,655,013	8,048,891
October	6,880,233	6,823,475	6,750,260	6,703,520	7,688,441	7,939,179
November	6,918,005	6,794,774	6,816,580	6,757,656	7,660,400	7,992,789
December	6,921,690	6,795,031	6,839,702	6,759,192	7,716,743	7,970,454
January	6,880,127	6,689,010	6,843,257	6,698,855	7,900,586	8,256,393
February	6,840,510	6,757,229	6,803,262	6,844,156	7,853,389	8,312,226
March	6,899,212	6,702,878	6,857,722	7,149,719	7,824,195	8,285,772



Year End Value Forecast:	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	6,899,212	-	-	-
12 Months Ended March 31, 2016	6,702,878	-196,334	-2.85%	3.81%
12 Months Ended March 31, 2017	6,857,722	154,844	2.31%	5.48%
12 Months Ended March 31, 2018	7,149,719	291,998	4.26%	6.53%
12 Months Ended March 31, 2019	7,824,195	674,476	9.43%	7.67%
12 Months Ended March 31, 2020	8,285,772	461,576	5.90%	5.90%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>6.53%</u>	Test Period Amount	8,285,772
		Compound Rate	111.71%
Compound Rate (21 Months)	<u>11.71%</u>	Attrition Period Amount	<u>9,255,736</u>

Trend Forecast:		Slope	Constant
	Trend Parameters	8,388	6,727,219
	Attrition Period Trend Value	117	<u>7,708,583</u>
	See trend line on graph		

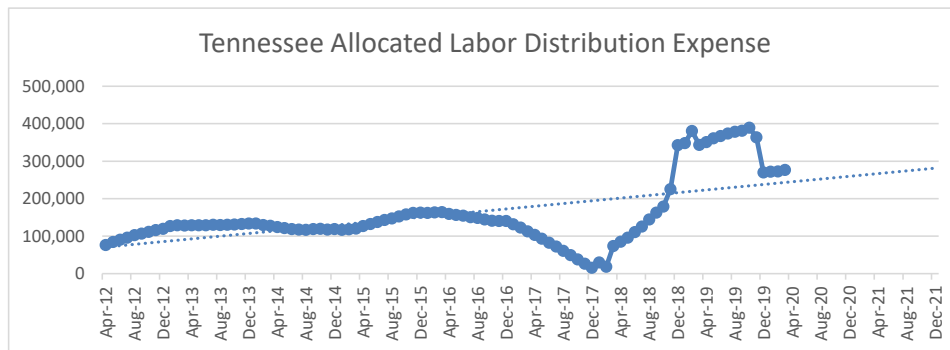
## Inflation &amp; Customer Growth Forecast:

	Test Period Amount	8,285,772
Compound Salary & Wage Growth Rate (WHN WP E-110-1.00)	1.053089	
Attrition Period Amount	<u>8,725,655</u>	

Value to use	<u>8,725,655</u>
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Source: WHN Expense Workpaper E-25-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	124,697	127,027	159,529	103,625	85,159	351,094
May	121,605	132,229	156,957	93,560	95,926	361,122
June	119,271	137,951	154,567	82,526	110,875	367,074
July	117,652	143,290	150,492	72,295	125,900	373,721
August	117,178	147,460	148,558	60,745	144,489	378,882
September	118,765	152,874	144,587	49,659	163,093	381,566
October	119,377	158,372	141,416	37,870	178,908	389,328
November	117,928	162,200	140,783	26,720	225,450	364,157
December	119,155	162,619	140,762	16,074	342,970	270,158
January	116,948	162,474	131,974	30,187	348,217	272,361
February	118,542	163,279	122,796	18,203	380,895	272,907
March	120,580	164,473	112,847	73,603	343,703	276,989



Year End Value Forecast:	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	120,580	-	-	-
12 Months Ended March 31, 2016	164,473	43,893	36.40%	63.56%
12 Months Ended March 31, 2017	112,847	-51,626	-31.39%	70.35%
12 Months Ended March 31, 2018	73,603	-39,244	-34.78%	104.26%
12 Months Ended March 31, 2019	343,703	270,099	366.97%	173.78%
12 Months Ended March 31, 2020	276,989	-66,714	-19.41%	-19.41%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>104.26%</u>	Test Period Amount	276,989
		Compound Rate	349.00%
Compound Rate (21 Months)	<u>249.00%</u>	Attrition Period Amount	<u>966,677</u>

Trend Forecast:	Slope	Constant
Trend Parameters	1,814	69,076
Attrition Period Trend Value	117	<u>281,364</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

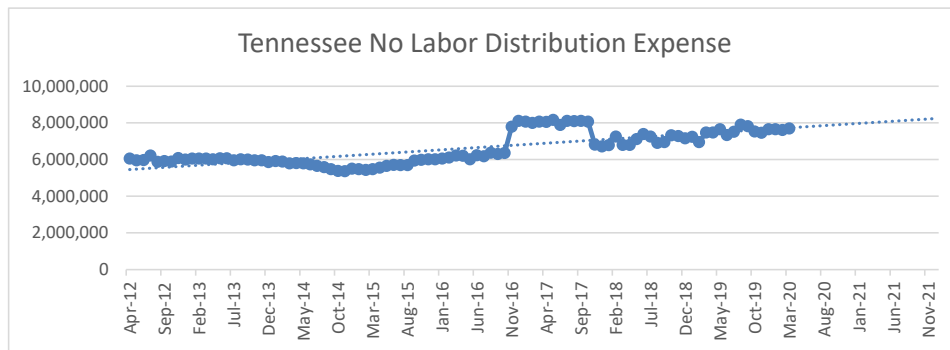
Test Period Amount	276,989
Compound Salary & Wage Growth Rate (WHN WP E-110-1.00)	1.053089
Attrition Period Amount	<u>291,694</u>

Value to use	<u>291,694</u>
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Source: WHN Expense Workpaper E-25-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	5,812,514	5,564,571	6,210,067	8,056,709	6,809,734	7,473,403
May	5,792,572	5,660,518	6,020,235	8,169,096	7,120,693	7,652,936
June	5,749,331	5,718,635	6,235,296	7,895,931	7,401,595	7,336,326
July	5,654,317	5,699,667	6,184,275	8,109,689	7,258,624	7,518,038
August	5,585,215	5,700,626	6,383,252	8,098,001	6,910,960	7,905,912
September	5,485,004	5,953,593	6,313,503	8,118,221	6,954,006	7,820,433
October	5,390,058	5,992,145	6,357,396	8,074,290	7,332,091	7,537,095
November	5,373,166	6,021,741	7,791,700	6,824,612	7,292,045	7,468,365
December	5,508,585	6,023,550	8,113,949	6,722,877	7,158,204	7,657,503
January	5,478,483	6,057,524	8,077,875	6,785,280	7,243,283	7,665,860
February	5,442,090	6,121,859	8,000,916	7,266,146	6,956,755	7,620,905
March	5,474,396	6,229,463	8,073,276	6,799,373	7,484,856	7,694,270



Year End Value Forecast:	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	5,474,396	-	-	-
12 Months Ended March 31, 2016	6,229,463	755,067	13.79%	8.10%
12 Months Ended March 31, 2017	8,073,276	1,843,813	29.60%	6.67%
12 Months Ended March 31, 2018	6,799,373	-1,273,903	-15.78%	-0.97%
12 Months Ended March 31, 2019	7,484,856	685,483	10.08%	6.44%
12 Months Ended March 31, 2020	7,694,270	209,414	2.80%	2.80%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>-0.97%</u>	Test Period Amount	7,694,270
		Compound Rate	98.31%
Compound Rate (21 Months)	<u>-1.69%</u>	Attrition Period Amount	<u>7,564,588</u>

Trend Forecast:	Slope	Constant
Trend Parameters	23,963	5,433,472
Attrition Period Trend Value	117	<u>8,237,192</u>
See trend line on graph		

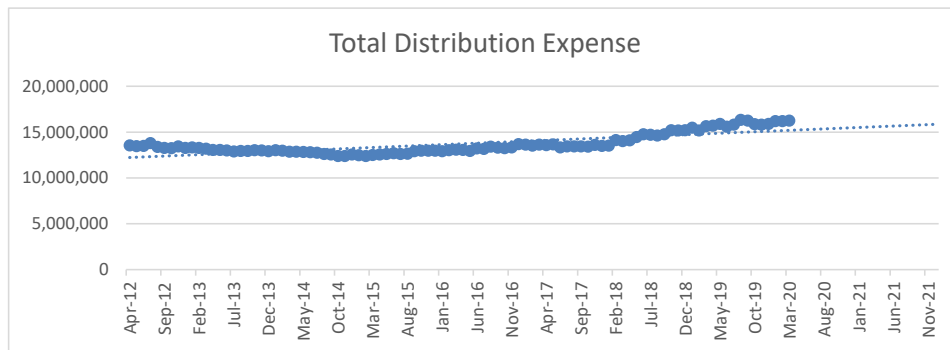
## Inflation &amp; Customer Growth Forecast:

Test Period Amount	7,694,270
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460
Attrition Period Amount	<u>8,051,746</u>

Value to use	<u>8,051,746</u>
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Source: WHN Expense Workpaper E-25-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	12,871,692	12,569,042	13,070,237	13,579,836	14,097,612	15,713,607
May	12,840,219	12,619,704	12,933,832	13,659,448	14,466,780	15,892,748
June	12,803,022	12,703,040	13,222,472	13,328,214	14,773,187	15,591,900
July	12,758,120	12,622,841	13,178,370	13,449,273	14,719,712	15,815,751
August	12,610,261	12,644,869	13,410,686	13,446,049	14,630,948	16,347,356
September	12,550,454	12,907,507	13,319,396	13,433,048	14,772,112	16,250,890
October	12,389,667	12,973,992	13,249,071	13,405,024	15,199,440	15,865,602
November	12,409,099	12,978,714	13,338,407	13,608,988	15,177,896	15,825,310
December	12,549,430	12,981,200	13,683,757	13,498,143	15,217,918	15,898,115
January	12,475,558	12,909,008	13,642,450	13,514,322	15,492,086	16,194,614
February	12,401,142	13,042,367	13,516,318	14,128,505	15,191,039	16,206,038
March	12,494,188	13,096,813	13,633,189	14,022,696	15,652,754	16,257,031



Year End Value Forecast:	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	12,494,188	-	-	-
12 Months Ended March 31, 2016	13,096,813	602,625	4.82%	5.45%
12 Months Ended March 31, 2017	13,633,189	536,376	4.10%	5.61%
12 Months Ended March 31, 2018	14,022,696	389,507	2.86%	6.11%
12 Months Ended March 31, 2019	15,652,754	1,630,058	11.62%	7.74%
12 Months Ended March 31, 2020	16,257,031	604,276	3.86%	3.86%

Three-Year Average was chosen as most representative of the Attrition Period

<b>Annual Rate</b>	<b>6.11%</b>	Test Period Amount	16,257,031
		Compound Rate	110.94%
<b>Compound Rate (21 Months)</b>	<b>10.94%</b>	<b>Attrition Period Amount</b>	<b>18,036,132</b>

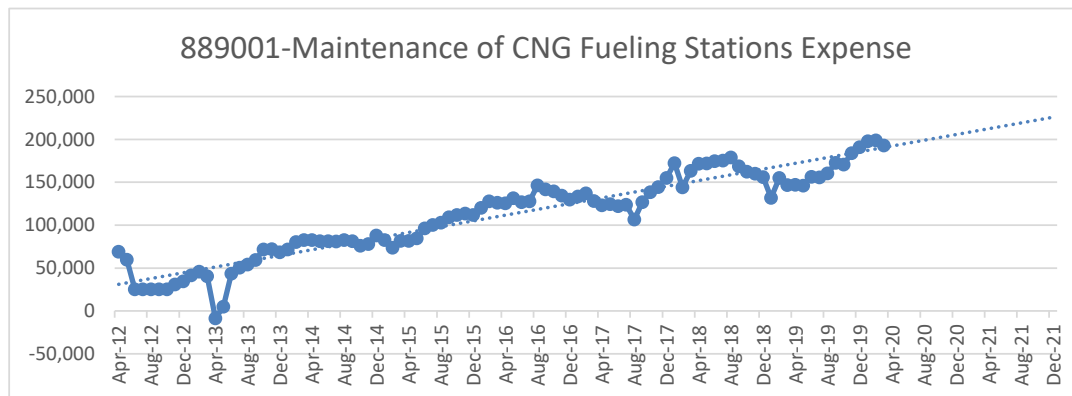
<b>Trend Forecast:</b>	<b>Slope</b>	<b>Constant</b>
Trend Parameters	31,180	12,198,213
<b>Attrition Period Trend Value</b>	117	<b>15,846,327</b>
See trend line on graph		

<b>Inflation &amp; Customer Growth Forecast:</b>	Test Period Amount	16,257,031
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460	
<b>Attrition Period Amount</b>	<b>17,012,332</b>	

<b>Value to use</b>	<b>17,012,332</b>
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Source: WHN Expense Workpaper E-25-9.03 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	82,859	81,845	125,627	123,294	171,637	147,291
May	81,261	84,691	131,572	124,559	172,130	146,157
June	81,576	96,420	126,784	122,408	174,804	156,404
July	81,047	100,427	127,995	124,050	175,352	155,857
August	82,785	102,869	146,459	106,566	179,164	160,491
September	81,522	109,193	141,775	126,862	168,799	172,785
October	76,258	111,890	139,453	138,674	162,462	170,608
November	78,055	113,689	134,626	144,573	160,280	184,194
December	88,218	111,823	130,026	155,137	156,293	191,027
January	82,605	120,146	133,640	172,550	131,990	197,898
February	73,647	127,983	137,310	144,276	155,043	198,979
March	81,749	126,154	128,257	163,388	146,962	192,934



Year End Value Forecast:	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	81,749	-	-	-
12 Months Ended March 31, 2016	126,154	44,405	54.32%	20.92%
12 Months Ended March 31, 2017	128,257	2,104	1.67%	12.57%
12 Months Ended March 31, 2018	163,388	35,131	27.39%	16.21%
12 Months Ended March 31, 2019	146,962	-16,426	-10.05%	10.61%
12 Months Ended March 31, 2020	192,934	45,971	31.28%	31.28%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>16.21%</u>	Test Period Amount	192,934
Compound Rate (21 Months)	<u>30.06%</u>	Compound Rate	130.06%
		Attrition Period Amount	<u>250,934</u>

Trend Forecast:	Slope	Constant
Trend Parameters	1,680	29,368
Attrition Period Trend Value	117	<u>225,872</u>
See trend line on graph		

Inflation & Customer Growth Forecast:





WHN Consulting

PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Expense Workpapers - Distribution - 889001 CNG Detail - Monthly

E-25-9.02 (Non-Print)

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**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Customer Accounts & Service Expense**

Accounts	Description	
901000	Supervision-Cust Accts	Customer Accounts
902000	Meter Reading Expense	
903000	Cust Records & Collection Exp	
903100	Cust Contracts & Orders-Local	
903200	Cust Billing & Acct	
903300	Cust Collecting-Local	
904000	Uncollectible Accounts	
904001	BAD DEBT EXPENSE	
905000	Misc Customer Accts Expenses	Customer Service
908000	Cust Asst Exp-Conservation Pro	
908150	Commer/Indust Assistance Exp	
909650	Misc Advertising Expenses	
910000	Misc Cust Serv/Inform Exp	
910100	Exp-Rs Reg Prod/Svces-CstAccts	

Uncollectible and Bad Debt Expense are evaluated separately.

## WHN Expense Workpapers - Attrition Period Customer Accounts &amp; Service Expense Forecast

	Test Period	Attrition Period	
Customer Accounts & Service Expense - Tennessee Direct Labor	5,313	0	A/
Customer Accounts & Service Expense - Tennessee Allocated Labor	1,591,584	1,676,080	B/
Customer Accounts & Service Expense - Non-Labor	1,630,861	1,706,630	C/
Account 903300 - Customer Collecting Local Expense	2,210,433	2,313,130	D/
<b>Total Customer Accounts &amp; Service Expense</b>	<b>5,438,191</b>	<b>5,695,840</b>	
Alternative Total Calculation (Net of Account 903300)	3,227,758	3,377,720	E/
Account 903300 - Customer Collecting Local Expense	2,210,433	2,313,130	D/
<b>Total Customer Accounts &amp; Service Expense</b>	<b>5,438,191</b>	<b>5,690,850</b>	
<hr/>			
<b>Forecast to use</b>		5,690,850	
Less Non-Applicable Test Period Expense		-14,421	F/
<b>Net Attrition Period Forecast</b>		<b>5,676,429</b>	
<hr/>			
<b>Uncollectible Ratio for Revenue Conversion Factor</b>		<b>0.001949</b>	G/

A/ WHN Expense Workpaper E-30-2.00.

B/ WHN Expense Workpaper E-30-3.00.

C/ WHN Expense Workpaper E-30-4.00.

D/ WHN Expense Workpaper E-30-5.00.

E/ WHN Expense Workpaper E-30-6.00.

F/ WHN Expense Workpaper E-30-1.01.

G/ WHN Expense Workpaper E-30-5.01.

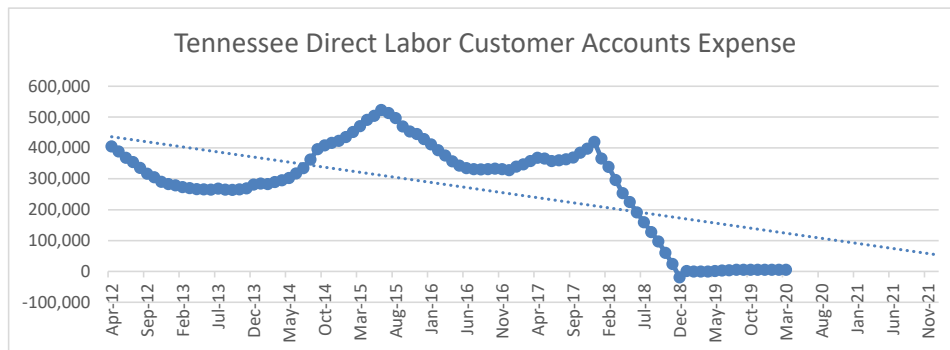
SOURCE: Bowman Workpaper - 5M Customer Adj, Summary

	2019 Allocation	2020 Allocation	2019 Piedmont	2020 Piedmont	3-State Allocation	TN Direct	Total TN
Per Books Test Period Customer Accounts Expense	16.85%	17.00%	13,853,145	5,202,152	3,218,621	9,137	3,227,758
Less Salary & Wages and Incentive Expenses in Test Period	16.85%	17.00%	-7,746,483	-2,722,759	-1,768,151	-5,871	-1,774,022
Less Non-Applicable Test Period Expenses	16.85%	17.00%	-85,586	0	-14,421	0	-14,421
<b>Adjusted Per Books Test Period Expense</b>			<b>6,021,076</b>	<b>2,479,393</b>	<b>1,436,048</b>	<b>3,266</b>	<b>1,439,314</b>
Tennessee Allocation Factor		17.16%	1,033,217	425,464	1,458,680	3,266	1,461,946
Growth & Inflation Factor					1.08049	1.08049	1.08049
Attrition Period Expense					<b>1,576,090</b>	<b>3,529</b>	<b>1,579,619</b>
<b>Attrition Period Adjustment</b>					<b>140,042</b>	<b>263</b>	<b>140,304</b>

Appears to relate to Advertising Expenses for North and South Carolina Rate Cases that was inadvertently charged to Tennessee. See the "Other Adj" tab of Company Spreadsheet "5M Customer\_Adj" for further details.

Source: WHN Expense Workpaper E-30-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	295,706	491,588	356,597	368,484	254,038	0
May	303,006	504,643	342,835	365,546	224,801	1,412
June	317,223	522,954	334,626	357,487	191,554	2,675
July	334,574	513,618	331,860	360,257	159,180	3,776
August	362,448	496,615	330,906	363,416	127,854	5,313
September	395,990	469,846	331,792	369,175	96,879	5,313
October	408,682	453,631	332,957	385,023	59,980	5,313
November	416,638	445,629	331,631	397,892	24,625	5,313
December	423,276	429,040	328,122	419,686	-19,031	5,313
January	435,371	411,392	339,760	365,898	1,552	5,313
February	451,917	392,939	346,712	339,106	0	5,313
March	470,655	375,865	357,918	296,592	0	5,313



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	470,655	-	-	-
12 Months Ended March 31, 2016	375,865	-94,790	-20.14%	#DIV/0!
12 Months Ended March 31, 2017	357,918	-17,947	-4.77%	#DIV/0!
12 Months Ended March 31, 2018	296,592	-61,325	-17.13%	#DIV/0!
12 Months Ended March 31, 2019	0	-296,592	-100.00%	#DIV/0!
12 Months Ended March 31, 2020	5,313	5,313	#DIV/0!	#DIV/0!

Zero (\$0) was chosen as most representative of the Attrition Period

Annual Rate	0.00%	Test Period Amount	5,313
		Compound Rate	0.00%
Compound Rate (21 Months)	0.00%	Attrition Period Amount	0

## Trend Forecast:

	Slope	Constant
Trend Parameters	-3,289	439,640

Attrition Period Trend Value	117	54,773
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

Test Period Amount	5,313
Compound Salary & Wage Growth Rate (WHN WP E-110-1.00)	1.053089
Attrition Period Amount	5,595

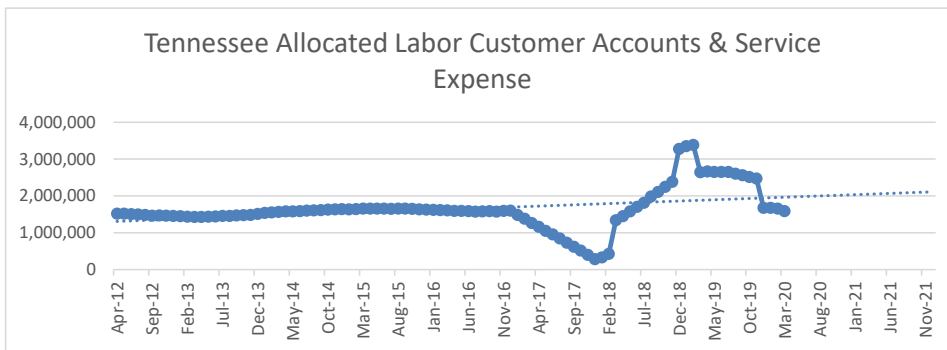
Value to use

0



Source: WHN Expense Workpaper E-30-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	1,580,129	1,655,914	1,598,495	1,163,339	1,449,381	2,665,188
May	1,582,645	1,655,605	1,596,368	1,056,909	1,584,522	2,651,161
June	1,589,006	1,660,109	1,586,482	955,976	1,702,225	2,654,903
July	1,601,685	1,653,267	1,574,551	850,193	1,818,575	2,654,039
August	1,608,992	1,657,007	1,582,727	734,541	1,983,977	2,607,188
September	1,619,759	1,655,535	1,587,166	623,168	2,109,225	2,566,477
October	1,629,154	1,651,697	1,577,864	520,361	2,248,986	2,512,296
November	1,638,208	1,639,621	1,596,709	402,075	2,383,844	2,473,622
December	1,646,508	1,628,788	1,601,026	286,686	3,274,017	1,677,515
January	1,638,884	1,619,906	1,489,397	335,323	3,352,469	1,681,192
February	1,643,704	1,616,731	1,382,322	429,104	3,385,314	1,660,150
March	1,655,906	1,610,330	1,268,558	1,343,265	2,647,293	1,591,584



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	1,655,906	-	-	-
12 Months Ended March 31, 2016	1,610,330	-45,576	-2.75%	7.82%
12 Months Ended March 31, 2017	1,268,558	-341,772	-21.22%	10.47%
12 Months Ended March 31, 2018	1,343,265	74,707	5.89%	21.03%
12 Months Ended March 31, 2019	2,647,293	1,304,027	97.08%	28.60%
12 Months Ended March 31, 2020	1,591,584	-1,055,708	-39.88%	-39.88%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>21.03%</u>	Test Period Amount	1,591,584
Compound Rate (21 Months)	<u>39.66%</u>	Compound Rate	139.66%
		Attrition Period Amount	<u>2,222,752</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	6,902	1,302,512
Attrition Period Trend Value	117	<u>2,110,066</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

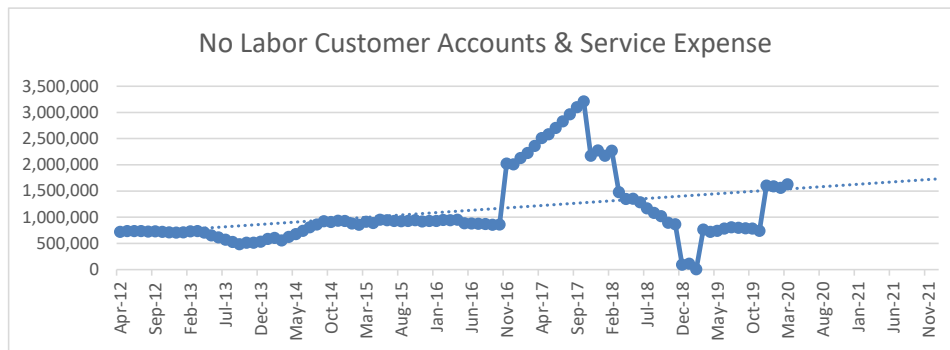
Test Period Amount	1,591,584
Compound Salary & Wage Growth Rate (WHN WP E-110-1.00)	1.053089
Attrition Period Amount	<u>1,676,080</u>

Value to use

1,676,080

Source: WHN Expense Workpaper E-30-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	626,493	892,370	951,348	2,513,428	1,347,050	722,189
May	680,302	953,212	884,487	2,586,115	1,355,103	740,846
June	739,460	941,443	882,285	2,703,322	1,284,849	784,235
July	809,283	928,136	876,367	2,831,568	1,172,720	808,592
August	861,132	925,353	873,115	2,967,014	1,082,707	797,678
September	926,119	928,328	855,658	3,101,432	1,021,927	789,301
October	909,813	943,902	859,560	3,211,288	895,098	784,802
November	934,284	920,830	2,023,821	2,174,820	866,246	739,230
December	930,785	929,877	2,011,061	2,277,756	93,466	1,603,638
January	883,253	929,091	2,131,178	2,176,045	111,684	1,588,939
February	856,892	946,259	2,227,252	2,269,195	6,335	1,562,709
March	913,540	942,173	2,362,996	1,480,388	765,695	1,630,861



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	913,540	-	-	-
12 Months Ended March 31, 2016	942,173	28,633	3.13%	36.26%
12 Months Ended March 31, 2017	2,362,996	1,420,823	150.80%	44.54%
12 Months Ended March 31, 2018	1,480,388	-882,608	-37.35%	9.12%
12 Months Ended March 31, 2019	765,695	-714,694	-48.28%	32.36%
12 Months Ended March 31, 2020	1,630,861	865,166	112.99%	112.99%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>9.12%</u>	Test Period Amount	1,630,861
		Compound Rate	116.50%
Compound Rate (21 Months)	<u>16.50%</u>	Attrition Period Amount	<u>1,900,006</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	9,014	673,404
Attrition Period Trend Value	117	<u>1,728,022</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

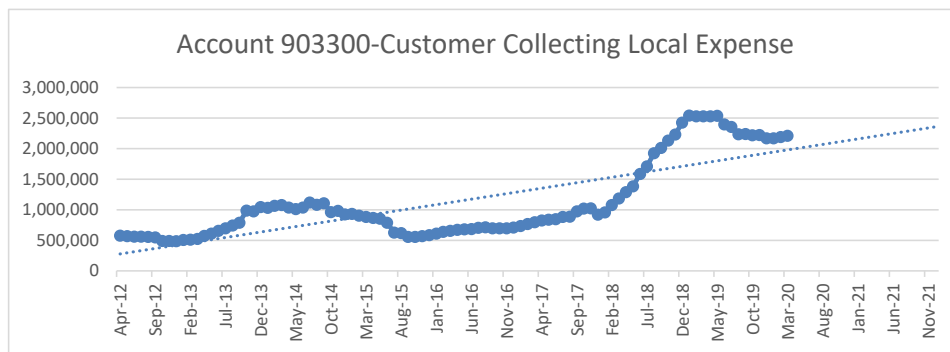
Test Period Amount	1,630,861
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460
Attrition Period Amount	<u>1,706,630</u>

Value to use

1,706,630

Source: WHN Expense Workpaper E-30-9.03 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	1,037,409	866,120	671,264	826,355	1,288,551	2,528,006
May	1,012,157	855,363	679,658	839,608	1,383,583	2,538,807
June	1,038,110	790,026	686,936	845,537	1,587,642	2,397,535
July	1,119,558	626,524	704,121	882,366	1,708,780	2,357,715
August	1,080,798	620,706	714,826	887,803	1,924,616	2,236,686
September	1,106,450	556,146	696,493	975,137	2,012,767	2,238,652
October	962,037	558,460	696,665	1,019,824	2,132,636	2,219,081
November	984,346	571,049	697,654	1,025,474	2,230,626	2,224,672
December	924,914	585,790	709,537	922,083	2,426,559	2,169,135
January	931,333	612,401	735,531	956,045	2,542,311	2,171,510
February	903,609	638,198	767,459	1,079,675	2,528,826	2,189,293
March	883,832	655,316	795,311	1,185,714	2,529,932	2,210,433



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	883,832	-	-	-
12 Months Ended March 31, 2016	655,316	-228,516	-25.86%	29.07%
12 Months Ended March 31, 2017	795,311	139,995	21.36%	42.80%
12 Months Ended March 31, 2018	1,185,714	390,403	49.09%	49.94%
12 Months Ended March 31, 2019	2,529,932	1,344,218	113.37%	50.37%
12 Months Ended March 31, 2020	2,210,433	-319,499	-12.63%	-12.63%

Zero (0%) was chosen as most representative of the Attrition Period

Annual Rate	<u>0.00%</u>	Test Period Amount	2,210,433
Compound Rate (21 Months)	<u>0.00%</u>	Compound Rate	100.00%
		Attrition Period Amount	<u>2,210,433</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	17,917	259,417
Attrition Period Trend Value	117	<u>2,355,724</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

Test Period Amount	2,210,433
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460
Attrition Period Amount	<u>2,313,130</u>

## Value to use

2,313,130

Source: Company response to CA3-23.

Monthly Amt	2015	2016	2017	2018	2019	2020
April	76,695	63,495	49,931	-24,358	68,906	72,674
May	234,218	127,278	70,309	101,134	131,462	107,925
June	355,987	272,199	149,295	135,437	112,689	124,235
July	280,092	262,809	100,038	86,166	168,407	124,077
August	211,983	109,550	62,463	93,019	164,636	69,130
September	71,116	100,950	38,269	64,559	88,615	47,135
October	-364,629	31,367	25,731	23,349	24,523	-18,811
November	3,265	-41,779	-50,233	-16,077	-44,079	-24,445
December	39,103	-28,371	-31,630	-4,644	4,254	24,767
January	21,847	-16,264	3,309	-9,933	9,177	14,801
February	16,902	11,363	87,025	8,546	12,761	31,181
March	34,699	24,716	16,099	46,134	38,448	23,808

12 MTD Amt	2015	2016	2017	2018	2019	2020
April	-	968,078	903,747	446,317	596,596	783,565
May	-	861,138	846,778	477,142	626,924	760,028
June	-	777,349	723,875	463,284	604,175	771,575
July	-	760,066	561,104	449,412	686,416	727,245
August	-	657,633	514,017	479,967	758,033	631,740
September	-	687,468	451,336	506,258	782,088	590,260
October	-	1,083,463	445,700	503,876	783,262	546,927
November	-	1,038,419	437,246	538,032	755,260	566,561
December	-	970,945	433,988	565,018	764,158	587,074
January	-	932,833	453,561	551,775	783,268	592,699
February	-	927,294	529,223	473,296	787,483	611,119
March	981,278	917,312	520,605	503,332	779,797	596,479

	Amount	Ratio
Attrition Period Total Revenues	218,775,853 A/	100.00%
Attrition Period Gas Cost	62,349,477 A/	28.50%
<b>Attrition Period Total Gross Margin</b>	<b>156,426,376</b>	<b>71.50%</b>

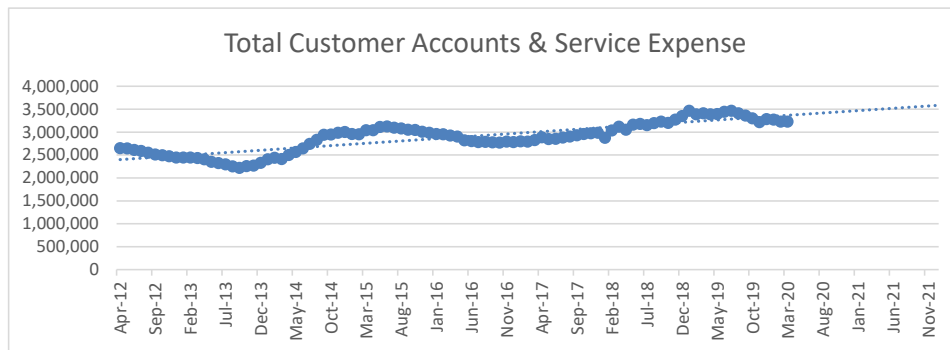
Test Period Uncollectible Write-Offs	596,479
Gross Margin Percentage	71.50%
<b>Uncollectible Margin Write-Offs</b>	<b>426,487</b>

Attrition Period Uncollectible Margin Write-Offs	426,487
Attrition Period Total Revenues	218,775,853
<b>Uncollectible Rate for Revenue Conversion Factor</b>	<b>0.001949</b>

A/ Consumer Advocate Exhibit, Schedule 6 (Excludes AFUDC).

Source: WHN Expense Workpaper E-30-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	2,502,328	3,039,871	2,906,439	2,885,175	3,050,468	3,387,377
May	2,565,953	3,113,459	2,823,691	2,848,495	3,164,426	3,393,419
June	2,645,689	3,124,506	2,803,393	2,856,710	3,178,628	3,441,813
July	2,745,542	3,095,022	2,782,778	2,881,943	3,150,475	3,466,408
August	2,832,571	3,078,976	2,786,747	2,904,896	3,194,538	3,410,179
September	2,941,868	3,053,709	2,774,617	2,933,700	3,228,031	3,361,091
October	2,947,650	3,049,230	2,770,382	2,956,598	3,204,064	3,302,410
November	2,989,130	3,006,080	2,792,086	2,974,787	3,274,714	3,218,165
December	3,000,568	2,987,704	2,780,133	2,984,128	3,348,452	3,286,466
January	2,957,508	2,960,388	2,800,260	2,877,267	3,465,705	3,275,444
February	2,952,512	2,955,929	2,796,210	3,037,405	3,391,649	3,228,172
March	3,040,102	2,928,369	2,829,397	3,120,246	3,412,987	3,227,758



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	3,040,102	-	-	-
12 Months Ended March 31, 2016	2,928,369	-111,733	-3.68%	1.44%
12 Months Ended March 31, 2017	2,829,397	-98,972	-3.38%	2.71%
12 Months Ended March 31, 2018	3,120,246	290,849	10.28%	4.74%
12 Months Ended March 31, 2019	3,412,987	292,741	9.38%	1.98%
12 Months Ended March 31, 2020	3,227,758	-185,229	-5.43%	-5.43%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>4.74%</u>	Test Period Amount	3,227,758
Compound Rate (21 Months)	<u>8.45%</u>	Compound Rate	108.45%
		Attrition Period Amount	<u>3,500,521</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	10,172	2,389,607
Attrition Period Trend Value	117	<u>3,579,693</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

Test Period Amount	3,227,758
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460
Attrition Period Amount	<u>3,377,720</u>

Value to use

3,377,720

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Customer Accounts & Service - (Net of 903300 Uncollectible) Detail - Monthly**

**E-30-9.00 (Non-Print)**

**11/29/20 12:25 PM**

**WHN Consulting**

**E-30-9.01 (Non-Print)**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**11/29/20 12:25 PM**

**WHN Expense Workpapers - Customer Accounts & Service - (Net of 903300 Uncollectible) Detail - Rolling 12 Months to Date**

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Customer Accounts & Service - Account 903300 Uncollectible - Monthly**

**E-30-9.02 (Non-Print)**

**11/29/20 12:25 PM**



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**E-30-9.03 (Non-Print)**

**11/29/20 12:25 PM**

**WHN Expense Workpapers - Customer Accounts & Service - Account 903300 Uncollectible - Rolling 12 Months to Date**









WHN Consulting

PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Expense Workpapers - Customer Accounts & Customer Service - No Labor - Pivot Table

E-30-9.14 (NON-PRINT)

11/29/20 12:25 PM

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Sales Expense**

Accounts	Description
911000	Supervision
912000	Demonstrating & Selling Exp
912100	Demonstration & Sell-Proj Supt
913001	Advertising Expense
916000	Misc Sales Expenses

	<b>Test Period</b>	<b>Attrition Period</b>	
Sales Expense - Tennessee Direct Labor (Net of 916001-CNG)	507,803	534,761	<b>A/</b>
Sales Expense - Tennessee Allocated Labor (Net of 916001-CNG)	142,134	149,680	<b>B/</b>
Sales Expense - Non-Labor (Net of 916001-CNG)	415,896	435,219	<b>C/</b>
Account 916001-CNG Sales Labor & Expenses	0	0	<b>D/</b>
<b>Total Sales Expense</b>	<b>1,065,833</b>	<b>1,119,660</b>	
Alternative Total Calculation (Net of 916001-CNG)	<b>1,065,833</b>	<b>1,115,352</b>	<b>E/</b>
Account 916001-CNG Sales Labor & Expenses	0	0	<b>D/</b>
<b>Total Sales Expense</b>	<b>1,065,833</b>	<b>1,115,352</b>	
<hr/>			
<b>Forecast to use</b>		1,115,352	
Less Non-Applicable Test Period Expense		-61,362	<b>F/</b>
<b>Net Attrition Period Forecast</b>		<b>1,053,990</b>	

- A/ WHN Expense Workpaper E-35-2.00.  
 B/ WHN Expense Workpaper E-35-3.00.  
 C/ WHN Expense Workpaper E-35-4.00.  
 D/ WHN Expense Workpaper E-35-5.00.  
 E/ WHN Expense Workpaper E-35-6.00.  
 F/ WHN Expense Workpaper E-35-1.01.



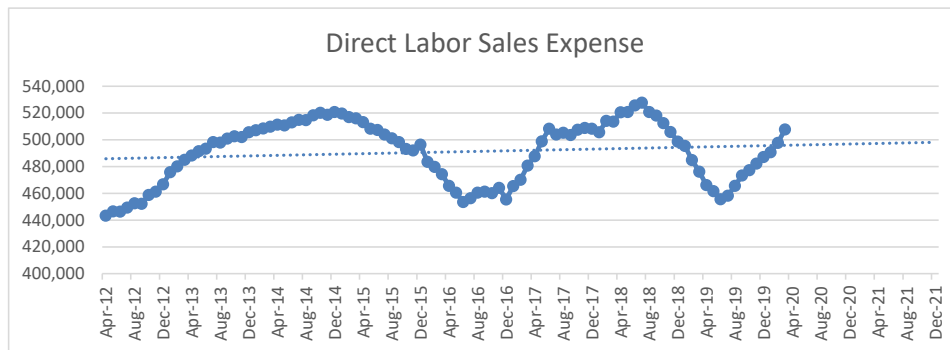
SOURCE: Bowman Workpaper - 5L Sales Adj

	2019 Allocation	2020 Allocation	2019 Piedmont	2020 Piedmont	3-State Allocation	TN Direct	Total TN
Per Books Test Period Sales Expense	16.85%	17.00%	1,511,166	489,412	337,832	728,002	1,065,834
Less Salary & Wages and Incentive Expenses in Test Period	16.85%	17.00%	-740,588	-251,669	-167,573	-571,746	-739,319
Less Non-Applicable Test Period Expenses	16.85%	17.00%	-69,250	-5,000	-56,085	-5,277	-61,362
<b>Adjusted Per Books Test Period Expense</b>			<b>701,328</b>	<b>232,743</b>	<b>114,174</b>	<b>150,979</b>	<b>265,153</b>
Tennessee Allocation Factor		17.16%	120,348	39,939	160,287	150,979	311,266
Growth & Inflation Factor					1.08049	1.08049	1.08049
<b>Attrition Period Expense</b>					<b>173,188</b>	<b>163,131</b>	<b>336,319</b>
<b>Attrition Period Adjustment</b>					<b>59,014</b>	<b>12,152</b>	<b>71,167</b>

Appears to relate to promotional advertising and Chamber of Commerce Fees in North Carolina.  
See "MFR 39" for further details.

Source: WHN Expense Workpaper E-35-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	511,273	513,188	465,710	487,653	520,682	466,264
May	510,796	508,334	460,567	498,946	520,696	461,678
June	512,976	507,343	453,550	508,278	525,614	455,537
July	514,840	503,876	456,283	504,047	527,791	458,184
August	514,685	501,213	460,602	505,288	520,865	465,648
September	518,309	498,231	461,327	503,496	518,113	473,435
October	520,132	493,240	460,145	507,608	512,560	477,377
November	518,676	492,155	464,101	508,892	505,777	482,217
December	520,838	496,403	455,420	508,228	498,596	487,084
January	519,729	483,614	465,476	505,694	495,457	490,699
February	517,019	479,883	470,234	514,112	484,874	497,788
March	516,104	474,402	480,705	513,521	476,156	507,803



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	516,104	-	-	-
12 Months Ended March 31, 2016	474,402	-41,702	-8.08%	-0.11%
12 Months Ended March 31, 2017	480,705	6,303	1.33%	1.88%
12 Months Ended March 31, 2018	513,521	32,817	6.83%	2.07%
12 Months Ended March 31, 2019	476,156	-37,366	-7.28%	-0.32%
12 Months Ended March 31, 2020	507,803	31,647	6.65%	6.65%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>2.07%</u>	Test Period Amount	507,803
Compound Rate (21 Months)	<u>3.64%</u>	Compound Rate	103.64%
		Attrition Period Amount	<u>526,300</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	106	485,722
Attrition Period Trend Value	117	<u>498,103</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

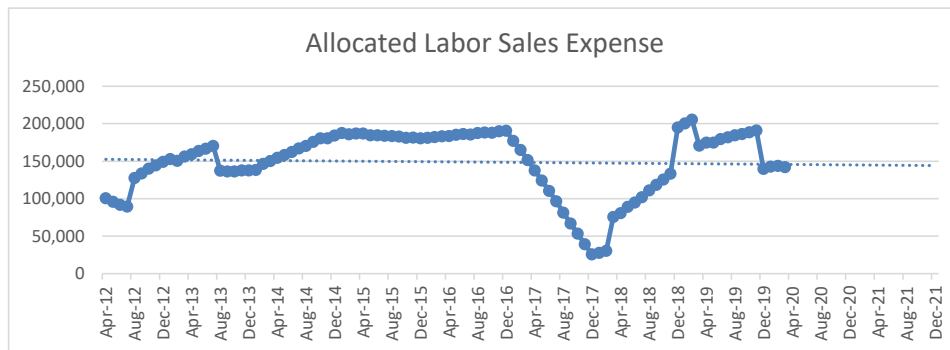
Test Period Amount	507,803
Compound Salary & Wage Growth Rate (WHN WP E-110-1.00)	1.053089
Attrition Period Amount	<u>534,761</u>

Value to use

534,761

Source: WHN Expense Workpaper E-35-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	154,658	186,958	183,582	137,823	80,595	174,801
May	158,304	184,667	185,271	124,144	89,347	174,892
June	162,276	184,482	186,303	110,399	95,039	179,553
July	167,046	183,879	185,761	96,695	102,172	182,101
August	170,615	183,740	187,629	81,539	111,197	184,791
September	175,758	182,906	188,259	66,993	118,442	186,312
October	180,519	181,271	188,154	53,348	125,711	188,826
November	180,717	181,698	190,082	39,250	133,475	191,092
December	184,293	180,679	190,740	25,651	195,200	139,640
January	187,783	181,180	177,383	27,773	200,333	142,985
February	186,106	182,281	164,993	30,420	205,462	143,891
March	187,016	183,293	151,439	75,637	170,791	142,134



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	187,016	-	-	-
12 Months Ended March 31, 2016	183,293	-3,723	-1.99%	7.92%
12 Months Ended March 31, 2017	151,439	-31,854	-17.38%	10.40%
12 Months Ended March 31, 2018	75,637	-75,802	-50.05%	19.66%
12 Months Ended March 31, 2019	170,791	95,154	125.80%	54.51%
12 Months Ended March 31, 2020	142,134	-28,657	-16.78%	-16.78%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>19.66%</u>	Test Period Amount	142,134
Compound Rate (21 Months)	<u>36.90%</u>	Compound Rate	136.90%
		Attrition Period Amount	<u>194,576</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	-72	152,606
Attrition Period Trend Value	117	<u>144,185</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

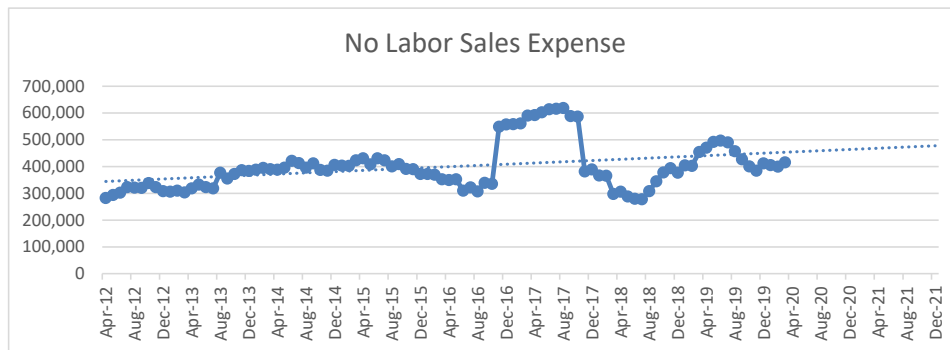
Test Period Amount	142,134
Compound Salary & Wage Growth Rate (WHN WP E-110-1.00)	1.053089
Attrition Period Amount	<u>149,680</u>

Value to use

149,680

Source: WHN Expense Workpaper E-35-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	388,185	431,489	350,055	592,818	306,743	470,921
May	396,059	408,154	352,242	603,083	288,027	492,502
June	421,271	430,760	310,371	614,591	279,964	497,189
July	412,695	423,663	322,767	616,483	277,981	490,556
August	395,921	400,638	307,222	618,778	308,058	457,328
September	412,550	409,181	339,285	588,590	344,866	427,593
October	387,920	391,356	335,862	587,340	378,391	400,694
November	384,742	390,857	548,751	381,671	394,580	384,739
December	406,869	372,721	557,286	389,843	377,058	412,141
January	403,723	372,193	558,941	367,007	404,191	405,733
February	402,987	369,226	560,966	366,320	402,514	400,338
March	423,306	352,332	590,523	298,065	454,670	415,896



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	423,306	-	-	-
12 Months Ended March 31, 2016	352,332	-70,973	-16.77%	9.06%
12 Months Ended March 31, 2017	590,523	238,190	67.60%	15.52%
12 Months Ended March 31, 2018	298,065	-292,458	-49.53%	-1.84%
12 Months Ended March 31, 2019	454,670	156,605	52.54%	22.01%
12 Months Ended March 31, 2020	415,896	-38,773	-8.53%	-8.53%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>-1.84%</u>	Test Period Amount	415,896
		Compound Rate	96.81%
Compound Rate (21 Months)	<u>-3.19%</u>	Attrition Period Amount	<u>402,615</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	1,148	343,239
Attrition Period Trend Value	117	<u>477,571</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

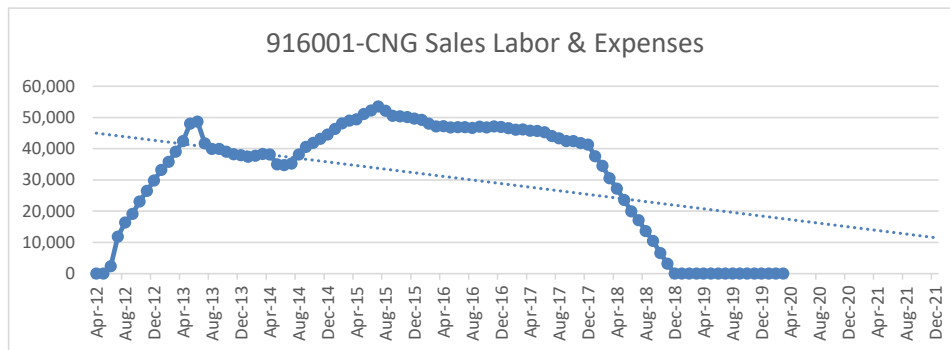
Test Period Amount	415,896
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460
Attrition Period Amount	<u>435,219</u>

Value to use

435,219

Source: WHN Expense Workpaper E-35-9.03 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	38,178	49,411	47,228	45,800	27,266	0
May	35,023	51,119	46,833	45,677	23,588	0
June	34,776	52,277	46,944	45,261	19,920	0
July	35,227	53,510	46,892	44,064	17,094	0
August	38,151	52,164	46,668	43,342	13,597	0
September	40,631	50,567	47,066	42,431	10,487	0
October	41,879	50,369	46,830	42,431	6,581	0
November	43,174	50,177	47,151	41,800	3,217	0
December	44,593	49,622	46,963	41,326	0	0
January	46,351	49,244	46,556	37,570	0	0
February	48,101	48,017	46,130	34,480	0	0
March	48,987	47,111	46,215	30,578	0	0



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	48,987	-	-	-
12 Months Ended March 31, 2016	47,111	-1,876	-3.83%	#DIV/0!
12 Months Ended March 31, 2017	46,215	-896	-1.90%	#DIV/0!
12 Months Ended March 31, 2018	30,578	-15,637	-33.84%	#DIV/0!
12 Months Ended March 31, 2019	0	-30,578	-100.00%	#DIV/0!
12 Months Ended March 31, 2020	0	0	#DIV/0!	#DIV/0!

Zero (\$0) was chosen as most representative of the Attrition Period

Annual Rate	0.00%	Test Period Amount	0
Compound Rate (21 Months)	0.00%	Compound Rate	100.00%
		Attrition Period Amount	0

Trend Forecast:

	Slope	Constant
Trend Parameters	-288	45,277
Attrition Period Trend Value	117	11,529
See trend line on graph		

Inflation & Customer Growth Forecast:

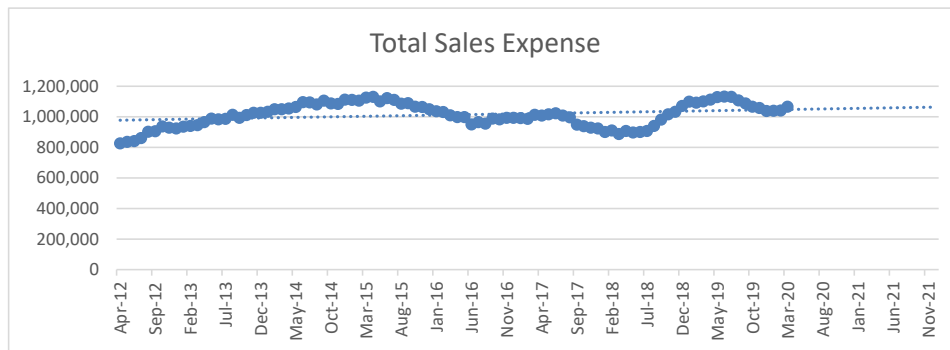
Test Period Amount	0
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460
Attrition Period Amount	0

Value to use

0

Source: WHN Expense Workpaper E-35-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	1,054,116	1,131,635	999,347	1,008,909	908,019	1,111,986
May	1,065,158	1,101,155	998,080	1,016,787	898,070	1,129,073
June	1,096,523	1,122,585	950,224	1,023,881	900,617	1,132,279
July	1,094,581	1,111,419	964,811	1,007,839	907,944	1,130,841
August	1,081,222	1,085,591	955,453	996,218	940,120	1,107,767
September	1,106,616	1,090,318	988,871	949,693	981,421	1,087,340
October	1,088,571	1,065,866	984,161	938,910	1,016,662	1,066,896
November	1,084,136	1,064,710	993,547	929,813	1,033,832	1,058,048
December	1,112,000	1,049,803	994,060	923,722	1,070,853	1,038,865
January	1,111,235	1,036,988	992,414	900,475	1,099,981	1,039,417
February	1,106,111	1,031,391	986,806	910,853	1,092,850	1,042,017
March	1,126,425	1,010,027	1,013,280	887,223	1,101,616	1,065,833



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	1,126,425	-	-	-
12 Months Ended March 31, 2016	1,010,027	-116,398	-10.33%	-0.31%
12 Months Ended March 31, 2017	1,013,280	3,253	0.32%	2.20%
12 Months Ended March 31, 2018	887,223	-126,057	-12.44%	2.83%
12 Months Ended March 31, 2019	1,101,616	214,393	24.16%	10.46%
12 Months Ended March 31, 2020	1,065,833	-35,783	-3.25%	-3.25%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>2.83%</u>	Test Period Amount	1,065,833
Compound Rate (21 Months)	<u>5.00%</u>	Compound Rate	105.00%
		Attrition Period Amount	<u>1,119,087</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	739	976,883
Attrition Period Trend Value	117	<u>1,063,334</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

Test Period Amount	1,065,833
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460
Attrition Period Amount	<u>1,115,352</u>

Value to use

1,115,352

WHN Consulting

PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Expense Workpapers -Sales Expense - Net of 916001-CNG - Monthly

E-35-9.00 (Non-Print)

11/29/20 12:25 PM

WHN Consulting

PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

E-35-9.01 (Non-Print)

11/29/20 12:25 PM

WHN Expense Workpapers - Sales Expense - Net of 916001-CGN - Rolling 12 Months to Date



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**E-35-9.02 (Non-Print)**

**11/29/20 12:25 PM**

**WHN Expense Workpapers -Sales Expense - 916001 CNG Sales Labor & Expenses - Monthly**

**WHN Consulting**

**E-35-9.03 (Non-Print)**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**11/29/20 12:25 PM**

**WHN Expense Workpapers - Sales Expense - 916001 CNG Sales Labor & Expenses - Rolling 12 Months to Dat**

WHN Consulting

PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Expense Workpapers - Sales Expense - Total Expense - Pivot Table

E-35-9.10 (Non-Print)

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11/29/20 12:25 PM

WHN Consulting

PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Expense Workpapers - Sales Expense - Tennessee Direct Labor - Pivot Table

E-35-9.11 (Non-Print)

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11/29/20 12:25 PM

WHN Consulting

PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Expense Workpapers - Sales Expense - 3-State Total Common Labor - Pivot Table

E-35-9.12 (Non-Print)

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11/29/20 12:25 PM

WHN Consulting

PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Expense Workpapers - Sales Expense - 3-State Allocated Common Labor - Pivot Table

E-35-9.13 (Non-Print)

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11/29/20 12:25 PM

WHN Consulting

PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Expense Workpapers - Sales Expense - No Labor - Pivot Table

E-35-9.14 (Non-Print)

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11/29/20 12:25 PM

**WHN Consulting****PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086****WHN Expense Workpapers - Administrative & General Expenses**

<b>Accounts</b>	<b>Description</b>
920000	A & G Salaries
920100	Salaries & Wages - Proj Supt -
921100	Employee Expenses
921101	Employee Exp - NC
921102	Employee Exp - SC
921110	Relocation Expenses
921200	Office Expenses
921300	Telephone And Telegraph Exp
921400	Computer Services Expenses
921540	Computer Rent (Go Only)
921600	Other
921900	Office Supply And Exp-Partner
921980	Office Supplies & Expenses
922000	Admin Exp Transfer
923000	Outside Services Employed
923980	Outside Services Employee &
924000	Property Insurance
924050	Inter-Co Prop Ins Exp
924980	Property Insurance For Corp.
925000	Injuries & Damages
925051	INTER-CO GEN LIAB EXP
925100	Accrued Inj And Damages
925200	Injuries And Damages-Other
925980	Injuries And Damages For Corp.
926000	Employee Benefits
926600	Employee Benefits-Transferred
926999	Non Serv Pension (ASU 2017-07)
928000	Regulatory Expenses (Go)
928014	Regulatory Commission Expenses
928032	Prof Fees Outside Services
928052	Employee Benefits
928053	Travel Expenses
930150	Miscellaneous Advertising Exp
930200	Misc General Expenses
930210	Industry Association Dues
930220	Exp Of Servicing Securities
930230	Dues To Various Organizations
930240	Director'S Expenses
930250	Buy\Sell Transf Employee Homes
930600	Leased Circuit Charges-Other
930700	Research & Development
930940	General Expenses
931001	Rents-A&G
931003	Lease Amortization Expense
931008	A&G Rents-IC
932000	Maintenance Of Gen Plant-Gas
935100	Maint General Plant-Elec
935200	Cust Infor & Computer Control



	<b>Test Period</b>	<b>Attrition Period</b>	
Administrative & General Expense - Tennessee Direct Labor	740,240	779,538	<b>A/</b>
Administrative & General Expense - Tennessee Allocated Labor	3,632,606	3,825,458	<b>B/</b>
Administrative & General Expense - Non-Labor	20,623,806	21,581,988	<b>C/</b>
<b>Total Administrative &amp; General Expense</b>	<b>24,996,652</b>	<b>26,186,984</b>	
Incremental Deferred Debit Amortization		-3,057,594	<b>F/</b>
<b>Net Administrative &amp; General Expense</b>		<b>23,129,390</b>	
Alternative Total Calculation	24,996,862	26,158,217	<b>D/</b>
Incremental Deferred Debit Amortization		-3,057,594	<b>F/</b>
<b>Net Administrative &amp; General Expense</b>	<b>24,996,862</b>	<b>23,100,623</b>	

<b>Forecast to use</b>	23,100,623
Less Non-Applicable Attrition Period Expense	-61,821 <b>E/</b>
Less Elimination of Severance Costs	-96,110 <b>G/</b>
Less Elimination of Out-of-Period Costs (CA2-16)	-129,402 <b>G/</b>
Less Elimination of Employee Transition Costs	-382,079 <b>G/</b>
Less Elimination of Out-of-Period Costs (CA2-22)	-46,461 <b>G/</b>
Less Elimination of Costs Improperly Allocated to Tennessee	-54,913 <b>G/</b>
Less Elimination of Calculated Costs Improperly Allocated to Tennessee	-202,123 <b>G/</b>
Less Adjustment to Properly Reflect Deferred Pension Contribution Amort.	-4,024,982 <b>G/</b>
Less Adjustment to Properly Reflect DEBS Asset Allocation Costs	-134,558 <b>G/</b>
Less Elimination of DEBS Depreciation Expense Allocation	-1,803,342 <b>G/</b>
Less Elimination of Incentive Compensation Costs	-1,677,948 <b>H/</b>
Less Elimination of Lobbying Costs	-54,665 <b>I/</b>
<b>Net Attrition Period Forecast</b>	<b>14,432,218</b>

- A/ WHN Expense Workpaper E-40-2.00.  
B/ WHN Expense Workpaper E-40-3.00.  
C/ WHN Expense Workpaper E-40-4.00.  
D/ WHN Expense Workpaper E-40-5.00.  
E/ WHN Expense Workpaper E-40-1.01.  
F/ WHN Rate Base Workpaper RB-65-1.00.  
G/ DND Expense Workpaper Summary  
H/ AB Expense Workpaper AB-1.  
I/ AB Expense Workpaper AB-3.

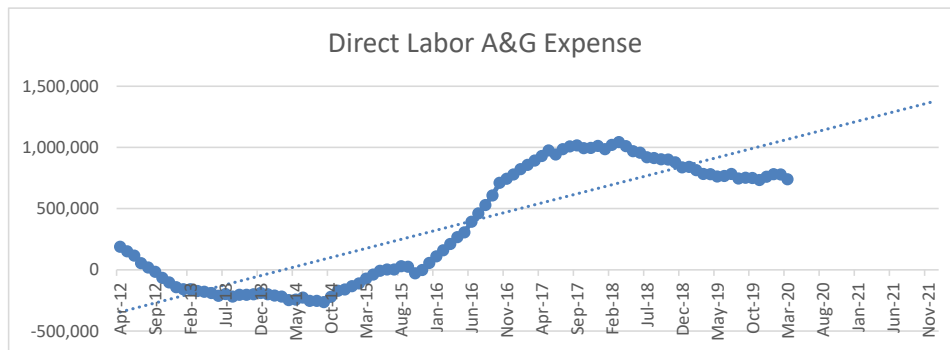
**SOURCE:** Bowman Workpaper - 5D Payroll Adj, Summary

	<u>Per Books</u>	<u>Adjustment</u>	<u>As Adjusted</u>
Test Period TN Regular Time Payroll Expense	16,407,264	-58,559	16,348,705
Test Period TN Over-Time Payroll Expense	<u>1,276,089</u>	<u>0</u>	<u>1,276,089</u>
<b>Total Test Period TN Payroll Expense</b>	<b><u>17,683,353</u></b>	<b><u>-58,559</u></b>	<b><u>17,624,794</u></b>
Attrition Period TN Regular Time Payroll Expense	17,346,063	-61,821	17,284,242
Attrition Period TN Over-Time Payroll Expense	<u>1,317,023</u>	<u>0</u>	<u>1,317,023</u>
<b>Total Attrition Period TN Payroll Expense</b>	<b><u>18,663,086</u></b>	<b><u>-61,821</u></b>	<b><u>18,601,265</u></b>
<b>Attrition Period Adjustment</b>	<b><u>979,733</u></b>	<b><u>-3,262</u></b>	<b><u>976,471</u></b>

Relates to Lobbying Expenses.

Source: WHN Expense Workpaper E-40-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	-246,382	-37,623	266,610	930,037	1,010,584	782,165
May	-243,234	-6,845	307,646	975,042	969,254	764,158
June	-225,609	2,772	393,990	943,813	957,409	767,997
July	-252,453	2,451	461,171	986,951	919,711	782,808
August	-251,925	29,210	529,704	1,009,363	913,279	747,322
September	-263,582	24,918	608,499	1,017,740	904,524	752,001
October	-220,700	-27,817	712,330	993,977	900,624	750,047
November	-170,750	-52	745,260	995,940	879,694	733,792
December	-159,695	57,280	778,673	1,013,681	837,796	762,059
January	-133,362	110,126	823,035	986,989	842,097	780,903
February	-110,845	159,206	858,386	1,020,889	814,571	780,615
March	-71,369	211,233	893,342	1,044,701	783,750	740,240



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	-71,369	-	-	-
12 Months Ended March 31, 2016	211,233	282,602	-395.97%	-17.33%
12 Months Ended March 31, 2017	893,342	682,109	322.92%	77.33%
12 Months Ended March 31, 2018	1,044,701	151,359	16.94%	-4.53%
12 Months Ended March 31, 2019	783,750	-260,951	-24.98%	-15.27%
12 Months Ended March 31, 2020	740,240	-43,510	-5.55%	-5.55%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>-4.53%</u>	Test Period Amount	740,240
		Compound Rate	92.21%
Compound Rate (21 Months)	<u>-7.79%</u>	Attrition Period Amount	<u>682,570</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	14,849	-359,181
Attrition Period Trend Value	117	<u>1,378,111</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

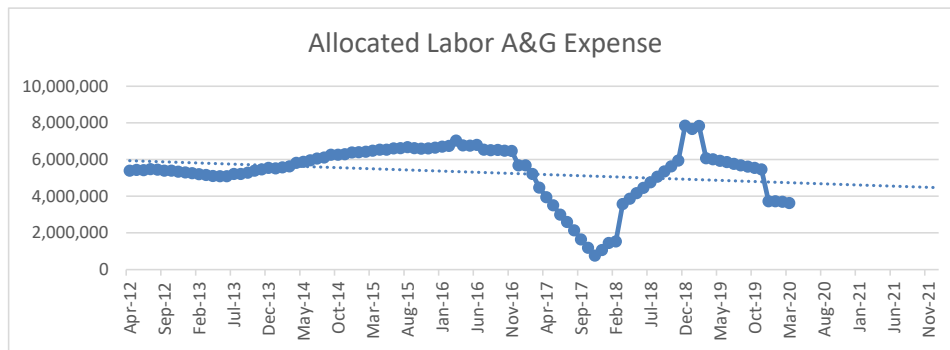
Test Period Amount	740,240
Compound Salary & Wage Growth Rate (WHN WP E-110-1.00)	1.053089
Attrition Period Amount	<u>779,538</u>

Value to use

779,538

Source: WHN Expense Workpaper E-40-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	5,818,936	6,536,939	6,779,902	3,945,688	3,871,401	6,018,062
May	5,878,333	6,548,910	6,761,104	3,515,963	4,172,939	5,941,985
June	5,966,023	6,605,090	6,799,589	3,005,888	4,466,346	5,862,390
July	6,061,350	6,632,254	6,540,600	2,595,360	4,765,919	5,765,257
August	6,119,008	6,680,180	6,519,920	2,144,056	5,069,906	5,687,866
September	6,267,776	6,618,648	6,529,366	1,653,628	5,352,724	5,620,200
October	6,269,469	6,600,919	6,484,727	1,187,702	5,639,597	5,544,509
November	6,297,258	6,613,435	6,470,306	764,955	5,943,456	5,473,897
December	6,397,727	6,657,373	5,684,980	1,063,057	7,851,249	3,736,825
January	6,401,530	6,702,789	5,690,221	1,458,413	7,677,528	3,727,493
February	6,429,767	6,754,704	5,225,883	1,535,662	7,839,628	3,700,905
March	6,490,064	7,042,268	4,480,353	3,573,390	6,079,892	3,632,606



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	6,490,064	-	-	-
12 Months Ended March 31, 2016	7,042,268	552,204	8.51%	-3.64%
12 Months Ended March 31, 2017	4,480,353	-2,561,915	-36.38%	-6.68%
12 Months Ended March 31, 2018	3,573,390	-906,963	-20.24%	3.22%
12 Months Ended March 31, 2019	6,079,892	2,506,502	70.14%	14.95%
12 Months Ended March 31, 2020	3,632,606	-2,447,286	-40.25%	-40.25%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>3.22%</u>	Test Period Amount	3,632,606
Compound Rate (21 Months)	<u>5.70%</u>	Compound Rate	105.70%
		Attrition Period Amount	<u>3,839,515</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	-12,613	5,952,163
Attrition Period Trend Value	117	<u>4,476,399</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

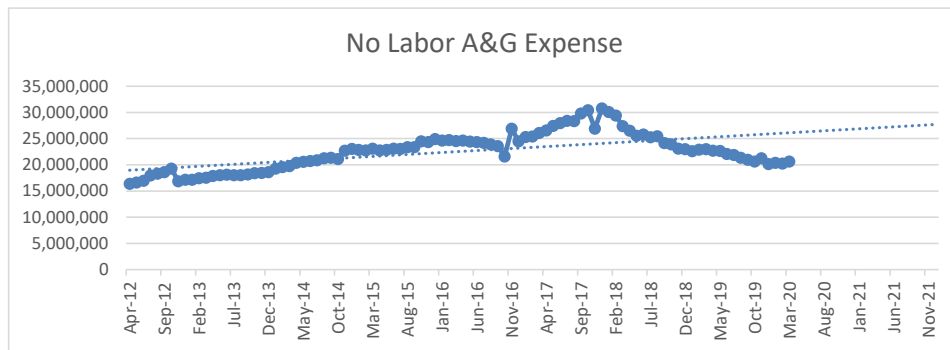
Test Period Amount	3,632,606
Compound Salary & Wage Growth Rate (WHN WP E-110-1.00)	1.053089
Attrition Period Amount	<u>3,825,458</u>

Value to use

3,825,458

Source: WHN Expense Workpaper E-40-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	20,382,320	22,745,510	24,613,146	26,553,561	26,529,267	22,712,664
May	20,591,488	22,861,449	24,420,926	27,443,307	25,569,581	22,666,165
June	20,735,566	23,074,571	24,330,443	27,989,442	25,809,839	22,100,643
July	20,882,951	23,064,052	24,186,775	28,381,202	25,279,789	21,904,162
August	21,257,882	23,368,493	23,918,935	28,366,767	25,441,515	21,335,755
September	21,368,174	23,400,952	23,591,440	29,787,698	24,166,426	20,971,056
October	21,091,320	24,512,920	21,619,819	30,443,860	23,923,180	20,614,602
November	22,719,237	24,363,092	26,926,559	26,914,496	23,089,323	21,269,899
December	23,030,316	24,943,611	24,510,465	30,764,124	23,018,374	20,137,423
January	22,839,874	24,644,977	25,291,510	30,095,790	22,614,823	20,369,295
February	22,768,651	24,742,427	25,427,620	29,410,930	22,917,112	20,248,416
March	23,071,354	24,550,733	26,065,290	27,395,109	22,996,291	20,623,806



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	23,071,354	-	-	-
12 Months Ended March 31, 2016	24,550,733	1,479,379	6.41%	-1.74%
12 Months Ended March 31, 2017	26,065,290	1,514,557	6.17%	-3.78%
12 Months Ended March 31, 2018	27,395,109	1,329,819	5.10%	-7.09%
12 Months Ended March 31, 2019	22,996,291	-4,398,818	-16.06%	-13.19%
12 Months Ended March 31, 2020	20,623,806	-2,372,485	-10.32%	-10.32%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>-7.09%</u>	Test Period Amount	20,623,806
		Compound Rate	87.92%
Compound Rate (21 Months)	<u>-12.08%</u>	Attrition Period Amount	<u>18,133,138</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	75,239	18,897,278
Attrition Period Trend Value	117	<u>27,700,271</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

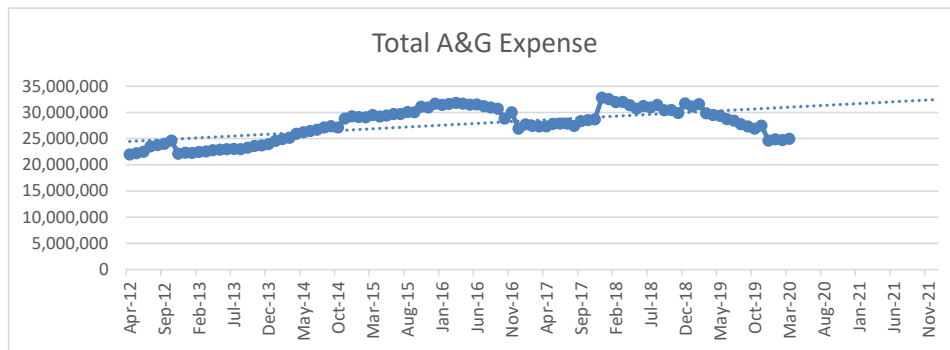
Test Period Amount	20,623,806
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460
Attrition Period Amount	<u>21,581,988</u>

Value to use

21,581,988

Source: WHN Expense Workpaper E-40-9.01 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	25,954,875	29,244,826	31,659,658	27,338,795	31,411,252	29,512,891
May	26,226,586	29,403,515	31,489,677	27,843,820	30,711,774	29,372,308
June	26,475,980	29,682,432	31,524,023	27,848,651	31,233,594	28,731,029
July	26,691,847	29,698,757	31,188,546	27,873,021	30,965,419	28,452,227
August	27,124,965	30,077,884	30,968,560	27,429,695	31,424,700	27,770,943
September	27,372,368	30,044,518	30,729,305	28,368,575	30,423,674	27,343,257
October	27,140,088	31,086,021	28,816,877	28,535,046	30,463,400	26,909,158
November	28,845,745	30,976,475	30,051,632	28,675,391	29,912,473	27,477,588
December	29,268,348	31,658,264	26,883,626	32,840,862	31,707,419	24,636,307
January	29,108,041	31,457,893	27,714,274	32,541,192	31,134,449	24,877,900
February	29,087,574	31,656,337	27,421,397	31,967,480	31,571,311	24,730,146
March	29,490,049	31,804,234	27,348,493	32,013,201	29,859,933	24,996,862



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	29,490,049	-	-	-
12 Months Ended March 31, 2016	31,804,234	2,314,185	7.85%	-2.42%
12 Months Ended March 31, 2017	27,348,493	-4,455,740	-14.01%	-4.99%
12 Months Ended March 31, 2018	32,013,201	4,664,707	17.06%	-1.99%
12 Months Ended March 31, 2019	29,859,933	-2,153,267	-6.73%	-11.51%
12 Months Ended March 31, 2020	24,996,862	-4,863,071	-16.29%	-16.29%

Three-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>-1.99%</u>	Test Period Amount	24,996,862
		Compound Rate	96.55%
Compound Rate (21 Months)	<u>-3.45%</u>	Attrition Period Amount	<u>24,134,876</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	68,819	24,398,750
Attrition Period Trend Value	117	<u>32,450,570</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

	Test Period Amount	24,996,862
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460	
Attrition Period Amount	<u>26,158,217</u>	

Value to use

26,158,217

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - A&G Expense - Monthly**

**E-40-9.00 (Non-Print)**

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WHN Consulting

PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Expense Workpapers - Sales Expense - Net of 916001-CGN - Rolling 12 Months to Date

E-40-9.01 (Non-Print)

11/29/20 12:25 PM





























WHN Consulting

E-40-9.22 (Non-Print)

PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

11/29/20 12:25 PM

WHN Expense Workpapers - Administrative & General Expense - 3-State Total Common Labor - Pivot Table-Part 1 (Accounts 931-935)

WHN Consulting

E-40-9.23 (Non-Print)

PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

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WHN Expense Workpapers - Administrative & General Expense - 3-State Allocated Common Labor - Pivot Table-Part 1 (Accounts 931-935)



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Depreciation Expense**

Accounts	Description
403002	Depreciation Expense
403500	Depreciation of General Plant
404200	Amortization of Software
404400	Franchise Amortization
407000	Amortization of Property Loss



**Depreciation Expense**

**Test  
Period**

**Attrition  
Period**

**31,366,959 A/**

**34,723,870 B/**

A/ WHN Expense Workpaper E-45-2.00.

B/ WHN Rate Base Workpaper RB-50-1.00.

**SOURCE:** Company Response to CA1-1, Attachment 20.

<b>Account</b>	<b>Description</b>	<b>12 Months Ended March 31, 2020</b>
403002	Depreciation Expense	30,576,721
403500	Depreciation of General Plant	0
404200	Amortization of Software	707,566
404400	Franchise Amortization	82,672
407000	Amortization of Property Loss	0
<b>Total Depreciation &amp; Amortization Expense</b>		<b>31,366,959</b>

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Taxes Other Than Income Taxes**

Accounts	Description
408000	NC Property Tax - Electric
408100	Franchise Tax
408120	Franchise Tax - Non-Electric
408121	Property Taxes - Operating
408150	State Unemployment Tax
408151	Federal Unemployment Tax
408152	Employer FICA Tax
408205	Highway Use Tax
408360	SC Property Tax
408470	Franchise Tax
408800	Federal Highway Use Tax-Electric
408820	TN Miscellaneous
408840	Other Taxes
408851	Sales & Use Tax
408960	Allocated Payroll Taxes

NOTE: Jan-17 to May-17 data is missing.  
Data request issued - 3rd round.

	<b>Test Period</b>	<b>Attrition Period</b>	
Taxes Other Than Income - Property	5,961,750	6,238,733	<b>A/</b>
Taxes Other Than Income - Franchise	1,680,391	1,680,391	<b>B/</b>
Taxes Other Than Income - Gross Receipts	2,002,344	1,421,993	<b>B/</b>
Taxes Other Than Income - Payroll	1,465,619	1,543,427	<b>C/</b>
Taxes Other Than Income - Other	-6,698	0	<b>D/</b>
<b>Total Taxes Other Than Income</b>	<b>11,103,406</b>	<b>10,884,544</b>	
Alternative Total Calculation	11,103,406	11,619,270	<b>E/</b>
<b>Total Taxes Other Than Income</b>	<b>11,103,406</b>	<b>11,619,270</b>	

**Forecast to use**

**10,884,544**

**NOTE: Jan-17 to May-17 data is missing.**  
**Data request issued - 3rd round.**

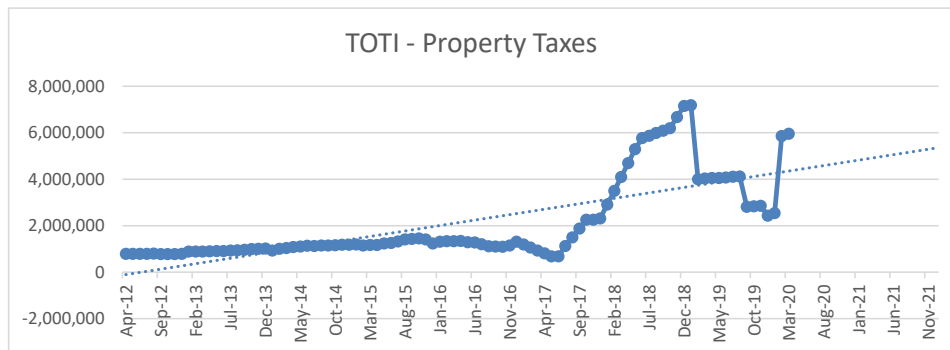
- A/ WHN Expense Workpaper E-50-2.00.
- B/ WHN Expense Workpaper E-50-3.00.
- C/ WHN Expense Workpaper E-50-5.00.
- D/ WHN Expense Workpaper E-50-5.00.
- E/ WHN Expense Workpaper E-50-6.00.

SOURCE: Bowman Workpaper - 7 Gen Tax, A-Summary

	<b>Test Period</b>	<b>Attrition Period</b>
Taxes Other Than Income - Property	5,961,750	6,657,411
Taxes Other Than Income - Franchise	1,680,391	2,512,377
Taxes Other Than Income - Gross Receipts	2,002,344	548,256
Taxes Other Than Income - Payroll	1,465,619	1,514,067
Taxes Other Than Income - Other	-6,698	-6,699
<b>Total Taxes Other Than Income</b>	<b>11,103,406</b>	<b>11,225,412</b>

Source: WHN TOTI Workpaper E-50-9.00 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	1,079,816	1,165,517	1,340,332	809,698	4,694,474	4,056,035
May	1,109,235	1,238,317	1,286,460	685,840	5,290,004	4,056,998
June	1,141,617	1,260,054	1,280,843	677,709	5,769,654	4,080,371
July	1,122,788	1,319,116	1,197,376	1,122,279	5,874,130	4,103,744
August	1,143,255	1,412,573	1,113,819	1,500,404	5,985,595	4,120,128
September	1,147,509	1,436,532	1,103,993	1,878,523	6,090,070	2,809,784
October	1,158,684	1,455,041	1,094,186	2,256,624	6,194,545	2,833,158
November	1,179,731	1,405,150	1,152,093	2,261,990	6,674,196	2,856,531
December	1,177,435	1,230,581	1,313,513	2,312,351	7,153,357	2,435,332
January	1,189,247	1,316,313	1,188,824	2,907,882	7,182,333	2,539,730
February	1,150,838	1,328,540	1,057,720	3,503,412	3,998,083	5,857,353
March	1,167,201	1,333,392	933,709	4,098,943	4,027,059	5,961,750



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	1,167,201	-	-	-
12 Months Ended March 31, 2016	1,333,392	166,191	14.24%	73.91%
12 Months Ended March 31, 2017	933,709	-399,683	-29.97%	88.83%
12 Months Ended March 31, 2018	4,098,943	3,165,234	339.00%	128.43%
12 Months Ended March 31, 2019	4,027,059	-71,884	-1.75%	23.14%
12 Months Ended March 31, 2020	5,961,750	1,934,691	48.04%	48.04%

Two-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>23.14%</u>	Test Period Amount	5,961,750
Compound Rate (21 Months)	<u>43.95%</u>	Compound Rate	143.95%
		Attrition Period Amount	<u>8,582,202</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	46,885	-151,983
Attrition Period Trend Value	117	<u>5,333,533</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

Test Period Amount	5,961,750
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460
Attrition Period Amount	<u>6,238,733</u>

Value to use

6,238,733

	Attrition Period
<b>Attrition Period Receipts:</b>	
Sales & Transportation Revenues	178,253,226 A/
Other Revenue	2,052,502 A/
IMR Rider	35,853,030 A/
ADIT Refund	-9,333,185 A/
<b>Total Attrition Period Receipts</b>	<b>206,825,573</b>
Gross Receipts Tax Rate	1.50% B/
<b>Attrition Period Gross Receipts Tax</b>	<b>3,102,384</b>

<b>Historical Gross Receipts Tax Forecast</b>	<b>3,682,735 C/</b>
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<b>Forecast to use</b>	<b>3,102,384</b>
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**NOTE:** Company receives a credit on its Gross Receipts Tax for Franchise Tax Paid.  
Therefore, total Franchise Tax + Net Gross Receipts Tax = Total Gross Receipts Tax.

**Net Gross Receipts Tax for Lead/Lag Study Calculation:**

Net Forecasted Attrition Period Gross Receipts Tax	3,102,384
Less Test Period Franchise Tax	1,680,391 D/
<b>Total Attrition Period Net Gross Receipts Tax</b>	<b>1,421,993</b>

A/ Consumer Advocate Exhibit, Schedule 8.

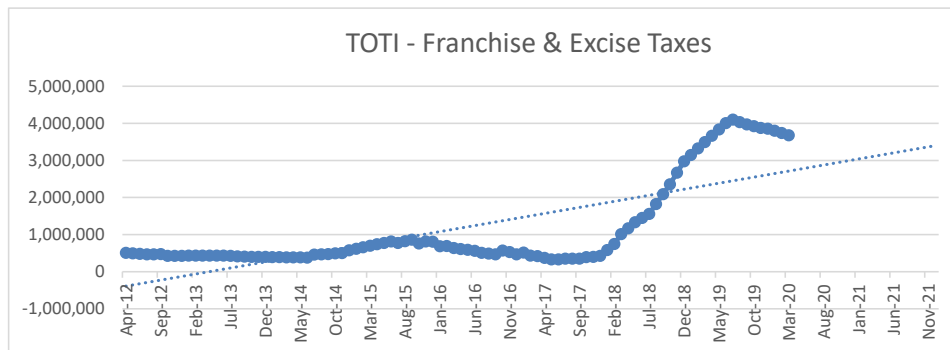
B/ Statutory Rate

C/ WHN Expense Workpaper E-50-3.01.

D/ WHN Expense Workpaper E-50-9.00 (Non-Print).

Source: WHN TOTI Workpaper E-50-9.00 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	386,055	740,016	615,245	377,106	1,174,765	3,666,465
May	386,014	777,633	590,176	330,408	1,337,851	3,836,476
June	382,925	818,299	565,107	332,202	1,451,262	4,007,671
July	461,728	778,390	511,423	352,329	1,558,385	4,102,971
August	469,130	821,774	489,533	355,370	1,823,557	4,035,712
September	476,533	865,158	467,643	353,917	2,092,039	3,969,638
October	496,024	765,660	572,244	397,392	2,360,591	3,923,234
November	505,065	818,342	533,301	401,167	2,669,147	3,875,499
December	577,355	807,776	471,645	427,656	2,976,969	3,858,540
January	618,020	690,452	517,201	588,348	3,148,141	3,799,958
February	658,685	697,423	438,463	749,093	3,321,735	3,738,902
March	699,351	640,314	423,805	1,014,046	3,494,086	3,682,735



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	699,351	-	-	-
12 Months Ended March 31, 2016	640,314	-59,037	-8.44%	69.40%
12 Months Ended March 31, 2017	423,805	-216,510	-33.81%	88.86%
12 Months Ended March 31, 2018	1,014,046	590,242	139.27%	129.75%
12 Months Ended March 31, 2019	3,494,086	2,480,040	244.57%	124.98%
12 Months Ended March 31, 2020	3,682,735	188,649	5.40%	5.40%

Zero (0%) was chosen as most representative of the Attrition Period

Annual Rate	<u>0.00%</u>	Test Period Amount	3,682,735
		Compound Rate	100.00%
Compound Rate (21 Months)	<u>0.00%</u>	Attrition Period Amount	<u>3,682,735</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	32,644	-421,197

Attrition Period Trend Value	117	<u>3,398,107</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

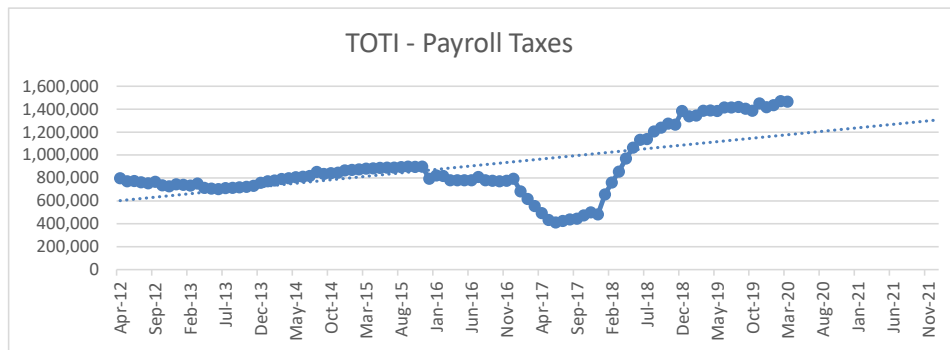
Test Period Amount	3,682,735
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460
Attrition Period Amount	<u>3,853,835</u>

Value to use	<u>3,682,735</u>
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Source: WHN TOTI Workpaper E-50-9.00 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	798,642	883,213	780,843	493,645	969,693	1,389,312
May	805,481	887,173	779,373	434,640	1,063,551	1,385,030
June	810,939	889,942	780,423	411,427	1,132,248	1,414,510
July	816,863	891,302	809,678	424,694	1,140,165	1,415,782
August	851,732	895,408	779,052	438,894	1,205,370	1,420,556
September	834,718	899,208	776,247	445,146	1,239,829	1,404,111
October	842,008	897,438	771,100	474,060	1,273,677	1,386,165
November	846,915	898,431	776,245	499,635	1,265,288	1,449,963
December	866,101	792,847	792,195	481,421	1,383,714	1,416,837
January	869,736	821,033	683,125	655,328	1,337,951	1,434,693
February	874,086	816,512	617,358	760,055	1,344,543	1,470,184
March	880,843	780,662	554,277	855,162	1,386,342	1,465,619



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	880,843	-	-	-
12 Months Ended March 31, 2016	780,662	-100,181	-11.37%	16.35%
12 Months Ended March 31, 2017	554,277	-226,385	-29.00%	23.28%
12 Months Ended March 31, 2018	855,162	300,885	54.28%	40.71%
12 Months Ended March 31, 2019	1,386,342	531,180	62.11%	33.92%
12 Months Ended March 31, 2020	1,465,619	79,277	5.72%	5.72%

One-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>5.72%</u>	Test Period Amount	1,465,619
		Compound Rate	110.22%
Compound Rate (21 Months)	<u>10.22%</u>	Attrition Period Amount	<u>1,615,417</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	6,051	596,038
Attrition Period Trend Value	117	<u>1,304,050</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

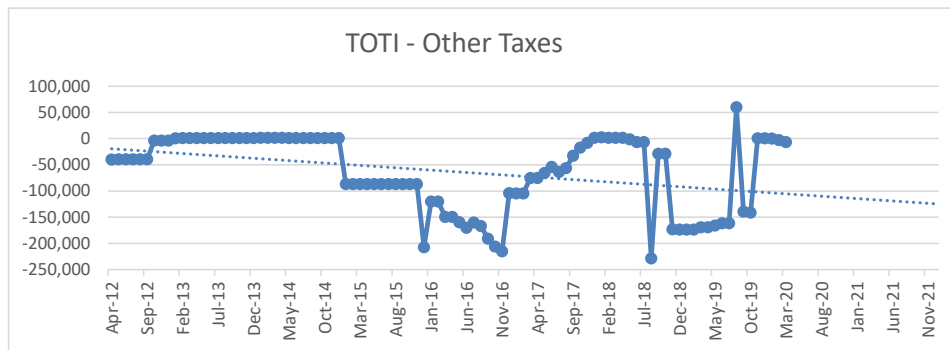
Test Period Amount	1,465,619
Compound Salary & Wage Growth Rate (WHN WP E-110-1.00)	1.053089
Attrition Period Amount	<u>1,543,427</u>

Value to use

1,543,427

Source: WHN TOTI Workpaper E-50-9.00 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	1,463	-86,769	-149,342	-75,271	1,892	-169,117
May	1,408	-86,766	-159,340	-65,298	-1,168	-165,854
June	1,356	-86,697	-169,918	-53,681	-6,483	-161,657
July	1,308	-86,649	-159,903	-63,238	-6,539	-161,624
August	1,250	-86,627	-166,914	-56,244	-228,342	60,170
September	1,181	-86,570	-190,733	-32,424	-28,796	-139,439
October	1,116	-86,530	-205,888	-17,260	-28,751	-140,931
November	1,039	-86,603	-214,938	-8,156	-173,245	533
December	955	-207,477	-104,189	1,832	-173,368	699
January	-86,731	-120,022	-104,254	2,547	-173,453	113
February	-86,766	-120,132	-104,321	1,895	-173,369	-2,453
March	-86,771	-149,318	-75,231	1,862	-169,088	-6,698



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	-86,771	-	-	-
12 Months Ended March 31, 2016	-149,318	-62,547	72.08%	-1871.45%
12 Months Ended March 31, 2017	-75,231	74,087	-49.62%	-2357.34%
12 Months Ended March 31, 2018	1,862	77,093	-102.47%	-3126.58%
12 Months Ended March 31, 2019	-169,088	-170,950	-9181.23%	-4638.63%
12 Months Ended March 31, 2020	-6,698	162,390	-96.04%	-96.04%

Zero (0%) was chosen as most representative of the Attrition Period

Annual Rate	<u>0.00%</u>	Test Period Amount	-6,698
		Compound Rate	100.00%
Compound Rate (21 Months)	<u>0.00%</u>	Attrition Period Amount	<u>0</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	-905	-18,446
Attrition Period Trend Value	117	<u>-124,353</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

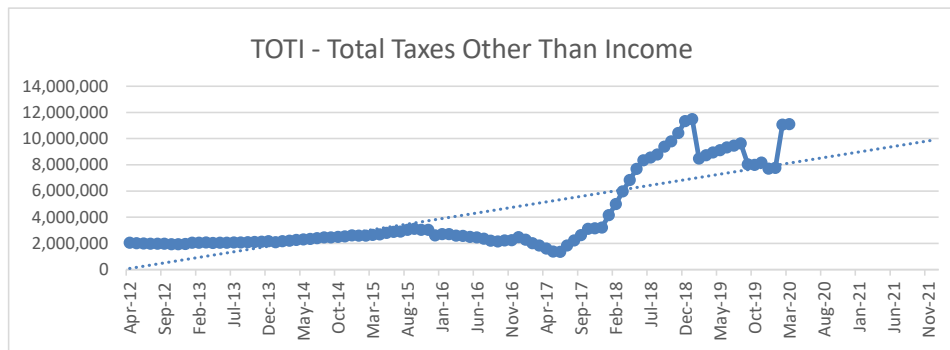
Test Period Amount	-6,698
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460
Attrition Period Amount	<u>-7,010</u>

Value to use

0

Source: WHN TOTI Workpaper E-50-9.00 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	2,265,976	2,701,977	2,587,078	1,605,179	6,840,824	8,942,695
May	2,302,138	2,816,357	2,496,669	1,385,590	7,690,237	9,112,649
June	2,336,838	2,881,597	2,456,455	1,367,657	8,346,681	9,340,895
July	2,402,686	2,902,159	2,358,574	1,836,063	8,566,142	9,460,872
August	2,465,367	3,043,128	2,215,490	2,238,424	8,786,179	9,636,566
September	2,459,940	3,114,327	2,157,151	2,645,161	9,393,142	8,044,095
October	2,497,832	3,031,609	2,231,642	3,110,816	9,800,063	8,001,626
November	2,532,750	3,035,319	2,246,700	3,154,635	10,435,387	8,182,526
December	2,621,846	2,623,727	2,473,165	3,223,260	11,340,671	7,711,408
January	2,590,272	2,707,776	2,284,896	4,154,104	11,494,972	7,774,494
February	2,596,844	2,722,343	2,009,220	5,014,456	8,490,993	11,063,986
March	2,660,624	2,605,050	1,836,559	5,970,013	8,738,399	11,103,406



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	2,660,624	-	-	-
12 Months Ended March 31, 2016	2,605,050	-55,574	-2.09%	53.38%
12 Months Ended March 31, 2017	1,836,559	-768,491	-29.50%	67.25%
12 Months Ended March 31, 2018	5,970,013	4,133,453	225.07%	99.50%
12 Months Ended March 31, 2019	8,738,399	2,768,386	46.37%	36.72%
12 Months Ended March 31, 2020	11,103,406	2,365,007	27.06%	27.06%

One-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>27.06%</u>	Test Period Amount	11,103,406
		Compound Rate	152.07%
Compound Rate (21 Months)	<u>52.07%</u>	Attrition Period Amount	<u>16,884,912</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	84,675	4,412
Attrition Period Trend Value	117	<u>9,911,337</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

Test Period Amount	11,103,406
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460
Attrition Period Amount	<u>11,619,270</u>

Value to use

11,619,270



WHN Consulting

PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN TOTI Workpapers - Taxes Other Than Income Taxes Pivot Table (Accounts 408000-408960)

E-50-9.10 (Non-Print)

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**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Investment Tax Credit Amortization**

Accounts		Description
255000		Accumulated Deferred Investment Tax Credits
411410		Investment Tax Credit Amortization

<b>Period</b>	<b>411410 Amortization</b>	<b>A/</b>	<b>255000 Balance</b>	<b>B/</b>
March-19			85,721	
April-19	0		85,721	
May-19	416		85,305	
June-19	208		85,097	
July-19	0		85,097	
August-19	415		84,682	
September-19	208		84,474	
October-19	0		84,474	
November-19	416		84,058	
December-19	-42		84,100	
January-20	0		84,100	
February-20	0		84,100	
March-20	1,284		82,816	
<b>Total/Average</b>	<b>2,905</b>		<b>84,596</b>	
<b>Forecast to use</b>	<b>2,905</b>			

*The test period amortization was accepted as a reasonable proxy for the attrition period.*

A/ Company Response to CA1-1, March 2020, Account 411410 - Investment Tax Credit Adjustment.

B/ Company Response to CA1-93, March 2019 to March 2020 for Account 255000 - Accu Def Investment Tax Credits.

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Allowance for Funds Used During Construction**

Accounts		Description
419110	AFUDC - Equity Component	
432000	AFUDC - Debt Component	



	<b>Test Period</b>	<b>Attrition Period</b>
CWIP Ratio Method	3,152,246	3,147,272 <b>A/</b>
Historical Expense Method	3,152,246	3,298,699 <b>B/</b>

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**Forecast to use**

**3,147,272**

A/ WHN Expense Workpaper E-65-2.00.

B/ WHN Expense Workpaper E-65-4.00.

Period	AFUDC	A/	CWIP	B/	Ratio
April-19	322,560		75,754,952		0.43%
May-19	318,061		53,519,731		0.59%
June-19	278,992		59,631,889		0.47%
July-19	310,829		67,350,087		0.46%
August-19	329,240		64,657,928		0.51%
September-19	366,629		61,719,864		0.59%
October-19	348,086		56,807,575		0.61%
November-19	177,955		37,625,268		0.47%
December-19	205,033		39,981,054		0.51%
January-20	106,936		40,336,898		0.27%
February-20	164,766		42,447,217		0.39%
March-20	223,159		53,002,611		0.42%
<b>Total/Average</b>	<b>3,152,246</b>		<b>54,402,923</b>		<b>5.73%</b>

Attrition Period Construction Work in Progress

54,969,193 C/

AFUDC Ratio

5.73%

**Attrition Period AFUDC**

**3,147,272**

A/ Company Response to CA2-172.

B/ WHN Expense Workpaper E-65-3.00.

C/ WHN Rate Base Workpaper RB-1-1.00.

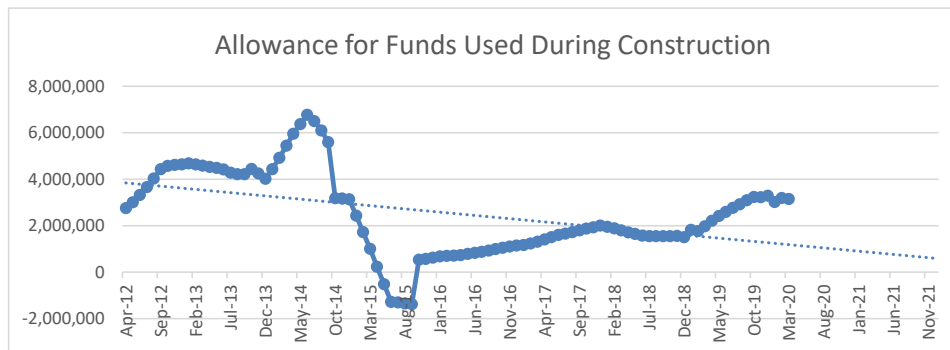
Period	107000 CWIP		A/	TN Allocation Factor	B/	Tennessee Allocation	Total CWIP
	TN	3-State					
March-19	63,045,119	26,916,165		16.85%		4,534,477	67,579,596
April-19	70,524,964	31,044,647		16.85%		5,229,988	75,754,952
May-19	48,383,649	30,487,229		16.85%		5,136,082	53,519,731
June-19	54,291,261	31,701,391		16.85%		5,340,628	59,631,889
July-19	61,730,650	33,356,376		16.85%		5,619,437	67,350,087
August-19	58,321,066	37,614,930		16.85%		6,336,862	64,657,928
September-19	54,846,873	40,797,337		16.85%		6,872,991	61,719,864
October-19	49,100,504	45,748,346		16.85%		7,707,071	56,807,575
November-19	29,011,642	51,129,558		16.85%		8,613,626	37,625,268
December-19	31,816,834	48,461,931		16.85%		8,164,220	39,981,054
January-20	32,249,364	47,573,728		17.00%		8,087,534	40,336,898
February-20	34,132,615	48,909,422		17.00%		8,314,602	42,447,217
March-20	45,688,559	43,023,833		17.00%		7,314,052	53,002,611
<b>Average</b>	<b>48,703,315</b>	<b>39,751,146</b>				<b>6,713,198</b>	<b>55,416,513</b>

A/ Company Response to CA1-93, March 2019 to March 2020 for Account 107000 - Construction Work in Process.

B/ WHN Expense Workpaper E-120-1.00.

Source: WHN TOTI Workpaper E-65-9.00 (Non-Print).

	2015	2016	2017	2018	2019	2020
April	5,955,915	237,120	734,661	1,413,693	1,718,576	2,212,009
May	6,369,379	-512,482	787,699	1,510,356	1,652,434	2,419,297
June	6,774,471	-1,275,916	831,000	1,601,189	1,577,777	2,593,309
July	6,496,794	-1,299,574	872,116	1,659,018	1,552,843	2,771,239
August	6,099,277	-1,340,633	927,271	1,728,933	1,548,468	2,927,073
September	5,602,146	-1,375,832	991,059	1,796,307	1,556,101	3,094,743
October	3,179,831	539,794	1,050,051	1,878,568	1,555,925	3,233,365
November	3,168,660	569,463	1,110,209	1,929,476	1,559,230	3,228,718
December	3,140,189	630,452	1,149,423	2,004,416	1,503,796	3,289,747
January	2,435,872	679,619	1,174,968	1,955,975	1,827,888	3,019,540
February	1,728,240	703,026	1,237,868	1,887,581	1,767,239	3,190,351
March	1,007,071	714,018	1,308,906	1,798,170	1,976,229	3,152,246



	Amount	Change	Percent	Average
12 Months Ended March 31, 2015	1,007,071	-	-	-
12 Months Ended March 31, 2016	714,018	-293,052	-29.10%	32.20%
12 Months Ended March 31, 2017	1,308,906	594,888	83.32%	47.53%
12 Months Ended March 31, 2018	1,798,170	489,263	37.38%	35.60%
12 Months Ended March 31, 2019	1,976,229	178,059	9.90%	34.71%
12 Months Ended March 31, 2020	3,152,246	1,176,017	59.51%	59.51%

Two-Year Average was chosen as most representative of the Attrition Period

Annual Rate	<u>34.71%</u>	Test Period Amount	3,152,246
		Compound Rate	168.43%
Compound Rate (21 Months)	<u>68.43%</u>	Attrition Period Amount	<u>5,309,365</u>

## Trend Forecast:

	Slope	Constant
Trend Parameters	-27,961	3,867,827
Attrition Period Trend Value	117	<u>596,414</u>
See trend line on graph		

## Inflation &amp; Customer Growth Forecast:

Test Period Amount	3,152,246
Compound Inflation & Customer Growth Rate (WHN WP E-110-1.00)	1.046460
Attrition Period Amount	<u>3,298,699</u>

Value to use

3,298,699

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**  
**WHN Expense Workpapers - AFUDC - Historic Amounts**

**E-65-9.00 (Non-Print)**

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**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Interest Expense on Customer Deposits**

Accounts		Description
235140	Customer Deposits	
431921	Other Interest - Customer Deposits	

## WHN Expense Workpapers - Interest Expense on Customer Deposits Forecast

Period	235140 Customer Deposits A/	431921 Interest On Customer Dps B/
March-19	4,241,803	
April-19	4,209,322	21,047
May-19	4,146,781	20,734
June-19	4,147,311	20,737
July-19	4,167,889	20,839
August-19	4,160,142	20,801
September-19	4,156,271	20,781
October-19	4,214,378	21,072
November-19	4,303,999	21,520
December-19	4,371,025	21,855
January-20	4,329,238	21,646
February-20	4,365,339	21,827
March-20	4,366,103	21,831
<b>Average/Total</b>	<b>4,244,585</b>	<b>254,690</b>

	<b>Forecast</b>
Test Period Average Customer Deposits	4,244,585
Compound Customer Growth Factor	1.028981 C/
<b>Attrition Period Customer Deposits</b>	<b>4,367,597</b>
Interest Rate	6.00%
<b>Attrition Period Interest on Customer Deposits</b>	<b>262,056</b>

A/ Company Response to CA1-93, March 2019 to March 2020 for Account 235140 - Special Customer Deposits.

B/ Company Response to CA1-1, March 2020, Account 431921 Other Interest - Customer Deposits.

C/ WHN Expense Workpaper E-110-1.00.

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Gas Technology Institute Expense**



**SOURCE:** Commission Order in Docket No. 11-00144 (Last Rate Case).

	Test Period	Attrition Period
Gas Technology Institute Expense	0	0

appropriate AFUDC rate applicable to future investment in rate base by Piedmont is the overall rate of return on rate base stipulated herein;

i. That no funding of GTI research or implementation/funding of Piedmont's proposed School Energy Pledge Program will occur or be recovered from Piedmont's customers in conjunction with this case;

j. That the revised rate schedules and service regulations attached hereto as Attachment E are fair and reasonable and should be approved by the Authority to be effective March 1, 2012;

17. Piedmont also agrees to reduce the commodity gas cost component of Piedmont's PGA mechanism in conjunction with the other rate changes agreed to herein and to implement such reduction in rates on February 1, 2012.<sup>2</sup>

18. The Parties hereby agree that the revised rates, tariffs, rate schedules, and service regulations agreed to herein, both individually and in the aggregate, are fair and reasonable to all customer classes and will provide Piedmont with a reasonable opportunity to recover the agreed upon operating revenue requirement and a reasonable rate of return on investment.

#### **THE HEARING**

This matter came before the Authority for Hearing on January 23, 2012. Participating in the Hearing were the following parties and their respective attorneys:

**Piedmont Natural Gas Company, Inc.** – James H. Jeffries IV, Esq., Moore & Van Allen, 100 North Tryon Street, Charlotte, NC 28202 and R. Dale Grimes, Esq., Bass, Berry & Sims, PLC, 150 Third Avenue South, Suite 2800, Nashville, TN 37201; David Carpenter, Vice-President – Planning and Regulatory Affairs, 4720 Piedmont Row Drive, Charlotte, NC 28202.

**Consumer Advocate and Protection Division** – Ryan McGehee, Esq., Office of the Attorney General, P.O. Box 20207, Nashville, Tennessee 37202.

During the Hearing, counsel for the parties submitted the *Stipulation and Settlement Agreement*, as filed on December 22, 2011, reflecting a complete settlement of the parties, for the consideration by the Authority. Mr. David Carpenter, Vice-President – Planning and Regulatory

<sup>2</sup> Nothing within this *Stipulation and Settlement Agreement* should be construed as having any impact on the PGA Rule(s) and practice of the Authority.

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Growth Rates**

**Compound Inflation Calculation:**

Forecasted GDP Growth for 2020

Forecasted GDP Growth for 2021

**Average GDP Growth Rate****Average GDP Growth Factor**

Months between End of Test Period and End of Attrition Period (3-31-2020 to 12-31-2021)

**Attrition Period Compound Inflation Factor****WHN  
Amount**

2.6060% A/

2.6520% A/

**2.6290%****1.026290****Company  
Amount**

21

**1.046460****1.046460 E/****Customer Growth Calculation**

Compound Customer Growth

50% Application

**Attrition Period Compound Customer Growth Factor**

1.028981 B/

50.00% C/

**1.014491****1.032521 E/****Total Growth Factor (Non-Wage)****1.061624****1.080492 E/****Compound Salary & Wage Rate Change Factor****1.053089 D/****1.053089 E/**

A/ WHN Expense Workpaper E-110-2.00.

B/ WHN Expense Workpaper E-110-3.00.

C/ Recognition that not all expenses increase by customer growth.

D/ WHN Expense Workpaper E-110-4.00.

E/ WHN Expense Workpaper E-110-5.00.

SOURCE: Company response to MFR 30, Table 1 on Page 107 - Consumer Price Index All-Urban, Appendix A, Page 3.

2020	2.606%
2021	2.652%

Compares favorably with BLS on E-110-2.01. Use Company proposed factors here.

Table 1: Selected U.S. and Tennessee Economic Indicators, Seasonally Adjusted

January 2020

	History		Forecast Data										Annual			
	2019:2	2019:3	2019:4	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2021:3	2021:4	2022:1	2018	2019	2020	2021
CHAINED PRICE INDEX, GDP (2012=100.0).....	112.2	112.6	113.3	113.9	114.5	115.1	115.7	116.4	117.0	117.7	118.5	119.2	110.4	112.4	114.8	117.4
% Chg Prev Qtr SAAR.....	2.42	1.66	2.30	2.08	2.17	2.10	2.15	2.33	2.37	2.43	2.44	2.44	2.40	1.83	2.11	2.29
% Chg Same Qtr Last Yr.....	1.78	1.89	1.88	2.11	2.05	2.16	2.12	2.19	2.24	2.32	2.39	2.42	2.40	1.83	2.11	2.29
US PERS CONSUMP DEFL (2012=100.0).....	109.5	109.9	110.5	111.0	111.6	112.0	112.4	112.9	113.5	114.1	114.7	115.3	108.1	109.7	111.7	113.8
% Chg Prev Qtr SAAR.....	2.38	1.53	2.04	1.79	2.10	1.66	1.38	1.79	1.98	2.15	2.15	2.04	2.09	1.45	1.86	1.82
% Chg Same Qtr Last Yr.....	1.42	1.41	1.58	1.93	1.86	1.90	1.73	1.73	1.70	1.82	2.02	2.08	2.09	1.45	1.86	1.82
CONSUMER PRICE INDEX, ALL-URBAN (82-84=1,000).....	2.551	2.563	2.578	2.589	2.604	2.613	2.618	2.629	2.643	2.660	2.677	2.692	2.511	2.556	2.606	2.652
% Chg Prev Qtr SAAR.....	2.92	1.79	2.45	1.60	2.44	1.39	0.73	1.68	2.17	2.61	2.60	2.21	2.44	1.81	1.94	1.78
% Chg Same Qtr Last Yr.....	1.82	1.76	2.00	2.19	2.07	1.97	1.54	1.56	1.49	1.79	2.26	2.40	2.44	1.81	1.94	1.78
BANK PRIME INTEREST RATE (%).....	5.5	5.3	4.8	4.7	4.8	4.8	4.8	5.0	5.0	5.3	5.3	5.5	4.9	5.3	4.8	5.1
FEDERAL FUNDS RATE (% per annum).....	2.397	2.190	1.700	1.624	1.625	1.626	1.667	1.877	1.915	2.127	2.152	2.378	1.832	2.172	1.636	2.018
30-YEAR FIXED MORTGAGE RATE (%).....	4.0	3.7	3.7	3.7	3.9	4.0	4.1	4.2	4.3	4.3	4.4	4.5	4.5	3.9	3.9	4.3
TN TAXABLE SALES (MIL2012\$).....	32041	32286	32451	32624	32838	33075	33314	33574	33770	33972	34230	34490	123681	128388	131850	135546
% Chg Prev Qtr SAAR.....	5.57	3.09	2.06	2.15	2.65	2.92	2.92	3.16	2.36	2.41	3.07	3.08	4.58	3.81	2.70	2.80
% Chg Same Qtr Last Yr.....	4.27	4.47	3.21	3.21	2.49	2.44	2.66	2.91	2.84	2.71	2.75	2.73	4.58	3.81	2.70	2.80
TN TAXABLE SALES (MIL\$).....	35092	35507	35913	36305	36699	37142	37559	38019	38444	38861	39324	39851	133758	140929	147704	154648
% Chg Prev Qtr SAAR.....	8.08	4.82	4.65	4.43	4.42	4.91	4.56	5.00	4.55	4.40	4.86	5.47	6.76	5.36	4.81	4.70
% Chg Same Qtr Last Yr.....	5.75	5.98	5.01	5.49	4.58	4.60	4.58	4.72	4.75	4.63	4.70	4.82	6.76	5.36	4.81	4.70
TN AVG ANNUAL WAGE, NONFARM (2012\$).....	47922	47906	47909	48014	48209	48342	48542	48771	48936	49126	49351	49496	47014	47878	48277	49046
% Chg Prev Qtr SAAR.....	1.22	-0.13	0.03	0.88	1.64	1.11	1.66	1.90	1.36	1.57	1.84	1.18	1.27	1.84	0.83	1.59
% Chg Same Qtr Last Yr.....	2.32	1.29	2.15	0.50	0.60	0.91	1.32	1.58	1.51	1.62	1.67	1.49	1.27	1.84	0.83	1.59
TN AVG ANNUAL WAGE, NONFARM (\$)......	52485	52686	53021	53431	53878	54287	54727	55228	55709	56195	56695	57190	50843	52552	54081	55957
% Chg Prev Qtr SAAR.....	3.63	1.54	2.57	3.13	3.39	3.07	3.28	3.72	3.53	3.54	3.60	3.54	3.38	3.36	2.91	3.47
% Chg Same Qtr Last Yr.....	3.77	2.75	3.93	2.72	2.65	3.04	3.22	3.36	3.40	3.52	3.60	3.55	3.38	3.36	2.91	3.47

Boyd Center for Business and Economic Research, University of Tennessee

Tennessee Econometric Model

Source: Bureau of Labor Statistics Website.

Forecast for Gas Service Sector

3.80%

10/15/2020

Table 2. Consumer Price Index for All Urban Consumers (CPI-U): U. S. city average, by detailed expenditure category



U.S. BUREAU OF LABOR STATISTICS

## Economic News Release

CPI PRINT:

Table 2. Consumer Price Index for All Urban Consumers (CPI-U): U. S. city average, by detailed expenditure category

**Table 2. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by detailed expenditure category, September 2020**

[1982-84=100, unless otherwise noted]

Expenditure category	Relative importance Aug. 2020	Unadjusted percent change		Seasonally adjusted percent change		
		Sep. 2019-Sep. 2020	Aug. 2020-Sep. 2020	Jun. 2020-Jul. 2020	Jul. 2020-Aug. 2020	Aug. 2020-Sep. 2020
All items	100.000	1.4	0.1	0.6	0.4	0.2
Food	14.100	3.9	0.0	-0.4	0.1	0.0
Energy	6.144	-7.7	0.8	2.5	0.9	0.8
Energy commodities	3.019	-15.5	0.6	5.3	2.0	-0.1
Fuel oil and other fuels	0.133	-17.6	-1.4	2.3	2.3	-3.1
Fuel oil	0.076	-27.2	-3.0	4.3	3.9	-5.3
Propane, kerosene, and firewood <sup>(6)</sup>	0.057	-1.1	0.8	0.4	-0.7	-0.6
Motor fuel	2.886	-15.4	0.7	5.5	2.0	0.1
Gasoline (all types)	2.824	-15.4	0.7	5.6	2.0	0.1
Gasoline, unleaded regular <sup>(2)</sup>		-15.8	0.8	5.6	2.0	0.1
Gasoline, unleaded midgrade <sup>(3)(2)</sup>		-13.2	0.8	5.5	1.7	0.3
Gasoline, unleaded premium <sup>(3)</sup>		-12.4	0.6	4.9	2.3	0.0
Other motor fuels <sup>(2)</sup>	0.063	-17.5	-0.3	1.0	0.4	-1.6
Energy services	3.125	1.4	0.9	0.0	-0.2	1.6
Electricity	3.468	0.7	0.2	0.2	0.2	0.0
Utility (piped) gas service	0.657	3.8	3.0	-1.0	-0.2	4.2

	<b>Residential</b>		<b>Commercial</b>		<b>Total</b>
Test Period Bills (4-1-19 to 3-31-20)	<u>2,043,725</u>	<b>A/</b>	<u>210,508</u>	<b>B/</b>	<u>2,254,233</u>
Attrition Period Bills (1-1-21 to 12-31-21)	<u>2,106,494</u>	<b>A/</b>	<u>213,070</u>	<b>B</b>	<u>2,319,564</u>
<b>Growth</b>	<u><b>62,769</b></u>		<u><b>2,562</b></u>		<u><b>65,331</b></u>
<b>Compound Growth Rate for 21 Months (3-31-20 to 12-31-21)</b>	<u><b>3.0713%</b></u>		<u><b>1.2171%</b></u>		<u><b>2.8981%</b></u>
<b>Compound Growth Factor</b>	<u><b>1.030713</b></u>		<u><b>1.012171</b></u>		<u><b>1.028981</b></u>

A/ WHN Revenue Workpaper R-10-1.03.

B/ WHN Revenue Workpaper R-15-1.03.

SOURCE: Company response to CA2-98.

## Historical Merit Increases

Year	Exempt	Non-Exempt
2019	3.0%	3.0%
2018	3.0%	3.0%
2017	3.0%	3.0%
2016	3.0%	3.0%
2015	3.0%	3.0%
2014	3.0%	3.0%
2013	3.0%	3.0%

Average Annual Wage Increase Rate 3.00%

Average Annual Wage Increase Factor 1.030000

Compound Rate for 21 Months 1.053089  
(4-1-2020 to 12-31-2020)

SOURCE: Bowman Workpaper - SW Growth Factors, Growth Factors

**Growth & Inflation Factor Calculations:**

Compound Customer Growth Factor	1.032521
Compound Inflation Factor	1.046460
<b>Compound Growth &amp; Inflation Factor</b>	<b>1.080492</b>

<b>Compound Salary &amp; Wage Rate Change Factor</b>	<b>1.053089</b>
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**Customer Growth Factor Calculation:**

	Amount
Residential & Commercial Customers Billed in December 2019	189,891
Residential & Commercial Customers Forecast to be Billed in December 2020	193,002
Residential & Commercial Customers Forecast to be Billed in December 2021	196,024
<b>Customer Annual Growth Rate</b>	<b>0.018456</b> Error Here
<b>Annual Customer Growth Factor</b>	<b>1.018456</b> Should be
	24 Months

Months between End of Test Period and End of Attrition Period (3-31-2020 to 12-31-2021)	21
<b>Compound Customer Growth Factor</b>	<b>1.032521</b>

**Inflation Factor Calculation:**

	Amount
Forecasted GDP Growth for 2020	2.6060%
Forecasted GDP Growth for 2021	2.6520%
<b>Average GDP Growth Rate</b>	<b>2.6290%</b>
<b>Average GDP Growth Factor</b>	<b>1.026290</b>

Months between End of Test Period and End of Attrition Period (3-31-2020 to 12-31-2021)	21
<b>Compound Inflation Factor</b>	<b>1.046460</b>

**Salary & Wage Rate Change Calculation:**

	Amount
Average 2018 Salary & Wage Rate Increase	3.0000%
Average 2019 Salary & Wage Rate Increase	3.0000%
<b>Average Annual Rate Increase Rate</b>	<b>3.0000%</b>
<b>Average Annual Rate Increase Factor</b>	<b>1.030000</b>

Months between End of Test Period and End of Attrition Period (3-31-2020 to 12-31-2021)	21
<b>Compound Salary &amp; Wage Rate Change Factor</b>	<b>1.053089</b>



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Allocation Factors**

I accept the Company's methodology (O&M Labor + Gross Plant + Bills).

However, I need to update their forecast for 2021 with data from my own calculations.

**2019 Expense Allocation Factor**

**16.85% A/**

**2020 Expense Allocation Factor**

**17.00% A/**

**2021 Expense Allocation Factor**

**17.16% A/**

A/ WHN Expense Workpaper E-120-5.00.

**SOURCE:** Bowman Workpaper - SW Composite Allocation Factors

	Balances as of 12-31-18			
	NC	SC	TN	Total
<b>2019 Allocation Factor Calculation:</b>				
Direct Labor as of 12-31-18	48,875,037	7,229,146	10,565,281	<b>66,669,463</b> A/
Gross Plant as of 12-31-18	5,107,613,260	632,355,136	1,212,977,064	<b>6,952,945,461</b> B/
March 2018 Customers	730,426	144,534	182,284	<b>1,057,243</b> C/
<b>2019 Allocation Factor Percentages:</b>				
Direct Labor as of 12-31-18	73.31%	10.84%	15.85%	100.00%
Gross Plant as of 12-31-18	73.46%	9.09%	17.45%	100.00%
March 2018 Customers	69.09%	13.67%	17.24%	100.00%
<b>Average Composite Factors</b>	<b>71.95%</b>	<b>11.20%</b>	<b>16.85%</b>	<b>100.00%</b>

	Balances as of 12-31-19			
	NC	SC	TN	Total
<b>2020 Allocation Factor Calculation:</b>				
Direct Labor as of 12-31-19	47,003,955	7,258,786	10,735,443	<b>64,998,184</b> A/
Gross Plant as of 12-31-19	5,842,328,862	665,283,359	1,348,364,900	<b>7,855,977,122</b> B/
March 2019 Customers	740,263	146,529	185,715	<b>1,072,507</b> D/
<b>2020 Allocation Factor Percentages:</b>				
Direct Labor as of 12-31-19	72.32%	11.17%	16.52%	100.01%
Gross Plant as of 12-31-19	74.37%	8.47%	17.16%	100.00%
March 2019 Customers	69.02%	13.66%	17.32%	100.00%
<b>Average Composite Factors</b>	<b>71.90%</b>	<b>11.10%</b>	<b>17.00%</b>	<b>100.00%</b>

	Balances as of 12-31-20			
	NC	SC	TN	Total
<b>2021 Allocation Factor Calculation:</b>				
Direct Labor as of 12-31-20	46,682,389	7,323,332	11,061,601	<b>65,067,322</b> A/
Gross Plant as of 12-31-20	5,973,606,250	675,942,337	1,376,797,974	<b>8,026,346,561</b> B/
March 2020 Customers	750,539	148,974	188,585	<b>1,088,098</b> E/
<b>2021 Allocation Factor Percentages:</b>				
Direct Labor as of 12-31-20	71.74%	11.26%	17.00%	100.00%
Gross Plant as of 12-31-20	74.42%	8.42%	17.15%	99.99%
March 2020 Customers	68.98%	13.69%	17.33%	100.00%
<b>Average Composite Factors</b>	<b>71.71%</b>	<b>11.12%</b>	<b>17.16%</b>	<b>100.00%</b>

A/ WHN Expense Workpaper E-120-5.01.

B/ WHN Expense Workpaper E-120-5.02.

C/ WHN Expense Workpaper E-120-5.03.

D/ WHN Expense Workpaper E-120-5.04.

E/ WHN Expense Workpaper E-120-5.05.

SOURCE: Bowman Workpaper - SW Composite Allocation Factors

Business Unit	Actual 2018	Actual 2019	Forecast 2020
47101	304,018	177,621	167,447
47102	0	0	800
47106-NC	48,996,325	46,886,683	46,582,658
47107-NC	-192,162	5,109	5,109
47108-NC	70,873	73,424	74,938
47110-NC	0	38,738	0
47111	64,655	0	19,684
47126-SC	7,234,018	7,253,287	7,317,833
47127-SC	-4,873	5,499	5,499
47136-TN	10,584,312	10,730,130	11,056,288
47137-TN	-19,031	5,313	5,313
47140		85,856	85,856
47141	143,106	-85,856	-101,804
47146	2,189,693	2,117,515	2,110,709
47148	40,942	0	0
47150	5,189,890	5,347,248	5,084,474
47151	3,705,820	224,300	175,214
47156	12,309,603	14,287,588	13,590,659
47157	13,295,022	13,513,050	13,347,288
47158	8,391,241	6,718,215	6,844,556
<b>Total</b>	<b>112,303,454</b>	<b>107,383,721</b>	<b>106,372,520</b>
NC Direct Business Units	48,875,037	47,003,955	46,682,389
SC Direct Business Units	7,229,146	7,258,786	7,323,332
TN Direct Business Units	10,565,281	10,735,443	11,061,601
<b>Total</b>	<b>66,669,463</b>	<b>64,998,184</b>	<b>65,067,322</b>

SOURCE: Bowman Workpaper - SW Composite Allocation Factors

	North Carolina	South Carolina	Tennessee	Total
<b>2018 - Actual</b>				
Plant in Service	4,879,083,276	609,592,356	1,172,929,041	6,661,604,673
Construction Work in Progress	228,529,984	22,762,780	45,876,778	297,169,542
Contributions in Aid of Construction	0	0	-5,828,754	-5,828,754
<b>Gross Plant</b>	<b>5,107,613,260</b>	<b>632,355,136</b>	<b>1,212,977,064</b>	<b>6,952,945,461</b>
Accumulated Depreciation	1,315,329,296	222,866,305	424,675,359	1,962,870,961
<b>Net Plant</b>	<b>3,792,283,964</b>	<b>409,488,831</b>	<b>788,301,705</b>	<b>4,990,074,500</b>
Gross Plant Percentage	73.46%	9.09%	17.45%	100.00%
Net Plant Percentage	67.01%	11.35%	21.64%	100.00%
<b>2019 - Actual</b>				
Plant in Service	5,513,543,690	651,404,886	1,322,376,820	7,487,325,396
Construction Work in Progress	328,785,172	13,878,473	31,816,834	374,480,479
Contributions in Aid of Construction	0	0	-5,828,754	-5,828,754
<b>Total Plant</b>	<b>5,842,328,862</b>	<b>665,283,359</b>	<b>1,348,364,900</b>	<b>7,855,977,122</b>
Accumulated Depreciation	1,417,860,682	235,166,527	447,394,620	2,100,421,828
<b>Net Plant</b>	<b>4,424,468,181</b>	<b>430,116,833</b>	<b>900,970,280</b>	<b>5,755,555,294</b>
Gross Plant Percentage	74.37%	8.47%	17.16%	100.00%
Net Plant Percentage	67.50%	11.20%	21.30%	100.00%
<b>2020 - Forecast</b>				
Plant in Service	5,692,647,172	661,532,212	1,336,938,169	7,691,117,553
Construction Work in Progress	280,959,079	14,410,125	45,688,559	341,057,763
Contributions in Aid of Construction	0	0	-5,828,754	-5,828,754
<b>Total Plant</b>	<b>5,973,606,250</b>	<b>675,942,337</b>	<b>1,376,797,974</b>	<b>8,026,346,561</b>
Accumulated Depreciation	1,407,319,872	234,714,452	446,193,652	2,088,227,977
<b>Net Plant</b>	<b>4,566,286,378</b>	<b>441,227,885</b>	<b>930,604,322</b>	<b>5,938,118,585</b>
Gross Plant Percentage	74.42%	8.42%	17.15%	100.00%
Net Plant Percentage	67.39%	11.24%	21.37%	100.00%

SOURCE: Bowman Workpaper - SW Composite Allocation Factors

Date	Residential	Small & Med General	Large Gen Sales (F&I)	Large Gen Trans (F&I)	Special Contracts	Other	Military	Total
<b>2018-North Carolina</b>								
April 2017	660,639	70,193	78	563	23	24	2	731,522
May	659,657	70,066	77	563	24	24	2	730,413
June	656,190	69,713	78	559	24	23	2	726,589
July	652,388	69,446	77	561	24	22	2	722,520
August	651,796	69,303	76	559	24	22	2	721,782
September	648,577	69,067	76	561	24	22	2	718,329
October	650,812	69,183	76	564	24	23	2	720,684
November	656,718	69,548	78	566	24	22	2	726,958
December	664,048	70,376	77	559	24	22	2	735,108
January 2018	670,096	71,071	76	569	24	21	2	741,859
February	672,149	71,433	77	560	24	21	2	744,266
March	673,026	71,372	78	554	24	22	2	745,078
<b>Average</b>	<b>659,675</b>	<b>70,064</b>	<b>77</b>	<b>562</b>	<b>24</b>	<b>22</b>	<b>2</b>	<b>730,426</b>
<b>2018-South Carolina</b>								
April 2017	129,419	14,471	38	78	2	8	0	144,016
May	129,339	14,430	37	78	2	8	0	143,894
June	129,028	14,401	41	77	3	8	0	143,558
July	128,452	14,334	41	77	3	8	0	142,915
August	128,521	14,297	42	77	3	8	0	142,948
September	128,174	14,273	41	77	3	8	0	142,576
October	128,602	14,279	41	78	3	8	0	143,011
November	129,316	14,300	41	78	3	8	0	143,746
December	130,628	14,431	42	78	3	8	0	145,190
January 2018	131,482	17,319	42	78	3	8	0	148,932
February	131,987	14,674	42	78	3	8	0	146,792
March	132,048	14,649	43	78	3	8	0	146,829
<b>Average</b>	<b>129,750</b>	<b>14,655</b>	<b>41</b>	<b>78</b>	<b>3</b>	<b>8</b>	<b>0</b>	<b>144,534</b>
<b>2018-Tennessee</b>								
April 2017	163,613	17,821	52	129	0	1	0	181,616
May	163,525	17,752	51	127	0	1	0	181,456
June	163,186	17,676	51	127	0	1	0	181,041
July	162,650	17,596	50	127	0	1	0	180,424
August	162,810	17,596	51	127	0	1	0	180,585
September	162,491	17,539	50	127	0	1	0	180,208
October	162,791	17,543	50	126	0	1	0	180,511
November	164,104	17,681	51	126	0	1	0	181,963
December	165,598	17,886	50	126	0	1	0	183,661
January 2018	166,618	18,020	49	126	0	1	0	184,814
February	167,225	18,100	51	126	0	1	0	185,503
March	167,367	18,078	51	126	0	1	0	185,623
<b>Average</b>	<b>164,332</b>	<b>17,774</b>	<b>51</b>	<b>127</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>182,284</b>

SOURCE: Bowman Workpaper - SW Composite Allocation Factors

Date	Residential	Small & Med General	Large Gen Sales (F&I)	Large Gen Trans (F&I)	Special Contracts	Other	Military	Total
<b>2019-North Carolina</b>								
April 2018	672,304	71,320	77	552	24	22	2	744,301
May	670,242	71,078	77	554	24	23	2	742,000
June	665,414	70,710	84	552	24	24	2	736,810
July	661,848	70,398	83	550	24	22	2	732,927
August	659,542	70,193	83	550	24	22	2	730,416
September	656,502	69,923	83	551	24	22	2	727,107
October	658,393	70,062	84	551	24	22	2	729,138
November	666,696	70,431	84	551	24	22	2	737,810
December	674,274	71,221	82	549	24	22	2	746,174
January 2019	678,641	71,687	82	550	24	22	2	751,008
February	679,618	71,834	81	548	23	21	2	752,127
March	680,831	71,827	81	549	23	21	2	753,334
<b>Average</b>	<b>668,692</b>	<b>70,890</b>	<b>82</b>	<b>551</b>	<b>24</b>	<b>22</b>	<b>2</b>	<b>740,263</b>
<b>2019-South Carolina</b>								
April 2018	131,963	14,634	45	78	3	8	0	146,731
May	131,762	14,588	44	78	3	8	0	146,483
June	131,127	14,527	41	80	3	8	0	145,786
July	130,611	14,480	41	80	3	8	0	145,223
August	130,382	14,444	41	80	3	8	0	144,958
September	130,007	14,410	40	80	3	8	0	144,548
October	130,203	14,402	40	80	3	8	0	144,736
November	131,400	14,453	41	80	3	8	0	145,985
December	132,841	14,657	41	80	3	8	0	147,630
January 2019	133,625	14,762	41	81	3	8	0	148,520
February	133,852	14,765	43	82	3	8	0	148,753
March	134,087	14,772	43	80	3	8	0	148,993
<b>Average</b>	<b>131,822</b>	<b>14,575</b>	<b>42</b>	<b>80</b>	<b>3</b>	<b>8</b>	<b>0</b>	<b>146,529</b>
<b>2019-Tennessee</b>								
April 2018	167,376	18,058	50	126	0	1	0	185,611
May	167,280	18,018	50	127	0	1	0	185,476
June	166,605	17,898	51	128	0	1	0	184,683
July	166,209	17,841	52	126	0	1	0	184,229
August	165,999	17,791	51	126	0	1	0	183,968
September	165,557	17,716	54	126	0	1	0	183,454
October	165,851	17,722	53	127	0	1	0	183,754
November	167,336	17,915	54	128	0	1	0	185,434
December	168,925	18,126	54	128	0	1	0	187,234
January 2019	169,619	18,226	54	128	0	1	0	188,028
February	169,838	18,239	54	128	0	1	0	188,260
March	170,026	18,245	53	128	0	1	0	188,453
<b>Average</b>	<b>167,552</b>	<b>17,983</b>	<b>53</b>	<b>127</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>185,715</b>

SOURCE: Bowman Workpaper - SW Composite Allocation Factors

Date	Residential	Small & Med General	Large Gen Sales (F&I)	Large Gen Trans (F&I)	Special Contracts	Other	Military	Total
<b>2020-North Carolina</b>								
April 2019	680,579	71,793	82	554	23	21	2	753,054
May	677,455	71,509	81	550	23	20	2	749,640
June	674,377	71,214	90	548	22	20	2	746,273
July	672,474	70,982	89	553	22	19	2	744,141
August	669,933	70,803	89	549	22	19	2	741,417
September	668,160	70,638	89	551	22	19	2	739,481
October	669,427	70,698	90	548	22	19	2	740,806
November	675,566	71,038	90	553	23	19	2	747,291
December	684,380	71,962	90	552	23	19	2	757,028
January 2020	687,564	72,241	90	550	23	20	2	760,490
February	689,391	72,357	91	548	23	20	2	762,432
March	691,271	72,461	91	550	23	20	2	764,418
<b>Average</b>	<b>678,381</b>	<b>71,475</b>	<b>89</b>	<b>551</b>	<b>23</b>	<b>20</b>	<b>2</b>	<b>750,539</b>
<b>2020-South Carolina</b>								
April 2019	134,069	14,745	41	81	3	8	0	148,947
May	133,717	14,700	42	81	3	8	0	148,551
June	133,304	14,619	40	83	3	8	0	148,057
July	133,170	14,579	40	83	3	8	0	147,883
August	132,856	14,533	40	83	3	8	0	147,523
September	132,561	14,496	40	83	3	8	0	147,191
October	132,766	14,495	40	83	3	8	0	147,395
November	133,658	14,582	40	84	3	8	0	148,375
December	135,259	14,770	40	83	3	8	0	150,163
January 2020	135,930	14,844	40	83	3	8	0	150,908
February	136,198	14,856	41	83	3	8	0	151,189
March	136,491	14,881	42	83	3	8	0	151,508
<b>Average</b>	<b>134,165</b>	<b>14,675</b>	<b>41</b>	<b>83</b>	<b>3</b>	<b>8</b>	<b>0</b>	<b>148,974</b>
<b>2020-Tennessee</b>								
April 2019	170,097	18,230	53	128	0	1	0	188,509
May	169,601	18,113	53	127	0	1	0	187,895
June	169,085	17,990	56	126	0	1	0	187,258
July	169,056	17,957	57	125	0	1	0	187,196
August	168,810	17,900	57	125	0	1	0	186,893
September	168,663	17,845	59	126	0	1	0	186,694
October	168,917	17,849	58	125	0	1	0	186,950
November	170,072	18,034	58	126	0	1	0	188,291
December	171,645	18,247	58	124	0	1	0	190,075
January 2020	172,211	18,275	57	124	0	1	0	190,668
February	172,594	18,337	57	124	0	1	0	191,113
March	172,974	18,321	57	124	0	1	0	191,477
<b>Average</b>	<b>170,310</b>	<b>18,092</b>	<b>57</b>	<b>125</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>188,585</b>



## WHN Rate Base Workpapers - Rate Base

Item	Test Period	Adjustment	Attrition Period
<b>Net Plant Investment:</b>			
Plant in Service	1,317,921,492	197,022,158	1,514,943,650 <b>A/</b>
Construction Work in Progress	54,969,193	-370,816	54,598,377 <b>B/</b>
Accumulated Depreciation	-462,673,218	-37,866,845	-500,540,063 <b>C/</b>
Contributions in Aid of Construction	-5,828,754	0	-5,828,754 <b>D/</b>
Accumulated Deferred Income Taxes	-194,629,398	-5,330,955	-199,960,353 <b>E/</b>
<b>Total Net Plant Investment</b>	<b>709,759,315</b>	<b>153,453,542</b>	<b>863,212,857</b>
<b>Working Capital:</b>			
Gas Inventory	7,834,209	0	7,834,209 <b>F/</b>
Customer Deposits	-4,244,585	-123,012	-4,367,597 <b>G/</b>
Accrued Interest on Customer Deposits	-303,252	-8,788	-312,040 <b>H/</b>
Cash Working Funds	0	0	0 <b>J/</b>
Materials & Supplies	166,593	10,266	176,859 <b>K/</b>
Deferred Debits	16,209,609	-15,559,636	649,973 <b>L/</b>
Prepaid Insurance	209,503	-82,306	127,197 <b>M/</b>
Deferred Pension & OPEB Expenses	0	0	0 <b>N/</b>
Fleets & Overheads	122,459	5,689	128,148 <b>O/</b>
Accounts Payable Related to CWIP and M&S	-9,193,464	-427,128	-9,620,592 <b>P/</b>
Accounts Payable Related to M&S	-20,367	-946	-21,313 <b>Q/</b>
Accrued Vacation	-2,305,163	-122,379	-2,427,542 <b>R/</b>
<b>Total Working Capital</b>	<b>8,475,542</b>	<b>-16,308,241</b>	<b>-7,832,698</b>
<b>Total Rate Base</b>	<b>718,234,857</b>	<b>137,145,301</b>	<b>855,380,159</b>

A/ WHN Rate Base Workpaper RB-10-1.00.  
 B/ WHN Rate Base Workpaper RB-15-1.00.  
 C/ WHN Rate Base Workpaper RB-20-1.00.  
 D/ WHN Rate Base Workpaper RB-25-1.00.  
 E/ WHN Rate Base Workpaper RB-30-1.00.  
 F/ WHN Rate Base Workpaper RB-35-1.00.  
 G/ WHN Rate Base Workpaper RB-40-1.00.  
 H/ WHN Rate Base Workpaper RB-45-1.00.  
 I/ WHN Rate Base Workpaper RB-50-1.00.  
 J/ WHN Rate Base Workpaper RB-55-1.00.  
 K/ WHN Rate Base Workpaper RB-60-1.00.  
 L/ WHN Rate Base Workpaper RB-65-1.00.  
 M/ WHN Rate Base Workpaper RB-70-1.00.  
 N/ WHN Rate Base Workpaper RB-75-1.00.  
 N/ WHN Rate Base Workpaper RB-75-1.00.  
 O/ WHN Rate Base Workpaper RB-80-1.00.  
 P/ WHN Rate Base Workpaper RB-85-1.00 and RB-85-2.00.  
 Q/ WHN Rate Base Workpaper RB-90-1.00.  
 R/ WHN Rate Base Workpaper RB-95-1.00.

## WHN Rate Base Workpapers - Comparison of CA and Company Rate Base

Item	Consumer Advocate	A/	Company	B/	Difference
<b>Net Plant Investment:</b>					
Plant in Service	1,514,943,650		1,545,454,734		-30,511,084
Construction Work in Progress	54,598,377		42,271,971		12,326,406
Accumulated Depreciation	-500,540,063		-506,047,002		5,506,939
Contributions in Aid of Construction	-5,828,754		-5,828,754		0
Accumulated Deferred Income Taxes	-199,960,353		-191,042,334		-8,918,019
<b>Total Net Plant Investment</b>	<b>863,212,857</b>		<b>884,808,615</b>		<b>-21,595,758</b>
<b>Working Capital:</b>					
Gas Inventory	7,834,209		8,763,271		-929,062
Customer Deposits	-4,367,597		-4,382,623		15,026
Accrued Interest on Customer Deposits	-312,040		-313,114		1,074
Cash Working Funds	0		-555,056		555,056
Materials & Supplies	176,859		168,196		8,663
Deferred Debits	649,973		11,530,729		-10,880,756
Prepaid Insurance	127,197		144,542		-17,345
Deferred Pension & OPEB Expenses	0		19,545,529		-19,545,529
Fleets & Overheads	128,148		127,993		155
Accounts Payable Related to CWIP and M&S	-9,620,592		-9,557,776		-62,816
Accounts Payable Related to M&S	-21,313		-21,305		-8
Accrued Vacation	-2,427,542		-2,412,940		-14,602
<b>Total Working Capital</b>	<b>-7,832,698</b>		<b>23,037,446</b>		<b>-30,870,144</b>
<b>Total Rate Base</b>	<b>855,380,159</b>		<b>907,846,061</b>		<b>-52,465,902</b>

A/ WHN Rate Base Workpaper RB-1-1.00.

B/ Company response to DR1-10, "Rev Req" tab.

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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**  
**WHN Rate Base Workpapers - Allocated Balance Sheet**

**RB-1-9.00 (Non-Print)**

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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Total Plant in Service**

<b>Date</b>	<b>Piedmont Plant</b>	<b>A/ Allocation Factor</b>	<b>B/ Allocation</b>	<b>Tennessee Allocation</b>	<b>Tennessee Direct</b>	<b>C/ Total Tennessee</b>
12/31/20	331,996,781	15.67%		52,023,896	1,411,443,691	1,463,467,587
01/31/21	333,917,346	15.67%		52,324,848	1,419,722,082	1,472,046,930
02/28/21	335,837,912	15.67%		52,625,801	1,428,000,474	1,480,626,275
03/31/21	337,758,478	15.67%		52,926,753	1,436,278,865	1,489,205,618
04/30/21	339,679,044	15.67%		53,227,706	1,444,557,256	1,497,784,962
05/31/21	341,599,609	15.67%		53,528,659	1,452,835,648	1,506,364,307
06/30/21	343,520,175	15.67%		53,829,611	1,461,114,039	1,514,943,650
07/31/21	345,440,741	15.67%		54,130,564	1,469,392,430	1,523,522,994
08/31/21	347,361,307	15.67%		54,431,517	1,477,670,821	1,532,102,338
09/30/21	349,281,872	15.67%		54,732,469	1,485,949,213	1,540,681,682
10/31/21	351,202,438	15.67%		55,033,422	1,494,227,604	1,549,261,026
11/30/21	353,123,004	15.67%		55,334,375	1,502,505,995	1,557,840,370
12/31/21	355,043,570	15.67%		55,635,327	1,510,784,387	1,566,419,714
	<b>343,520,175</b>			<b>53,829,611</b>	<b>1,461,114,039</b>	<b>1,514,943,650</b>

A/ WHN Rate Base Workpaper RB-10-3.00.

B/ WHN Rate Base Workpaper RB-100-1.00

C/ WHN Rate Base Workpaper RB-10-2.00.

Date	Tennessee Direct	A/	Piedmont Common Plant			Tennessee Allocation	Total Tennessee
			3-State Plant	B/	Allocation Factor	C/	
March 2019	1,187,835,029		288,541,455		15.80%	45,589,550	1,233,424,578
April	1,195,555,533		290,655,222		15.80%	45,923,525	1,241,479,058
May	1,227,473,628		290,682,602		15.80%	45,927,851	1,273,401,480
June	1,230,356,118		290,987,829		15.80%	45,976,077	1,276,332,195
July	1,236,125,962		292,095,647		15.80%	46,151,112	1,282,277,074
August	1,255,026,722		289,485,162		15.80%	45,738,656	1,300,765,378
September	1,266,721,418		292,554,414		15.80%	46,223,597	1,312,945,015
October	1,287,150,373		290,303,177		15.80%	45,867,902	1,333,018,275
November	1,317,066,348		291,014,298		15.80%	45,980,259	1,363,046,607
December	1,323,208,428		299,679,119		15.80%	47,349,301	1,370,557,728
January 2020	1,328,871,798		303,308,459		15.65%	47,467,774	1,376,339,572
February	1,335,486,294		304,892,005		15.65%	47,715,599	1,383,201,893
March	1,336,938,169		314,711,689		15.65%	49,252,379	1,386,190,548
<b>Average</b>	<b>1,271,370,448</b>		<b>295,300,852</b>			<b>46,551,045</b>	<b>1,317,921,492</b>

A/ WHN Rate Base Workpaper RB-10-2.81.

B/ WHN Rate Base Workpaper RB-10-3.81.

C/ WHN Rate Base Workpaper RB-100-1.00.

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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Tennessee Plant in Service**

## PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

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## WHN Rate Base Workpapers - Attrition Period Tennessee Plant in Service

<u>Date</u>	<u>Beginning Balance</u>	<u>Plant Additions</u>	<u>A/</u>	<u>Plant Retirements</u>	<u>A/</u>	<u>Ending Balance</u>
03/31/20						1,336,938,169 B/
04/30/20	1,336,938,169	8,648,503		-370,112		1,345,216,560
05/31/20	1,345,216,560	8,648,503		-370,112		1,353,494,952
06/30/20	1,353,494,952	8,648,503		-370,112		1,361,773,343
07/31/20	1,361,773,343	8,648,503		-370,112		1,370,051,734
08/31/20	1,370,051,734	8,648,503		-370,112		1,378,330,126
09/30/20	1,378,330,126	8,648,503		-370,112		1,386,608,517
10/31/20	1,386,608,517	8,648,503		-370,112		1,394,886,908
11/30/20	1,394,886,908	8,648,503		-370,112		1,403,165,300
12/31/20	1,403,165,300	8,648,503		-370,112		1,411,443,691
01/31/21	1,411,443,691	8,648,503		-370,112		1,419,722,082
02/28/21	1,419,722,082	8,648,503		-370,112		1,428,000,474
03/31/21	1,428,000,474	8,648,503		-370,112		1,436,278,865
04/30/21	1,436,278,865	8,648,503		-370,112		1,444,557,256
05/31/21	1,444,557,256	8,648,503		-370,112		1,452,835,648
06/30/21	1,452,835,648	8,648,503		-370,112		1,461,114,039
07/31/21	1,461,114,039	8,648,503		-370,112		1,469,392,430
08/31/21	1,469,392,430	8,648,503		-370,112		1,477,670,821
09/30/21	1,477,670,821	8,648,503		-370,112		1,485,949,213
10/31/21	1,485,949,213	8,648,503		-370,112		1,494,227,604
11/30/21	1,494,227,604	8,648,503		-370,112		1,502,505,995
12/31/21	1,502,505,995	8,648,503		-370,112		1,510,784,387
<b>Total</b>		<b>181,618,562</b>		<b>-7,772,345</b>		
<b>13-Month Average</b>						<b>1,461,114,039</b>

A/ WHN Rate Base Workpaper RB-10-2.01 and RB-10-2.02.

B/ WHN Rate Base Workpaper RB-10-2.80.



SOURCE: Bowman Workpaper, Detail Plant in Service and Depr Exp, Tab A-Summary Plant in Service

Date	Beginning Balance	Plant Additions	Plant Retirements	Ending Balance
03/31/20				1,336,938,169
04/30/20	1,336,938,169	4,616,995	-89,885	1,341,465,279
05/31/20	1,341,465,279	13,216,581	-3,507,788	1,351,174,072
06/30/20	1,351,174,072	9,324,085	0	1,360,498,157
07/31/20	1,360,498,157	12,657,639	-12,914	1,373,142,881
08/31/20	1,373,142,881	2,070,146	-4,072	1,375,208,956
09/30/20	1,375,208,956	3,487,345	-456,427	1,378,239,874
10/31/20	1,378,239,874	65,827,524	-660	1,444,066,738
11/30/20	1,444,066,738	11,747,398	0	1,455,814,137
12/31/20	1,455,814,137	10,274,440	0	1,466,088,577
01/31/21	1,466,088,577	8,446,841	-524,440	1,474,010,977
02/28/21	1,474,010,977	1,702,500	0	1,475,713,477
03/31/21	1,475,713,477	1,653,148	0	1,477,366,625
04/30/21	1,477,366,625	5,041,930	1	1,482,408,556
05/31/21	1,482,408,556	1,624,211	0	1,484,032,767
06/30/21	1,484,032,767	3,029,572	0	1,487,062,339
07/31/21	1,487,062,339	6,667,181	0	1,493,729,520
08/31/21	1,493,729,520	3,575,194	0	1,497,304,714
09/30/21	1,497,304,714	3,754,478	0	1,501,059,192
10/31/21	1,501,059,192	9,364,966	0	1,510,424,158
11/30/21	1,510,424,158	1,875,465	0	1,512,299,623
12/31/21	1,512,299,623	31,038,286	0	1,543,337,909
<b>Total</b>		<b>210,995,925</b>	<b>-4,596,186</b>	
<b>13-Month Average</b>				<b>1,492,679,880</b>

## WHN Rate Base Workpapers - Piedmont Tennessee Average Plant Additions Calculation

**Plant Additions:**

Tennessee Average Annual Normal Plant Additions	44,496,376 <b>A/</b>
Tennessee Average Annual Special Project Plant Additions	<u>59,285,660 <b>B/</b></u>
<b>Total Tennessee Average Annual Plant Additions</b>	<b><u>103,782,036</u></b>
<b>Total Tennessee Average Monthly Plant Additions</b>	<b><u>8,648,503</u></b>

**Plant Retirements:**

Tennessee Average Annual Total Plant Retirements	<u><u>-4,441,340 <b>C/</b></u></u>
Tennessee Average Monthly Total Plant Retirements	<u><u>-370,112</u></u>

A/ WHN Rate Base Workpaper RB-10-2.20.

B/ WHN Rate Base Workpaper RB-10-2.21.

C/ WHN Rate Base Workpaper RB-10-2.40.

D/ WHN Rate Base Workpaper RB-10-2.00.

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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Attrition Period Tennessee Total Plant Additions**

**RB-10-2.10 (Non-Print)**

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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Attrition Period Tennessee Normal Plant Additions**

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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Attrition Period Tennessee Plant Additions**

**RB-10-2.13 (Non-Print)**

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Source: WHN Rate Base Workpaper RB-10-2.22 (Non-Print).

Account	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020	3-Year Average	Company Stub Period 4/20 - 12/20	Company Attr Year 1/21 - 12/21	Company Total Forecast 4/20 - 12/21
20100 - Organization	0	0	0	0	0	0	0
20200 - Franchises and Consents	0	0	0	0	0	0	0
20300 - Miscellaneous Intangible PI	0	0	0	0	0	0	0
26000 - Land and Land Rights	0	0	0	0	0	0	0
26100 - Structures & Improvements	13,571	126,496	753,144	297,737	1,325,655	994,423	2,320,079
26200 - Gas Holders	0	0	0	0	0	0	0
26300 - Purification Equipment	0	0	0	0	0	0	0
26310 - Liquefaction Equipment	49,902	0	0	16,634	0	0	0
26320 - Vaporizing Equipment	0	0	0	0	0	0	0
26330 - Compressor Equipment	0	0	0	0	0	0	0
26340 - Measuring & Reg Equipment	0	0	0	0	0	0	0
26350 - Other Equipment	0	314,222	913,453	409,225	0	0	0
26502 - Depreciable Land Rights					5,997,527	3,102,960	9,100,486
26510 - Land and Land Rights	0	1,397	821	739	0	0	0
26520 - Rights-of-Way	90,003	60,490	320,632	157,042	0	0	0
26620 - S&I - M&R Station Str	0	0	613,136	204,379	5,283	13,165	18,448
26700 - Mains	8,791,503	974,264	23,610,462	11,125,409	53,814,813	30,936,195	84,751,008
26701 - Mains, Cathodic Protection	0	3,756	0	1,252	0	0	0
26900 - System Meas & Reg Station	638,811	659,583	7,796,566	3,031,654	1,380,298	3,876,378	5,256,675
27400 - Non-depr Land & Land Rights	-4,382	-167,083	301	-57,055	0	0	0
27401 - Rights of Way	168,630	375,607	1,309,803	618,013	216,661	165,897	382,558
27500 - Structures & Improvements -	0	0	0	0	0	0	0
27600 - Mains	30,712,970	7,022,476	17,044,969	18,260,138	21,563,535	7,243,175	28,806,709
27800 - System Meas & Reg Station	63,049	536,805	2,250,077	949,977	953,369	723,087	1,676,456
27900 - Meas & Reg Sta Equip - City	34,020	-207,902	61,635	-37,416	0	0	0
28000 - Services	5,003,714	4,823,909	3,876,045	4,567,889	253,922	322,528	576,450
28100 - Meters	541,074	0	0	180,358	0	0	0
28105 - Meters - Meter Acc, ERTs	0	0	0	0	0	0	0
28200 - Meter Installations	0	0	0	0	0	0	0
28300 - House Regulators	0	0	0	0	0	0	0
28400 - House Regulator Installatio	0	0	0	0	0	0	0
28500 - Ind Meas & Reg St Equip	197,744	186,929	1,860,073	748,249	57,041	142,144	199,185
28700 - Other Equipment - Other	0	0	0	0	0	0	0
28900 - Non-depr Land & Land Rights	0	0	0	0	0	0	0
29000 - Structures and Improvements	178,598	2,114,698	1,530,204	1,274,500	0	0	0
29100 - Office Furniture and Equipm	261,780	111,226	259,910	210,972	0	0	0
29101 - Electronic Data Processing	0	0	0	0	0	0	0
29200 - Transportation Equipment	1,387,048	1,448,578	0	945,209	0	0	0
29204 - Trans Equip - Leased Buyout	0	0	0	0	0	0	0
29210 - Pass. Cars & Sta Wagons	0	0	0	0	0	0	0
29211 - Trucks 1/2 & 3/4 Ton	0	466,618	455,792	307,470	0	0	0
29212 - Trucks 1 & 1.5 Ton	0	0	889,189	296,396	0	0	0
29213 - Trucks 2 Ton & Over	0	0	406,833	135,611	0	0	0
29217 - Tractors - Diesel	0	75,736	0	25,245	0	0	0
29218 - Trailers	0	0	0	0	0	0	0
29300 - Stores Equipment	0	0	0	0	0	0	0
29400 - Tools, Shop & Garage Equip	812,769	-8,254	622,757	475,757	114,906	131,814	246,720
29500 - Laboratory Equipment	0	0	0	0	0	0	0
29600 - Power Operated Equipment	0	0	22,331	7,444	0	0	0
29700 - Communication Equipment	7,146	389,327	-8,529	129,315	0	0	0
29800 - Miscellaneous Equipment	0	41,132	601,563	214,232	338,989	16,800	355,789
29900 - Other Tangible Property	0	0	0	0	0	0	0
<b>Annual Total</b>	<b>48,947,950</b>	<b>19,350,010</b>	<b>65,191,166</b>	<b>44,496,376</b>	<b>86,021,997</b>	<b>47,668,565</b>	<b>133,690,562</b>
<b>Monthly Average</b>	<b>4,078,996</b>	<b>1,612,501</b>	<b>5,432,597</b>	<b>3,708,031</b>	<b>7,168,500</b>	<b>3,972,380</b>	<b>11,140,880</b>



Source: WHN Rate Base Workpaper RB-10-2.22 (Non-Print).

Account	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020	3-Year Average	Company Stub Period 4/20 - 12/20	Company Attr Year 1/21 - 12/21	Company Total Forecast 4/20 - 12/21
20100 - Organization	0	0	0	0	0	0	0
20200 - Franchises and Consents	0	0	0	0	0	0	0
20300 - Miscellaneous Intangible PI	0	0	0	0	0	0	0
26000 - Land and Land Rights	0	0	0	0	0	0	0
26100 - Structures & Improvements	0	0	0	0	0	0	0
26200 - Gas Holders	0	0	0	0	0	0	0
26300 - Purification Equipment	0	0	0	0	0	0	0
26310 - Liquefaction Equipment	0	0	0	0	0	0	0
26320 - Vaporizing Equipment	0	0	0	0	0	0	0
26330 - Compressor Equipment	0	0	0	0	0	0	0
26340 - Measuring & Reg Equipment	0	0	0	0	0	0	0
26350 - Other Equipment	0	0	0	0	0	0	0
26502 - Depreciable Land Rights					0	0	0
26510 - Land and Land Rights	-234	0	0	-78	0	0	0
26520 - Rights-of-Way	0	0	0	0	0	0	0
26620 - S&I - M&R Station Str	0	0	0	0	0	0	0
26700 - Mains	0	2,138,857	11,675,696	4,604,851	646,108	67,856	713,964
26701 - Mains, Cathodic Protection	0	0	0	0	0	0	0
26900 - System Meas & Reg Station	-6,801	0	3,705,619	1,232,939	0	0	0
27400 - Non-depr Land & Land Rights	50,273	225,298	3,548,053	1,274,541	0	0	0
27401 - Rights of Way	4,937,093	-1,342,478	142,823	1,245,812	412,856	0	412,856
27500 - Structures & Improvements -	0	0	0	0	0	0	0
27600 - Mains	19,425,709	24,856,867	54,013,573	32,765,383	29,025,429	10,583,492	39,608,921
27800 - System Meas & Reg Station	84,469	1,561,731	1,800,337	1,148,846	2,056,675	199,518	2,256,192
27900 - Meas & Reg Sta Equip - City	1,822	-182,732	0	-60,303	59,674	32,964	92,637
28000 - Services	13,678,965	15,080,748	18,063,697	15,607,803	13,551,783	17,484,967	31,036,750
28100 - Meters	88,957	802,070	-801,472	29,852	0	0	0
28105 - Meters - Meter Acc, ERTs	0	0	0	0	0	0	0
28200 - Meter Installations	988,252	802,069	2,623,018	1,471,113	1,121,742	1,495,619	2,617,361
28300 - House Regulators	-7,332	0	-727,114	-244,815	92,945	136,008	228,953
28400 - House Regulator Installatio	37,941	0	0	12,647	39,806	58,248	98,054
28500 - Ind Meas & Reg St Equip	264,389	243,052	81,072	196,171	56,598	46,536	103,134
28700 - Other Equipment - Other	0	0	0	0	0	0	0
28900 - Non-depr Land & Land Rights	0	0	0	0	0	0	0
29000 - Structures and Improvements	0	0	0	0	0	0	0
29100 - Office Furniture and Equipm	0	0	0	0	0	0	0
29101 - Electronic Data Processing	0	0	0	0	0	0	0
29200 - Transportation Equipment	0	0	0	0	0	0	0
29204 - Trans Equip - Leased Buyout	0	0	0	0	0	0	0
29210 - Pass. Cars & Sta Wagons	0	0	0	0	0	0	0
29211 - Trucks 1/2 & 3/4 Ton	0	0	0	0	0	0	0
29212 - Trucks 1 & 1.5 Ton	0	0	0	0	0	0	0
29213 - Trucks 2 Ton & Over	0	0	0	0	0	0	0
29217 - Tractors - Diesel	0	0	0	0	0	0	0
29218 - Trailers	0	0	0	0	0	0	0
29300 - Stores Equipment	0	0	0	0	0	0	0
29400 - Tools, Shop & Garage Equip	0	0	0	0	0	0	0
29500 - Laboratory Equipment	0	0	0	0	0	0	0
29600 - Power Operated Equipment	0	0	0	0	0	0	0
29700 - Communication Equipment	2,694	0	0	898	0	0	0
29800 - Miscellaneous Equipment	0	0	0	0	136,542	0	136,542
29900 - Other Tangible Property	0	0	0	0	0	0	0
<b>Total</b>	<b>39,546,196</b>	<b>44,185,482</b>	<b>94,125,302</b>	<b>59,285,660</b>	<b>47,200,157</b>	<b>30,105,207</b>	<b>77,305,363</b>





## WHN Rate Base Workpapers - Historical Tennessee Plant Additions-Summary

Source: WHN Rate Base Workpaper RB-10-2.31 (Non-Print).

Account	12 ME 03-2013	12 ME 03-2014	12 ME 03-2015	12 ME 03-2016	12 ME 03-2017	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020
20100 - Organization	0	0	0	0	0	0	0	0
20200 - Franchises and Consents	0	0	0	0	0	0	0	0
20300 - Miscellaneous Intangible PI	0	0	0	0	0	0	0	0
26000 - Land and Land Rights	0	0	0	0	0	0	0	0
26100 - Structures & Improvements	40,719	3,023,059	2,405,768	211,960	1,461,231	13,571	126,496	753,144
26200 - Gas Holders	0	0	0	0	0	0	0	0
26300 - Purification Equipment	8,019,570	5,885	-599,103	249,653	0	0	0	0
26310 - Liquefaction Equipment	3,629,854	4,468,441	7,730,550	-8,468,138	245,566	49,902	0	0
26320 - Vaporizing Equipment	19,859,076	441,344	-5,806,154	6,122,184	27,944	0	0	0
26330 - Compressor Equipment	0	0	4,629,967	2,845,159	0	0	0	0
26340 - Measuring & Reg Equipment	85	0	28,419	-51,582	0	0	0	0
26350 - Other Equipment	6,345,471	266,822	-2,031,535	-528,387	148,914	0	314,222	913,453
26510 - Land and Land Rights	0	0	0	1,724,613	62,466	-234	1,397	821
26520 - Rights-of-Way	348,536	80,961	10,291,423	5,675,656	202,673	90,003	60,490	320,632
26620 - S&I - M&R Station Str	0	0	0	0	0	0	0	613,136
26700 - Mains	55,765,807	7,725,165	108,233,780	-12,947,457	8,312,263	8,791,503	3,113,121	35,286,158
26701 - Mains, Cathodic Protection	162,052	228,168	2,818	9	3,402	0	3,756	0
26900 - System Meas & Reg Station	0	0	0	17,513,015	6,862,245	632,010	659,583	11,502,186
27400 - Non-depr Land & Land Rights	2,249,527	146,851	228,620	100,518	169,892	45,891	58,216	3,548,354
27401 - Rights of Way	0	0	66,345	0	483,857	5,105,723	-966,872	1,452,626
27500 - Structures & Improvements -	0	0	0	0	58,487	0	0	0
27600 - Mains	8,183,290	13,245,651	18,676,696	22,775,664	22,414,150	50,138,678	31,879,343	71,058,541
27800 - System Meas & Reg Station	1,725,076	5,332,370	104,671	1,634,036	-2,355,789	147,518	2,098,536	4,050,414
27900 - Meas & Reg Sta Equip - City	420,409	14,216	5,237,552	-8,003,282	296,950	35,842	-390,634	61,635
28000 - Services	6,285,941	6,974,554	9,554,571	11,996,144	14,755,609	18,682,679	19,904,657	21,939,742
28100 - Meters	838,478	818,661	955,716	1,872,945	-1,640,933	630,032	802,070	-801,472
28105 - Meters - Meter Acc, ERTs	0	0	0	0	0	0	0	0
28200 - Meter Installations	286,630	274,681	386,746	513,736	2,910,075	988,252	802,069	2,623,018
28300 - House Regulators	724,627	2,426	26	141	933,325	-7,332	0	-727,114
28400 - House Regulator Installatio	192,708	194,943	178,075	158,506	-835,530	37,941	0	0
28500 - Ind Meas & Reg St Equip	208,512	66,364	57,002	513,708	300,018	462,133	429,981	1,941,145
28700 - Other Equipment - Other	0	0	0	0	0	0	0	0
28900 - Non-depr Land & Land Rights	5,313	-472,596	0	0	0	0	0	0
29000 - Structures and Improvements	90,331	-511,610	35,134	646,357	358,887	178,598	2,114,698	1,530,204
29100 - Office Furniture and Equipm	10,969	708,288	15,928	45,521	0	261,780	111,226	259,910
29101 - Electronic Data Processing	0	2,799	0	-2,799	0	0	0	0
29200 - Transportation Equipment	676,056	1,052,395	1,497,177	978,449	1,953,745	1,387,048	1,448,578	0
29204 - Trans Equip - Leased Buyout	0	0	0	0	0	0	0	0
29210 - Pass. Cars & Sta Wagons	0	0	0	0	0	0	0	0
29211 - Trucks 1/2 & 3/4 Ton	0	0	0	0	0	0	466,618	455,792
29212 - Trucks 1 & 1.5 Ton	0	0	0	0	0	0	0	889,189
29213 - Trucks 2 Ton & Over	0	0	0	0	0	0	0	406,833
29217 - Tractors - Diesel	0	0	0	0	0	0	75,736	0
29218 - Trailers	0	0	0	0	0	0	0	0
29300 - Stores Equipment	0	0	0	0	0	0	0	0
29400 - Tools, Shop & Garage Equip	1,253,613	1,172,755	3,760,503	120,588	95,887	812,769	-8,254	622,757
29500 - Laboratory Equipment	0	0	0	0	0	0	0	0
29600 - Power Operated Equipment	137,319	167,767	184,362	0	401,423	0	0	22,331
29700 - Communication Equipment	147,260	601	0	148,980	78,923	9,840	389,327	-8,529
29800 - Miscellaneous Equipment	31,761	10,413	0	8,698	35,751	0	41,132	601,563
29900 - Other Tangible Property	0	0	0	0	0	0	0	0
<b>Total</b>	<b>117,638,991</b>	<b>45,441,373</b>	<b>165,825,057</b>	<b>45,854,595</b>	<b>57,741,433</b>	<b>88,494,146</b>	<b>63,535,492</b>	<b>159,316,468</b>



Source: WHN Rate Base Workpaper RB-10-2.41 AND RB-10-2.01.

Account	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020	3-Year Average	Company Stub Period 4/20 - 12/20	Company Attr Year 1/21 - 12/21	Company Total Forecast 4/20 - 12/21
20100 - Organization	0	0	0	0			
20200 - Franchises and Consents	0	0	0	0			
20300 - Miscellaneous Intangible PI	0	0	0	0			
26000 - Land and Land Rights	0	0	0	0			
26100 - Structures & Improvements	0	0	-2,350,812	-783,604			
26200 - Gas Holders	0	0	0	0			
26300 - Purification Equipment	0	0	0	0			
26310 - Liquefaction Equipment	0	0	-44,980	-14,993			
26320 - Vaporizing Equipment	0	0	0	0			
26330 - Compressor Equipment	0	0	0	0			
26340 - Measuring & Reg Equipment	0	0	0	0			
26350 - Other Equipment	0	0	-5,298	-1,766			
26502 - Depreciable Land Rights				0			
26510 - Land and Land Rights	0	0	0	0			
26520 - Rights-of-Way	0	0	0	0			
26620 - S&I - M&R Station Str	0	0	0	0			
26700 - Mains	0	0	-1,914,297	-638,099			
26701 - Mains, Cathodic Protection	0	0	0	0			
26900 - System Meas & Reg Station	0	-30,212	-8,741	-12,984			
27400 - Non-depr Land & Land Rights	0	0	0	0			
27401 - Rights of Way	0	0	0	0			
27500 - Structures & Improvements -	0	0	0	0			
27600 - Mains	-294,284	-642,324	-1,738,493	-891,700			
27800 - System Meas & Reg Station	0	-42,445	-59,201	-33,882			
27900 - Meas & Reg Sta Equip - City	-36,870	0	-41,574	-26,148			
28000 - Services	-852,543	-1,652,065	-1,237,143	-1,247,250			
28100 - Meters	0	0	0	0			
28105 - Meters - Meter Acc, ERTs	0	0	0	0			
28200 - Meter Installations	-195,626	0	0	-65,209			
28300 - House Regulators	-78,216	0	0	-26,072			
28400 - House Regulator Installatio	-66,945	0	0	-22,315			
28500 - Ind Meas & Reg St Equip	0	-8,006	-17,452	-8,486			
28700 - Other Equipment - Other	0	0	0	0			
28900 - Non-depr Land & Land Rights	0	0	0	0			
29000 - Structures and Improvements	0	0	-474,017	-158,006			
29100 - Office Furniture and Equipm	-22,127	-10,660	0	-10,929			
29101 - Electronic Data Processing	0	0	0	0			
29200 - Transportation Equipment	-190,555	0	0	-63,518			
29204 - Trans Equip - Leased Buyout	0	0	-12,772	-4,257			
29210 - Pass. Cars & Sta Wagons	0	0	-34,937	-11,646			
29211 - Trucks 1/2 & 3/4 Ton	0	0	-716,170	-238,723			
29212 - Trucks 1 & 1.5 Ton	0	0	0	0			
29213 - Trucks 2 Ton & Over	0	0	-57,856	-19,285			
29217 - Tractors - Diesel	0	0	0	0			
29218 - Trailers	0	0	0	0			
29300 - Stores Equipment	-6,654	0	0	-2,218			
29400 - Tools, Shop & Garage Equip	-110,346	-270,388	-70,171	-150,302			
29500 - Laboratory Equipment	0	0	0	0			
29600 - Power Operated Equipment	0	0	-29,839	-9,946			
29700 - Communication Equipment	0	0	0	0			
29800 - Miscellaneous Equipment	0	0	0	0			
29900 - Other Tangible Property	0	0	0	0			
<b>Annual Total</b>	<b>-1,854,166</b>	<b>-2,656,101</b>	<b>-8,813,753</b>	<b>-4,441,340</b>	<b>-4,071,746</b>	<b>-524,440</b>	<b>-4,596,186</b>
<b>Monthly Average</b>	<b>-154,514</b>	<b>-221,342</b>	<b>-734,479</b>	<b>-370,112</b>	<b>-339,312</b>	<b>-43,703</b>	<b>-383,015</b>

NOTE: Company did not project retirements by subaccount.

See Bowman workpaper Detail Plant in Service and Depr Exp, "Tab G Net Additions" tab, Row 49 for further details.

## WHN Rate Base Workpapers - Historical Tennessee Plant Retirements-Summary

Source: WHN Rate Base Workpaper RB-10-2.42 (Non-Print).

Account	12 ME 03-2013	12 ME 03-2014	12 ME 03-2015	12 ME 03-2016	12 ME 03-2017	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020
20100 - Organization	0	0	0	0	0	0	0	0
20200 - Franchises and Consents	0	0	0	0	0	0	0	0
20300 - Miscellaneous Intangible PI	0	0	0	0	0	0	0	0
26000 - Land and Land Rights	0	0	0	0	0	0	0	0
26100 - Structures & Improvements	0	0	-216,034	0	0	0	0	-2,350,812
26200 - Gas Holders	0	0	0	0	0	0	0	0
26300 - Purification Equipment	0	0	-204,995	0	0	0	0	0
26310 - Liquefaction Equipment	0	0	-63,098	-5,359	0	0	0	-44,980
26320 - Vaporizing Equipment	0	0	-927,815	0	0	0	0	0
26330 - Compressor Equipment	0	0	-24,182	0	0	0	0	0
26340 - Measuring & Reg Equipment	0	0	-28,308	0	0	0	0	0
26350 - Other Equipment	0	0	-431,423	-137,822	0	0	0	-5,298
26510 - Land and Land Rights	0	0	0	0	0	0	0	0
26520 - Rights-of-Way	0	0	0	0	0	0	0	0
26620 - S&I - M&R Station Str	0	0	0	0	0	0	0	0
26700 - Mains	0	0	0	0	-1,319,719	0	0	-1,914,297
26701 - Mains, Cathodic Protection	0	0	0	0	0	0	0	0
26900 - System Meas & Reg Station	0	0	0	0	0	0	-30,212	-8,741
27400 - Non-depr Land & Land Rights	0	0	-18,522	0	0	0	0	0
27401 - Rights of Way	0	0	0	0	0	0	0	0
27500 - Structures & Improvements -	0	0	0	0	-177	0	0	0
27600 - Mains	-1,784	-86,031	-225,556	-298,001	-32,823	-294,284	-642,324	-1,738,493
27800 - System Meas & Reg Station	0	0	0	0	-218,740	0	-42,445	-59,201
27900 - Meas & Reg Sta Equip - City	0	0	0	0	0	-36,870	0	-41,574
28000 - Services	-846,063	-837,926	-1,302,604	-1,171,838	-1,022,251	-852,543	-1,652,065	-1,237,143
28100 - Meters	0	-4,663	0	0	0	0	0	0
28105 - Meters - Meter Acc, ERTs	0	0	0	0	0	0	0	0
28200 - Meter Installations	-300,648	-321,018	-270,785	-296,630	-296,138	-195,626	0	0
28300 - House Regulators	-120,206	-128,350	-108,266	-118,599	-118,403	-78,216	0	0
28400 - House Regulator Installatio	-102,885	-109,856	-92,665	-101,510	-101,341	-66,945	0	0
28500 - Ind Meas & Reg St Equip	0	0	0	0	0	0	-8,006	-17,452
28700 - Other Equipment - Other	0	0	0	0	0	0	0	0
28900 - Non-depr Land & Land Rights	0	0	0	0	0	0	0	0
29000 - Structures and Improvements	0	0	0	0	0	0	0	-474,017
29100 - Office Furniture and Equipm	-621,837	-650,793	-295,099	-23,648	-24,293	-22,127	-10,660	0
29101 - Electronic Data Processing	0	0	0	0	0	0	0	0
29200 - Transportation Equipment	-76,953	-398,748	-224,253	0	-587,715	-190,555	0	0
29204 - Trans Equip - Leased Buyout	0	0	0	0	-57,574	0	0	-12,772
29210 - Pass. Cars & Sta Wagons	0	0	0	0	0	0	0	-34,937
29211 - Trucks 1/2 & 3/4 Ton	0	0	0	0	0	0	0	-716,170
29212 - Trucks 1 & 1.5 Ton	0	0	0	0	0	0	0	0
29213 - Trucks 2 Ton & Over	0	0	0	0	0	0	0	-57,856
29217 - Tractors - Diesel	0	0	0	0	0	0	0	0
29218 - Trailers	0	0	0	0	0	0	0	0
29300 - Stores Equipment	-3,965	0	-4,300	0	0	-6,654	0	0
29400 - Tools, Shop & Garage Equip	-530,752	-85,852	-170,796	-67,027	-26,534	-110,346	-270,388	-70,171
29500 - Laboratory Equipment	0	0	0	0	0	0	0	0
29600 - Power Operated Equipment	0	-23,388	-81,182	0	0	0	0	-29,839
29700 - Communication Equipment	-668,741	-660,117	0	0	-146,994	0	0	0
29800 - Miscellaneous Equipment	-175,110	0	-9,480	0	0	0	0	0
29900 - Other Tangible Property	0	0	0	0	0	0	0	0
<b>Total</b>	<b>-3,448,944</b>	<b>-3,306,743</b>	<b>-4,699,364</b>	<b>-2,220,434</b>	<b>-3,952,703</b>	<b>-1,854,166</b>	<b>-2,656,101</b>	<b>-8,813,753</b>





## WHN Rate Base Workpapers - Historical Tennessee Plant Transfers In-Summary

Source: WHN Rate Base Workpaper RB-10-2.51 (Non-Print).

Account	12 ME 03-2013	12 ME 03-2014	12 ME 03-2015	12 ME 03-2016	12 ME 03-2017	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020
20100 - Organization	0	0	0	0	0	0	0	0
20200 - Franchises and Consents	0	0	0	0	0	0	0	0
20300 - Miscellaneous Intangible PI	0	0	0	0	0	0	0	0
26000 - Land and Land Rights	0	0	0	0	0	0	0	0
26100 - Structures & Improvements	0	0	0	0	3,719,382	0	0	0
26200 - Gas Holders	0	0	0	0	128,302	0	0	0
26300 - Purification Equipment	0	0	0	0	0	0	0	0
26310 - Liquefaction Equipment	0	0	0	0	0	0	0	0
26320 - Vaporizing Equipment	0	0	0	0	96,163	0	0	0
26330 - Compressor Equipment	0	0	0	0	1,217,060	0	0	0
26340 - Measuring & Reg Equipment	0	0	0	0	0	0	0	0
26350 - Other Equipment	0	0	0	0	0	0	0	0
26510 - Land and Land Rights	0	0	0	0	0	0	0	0
26520 - Rights-of-Way	225,942	0	279,644	0	0	0	0	0
26620 - S&I - M&R Station Str	0	0	0	0	0	1,265,520	0	56,353
26700 - Mains	495,312	0	2,023,321	675,286	3,402	0	0	0
26701 - Mains, Cathodic Protection	0	282,238	0	0	0	0	0	0
26900 - System Meas & Reg Station	0	0	0	0	0	0	0	892,741
27400 - Non-depr Land & Land Rights	0	0	0	0	0	0	0	0
27401 - Rights of Way	0	0	0	0	0	0	0	0
27500 - Structures & Improvements -	0	0	0	0	0	0	0	0
27600 - Mains	2,295,764	0	0	0	0	0	0	0
27800 - System Meas & Reg Station	418,526	0	0	0	0	0	9,248	0
27900 - Meas & Reg Sta Equip - City	610,873	0	0	0	0	0	0	0
28000 - Services	0	0	0	0	0	0	0	0
28100 - Meters	49,885	179,520	255,722	165,736	919,795	709,145	392,368	60,572
28105 - Meters - Meter Acc, ERTs	0	0	0	0	0	6,552,023	353,268	157,055
28200 - Meter Installations	0	0	0	0	0	0	0	0
28300 - House Regulators	0	0	0	0	0	0	0	0
28400 - House Regulator Installatio	0	0	0	0	0	0	0	0
28500 - Ind Meas & Reg St Equip	7,503	0	0	0	0	0	0	0
28700 - Other Equipment - Other	0	0	0	0	0	0	0	0
28900 - Non-depr Land & Land Rights	0	0	0	0	0	0	0	0
29000 - Structures and Improvements	0	0	0	0	0	0	0	0
29100 - Office Furniture and Equipm	0	0	0	0	0	0	0	0
29101 - Electronic Data Processing	0	0	0	0	0	0	0	0
29200 - Transportation Equipment	26,339	0	9,737	171,271	0	10,538,639	27,394	0
29204 - Trans Equip - Leased Buyout	0	0	0	0	0	57,061	0	0
29210 - Pass. Cars & Sta Wagons	0	0	0	0	0	0	547,979	0
29211 - Trucks 1/2 & 3/4 Ton	0	0	0	0	0	0	7,291,126	0
29212 - Trucks 1 & 1.5 Ton	0	0	0	0	0	0	0	0
29213 - Trucks 2 Ton & Over	0	0	0	0	0	0	2,554,390	0
29217 - Tractors - Diesel	0	0	0	0	0	0	0	0
29218 - Trailers	0	0	0	0	0	0	117,750	0
29300 - Stores Equipment	0	0	0	0	0	0	0	0
29400 - Tools, Shop & Garage Equip	0	0	0	0	0	0	0	0
29500 - Laboratory Equipment	0	0	0	0	0	0	0	0
29600 - Power Operated Equipment	0	0	47,385	0	0	0	0	0
29700 - Communication Equipment	146,046	0	0	0	0	0	0	35,239
29800 - Miscellaneous Equipment	1,723	0	0	0	0	0	0	0
29900 - Other Tangible Property	0	0	0	0	0	0	0	0
<b>Total</b>	<b>4,277,911</b>	<b>461,758</b>	<b>2,615,809</b>	<b>1,012,293</b>	<b>6,084,103</b>	<b>19,122,388</b>	<b>11,293,523</b>	<b>1,201,961</b>



## WHN Rate Base Workpapers - Historical Tennessee Plant Transfers Out-Summary

Source: WHN Rate Base Workpaper RB-10-2.61 (Non-Print).

Account	12 ME 03-2013	12 ME 03-2014	12 ME 03-2015	12 ME 03-2016	12 ME 03-2017	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020
20100 - Organization	0	0	0	0	0	0	0	0
20200 - Franchises and Consents	0	0	0	0	0	0	0	0
20300 - Miscellaneous Intangible PI	0	0	0	0	0	0	0	0
26000 - Land and Land Rights	0	0	0	0	0	0	0	0
26100 - Structures & Improvements	0	0	0	0	0	0	0	0
26200 - Gas Holders	0	0	0	0	0	0	0	0
26300 - Purification Equipment	0	0	0	0	-1,259,386	0	0	0
26310 - Liquefaction Equipment	0	0	0	0	-1,428,538	0	0	0
26320 - Vaporizing Equipment	0	0	0	0	0	0	0	0
26330 - Compressor Equipment	0	0	0	0	0	0	0	0
26340 - Measuring & Reg Equipment	0	0	0	0	0	0	0	0
26350 - Other Equipment	0	0	0	0	-2,472,983	0	0	0
26510 - Land and Land Rights	0	0	0	0	0	0	0	0
26520 - Rights-of-Way	0	0	0	0	0	0	0	0
26620 - S&I - M&R Station Str	0	0	0	0	0	0	0	0
26700 - Mains	0	0	0	0	0	0	0	0
26701 - Mains, Cathodic Protection	0	0	0	-675,286	-3,402	0	0	0
26900 - System Meas & Reg Station	0	0	0	0	0	-1,265,520	0	0
27400 - Non-depr Land & Land Rights	0	0	-2,302,965	0	0	0	0	0
27401 - Rights of Way	0	0	0	0	0	0	0	0
27500 - Structures & Improvements -	0	0	0	0	0	0	0	0
27600 - Mains	-262,979	0	0	0	0	0	0	0
27800 - System Meas & Reg Station	-325,124	0	0	0	0	0	-9,248	0
27900 - Meas & Reg Sta Equip - City	0	0	0	0	0	0	0	0
28000 - Services	0	0	0	0	0	0	0	0
28100 - Meters	-441,571	-463,777	-261,822	-260,195	-97,509	-129,039	-659,355	-805,302
28105 - Meters - Meter Acc, ERTs	0	0	0	0	0	0	-336,284	-217,354
28200 - Meter Installations	0	0	0	0	0	0	0	0
28300 - House Regulators	0	0	0	0	0	0	0	0
28400 - House Regulator Installatio	0	0	0	0	0	0	0	0
28500 - Ind Meas & Reg St Equip	0	0	0	0	0	0	0	0
28700 - Other Equipment - Other	0	0	0	0	0	0	0	0
28900 - Non-depr Land & Land Rights	0	0	0	0	0	0	0	0
29000 - Structures and Improvements	0	0	0	0	0	0	0	0
29100 - Office Furniture and Equipm	0	0	0	0	0	0	0	0
29101 - Electronic Data Processing	0	0	0	0	0	0	0	0
29200 - Transportation Equipment	0	0	0	0	0	-10,538,639	-10,538,639	0
29204 - Trans Equip - Leased Buyout	0	0	0	0	0	-57,061	0	0
29210 - Pass. Cars & Sta Wagons	0	0	0	0	0	0	0	0
29211 - Trucks 1/2 & 3/4 Ton	0	0	0	0	0	0	0	0
29212 - Trucks 1 & 1.5 Ton	0	0	0	0	0	0	0	0
29213 - Trucks 2 Ton & Over	0	0	0	0	0	0	0	0
29217 - Tractors - Diesel	0	0	0	0	0	0	0	0
29218 - Trailers	0	0	0	0	0	0	0	0
29300 - Stores Equipment	0	0	0	0	0	0	0	0
29400 - Tools, Shop & Garage Equip	-1,723	0	-57,123	0	0	0	0	0
29500 - Laboratory Equipment	0	0	0	0	0	0	0	0
29600 - Power Operated Equipment	0	0	0	0	0	0	0	0
29700 - Communication Equipment	-146,046	0	0	0	0	0	0	0
29800 - Miscellaneous Equipment	0	0	0	0	0	0	0	0
29900 - Other Tangible Property	0	0	0	0	0	0	0	0
<b>Total</b>	<b>-1,177,442</b>	<b>-463,777</b>	<b>-2,621,910</b>	<b>-935,481</b>	<b>-5,261,818</b>	<b>-11,990,259</b>	<b>-11,543,526</b>	<b>-1,022,656</b>



**Source:** WHN Rate Base Workpaper RB-10-2.71 (Non-Print).

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**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Joint Plant in Service**

## PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

#####

## WHN Rate Base Workpapers - Attrition Period 3-State Common Plant in Service

<u>Date</u>	<u>Beginning Balance</u>	<u>Plant Additions</u>	<u>A/ Plant Retirements</u>	<u>B/ Ending Balance</u>
03/31/20				314,711,689 C/
04/30/20	314,711,689	3,290,054	-1,369,488	316,632,254
05/31/20	316,632,254	3,290,054	-1,369,488	318,552,820
06/30/20	318,552,820	3,290,054	-1,369,488	320,473,386
07/31/20	320,473,386	3,290,054	-1,369,488	322,393,952
08/31/20	322,393,952	3,290,054	-1,369,488	324,314,517
09/30/20	324,314,517	3,290,054	-1,369,488	326,235,083
10/31/20	326,235,083	3,290,054	-1,369,488	328,155,649
11/30/20	328,155,649	3,290,054	-1,369,488	330,076,215
12/31/20	330,076,215	3,290,054	-1,369,488	331,996,781
01/31/21	331,996,781	3,290,054	-1,369,488	333,917,346
02/28/21	333,917,346	3,290,054	-1,369,488	335,837,912
03/31/21	335,837,912	3,290,054	-1,369,488	337,758,478
04/30/21	337,758,478	3,290,054	-1,369,488	339,679,044
05/31/21	339,679,044	3,290,054	-1,369,488	341,599,609
06/30/21	341,599,609	3,290,054	-1,369,488	343,520,175
07/31/21	343,520,175	3,290,054	-1,369,488	345,440,741
08/31/21	345,440,741	3,290,054	-1,369,488	347,361,307
09/30/21	347,361,307	3,290,054	-1,369,488	349,281,872
10/31/21	349,281,872	3,290,054	-1,369,488	351,202,438
11/30/21	351,202,438	3,290,054	-1,369,488	353,123,004
12/31/21	353,123,004	3,290,054	-1,369,488	355,043,570
<b>Total</b>		<b>69,091,130</b>	<b>-28,759,249</b>	
<b>13-Month Average</b>				<b>343,520,175</b>

A/ WHN Rate Base Workpaper RB-10-3.01 and RB-10-3.02.

B/ WHN Rate Base Workpaper RB-10-3.80.

<u>Date</u>	<u>Beginning Balance</u>	<u>Plant Additions</u>	<u>B/</u>	<u>Plant Retirements</u>	<u>B/</u>	<u>Ending Balance</u>
03/31/20						314,711,689 A/
04/30/20	314,711,689	2,751,951		0		317,463,640
05/31/20	317,463,640	622,715		0		318,086,355
06/30/20	318,086,355	1,016,421		0		319,102,775
07/31/20	319,102,775	1,678,171		0		320,780,947
08/31/20	320,780,947	937,452		0		321,718,398
09/30/20	321,718,398	612,697		0		322,331,095
10/31/20	322,331,095	2,554,031		0		324,885,127
11/30/20	324,885,127	684,607		0		325,569,733
12/31/20	325,569,733	4,356,761		-54,782		329,871,712
01/31/21	329,871,712	1,653,715		0		331,525,427
02/28/21	331,525,427	835,502		0		332,360,929
03/31/21	332,360,929	835,502		0		333,196,431
04/30/21	333,196,431	1,708,210		0		334,904,641
05/31/21	334,904,641	835,502		0		335,740,142
06/30/21	335,740,142	684,607		0		336,424,749
07/31/21	336,424,749	1,724,107		0		338,148,856
08/31/21	338,148,856	835,502		0		338,984,358
09/30/21	338,984,358	835,502		0		339,819,860
10/31/21	339,819,860	1,906,078		0		341,725,937
11/30/21	341,725,937	709,842		0		342,435,779
12/31/21	342,435,779	637,742		0		343,073,521
<b>Total</b>		<b>28,416,614</b>		<b>-54,782</b>		
<b>13-Month Average</b>						<b>336,785,565</b>

A/ Bowman Workpaper - Detail Plant in Service amd Depr Exp, "Tab E 3 State" tab.

B/ Bowman Workpaper - Detail Plant in Service amd Depr Exp, "Tab G Net Additions" tab.

**WHN Rate Base Workpapers - Piedmont 3-State Common Average Plant Additions****Plant Additions:**

3-State Common Average Annual Normal Plant Additions	39,480,646 A/
3-State Common Average Annual Special Project Plant Additions	0 B/
<b>Total 3-State Common Average Annual Plant Additions</b>	<b>39,480,646</b>
<b>Total 3-State Common Average Monthly Plant Additions</b>	<b>3,290,054</b>

**Plant Retirements:**

3-State Common Average Annual Total Plant Retirements	-16,433,857 C/
3-State Common Average Monthly Total Plant Retirements	-1,369,488

A/ WHN Rate Base Workpaper RB-10-3.20.

B/ WHN Rate Base Workpaper RB-10-3.21.

C/ WHN Rate Base Workpaper RB-10-3.40.

D/ WHN Rate Base Workpaper RB-10-3.00.









## WHN Rate Base Workpapers - Historical JOINT Normal Plant Additions-Summary

Source: WHN Rate Base Workpaper RB-10-3.22 (Non-Print) AND RB-10-3.12 (Non-Print).

Account	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020	3-Year Average	Company Stub Period 4/20 - 12/20	Company Attr Year 1/21 - 12/21	Company Total Forecast 4/20 - 12/21
20300 - Miscellaneous Intangible Pl	0	0	-119,685	-39,895	0	0	0
20310 - Misc Intangible Plt - 10 Yr	0	0	0	0	0	0	0
28000 - Services					64,168	108,150	172,318
28100 - Meters	3,737,743	1,475,831	11,624,404	5,612,660	6,956,551	7,387,160	14,343,711
28104 - Meters - Meter Accessories	0	0	1,004,696	334,899	0	0	0
28105 - Meters - Meter Acc, ERTs	1,626,406	2,063,013	1,315,500	1,668,306	1,270,333	1,905,500	3,175,833
28900 - Non-depr Land & Land Rights	0	0	0	0	0	0	0
29000 - Structures and Improvements	-1,161,308	235,644	1,952,364	342,233	5,784,119	3,800,998	9,585,117
29001 - S&I - Leasehold Impr	2,149,442	-494,987	62,415	572,290	0	0	0
29002 - Compressed Natural Gas	0	0	0	0	0	0	0
29100 - Office Furniture and Equipm	478,966	456,478	5,607,902	2,181,116	51,254	0	51,254
29101 - Electronic Data Processing	77,609	3,852,501	7,384,221	3,771,443	241,581	0	241,581
29102 - PC Equipment	16,517	320,142	27,713	121,457	0	0	0
29103 - Customer Information System	0	15,171	0	5,057	0	0	0
29104 - Client Service Applications	65,068,994	3,008,632	2,055,443	23,377,690	0	0	0
29105 - SaaS - 3 yr Contract	0	0	0	0	0	0	0
29200 - Transportation Equipment	0	879,516	0	293,172	0	0	0
29204 - Trans Equip - Leased Buyout	0	0	0	0	0	0	0
29211 - Trucks 1/2 & 3/4 Ton	0	803,026	0	267,675	0	0	0
29240 - PNG GAS TRANSP-3 YR MTR RC	0	0	0	0	0	0	0
29241 - PNG GAS TRANSP - 5 YR RURAL	0	0	0	0	0	0	0
29242 - PNG GAS TRANSP - 7 YR URBAN	0	0	0	0	0	0	0
29243 - PNG GAS TRANSP - 10 YR HD	0	0	0	0	0	0	0
29244 - PNG GAS-15 YR TRAILER/OTHR	0	0	0	0	0	0	0
29400 - Tools, Shop & Garage Equip	-2,375,180	503,829	-7,139	-626,163	506,667	0	506,667
29700 - Communication Equipment	1,921,433	493,881	356,790	924,035	0	0	0
29800 - Miscellaneous Equipment	0	103,524	1,920,489	674,671	340,133	0	340,133
<b>Total</b>	<b>71,540,623</b>	<b>13,716,201</b>	<b>33,185,114</b>	<b>39,480,646</b>	<b>15,214,805</b>	<b>13,201,808</b>	<b>28,416,614</b>





Source: WHN Rate Base Workpaper RB-10-3.31 (Non-Print).

Account	12 ME 03-2013	12 ME 03-2014	12 ME 03-2015	12 ME 03-2016	12 ME 03-2017	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020
20300 - Miscellaneous Intangible Pl	0	0	0	0	0	0	0	-119,685
20310 - Misc Intangible Plt - 10 Yr	0	0	0	0	0	0	0	0
28100 - Meters	1,642,832	2,054,851	3,090,147	3,163,193	6,537,593	3,737,743	1,475,831	11,624,404
28104 - Meters - Meter Accessories	0	0	0	0	0	0	0	0
28105 - Meters - Meter Acc, ERTs	1,536,527	1,635,234	1,997,898	2,523,178	549,101	1,626,406	2,240,032	2,320,196
28900 - Non-depr Land & Land Rights	0	0	0	0	0	0	0	0
29000 - Structures and Improvements	414,261	863,725	116,162	1,002,305	1,138,387	-1,161,308	58,625	1,952,364
29001 - S&I - Leasehold Impr	66,102	139,470	1,457,764	162,136	890,172	2,149,442	-494,987	62,415
29002 - Compressed Natural Gas	0	0	0	0	0	0	0	0
29100 - Office Furniture and Equipm	872,012	588,962	811,548	179,800	180,040	478,966	456,478	5,607,902
29101 - Electronic Data Processing	-266,405	37,342	889,262	-372,545	490,770	77,609	3,852,501	7,384,221
29102 - PC Equipment	327,764	584,060	6,501,738	618,580	-23,595	16,517	320,142	27,713
29103 - Customer Information System	0	0	245,262	0	338,157	0	0	0
29104 - Client Service Applications	1,841,212	4,727,931	74,754,178	5,244,948	10,711,955	65,068,994	3,008,632	2,055,443
29105 - SaaS - 3 yr Contract	2,773,347	344,326	3,400,484	1,415,640	208,452	0	0	0
29200 - Transportation Equipment	269,974	58,043	260,088	154,296	103,917	0	879,516	0
29204 - Trans Equip - Leased Buyout	0	0	0	0	0	0	0	0
29211 - Trucks 1/2 & 3/4 Ton	0	0	0	0	0	0	803,026	0
29240 - PNG GAS TRANSP-3 YR MTR RD	0	0	0	0	0	0	0	0
29241 - PNG GAS TRANSP - 5 YR RURAL	0	0	0	0	0	0	0	0
29242 - PNG GAS TRANSP - 7 YR URBAN	0	0	0	0	0	0	0	0
29243 - PNG GAS TRANSP - 10 YR HD	0	0	0	0	0	0	0	0
29244 - PNG GAS-15 YR TRAILER/OTHR	0	0	0	0	0	0	0	0
29400 - Tools, Shop & Garage Equip	126,711	2,340,968	448,739	179,578	-244,380	-2,375,180	503,829	-7,139
29700 - Communication Equipment	68,104	164,466	1,236,579	612,182	340,957	1,921,433	493,881	356,790
29800 - Miscellaneous Equipment	0	0	0	0	0	0	118,408	1,920,489
<b>Total</b>	<b>9,672,441</b>	<b>13,539,378</b>	<b>95,209,847</b>	<b>14,883,291</b>	<b>21,221,527</b>	<b>71,540,623</b>	<b>13,715,914</b>	<b>33,185,114</b>



## WHN Rate Base Workpapers - Historical 3-State Common Average Plant Retirements-Summary

Source: WHN Rate Base Workpapers RB-10-3.41 AND RB-10-3.01.

Account	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020	3-Year Average	Company Stub Period 4/20 - 12/20	Company Attr Year 1/21 - 12/21	Company Total Forecast 4/20 - 12/21
20300 - Miscellaneous Intangible PI	0	0	0	0			
20310 - Misc Intangible Plt - 10 Yr	0	0	0	0			
28100 - Meters	-2,348,324	-3,362,868	-7,550,154	-4,420,449			
28104 - Meters - Meter Accessories	-52,384	0	0	-17,461			
28105 - Meters - Meter Acc, ERTs	-1,016,149	0	0	-338,716			
28900 - Non-depr Land & Land Rights	0	0	0	0			
29000 - Structures and Improvements	0	-37,748	0	-12,583			
29001 - S&I - Leasehold Impr	-519,306	0	0	-173,102			
29002 - Compressed Natural Gas	0	0	0	0			
29100 - Office Furniture and Equipm	0	0	0	0			
29101 - Electronic Data Processing	-6,003	-3,850,265	-950,693	-1,602,321			
29102 - PC Equipment	-3,532,490	-930,094	0	0			
29103 - Customer Information System	0	0	0	0			
29104 - Client Service Applications	-560,589	-17,233,651	0	-5,931,414			
29105 - SaaS - 3 yr Contract	0	-5,604,196	0	-1,868,065			
29200 - Transportation Equipment	0	0	0	0			
29204 - Trans Equip - Leased Buyout	-25,667	0	0	-8,556			
29211 - Trucks 1/2 & 3/4 Ton	0	0	0	0			
29240 - PNG GAS TRANSP-3 YR MTR RD	0	0	0	0			
29241 - PNG GAS TRANSP - 5 YR RURAL	0	0	0	0			
29242 - PNG GAS TRANSP - 7 YR URBAN	0	0	0	0			
29243 - PNG GAS TRANSP - 10 YR HD	0	0	0	0			
29244 - PNG GAS-15 YR TRAILER/OTHR	0	0	0	0			
29400 - Tools, Shop & Garage Equip	0	0	0	0			
29700 - Communication Equipment	-531,168	-2,464,326	-3,188,078	-2,061,191			
29800 - Miscellaneous Equipment	0	0	0	0			
<b>Annual Total</b>	<b>-8,592,082</b>	<b>-33,483,147</b>	<b>-11,688,925</b>	<b>-16,433,857</b>	<b>-54,782</b>	<b>0</b>	<b>-54,782</b>
<b>Monthly Average</b>	<b>-716,007</b>	<b>-2,790,262</b>	<b>-974,077</b>	<b>-1,369,488</b>	<b>-4,565</b>	<b>0</b>	<b>-4,565</b>

NOTE: Company did not project retirements by subaccount.

See Bowman workpaper Detail Plant in Service and Depr Exp, "Tab G Net Additions" tab, Row 49 for further details.

Source: WHN Rate Base Workpaper RB-10-3.42 (Non-Print).

Account	12 ME 03-2013	12 ME 03-2014	12 ME 03-2015	12 ME 03-2016	12 ME 03-2017	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020
20300 - Miscellaneous Intangible PI	0	0	0	0	0	0	0	0
20310 - Misc Intangible Plt - 10 Yr	0	0	0	0	0	0	0	0
28100 - Meters	-2,897,408	-3,097,743	-2,636,099	-2,894,284	-2,927,917	-2,348,324	-3,362,868	-7,550,154
28104 - Meters - Meter Accessories	-80,506	-85,961	-72,510	-79,430	-79,299	-52,384	0	0
28105 - Meters - Meter Acc, ERTs	-2,375,282	-636,747	-40	-530,177	0	-1,016,149	0	0
28900 - Non-depr Land & Land Rights	0	0	0	0	0	0	0	0
29000 - Structures and Improvements	0	0	0	0	0	0	-37,748	0
29001 - S&I - Leasehold Impr	0	0	0	0	0	-519,306	0	0
29002 - Compressed Natural Gas	0	0	0	0	0	0	0	0
29100 - Office Furniture and Equipm	0	0	-121,292	-57,282	-5,562	0	0	0
29101 - Electronic Data Processing	-2,056,858	0	0	-5,509,236	-6,036,176	-6,003	-3,850,265	-950,693
29102 - PC Equipment	-1,073,371	-377,059	0	-478,032	-2,803,799	-3,532,490	-930,094	0
29103 - Customer Information System	0	0	0	0	0	0	0	0
29104 - Client Service Applications	-16,827,977	0	0	-4,366,289	-9,859,780	-560,589	-17,233,651	0
29105 - SaaS - 3 yr Contract	0	0	0	0	0	0	-5,604,196	0
29200 - Transportation Equipment	-74,218	-63,595	0	0	-25,351	0	0	0
29204 - Trans Equip - Leased Buyout	-36,858	-6,360	0	-4,116	-75,190	-25,667	0	0
29211 - Trucks 1/2 & 3/4 Ton	0	0	0	0	0	0	0	0
29240 - PNG GAS TRANSP-3 YR MTR RD	0	0	0	0	0	0	0	0
29241 - PNG GAS TRANSP - 5 YR RURAL	0	0	0	0	0	0	0	0
29242 - PNG GAS TRANSP - 7 YR URBAN	0	0	0	0	0	0	0	0
29243 - PNG GAS TRANSP - 10 YR HD	0	0	0	0	0	0	0	0
29244 - PNG GAS-15 YR TRAILER/OTHR	0	0	0	0	0	0	0	0
29400 - Tools, Shop & Garage Equip	0	0	0	0	0	0	0	0
29700 - Communication Equipment	-1,593,538	-50,943	-136,566	-203,207	-1,448,736	-531,168	-2,464,326	-3,188,078
29800 - Miscellaneous Equipment	0	0	0	0	0	0	0	0
<b>Total</b>	<b>-27,016,017</b>	<b>-4,318,407</b>	<b>-2,966,507</b>	<b>-14,122,055</b>	<b>-23,261,810</b>	<b>-8,592,082</b>	<b>-33,483,147</b>	<b>-11,688,925</b>





Source: WHN Rate Base Workpaper RB-10-3.51 (Non-Print).

Account	12 ME 03-2013	12 ME 03-2014	12 ME 03-2015	12 ME 03-2016	12 ME 03-2017	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020
20300 - Miscellaneous Intangible PI	0	0	0	0	0	0	0	44,513,267
20310 - Misc Intangible Plt - 10 Yr	0	0	0	0	0	0	0	140,536,818
28100 - Meters	1,996,853	1,508,086	1,065,860	819,027	139,438	470,626	5,056,571	4,212,117
28104 - Meters - Meter Accessories	0	0	0	0	0	0	0	0
28105 - Meters - Meter Acc, ERTs	0	0	0	0	0	0	11,148,413	3,446,570
28900 - Non-depr Land & Land Rights	0	0	0	0	0	0	0	0
29000 - Structures and Improvements	0	0	0	0	0	0	0	0
29001 - S&I - Leasehold Impr	0	0	0	0	0	0	0	0
29002 - Compressed Natural Gas	0	0	0	0	0	0	0	2,908
29100 - Office Furniture and Equipm	0	0	0	0	0	0	0	0
29101 - Electronic Data Processing	0	0	0	0	0	0	0	0
29102 - PC Equipment	0	0	0	0	0	0	0	30,019,486
29103 - Customer Information System	0	0	0	0	0	0	0	0
29104 - Client Service Applications	0	0	2,329,602	0	0	0	0	0
29105 - SaaS - 3 yr Contract	0	0	0	0	0	0	0	0
29200 - Transportation Equipment	0	0	0	0	0	717,476	0	0
29204 - Trans Equip - Leased Buyout	0	0	0	0	0	43,334	0	0
29211 - Trucks 1/2 & 3/4 Ton	0	0	0	0	0	0	0	0
29240 - PNG GAS TRANSP-3 YR MTR RD	0	0	0	0	0	0	0	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	0	0	0	0	0	0	0	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	0	0	0	0	0	0	0	812,482
29243 - PNG GAS TRANSP - 10 YR HD	0	0	0	0	0	0	0	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	0	0	0	0	0	0	0	21,889
29400 - Tools, Shop & Garage Equip	0	0	0	0	0	0	0	0
29700 - Communication Equipment	0	0	0	0	0	0	0	0
29800 - Miscellaneous Equipment	0	0	0	0	0	0	0	0
<b>Total</b>	<b>1,996,853</b>	<b>1,508,086</b>	<b>3,395,462</b>	<b>819,027</b>	<b>139,438</b>	<b>1,231,436</b>	<b>16,204,984</b>	<b>225,166,645</b>



## WHN Rate Base Workpapers - Historical Piedmont Joint 3-State Plant Transfers Out-Summary

Source: WHN Rate Base Workpaper RB-10-3.61 (Non-Print).

Account	12 ME 03-2013	12 ME 03-2014	12 ME 03-2015	12 ME 03-2016	12 ME 03-2017	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020
20300 - Miscellaneous Intangible PI	0	0	0	0	0	0	0	-20,034,971
20310 - Misc Intangible Plt - 10 Yr	0	0	0	0	0	0	0	0
28100 - Meters	0	0	-460,511	-679,453	-2,882,727	-1,312,808	-1,643,432	-197,595
28104 - Meters - Meter Accessories	0	0	0	0	0	0	0	-2,443,633
28105 - Meters - Meter Acc, ERTs	0	0	0	0	0	-41,221,465	-11,199,057	-343,414
28900 - Non-depr Land & Land Rights	0	0	0	0	0	0	0	0
29000 - Structures and Improvements	0	0	0	0	0	0	0	0
29001 - S&I - Leasehold Impr	0	0	0	0	0	0	0	0
29002 - Compressed Natural Gas	0	0	0	0	0	0	0	0
29100 - Office Furniture and Equipm	0	0	0	0	0	0	0	-2,908
29101 - Electronic Data Processing	0	0	0	0	0	0	0	-5,558,564
29102 - PC Equipment	0	0	0	0	0	0	0	-7,198,729
29103 - Customer Information System	0	0	0	0	0	0	0	0
29104 - Client Service Applications	0	0	0	0	0	0	0	-182,277,306
29105 - SaaS - 3 yr Contract	0	0	-2,329,602	0	0	0	0	0
29200 - Transportation Equipment	0	0	0	-455,264	0	-717,476	0	-1,596,992
29204 - Trans Equip - Leased Buyout	0	0	0	0	0	-43,334	-4,173	-35,462
29211 - Trucks 1/2 & 3/4 Ton	0	0	0	0	0	0	0	-803,026
29240 - PNG GAS TRANSP-3 YR MTR RD	0	0	0	0	0	0	0	0
29241 - PNG GAS TRANSP - 5 YR RURAL	0	0	0	0	0	0	0	0
29242 - PNG GAS TRANSP - 7 YR URBAN	0	0	0	0	0	0	0	0
29243 - PNG GAS TRANSP - 10 YR HD	0	0	0	0	0	0	0	0
29244 - PNG GAS-15 YR TRAILER/OTHR	0	0	0	0	0	0	0	0
29400 - Tools, Shop & Garage Equip	0	0	0	0	0	0	0	0
29700 - Communication Equipment	0	0	0	0	0	0	0	0
29800 - Miscellaneous Equipment	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>-2,790,113</b>	<b>-1,134,717</b>	<b>-2,882,727</b>	<b>-43,295,082</b>	<b>-12,846,662</b>	<b>-220,492,600</b>



## WHN Rate Base Workpapers - Historical Piedmont Joint 3-State Plant Adjustments-Summary

**Source:** WHN Rate Base Workpaper RB-10-3.71 (Non-Print).

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Beginning Balance	200,172,472	184,825,750	195,554,807	288,403,497	288,849,043	284,065,472	304,950,367	288,541,455
Additions	9,672,441	13,539,378	95,209,847	14,883,291	21,221,527	71,540,623	13,715,914	33,185,114
Retirements	-27,016,017	-4,318,407	-2,966,507	-14,122,055	-23,261,810	-8,592,082	-33,483,147	-11,688,925
Transfers-In	1,996,853	1,508,086	3,395,462	819,027	139,438	1,231,436	16,204,984	225,166,645
Transfers-Out	0	0	-2,790,113	-1,134,717	-2,882,727	-43,295,082	-12,846,662	-220,492,600
Adjustments	0	0	0	0	0	0	0	0
<b>Ending Balance</b>	<b>184,825,750</b>	<b>195,554,807</b>	<b>288,403,497</b>	<b>288,849,043</b>	<b>284,065,472</b>	<b>304,950,367</b>	<b>288,541,455</b>	<b>314,711,689</b>
Difference	0	0	0	0	0	0	0	0







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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - DEBS Plant in Service**

## WHN Rate Base Workpapers - Historical DEBS Normal Plant Additions-Summary

Source: WHN Rate Base Workpaper RB-10-4.22 (Non-Print) AND RB-10-4.12 (Non-Print).

Account	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020	3-Year Average	Company Stub Period 4/20 - 12/20	Company Attr Year 1/21 - 12/21	Company Total Forecast 4/20 - 12/21
39100 - Office Furniture and Equipm	0	0	0	0			
39101 - Electronic Data Processing	0	0	0	0			
90300 - Miscellaneous Intangible PI	24,154,876	158,792,725	105,706,909				
90303 - Misc Intangible Plt - 3 Yr	0	6,151,418	82,471,576	29,540,998			
99000 - Structures and Improvements	47,089,951	12,586,564	16,391,906	25,356,140			
99001 - Structs, Lease Improv-Amort	1,125,653	1,635,476	3,201,346	1,987,492			
99100 - Office Furniture and Equipm	23,156,283	16,007,018	26,507,764	21,890,355			
99101 - Electronic Data Process Eq	76,274,438	44,580,798	50,561,720	57,138,985			
99200 - Transportation Equipment	0	0	0	0			
99300 - STORES EQUIPMENT	0	0	0	0			
99400 - Tools, Shop & Garage Equipm	349,473	97,923	510,926	319,441			
99500 - Laboratory Equipment	55,080	149,699	1,216,622	473,800			
99700 - Communication Equipment	17,403,954	14,963,134	24,502,403	18,956,497			
99800 - Miscellaneous Equipment	492,150	1,092,474	1,473,087	1,019,237			
<b>Total</b>	<b>190,101,857</b>	<b>256,057,229</b>	<b>312,544,259</b>	<b>156,682,945</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Monthly Average</b>	<b>15,841,821</b>	<b>21,338,102</b>	<b>26,045,355</b>	<b>13,056,912</b>	<b>0</b>	<b>0</b>	<b>0</b>

Source: WHN Rate Base Workpaper RB-10-4.31 (Non-Print).

Account	12 ME 03-2013	12 ME 03-2014	12 ME 03-2015	12 ME 03-2016	12 ME 03-2017	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020
39100 - Office Furniture and Equipm						0	0	0
39101 - Electronic Data Processing						0	0	0
90300 - Miscellaneous Intangible PI						24,154,876	158,792,725	105,706,909
90303 - Misc Intangible Plt - 3 Yr						0	6,151,418	82,471,576
99000 - Structures and Improvements						47,089,951	12,586,564	16,391,906
99001 - Structs, Lease Improv-Amort						1,125,653	1,635,476	3,201,346
99100 - Office Furniture and Equipm						23,156,283	16,007,018	26,507,764
99101 - Electronic Data Process Eq						76,274,438	44,580,798	50,561,720
99200 - Transportation Equipment						0	0	0
99300 - STORES EQUIPMENT						0	0	0
99400 - Tools, Shop & Garage Equipm						349,473	97,923	510,926
99500 - Laboratory Equipment						55,080	149,699	1,216,622
99700 - Communication Equipment						17,403,954	14,963,134	24,502,403
99800 - Miscellaneous Equipment						492,150	1,092,474	1,473,087
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>190,101,857</b>	<b>256,057,229</b>	<b>312,544,259</b>

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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**  
**WHN Rate Base Workpapers - Historical DEBS Plant Additions-Detail**

**RB-10-4.31 (Non-Print)**

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## WHN Rate Base Workpapers - Historical DEBS Average Plant Retirements-Summary

Source: WHN Rate Base Workpapers RB-10-4.41 AND RB-10-4.01.

Account	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020	3-Year Average	Company Stub Period 4/20 - 12/20	Company Attr Year 1/21 - 12/21	Company Total Forecast 4/20 - 12/21
39100 - Office Furniture and Equipm	0	0	0	0			
39101 - Electronic Data Processing	0	0	0	0			
90300 - Miscellaneous Intangible PI	0	0	-99,008,693	-33,002,898			
90303 - Misc Intangible Plt - 3 Yr	0	0	0	0			
99000 - Structures and Improvements	-2,408,113	-2,620,049	-87,373,300	-30,800,487			
99001 - Structs, Lease Improv-Amort	-5,472	-1,713,322	-502,416	-740,403			
99100 - Office Furniture and Equipm	0	-1,673,870	-15,729	-563,200			
99101 - Electronic Data Process Eq	-37,242,069	-37,975,899	-24,739,532	-33,319,167			
99200 - Transportation Equipment	0	0	0	0			
99300 - STORES EQUIPMENT	0	0	0	0			
99400 - Tools, Shop & Garage Equipm	0	0	0	0			
99500 - Laboratory Equipment	-110,591	0	-163,907	0			
99700 - Communication Equipment	-4,045,314	-14,821,358	-9,620,959	-9,495,877			
99800 - Miscellaneous Equipment	-509,194	-33,448	0	-180,881			
<b>Annual Total</b>	<b>-44,320,754</b>	<b>-58,837,946</b>	<b>-221,424,535</b>	<b>-108,102,912</b>			
<b>Monthly Average</b>	<b>-3,693,396</b>	<b>-4,903,162</b>	<b>-18,452,045</b>	<b>-9,008,576</b>	<b>0</b>	<b>0</b>	<b>0</b>

Source: WHN Rate Base Workpaper RB-10-4.42 (Non-Print).

Account	12 ME 03-2013	12 ME 03-2014	12 ME 03-2015	12 ME 03-2016	12 ME 03-2017	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020
39100 - Office Furniture and Equipm						0	0	0
39101 - Electronic Data Processing						0	0	0
90300 - Miscellaneous Intangible PI						0	0	-99,008,693
90303 - Misc Intangible Plt - 3 Yr						0	0	0
99000 - Structures and Improvements						-2,408,113	-2,620,049	-87,373,300
99001 - Structs, Lease Improv-Amort						-5,472	-1,713,322	-502,416
99100 - Office Furniture and Equipm						0	-1,673,870	-15,729
99101 - Electronic Data Process Eq						-37,242,069	-37,975,899	-24,739,532
99200 - Transportation Equipment						0	0	0
99300 - STORES EQUIPMENT						0	0	0
99400 - Tools, Shop & Garage Equipm						0	0	0
99500 - Laboratory Equipment						-110,591	0	-163,907
99700 - Communication Equipment						-4,045,314	-14,821,358	-9,620,959
99800 - Miscellaneous Equipment						-509,194	-33,448	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-44,320,754</b>	<b>-58,837,946</b>	<b>-221,424,535</b>

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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Historical DEBS Plant Retirements-Detail**

**RB-10-4.42 (Non-Print)**

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Source: WHN Rate Base Workpaper RB-10-4.81 (Non-Print).

Account	12 ME 03-2012	12 ME 03-2013	12 ME 03-2014	12 ME 03-2015	12 ME 03-2016	12 ME 03-2017	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020
39100 - Office Furniture and Equipm						0	0	0	0
39101 - Electronic Data Processing						0	0	0	0
90300 - Miscellaneous Intangible Pl						792,330,389	816,485,265	975,277,990	981,976,207
90303 - Misc Intangible Plt - 3 Yr						0	0	6,151,418	88,622,993
99000 - Structures and Improvements						202,669,865	246,539,054	256,377,535	185,396,142
99001 - Structs, Lease Improv-Amort						110,247,485	112,253,022	112,175,176	114,874,106
99100 - Office Furniture and Equipm						84,405,894	107,562,177	121,895,325	148,387,361
99101 - Electronic Data Process Eq						153,173,432	192,205,801	198,810,700	224,632,888
99200 - Transportation Equipment						57,419,035	57,419,035	57,419,035	57,419,035
99300 - STORES EQUIPMENT						177,936	177,936	177,936	177,936
99400 - Tools, Shop & Garage Equipm						1,106,522	1,455,995	1,553,918	2,064,844
99500 - Laboratory Equipment						5,344,625	5,289,114	5,438,813	6,491,527
99700 - Communication Equipment						78,421,491	91,780,130	91,921,906	106,803,350
99800 - Miscellaneous Equipment						6,565,433	6,548,389	7,607,415	9,080,502
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,491,862,106</b>	<b>1,637,715,917</b>	<b>1,834,807,167</b>	<b>1,925,926,891</b>

**Proof:**

Beginning Balance	1,491,862,106	1,637,715,917	1,834,807,167
Additions			
Retirements			
<b>Ending Balance</b>	<b>1,491,862,106</b>	<b>1,637,715,917</b>	<b>1,834,807,167</b>
<b>Difference</b>	<b>145,853,812</b>	<b>197,091,249</b>	<b>91,119,724</b>

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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**  
**WHN Rate Base Workpapers - Historical DEBS Plant Balance-Detail**

**RB-10-4.81 (Non-Print)**

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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Construction Work in Progress Calculation**

<b>Accounts</b>		<b>Description</b>
107000	SCHM Cwip	
107004	SCHM CWIP (SOFTWARE)	

**SOURCE:** WHN Rate Base Workpaper RB-15-9.00 (Non-Print).

Date	Tennessee	Piedmont 3-State			Allocator	Tenn Alloc	Total
	Direct	Regular	Software	Total			Tennessee
Mar-19	63,045,119	23,195,343	3,729,027	26,924,370	15.80%	4,254,050	67,299,169
Apr-19	70,524,964	26,296,533	4,756,318	31,052,851	15.80%	4,906,350	75,431,314
May-19	48,383,649	24,110,726	6,384,707	30,495,433	15.80%	4,818,278	53,201,927
Jun-19	54,291,261	23,948,141	7,761,455	31,709,596	15.80%	5,010,116	59,301,377
Jul-19	61,730,650	23,588,428	9,776,153	33,364,581	15.80%	5,271,604	67,002,254
Aug-19	58,321,066	24,345,574	13,277,560	37,623,134	15.80%	5,944,455	64,265,521
Sep-19	54,846,873	26,619,357	14,186,185	40,805,542	15.80%	6,447,276	61,294,149
Oct-19	49,100,504	30,140,920	15,615,631	45,756,551	15.80%	7,229,535	56,330,039
Nov-19	29,011,642	22,288,746	28,849,016	51,137,762	15.80%	8,079,766	37,091,408
Dec-19	31,816,834	17,559,799	30,910,337	48,470,136	15.80%	7,658,281	39,475,115
Jan-20	32,249,364	16,389,999	31,191,933	47,581,932	15.65%	7,446,572	39,695,936
Feb-20	34,132,615	17,001,089	31,916,537	48,917,626	15.65%	7,655,608	41,788,223
Mar-20	45,688,559	13,738,939	29,293,098	43,032,037	15.65%	6,734,514	52,423,073
<b>Average</b>	<b>48,703,315</b>	<b>22,247,969</b>	<b>17,511,381</b>	<b>39,759,350</b>		<b>6,265,877</b>	<b>54,969,193</b>

**A/**

Test Period Amount

Incentive Compensation Adjustment

**Attrition Period Amount**

54,969,193

-370,816 **B/**

**54,598,377**

A/ WHN Rate Base Workpaper RB-100-1.00

B/ Alex Bradley testimony; Workpaper AB-2.



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Depreciation**

**WHN Rate Base Workpapers - Attrition Period Accumulated Depreciation**

<u>Item</u>	<u>Attrition Balance</u>	<u>Allocation Factor</u>	<u>Tennessee Amount</u>
Tennessee Accumulated Depreciation	475,968,071 <b>A/</b>	100.00%	475,968,071
Piedmont 3-State Accumulated Depreciation	156,809,141 <b>B/</b>	15.67% <b>D/</b>	24,571,992
DEBS Accumulated Depreciation	<b>C/</b>	<b>E/</b>	
<b>Total Attrition Period Accumulated Depreciation</b>			<b>500,540,063</b>
Tennessee Depreciation Expense	30,376,538 <b>A/</b>	100.00%	30,376,538
Piedmont 3-State Depreciation Expense	27,743,023 <b>B/</b>	15.67% <b>D/</b>	4,347,332
DEBS Depreciation Expense	<b>C/</b>	<b>E/</b>	
<b>Total Attrition Period Depreciation Expense</b>			<b>34,723,870</b>

A/ WHN Rate Base Workpaper RB-20-2.00.

B/ WHN Rate Base Workpaper RB-20-3.00.

C/ WHN Rate Base Workpaper RB-

D/ WHN Rate Base Workpaper RB-100-1.00

E/ WHN Rate Base Workpaper RB-



Date	Piedmont Common Plant					Total Tennessee
	Tennessee Direct	A/	3-State Plant	Allocation Factor	C/ Tennessee Allocation	B/
March 2019	430,669,618		134,103,677	15.80%	21,188,381	451,857,999
April	432,763,682		134,518,215	15.80%	21,253,878	454,017,560
May	434,582,842		135,880,500	15.80%	21,469,119	456,051,961
June	436,872,087		137,179,595	15.80%	21,674,376	458,546,463
July	439,103,601		138,615,247	15.80%	21,901,209	461,004,810
August	442,075,928		136,777,639	15.80%	21,610,867	463,686,795
September	443,211,574		138,178,956	15.80%	21,832,275	465,043,849
October	444,378,257		136,205,399	15.80%	21,520,453	465,898,710
November	446,114,327		137,526,215	15.80%	21,729,142	467,843,469
December	447,394,620		139,792,063	15.80%	22,087,146	469,481,766
January 2020	443,077,746		141,326,096	15.65%	22,117,534	465,195,280
February	444,926,886		142,827,559	15.65%	22,352,513	467,279,399
March	446,193,652		144,729,246	15.65%	22,650,127	468,843,779
<b>Average</b>	<b>440,874,217</b>		<b>138,281,570</b>		<b>21,799,002</b>	<b>462,673,218</b>

A/ WHN Rate Base Workpaper RB-20-2.70.

B/ Company response to CA1-10, "13-Month Rate Base" tab. NOTE: No source data for historic Accumulated Depreciation.

C/ WHN Rate Base Workpaper RB-100-1.00.



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Tennessee Accumulated Depreciation & Depreciation Expense**

Date	Beginning Balance	Depreciation Accruals	A/ Plant Retirements	B/ Amortization Excess Reserve	C/ 57.60% Net Salvage	D/ Ending Balance
03/31/20						446,193,652 E/
04/30/20	446,193,652	2,551,402	-370,112		-213,184	448,161,758
05/31/20	448,161,758	2,565,845	-370,112		-213,184	450,144,307
06/30/20	450,144,307	2,580,290	-370,112		-213,184	452,141,301
07/31/20	452,141,301	2,594,729	-370,112		-213,184	454,152,734
08/31/20	454,152,734	2,609,175	-370,112		-213,184	456,178,613
09/30/20	456,178,613	2,623,619	-370,112		-213,184	458,218,936
10/31/20	458,218,936	2,638,063	-370,112		-213,184	460,273,703
11/30/20	460,273,703	2,652,503	-370,112		-213,184	462,342,910
12/31/20	462,342,910	2,666,947	-370,112		-213,184	464,426,561
01/31/21	464,426,561	2,455,292	-370,112	2,595	-213,184	466,301,152
02/28/21	466,301,152	2,468,656	-370,112	2,595	-213,184	468,189,107
03/31/21	468,189,107	2,482,016	-370,112	2,595	-213,184	470,090,422
04/30/21	470,090,422	2,495,377	-370,112	2,595	-213,184	472,005,098
05/31/21	472,005,098	2,508,738	-370,112	2,595	-213,184	473,933,134
06/30/21	473,933,134	2,522,101	-370,112	2,595	-213,184	475,874,534
07/31/21	475,874,534	2,535,464	-370,112	2,595	-213,184	477,829,297
08/31/21	477,829,297	2,548,827	-370,112	2,595	-213,184	479,797,423
09/30/21	479,797,423	2,562,189	-370,112	2,595	-213,184	481,778,911
10/31/21	481,778,911	2,575,550	-370,112	2,595	-213,184	483,773,760
11/30/21	483,773,760	2,588,913	-370,112	2,595	-213,184	485,781,972
12/31/21	485,781,972	2,602,276	-370,112	2,595	-213,184	487,803,547
<b>Total</b>		<b>53,827,972</b>	<b>-7,772,345</b>	<b>31,139</b>	<b>-4,476,871</b>	
					<b>13-Month Average</b>	<b>475,968,071</b>
<b>Attrition Period Depreciation Expense</b>		<b>30,345,399</b>		<b>31,139</b>	<b>30,376,538</b>	

A/ WHN Rate Base Workpapers RB-20-2.11 to RB-20-2.31.

B/ WHN Rate Base Workpaper RB-10-2.00.

C/ WHN Rate Base Workpaper R-20-2.81.

D/ WHN Rate Base Workpaper R-20-2.71.

E/ WHN Rate Base Workpaper R-20-2.70.

Source: WHN Rate Base Workpapers RB-20-2.41 and RB-20-2.80.

Account	Average Plant In Service Apr-20	Current Monthly Depr Rates	Depreciation Expense Apr-20
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	11,075,297	0.16%	17,720
26200 - Gas Holders	3,031,845	0.19%	5,761
26300 - Purification Equipment	6,616,076	0.24%	15,879
26310 - Liquefaction Equipment	7,432,038	0.24%	17,837
26320 - Vaporizing Equipment	20,992,590	0.24%	50,382
26330 - Compressor Equipment	9,651,405	0.28%	27,024
26340 - Measuring & Reg Equipment	28,381	0.24%	68
26350 - Other Equipment	3,915,655	0.28%	10,964
<b>Total Storage Plant</b>	<b>63,373,352</b>		<b>145,635</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,091	0.00%	0
26520 - Rights-of-Way	17,283,288	0.10%	17,283
26620 - S&I - M&R Station Str	1,943,525	0.18%	3,498
26700 - Mains	246,686,982	0.12%	296,024
26701 - Mains, Cathodic Protection	3,808	0.12%	5
26900 - System Meas & Reg Station	36,934,458	0.18%	66,482
<b>Total Transmission Plant</b>	<b>304,641,152</b>		<b>383,292</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	4,623,599	0.00%	0
27401 - Rights of Way	6,219,338	0.10%	6,219
27500 - Structures & Improvements -	219,208	0.42%	921
27600 - Mains	511,800,526	0.12%	614,161
27800 - System Meas & Reg Station	17,899,237	0.26%	46,538
27900 - Meas & Reg Sta Equip - City	5,476,396	0.17%	9,310
28000 - Services	308,457,318	0.34%	1,048,755
28100 - Meters	21,121,315	0.23%	48,579
28105 - Meters - Meter Acc, ERTs	6,508,708	0.70%	45,561
28200 - Meter Installations	19,102,892	0.24%	45,847
28300 - House Regulators	4,563,505	0.22%	10,040
28400 - House Regulator Installatio	3,404,176	0.23%	7,830
28500 - Ind Meas & Reg St Equip	5,335,702	0.20%	10,671
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>914,731,921</b>		<b>1,894,432</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	24,990,952	0.18%	44,984
29100 - Office Furniture and Equipm	2,901,221	0.42%	12,185
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	1,946,519	0.38%	7,397
29204 - Trans Equip - Leased Buyout	44,112	1.67%	737
29210 - Pass. Cars & Sta Wagons	512,556	0.38%	1,948
29211 - Trucks 1/2 & 3/4 Ton	7,500,232	0.38%	28,501
29212 - Trucks 1 & 1.5 Ton	901,539	0.38%	3,426
29213 - Trucks 2 Ton & Over	2,908,214	0.51%	14,832
29217 - Tractors - Diesel	76,788	0.38%	292
29218 - Trailers	117,750	1.67%	1,966
29300 - Stores Equipment	-93	0.00%	0
29400 - Tools, Shop & Garage Equip	8,127,489	0.00%	0
29500 - Laboratory Equipment	105,879	0.10%	106
29600 - Power Operated Equipment	1,476,623	0.30%	4,430
29700 - Communication Equipment	1,204,158	0.03%	361
29800 - Miscellaneous Equipment	809,196	0.85%	6,878
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>58,191,719</b>		<b>128,043</b>
<b>Total</b>	<b>1,341,077,365</b>		<b>2,551,402</b>

Source: WHN Rate Base Workpapers RB-20-2.42 and RB-20-2.80.

Account	Average Plant In Service May-20	Current Monthly Depr Rates	Depreciation Expense May-20
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	11,034,808	0.16%	17,656
26200 - Gas Holders	3,031,845	0.19%	5,761
26300 - Purification Equipment	6,616,076	0.24%	15,879
26310 - Liquefaction Equipment	7,432,175	0.24%	17,837
26320 - Vaporizing Equipment	20,992,590	0.24%	50,382
26330 - Compressor Equipment	9,651,405	0.28%	27,024
26340 - Measuring & Reg Equipment	28,381	0.24%	68
26350 - Other Equipment	3,949,610	0.28%	11,059
<b>Total Storage Plant</b>	<b>63,366,955</b>		<b>145,666</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,146	0.00%	0
26520 - Rights-of-Way	17,296,375	0.10%	17,296
26620 - S&I - M&R Station Str	1,960,557	0.18%	3,529
26700 - Mains	247,944,662	0.12%	297,534
26701 - Mains, Cathodic Protection	3,912	0.12%	5
26900 - System Meas & Reg Station	37,288,759	0.18%	67,120
<b>Total Transmission Plant</b>	<b>306,283,411</b>		<b>385,484</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	4,725,056	0.00%	0
27401 - Rights of Way	6,374,657	0.10%	6,375
27500 - Structures & Improvements -	219,208	0.42%	921
27600 - Mains	515,978,345	0.12%	619,174
27800 - System Meas & Reg Station	18,071,315	0.26%	46,985
27900 - Meas & Reg Sta Equip - City	5,466,074	0.17%	9,292
28000 - Services	310,034,688	0.34%	1,054,118
28100 - Meters	21,138,832	0.23%	48,619
28105 - Meters - Meter Acc, ERTs	6,508,708	0.70%	45,561
28200 - Meter Installations	19,220,051	0.24%	46,128
28300 - House Regulators	4,540,931	0.22%	9,990
28400 - House Regulator Installatio	3,403,370	0.23%	7,828
28500 - Ind Meas & Reg St Equip	5,413,697	0.20%	10,827
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>921,094,933</b>		<b>1,905,818</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	25,083,993	0.18%	45,151
29100 - Office Furniture and Equipm	2,917,891	0.42%	12,255
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	2,019,993	0.38%	7,676
29204 - Trans Equip - Leased Buyout	43,757	1.67%	731
29210 - Pass. Cars & Sta Wagons	511,586	0.38%	1,944
29211 - Trucks 1/2 & 3/4 Ton	7,505,961	0.38%	28,523
29212 - Trucks 1 & 1.5 Ton	926,239	0.38%	3,520
29213 - Trucks 2 Ton & Over	2,917,908	0.51%	14,881
29217 - Tractors - Diesel	78,892	0.38%	300
29218 - Trailers	117,750	1.67%	1,966
29300 - Stores Equipment	-278	0.00%	0
29400 - Tools, Shop & Garage Equip	8,154,610	0.00%	0
29500 - Laboratory Equipment	105,879	0.10%	106
29600 - Power Operated Equipment	1,476,414	0.30%	4,429
29700 - Communication Equipment	1,215,009	0.03%	365
29800 - Miscellaneous Equipment	827,049	0.85%	7,030
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>58,471,237</b>		<b>128,877</b>
<b>Total</b>	<b>1,349,355,757</b>		<b>2,565,845</b>

Source: WHN Rate Base Workpapers RB-20-2.43 and RB-20-2.80.

Account	Average Plant In Service Jun-20	Current Monthly Depr Rates	Depreciation Expense Jun-20
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,994,319	0.16%	17,591
26200 - Gas Holders	3,031,845	0.19%	5,761
26300 - Purification Equipment	6,616,076	0.24%	15,879
26310 - Liquefaction Equipment	7,432,312	0.24%	17,838
26320 - Vaporizing Equipment	20,992,590	0.24%	50,382
26330 - Compressor Equipment	9,651,405	0.28%	27,024
26340 - Measuring & Reg Equipment	28,381	0.24%	68
26350 - Other Equipment	3,983,565	0.28%	11,154
<b>Total Storage Plant</b>	<b>63,360,558</b>		<b>145,697</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,201	0.00%	0
26520 - Rights-of-Way	17,309,462	0.10%	17,309
26620 - S&I - M&R Station Str	1,977,589	0.18%	3,560
26700 - Mains	249,202,342	0.12%	299,043
26701 - Mains, Cathodic Protection	4,016	0.12%	5
26900 - System Meas & Reg Station	37,643,060	0.18%	67,758
<b>Total Transmission Plant</b>	<b>307,925,670</b>		<b>387,675</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	4,826,513	0.00%	0
27401 - Rights of Way	6,529,976	0.10%	6,530
27500 - Structures & Improvements -	219,208	0.42%	921
27600 - Mains	520,156,164	0.12%	624,187
27800 - System Meas & Reg Station	18,243,393	0.26%	47,433
27900 - Meas & Reg Sta Equip - City	5,455,752	0.17%	9,275
28000 - Services	311,612,058	0.34%	1,059,481
28100 - Meters	21,156,349	0.23%	48,660
28105 - Meters - Meter Acc, ERTs	6,508,708	0.70%	45,561
28200 - Meter Installations	19,337,210	0.24%	46,409
28300 - House Regulators	4,518,357	0.22%	9,940
28400 - House Regulator Installatio	3,402,564	0.23%	7,826
28500 - Ind Meas & Reg St Equip	5,491,692	0.20%	10,983
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>927,457,945</b>		<b>1,917,206</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	25,177,034	0.18%	45,319
29100 - Office Furniture and Equipm	2,934,561	0.42%	12,325
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	2,093,467	0.38%	7,955
29204 - Trans Equip - Leased Buyout	43,402	1.67%	725
29210 - Pass. Cars & Sta Wagons	510,616	0.38%	1,940
29211 - Trucks 1/2 & 3/4 Ton	7,511,690	0.38%	28,544
29212 - Trucks 1 & 1.5 Ton	950,939	0.38%	3,614
29213 - Trucks 2 Ton & Over	2,927,602	0.51%	14,931
29217 - Tractors - Diesel	80,996	0.38%	308
29218 - Trailers	117,750	1.67%	1,966
29300 - Stores Equipment	-463	0.00%	0
29400 - Tools, Shop & Garage Equip	8,181,731	0.00%	0
29500 - Laboratory Equipment	105,879	0.10%	106
29600 - Power Operated Equipment	1,476,205	0.30%	4,429
29700 - Communication Equipment	1,225,860	0.03%	368
29800 - Miscellaneous Equipment	844,902	0.85%	7,182
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>58,750,755</b>		<b>129,712</b>
<b>Total</b>	<b>1,357,634,149</b>		<b>2,580,290</b>

Source: WHN Rate Base Workpapers RB-20-2.44 and RB-20-2.80.

Account	Average Plant In Service Jul-20	Current Monthly Depr Rates	Depreciation Expense Jul-20
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,953,830	0.16%	17,526
26200 - Gas Holders	3,031,845	0.19%	5,761
26300 - Purification Equipment	6,616,076	0.24%	15,879
26310 - Liquefaction Equipment	7,432,449	0.24%	17,838
26320 - Vaporizing Equipment	20,992,590	0.24%	50,382
26330 - Compressor Equipment	9,651,405	0.28%	27,024
26340 - Measuring & Reg Equipment	28,381	0.24%	68
26350 - Other Equipment	4,017,520	0.28%	11,249
<b>Total Storage Plant</b>	<b>63,354,161</b>		<b>145,727</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,256	0.00%	0
26520 - Rights-of-Way	17,322,549	0.10%	17,323
26620 - S&I - M&R Station Str	1,994,621	0.18%	3,590
26700 - Mains	250,460,022	0.12%	300,552
26701 - Mains, Cathodic Protection	4,120	0.12%	5
26900 - System Meas & Reg Station	37,997,361	0.18%	68,395
<b>Total Transmission Plant</b>	<b>309,567,929</b>		<b>389,865</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	4,927,970	0.00%	0
27401 - Rights of Way	6,685,295	0.10%	6,685
27500 - Structures & Improvements -	219,208	0.42%	921
27600 - Mains	524,333,983	0.12%	629,201
27800 - System Meas & Reg Station	18,415,471	0.26%	47,880
27900 - Meas & Reg Sta Equip - City	5,445,430	0.17%	9,257
28000 - Services	313,189,428	0.34%	1,064,844
28100 - Meters	21,173,866	0.23%	48,700
28105 - Meters - Meter Acc, ERTs	6,508,708	0.70%	45,561
28200 - Meter Installations	19,454,369	0.24%	46,690
28300 - House Regulators	4,495,783	0.22%	9,891
28400 - House Regulator Installatio	3,401,758	0.23%	7,824
28500 - Ind Meas & Reg St Equip	5,569,687	0.20%	11,139
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>933,820,957</b>		<b>1,928,593</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	25,270,075	0.18%	45,486
29100 - Office Furniture and Equipm	2,951,231	0.42%	12,395
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	2,166,941	0.38%	8,234
29204 - Trans Equip - Leased Buyout	43,047	1.67%	719
29210 - Pass. Cars & Sta Wagons	509,646	0.38%	1,937
29211 - Trucks 1/2 & 3/4 Ton	7,517,419	0.38%	28,566
29212 - Trucks 1 & 1.5 Ton	975,639	0.38%	3,707
29213 - Trucks 2 Ton & Over	2,937,296	0.51%	14,980
29217 - Tractors - Diesel	83,100	0.38%	316
29218 - Trailers	117,750	1.67%	1,966
29300 - Stores Equipment	-648	0.00%	0
29400 - Tools, Shop & Garage Equip	8,208,852	0.00%	0
29500 - Laboratory Equipment	105,879	0.10%	106
29600 - Power Operated Equipment	1,475,996	0.30%	4,428
29700 - Communication Equipment	1,236,711	0.03%	371
29800 - Miscellaneous Equipment	862,755	0.85%	7,333
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>59,030,273</b>		<b>130,544</b>
<b>Total</b>	<b>1,365,912,541</b>		<b>2,594,729</b>



Source: WHN Rate Base Workpapers RB-20-2.45 and RB-20-2.80.

Account	Average Plant In Service Aug-20	Current Monthly Depr Rates	Depreciation Expense Aug-20
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,913,341	0.16%	17,461
26200 - Gas Holders	3,031,845	0.19%	5,761
26300 - Purification Equipment	6,616,076	0.24%	15,879
26310 - Liquefaction Equipment	7,432,586	0.24%	17,838
26320 - Vaporizing Equipment	20,992,590	0.24%	50,382
26330 - Compressor Equipment	9,651,405	0.28%	27,024
26340 - Measuring & Reg Equipment	28,381	0.24%	68
26350 - Other Equipment	4,051,475	0.28%	11,344
<b>Total Storage Plant</b>	<b>63,347,764</b>		<b>145,757</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,311	0.00%	0
26520 - Rights-of-Way	17,335,636	0.10%	17,336
26620 - S&I - M&R Station Str	2,011,653	0.18%	3,621
26700 - Mains	251,717,702	0.12%	302,061
26701 - Mains, Cathodic Protection	4,224	0.12%	5
26900 - System Meas & Reg Station	38,351,662	0.18%	69,033
<b>Total Transmission Plant</b>	<b>311,210,188</b>		<b>392,056</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	5,029,427	0.00%	0
27401 - Rights of Way	6,840,614	0.10%	6,841
27500 - Structures & Improvements -	219,208	0.42%	921
27600 - Mains	528,511,802	0.12%	634,214
27800 - System Meas & Reg Station	18,587,549	0.26%	48,328
27900 - Meas & Reg Sta Equip - City	5,435,108	0.17%	9,240
28000 - Services	314,766,798	0.34%	1,070,207
28100 - Meters	21,191,383	0.23%	48,740
28105 - Meters - Meter Acc, ERTs	6,508,708	0.70%	45,561
28200 - Meter Installations	19,571,528	0.24%	46,972
28300 - House Regulators	4,473,209	0.22%	9,841
28400 - House Regulator Installatio	3,400,952	0.23%	7,822
28500 - Ind Meas & Reg St Equip	5,647,682	0.20%	11,295
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>940,183,969</b>		<b>1,939,982</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	25,363,116	0.18%	45,654
29100 - Office Furniture and Equipm	2,967,901	0.42%	12,465
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	2,240,415	0.38%	8,514
29204 - Trans Equip - Leased Buyout	42,692	1.67%	713
29210 - Pass. Cars & Sta Wagons	508,676	0.38%	1,933
29211 - Trucks 1/2 & 3/4 Ton	7,523,148	0.38%	28,588
29212 - Trucks 1 & 1.5 Ton	1,000,339	0.38%	3,801
29213 - Trucks 2 Ton & Over	2,946,990	0.51%	15,030
29217 - Tractors - Diesel	85,204	0.38%	324
29218 - Trailers	117,750	1.67%	1,966
29300 - Stores Equipment	-833	0.00%	0
29400 - Tools, Shop & Garage Equip	8,235,973	0.00%	0
29500 - Laboratory Equipment	105,879	0.10%	106
29600 - Power Operated Equipment	1,475,787	0.30%	4,427
29700 - Communication Equipment	1,247,562	0.03%	374
29800 - Miscellaneous Equipment	880,608	0.85%	7,485
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>59,309,791</b>		<b>131,380</b>
<b>Total</b>	<b>1,374,190,933</b>		<b>2,609,175</b>

Source: WHN Rate Base Workpapers RB-20-2.46 and RB-20-2.80.

Account	Average Plant In Service Sep-20	Current Monthly Depr Rates	Depreciation Expense Sep-20
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,872,852	0.16%	17,397
26200 - Gas Holders	3,031,845	0.19%	5,761
26300 - Purification Equipment	6,616,076	0.24%	15,879
26310 - Liquefaction Equipment	7,432,723	0.24%	17,839
26320 - Vaporizing Equipment	20,992,590	0.24%	50,382
26330 - Compressor Equipment	9,651,405	0.28%	27,024
26340 - Measuring & Reg Equipment	28,381	0.24%	68
26350 - Other Equipment	4,085,430	0.28%	11,439
<b>Total Storage Plant</b>	<b>63,341,367</b>		<b>145,789</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,366	0.00%	0
26520 - Rights-of-Way	17,348,723	0.10%	17,349
26620 - S&I - M&R Station Str	2,028,685	0.18%	3,652
26700 - Mains	252,975,382	0.12%	303,570
26701 - Mains, Cathodic Protection	4,328	0.12%	5
26900 - System Meas & Reg Station	38,705,963	0.18%	69,671
<b>Total Transmission Plant</b>	<b>312,852,447</b>		<b>394,247</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	5,130,884	0.00%	0
27401 - Rights of Way	6,995,933	0.10%	6,996
27500 - Structures & Improvements -	219,208	0.42%	921
27600 - Mains	532,689,621	0.12%	639,228
27800 - System Meas & Reg Station	18,759,627	0.26%	48,775
27900 - Meas & Reg Sta Equip - City	5,424,786	0.17%	9,222
28000 - Services	316,344,168	0.34%	1,075,570
28100 - Meters	21,208,900	0.23%	48,780
28105 - Meters - Meter Acc, ERTs	6,508,708	0.70%	45,561
28200 - Meter Installations	19,688,687	0.24%	47,253
28300 - House Regulators	4,450,635	0.22%	9,791
28400 - House Regulator Installatio	3,400,146	0.23%	7,820
28500 - Ind Meas & Reg St Equip	5,725,677	0.20%	11,451
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>946,546,981</b>		<b>1,951,368</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	25,456,157	0.18%	45,821
29100 - Office Furniture and Equipm	2,984,571	0.42%	12,535
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	2,313,889	0.38%	8,793
29204 - Trans Equip - Leased Buyout	42,337	1.67%	707
29210 - Pass. Cars & Sta Wagons	507,706	0.38%	1,929
29211 - Trucks 1/2 & 3/4 Ton	7,528,877	0.38%	28,610
29212 - Trucks 1 & 1.5 Ton	1,025,039	0.38%	3,895
29213 - Trucks 2 Ton & Over	2,956,684	0.51%	15,079
29217 - Tractors - Diesel	87,308	0.38%	332
29218 - Trailers	117,750	1.67%	1,966
29300 - Stores Equipment	-1,018	0.00%	0
29400 - Tools, Shop & Garage Equip	8,263,094	0.00%	0
29500 - Laboratory Equipment	105,879	0.10%	106
29600 - Power Operated Equipment	1,475,578	0.30%	4,427
29700 - Communication Equipment	1,258,413	0.03%	378
29800 - Miscellaneous Equipment	898,461	0.85%	7,637
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>59,589,309</b>		<b>132,215</b>
<b>Total</b>	<b>1,382,469,325</b>		<b>2,623,619</b>

Source: WHN Rate Base Workpapers RB-20-2.47 and RB-20-2.80.

Account	Average Plant In Service Oct-20	Current Monthly Depr Rates	Depreciation Expense Oct-20
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,832,363	0.16%	17,332
26200 - Gas Holders	3,031,845	0.19%	5,761
26300 - Purification Equipment	6,616,076	0.24%	15,879
26310 - Liquefaction Equipment	7,432,860	0.24%	17,839
26320 - Vaporizing Equipment	20,992,590	0.24%	50,382
26330 - Compressor Equipment	9,651,405	0.28%	27,024
26340 - Measuring & Reg Equipment	28,381	0.24%	68
26350 - Other Equipment	4,119,385	0.28%	11,534
<b>Total Storage Plant</b>	<b>63,334,970</b>		<b>145,819</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,421	0.00%	0
26520 - Rights-of-Way	17,361,810	0.10%	17,362
26620 - S&I - M&R Station Str	2,045,717	0.18%	3,682
26700 - Mains	254,233,062	0.12%	305,080
26701 - Mains, Cathodic Protection	4,432	0.12%	5
26900 - System Meas & Reg Station	39,060,264	0.18%	70,308
<b>Total Transmission Plant</b>	<b>314,494,706</b>		<b>396,437</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	5,232,341	0.00%	0
27401 - Rights of Way	7,151,252	0.10%	7,151
27500 - Structures & Improvements -	219,208	0.42%	921
27600 - Mains	536,867,440	0.12%	644,241
27800 - System Meas & Reg Station	18,931,705	0.26%	49,222
27900 - Meas & Reg Sta Equip - City	5,414,464	0.17%	9,205
28000 - Services	317,921,538	0.34%	1,080,933
28100 - Meters	21,226,417	0.23%	48,821
28105 - Meters - Meter Acc, ERTs	6,508,708	0.70%	45,561
28200 - Meter Installations	19,805,846	0.24%	47,534
28300 - House Regulators	4,428,061	0.22%	9,742
28400 - House Regulator Installatio	3,399,340	0.23%	7,818
28500 - Ind Meas & Reg St Equip	5,803,672	0.20%	11,607
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>952,909,993</b>		<b>1,962,756</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	25,549,198	0.18%	45,989
29100 - Office Furniture and Equipm	3,001,241	0.42%	12,605
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	2,387,363	0.38%	9,072
29204 - Trans Equip - Leased Buyout	41,982	1.67%	701
29210 - Pass. Cars & Sta Wagons	506,736	0.38%	1,926
29211 - Trucks 1/2 & 3/4 Ton	7,534,606	0.38%	28,632
29212 - Trucks 1 & 1.5 Ton	1,049,739	0.38%	3,989
29213 - Trucks 2 Ton & Over	2,966,378	0.51%	15,129
29217 - Tractors - Diesel	89,412	0.38%	340
29218 - Trailers	117,750	1.67%	1,966
29300 - Stores Equipment	-1,203	0.00%	0
29400 - Tools, Shop & Garage Equip	8,290,215	0.00%	0
29500 - Laboratory Equipment	105,879	0.10%	106
29600 - Power Operated Equipment	1,475,369	0.30%	4,426
29700 - Communication Equipment	1,269,264	0.03%	381
29800 - Miscellaneous Equipment	916,314	0.85%	7,789
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>59,868,827</b>		<b>133,051</b>
<b>Total</b>	<b>1,390,747,717</b>		<b>2,638,063</b>

Source: WHN Rate Base Workpapers RB-20-2.48 and RB-20-2.80.

Account	Average Plant In Service Nov-20	Current Monthly Depr Rates	Depreciation Expense Nov-20
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,791,874	0.16%	17,267
26200 - Gas Holders	3,031,845	0.19%	5,761
26300 - Purification Equipment	6,616,076	0.24%	15,879
26310 - Liquefaction Equipment	7,432,997	0.24%	17,839
26320 - Vaporizing Equipment	20,992,590	0.24%	50,382
26330 - Compressor Equipment	9,651,405	0.28%	27,024
26340 - Measuring & Reg Equipment	28,381	0.24%	68
26350 - Other Equipment	4,153,340	0.28%	11,629
<b>Total Storage Plant</b>	<b>63,328,573</b>		<b>145,849</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,476	0.00%	0
26520 - Rights-of-Way	17,374,897	0.10%	17,375
26620 - S&I - M&R Station Str	2,062,749	0.18%	3,713
26700 - Mains	255,490,742	0.12%	306,589
26701 - Mains, Cathodic Protection	4,536	0.12%	5
26900 - System Meas & Reg Station	39,414,565	0.18%	70,946
<b>Total Transmission Plant</b>	<b>316,136,965</b>		<b>398,628</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	5,333,798	0.00%	0
27401 - Rights of Way	7,306,571	0.10%	7,307
27500 - Structures & Improvements -	219,208	0.42%	921
27600 - Mains	541,045,259	0.12%	649,254
27800 - System Meas & Reg Station	19,103,783	0.26%	49,670
27900 - Meas & Reg Sta Equip - City	5,404,142	0.17%	9,187
28000 - Services	319,498,908	0.34%	1,086,296
28100 - Meters	21,243,934	0.23%	48,861
28105 - Meters - Meter Acc, ERTs	6,508,708	0.70%	45,561
28200 - Meter Installations	19,923,005	0.24%	47,815
28300 - House Regulators	4,405,487	0.22%	9,692
28400 - House Regulator Installatio	3,398,534	0.23%	7,817
28500 - Ind Meas & Reg St Equip	5,881,667	0.20%	11,763
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>959,273,005</b>		<b>1,974,144</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	25,642,239	0.18%	46,156
29100 - Office Furniture and Equipm	3,017,911	0.42%	12,675
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	2,460,837	0.38%	9,351
29204 - Trans Equip - Leased Buyout	41,627	1.67%	695
29210 - Pass. Cars & Sta Wagons	505,766	0.38%	1,922
29211 - Trucks 1/2 & 3/4 Ton	7,540,335	0.38%	28,653
29212 - Trucks 1 & 1.5 Ton	1,074,439	0.38%	4,083
29213 - Trucks 2 Ton & Over	2,976,072	0.51%	15,178
29217 - Tractors - Diesel	91,516	0.38%	348
29218 - Trailers	117,750	1.67%	1,966
29300 - Stores Equipment	-1,388	0.00%	0
29400 - Tools, Shop & Garage Equip	8,317,336	0.00%	0
29500 - Laboratory Equipment	105,879	0.10%	106
29600 - Power Operated Equipment	1,475,160	0.30%	4,425
29700 - Communication Equipment	1,280,115	0.03%	384
29800 - Miscellaneous Equipment	934,167	0.85%	7,940
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>60,148,345</b>		<b>133,882</b>
<b>Total</b>	<b>1,399,026,109</b>		<b>2,652,503</b>

Source: WHN Rate Base Workpapers RB-20-2.49 and RB-20-2.80.

Account	Average Plant In Service Dec-20	Current Monthly Depr Rates	Depreciation Expense Dec-20
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,751,385	0.16%	17,202
26200 - Gas Holders	3,031,845	0.19%	5,761
26300 - Purification Equipment	6,616,076	0.24%	15,879
26310 - Liquefaction Equipment	7,433,134	0.24%	17,840
26320 - Vaporizing Equipment	20,992,590	0.24%	50,382
26330 - Compressor Equipment	9,651,405	0.28%	27,024
26340 - Measuring & Reg Equipment	28,381	0.24%	68
26350 - Other Equipment	4,187,295	0.28%	11,724
<b>Total Storage Plant</b>	<b>63,322,176</b>		<b>145,880</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,531	0.00%	0
26520 - Rights-of-Way	17,387,984	0.10%	17,388
26620 - S&I - M&R Station Str	2,079,781	0.18%	3,744
26700 - Mains	256,748,422	0.12%	308,098
26701 - Mains, Cathodic Protection	4,640	0.12%	6
26900 - System Meas & Reg Station	39,768,866	0.18%	71,584
<b>Total Transmission Plant</b>	<b>317,779,224</b>		<b>400,820</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	5,435,255	0.00%	0
27401 - Rights of Way	7,461,890	0.10%	7,462
27500 - Structures & Improvements -	219,208	0.42%	921
27600 - Mains	545,223,078	0.12%	654,268
27800 - System Meas & Reg Station	19,275,861	0.26%	50,117
27900 - Meas & Reg Sta Equip - City	5,393,820	0.17%	9,169
28000 - Services	321,076,278	0.34%	1,091,659
28100 - Meters	21,261,451	0.23%	48,901
28105 - Meters - Meter Acc, ERTs	6,508,708	0.70%	45,561
28200 - Meter Installations	20,040,164	0.24%	48,096
28300 - House Regulators	4,382,913	0.22%	9,642
28400 - House Regulator Installatio	3,397,728	0.23%	7,815
28500 - Ind Meas & Reg St Equip	5,959,662	0.20%	11,919
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>965,636,017</b>		<b>1,985,530</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	25,735,280	0.18%	46,324
29100 - Office Furniture and Equipm	3,034,581	0.42%	12,745
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	2,534,311	0.38%	9,630
29204 - Trans Equip - Leased Buyout	41,272	1.67%	689
29210 - Pass. Cars & Sta Wagons	504,796	0.38%	1,918
29211 - Trucks 1/2 & 3/4 Ton	7,546,064	0.38%	28,675
29212 - Trucks 1 & 1.5 Ton	1,099,139	0.38%	4,177
29213 - Trucks 2 Ton & Over	2,985,766	0.51%	15,227
29217 - Tractors - Diesel	93,620	0.38%	356
29218 - Trailers	117,750	1.67%	1,966
29300 - Stores Equipment	-1,573	0.00%	0
29400 - Tools, Shop & Garage Equip	8,344,457	0.00%	0
29500 - Laboratory Equipment	105,879	0.10%	106
29600 - Power Operated Equipment	1,474,951	0.30%	4,425
29700 - Communication Equipment	1,290,966	0.03%	387
29800 - Miscellaneous Equipment	952,020	0.85%	8,092
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>60,427,863</b>		<b>134,717</b>
<b>Total</b>	<b>1,407,304,501</b>		<b>2,666,947</b>

Source: WHN Rate Base Workpapers RB-20-2.50 and RB-20-2.80.

Account	Average Plant In Service Jan-21	Proposed Monthly Depr Rates	Depreciation Expense Jan-21
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,710,896	0.31%	33,204
26200 - Gas Holders	3,031,845	0.02%	606
26300 - Purification Equipment	6,616,076	0.32%	21,171
26310 - Liquefaction Equipment	7,433,271	0.30%	22,300
26320 - Vaporizing Equipment	20,992,590	0.33%	69,276
26330 - Compressor Equipment	9,651,405	0.26%	25,094
26340 - Measuring & Reg Equipment	28,381	0.55%	156
26350 - Other Equipment	4,221,250	0.33%	13,930
<b>Total Storage Plant</b>	<b>63,315,779</b>		<b>185,737</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,586	0.00%	0
26520 - Rights-of-Way	17,401,071	0.10%	17,401
26620 - S&I - M&R Station Str	2,096,813	0.17%	3,565
26700 - Mains	258,006,102	0.12%	309,607
26701 - Mains, Cathodic Protection	4,744	0.12%	6
26900 - System Meas & Reg Station	40,123,167	0.17%	68,209
<b>Total Transmission Plant</b>	<b>319,421,483</b>		<b>398,788</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	5,536,712	0.00%	0
27401 - Rights of Way	7,617,209	0.12%	9,141
27500 - Structures & Improvements -	219,208	0.25%	548
27600 - Mains	549,400,897	0.13%	714,221
27800 - System Meas & Reg Station	19,447,939	0.24%	46,675
27900 - Meas & Reg Sta Equip - City	5,383,498	0.21%	11,305
28000 - Services	322,653,648	0.22%	709,838
28100 - Meters	21,278,968	0.27%	57,453
28105 - Meters - Meter Acc, ERTs	6,508,708	0.30%	19,526
28200 - Meter Installations	20,157,323	0.26%	52,409
28300 - House Regulators	4,360,339	0.21%	9,157
28400 - House Regulator Installatio	3,396,922	0.19%	6,454
28500 - Ind Meas & Reg St Equip	6,037,657	0.23%	13,887
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>971,999,029</b>		<b>1,650,614</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	25,828,321	0.16%	41,325
29100 - Office Furniture and Equipm	3,051,251	0.42%	12,815
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	2,607,785	0.63%	16,429
29204 - Trans Equip - Leased Buyout	40,917	0.30%	123
29210 - Pass. Cars & Sta Wagons	503,826	0.95%	4,786
29211 - Trucks 1/2 & 3/4 Ton	7,551,793	0.95%	71,742
29212 - Trucks 1 & 1.5 Ton	1,123,839	0.95%	10,676
29213 - Trucks 2 Ton & Over	2,995,460	0.38%	11,383
29217 - Tractors - Diesel	95,724	0.63%	603
29218 - Trailers	117,750	0.30%	353
29300 - Stores Equipment	-1,758	0.00%	0
29400 - Tools, Shop & Garage Equip	8,371,578	0.42%	35,161
29500 - Laboratory Equipment	105,879	0.42%	445
29600 - Power Operated Equipment	1,474,742	0.20%	2,949
29700 - Communication Equipment	1,301,817	0.56%	7,290
29800 - Miscellaneous Equipment	969,873	0.42%	4,073
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>60,707,381</b>		<b>220,153</b>
<b>Total</b>	<b>1,415,582,893</b>		<b>2,455,292</b>

Source: WHN Rate Base Workpapers RB-20-2.51 and RB-20-2.80.

Account	Average Plant In Service Feb-21	Proposed Monthly Depr Rates	Depreciation Expense Feb-21
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,670,407	0.31%	33,078
26200 - Gas Holders	3,031,845	0.02%	606
26300 - Purification Equipment	6,616,076	0.32%	21,171
26310 - Liquefaction Equipment	7,433,408	0.30%	22,300
26320 - Vaporizing Equipment	20,992,590	0.33%	69,276
26330 - Compressor Equipment	9,651,405	0.26%	25,094
26340 - Measuring & Reg Equipment	28,381	0.55%	156
26350 - Other Equipment	4,255,205	0.33%	14,042
<b>Total Storage Plant</b>	<b>63,309,382</b>		<b>185,723</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,641	0.00%	0
26520 - Rights-of-Way	17,414,158	0.10%	17,414
26620 - S&I - M&R Station Str	2,113,845	0.17%	3,594
26700 - Mains	259,263,782	0.12%	311,117
26701 - Mains, Cathodic Protection	4,848	0.12%	6
26900 - System Meas & Reg Station	40,477,468	0.17%	68,812
<b>Total Transmission Plant</b>	<b>321,063,742</b>		<b>400,943</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	5,638,169	0.00%	0
27401 - Rights of Way	7,772,528	0.12%	9,327
27500 - Structures & Improvements -	219,208	0.25%	548
27600 - Mains	553,578,716	0.13%	719,652
27800 - System Meas & Reg Station	19,620,017	0.24%	47,088
27900 - Meas & Reg Sta Equip - City	5,373,176	0.21%	11,284
28000 - Services	324,231,018	0.22%	713,308
28100 - Meters	21,296,485	0.27%	57,501
28105 - Meters - Meter Acc, ERTs	6,508,708	0.30%	19,526
28200 - Meter Installations	20,274,482	0.26%	52,714
28300 - House Regulators	4,337,765	0.21%	9,109
28400 - House Regulator Installatio	3,396,116	0.19%	6,453
28500 - Ind Meas & Reg St Equip	6,115,652	0.23%	14,066
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>978,362,041</b>		<b>1,660,576</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	25,921,362	0.16%	41,474
29100 - Office Furniture and Equipm	3,067,921	0.42%	12,885
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	2,681,259	0.63%	16,892
29204 - Trans Equip - Leased Buyout	40,562	0.30%	122
29210 - Pass. Cars & Sta Wagons	502,856	0.95%	4,777
29211 - Trucks 1/2 & 3/4 Ton	7,557,522	0.95%	71,796
29212 - Trucks 1 & 1.5 Ton	1,148,539	0.95%	10,911
29213 - Trucks 2 Ton & Over	3,005,154	0.38%	11,420
29217 - Tractors - Diesel	97,828	0.63%	616
29218 - Trailers	117,750	0.30%	353
29300 - Stores Equipment	-1,943	0.00%	0
29400 - Tools, Shop & Garage Equip	8,398,699	0.42%	35,275
29500 - Laboratory Equipment	105,879	0.42%	445
29600 - Power Operated Equipment	1,474,533	0.20%	2,949
29700 - Communication Equipment	1,312,668	0.56%	7,351
29800 - Miscellaneous Equipment	987,726	0.42%	4,148
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>60,986,899</b>		<b>221,414</b>
<b>Total</b>	<b>1,423,861,285</b>		<b>2,468,656</b>

Source: WHN Rate Base Workpapers RB-20-2.52 and RB-20-2.80.

Account	Average Plant In Service Mar-21	Proposed Monthly Depr Rates	Depreciation Expense Mar-21
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,629,918	0.31%	32,953
26200 - Gas Holders	3,031,845	0.02%	606
26300 - Purification Equipment	6,616,076	0.32%	21,171
26310 - Liquefaction Equipment	7,433,545	0.30%	22,301
26320 - Vaporizing Equipment	20,992,590	0.33%	69,276
26330 - Compressor Equipment	9,651,405	0.26%	25,094
26340 - Measuring & Reg Equipment	28,381	0.55%	156
26350 - Other Equipment	4,289,160	0.33%	14,154
<b>Total Storage Plant</b>	<b>63,302,985</b>		<b>185,711</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,696	0.00%	0
26520 - Rights-of-Way	17,427,245	0.10%	17,427
26620 - S&I - M&R Station Str	2,130,877	0.17%	3,622
26700 - Mains	260,521,462	0.12%	312,626
26701 - Mains, Cathodic Protection	4,952	0.12%	6
26900 - System Meas & Reg Station	40,831,769	0.17%	69,414
<b>Total Transmission Plant</b>	<b>322,706,001</b>		<b>403,095</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	5,739,626	0.00%	0
27401 - Rights of Way	7,927,847	0.12%	9,513
27500 - Structures & Improvements -	219,208	0.25%	548
27600 - Mains	557,756,535	0.13%	725,083
27800 - System Meas & Reg Station	19,792,095	0.24%	47,501
27900 - Meas & Reg Sta Equip - City	5,362,854	0.21%	11,262
28000 - Services	325,808,388	0.22%	716,778
28100 - Meters	21,314,002	0.27%	57,548
28105 - Meters - Meter Acc, ERTs	6,508,708	0.30%	19,526
28200 - Meter Installations	20,391,641	0.26%	53,018
28300 - House Regulators	4,315,191	0.21%	9,062
28400 - House Regulator Installatio	3,395,310	0.19%	6,451
28500 - Ind Meas & Reg St Equip	6,193,647	0.23%	14,245
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>984,725,053</b>		<b>1,670,535</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	26,014,403	0.16%	41,623
29100 - Office Furniture and Equipm	3,084,591	0.42%	12,955
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	2,754,733	0.63%	17,355
29204 - Trans Equip - Leased Buyout	40,207	0.30%	121
29210 - Pass. Cars & Sta Wagons	501,886	0.95%	4,768
29211 - Trucks 1/2 & 3/4 Ton	7,563,251	0.95%	71,851
29212 - Trucks 1 & 1.5 Ton	1,173,239	0.95%	11,146
29213 - Trucks 2 Ton & Over	3,014,848	0.38%	11,456
29217 - Tractors - Diesel	99,932	0.63%	630
29218 - Trailers	117,750	0.30%	353
29300 - Stores Equipment	-2,128	0.00%	0
29400 - Tools, Shop & Garage Equip	8,425,820	0.42%	35,388
29500 - Laboratory Equipment	105,879	0.42%	445
29600 - Power Operated Equipment	1,474,324	0.20%	2,949
29700 - Communication Equipment	1,323,519	0.56%	7,412
29800 - Miscellaneous Equipment	1,005,579	0.42%	4,223
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>61,266,417</b>		<b>222,675</b>
<b>Total</b>	<b>1,432,139,677</b>		<b>2,482,016</b>



Source: WHN Rate Base Workpapers RB-20-2.53 and RB-20-2.80.

Account	Average Plant In Service Apr-21	Proposed Monthly Depr Rates	Depreciation Expense Apr-21
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,589,429	0.31%	32,827
26200 - Gas Holders	3,031,845	0.02%	606
26300 - Purification Equipment	6,616,076	0.32%	21,171
26310 - Liquefaction Equipment	7,433,682	0.30%	22,301
26320 - Vaporizing Equipment	20,992,590	0.33%	69,276
26330 - Compressor Equipment	9,651,405	0.26%	25,094
26340 - Measuring & Reg Equipment	28,381	0.55%	156
26350 - Other Equipment	4,323,115	0.33%	14,266
<b>Total Storage Plant</b>	<b>63,296,588</b>		<b>185,697</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,751	0.00%	0
26520 - Rights-of-Way	17,440,332	0.10%	17,440
26620 - S&I - M&R Station Str	2,147,909	0.17%	3,651
26700 - Mains	261,779,142	0.12%	314,135
26701 - Mains, Cathodic Protection	5,056	0.12%	6
26900 - System Meas & Reg Station	41,186,070	0.17%	70,016
<b>Total Transmission Plant</b>	<b>324,348,260</b>		<b>405,248</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	5,841,083	0.00%	0
27401 - Rights of Way	8,083,166	0.12%	9,700
27500 - Structures & Improvements -	219,208	0.25%	548
27600 - Mains	561,934,354	0.13%	730,515
27800 - System Meas & Reg Station	19,964,173	0.24%	47,914
27900 - Meas & Reg Sta Equip - City	5,352,532	0.21%	11,240
28000 - Services	327,385,758	0.22%	720,249
28100 - Meters	21,331,519	0.27%	57,595
28105 - Meters - Meter Acc, ERTs	6,508,708	0.30%	19,526
28200 - Meter Installations	20,508,800	0.26%	53,323
28300 - House Regulators	4,292,617	0.21%	9,014
28400 - House Regulator Installatio	3,394,504	0.19%	6,450
28500 - Ind Meas & Reg St Equip	6,271,642	0.23%	14,425
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>991,088,065</b>		<b>1,680,499</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	26,107,444	0.16%	41,772
29100 - Office Furniture and Equipm	3,101,261	0.42%	13,025
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	2,828,207	0.63%	17,818
29204 - Trans Equip - Leased Buyout	39,852	0.30%	120
29210 - Pass. Cars & Sta Wagons	500,916	0.95%	4,759
29211 - Trucks 1/2 & 3/4 Ton	7,568,980	0.95%	71,905
29212 - Trucks 1 & 1.5 Ton	1,197,939	0.95%	11,380
29213 - Trucks 2 Ton & Over	3,024,542	0.38%	11,493
29217 - Tractors - Diesel	102,036	0.63%	643
29218 - Trailers	117,750	0.30%	353
29300 - Stores Equipment	-2,313	0.00%	0
29400 - Tools, Shop & Garage Equip	8,452,941	0.42%	35,502
29500 - Laboratory Equipment	105,879	0.42%	445
29600 - Power Operated Equipment	1,474,115	0.20%	2,948
29700 - Communication Equipment	1,334,370	0.56%	7,472
29800 - Miscellaneous Equipment	1,023,432	0.42%	4,298
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>61,545,935</b>		<b>223,933</b>
<b>Total</b>	<b>1,440,418,069</b>		<b>2,495,377</b>

Source: WHN Rate Base Workpapers RB-20-2.54 and RB-20-2.80.

Account	Average Plant In Service May-21	Proposed Monthly Depr Rates	Depreciation Expense May-21
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,548,940	0.31%	32,702
26200 - Gas Holders	3,031,845	0.02%	606
26300 - Purification Equipment	6,616,076	0.32%	21,171
26310 - Liquefaction Equipment	7,433,819	0.30%	22,301
26320 - Vaporizing Equipment	20,992,590	0.33%	69,276
26330 - Compressor Equipment	9,651,405	0.26%	25,094
26340 - Measuring & Reg Equipment	28,381	0.55%	156
26350 - Other Equipment	4,357,070	0.33%	14,378
<b>Total Storage Plant</b>	<b>63,290,191</b>		<b>185,684</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,806	0.00%	0
26520 - Rights-of-Way	17,453,419	0.10%	17,453
26620 - S&I - M&R Station Str	2,164,941	0.17%	3,680
26700 - Mains	263,036,822	0.12%	315,644
26701 - Mains, Cathodic Protection	5,160	0.12%	6
26900 - System Meas & Reg Station	41,540,371	0.17%	70,619
<b>Total Transmission Plant</b>	<b>325,990,519</b>		<b>407,402</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	5,942,540	0.00%	0
27401 - Rights of Way	8,238,485	0.12%	9,886
27500 - Structures & Improvements -	219,208	0.25%	548
27600 - Mains	566,112,173	0.13%	735,946
27800 - System Meas & Reg Station	20,136,251	0.24%	48,327
27900 - Meas & Reg Sta Equip - City	5,342,210	0.21%	11,219
28000 - Services	328,963,128	0.22%	723,719
28100 - Meters	21,349,036	0.27%	57,642
28105 - Meters - Meter Acc, ERTs	6,508,708	0.30%	19,526
28200 - Meter Installations	20,625,959	0.26%	53,627
28300 - House Regulators	4,270,043	0.21%	8,967
28400 - House Regulator Installatio	3,393,698	0.19%	6,448
28500 - Ind Meas & Reg St Equip	6,349,637	0.23%	14,604
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>997,451,077</b>		<b>1,690,459</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	26,200,485	0.16%	41,921
29100 - Office Furniture and Equipm	3,117,931	0.42%	13,095
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	2,901,681	0.63%	18,281
29204 - Trans Equip - Leased Buyout	39,497	0.30%	118
29210 - Pass. Cars & Sta Wagons	499,946	0.95%	4,749
29211 - Trucks 1/2 & 3/4 Ton	7,574,709	0.95%	71,960
29212 - Trucks 1 & 1.5 Ton	1,222,639	0.95%	11,615
29213 - Trucks 2 Ton & Over	3,034,236	0.38%	11,530
29217 - Tractors - Diesel	104,140	0.63%	656
29218 - Trailers	117,750	0.30%	353
29300 - Stores Equipment	-2,498	0.00%	0
29400 - Tools, Shop & Garage Equip	8,480,062	0.42%	35,616
29500 - Laboratory Equipment	105,879	0.42%	445
29600 - Power Operated Equipment	1,473,906	0.20%	2,948
29700 - Communication Equipment	1,345,221	0.56%	7,533
29800 - Miscellaneous Equipment	1,041,285	0.42%	4,373
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>61,825,453</b>		<b>225,193</b>
<b>Total</b>	<b>1,448,696,461</b>		<b>2,508,738</b>

Source: WHN Rate Base Workpapers RB-20-2.55 and RB-20-2.80.

Account	Average Plant In Service Jun-21	Proposed Monthly Depr Rates	Depreciation Expense Jun-21
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,508,451	0.31%	32,576
26200 - Gas Holders	3,031,845	0.02%	606
26300 - Purification Equipment	6,616,076	0.32%	21,171
26310 - Liquefaction Equipment	7,433,956	0.30%	22,302
26320 - Vaporizing Equipment	20,992,590	0.33%	69,276
26330 - Compressor Equipment	9,651,405	0.26%	25,094
26340 - Measuring & Reg Equipment	28,381	0.55%	156
26350 - Other Equipment	4,391,025	0.33%	14,490
<b>Total Storage Plant</b>	<b>63,283,794</b>		<b>185,671</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,861	0.00%	0
26520 - Rights-of-Way	17,466,506	0.10%	17,467
26620 - S&I - M&R Station Str	2,181,973	0.17%	3,709
26700 - Mains	264,294,502	0.12%	317,153
26701 - Mains, Cathodic Protection	5,264	0.12%	6
26900 - System Meas & Reg Station	41,894,672	0.17%	71,221
<b>Total Transmission Plant</b>	<b>327,632,778</b>		<b>409,556</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	6,043,997	0.00%	0
27401 - Rights of Way	8,393,804	0.12%	10,073
27500 - Structures & Improvements -	219,208	0.25%	548
27600 - Mains	570,289,992	0.13%	741,377
27800 - System Meas & Reg Station	20,308,329	0.24%	48,740
27900 - Meas & Reg Sta Equip - City	5,331,888	0.21%	11,197
28000 - Services	330,540,498	0.22%	727,189
28100 - Meters	21,366,553	0.27%	57,690
28105 - Meters - Meter Acc, ERTs	6,508,708	0.30%	19,526
28200 - Meter Installations	20,743,118	0.26%	53,932
28300 - House Regulators	4,247,469	0.21%	8,920
28400 - House Regulator Installatio	3,392,892	0.19%	6,446
28500 - Ind Meas & Reg St Equip	6,427,632	0.23%	14,784
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>1,003,814,089</b>		<b>1,700,422</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	26,293,526	0.16%	42,070
29100 - Office Furniture and Equipm	3,134,601	0.42%	13,165
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	2,975,155	0.63%	18,743
29204 - Trans Equip - Leased Buyout	39,142	0.30%	117
29210 - Pass. Cars & Sta Wagons	498,976	0.95%	4,740
29211 - Trucks 1/2 & 3/4 Ton	7,580,438	0.95%	72,014
29212 - Trucks 1 & 1.5 Ton	1,247,339	0.95%	11,850
29213 - Trucks 2 Ton & Over	3,043,930	0.38%	11,567
29217 - Tractors - Diesel	106,244	0.63%	669
29218 - Trailers	117,750	0.30%	353
29300 - Stores Equipment	-2,683	0.00%	0
29400 - Tools, Shop & Garage Equip	8,507,183	0.42%	35,730
29500 - Laboratory Equipment	105,879	0.42%	445
29600 - Power Operated Equipment	1,473,697	0.20%	2,947
29700 - Communication Equipment	1,356,072	0.56%	7,594
29800 - Miscellaneous Equipment	1,059,138	0.42%	4,448
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>62,104,971</b>		<b>226,452</b>
<b>Total</b>	<b>1,456,974,853</b>		<b>2,522,101</b>

Source: WHN Rate Base Workpapers RB-20-2.56 and RB-20-2.80.

Account	Average Plant In Service Jul-21	Proposed Monthly Depr Rates	Depreciation Expense Jul-21
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,467,962	0.31%	32,451
26200 - Gas Holders	3,031,845	0.02%	606
26300 - Purification Equipment	6,616,076	0.32%	21,171
26310 - Liquefaction Equipment	7,434,093	0.30%	22,302
26320 - Vaporizing Equipment	20,992,590	0.33%	69,276
26330 - Compressor Equipment	9,651,405	0.26%	25,094
26340 - Measuring & Reg Equipment	28,381	0.55%	156
26350 - Other Equipment	4,424,980	0.33%	14,602
<b>Total Storage Plant</b>	<b>63,277,397</b>		<b>185,658</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,916	0.00%	0
26520 - Rights-of-Way	17,479,593	0.10%	17,480
26620 - S&I - M&R Station Str	2,199,005	0.17%	3,738
26700 - Mains	265,552,182	0.12%	318,663
26701 - Mains, Cathodic Protection	5,368	0.12%	6
26900 - System Meas & Reg Station	42,248,973	0.17%	71,823
<b>Total Transmission Plant</b>	<b>329,275,037</b>		<b>411,710</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	6,145,454	0.00%	0
27401 - Rights of Way	8,549,123	0.12%	10,259
27500 - Structures & Improvements -	219,208	0.25%	548
27600 - Mains	574,467,811	0.13%	746,808
27800 - System Meas & Reg Station	20,480,407	0.24%	49,153
27900 - Meas & Reg Sta Equip - City	5,321,566	0.21%	11,175
28000 - Services	332,117,868	0.22%	730,659
28100 - Meters	21,384,070	0.27%	57,737
28105 - Meters - Meter Acc, ERTs	6,508,708	0.30%	19,526
28200 - Meter Installations	20,860,277	0.26%	54,237
28300 - House Regulators	4,224,895	0.21%	8,872
28400 - House Regulator Installatio	3,392,086	0.19%	6,445
28500 - Ind Meas & Reg St Equip	6,505,627	0.23%	14,963
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>1,010,177,101</b>		<b>1,710,382</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	26,386,567	0.16%	42,219
29100 - Office Furniture and Equipm	3,151,271	0.42%	13,235
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	3,048,629	0.63%	19,206
29204 - Trans Equip - Leased Buyout	38,787	0.30%	116
29210 - Pass. Cars & Sta Wagons	498,006	0.95%	4,731
29211 - Trucks 1/2 & 3/4 Ton	7,586,167	0.95%	72,069
29212 - Trucks 1 & 1.5 Ton	1,272,039	0.95%	12,084
29213 - Trucks 2 Ton & Over	3,053,624	0.38%	11,604
29217 - Tractors - Diesel	108,348	0.63%	683
29218 - Trailers	117,750	0.30%	353
29300 - Stores Equipment	-2,868	0.00%	0
29400 - Tools, Shop & Garage Equip	8,534,304	0.42%	35,844
29500 - Laboratory Equipment	105,879	0.42%	445
29600 - Power Operated Equipment	1,473,488	0.20%	2,947
29700 - Communication Equipment	1,366,923	0.56%	7,655
29800 - Miscellaneous Equipment	1,076,991	0.42%	4,523
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>62,384,489</b>		<b>227,714</b>
<b>Total</b>	<b>1,465,253,245</b>		<b>2,535,464</b>

Source: WHN Rate Base Workpapers RB-20-2.57 and RB-20-2.80.

Account	Average Plant In Service Aug-21	Proposed Monthly Depr Rates	Depreciation Expense Aug-21
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,427,473	0.31%	32,325
26200 - Gas Holders	3,031,845	0.02%	606
26300 - Purification Equipment	6,616,076	0.32%	21,171
26310 - Liquefaction Equipment	7,434,230	0.30%	22,303
26320 - Vaporizing Equipment	20,992,590	0.33%	69,276
26330 - Compressor Equipment	9,651,405	0.26%	25,094
26340 - Measuring & Reg Equipment	28,381	0.55%	156
26350 - Other Equipment	4,458,935	0.33%	14,714
<b>Total Storage Plant</b>	<b>63,271,000</b>		<b>185,645</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,789,971	0.00%	0
26520 - Rights-of-Way	17,492,680	0.10%	17,493
26620 - S&I - M&R Station Str	2,216,037	0.17%	3,767
26700 - Mains	266,809,862	0.12%	320,172
26701 - Mains, Cathodic Protection	5,472	0.12%	7
26900 - System Meas & Reg Station	42,603,274	0.17%	72,426
<b>Total Transmission Plant</b>	<b>330,917,296</b>		<b>413,865</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	6,246,911	0.00%	0
27401 - Rights of Way	8,704,442	0.12%	10,445
27500 - Structures & Improvements -	219,208	0.25%	548
27600 - Mains	578,645,630	0.13%	752,239
27800 - System Meas & Reg Station	20,652,485	0.24%	49,566
27900 - Meas & Reg Sta Equip - City	5,311,244	0.21%	11,154
28000 - Services	333,695,238	0.22%	734,130
28100 - Meters	21,401,587	0.27%	57,784
28105 - Meters - Meter Acc, ERTs	6,508,708	0.30%	19,526
28200 - Meter Installations	20,977,436	0.26%	54,541
28300 - House Regulators	4,202,321	0.21%	8,825
28400 - House Regulator Installatio	3,391,280	0.19%	6,443
28500 - Ind Meas & Reg St Equip	6,583,622	0.23%	15,142
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>1,016,540,113</b>		<b>1,720,343</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	26,479,608	0.16%	42,367
29100 - Office Furniture and Equipm	3,167,941	0.42%	13,305
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	3,122,103	0.63%	19,669
29204 - Trans Equip - Leased Buyout	38,432	0.30%	115
29210 - Pass. Cars & Sta Wagons	497,036	0.95%	4,722
29211 - Trucks 1/2 & 3/4 Ton	7,591,896	0.95%	72,123
29212 - Trucks 1 & 1.5 Ton	1,296,739	0.95%	12,319
29213 - Trucks 2 Ton & Over	3,063,318	0.38%	11,641
29217 - Tractors - Diesel	110,452	0.63%	696
29218 - Trailers	117,750	0.30%	353
29300 - Stores Equipment	-3,053	0.00%	0
29400 - Tools, Shop & Garage Equip	8,561,425	0.42%	35,958
29500 - Laboratory Equipment	105,879	0.42%	445
29600 - Power Operated Equipment	1,473,279	0.20%	2,947
29700 - Communication Equipment	1,377,774	0.56%	7,716
29800 - Miscellaneous Equipment	1,094,844	0.42%	4,598
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>62,664,007</b>		<b>228,974</b>
<b>Total</b>	<b>1,473,531,637</b>		<b>2,548,827</b>

Source: WHN Rate Base Workpapers RB-20-2.58 and RB-20-2.80.

Account	Average Plant In Service Sep-21	Proposed Monthly Depr Rates	Depreciation Expense Sep-21
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,386,984	0.31%	32,200
26200 - Gas Holders	3,031,845	0.02%	606
26300 - Purification Equipment	6,616,076	0.32%	21,171
26310 - Liquefaction Equipment	7,434,367	0.30%	22,303
26320 - Vaporizing Equipment	20,992,590	0.33%	69,276
26330 - Compressor Equipment	9,651,405	0.26%	25,094
26340 - Measuring & Reg Equipment	28,381	0.55%	156
26350 - Other Equipment	4,492,890	0.33%	14,827
<b>Total Storage Plant</b>	<b>63,264,603</b>		<b>185,633</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,790,026	0.00%	0
26520 - Rights-of-Way	17,505,767	0.10%	17,506
26620 - S&I - M&R Station Str	2,233,069	0.17%	3,796
26700 - Mains	268,067,542	0.12%	321,681
26701 - Mains, Cathodic Protection	5,576	0.12%	7
26900 - System Meas & Reg Station	42,957,575	0.17%	73,028
<b>Total Transmission Plant</b>	<b>332,559,555</b>		<b>416,018</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	6,348,368	0.00%	0
27401 - Rights of Way	8,859,761	0.12%	10,632
27500 - Structures & Improvements -	219,208	0.25%	548
27600 - Mains	582,823,449	0.13%	757,670
27800 - System Meas & Reg Station	20,824,563	0.24%	49,979
27900 - Meas & Reg Sta Equip - City	5,300,922	0.21%	11,132
28000 - Services	335,272,608	0.22%	737,600
28100 - Meters	21,419,104	0.27%	57,832
28105 - Meters - Meter Acc, ERTs	6,508,708	0.30%	19,526
28200 - Meter Installations	21,094,595	0.26%	54,846
28300 - House Regulators	4,179,747	0.21%	8,777
28400 - House Regulator Installatio	3,390,474	0.19%	6,442
28500 - Ind Meas & Reg St Equip	6,661,617	0.23%	15,322
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>1,022,903,125</b>		<b>1,730,306</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	26,572,649	0.16%	42,516
29100 - Office Furniture and Equipm	3,184,611	0.42%	13,375
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	3,195,577	0.63%	20,132
29204 - Trans Equip - Leased Buyout	38,077	0.30%	114
29210 - Pass. Cars & Sta Wagons	496,066	0.95%	4,713
29211 - Trucks 1/2 & 3/4 Ton	7,597,625	0.95%	72,177
29212 - Trucks 1 & 1.5 Ton	1,321,439	0.95%	12,554
29213 - Trucks 2 Ton & Over	3,073,012	0.38%	11,677
29217 - Tractors - Diesel	112,556	0.63%	709
29218 - Trailers	117,750	0.30%	353
29300 - Stores Equipment	-3,238	0.00%	0
29400 - Tools, Shop & Garage Equip	8,588,546	0.42%	36,072
29500 - Laboratory Equipment	105,879	0.42%	445
29600 - Power Operated Equipment	1,473,070	0.20%	2,946
29700 - Communication Equipment	1,388,625	0.56%	7,776
29800 - Miscellaneous Equipment	1,112,697	0.42%	4,673
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>62,943,525</b>		<b>230,232</b>
<b>Total</b>	<b>1,481,810,029</b>		<b>2,562,189</b>

Source: WHN Rate Base Workpapers RB-20-2.59 and RB-20-2.80.

Account	Average Plant In Service Oct-21	Proposed Monthly Depr Rates	Depreciation Expense Oct-21
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,346,495	0.31%	32,074
26200 - Gas Holders	3,031,845	0.02%	606
26300 - Purification Equipment	6,616,076	0.32%	21,171
26310 - Liquefaction Equipment	7,434,504	0.30%	22,304
26320 - Vaporizing Equipment	20,992,590	0.33%	69,276
26330 - Compressor Equipment	9,651,405	0.26%	25,094
26340 - Measuring & Reg Equipment	28,381	0.55%	156
26350 - Other Equipment	4,526,845	0.33%	14,939
<b>Total Storage Plant</b>	<b>63,258,206</b>		<b>185,620</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,790,081	0.00%	0
26520 - Rights-of-Way	17,518,854	0.10%	17,519
26620 - S&I - M&R Station Str	2,250,101	0.17%	3,825
26700 - Mains	269,325,222	0.12%	323,190
26701 - Mains, Cathodic Protection	5,680	0.12%	7
26900 - System Meas & Reg Station	43,311,876	0.17%	73,630
<b>Total Transmission Plant</b>	<b>334,201,814</b>		<b>418,171</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	6,449,825	0.00%	0
27401 - Rights of Way	9,015,080	0.12%	10,818
27500 - Structures & Improvements -	219,208	0.25%	548
27600 - Mains	587,001,268	0.13%	763,102
27800 - System Meas & Reg Station	20,996,641	0.24%	50,392
27900 - Meas & Reg Sta Equip - City	5,290,600	0.21%	11,110
28000 - Services	336,849,978	0.22%	741,070
28100 - Meters	21,436,621	0.27%	57,879
28105 - Meters - Meter Acc, ERTs	6,508,708	0.30%	19,526
28200 - Meter Installations	21,211,754	0.26%	55,151
28300 - House Regulators	4,157,173	0.21%	8,730
28400 - House Regulator Installatio	3,389,668	0.19%	6,440
28500 - Ind Meas & Reg St Equip	6,739,612	0.23%	15,501
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>1,029,266,137</b>		<b>1,740,267</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	26,665,690	0.16%	42,665
29100 - Office Furniture and Equipm	3,201,281	0.42%	13,445
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	3,269,051	0.63%	20,595
29204 - Trans Equip - Leased Buyout	37,722	0.30%	113
29210 - Pass. Cars & Sta Wagons	495,096	0.95%	4,703
29211 - Trucks 1/2 & 3/4 Ton	7,603,354	0.95%	72,232
29212 - Trucks 1 & 1.5 Ton	1,346,139	0.95%	12,788
29213 - Trucks 2 Ton & Over	3,082,706	0.38%	11,714
29217 - Tractors - Diesel	114,660	0.63%	722
29218 - Trailers	117,750	0.30%	353
29300 - Stores Equipment	-3,423	0.00%	0
29400 - Tools, Shop & Garage Equip	8,615,667	0.42%	36,186
29500 - Laboratory Equipment	105,879	0.42%	445
29600 - Power Operated Equipment	1,472,861	0.20%	2,946
29700 - Communication Equipment	1,399,476	0.56%	7,837
29800 - Miscellaneous Equipment	1,130,550	0.42%	4,748
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>63,223,043</b>		<b>231,492</b>
<b>Total</b>	<b>1,490,088,421</b>		<b>2,575,550</b>

Source: WHN Rate Base Workpapers RB-20-2.60 and RB-20-2.80.

Account	Average Plant In Service Nov-21	Proposed Monthly Depr Rates	Depreciation Expense Nov-21
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,306,006	0.31%	31,949
26200 - Gas Holders	3,031,845	0.02%	606
26300 - Purification Equipment	6,616,076	0.32%	21,171
26310 - Liquefaction Equipment	7,434,641	0.30%	22,304
26320 - Vaporizing Equipment	20,992,590	0.33%	69,276
26330 - Compressor Equipment	9,651,405	0.26%	25,094
26340 - Measuring & Reg Equipment	28,381	0.55%	156
26350 - Other Equipment	4,560,800	0.33%	15,051
<b>Total Storage Plant</b>	<b>63,251,809</b>		<b>185,607</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,790,136	0.00%	0
26520 - Rights-of-Way	17,531,941	0.10%	17,532
26620 - S&I - M&R Station Str	2,267,133	0.17%	3,854
26700 - Mains	270,582,902	0.12%	324,699
26701 - Mains, Cathodic Protection	5,784	0.12%	7
26900 - System Meas & Reg Station	43,666,177	0.17%	74,233
<b>Total Transmission Plant</b>	<b>335,844,073</b>		<b>420,325</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	6,551,282	0.00%	0
27401 - Rights of Way	9,170,399	0.12%	11,004
27500 - Structures & Improvements -	219,208	0.25%	548
27600 - Mains	591,179,087	0.13%	768,533
27800 - System Meas & Reg Station	21,168,719	0.24%	50,805
27900 - Meas & Reg Sta Equip - City	5,280,278	0.21%	11,089
28000 - Services	338,427,348	0.22%	744,540
28100 - Meters	21,454,138	0.27%	57,926
28105 - Meters - Meter Acc, ERTs	6,508,708	0.30%	19,526
28200 - Meter Installations	21,328,913	0.26%	55,455
28300 - House Regulators	4,134,599	0.21%	8,683
28400 - House Regulator Installatio	3,388,862	0.19%	6,439
28500 - Ind Meas & Reg St Equip	6,817,607	0.23%	15,680
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>1,035,629,149</b>		<b>1,750,228</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	26,758,731	0.16%	42,814
29100 - Office Furniture and Equipm	3,217,951	0.42%	13,515
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	3,342,525	0.63%	21,058
29204 - Trans Equip - Leased Buyout	37,367	0.30%	112
29210 - Pass. Cars & Sta Wagons	494,126	0.95%	4,694
29211 - Trucks 1/2 & 3/4 Ton	7,609,083	0.95%	72,286
29212 - Trucks 1 & 1.5 Ton	1,370,839	0.95%	13,023
29213 - Trucks 2 Ton & Over	3,092,400	0.38%	11,751
29217 - Tractors - Diesel	116,764	0.63%	736
29218 - Trailers	117,750	0.30%	353
29300 - Stores Equipment	-3,608	0.00%	0
29400 - Tools, Shop & Garage Equip	8,642,788	0.42%	36,300
29500 - Laboratory Equipment	105,879	0.42%	445
29600 - Power Operated Equipment	1,472,652	0.20%	2,945
29700 - Communication Equipment	1,410,327	0.56%	7,898
29800 - Miscellaneous Equipment	1,148,403	0.42%	4,823
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>63,502,561</b>		<b>232,753</b>
<b>Total</b>	<b>1,498,366,813</b>		<b>2,588,913</b>



Source: WHN Rate Base Workpapers RB-20-2.61 and RB-20-2.80.

Account	Average Plant In Service Dec-21	Proposed Monthly Depr Rates	Depreciation Expense Dec-21
<b>Intangible Plant:</b>			
20100 - Organization	30,035	0.00%	0
20200 - Franchises and Consents	109,186	0.00%	0
20300 - Miscellaneous Intangible PI	0	0.00%	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>
<b>Storage Plant:</b>			
26000 - Land and Land Rights	630,064	0.00%	0
26100 - Structures & Improvements	10,265,517	0.31%	31,823
26200 - Gas Holders	3,031,845	0.02%	606
26300 - Purification Equipment	6,616,076	0.32%	21,171
26310 - Liquefaction Equipment	7,434,778	0.30%	22,304
26320 - Vaporizing Equipment	20,992,590	0.33%	69,276
26330 - Compressor Equipment	9,651,405	0.26%	25,094
26340 - Measuring & Reg Equipment	28,381	0.55%	156
26350 - Other Equipment	4,594,755	0.33%	15,163
<b>Total Storage Plant</b>	<b>63,245,412</b>		<b>185,593</b>
<b>Transmission Plant:</b>			
26502 - Depreciable Land Rights	0	0.10%	0
26510 - Land and Land Rights	1,790,191	0.00%	0
26520 - Rights-of-Way	17,545,028	0.10%	17,545
26620 - S&I - M&R Station Str	2,284,165	0.17%	3,883
26700 - Mains	271,840,582	0.12%	326,209
26701 - Mains, Cathodic Protection	5,888	0.12%	7
26900 - System Meas & Reg Station	44,020,478	0.17%	74,835
<b>Total Transmission Plant</b>	<b>337,486,332</b>		<b>422,479</b>
<b>Distribution Plant:</b>			
27400 - Non-depr Land & Land Rights	6,652,739	0.00%	0
27401 - Rights of Way	9,325,718	0.12%	11,191
27500 - Structures & Improvements -	219,208	0.25%	548
27600 - Mains	595,356,906	0.13%	773,964
27800 - System Meas & Reg Station	21,340,797	0.24%	51,218
27900 - Meas & Reg Sta Equip - City	5,269,956	0.21%	11,067
28000 - Services	340,004,718	0.22%	748,010
28100 - Meters	21,471,655	0.27%	57,973
28105 - Meters - Meter Acc, ERTs	6,508,708	0.30%	19,526
28200 - Meter Installations	21,446,072	0.26%	55,760
28300 - House Regulators	4,112,025	0.21%	8,635
28400 - House Regulator Installatio	3,388,056	0.19%	6,437
28500 - Ind Meas & Reg St Equip	6,895,602	0.23%	15,860
28700 - Other Equipment - Other	0	0.00%	0
<b>Total Distribution Plant</b>	<b>1,041,992,161</b>		<b>1,760,189</b>
<b>General Plant:</b>			
28900 - Non-depr Land & Land Rights	4,568,585	0.00%	0
29000 - Structures and Improvements	26,851,772	0.16%	42,963
29100 - Office Furniture and Equipm	3,234,621	0.42%	13,585
29101 - Electronic Data Processing	0	0.00%	0
29200 - Transportation Equipment	3,415,999	0.63%	21,521
29204 - Trans Equip - Leased Buyout	37,012	0.30%	111
29210 - Pass. Cars & Sta Wagons	493,156	0.95%	4,685
29211 - Trucks 1/2 & 3/4 Ton	7,614,812	0.95%	72,341
29212 - Trucks 1 & 1.5 Ton	1,395,539	0.95%	13,258
29213 - Trucks 2 Ton & Over	3,102,094	0.38%	11,788
29217 - Tractors - Diesel	118,868	0.63%	749
29218 - Trailers	117,750	0.30%	353
29300 - Stores Equipment	-3,793	0.00%	0
29400 - Tools, Shop & Garage Equip	8,669,909	0.42%	36,414
29500 - Laboratory Equipment	105,879	0.42%	445
29600 - Power Operated Equipment	1,472,443	0.20%	2,945
29700 - Communication Equipment	1,421,178	0.56%	7,959
29800 - Miscellaneous Equipment	1,166,256	0.42%	4,898
29900 - Other Tangible Property	0	0.00%	0
<b>Total General Plant</b>	<b>63,782,079</b>		<b>234,015</b>
<b>Total</b>	<b>1,506,645,205</b>		<b>2,602,276</b>

	Plant in Service Mar-20	A/ Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Apr-20	Avg Plant in Service Apr-20
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	11,095,542	24,811	-65,300	11,055,053	11,075,297
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,431,970	1,386	-1,249	7,432,107	7,432,038
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	3,898,678	34,102	-147	3,932,633	3,915,655
Total Storage Plant	63,376,551	60,299	-66,696	63,370,154	63,373,352
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,789,063	55	0	1,789,118	1,789,091
26520 - Rights-of-Way	17,276,744	13,087	0	17,289,831	17,283,288
26620 - S&I - M&R Station Str	1,935,009	17,032	0	1,952,041	1,943,525
26700 - Mains	246,058,142	1,310,855	-53,175	247,315,822	246,686,982
26701 - Mains, Cathodic Protection	3,756	104	0	3,860	3,808
26900 - System Meas & Reg Station	36,757,308	355,383	-1,082	37,111,609	36,934,458
Total Transmission Plant	303,820,022	1,696,516	-54,257	305,462,281	304,641,152
Distribution Plant:					
27400 - Non-depr Land & Land Rights	4,572,870	101,457	0	4,674,327	4,623,599
27401 - Rights of Way	6,141,679	155,319	0	6,296,998	6,219,338
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	509,711,616	4,252,127	-74,308	513,889,435	511,800,526
27800 - System Meas & Reg Station	17,813,198	174,902	-2,824	17,985,276	17,899,237
27900 - Meas & Reg Sta Equip - City	5,481,557	-8,143	-2,179	5,471,235	5,476,396
28000 - Services	307,668,633	1,681,308	-103,938	309,246,003	308,457,318
28100 - Meters	21,112,557	17,517	0	21,130,074	21,121,315
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	19,044,313	122,593	-5,434	19,161,472	19,102,892
28300 - House Regulators	4,574,792	-20,401	-2,173	4,552,218	4,563,505
28400 - House Regulator Installatio	3,404,579	1,054	-1,860	3,403,773	3,404,176
28500 - Ind Meas & Reg St Equip	5,296,704	78,702	-707	5,374,699	5,335,702
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	911,550,415	6,556,435	-193,423	917,913,427	914,731,921
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	24,944,431	106,208	-13,167	25,037,472	24,990,952
29100 - Office Furniture and Equipm	2,892,886	17,581	-911	2,909,556	2,901,221
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	1,909,782	78,767	-5,293	1,983,256	1,946,519
29204 - Trans Equip - Leased Buyout	44,289	0	-355	43,934	44,112
29210 - Pass. Cars & Sta Wagons	513,041	0	-970	512,071	512,556
29211 - Trucks 1/2 & 3/4 Ton	7,497,367	25,623	-19,894	7,503,096	7,500,232
29212 - Trucks 1 & 1.5 Ton	889,189	24,700	0	913,889	901,539
29213 - Trucks 2 Ton & Over	2,903,367	11,301	-1,607	2,913,061	2,908,214
29217 - Tractors - Diesel	75,736	2,104	0	77,840	76,788
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	0	0	-185	-185	-93
29400 - Tools, Shop & Garage Equip	8,113,928	39,646	-12,525	8,141,049	8,127,489
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,476,727	620	-829	1,476,518	1,476,623
29700 - Communication Equipment	1,198,732	10,851	0	1,209,583	1,204,158
29800 - Miscellaneous Equipment	800,269	17,853	0	818,122	809,196
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	58,051,960	335,254	-55,736	58,331,478	58,191,719
Total	1,336,938,169	8,648,504	-370,112	1,345,216,561	1,341,077,365

A/ WHN Rate Base Workpaper RB-10-2.80.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

	Plant in Service Apr-20	A/ Monthly Additions	B/ Monthly Plant Retirements	C/ Plant in Service May-20	Avg Plant in Service May-20
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	11,055,053	24,811	-65,300	11,014,564	11,034,808
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,432,107	1,386	-1,249	7,432,244	7,432,175
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	3,932,633	34,102	-147	3,966,588	3,949,610
Total Storage Plant	63,370,154	60,299	-66,696	63,363,757	63,366,955
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,789,118	55	0	1,789,173	1,789,146
26520 - Rights-of-Way	17,289,831	13,087	0	17,302,918	17,296,375
26620 - S&I - M&R Station Str	1,952,041	17,032	0	1,969,073	1,960,557
26700 - Mains	247,315,822	1,310,855	-53,175	248,573,502	247,944,662
26701 - Mains, Cathodic Protection	3,860	104	0	3,964	3,912
26900 - System Meas & Reg Station	37,111,609	355,383	-1,082	37,465,910	37,288,759
Total Transmission Plant	305,462,281	1,696,516	-54,257	307,104,540	306,283,411
Distribution Plant:					
27400 - Non-depr Land & Land Rights	4,674,327	101,457	0	4,775,784	4,725,056
27401 - Rights of Way	6,296,998	155,319	0	6,452,317	6,374,657
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	513,889,435	4,252,127	-74,308	518,067,254	515,978,345
27800 - System Meas & Reg Station	17,985,276	174,902	-2,824	18,157,354	18,071,315
27900 - Meas & Reg Sta Equip - City	5,471,235	-8,143	-2,179	5,460,913	5,466,074
28000 - Services	309,246,003	1,681,308	-103,938	310,823,373	310,034,688
28100 - Meters	21,130,074	17,517	0	21,147,591	21,138,832
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	19,161,472	122,593	-5,434	19,278,631	19,220,051
28300 - House Regulators	4,552,218	-20,401	-2,173	4,529,644	4,540,931
28400 - House Regulator Installatio	3,403,773	1,054	-1,860	3,402,967	3,403,370
28500 - Ind Meas & Reg St Equip	5,374,699	78,702	-707	5,452,694	5,413,697
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	917,913,427	6,556,435	-193,423	924,276,439	921,094,933
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	25,037,472	106,208	-13,167	25,130,513	25,083,993
29100 - Office Furniture and Equipm	2,909,556	17,581	-911	2,926,226	2,917,891
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	1,983,256	78,767	-5,293	2,056,730	2,019,993
29204 - Trans Equip - Leased Buyout	43,934	0	-355	43,579	43,757
29210 - Pass. Cars & Sta Wagons	512,071	0	-970	511,101	511,586
29211 - Trucks 1/2 & 3/4 Ton	7,503,096	25,623	-19,894	7,508,825	7,505,961
29212 - Trucks 1 & 1.5 Ton	913,889	24,700	0	938,589	926,239
29213 - Trucks 2 Ton & Over	2,913,061	11,301	-1,607	2,922,755	2,917,908
29217 - Tractors - Diesel	77,840	2,104	0	79,944	78,892
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-185	0	-185	-370	-278
29400 - Tools, Shop & Garage Equip	8,141,049	39,646	-12,525	8,168,170	8,154,610
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,476,518	620	-829	1,476,309	1,476,414
29700 - Communication Equipment	1,209,583	10,851	0	1,220,434	1,215,009
29800 - Miscellaneous Equipment	818,122	17,853	0	835,975	827,049
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	58,331,478	335,254	-55,736	58,610,996	58,471,237
Total	1,345,216,561	8,648,504	-370,112	1,353,494,953	1,349,355,757

A/ WHN Rate Base Workpaper RB-20-2.41.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

	Plant in Service May-20	A/ Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Jun-20	Avg Plant in Service Jun-20
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	11,014,564	24,811	-65,300	10,974,075	10,994,319
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,432,244	1,386	-1,249	7,432,381	7,432,312
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	3,966,588	34,102	-147	4,000,543	3,983,565
Total Storage Plant	63,363,757	60,299	-66,696	63,357,360	63,360,558
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,789,173	55	0	1,789,228	1,789,201
26520 - Rights-of-Way	17,302,918	13,087	0	17,316,005	17,309,462
26620 - S&I - M&R Station Str	1,969,073	17,032	0	1,986,105	1,977,589
26700 - Mains	248,573,502	1,310,855	-53,175	249,831,182	249,202,342
26701 - Mains, Cathodic Protection	3,964	104	0	4,068	4,016
26900 - System Meas & Reg Station	37,465,910	355,383	-1,082	37,820,211	37,643,060
Total Transmission Plant	307,104,540	1,696,516	-54,257	308,746,799	307,925,670
Distribution Plant:					
27400 - Non-depr Land & Land Rights	4,775,784	101,457	0	4,877,241	4,826,513
27401 - Rights of Way	6,452,317	155,319	0	6,607,636	6,529,976
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	518,067,254	4,252,127	-74,308	522,245,073	520,156,164
27800 - System Meas & Reg Station	18,157,354	174,902	-2,824	18,329,432	18,243,393
27900 - Meas & Reg Sta Equip - City	5,460,913	-8,143	-2,179	5,450,591	5,455,752
28000 - Services	310,823,373	1,681,308	-103,938	312,400,743	311,612,058
28100 - Meters	21,147,591	17,517	0	21,165,108	21,156,349
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	19,278,631	122,593	-5,434	19,395,790	19,337,210
28300 - House Regulators	4,529,644	-20,401	-2,173	4,507,070	4,518,357
28400 - House Regulator Installatio	3,402,967	1,054	-1,860	3,402,161	3,402,564
28500 - Ind Meas & Reg St Equip	5,452,694	78,702	-707	5,530,689	5,491,692
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	924,276,439	6,556,435	-193,423	930,639,451	927,457,945
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	25,130,513	106,208	-13,167	25,223,554	25,177,034
29100 - Office Furniture and Equipm	2,926,226	17,581	-911	2,942,896	2,934,561
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	2,056,730	78,767	-5,293	2,130,204	2,093,467
29204 - Trans Equip - Leased Buyout	43,579	0	-355	43,224	43,402
29210 - Pass. Cars & Sta Wagons	511,101	0	-970	510,131	510,616
29211 - Trucks 1/2 & 3/4 Ton	7,508,825	25,623	-19,894	7,514,554	7,511,690
29212 - Trucks 1 & 1.5 Ton	938,589	24,700	0	963,289	950,939
29213 - Trucks 2 Ton & Over	2,922,755	11,301	-1,607	2,932,449	2,927,602
29217 - Tractors - Diesel	79,944	2,104	0	82,048	80,996
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-370	0	-185	-555	-463
29400 - Tools, Shop & Garage Equip	8,168,170	39,646	-12,525	8,195,291	8,181,731
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,476,309	620	-829	1,476,100	1,476,205
29700 - Communication Equipment	1,220,434	10,851	0	1,231,285	1,225,860
29800 - Miscellaneous Equipment	835,975	17,853	0	853,828	844,902
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	58,610,996	335,254	-55,736	58,890,514	58,750,755
Total	1,353,494,953	8,648,504	-370,112	1,361,773,345	1,357,634,149

A/ WHN Rate Base Workpaper RB-20-2.42.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

	Plant in Service Jun-20	A/ Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Jul-20	Avg Plant in Service Jul-20
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	10,974,075	24,811	-65,300	10,933,586	10,953,830
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,432,381	1,386	-1,249	7,432,518	7,432,449
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	4,000,543	34,102	-147	4,034,498	4,017,520
Total Storage Plant	63,357,360	60,299	-66,696	63,350,963	63,354,161
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,789,228	55	0	1,789,283	1,789,256
26520 - Rights-of-Way	17,316,005	13,087	0	17,329,092	17,322,549
26620 - S&I - M&R Station Str	1,986,105	17,032	0	2,003,137	1,994,621
26700 - Mains	249,831,182	1,310,855	-53,175	251,088,862	250,460,022
26701 - Mains, Cathodic Protection	4,068	104	0	4,172	4,120
26900 - System Meas & Reg Station	37,820,211	355,383	-1,082	38,174,512	37,997,361
Total Transmission Plant	308,746,799	1,696,516	-54,257	310,389,058	309,567,929
Distribution Plant:					
27400 - Non-depr Land & Land Rights	4,877,241	101,457	0	4,978,698	4,927,970
27401 - Rights of Way	6,607,636	155,319	0	6,762,955	6,685,295
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	522,245,073	4,252,127	-74,308	526,422,892	524,333,983
27800 - System Meas & Reg Station	18,329,432	174,902	-2,824	18,501,510	18,415,471
27900 - Meas & Reg Sta Equip - City	5,450,591	-8,143	-2,179	5,440,269	5,445,430
28000 - Services	312,400,743	1,681,308	-103,938	313,978,113	313,189,428
28100 - Meters	21,165,108	17,517	0	21,182,625	21,173,866
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	19,395,790	122,593	-5,434	19,512,949	19,454,369
28300 - House Regulators	4,507,070	-20,401	-2,173	4,484,496	4,495,783
28400 - House Regulator Installatio	3,402,161	1,054	-1,860	3,401,355	3,401,758
28500 - Ind Meas & Reg St Equip	5,530,689	78,702	-707	5,608,684	5,569,687
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	930,639,451	6,556,435	-193,423	937,002,463	933,820,957
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	25,223,554	106,208	-13,167	25,316,595	25,270,075
29100 - Office Furniture and Equipm	2,942,896	17,581	-911	2,959,566	2,951,231
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	2,130,204	78,767	-5,293	2,203,678	2,166,941
29204 - Trans Equip - Leased Buyout	43,224	0	-355	42,869	43,047
29210 - Pass. Cars & Sta Wagons	510,131	0	-970	509,161	509,646
29211 - Trucks 1/2 & 3/4 Ton	7,514,554	25,623	-19,894	7,520,283	7,517,419
29212 - Trucks 1 & 1.5 Ton	963,289	24,700	0	987,989	975,639
29213 - Trucks 2 Ton & Over	2,932,449	11,301	-1,607	2,942,143	2,937,296
29217 - Tractors - Diesel	82,048	2,104	0	84,152	83,100
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-555	0	-185	-740	-648
29400 - Tools, Shop & Garage Equip	8,195,291	39,646	-12,525	8,222,412	8,208,852
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,476,100	620	-829	1,475,891	1,475,996
29700 - Communication Equipment	1,231,285	10,851	0	1,242,136	1,236,711
29800 - Miscellaneous Equipment	853,828	17,853	0	871,681	862,755
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	58,890,514	335,254	-55,736	59,170,032	59,030,273
Total	1,361,773,345	8,648,504	-370,112	1,370,051,737	1,365,912,541

A/ WHN Rate Base Workpaper RB-20-2.43.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

Account	Plant in	A/	7 Monthly	B/	Monthly	C/	Plant in	Avg Plant in
	Service		Plant		Plant		Service	Service
	Jul-20		Additions		Retirements		Aug-20	Aug-20
<b>Intangible Plant:</b>								
20100 - Organization	30,035		0		0		30,035	30,035
20200 - Franchises and Consents	109,186		0		0		109,186	109,186
20300 - Miscellaneous Intangible PI	0		0		0		0	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>		<b>0</b>		<b>139,222</b>	<b>139,222</b>
<b>Storage Plant:</b>								
26000 - Land and Land Rights	630,064		0		0		630,064	630,064
26100 - Structures & Improvements	10,933,586		24,811		-65,300		10,893,097	10,913,341
26200 - Gas Holders	3,031,845		0		0		3,031,845	3,031,845
26300 - Purification Equipment	6,616,076		0		0		6,616,076	6,616,076
26310 - Liquefaction Equipment	7,432,518		1,386		-1,249		7,432,655	7,432,586
26320 - Vaporizing Equipment	20,992,590		0		0		20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405		0		0		9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381		0		0		28,381	28,381
26350 - Other Equipment	4,034,498		34,102		-147		4,068,453	4,051,475
<b>Total Storage Plant</b>	<b>63,350,963</b>		<b>60,299</b>		<b>-66,696</b>		<b>63,344,566</b>	<b>63,347,764</b>
<b>Transmission Plant:</b>								
26502 - Depreciable Land Rights	0		0		0		0	0
26510 - Land and Land Rights	1,789,283		55		0		1,789,338	1,789,311
26520 - Rights-of-Way	17,329,092		13,087		0		17,342,179	17,335,636
26620 - S&I - M&R Station Str	2,003,137		17,032		0		2,020,169	2,011,653
26700 - Mains	251,088,862		1,310,855		-53,175		252,346,542	251,717,702
26701 - Mains, Cathodic Protection	4,172		104		0		4,276	4,224
26900 - System Meas & Reg Station	38,174,512		355,383		-1,082		38,528,813	38,351,662
<b>Total Transmission Plant</b>	<b>310,389,058</b>		<b>1,696,516</b>		<b>-54,257</b>		<b>312,031,317</b>	<b>311,210,188</b>
<b>Distribution Plant:</b>								
27400 - Non-depr Land & Land Rights	4,978,698		101,457		0		5,080,155	5,029,427
27401 - Rights of Way	6,762,955		155,319		0		6,918,274	6,840,614
27500 - Structures & Improvements -	219,208		0		0		219,208	219,208
27600 - Mains	526,422,892		4,252,127		-74,308		530,600,711	528,511,802
27800 - System Meas & Reg Station	18,501,510		174,902		-2,824		18,673,588	18,587,549
27900 - Meas & Reg Sta Equip - City	5,440,269		-8,143		-2,179		5,429,947	5,435,108
28000 - Services	313,978,113		1,681,308		-103,938		315,555,483	314,766,798
28100 - Meters	21,182,625		17,517		0		21,200,142	21,191,383
28105 - Meters - Meter Acc, ERTs	6,508,708		0		0		6,508,708	6,508,708
28200 - Meter Installations	19,512,949		122,593		-5,434		19,630,108	19,571,528
28300 - House Regulators	4,484,496		-20,401		-2,173		4,461,922	4,473,209
28400 - House Regulator Installatio	3,401,355		1,054		-1,860		3,400,549	3,400,952
28500 - Ind Meas & Reg St Equip	5,608,684		78,702		-707		5,686,679	5,647,682
28700 - Other Equipment - Other	0		0		0		0	0
<b>Total Distribution Plant</b>	<b>937,002,463</b>		<b>6,556,435</b>		<b>-193,423</b>		<b>943,365,475</b>	<b>940,183,969</b>
<b>General Plant:</b>								
28900 - Non-depr Land & Land Rights	4,568,585		0		0		4,568,585	4,568,585
29000 - Structures and Improvements	25,316,595		106,208		-13,167		25,409,636	25,363,116
29100 - Office Furniture and Equipm	2,959,566		17,581		-911		2,976,236	2,967,901
29101 - Electronic Data Processing	0		0		0		0	0
29200 - Transportation Equipment	2,203,678		78,767		-5,293		2,277,152	2,240,415
29204 - Trans Equip - Leased Buyout	42,869		0		-355		42,514	42,692
29210 - Pass. Cars & Sta Wagons	509,161		0		-970		508,191	508,676
29211 - Trucks 1/2 & 3/4 Ton	7,520,283		25,623		-19,894		7,526,012	7,523,148
29212 - Trucks 1 & 1.5 Ton	987,989		24,700		0		1,012,689	1,000,339
29213 - Trucks 2 Ton & Over	2,942,143		11,301		-1,607		2,951,837	2,946,990
29217 - Tractors - Diesel	84,152		2,104		0		86,256	85,204
29218 - Trailers	117,750		0		0		117,750	117,750
29300 - Stores Equipment	-740		0		-185		-925	-833
29400 - Tools, Shop & Garage Equip	8,222,412		39,646		-12,525		8,249,533	8,235,973
29500 - Laboratory Equipment	105,879		0		0		105,879	105,879
29600 - Power Operated Equipment	1,475,891		620		-829		1,475,682	1,475,787
29700 - Communication Equipment	1,242,136		10,851		0		1,252,987	1,247,562
29800 - Miscellaneous Equipment	871,681		17,853		0		889,534	880,608
29900 - Other Tangible Property	0		0		0		0	0
<b>Total General Plant</b>	<b>59,170,032</b>		<b>335,254</b>		<b>-55,736</b>		<b>59,449,550</b>	<b>59,309,791</b>
<b>Total</b>	<b>1,370,051,737</b>		<b>8,648,504</b>		<b>-370,112</b>		<b>1,378,330,129</b>	<b>1,374,190,933</b>

A/ WHN Rate Base Workpaper RB-20-2.44.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

	Plant in Service Aug-20	A/ Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Sep-20	Avg Plant in Service Sep-20
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	10,893,097	24,811	-65,300	10,852,608	10,872,852
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,432,655	1,386	-1,249	7,432,792	7,432,723
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	4,068,453	34,102	-147	4,102,408	4,085,430
Total Storage Plant	63,344,566	60,299	-66,696	63,338,169	63,341,367
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,789,338	55	0	1,789,393	1,789,366
26520 - Rights-of-Way	17,342,179	13,087	0	17,355,266	17,348,723
26620 - S&I - M&R Station Str	2,020,169	17,032	0	2,037,201	2,028,685
26700 - Mains	252,346,542	1,310,855	-53,175	253,604,222	252,975,382
26701 - Mains, Cathodic Protection	4,276	104	0	4,380	4,328
26900 - System Meas & Reg Station	38,528,813	355,383	-1,082	38,883,114	38,705,963
Total Transmission Plant	312,031,317	1,696,516	-54,257	313,673,576	312,852,447
Distribution Plant:					
27400 - Non-depr Land & Land Rights	5,080,155	101,457	0	5,181,612	5,130,884
27401 - Rights of Way	6,918,274	155,319	0	7,073,593	6,995,933
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	530,600,711	4,252,127	-74,308	534,778,530	532,689,621
27800 - System Meas & Reg Station	18,673,588	174,902	-2,824	18,845,666	18,759,627
27900 - Meas & Reg Sta Equip - City	5,429,947	-8,143	-2,179	5,419,625	5,424,786
28000 - Services	315,555,483	1,681,308	-103,938	317,132,853	316,344,168
28100 - Meters	21,200,142	17,517	0	21,217,659	21,208,900
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	19,630,108	122,593	-5,434	19,747,267	19,688,687
28300 - House Regulators	4,461,922	-20,401	-2,173	4,439,348	4,450,635
28400 - House Regulator Installatio	3,400,549	1,054	-1,860	3,399,743	3,400,146
28500 - Ind Meas & Reg St Equip	5,686,679	78,702	-707	5,764,674	5,725,677
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	943,365,475	6,556,435	-193,423	949,728,487	946,546,981
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	25,409,636	106,208	-13,167	25,502,677	25,456,157
29100 - Office Furniture and Equipm	2,976,236	17,581	-911	2,992,906	2,984,571
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	2,277,152	78,767	-5,293	2,350,626	2,313,889
29204 - Trans Equip - Leased Buyout	42,514	0	-355	42,159	42,337
29210 - Pass. Cars & Sta Wagons	508,191	0	-970	507,221	507,706
29211 - Trucks 1/2 & 3/4 Ton	7,526,012	25,623	-19,894	7,531,741	7,528,877
29212 - Trucks 1 & 1.5 Ton	1,012,689	24,700	0	1,037,389	1,025,039
29213 - Trucks 2 Ton & Over	2,951,837	11,301	-1,607	2,961,531	2,956,684
29217 - Tractors - Diesel	86,256	2,104	0	88,360	87,308
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-925	0	-185	-1,110	-1,018
29400 - Tools, Shop & Garage Equip	8,249,533	39,646	-12,525	8,276,654	8,263,094
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,475,682	620	-829	1,475,473	1,475,578
29700 - Communication Equipment	1,252,987	10,851	0	1,263,838	1,258,413
29800 - Miscellaneous Equipment	889,534	17,853	0	907,387	898,461
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	59,449,550	335,254	-55,736	59,729,068	59,589,309
Total	1,378,330,129	8,648,504	-370,112	1,386,608,521	1,382,469,325

A/ WHN Rate Base Workpaper RB-20-2.45.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).



	Plant in Service Sep-20	A/ Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Oct-20	Avg Plant in Service Oct-20
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	10,852,608	24,811	-65,300	10,812,119	10,832,363
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,432,792	1,386	-1,249	7,432,929	7,432,860
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	4,102,408	34,102	-147	4,136,363	4,119,385
Total Storage Plant	63,338,169	60,299	-66,696	63,331,772	63,334,970
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,789,393	55	0	1,789,448	1,789,421
26520 - Rights-of-Way	17,355,266	13,087	0	17,368,353	17,361,810
26620 - S&I - M&R Station Str	2,037,201	17,032	0	2,054,233	2,045,717
26700 - Mains	253,604,222	1,310,855	-53,175	254,861,902	254,233,062
26701 - Mains, Cathodic Protection	4,380	104	0	4,484	4,432
26900 - System Meas & Reg Station	38,883,114	355,383	-1,082	39,237,415	39,060,264
Total Transmission Plant	313,673,576	1,696,516	-54,257	315,315,835	314,494,706
Distribution Plant:					
27400 - Non-depr Land & Land Rights	5,181,612	101,457	0	5,283,069	5,232,341
27401 - Rights of Way	7,073,593	155,319	0	7,228,912	7,151,252
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	534,778,530	4,252,127	-74,308	538,956,349	536,867,440
27800 - System Meas & Reg Station	18,845,666	174,902	-2,824	19,017,744	18,931,705
27900 - Meas & Reg Sta Equip - City	5,419,625	-8,143	-2,179	5,409,303	5,414,464
28000 - Services	317,132,853	1,681,308	-103,938	318,710,223	317,921,538
28100 - Meters	21,217,659	17,517	0	21,235,176	21,226,417
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	19,747,267	122,593	-5,434	19,864,426	19,805,846
28300 - House Regulators	4,439,348	-20,401	-2,173	4,416,774	4,428,061
28400 - House Regulator Installatio	3,399,743	1,054	-1,860	3,398,937	3,399,340
28500 - Ind Meas & Reg St Equip	5,764,674	78,702	-707	5,842,669	5,803,672
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	949,728,487	6,556,435	-193,423	956,091,499	952,909,993
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	25,502,677	106,208	-13,167	25,595,718	25,549,198
29100 - Office Furniture and Equipm	2,992,906	17,581	-911	3,009,576	3,001,241
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	2,350,626	78,767	-5,293	2,424,100	2,387,363
29204 - Trans Equip - Leased Buyout	42,159	0	-355	41,804	41,982
29210 - Pass. Cars & Sta Wagons	507,221	0	-970	506,251	506,736
29211 - Trucks 1/2 & 3/4 Ton	7,531,741	25,623	-19,894	7,537,470	7,534,606
29212 - Trucks 1 & 1.5 Ton	1,037,389	24,700	0	1,062,089	1,049,739
29213 - Trucks 2 Ton & Over	2,961,531	11,301	-1,607	2,971,225	2,966,378
29217 - Tractors - Diesel	88,360	2,104	0	90,464	89,412
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-1,110	0	-185	-1,295	-1,203
29400 - Tools, Shop & Garage Equip	8,276,654	39,646	-12,525	8,303,775	8,290,215
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,475,473	620	-829	1,475,264	1,475,369
29700 - Communication Equipment	1,263,838	10,851	0	1,274,689	1,269,264
29800 - Miscellaneous Equipment	907,387	17,853	0	925,240	916,314
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	59,729,068	335,254	-55,736	60,008,586	59,868,827
Total	1,386,608,521	8,648,504	-370,112	1,394,886,913	1,390,747,717

A/ WHN Rate Base Workpaper RB-20-2.46.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).



	Plant in Service Oct-20	A/	Monthly Plant Additions	B/	Monthly Plant Retirements	C/	Plant in Service Nov-20	Avg Plant in Service Nov-20
<b>Intangible Plant:</b>								
20100 - Organization	30,035		0		0		30,035	30,035
20200 - Franchises and Consents	109,186		0		0		109,186	109,186
20300 - Miscellaneous Intangible PI	0		0		0		0	0
<b>Total Intangible Plant</b>	<b>139,222</b>		<b>0</b>		<b>0</b>		<b>139,222</b>	<b>139,222</b>
<b>Storage Plant:</b>								
26000 - Land and Land Rights	630,064		0		0		630,064	630,064
26100 - Structures & Improvements	10,812,119		24,811		-65,300		10,771,630	10,791,874
26200 - Gas Holders	3,031,845		0		0		3,031,845	3,031,845
26300 - Purification Equipment	6,616,076		0		0		6,616,076	6,616,076
26310 - Liquefaction Equipment	7,432,929		1,386		-1,249		7,433,066	7,432,997
26320 - Vaporizing Equipment	20,992,590		0		0		20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405		0		0		9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381		0		0		28,381	28,381
26350 - Other Equipment	4,136,363		34,102		-147		4,170,318	4,153,340
<b>Total Storage Plant</b>	<b>63,331,772</b>		<b>60,299</b>		<b>-66,696</b>		<b>63,325,375</b>	<b>63,328,573</b>
<b>Transmission Plant:</b>								
26502 - Depreciable Land Rights	0		0		0		0	0
26510 - Land and Land Rights	1,789,448		55		0		1,789,503	1,789,476
26520 - Rights-of-Way	17,368,353		13,087		0		17,381,440	17,374,897
26620 - S&I - M&R Station Str	2,054,233		17,032		0		2,071,265	2,062,749
26700 - Mains	254,861,902		1,310,855		-53,175		256,119,582	255,490,742
26701 - Mains, Cathodic Protection	4,484		104		0		4,588	4,536
26900 - System Meas & Reg Station	39,237,415		355,383		-1,082		39,591,716	39,414,565
<b>Total Transmission Plant</b>	<b>315,315,835</b>		<b>1,696,516</b>		<b>-54,257</b>		<b>316,958,094</b>	<b>316,136,965</b>
<b>Distribution Plant:</b>								
27400 - Non-depr Land & Land Rights	5,283,069		101,457		0		5,384,526	5,333,798
27401 - Rights of Way	7,228,912		155,319		0		7,384,231	7,306,571
27500 - Structures & Improvements -	219,208		0		0		219,208	219,208
27600 - Mains	538,956,349		4,252,127		-74,308		543,134,168	541,045,259
27800 - System Meas & Reg Station	19,017,744		174,902		-2,824		19,189,822	19,103,783
27900 - Meas & Reg Sta Equip - City	5,409,303		-8,143		-2,179		5,398,981	5,404,142
28000 - Services	318,710,223		1,681,308		-103,938		320,287,593	319,498,908
28100 - Meters	21,235,176		17,517		0		21,252,693	21,243,934
28105 - Meters - Meter Acc, ERTs	6,508,708		0		0		6,508,708	6,508,708
28200 - Meter Installations	19,864,426		122,593		-5,434		19,981,585	19,923,005
28300 - House Regulators	4,416,774		-20,401		-2,173		4,394,200	4,405,487
28400 - House Regulator Installatio	3,398,937		1,054		-1,860		3,398,131	3,398,534
28500 - Ind Meas & Reg St Equip	5,842,669		78,702		-707		5,920,664	5,881,667
28700 - Other Equipment - Other	0		0		0		0	0
<b>Total Distribution Plant</b>	<b>956,091,499</b>		<b>6,556,435</b>		<b>-193,423</b>		<b>962,454,511</b>	<b>959,273,005</b>
<b>General Plant:</b>								
28900 - Non-depr Land & Land Rights	4,568,585		0		0		4,568,585	4,568,585
29000 - Structures and Improvements	25,595,718		106,208		-13,167		25,688,759	25,642,239
29100 - Office Furniture and Equipm	3,009,576		17,581		-911		3,026,246	3,017,911
29101 - Electronic Data Processing	0		0		0		0	0
29200 - Transportation Equipment	2,424,100		78,767		-5,293		2,497,574	2,460,837
29204 - Trans Equip - Leased Buyout	41,804		0		-355		41,449	41,627
29210 - Pass. Cars & Sta Wagons	506,251		0		-970		505,281	505,766
29211 - Trucks 1/2 & 3/4 Ton	7,537,470		25,623		-19,894		7,543,199	7,540,335
29212 - Trucks 1 & 1.5 Ton	1,062,089		24,700		0		1,086,789	1,074,439
29213 - Trucks 2 Ton & Over	2,971,225		11,301		-1,607		2,980,919	2,976,072
29217 - Tractors - Diesel	90,464		2,104		0		92,568	91,516
29218 - Trailers	117,750		0		0		117,750	117,750
29300 - Stores Equipment	-1,295		0		-185		-1,480	-1,388
29400 - Tools, Shop & Garage Equip	8,303,775		39,646		-12,525		8,330,896	8,317,336
29500 - Laboratory Equipment	105,879		0		0		105,879	105,879
29600 - Power Operated Equipment	1,475,264		620		-829		1,475,055	1,475,160
29700 - Communication Equipment	1,274,689		10,851		0		1,285,540	1,280,115
29800 - Miscellaneous Equipment	925,240		17,853		0		943,093	934,167
29900 - Other Tangible Property	0		0		0		0	0
<b>Total General Plant</b>	<b>60,008,586</b>		<b>335,254</b>		<b>-55,736</b>		<b>60,288,104</b>	<b>60,148,345</b>
<b>Total</b>	<b>1,394,886,913</b>		<b>8,648,504</b>		<b>-370,112</b>		<b>1,403,165,305</b>	<b>1,399,026,109</b>

A/ WHN Rate Base Workpaper RB-20-2.47.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

	Plant in Service Nov-20	A/ Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Dec-20	Avg Plant in Service Dec-20
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	10,771,630	24,811	-65,300	10,731,141	10,751,385
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,433,066	1,386	-1,249	7,433,203	7,433,134
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	4,170,318	34,102	-147	4,204,273	4,187,295
Total Storage Plant	63,325,375	60,299	-66,696	63,318,978	63,322,176
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,789,503	55	0	1,789,558	1,789,531
26520 - Rights-of-Way	17,381,440	13,087	0	17,394,527	17,387,984
26620 - S&I - M&R Station Str	2,071,265	17,032	0	2,088,297	2,079,781
26700 - Mains	256,119,582	1,310,855	-53,175	257,377,262	256,748,422
26701 - Mains, Cathodic Protection	4,588	104	0	4,692	4,640
26900 - System Meas & Reg Station	39,591,716	355,383	-1,082	39,946,017	39,768,866
Total Transmission Plant	316,958,094	1,696,516	-54,257	318,600,353	317,779,224
Distribution Plant:					
27400 - Non-depr Land & Land Rights	5,384,526	101,457	0	5,485,983	5,435,255
27401 - Rights of Way	7,384,231	155,319	0	7,539,550	7,461,890
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	543,134,168	4,252,127	-74,308	547,311,987	545,223,078
27800 - System Meas & Reg Station	19,189,822	174,902	-2,824	19,361,900	19,275,861
27900 - Meas & Reg Sta Equip - City	5,398,981	-8,143	-2,179	5,388,659	5,393,820
28000 - Services	320,287,593	1,681,308	-103,938	321,864,963	321,076,278
28100 - Meters	21,252,693	17,517	0	21,270,210	21,261,451
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	19,981,585	122,593	-5,434	20,098,744	20,040,164
28300 - House Regulators	4,394,200	-20,401	-2,173	4,371,626	4,382,913
28400 - House Regulator Installatio	3,398,131	1,054	-1,860	3,397,325	3,397,728
28500 - Ind Meas & Reg St Equip	5,920,664	78,702	-707	5,998,659	5,959,662
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	962,454,511	6,556,435	-193,423	968,817,523	965,636,017
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	25,688,759	106,208	-13,167	25,781,800	25,735,280
29100 - Office Furniture and Equipm	3,026,246	17,581	-911	3,042,916	3,034,581
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	2,497,574	78,767	-5,293	2,571,048	2,534,311
29204 - Trans Equip - Leased Buyout	41,449	0	-355	41,094	41,272
29210 - Pass. Cars & Sta Wagons	505,281	0	-970	504,311	504,796
29211 - Trucks 1/2 & 3/4 Ton	7,543,199	25,623	-19,894	7,548,928	7,546,064
29212 - Trucks 1 & 1.5 Ton	1,086,789	24,700	0	1,111,489	1,099,139
29213 - Trucks 2 Ton & Over	2,980,919	11,301	-1,607	2,990,613	2,985,766
29217 - Tractors - Diesel	92,568	2,104	0	94,672	93,620
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-1,480	0	-185	-1,665	-1,573
29400 - Tools, Shop & Garage Equip	8,330,896	39,646	-12,525	8,358,017	8,344,457
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,475,055	620	-829	1,474,846	1,474,951
29700 - Communication Equipment	1,285,540	10,851	0	1,296,391	1,290,966
29800 - Miscellaneous Equipment	943,093	17,853	0	960,946	952,020
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	60,288,104	335,254	-55,736	60,567,622	60,427,863
Total	1,403,165,305	8,648,504	-370,112	1,411,443,697	1,407,304,501

A/ WHN Rate Base Workpaper RB-20-2.48.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

	Plant in Service Dec-20	A/ Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Jan-21	Avg Plant in Service Jan-21
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	10,731,141	24,811	-65,300	10,690,652	10,710,896
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,433,203	1,386	-1,249	7,433,340	7,433,271
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	4,204,273	34,102	-147	4,238,228	4,221,250
Total Storage Plant	63,318,978	60,299	-66,696	63,312,581	63,315,779
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,789,558	55	0	1,789,613	1,789,586
26520 - Rights-of-Way	17,394,527	13,087	0	17,407,614	17,401,071
26620 - S&I - M&R Station Str	2,088,297	17,032	0	2,105,329	2,096,813
26700 - Mains	257,377,262	1,310,855	-53,175	258,634,942	258,006,102
26701 - Mains, Cathodic Protection	4,692	104	0	4,796	4,744
26900 - System Meas & Reg Station	39,946,017	355,383	-1,082	40,300,318	40,123,167
Total Transmission Plant	318,600,353	1,696,516	-54,257	320,242,612	319,421,483
Distribution Plant:					
27400 - Non-depr Land & Land Rights	5,485,983	101,457	0	5,587,440	5,536,712
27401 - Rights of Way	7,539,550	155,319	0	7,694,869	7,617,209
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	547,311,987	4,252,127	-74,308	551,489,806	549,400,897
27800 - System Meas & Reg Station	19,361,900	174,902	-2,824	19,533,978	19,447,939
27900 - Meas & Reg Sta Equip - City	5,388,659	-8,143	-2,179	5,378,337	5,383,498
28000 - Services	321,864,963	1,681,308	-103,938	323,442,333	322,653,648
28100 - Meters	21,270,210	17,517	0	21,287,727	21,278,968
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	20,098,744	122,593	-5,434	20,215,903	20,157,323
28300 - House Regulators	4,371,626	-20,401	-2,173	4,349,052	4,360,339
28400 - House Regulator Installatio	3,397,325	1,054	-1,860	3,396,519	3,396,922
28500 - Ind Meas & Reg St Equip	5,998,659	78,702	-707	6,076,654	6,037,657
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	968,817,523	6,556,435	-193,423	975,180,535	971,999,029
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	25,781,800	106,208	-13,167	25,874,841	25,828,321
29100 - Office Furniture and Equipm	3,042,916	17,581	-911	3,059,586	3,051,251
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	2,571,048	78,767	-5,293	2,644,522	2,607,785
29204 - Trans Equip - Leased Buyout	41,094	0	-355	40,739	40,917
29210 - Pass. Cars & Sta Wagons	504,311	0	-970	503,341	503,826
29211 - Trucks 1/2 & 3/4 Ton	7,548,928	25,623	-19,894	7,554,657	7,551,793
29212 - Trucks 1 & 1.5 Ton	1,111,489	24,700	0	1,136,189	1,123,839
29213 - Trucks 2 Ton & Over	2,990,613	11,301	-1,607	3,000,307	2,995,460
29217 - Tractors - Diesel	94,672	2,104	0	96,776	95,724
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-1,665	0	-185	-1,850	-1,758
29400 - Tools, Shop & Garage Equip	8,358,017	39,646	-12,525	8,385,138	8,371,578
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,474,846	620	-829	1,474,637	1,474,742
29700 - Communication Equipment	1,296,391	10,851	0	1,307,242	1,301,817
29800 - Miscellaneous Equipment	960,946	17,853	0	978,799	969,873
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	60,567,622	335,254	-55,736	60,847,140	60,707,381
Total	1,411,443,697	8,648,504	-370,112	1,419,722,089	1,415,582,893

A/ WHN Rate Base Workpaper RB-20-2.49.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

	Plant in Service Jan-21	A/ Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Feb-21	Avg Plant in Service Feb-21
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	10,690,652	24,811	-65,300	10,650,163	10,670,407
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,433,340	1,386	-1,249	7,433,477	7,433,408
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	4,238,228	34,102	-147	4,272,183	4,255,205
Total Storage Plant	63,312,581	60,299	-66,696	63,306,184	63,309,382
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,789,613	55	0	1,789,668	1,789,641
26520 - Rights-of-Way	17,407,614	13,087	0	17,420,701	17,414,158
26620 - S&I - M&R Station Str	2,105,329	17,032	0	2,122,361	2,113,845
26700 - Mains	258,634,942	1,310,855	-53,175	259,892,622	259,263,782
26701 - Mains, Cathodic Protection	4,796	104	0	4,900	4,848
26900 - System Meas & Reg Station	40,300,318	355,383	-1,082	40,654,619	40,477,468
Total Transmission Plant	320,242,612	1,696,516	-54,257	321,884,871	321,063,742
Distribution Plant:					
27400 - Non-depr Land & Land Rights	5,587,440	101,457	0	5,688,897	5,638,169
27401 - Rights of Way	7,694,869	155,319	0	7,850,188	7,772,528
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	551,489,806	4,252,127	-74,308	555,667,625	553,578,716
27800 - System Meas & Reg Station	19,533,978	174,902	-2,824	19,706,056	19,620,017
27900 - Meas & Reg Sta Equip - City	5,378,337	-8,143	-2,179	5,368,015	5,373,176
28000 - Services	323,442,333	1,681,308	-103,938	325,019,703	324,231,018
28100 - Meters	21,287,727	17,517	0	21,305,244	21,296,485
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	20,215,903	122,593	-5,434	20,333,062	20,274,482
28300 - House Regulators	4,349,052	-20,401	-2,173	4,326,478	4,337,765
28400 - House Regulator Installatio	3,396,519	1,054	-1,860	3,395,713	3,396,116
28500 - Ind Meas & Reg St Equip	6,076,654	78,702	-707	6,154,649	6,115,652
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	975,180,535	6,556,435	-193,423	981,543,547	978,362,041
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	25,874,841	106,208	-13,167	25,967,882	25,921,362
29100 - Office Furniture and Equipm	3,059,586	17,581	-911	3,076,256	3,067,921
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	2,644,522	78,767	-5,293	2,717,996	2,681,259
29204 - Trans Equip - Leased Buyout	40,739	0	-355	40,384	40,562
29210 - Pass. Cars & Sta Wagons	503,341	0	-970	502,371	502,856
29211 - Trucks 1/2 & 3/4 Ton	7,554,657	25,623	-19,894	7,560,386	7,557,522
29212 - Trucks 1 & 1.5 Ton	1,136,189	24,700	0	1,160,889	1,148,539
29213 - Trucks 2 Ton & Over	3,000,307	11,301	-1,607	3,010,001	3,005,154
29217 - Tractors - Diesel	96,776	2,104	0	98,880	97,828
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-1,850	0	-185	-2,035	-1,943
29400 - Tools, Shop & Garage Equip	8,385,138	39,646	-12,525	8,412,259	8,398,699
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,474,637	620	-829	1,474,428	1,474,533
29700 - Communication Equipment	1,307,242	10,851	0	1,318,093	1,312,668
29800 - Miscellaneous Equipment	978,799	17,853	0	996,652	987,726
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	60,847,140	335,254	-55,736	61,126,658	60,986,899
Total	1,419,722,089	8,648,504	-370,112	1,428,000,481	1,423,861,285

A/ WHN Rate Base Workpaper RB-20-2.50.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

	Plant in Service Feb-21	A/ Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Mar-21	Avg Plant in Service Mar-21
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	10,650,163	24,811	-65,300	10,609,674	10,629,918
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,433,477	1,386	-1,249	7,433,614	7,433,545
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	4,272,183	34,102	-147	4,306,138	4,289,160
Total Storage Plant	63,306,184	60,299	-66,696	63,299,787	63,302,985
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,789,668	55	0	1,789,723	1,789,696
26520 - Rights-of-Way	17,420,701	13,087	0	17,433,788	17,427,245
26620 - S&I - M&R Station Str	2,122,361	17,032	0	2,139,393	2,130,877
26700 - Mains	259,892,622	1,310,855	-53,175	261,150,302	260,521,462
26701 - Mains, Cathodic Protection	4,900	104	0	5,004	4,952
26900 - System Meas & Reg Station	40,654,619	355,383	-1,082	41,008,920	40,831,769
Total Transmission Plant	321,884,871	1,696,516	-54,257	323,527,130	322,706,001
Distribution Plant:					
27400 - Non-depr Land & Land Rights	5,688,897	101,457	0	5,790,354	5,739,626
27401 - Rights of Way	7,850,188	155,319	0	8,005,507	7,927,847
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	555,667,625	4,252,127	-74,308	559,845,444	557,756,535
27800 - System Meas & Reg Station	19,706,056	174,902	-2,824	19,878,134	19,792,095
27900 - Meas & Reg Sta Equip - City	5,368,015	-8,143	-2,179	5,357,693	5,362,854
28000 - Services	325,019,703	1,681,308	-103,938	326,597,073	325,808,388
28100 - Meters	21,305,244	17,517	0	21,322,761	21,314,002
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	20,333,062	122,593	-5,434	20,450,221	20,391,641
28300 - House Regulators	4,326,478	-20,401	-2,173	4,303,904	4,315,191
28400 - House Regulator Installatio	3,395,713	1,054	-1,860	3,394,907	3,395,310
28500 - Ind Meas & Reg St Equip	6,154,649	78,702	-707	6,232,644	6,193,647
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	981,543,547	6,556,435	-193,423	987,906,559	984,725,053
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	25,967,882	106,208	-13,167	26,060,923	26,014,403
29100 - Office Furniture and Equipm	3,076,256	17,581	-911	3,092,926	3,084,591
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	2,717,996	78,767	-5,293	2,791,470	2,754,733
29204 - Trans Equip - Leased Buyout	40,384	0	-355	40,029	40,207
29210 - Pass. Cars & Sta Wagons	502,371	0	-970	501,401	501,886
29211 - Trucks 1/2 & 3/4 Ton	7,560,386	25,623	-19,894	7,566,115	7,563,251
29212 - Trucks 1 & 1.5 Ton	1,160,889	24,700	0	1,185,589	1,173,239
29213 - Trucks 2 Ton & Over	3,010,001	11,301	-1,607	3,019,695	3,014,848
29217 - Tractors - Diesel	98,880	2,104	0	100,984	99,932
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-2,035	0	-185	-2,220	-2,128
29400 - Tools, Shop & Garage Equip	8,412,259	39,646	-12,525	8,439,380	8,425,820
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,474,428	620	-829	1,474,219	1,474,324
29700 - Communication Equipment	1,318,093	10,851	0	1,328,944	1,323,519
29800 - Miscellaneous Equipment	996,652	17,853	0	1,014,505	1,005,579
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	61,126,658	335,254	-55,736	61,406,176	61,266,417
Total	1,428,000,481	8,648,504	-370,112	1,436,278,873	1,432,139,677

A/ WHN Rate Base Workpaper RB-20-2.51.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

	Plant in Service Mar-21	A/ Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Apr-21	Avg Plant in Service Apr-21
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	10,609,674	24,811	-65,300	10,569,185	10,589,429
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,433,614	1,386	-1,249	7,433,751	7,433,682
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	4,306,138	34,102	-147	4,340,093	4,323,115
Total Storage Plant	63,299,787	60,299	-66,696	63,293,390	63,296,588
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,789,723	55	0	1,789,778	1,789,751
26520 - Rights-of-Way	17,433,788	13,087	0	17,446,875	17,440,332
26620 - S&I - M&R Station Str	2,139,393	17,032	0	2,156,425	2,147,909
26700 - Mains	261,150,302	1,310,855	-53,175	262,407,982	261,779,142
26701 - Mains, Cathodic Protection	5,004	104	0	5,108	5,056
26900 - System Meas & Reg Station	41,008,920	355,383	-1,082	41,363,221	41,186,070
Total Transmission Plant	323,527,130	1,696,516	-54,257	325,169,389	324,348,260
Distribution Plant:					
27400 - Non-depr Land & Land Rights	5,790,354	101,457	0	5,891,811	5,841,083
27401 - Rights of Way	8,005,507	155,319	0	8,160,826	8,083,166
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	559,845,444	4,252,127	-74,308	564,023,263	561,934,354
27800 - System Meas & Reg Station	19,878,134	174,902	-2,824	20,050,212	19,964,173
27900 - Meas & Reg Sta Equip - City	5,357,693	-8,143	-2,179	5,347,371	5,352,532
28000 - Services	326,597,073	1,681,308	-103,938	328,174,443	327,385,758
28100 - Meters	21,322,761	17,517	0	21,340,278	21,331,519
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	20,450,221	122,593	-5,434	20,567,380	20,508,800
28300 - House Regulators	4,303,904	-20,401	-2,173	4,281,330	4,292,617
28400 - House Regulator Installatio	3,394,907	1,054	-1,860	3,394,101	3,394,504
28500 - Ind Meas & Reg St Equip	6,232,644	78,702	-707	6,310,639	6,271,642
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	987,906,559	6,556,435	-193,423	994,269,571	991,088,065
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	26,060,923	106,208	-13,167	26,153,964	26,107,444
29100 - Office Furniture and Equipm	3,092,926	17,581	-911	3,109,596	3,101,261
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	2,791,470	78,767	-5,293	2,864,944	2,828,207
29204 - Trans Equip - Leased Buyout	40,029	0	-355	39,674	39,852
29210 - Pass. Cars & Sta Wagons	501,401	0	-970	500,431	500,916
29211 - Trucks 1/2 & 3/4 Ton	7,566,115	25,623	-19,894	7,571,844	7,568,980
29212 - Trucks 1 & 1.5 Ton	1,185,589	24,700	0	1,210,289	1,197,939
29213 - Trucks 2 Ton & Over	3,019,695	11,301	-1,607	3,029,389	3,024,542
29217 - Tractors - Diesel	100,984	2,104	0	103,088	102,036
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-2,220	0	-185	-2,405	-2,313
29400 - Tools, Shop & Garage Equip	8,439,380	39,646	-12,525	8,466,501	8,452,941
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,474,219	620	-829	1,474,010	1,474,115
29700 - Communication Equipment	1,328,944	10,851	0	1,339,795	1,334,370
29800 - Miscellaneous Equipment	1,014,505	17,853	0	1,032,358	1,023,432
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	61,406,176	335,254	-55,736	61,685,694	61,545,935
Total	1,436,278,873	8,648,504	-370,112	1,444,557,265	1,440,418,069

A/ WHN Rate Base Workpaper RB-20-2.52.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).



	Plant in Service Apr-21	A/ Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service May-21	Avg Plant in Service May-21
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	10,569,185	24,811	-65,300	10,528,696	10,548,940
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,433,751	1,386	-1,249	7,433,888	7,433,819
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	4,340,093	34,102	-147	4,374,048	4,357,070
Total Storage Plant	63,293,390	60,299	-66,696	63,286,993	63,290,191
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,789,778	55	0	1,789,833	1,789,806
26520 - Rights-of-Way	17,446,875	13,087	0	17,459,962	17,453,419
26620 - S&I - M&R Station Str	2,156,425	17,032	0	2,173,457	2,164,941
26700 - Mains	262,407,982	1,310,855	-53,175	263,665,662	263,036,822
26701 - Mains, Cathodic Protection	5,108	104	0	5,212	5,160
26900 - System Meas & Reg Station	41,363,221	355,383	-1,082	41,717,522	41,540,371
Total Transmission Plant	325,169,389	1,696,516	-54,257	326,811,648	325,990,519
Distribution Plant:					
27400 - Non-depr Land & Land Rights	5,891,811	101,457	0	5,993,268	5,942,540
27401 - Rights of Way	8,160,826	155,319	0	8,316,145	8,238,485
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	564,023,263	4,252,127	-74,308	568,201,082	566,112,173
27800 - System Meas & Reg Station	20,050,212	174,902	-2,824	20,222,290	20,136,251
27900 - Meas & Reg Sta Equip - City	5,347,371	-8,143	-2,179	5,337,049	5,342,210
28000 - Services	328,174,443	1,681,308	-103,938	329,751,813	328,963,128
28100 - Meters	21,340,278	17,517	0	21,357,795	21,349,036
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	20,567,380	122,593	-5,434	20,684,539	20,625,959
28300 - House Regulators	4,281,330	-20,401	-2,173	4,258,756	4,270,043
28400 - House Regulator Installatio	3,394,101	1,054	-1,860	3,393,295	3,393,698
28500 - Ind Meas & Reg St Equip	6,310,639	78,702	-707	6,388,634	6,349,637
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	994,269,571	6,556,435	-193,423	1,000,632,583	997,451,077
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	26,153,964	106,208	-13,167	26,247,005	26,200,485
29100 - Office Furniture and Equipm	3,109,596	17,581	-911	3,126,266	3,117,931
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	2,864,944	78,767	-5,293	2,938,418	2,901,681
29204 - Trans Equip - Leased Buyout	39,674	0	-355	39,319	39,497
29210 - Pass. Cars & Sta Wagons	500,431	0	-970	499,461	499,946
29211 - Trucks 1/2 & 3/4 Ton	7,571,844	25,623	-19,894	7,577,573	7,574,709
29212 - Trucks 1 & 1.5 Ton	1,210,289	24,700	0	1,234,989	1,222,639
29213 - Trucks 2 Ton & Over	3,029,389	11,301	-1,607	3,039,083	3,034,236
29217 - Tractors - Diesel	103,088	2,104	0	105,192	104,140
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-2,405	0	-185	-2,590	-2,498
29400 - Tools, Shop & Garage Equip	8,466,501	39,646	-12,525	8,493,622	8,480,062
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,474,010	620	-829	1,473,801	1,473,906
29700 - Communication Equipment	1,339,795	10,851	0	1,350,646	1,345,221
29800 - Miscellaneous Equipment	1,032,358	17,853	0	1,050,211	1,041,285
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	61,685,694	335,254	-55,736	61,965,212	61,825,453
Total	1,444,557,265	8,648,504	-370,112	1,452,835,657	1,448,696,461

A/ WHN Rate Base Workpaper RB-20-2.53.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

	Plant in Service May-21	A/ Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Jun-21	Avg Plant in Service Jun-21
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	10,528,696	24,811	-65,300	10,488,207	10,508,451
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,433,888	1,386	-1,249	7,434,025	7,433,956
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	4,374,048	34,102	-147	4,408,003	4,391,025
Total Storage Plant	63,286,993	60,299	-66,696	63,280,596	63,283,794
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,789,833	55	0	1,789,888	1,789,861
26520 - Rights-of-Way	17,459,962	13,087	0	17,473,049	17,466,506
26620 - S&I - M&R Station Str	2,173,457	17,032	0	2,190,489	2,181,973
26700 - Mains	263,665,662	1,310,855	-53,175	264,923,342	264,294,502
26701 - Mains, Cathodic Protection	5,212	104	0	5,316	5,264
26900 - System Meas & Reg Station	41,717,522	355,383	-1,082	42,071,823	41,894,672
Total Transmission Plant	326,811,648	1,696,516	-54,257	328,453,907	327,632,778
Distribution Plant:					
27400 - Non-depr Land & Land Rights	5,993,268	101,457	0	6,094,725	6,043,997
27401 - Rights of Way	8,316,145	155,319	0	8,471,464	8,393,804
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	568,201,082	4,252,127	-74,308	572,378,901	570,289,992
27800 - System Meas & Reg Station	20,222,290	174,902	-2,824	20,394,368	20,308,329
27900 - Meas & Reg Sta Equip - City	5,337,049	-8,143	-2,179	5,326,727	5,331,888
28000 - Services	329,751,813	1,681,308	-103,938	331,329,183	330,540,498
28100 - Meters	21,357,795	17,517	0	21,375,312	21,366,553
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	20,684,539	122,593	-5,434	20,801,698	20,743,118
28300 - House Regulators	4,258,756	-20,401	-2,173	4,236,182	4,247,469
28400 - House Regulator Installatio	3,393,295	1,054	-1,860	3,392,489	3,392,892
28500 - Ind Meas & Reg St Equip	6,388,634	78,702	-707	6,466,629	6,427,632
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	1,000,632,583	6,556,435	-193,423	1,006,995,595	1,003,814,089
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	26,247,005	106,208	-13,167	26,340,046	26,293,526
29100 - Office Furniture and Equipm	3,126,266	17,581	-911	3,142,936	3,134,601
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	2,938,418	78,767	-5,293	3,011,892	2,975,155
29204 - Trans Equip - Leased Buyout	39,319	0	-355	38,964	39,142
29210 - Pass. Cars & Sta Wagons	499,461	0	-970	498,491	498,976
29211 - Trucks 1/2 & 3/4 Ton	7,577,573	25,623	-19,894	7,583,302	7,580,438
29212 - Trucks 1 & 1.5 Ton	1,234,989	24,700	0	1,259,689	1,247,339
29213 - Trucks 2 Ton & Over	3,039,083	11,301	-1,607	3,048,777	3,043,930
29217 - Tractors - Diesel	105,192	2,104	0	107,296	106,244
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-2,590	0	-185	-2,775	-2,683
29400 - Tools, Shop & Garage Equip	8,493,622	39,646	-12,525	8,520,743	8,507,183
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,473,801	620	-829	1,473,592	1,473,697
29700 - Communication Equipment	1,350,646	10,851	0	1,361,497	1,356,072
29800 - Miscellaneous Equipment	1,050,211	17,853	0	1,068,064	1,059,138
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	61,965,212	335,254	-55,736	62,244,730	62,104,971
Total	1,452,835,657	8,648,504	-370,112	1,461,114,049	1,456,974,853

A/ WHN Rate Base Workpaper RB-20-2.54.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).



	Plant in Service Jun-21	A/ Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Jul-21	Avg Plant in Service Jul-21
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	10,488,207	24,811	-65,300	10,447,718	10,467,962
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,434,025	1,386	-1,249	7,434,162	7,434,093
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	4,408,003	34,102	-147	4,441,958	4,424,980
Total Storage Plant	63,280,596	60,299	-66,696	63,274,199	63,277,397
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,789,888	55	0	1,789,943	1,789,916
26520 - Rights-of-Way	17,473,049	13,087	0	17,486,136	17,479,593
26620 - S&I - M&R Station Str	2,190,489	17,032	0	2,207,521	2,199,005
26700 - Mains	264,923,342	1,310,855	-53,175	266,181,022	265,552,182
26701 - Mains, Cathodic Protection	5,316	104	0	5,420	5,368
26900 - System Meas & Reg Station	42,071,823	355,383	-1,082	42,426,124	42,248,973
Total Transmission Plant	328,453,907	1,696,516	-54,257	330,096,166	329,275,037
Distribution Plant:					
27400 - Non-depr Land & Land Rights	6,094,725	101,457	0	6,196,182	6,145,454
27401 - Rights of Way	8,471,464	155,319	0	8,626,783	8,549,123
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	572,378,901	4,252,127	-74,308	576,556,720	574,467,811
27800 - System Meas & Reg Station	20,394,368	174,902	-2,824	20,566,446	20,480,407
27900 - Meas & Reg Sta Equip - City	5,326,727	-8,143	-2,179	5,316,405	5,321,566
28000 - Services	331,329,183	1,681,308	-103,938	332,906,553	332,117,868
28100 - Meters	21,375,312	17,517	0	21,392,829	21,384,070
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	20,801,698	122,593	-5,434	20,918,857	20,860,277
28300 - House Regulators	4,236,182	-20,401	-2,173	4,213,608	4,224,895
28400 - House Regulator Installatio	3,392,489	1,054	-1,860	3,391,683	3,392,086
28500 - Ind Meas & Reg St Equip	6,466,629	78,702	-707	6,544,624	6,505,627
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	1,006,995,595	6,556,435	-193,423	1,013,358,607	1,010,177,101
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	26,340,046	106,208	-13,167	26,433,087	26,386,567
29100 - Office Furniture and Equipm	3,142,936	17,581	-911	3,159,606	3,151,271
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	3,011,892	78,767	-5,293	3,085,366	3,048,629
29204 - Trans Equip - Leased Buyout	38,964	0	-355	38,609	38,787
29210 - Pass. Cars & Sta Wagons	498,491	0	-970	497,521	498,006
29211 - Trucks 1/2 & 3/4 Ton	7,583,302	25,623	-19,894	7,589,031	7,586,167
29212 - Trucks 1 & 1.5 Ton	1,259,689	24,700	0	1,284,389	1,272,039
29213 - Trucks 2 Ton & Over	3,048,777	11,301	-1,607	3,058,471	3,053,624
29217 - Tractors - Diesel	107,296	2,104	0	109,400	108,348
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-2,775	0	-185	-2,960	-2,868
29400 - Tools, Shop & Garage Equip	8,520,743	39,646	-12,525	8,547,864	8,534,304
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,473,592	620	-829	1,473,383	1,473,488
29700 - Communication Equipment	1,361,497	10,851	0	1,372,348	1,366,923
29800 - Miscellaneous Equipment	1,068,064	17,853	0	1,085,917	1,076,991
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	62,244,730	335,254	-55,736	62,524,248	62,384,489
Total	1,461,114,049	8,648,504	-370,112	1,469,392,441	1,465,253,245

A/ WHN Rate Base Workpaper RB-20-2.55.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

	Plant in Service Jul-21	A/ Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Aug-21	Avg Plant in Service Aug-21
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	10,447,718	24,811	-65,300	10,407,229	10,427,473
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,434,162	1,386	-1,249	7,434,299	7,434,230
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	4,441,958	34,102	-147	4,475,913	4,458,935
Total Storage Plant	63,274,199	60,299	-66,696	63,267,802	63,271,000
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,789,943	55	0	1,789,998	1,789,971
26520 - Rights-of-Way	17,486,136	13,087	0	17,499,223	17,492,680
26620 - S&I - M&R Station Str	2,207,521	17,032	0	2,224,553	2,216,037
26700 - Mains	266,181,022	1,310,855	-53,175	267,438,702	266,809,862
26701 - Mains, Cathodic Protection	5,420	104	0	5,524	5,472
26900 - System Meas & Reg Station	42,426,124	355,383	-1,082	42,780,425	42,603,274
Total Transmission Plant	330,096,166	1,696,516	-54,257	331,738,425	330,917,296
Distribution Plant:					
27400 - Non-depr Land & Land Rights	6,196,182	101,457	0	6,297,639	6,246,911
27401 - Rights of Way	8,626,783	155,319	0	8,782,102	8,704,442
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	576,556,720	4,252,127	-74,308	580,734,539	578,645,630
27800 - System Meas & Reg Station	20,566,446	174,902	-2,824	20,738,524	20,652,485
27900 - Meas & Reg Sta Equip - City	5,316,405	-8,143	-2,179	5,306,083	5,311,244
28000 - Services	332,906,553	1,681,308	-103,938	334,483,923	333,695,238
28100 - Meters	21,392,829	17,517	0	21,410,346	21,401,587
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	20,918,857	122,593	-5,434	21,036,016	20,977,436
28300 - House Regulators	4,213,608	-20,401	-2,173	4,191,034	4,202,321
28400 - House Regulator Installatio	3,391,683	1,054	-1,860	3,390,877	3,391,280
28500 - Ind Meas & Reg St Equip	6,544,624	78,702	-707	6,622,619	6,583,622
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	1,013,358,607	6,556,435	-193,423	1,019,721,619	1,016,540,113
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	26,433,087	106,208	-13,167	26,526,128	26,479,608
29100 - Office Furniture and Equipm	3,159,606	17,581	-911	3,176,276	3,167,941
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	3,085,366	78,767	-5,293	3,158,840	3,122,103
29204 - Trans Equip - Leased Buyout	38,609	0	-355	38,254	38,432
29210 - Pass. Cars & Sta Wagons	497,521	0	-970	496,551	497,036
29211 - Trucks 1/2 & 3/4 Ton	7,589,031	25,623	-19,894	7,594,760	7,591,896
29212 - Trucks 1 & 1.5 Ton	1,284,389	24,700	0	1,309,089	1,296,739
29213 - Trucks 2 Ton & Over	3,058,471	11,301	-1,607	3,068,165	3,063,318
29217 - Tractors - Diesel	109,400	2,104	0	111,504	110,452
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-2,960	0	-185	-3,145	-3,053
29400 - Tools, Shop & Garage Equip	8,547,864	39,646	-12,525	8,574,985	8,561,425
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,473,383	620	-829	1,473,174	1,473,279
29700 - Communication Equipment	1,372,348	10,851	0	1,383,199	1,377,774
29800 - Miscellaneous Equipment	1,085,917	17,853	0	1,103,770	1,094,844
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	62,524,248	335,254	-55,736	62,803,766	62,664,007
Total	1,469,392,441	8,648,504	-370,112	1,477,670,833	1,473,531,637

A/ WHN Rate Base Workpaper RB-20-2.56.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

	Plant in Service Aug-21	A/ 20 Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Sep-21	Avg Plant in Service Sep-21
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	10,407,229	24,811	-65,300	10,366,740	10,386,984
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,434,299	1,386	-1,249	7,434,436	7,434,367
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	4,475,913	34,102	-147	4,509,868	4,492,890
Total Storage Plant	63,267,802	60,299	-66,696	63,261,405	63,264,603
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,789,998	55	0	1,790,053	1,790,026
26520 - Rights-of-Way	17,499,223	13,087	0	17,512,310	17,505,767
26620 - S&I - M&R Station Str	2,224,553	17,032	0	2,241,585	2,233,069
26700 - Mains	267,438,702	1,310,855	-53,175	268,696,382	268,067,542
26701 - Mains, Cathodic Protection	5,524	104	0	5,628	5,576
26900 - System Meas & Reg Station	42,780,425	355,383	-1,082	43,134,726	42,957,575
Total Transmission Plant	331,738,425	1,696,516	-54,257	333,380,684	332,559,555
Distribution Plant:					
27400 - Non-depr Land & Land Rights	6,297,639	101,457	0	6,399,096	6,348,368
27401 - Rights of Way	8,782,102	155,319	0	8,937,421	8,859,761
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	580,734,539	4,252,127	-74,308	584,912,358	582,823,449
27800 - System Meas & Reg Station	20,738,524	174,902	-2,824	20,910,602	20,824,563
27900 - Meas & Reg Sta Equip - City	5,306,083	-8,143	-2,179	5,295,761	5,300,922
28000 - Services	334,483,923	1,681,308	-103,938	336,061,293	335,272,608
28100 - Meters	21,410,346	17,517	0	21,427,863	21,419,104
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	21,036,016	122,593	-5,434	21,153,175	21,094,595
28300 - House Regulators	4,191,034	-20,401	-2,173	4,168,460	4,179,747
28400 - House Regulator Installatio	3,390,877	1,054	-1,860	3,390,071	3,390,474
28500 - Ind Meas & Reg St Equip	6,622,619	78,702	-707	6,700,614	6,661,617
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	1,019,721,619	6,556,435	-193,423	1,026,084,631	1,022,903,125
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	26,526,128	106,208	-13,167	26,619,169	26,572,649
29100 - Office Furniture and Equipm	3,176,276	17,581	-911	3,192,946	3,184,611
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	3,158,840	78,767	-5,293	3,232,314	3,195,577
29204 - Trans Equip - Leased Buyout	38,254	0	-355	37,899	38,077
29210 - Pass. Cars & Sta Wagons	496,551	0	-970	495,581	496,066
29211 - Trucks 1/2 & 3/4 Ton	7,594,760	25,623	-19,894	7,600,489	7,597,625
29212 - Trucks 1 & 1.5 Ton	1,309,089	24,700	0	1,333,789	1,321,439
29213 - Trucks 2 Ton & Over	3,068,165	11,301	-1,607	3,077,859	3,073,012
29217 - Tractors - Diesel	111,504	2,104	0	113,608	112,556
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-3,145	0	-185	-3,330	-3,238
29400 - Tools, Shop & Garage Equip	8,574,985	39,646	-12,525	8,602,106	8,588,546
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,473,174	620	-829	1,472,965	1,473,070
29700 - Communication Equipment	1,383,199	10,851	0	1,394,050	1,388,625
29800 - Miscellaneous Equipment	1,103,770	17,853	0	1,121,623	1,112,697
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	62,803,766	335,254	-55,736	63,083,284	62,943,525
Total	1,477,670,833	8,648,504	-370,112	1,485,949,225	1,481,810,029

A/ WHN Rate Base Workpaper RB-20-2.57.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

	Plant in Service Sep-21	A/ Additions	B/ Retirements	C/ Oct-21	Avg Plant in Service Oct-21
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	10,366,740	24,811	-65,300	10,326,251	10,346,495
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,434,436	1,386	-1,249	7,434,573	7,434,504
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	4,509,868	34,102	-147	4,543,823	4,526,845
Total Storage Plant	63,261,405	60,299	-66,696	63,255,008	63,258,206
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,790,053	55	0	1,790,108	1,790,081
26520 - Rights-of-Way	17,512,310	13,087	0	17,525,397	17,518,854
26620 - S&I - M&R Station Str	2,241,585	17,032	0	2,258,617	2,250,101
26700 - Mains	268,696,382	1,310,855	-53,175	269,954,062	269,325,222
26701 - Mains, Cathodic Protection	5,628	104	0	5,732	5,680
26900 - System Meas & Reg Station	43,134,726	355,383	-1,082	43,489,027	43,311,876
Total Transmission Plant	333,380,684	1,696,516	-54,257	335,022,943	334,201,814
Distribution Plant:					
27400 - Non-depr Land & Land Rights	6,399,096	101,457	0	6,500,553	6,449,825
27401 - Rights of Way	8,937,421	155,319	0	9,092,740	9,015,080
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	584,912,358	4,252,127	-74,308	589,090,177	587,001,268
27800 - System Meas & Reg Station	20,910,602	174,902	-2,824	21,082,680	20,996,641
27900 - Meas & Reg Sta Equip - City	5,295,761	-8,143	-2,179	5,285,439	5,290,600
28000 - Services	336,061,293	1,681,308	-103,938	337,638,663	336,849,978
28100 - Meters	21,427,863	17,517	0	21,445,380	21,436,621
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	21,153,175	122,593	-5,434	21,270,334	21,211,754
28300 - House Regulators	4,168,460	-20,401	-2,173	4,145,886	4,157,173
28400 - House Regulator Installatio	3,390,071	1,054	-1,860	3,389,265	3,389,668
28500 - Ind Meas & Reg St Equip	6,700,614	78,702	-707	6,778,609	6,739,612
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	1,026,084,631	6,556,435	-193,423	1,032,447,643	1,029,266,137
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	26,619,169	106,208	-13,167	26,712,210	26,665,690
29100 - Office Furniture and Equipm	3,192,946	17,581	-911	3,209,616	3,201,281
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	3,232,314	78,767	-5,293	3,305,788	3,269,051
29204 - Trans Equip - Leased Buyout	37,899	0	-355	37,544	37,722
29210 - Pass. Cars & Sta Wagons	495,581	0	-970	494,611	495,096
29211 - Trucks 1/2 & 3/4 Ton	7,600,489	25,623	-19,894	7,606,218	7,603,354
29212 - Trucks 1 & 1.5 Ton	1,333,789	24,700	0	1,358,489	1,346,139
29213 - Trucks 2 Ton & Over	3,077,859	11,301	-1,607	3,087,553	3,082,706
29217 - Tractors - Diesel	113,608	2,104	0	115,712	114,660
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-3,330	0	-185	-3,515	-3,423
29400 - Tools, Shop & Garage Equip	8,602,106	39,646	-12,525	8,629,227	8,615,667
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,472,965	620	-829	1,472,756	1,472,861
29700 - Communication Equipment	1,394,050	10,851	0	1,404,901	1,399,476
29800 - Miscellaneous Equipment	1,121,623	17,853	0	1,139,476	1,130,550
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	63,083,284	335,254	-55,736	63,362,802	63,223,043
Total	1,485,949,225	8,648,504	-370,112	1,494,227,617	1,490,088,421

A/ WHN Rate Base Workpaper RB-20-2.58.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

	Plant in Service Oct-21	A/ Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Nov-21	Avg Plant in Service Nov-21
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	10,326,251	24,811	-65,300	10,285,762	10,306,006
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,434,573	1,386	-1,249	7,434,710	7,434,641
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	4,543,823	34,102	-147	4,577,778	4,560,800
Total Storage Plant	63,255,008	60,299	-66,696	63,248,611	63,251,809
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,790,108	55	0	1,790,163	1,790,136
26520 - Rights-of-Way	17,525,397	13,087	0	17,538,484	17,531,941
26620 - S&I - M&R Station Str	2,258,617	17,032	0	2,275,649	2,267,133
26700 - Mains	269,954,062	1,310,855	-53,175	271,211,742	270,582,902
26701 - Mains, Cathodic Protection	5,732	104	0	5,836	5,784
26900 - System Meas & Reg Station	43,489,027	355,383	-1,082	43,843,328	43,666,177
Total Transmission Plant	335,022,943	1,696,516	-54,257	336,665,202	335,844,073
Distribution Plant:					
27400 - Non-depr Land & Land Rights	6,500,553	101,457	0	6,602,010	6,551,282
27401 - Rights of Way	9,092,740	155,319	0	9,248,059	9,170,399
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	589,090,177	4,252,127	-74,308	593,267,996	591,179,087
27800 - System Meas & Reg Station	21,082,680	174,902	-2,824	21,254,758	21,168,719
27900 - Meas & Reg Sta Equip - City	5,285,439	-8,143	-2,179	5,275,117	5,280,278
28000 - Services	337,638,663	1,681,308	-103,938	339,216,033	338,427,348
28100 - Meters	21,445,380	17,517	0	21,462,897	21,454,138
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	21,270,334	122,593	-5,434	21,387,493	21,328,913
28300 - House Regulators	4,145,886	-20,401	-2,173	4,123,312	4,134,599
28400 - House Regulator Installatio	3,389,265	1,054	-1,860	3,388,459	3,388,862
28500 - Ind Meas & Reg St Equip	6,778,609	78,702	-707	6,856,604	6,817,607
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	1,032,447,643	6,556,435	-193,423	1,038,810,655	1,035,629,149
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	26,712,210	106,208	-13,167	26,805,251	26,758,731
29100 - Office Furniture and Equipm	3,209,616	17,581	-911	3,226,286	3,217,951
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	3,305,788	78,767	-5,293	3,379,262	3,342,525
29204 - Trans Equip - Leased Buyout	37,544	0	-355	37,189	37,367
29210 - Pass. Cars & Sta Wagons	494,611	0	-970	493,641	494,126
29211 - Trucks 1/2 & 3/4 Ton	7,606,218	25,623	-19,894	7,611,947	7,609,083
29212 - Trucks 1 & 1.5 Ton	1,358,489	24,700	0	1,383,189	1,370,839
29213 - Trucks 2 Ton & Over	3,087,553	11,301	-1,607	3,097,247	3,092,400
29217 - Tractors - Diesel	115,712	2,104	0	117,816	116,764
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-3,515	0	-185	-3,700	-3,608
29400 - Tools, Shop & Garage Equip	8,629,227	39,646	-12,525	8,656,348	8,642,788
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,472,756	620	-829	1,472,547	1,472,652
29700 - Communication Equipment	1,404,901	10,851	0	1,415,752	1,410,327
29800 - Miscellaneous Equipment	1,139,476	17,853	0	1,157,329	1,148,403
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	63,362,802	335,254	-55,736	63,642,320	63,502,561
Total	1,494,227,617	8,648,504	-370,112	1,502,506,009	1,498,366,813

A/ WHN Rate Base Workpaper RB-20-2.59.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

	Plant in Service Nov-21	A/ Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Dec-21	Avg Plant in Service Dec-21
Account					
Intangible Plant:					
20100 - Organization	30,035	0	0	30,035	30,035
20200 - Franchises and Consents	109,186	0	0	109,186	109,186
20300 - Miscellaneous Intangible PI	0	0	0	0	0
Total Intangible Plant	139,222	0	0	139,222	139,222
Storage Plant:					
26000 - Land and Land Rights	630,064	0	0	630,064	630,064
26100 - Structures & Improvements	10,285,762	24,811	-65,300	10,245,273	10,265,517
26200 - Gas Holders	3,031,845	0	0	3,031,845	3,031,845
26300 - Purification Equipment	6,616,076	0	0	6,616,076	6,616,076
26310 - Liquefaction Equipment	7,434,710	1,386	-1,249	7,434,847	7,434,778
26320 - Vaporizing Equipment	20,992,590	0	0	20,992,590	20,992,590
26330 - Compressor Equipment	9,651,405	0	0	9,651,405	9,651,405
26340 - Measuring & Reg Equipment	28,381	0	0	28,381	28,381
26350 - Other Equipment	4,577,778	34,102	-147	4,611,733	4,594,755
Total Storage Plant	63,248,611	60,299	-66,696	63,242,214	63,245,412
Transmission Plant:					
26502 - Depreciable Land Rights	0	0	0	0	0
26510 - Land and Land Rights	1,790,163	55	0	1,790,218	1,790,191
26520 - Rights-of-Way	17,538,484	13,087	0	17,551,571	17,545,028
26620 - S&I - M&R Station Str	2,275,649	17,032	0	2,292,681	2,284,165
26700 - Mains	271,211,742	1,310,855	-53,175	272,469,422	271,840,582
26701 - Mains, Cathodic Protection	5,836	104	0	5,940	5,888
26900 - System Meas & Reg Station	43,843,328	355,383	-1,082	44,197,629	44,020,478
Total Transmission Plant	336,665,202	1,696,516	-54,257	338,307,461	337,486,332
Distribution Plant:					
27400 - Non-depr Land & Land Rights	6,602,010	101,457	0	6,703,467	6,652,739
27401 - Rights of Way	9,248,059	155,319	0	9,403,378	9,325,718
27500 - Structures & Improvements -	219,208	0	0	219,208	219,208
27600 - Mains	593,267,996	4,252,127	-74,308	597,445,815	595,356,906
27800 - System Meas & Reg Station	21,254,758	174,902	-2,824	21,426,836	21,340,797
27900 - Meas & Reg Sta Equip - City	5,275,117	-8,143	-2,179	5,264,795	5,269,956
28000 - Services	339,216,033	1,681,308	-103,938	340,793,403	340,004,718
28100 - Meters	21,462,897	17,517	0	21,480,414	21,471,655
28105 - Meters - Meter Acc, ERTs	6,508,708	0	0	6,508,708	6,508,708
28200 - Meter Installations	21,387,493	122,593	-5,434	21,504,652	21,446,072
28300 - House Regulators	4,123,312	-20,401	-2,173	4,100,738	4,112,025
28400 - House Regulator Installatio	3,388,459	1,054	-1,860	3,387,653	3,388,056
28500 - Ind Meas & Reg St Equip	6,856,604	78,702	-707	6,934,599	6,895,602
28700 - Other Equipment - Other	0	0	0	0	0
Total Distribution Plant	1,038,810,655	6,556,435	-193,423	1,045,173,667	1,041,992,161
General Plant:					
28900 - Non-depr Land & Land Rights	4,568,585	0	0	4,568,585	4,568,585
29000 - Structures and Improvements	26,805,251	106,208	-13,167	26,898,292	26,851,772
29100 - Office Furniture and Equipm	3,226,286	17,581	-911	3,242,956	3,234,621
29101 - Electronic Data Processing	0	0	0	0	0
29200 - Transportation Equipment	3,379,262	78,767	-5,293	3,452,736	3,415,999
29204 - Trans Equip - Leased Buyout	37,189	0	-355	36,834	37,012
29210 - Pass. Cars & Sta Wagons	493,641	0	-970	492,671	493,156
29211 - Trucks 1/2 & 3/4 Ton	7,611,947	25,623	-19,894	7,617,676	7,614,812
29212 - Trucks 1 & 1.5 Ton	1,383,189	24,700	0	1,407,889	1,395,539
29213 - Trucks 2 Ton & Over	3,097,247	11,301	-1,607	3,106,941	3,102,094
29217 - Tractors - Diesel	117,816	2,104	0	119,920	118,868
29218 - Trailers	117,750	0	0	117,750	117,750
29300 - Stores Equipment	-3,700	0	-185	-3,885	-3,793
29400 - Tools, Shop & Garage Equip	8,656,348	39,646	-12,525	8,683,469	8,669,909
29500 - Laboratory Equipment	105,879	0	0	105,879	105,879
29600 - Power Operated Equipment	1,472,547	620	-829	1,472,338	1,472,443
29700 - Communication Equipment	1,415,752	10,851	0	1,426,603	1,421,178
29800 - Miscellaneous Equipment	1,157,329	17,853	0	1,175,182	1,166,256
29900 - Other Tangible Property	0	0	0	0	0
Total General Plant	63,642,320	335,254	-55,736	63,921,838	63,782,079
Total	1,502,506,009	8,648,504	-370,112	1,510,784,401	1,506,645,205

A/ WHN Rate Base Workpaper RB-20-2.60.

B/ WHN Rate Base Workpaper RB-20-2.90 (WHN) and RB-20-2.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-2.91 (WHN) and RB-20-3.93 (Company).

Source: Company Response to CA1-10, "13-Month Rate Base" tab.

	<b>Tennessee Direct</b>	<b>Piedmont 3-State</b>
<b>Accumulated Depreciation:</b>		
March 2019	430,669,618	
April	432,763,682	
May	434,582,842	
June	436,872,087	
July	439,103,601	
August	442,075,928	
September	443,211,574	
October	444,378,257	
November	446,114,327	
December	447,394,620	
January 2020	443,077,746	
February	444,926,886	
March	446,193,652	145,089,655

**Piedmont 3-State Accumulated Depreciation at March 31, 2020**

108000 - Accumulated Depreciation

111000 - Accumulated Amortization

**Total Accumulated Depreciation at March 31, 2020**

<b>Amount</b>
75,750,084 A/
69,339,571 A/
<b>145,089,655</b>

A/ Company response to MFR 11, "PNG Bal Sheet March 2020" tab.



## WHN Rate Base Workpapers - Net Salvage Summary

Year	Tennessee Retirements	A/	Tennessee Salvage & Cost of Removal			Tennessee Ratio
			COR	Salvage	Net	
2016	-4,248,381		1,990,226	0	1,990,226	B/ 46.85%
2017	-1,923,635		2,253,696	0	2,253,696	C/ 117.16%
2018	-2,118,191		2,676,218	0	2,676,218	D/ 126.34%
2019	-6,640,779		2,893,262	-160,269	2,732,993	E/ 41.15%
2020	-3,005,693		678,338	0	678,338	F/ 22.57%
<b>Total</b>	<b>-17,936,679</b>		<b>10,491,741</b>	<b>-160,269</b>	<b>10,331,472</b>	<b>57.60%</b>

Year	Piedmont Retirements	G/	Piedmont Salvage & Cost of Removal			Piedmont Ratio
			COR	Salvage	Net	
2016	-23,431,090		2,442,247	0	2,442,247	B/ 10.42%
2017	-8,765,139		3,043,590	0	3,043,590	C/ 34.72%
2018	-12,214,865		234,266	0	234,266	D/ 1.92%
2019	-32,406,543		0	0	0	E/ 0.00%
2020	-967,521		-10,477	0	-10,477	F/ -1.08%
<b>Total</b>	<b>-77,785,158</b>		<b>5,709,626</b>	<b>0</b>	<b>5,709,626</b>	<b>7.34%</b>

A/ WHN Rate Base Workpaper RB-10-2.42 (Non-Print).

B/ WHN Rate Base Workpaper RB-20-2.72.

C/ WHN Rate Base Workpaper RB-20-2.73.

D/ WHN Rate Base Workpaper RB-20-2.74.

E/ WHN Rate Base Workpaper RB-20-2.75.

F/ WHN Rate Base Workpaper RB-20-2.76.

G/ WHN Rate Base Workpaper RB-10-3.42 (Non-Print).



**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**  
**WHN Rate Base Workpapers - 2016 Net Salvage Calculation**

#####

Source: Company Filing, 6-Detail Plant in Service and Depr Exp, "Tab J-MFR 54" tab.

Account #/Account Description	2016 Amounts		
	Salvage	Tennessee Cost of Removal	Piedmont Cost of Removal
26350 - Other Equipment	0	0	0
26520 - Rights-of-Way	0	0	0
26700 - Mains	0	15,265	0
26900 - System Meas & Reg Station	0	34,397	0
27401 - Rights of Way	0	0	0
27500 - Structures & Improvements -	0	0	0
27600 - Mains	0	342,287	0
27800 - System Meas & Reg Station	0	39,289	0
27900 - Meas & Reg Sta Equip - City	0	0	0
28000 - Services	0	1,558,869	0
28100 - Meters	0	0	3,131,202
28104 - Meters - Meter Accessories	0	0	0
28105 - Meters - Meter Acc, ERT's	0	0	2,328
28200 - Meter Installations	0	0	0
28300 - House Regulators	0	0	0
28400 - House Regulator Installatio	0	0	0
28500 - Ind Meas & Reg St Equip	0	120	0
29000 - Structures and Improvements	0	0	0
29001 - S&I - Leasehold Impr	0	0	0
29100 - Office Furniture and Equipm	0	0	0
29101 - Electronic Data Processing	0	0	0
29102 - PC Equipment	0	0	-1,373
29104 - Client Service Applications	0	0	0
29105 - SaaS - 3 yr Contract	0	0	0
29200 - Transportation Equipment	0	0	-559,296
29204 - Trans Equip - Leased Buyout	0	0	0
29300 - Stores Equipment	0	0	0
29400 - Tools, Shop & Garage Equip	0	0	-598,496
29600 - Power Operated	0	0	467,882
29700 - Communication Equipment	0	0	0
29800 - Miscellaneous Equipment	0	0	0
<b>Total</b>	<b>0</b>	<b>1,990,226</b>	<b>2,442,247</b>

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**  
**WHN Rate Base Workpapers - 2017 Net Salvage Calculation**

#####

Source: Company Filing, 6-Detail Plant in Service and Depr Exp, "Tab J-MFR 54" tab.

Account #/Account Description	2017 Amounts		
	Salvage	Tennessee Cost of Removal	Piedmont Cost of Removal
26350 - Other Equipment	0	0	0
26520 - Rights-of-Way	0	0	0
26700 - Mains	0	4,568	0
26900 - System Meas & Reg Station	0	17,907	0
27401 - Rights of Way	0	0	0
27500 - Structures & Improvements -	0	0	0
27600 - Mains	0	203,253	3,552
27800 - System Meas & Reg Station	0	8,809	0
27900 - Meas & Reg Sta Equip - City	0	9,885	0
28000 - Services	0	2,009,275	0
28100 - Meters	0	0	2,726,677
28104 - Meters - Meter Accessories	0	0	0
28105 - Meters - Meter Acc, ERT's	0	0	1,016,149
28200 - Meter Installations	0	0	0
28300 - House Regulators	0	0	0
28400 - House Regulator Installatio	0	0	0
28500 - Ind Meas & Reg St Equip	0	0	0
29000 - Structures and Improvements	0	0	0
29001 - S&I - Leasehold Impr	0	0	-793,196
29100 - Office Furniture and Equipm	0	0	0
29101 - Electronic Data Processing	0	0	0
29102 - PC Equipment	0	0	0
29104 - Client Service Applications	0	0	0
29105 - SaaS - 3 yr Contract	0	0	0
29200 - Transportation Equipment	0	0	0
29204 - Trans Equip - Leased Buyout	0	0	0
29300 - Stores Equipment	0	0	0
29400 - Tools, Shop & Garage Equip	0	0	0
29600 - Power Operated	0	0	91,615
29700 - Communication Equipment	0	0	-1,206
29800 - Miscellaneous Equipment	0	0	0
<b>Total</b>	<b>0</b>	<b>2,253,696</b>	<b>3,043,590</b>

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**  
**WHN Rate Base Workpapers - 2018 Net Salvage Calculation**

#####

Source: Company Filing, 6-Detail Plant in Service and Depr Exp, "Tab J-MFR 54" tab.

Account #/Account Description	2018 Amounts		
	Salvage	Tennessee Cost of Removal	Piedmont Cost of Removal
26350 - Other Equipment	0	821,148	0
26520 - Rights-of-Way	0	0	0
26700 - Mains	0	0	0
26900 - System Meas & Reg Station	0	393	0
27401 - Rights of Way	0	0	0
27500 - Structures & Improvements -	0	0	0
27600 - Mains	0	865,451	0
27800 - System Meas & Reg Station	0	37,541	0
27900 - Meas & Reg Sta Equip - City	0	0	0
28000 - Services	0	1,017,060	0
28100 - Meters	0	0	-3,298
28104 - Meters - Meter Accessories	0	0	0
28105 - Meters - Meter Acc, ERT's	0	0	0
28200 - Meter Installations	0	0	0
28300 - House Regulators	0	0	0
28400 - House Regulator Installatio	0	0	0
28500 - Ind Meas & Reg St Equip	0	100	0
29000 - Structures and Improvements	0	-65,474	0
29001 - S&I - Leasehold Impr	0	0	14,312
29100 - Office Furniture and Equipm	0	0	0
29101 - Electronic Data Processing	0	0	0
29102 - PC Equipment	0	0	0
29104 - Client Service Applications	0	0	0
29105 - SaaS - 3 yr Contract	0	0	0
29200 - Transportation Equipment	0	0	221,946
29204 - Trans Equip - Leased Buyout	0	0	0
29300 - Stores Equipment	0	0	0
29400 - Tools, Shop & Garage Equip	0	0	0
29600 - Power Operated	0	0	1,206
29700 - Communication Equipment	0	0	0
29800 - Miscellaneous Equipment	0	0	100
<b>Total</b>	<b>0</b>	<b>2,676,218</b>	<b>234,266</b>

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**  
**WHN Rate Base Workpapers - 2019 Net Salvage Calculation**

#####

Source: Company Filing, 6-Detail Plant in Service and Depr Exp, "Tab J-MFR 54" tab.

Account #/Account Description	2019 Amounts		
	Salvage	Tennessee Cost of Removal	Piedmont Cost of Removal
26350 - Other Equipment	0	-82,055	0
26520 - Rights-of-Way	0	0	0
26700 - Mains	0	0	0
26900 - System Meas & Reg Station	0	210,350	0
27401 - Rights of Way	0	37,188	0
27500 - Structures & Improvements -	0	0	0
27600 - Mains	0	887,865	0
27800 - System Meas & Reg Station	0	13,072	0
27900 - Meas & Reg Sta Equip - City	0	87,676	0
28000 - Services	0	1,734,979	0
28100 - Meters	0	0	0
28104 - Meters - Meter Accessories	0	0	0
28105 - Meters - Meter Acc, ERT's	0	0	0
28200 - Meter Installations	0	0	0
28300 - House Regulators	0	0	0
28400 - House Regulator Installatio	0	0	0
28500 - Ind Meas & Reg St Equip	0	4,188	0
29000 - Structures and Improvements	0	0	0
29001 - S&I - Leasehold Impr	0	0	0
29100 - Office Furniture and Equipm	0	0	0
29101 - Electronic Data Processing	0	0	0
29102 - PC Equipment	0	0	0
29104 - Client Service Applications	0	0	0
29105 - SaaS - 3 yr Contract	0	0	0
29200 - Transportation Equipment	0	0	0
29204 - Trans Equip - Leased Buyout	0	0	0
29300 - Stores Equipment	0	0	0
29400 - Tools, Shop & Garage Equip	0	0	0
29600 - Power Operated	-160,269	0	0
29700 - Communication Equipment	0	0	0
29800 - Miscellaneous Equipment	0	0	0
<b>Total</b>	<b>-160,269</b>	<b>2,893,262</b>	<b>0</b>

Source: Company Filing, 6-Detail Plant in Service and Depr Exp, "Tab J-MFR 54" tab.

Account #/Account Description	2020 (Jan - Mar) Amounts		
	Salvage	Tennessee Cost of Removal	Piedmont Cost of Removal
26350 - Other Equipment	0	0	0
26520 - Rights-of-Way	0	25,891	0
26700 - Mains	0	0	0
26900 - System Meas & Reg Station	0	23,994	0
27401 - Rights of Way	0	0	0
27500 - Structures & Improvements -	0	0	0
27600 - Mains	0	36,361	0
27800 - System Meas & Reg Station	0	45,324	0
27900 - Meas & Reg Sta Equip - City	0	0	0
28000 - Services	0	546,768	0
28100 - Meters	0	0	-10,477
28104 - Meters - Meter Accessories	0	0	0
28105 - Meters - Meter Acc, ERT's	0	0	0
28200 - Meter Installations	0	0	0
28300 - House Regulators	0	0	0
28400 - House Regulator Installatio	0	0	0
28500 - Ind Meas & Reg St Equip	0	0	0
29000 - Structures and Improvements	0	0	0
29001 - S&I - Leasehold Impr	0	0	0
29100 - Office Furniture and Equipm	0	0	0
29101 - Electronic Data Processing	0	0	0
29102 - PC Equipment	0	0	0
29104 - Client Service Applications	0	0	0
29105 - SaaS - 3 yr Contract	0	0	0
29200 - Transportation Equipment	0	0	0
29204 - Trans Equip - Leased Buyout	0	0	0
29300 - Stores Equipment	0	0	0
29400 - Tools, Shop & Garage Equip	0	0	0
29600 - Power Operated	0	0	0
29700 - Communication Equipment	0	0	0
29800 - Miscellaneous Equipment	0	0	0
<b>Total</b>	<b>0</b>	<b>678,338</b>	<b>-10,477</b>

SOURCE: WHN Rate Base Workpaper RB-20-2.81 (Non-Print).

Account	Current Rates		Proposed Rates	
	Annual	Monthly	Annual	Monthly
<b>Intangible Plant:</b>				
20100 - Organization	0.00%	0.00%	0.00%	0.00%
20200 - Franchises and Consents	0.00%	0.00%	0.00%	0.00%
20300 - Miscellaneous Intangible PI	0.00%	0.00%	0.00%	0.00%
<b>Total Intangible Plant</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>
<b>Storage Plant:</b>				
26000 - Land and Land Rights	0.00%	0.00%	0.00%	0.00%
26100 - Structures & Improvements	1.90%	0.16%	3.68%	0.31%
26200 - Gas Holders	2.22%	0.19%	0.19%	0.02%
26300 - Purification Equipment	2.86%	0.24%	3.89%	0.32%
26310 - Liquefaction Equipment	2.86%	0.24%	3.64%	0.30%
26320 - Vaporizing Equipment	2.86%	0.24%	3.95%	0.33%
26330 - Compressor Equipment	3.30%	0.28%	3.08%	0.26%
26340 - Measuring & Reg Equipment	2.86%	0.24%	6.61%	0.55%
26350 - Other Equipment	3.33%	0.28%	4.00%	0.33%
<b>Total Storage Plant</b>	<b>2.75%</b>	<b>0.23%</b>	<b>3.55%</b>	<b>0.30%</b>
<b>Transmission Plant:</b>				
26502 - Depreciable Land Rights	1.25%	0.10%	1.25%	0.10%
26510 - Land and Land Rights	0.00%	0.00%	0.00%	0.00%
26520 - Rights-of-Way	1.25%	0.10%	1.25%	0.10%
26620 - S&I - M&R Station Str	2.14%	0.18%	2.00%	0.17%
26700 - Mains	1.45%	0.12%	1.39%	0.12%
26701 - Mains, Cathodic Protection	1.45%	0.12%	1.39%	0.12%
26900 - System Meas & Reg Station	2.14%	0.18%	2.00%	0.17%
<b>Total Transmission Plant</b>	<b>1.53%</b>	<b>0.13%</b>	<b>1.46%</b>	<b>0.12%</b>
<b>Distribution Plant:</b>				
27400 - Non-depr Land & Land Rights	0.00%	0.00%	0.00%	0.00%
27401 - Rights of Way	1.25%	0.10%	1.38%	0.12%
27500 - Structures & Improvements -	5.00%	0.42%	3.05%	0.25%
27600 - Mains	1.49%	0.12%	1.58%	0.13%
27800 - System Meas & Reg Station	3.08%	0.26%	2.89%	0.24%
27900 - Meas & Reg Sta Equip - City	2.08%	0.17%	2.49%	0.21%
28000 - Services	4.08%	0.34%	2.63%	0.22%
28100 - Meters	2.71%	0.23%	3.28%	0.27%
28105 - Meters - Meter Acc, ERTs	8.34%	0.70%	3.55%	0.30%
28200 - Meter Installations	2.83%	0.24%	3.10%	0.26%
28300 - House Regulators	2.68%	0.22%	2.55%	0.21%
28400 - House Regulator Installatio	2.75%	0.23%	2.24%	0.19%
28500 - Ind Meas & Reg St Equip	2.36%	0.20%	2.70%	0.23%
28700 - Other Equipment - Other	0.00%	0.00%	0.00%	0.00%
<b>Total Distribution Plant</b>	<b>2.52%</b>	<b>0.21%</b>	<b>2.07%</b>	<b>0.17%</b>
<b>General Plant:</b>				
28900 - Non-depr Land & Land Rights	0.00%	0.00%	0.00%	0.00%
29000 - Structures and Improvements	2.17%	0.18%	1.93%	0.16%
29100 - Office Furniture and Equipm	5.04%	0.42%	5.00%	0.42%
29101 - Electronic Data Processing	0.00%	0.00%	0.00%	0.00%
29200 - Transportation Equipment	4.55%	0.38%	7.61%	0.63%
29204 - Trans Equip - Leased Buyout	20.00%	1.67%	3.62%	0.30%
29210 - Pass. Cars & Sta Wagons	4.55%	0.38%	11.43%	0.95%
29211 - Trucks 1/2 & 3/4 Ton	4.55%	0.38%	11.43%	0.95%
29212 - Trucks 1 & 1.5 Ton	4.55%	0.38%	11.43%	0.95%
29213 - Trucks 2 Ton & Over	6.11%	0.51%	4.54%	0.38%
29217 - Tractors - Diesel	4.55%	0.38%	7.61%	0.63%
29218 - Trailers	20.00%	1.67%	3.62%	0.30%
29300 - Stores Equipment	0.00%	0.00%	0.00%	0.00%
29400 - Tools, Shop & Garage Equip	0.03%	0.00%	5.00%	0.42%
29500 - Laboratory Equipment	1.18%	0.10%	5.00%	0.42%
29600 - Power Operated Equipment	3.60%	0.30%	2.35%	0.20%
29700 - Communication Equipment	0.32%	0.03%	6.67%	0.56%
29800 - Miscellaneous Equipment	10.24%	0.85%	5.00%	0.42%
29900 - Other Tangible Property	0.00%	0.00%	0.00%	0.00%
<b>Total General Plant</b>	<b>2.84%</b>	<b>0.24%</b>	<b>5.25%</b>	<b>0.44%</b>
<b>Total</b>	<b>2.31%</b>	<b>0.19%</b>	<b>2.09%</b>	<b>0.17%</b>

SOURCE: Bowman Workpaper - 6-Detail Plant in Service and Depr Exp, Tab H-Proposed Depreciation Rates  
Also, Company Witness Dane Watson, Exhibit DAW-2, Pages 68-71.

**PIEDMONT NATURAL GAS  
TENNESSEE  
COMPARISON OF EXISTING AND RECOMMENDED DEPRECIATION RATES w BOOK RESERVE  
DEPRECIATION STUDY AS OF DECEMBER 31, 2019**

Account		Plant Balance 12/31/2019	EXISTING		RECOMMENDED		Increase/ Decrease
Number	Description		Rates %	Annual Accrual	Rates %	Annual Accrual	
STORAGE PLANT 1				1			
26100	Structures & Improvements	11,574,083	1.90%	219,908	3.68%	426,014	206,106
26200	Gas Holders	3,031,845	2.22%	67,307	0.19%	5,626	-61,681
26300	Purification Equipment	6,616,076	2.86%	189,220	3.89%	257,693	68,474
26310	Liquefaction Equipment	7,422,153	2.86%	212,274	3.64%	270,397	58,124
26320	Vaporizing Equipment	20,992,590	2.86%	600,388	3.95%	828,750	228,362
26330	Compressor Equipment	9,651,405	3.30%	318,496	3.08%	297,214	-21,283
26340	M&R Equipment	28,381	2.86%	812	6.61%	1,877	1,065
26350	Other Equipment	3,892,708	3.33%	129,627	4.00%	155,853	26,226
Total Storage Plant		63,209,241	2.75%	1,738,031	3.55%	2,243,424	505,392
TRANSMISSION PLANT							
26520	Land Rights	17,893,730	1.25%	223,672	1.25%	223,221	-450
26700	Mains	246,158,801	1.45%	3,569,303	1.39%	3,421,188	-148,115
26900	M&R Equipment	38,585,645	2.14%	825,733	2.00%	772,179	-53,554
Total Transmission Plant		302,638,176	1.53%	4,618,707	1.46%	4,416,588	-202,119
DISTRIBUTION PLANT							
27401	Rights of Way	6,291,512	1.25%	78,644	1.38%	87,131	8,488
27500	Structures & Improvements	219,208	5.00%	10,960	3.05%	6,687	-4,273
27600	Mains	501,509,883	1.49%	7,472,497	1.58%	7,918,328	445,830
27800	M&R Equipment	16,544,829	3.08%	509,581	2.89%	478,959	-30,622
27900	City Gate Equipment	5,522,943	2.08%	114,877	2.49%	137,279	22,402
28000	Services	301,406,221	4.08%	12,297,374	2.63%	7,938,380	-4,358,993
28100	Meters	21,363,492	2.71%	578,951	3.28%	701,462	122,511
28105	ERT's and Accessories	6,540,559	8.34%	545,483	3.55%	232,076	-313,406
28200	Meter Installations	18,436,236	2.83%	521,745	3.10%	572,110	50,365
28300	House Regulators	4,574,792	2.68%	122,604	2.55%	116,641	-5,963
28400	House Regulator Installations	3,404,579	2.75%	93,626	2.24%	76,203	-17,422
28500	Industrial M&R Equipment	5,527,199	2.36%	130,442	2.70%	149,366	18,924
Total Distribution Plant		891,341,451	2.52%	22,476,784	2.07%	18,414,624	-4,062,161
GENERAL PLANT DEPRECIATED							
29000	Structures & Improvements	24,291,940	2.17%	527,135	1.93%	468,387	-58,748
29002	Compressed Natural Gas	5,065,961	0.03%	1,520	4.95%	250,714	249,194
29202	Transportation Urban Trucks	12,356,274	4.55%	562,210	7.61%	940,678	378,468
29203	Transportation - Heavy Duty	1,082,378	6.11%	66,133	4.54%	49,171	-16,962
29204	Trailers & Other	117,750	20.00%	23,550	3.62%	4,260	-19,290
29210	Passenger Cars, Vans	176,893	4.55%	8,049	11.43%	20,216	12,168
29600	Power Operated Equipment	1,476,727	3.60%	53,162	2.35%	34,641	-18,521
Total General Depreciated Plant		44,567,922	2.79%	1,241,759	3.97%	1,768,068	526,308
Total Depreciated Plant		1,301,756,790	2.31%	30,075,282	2.06%	26,842,702	-3,232,579
GENERAL PLANT AMORTIZED 10				10			
29100	Office Furniture & Equipment	2,668,060	5.04%	134,470	5.00%	133,403	-1,067
29400	Tools, Shop & Garage Equipment	3,062,414	0.03%	919	5.00%	153,121	152,202
29500	Laboratory Equipment	105,879	1.18%	1,249	5.00%	5,294	4,045
29700	Communication Equipment	1,189,364	0.32%	3,806	6.67%	79,291	75,485
29800	Miscellaneous Equipment	799,453	10.24%	81,864	5.00%	39,973	-41,891
Total General Amortized Plant		7,825,170	2.84%	222,308	5.25%	411,081	188,773
Reserve Difference Amortization - 5 years						155,695	155,695
Total Depreciated & Amortized Plant		1,309,581,960	2.31%	30,297,590	2.09%	27,409,478	-2,888,112

1 = Storage Plant Accounts were fully accrued and a 0% rate was shown in the prior study, except for 26350. However, a separate rate was also provided for future additions, and is shown here.

2 = Was not in the prior study. Company used the North Carolina rate for Account 26900, which is shown.

3 = Was not in the prior study. Company used the rate for Account 26520, which is shown.

4 = Account 275 was nearly fully accrued in the prior study. A separate rate of 5.00% was provided for future additions, and is shown here.

5 = Majority of CNG assets were recorded in 294, which is the existing rate shown.

6 = Rate from prior study was for Account 29211 Medium Trucks

7 = Prior study did not include this category. However, a rate of 20% based on 5 years and no net salvage was used in fixed asset system and is shown here.

8 = Account is fully accrued. The study proposed rate for future additions is a whole life rate of 11.43% (1-20%/7=11.43%).

9 = Prior study had a 0.20% rate for nearly fully accrued and a rate of 3.60% for future additions, which is shown here.

10 = Prior study used remaining life rates. Vintage Group Amortization rates are 1-NS/Life and are reflected as study proposed. A separate amortization for any reserve difference, which is \$155,694.79 annually, is proposed over a 5 year period.

**Study Adjustments/Reconciling Items:**

CNG Reclassed 294 to Non Utility	747,272
Transportation Retired	217,227
Top Side 26520	831,607
Retirements for GP Amortization	140,026
Excluded:	
Organization & Franchise	139,222
Land	11,551,113
ARO	1,968
Total Study Adjustments	13,628,435
<b>Total Plant in Service</b>	<b>1,323,210,395</b>
<b>Per Books at 12-31-2019</b>	<b>1,323,210,395</b>
<b>Unreconciled Difference</b>	<b>0</b>

Account	Description	Eff 1/1/21 Amortize Reserve (Surplus)/Deficiency	WHN Adjustment
29100	Equipment	(52,271.87)	-871
29400	Garage	181,660.91	3,028
29500	Equipment	(1,918.47)	-32
29700	Equipment	40,963.75	683
29800	Equipment	(12,739.53)	-212
Total General Amortized		<b>155,694.79</b>	<b>2,595 ***</b>

\*\* These amortization amounts were added to the calculated depreciation expense each month starting 1/1/21

\*\*\* Company used a 12 month amortization period instead of a 60 month amortization period recommended in the Depreciation Study (Footnote #10 above).  
WHN 8-20-20

Source: WHN Rate Base Workpaper RB-10-2.20 and RB-10-2.21.

Account	3-Year Average Annual Plant Additions			Monthly
	Normal	Special	Total	
20100 - Organization	0	0	0	0
20200 - Franchises and Consents	0	0	0	0
20300 - Miscellaneous Intangible PI	0	0	0	0
26000 - Land and Land Rights	0	0	0	0
26100 - Structures & Improvements	297,737	0	297,737	24,811
26200 - Gas Holders	0	0	0	0
26300 - Purification Equipment	0	0	0	0
26310 - Liquefaction Equipment	16,634	0	16,634	1,386
26320 - Vaporizing Equipment	0	0	0	0
26330 - Compressor Equipment	0	0	0	0
26340 - Measuring & Reg Equipment	0	0	0	0
26350 - Other Equipment	409,225	0	409,225	34,102
26502 - Depreciable Land Rights	0	0	0	0
26510 - Land and Land Rights	739	-78	661	55
26520 - Rights-of-Way	157,042	0	157,042	13,087
26620 - S&I - M&R Station Str	204,379	0	204,379	17,032
26700 - Mains	11,125,409	4,604,851	15,730,260	1,310,855
26701 - Mains, Cathodic Protection	1,252	0	1,252	104
26900 - System Meas & Reg Station	3,031,654	1,232,939	4,264,593	355,383
27400 - Non-depr Land & Land Rights	-57,055	1,274,541	1,217,487	101,457
27401 - Rights of Way	618,013	1,245,812	1,863,826	155,319
27500 - Structures & Improvements -	0	0	0	0
27600 - Mains	18,260,138	32,765,383	51,025,521	4,252,127
27800 - System Meas & Reg Station	949,977	1,148,846	2,098,823	174,902
27900 - Meas & Reg Sta Equip - City	-37,416	-60,303	-97,719	-8,143
28000 - Services	4,567,889	15,607,803	20,175,693	1,681,308
28100 - Meters	180,358	29,852	210,210	17,517
28105 - Meters - Meter Acc, ERTs	0	0	0	0
28200 - Meter Installations	0	1,471,113	1,471,113	122,593
28300 - House Regulators	0	-244,815	-244,815	-20,401
28400 - House Regulator Installatio	0	12,647	12,647	1,054
28500 - Ind Meas & Reg St Equip	748,249	196,171	944,419	78,702
28700 - Other Equipment - Other	0	0	0	0
28900 - Non-depr Land & Land Rights	0	0	0	0
29000 - Structures and Improvements	1,274,500	0	1,274,500	106,208
29100 - Office Furniture and Equipm	210,972	0	210,972	17,581
29101 - Electronic Data Processing	0	0	0	0
29200 - Transportation Equipment	945,209	0	945,209	78,767
29204 - Trans Equip - Leased Buyout	0	0	0	0
29210 - Pass. Cars & Sta Wagons	0	0	0	0
29211 - Trucks 1/2 & 3/4 Ton	307,470	0	307,470	25,623
29212 - Trucks 1 & 1.5 Ton	296,396	0	296,396	24,700
29213 - Trucks 2 Ton & Over	135,611	0	135,611	11,301
29217 - Tractors - Diesel	25,245	0	25,245	2,104
29218 - Trailers	0	0	0	0
29300 - Stores Equipment	0	0	0	0
29400 - Tools, Shop & Garage Equip	475,757	0	475,757	39,646
29500 - Laboratory Equipment	0	0	0	0
29600 - Power Operated Equipment	7,444	0	7,444	620
29700 - Communication Equipment	129,315	898	130,212	10,851
29800 - Miscellaneous Equipment	214,232	0	214,232	17,853
29900 - Other Tangible Property	0	0	0	0
<b>Total</b>	<b>44,496,376</b>	<b>59,285,660</b>	<b>103,782,036</b>	<b>8,648,504</b>



Source: WHN Rate Base Workpaper RB-10-2.40.

Account	3-Year Average	
	Annual	Monthly
20100 - Organization	0	0
20200 - Franchises and Consents	0	0
20300 - Miscellaneous Intangible PI	0	0
26000 - Land and Land Rights	0	0
26100 - Structures & Improvements	-783,604	-65,300
26200 - Gas Holders	0	0
26300 - Purification Equipment	0	0
26310 - Liquefaction Equipment	-14,993	-1,249
26320 - Vaporizing Equipment	0	0
26330 - Compressor Equipment	0	0
26340 - Measuring & Reg Equipment	0	0
26350 - Other Equipment	-1,766	-147
26502 - Depreciable Land Rights	0	0
26510 - Land and Land Rights	0	0
26520 - Rights-of-Way	0	0
26620 - S&I - M&R Station Str	0	0
26700 - Mains	-638,099	-53,175
26701 - Mains, Cathodic Protection	0	0
26900 - System Meas & Reg Station	-12,984	-1,082
27400 - Non-depr Land & Land Rights	0	0
27401 - Rights of Way	0	0
27500 - Structures & Improvements -	0	0
27600 - Mains	-891,700	-74,308
27800 - System Meas & Reg Station	-33,882	-2,824
27900 - Meas & Reg Sta Equip - City	-26,148	-2,179
28000 - Services	-1,247,250	-103,938
28100 - Meters	0	0
28105 - Meters - Meter Acc, ERTs	0	0
28200 - Meter Installations	-65,209	-5,434
28300 - House Regulators	-26,072	-2,173
28400 - House Regulator Installatio	-22,315	-1,860
28500 - Ind Meas & Reg St Equip	-8,486	-707
28700 - Other Equipment - Other	0	0
28900 - Non-depr Land & Land Rights	0	0
29000 - Structures and Improvements	-158,006	-13,167
29100 - Office Furniture and Equipm	-10,929	-911
29101 - Electronic Data Processing	0	0
29200 - Transportation Equipment	-63,518	-5,293
29204 - Trans Equip - Leased Buyout	-4,257	-355
29210 - Pass. Cars & Sta Wagons	-11,646	-970
29211 - Trucks 1/2 & 3/4 Ton	-238,723	-19,894
29212 - Trucks 1 & 1.5 Ton	0	0
29213 - Trucks 2 Ton & Over	-19,285	-1,607
29217 - Tractors - Diesel	0	0
29218 - Trailers	0	0
29300 - Stores Equipment	-2,218	-185
29400 - Tools, Shop & Garage Equip	-150,302	-12,525
29500 - Laboratory Equipment	0	0
29600 - Power Operated Equipment	-9,946	-829
29700 - Communication Equipment	0	0
29800 - Miscellaneous Equipment	0	0
29900 - Other Tangible Property	0	0
<b>Total</b>	<b>-4,441,340</b>	<b>-370,112</b>



**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**  
**WHN Rate Base Workpapers - Company Forecasted Retirements**

11/29/20 12:30 PM

**SOURCE:** Bowman Workpaper - Detail Plant in Service and Depr Exp, Tab G-Net Additions

<u>Date</u>	<u>Tennessee Retirements</u>	<u>Piedmont Retirements</u>
04/30/20	-89,885	0
05/31/20	-3,507,788	0
06/30/20	0	0
07/31/20	-12,914	0
08/31/20	-4,072	0
09/30/20	-456,427	0
10/31/20	-660	0
11/30/20	0	0
12/31/20	0	-54,782
01/31/21	-524,440	0
02/28/21	0	0
03/31/21	0	0
04/30/21	1	0
05/31/21	0	0
06/30/21	0	0
07/31/21	0	0
08/31/21	0	0
09/30/21	0	0
10/31/21	0	0
11/30/21	0	0
12/31/21	0	0
<b>Total</b>	<b><u><u>-4,596,186</u></u></b>	<b><u><u>-54,782</u></u></b>

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - 3-State Common Accumulated Depreciation & Depreciation Expense**

Date	Beginning Balance	Depreciation Accruals	A/ Plant Retirements	B/ Net Salvage	C/ Ending Balance	D/
03/31/20						145,089,655
04/30/20	145,089,655	2,186,961	-1,369,488	-100,520		145,806,608
05/31/20	145,806,608	2,195,579	-1,369,488	-100,520		146,532,178
06/30/20	146,532,178	2,204,197	-1,369,488	-100,520		147,266,367
07/31/20	147,266,367	2,212,816	-1,369,488	-100,520		148,009,174
08/31/20	148,009,174	2,221,433	-1,369,488	-100,520		148,760,599
09/30/20	148,760,599	2,230,050	-1,369,488	-100,520		149,520,640
10/31/20	149,520,640	2,238,670	-1,369,488	-100,520		150,289,302
11/30/20	150,289,302	2,247,286	-1,369,488	-100,520		151,066,579
12/31/20	151,066,579	2,255,905	-1,369,488	-100,520		151,852,476
01/31/21	151,852,476	2,264,522	-1,369,488	-100,520		152,646,989
02/28/21	152,646,989	2,273,139	-1,369,488	-100,520		153,450,120
03/31/21	153,450,120	2,281,755	-1,369,488	-100,520		154,261,866
04/30/21	154,261,866	2,290,374	-1,369,488	-100,520		155,082,232
05/31/21	155,082,232	2,298,991	-1,369,488	-100,520		155,911,214
06/30/21	155,911,214	2,307,611	-1,369,488	-100,520		156,748,817
07/31/21	156,748,817	2,316,228	-1,369,488	-100,520		157,595,036
08/31/21	157,595,036	2,324,844	-1,369,488	-100,520		158,449,872
09/30/21	158,449,872	2,333,462	-1,369,488	-100,520		159,313,325
10/31/21	159,313,325	2,342,081	-1,369,488	-100,520		160,185,398
11/30/21	160,185,398	2,350,700	-1,369,488	-100,520		161,066,089
12/31/21	161,066,089	2,359,316	-1,369,488	-100,520		161,955,397
<b>Total</b>		<b>47,735,920</b>	<b>-28,759,249</b>	<b>-2,110,929</b>		
<b>13-Month Average</b>						<b>156,809,141</b>

Attrition Period Depreciation Expense **27,743,023**

A/ WHN Rate Base Workpapers RB-20-3.11 to RB-20-3.31.

B/ WHN Rate Base Workpaper RB-10-3.80.

C/ WHN Rate Base Workpaper RB-20-2.71.

D/ WHN Rate Base Workpaper RB-20-2.70.

Account	Average Plant In Service Apr-20 A/	Current Annual Depr Rates B/	Current Monthly Depr Rates	Depreciation Expense Apr-20
20300 - Miscellaneous Intangible PI	24,356,948	20.00%	1.67%	406,761
20310 - Misc Intangible Plt - 10 Yr	140,536,818	10.00%	0.83%	1,166,456
28100 - Meters	16,950,154	4.50%	0.38%	64,411
28104 - Meters - Meter Accessories	13,227	14.46%	1.21%	160
28105 - Meters - Meter Acc, ERTs	18,202,108	14.46%	1.21%	220,246
28900 - Non-depr Land & Land Rights	0	0.00%	0.00%	0
29000 - Structures and Improvements	5,205,806	2.10%	0.18%	9,370
29001 - S&I - Leasehold Impr	6,474,833	4.76%	0.40%	25,899
29002 - Compressed Natural Gas	2,908	0.00%	0.00%	0
29100 - Office Furniture and Equipm	15,024,086	5.00%	0.42%	63,101
29101 - Electronic Data Processing	7,036,771	0.00%	0.00%	0
29102 - PC Equipment	30,193,263	0.00%	0.00%	0
29103 - Customer Information System	17,721,946	5.00%	0.42%	74,432
29104 - Client Service Applications	726,929	5.00%	0.42%	3,053
29105 - SaaS - 3 yr Contract	130,616	0.00%	0.00%	0
29200 - Transportation Equipment	12,216	0.00%	0.00%	0
29204 - Trans Equip - Leased Buyout	-357	0.00%	0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	11,153	0.00%	0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0.00%	0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	15.40%	1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	8.83%	0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	7.29%	0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	4.94%	0.41%	90
29400 - Tools, Shop & Garage Equip	3,264,996	5.00%	0.42%	13,713
29700 - Communication Equipment	25,305,063	5.56%	0.46%	116,403
29800 - Miscellaneous Equipment	2,067,008	5.00%	0.42%	8,681
<b>Total</b>	<b>315,671,972</b>			<b>2,186,961</b>

A/ WHN Rate Base Workpaper RB-20-3.41.

B/ WHN Rate Base Workpaper RB-20-3.80.

Account	Average Plant In Service May-20	A/	Current Annual Depr Rates	B/	Current Monthly Depr Rates	Depreciation Expense May-20
20300 - Miscellaneous Intangible PI	24,353,623		20.00%		1.67%	406,705
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	17,049,505		4.50%		0.38%	64,788
28104 - Meters - Meter Accessories	39,680		14.46%		1.21%	480
28105 - Meters - Meter Acc, ERTs	18,312,908		14.46%		1.21%	221,586
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,233,276		2.10%		0.18%	9,420
29001 - S&I - Leasehold Impr	6,508,099		4.76%		0.40%	26,032
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	15,205,846		5.00%		0.42%	63,865
29101 - Electronic Data Processing	7,217,531		0.00%		0.00%	0
29102 - PC Equipment	30,203,384		0.00%		0.00%	0
29103 - Customer Information System	17,722,367		5.00%		0.42%	74,434
29104 - Client Service Applications	2,180,786		5.00%		0.42%	9,159
29105 - SaaS - 3 yr Contract	-25,056		0.00%		0.00%	0
29200 - Transportation Equipment	36,647		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-1,070		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	33,459		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	3,212,816		5.00%		0.42%	13,494
29700 - Communication Equipment	25,210,300		5.56%		0.46%	115,967
29800 - Miscellaneous Equipment	2,123,231		5.00%		0.42%	8,918
<b>Total</b>	<b>317,592,538</b>					<b>2,195,579</b>

A/ WHN Rate Base Workpaper RB-20-3.42.

B/ WHN Rate Base Workpaper RB-20-3.80.

Account	Average Plant In Service Jun-20	A/ A/	Current Annual Depr Rates	B/ B/	Current Monthly Depr Rates	Depreciation Expense Jun-20
20300 - Miscellaneous Intangible PI	24,350,298		20.00%		1.67%	406,650
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	17,148,856		4.50%		0.38%	65,166
28104 - Meters - Meter Accessories	66,133		14.46%		1.21%	800
28105 - Meters - Meter Acc, ERTs	18,423,708		14.46%		1.21%	222,927
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,260,746		2.10%		0.18%	9,469
29001 - S&I - Leasehold Impr	6,541,365		4.76%		0.40%	26,165
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	15,387,606		5.00%		0.42%	64,628
29101 - Electronic Data Processing	7,398,291		0.00%		0.00%	0
29102 - PC Equipment	30,213,505		0.00%		0.00%	0
29103 - Customer Information System	17,722,788		5.00%		0.42%	74,436
29104 - Client Service Applications	3,634,643		5.00%		0.42%	15,265
29105 - SaaS - 3 yr Contract	-180,728		0.00%		0.00%	0
29200 - Transportation Equipment	61,078		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-1,783		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	55,765		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	3,160,636		5.00%		0.42%	13,275
29700 - Communication Equipment	25,115,537		5.56%		0.46%	115,531
29800 - Miscellaneous Equipment	2,179,454		5.00%		0.42%	9,154
<b>Total</b>	<b>319,513,104</b>					<b>2,204,197</b>

A/ WHN Rate Base Workpaper RB-20-3.43.

B/ WHN Rate Base Workpaper RB-20-3.80.



Account	Average Plant In Service Jul-20	A/	Current Annual Depr Rates	B/	Current Monthly Depr Rates	Depreciation Expense Jul-20
20300 - Miscellaneous Intangible PI	24,346,973		20.00%		1.67%	406,594
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	17,248,207		4.50%		0.38%	65,543
28104 - Meters - Meter Accessories	92,586		14.46%		1.21%	1,120
28105 - Meters - Meter Acc, ERTs	18,534,508		14.46%		1.21%	224,268
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,288,216		2.10%		0.18%	9,519
29001 - S&I - Leasehold Impr	6,574,631		4.76%		0.40%	26,299
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	15,569,366		5.00%		0.42%	65,391
29101 - Electronic Data Processing	7,579,051		0.00%		0.00%	0
29102 - PC Equipment	30,223,626		0.00%		0.00%	0
29103 - Customer Information System	17,723,209		5.00%		0.42%	74,437
29104 - Client Service Applications	5,088,500		5.00%		0.42%	21,372
29105 - SaaS - 3 yr Contract	-336,400		0.00%		0.00%	0
29200 - Transportation Equipment	85,509		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-2,496		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	78,071		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	3,108,456		5.00%		0.42%	13,056
29700 - Communication Equipment	25,020,774		5.56%		0.46%	115,096
29800 - Miscellaneous Equipment	2,235,677		5.00%		0.42%	9,390
<b>Total</b>	<b>321,433,670</b>					<b>2,212,816</b>

A/ WHN Rate Base Workpaper RB-20-3.44.

B/ WHN Rate Base Workpaper RB-20-3.80.

Account	Average Plant In Service Aug-20	A/ A/	Current Annual Depr Rates	B/ B/	Current Monthly Depr Rates	Depreciation Expense Aug-20
20300 - Miscellaneous Intangible PI	24,343,648		20.00%		1.67%	406,539
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	17,347,558		4.50%		0.38%	65,921
28104 - Meters - Meter Accessories	119,039		14.46%		1.21%	1,440
28105 - Meters - Meter Acc, ERTs	18,645,308		14.46%		1.21%	225,608
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,315,686		2.10%		0.18%	9,568
29001 - S&I - Leasehold Impr	6,607,897		4.76%		0.40%	26,432
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	15,751,126		5.00%		0.42%	66,155
29101 - Electronic Data Processing	7,759,811		0.00%		0.00%	0
29102 - PC Equipment	30,233,747		0.00%		0.00%	0
29103 - Customer Information System	17,723,630		5.00%		0.42%	74,439
29104 - Client Service Applications	6,542,357		5.00%		0.42%	27,478
29105 - SaaS - 3 yr Contract	-492,072		0.00%		0.00%	0
29200 - Transportation Equipment	109,940		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-3,209		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	100,377		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	3,056,276		5.00%		0.42%	12,836
29700 - Communication Equipment	24,926,011		5.56%		0.46%	114,660
29800 - Miscellaneous Equipment	2,291,900		5.00%		0.42%	9,626
<b>Total</b>	<b>323,354,236</b>					<b>2,221,433</b>

A/ WHN Rate Base Workpaper RB-20-3.45.

B/ WHN Rate Base Workpaper RB-20-3.80.

## WHN Rate Base Workpapers - September 2020 JOINT Depreciation Expense

Account	Average Plant In Service Sep-20	A/	Current Annual Depr Rates	B/	Current Monthly Depr Rates	Depreciation Expense Sep-20
20300 - Miscellaneous Intangible PI	24,340,323		20.00%		1.67%	406,483
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	17,446,909		4.50%		0.38%	66,298
28104 - Meters - Meter Accessories	145,492		14.46%		1.21%	1,760
28105 - Meters - Meter Acc, ERTs	18,756,108		14.46%		1.21%	226,949
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,343,156		2.10%		0.18%	9,618
29001 - S&I - Leasehold Impr	6,641,163		4.76%		0.40%	26,565
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	15,932,886		5.00%		0.42%	66,918
29101 - Electronic Data Processing	7,940,571		0.00%		0.00%	0
29102 - PC Equipment	30,243,868		0.00%		0.00%	0
29103 - Customer Information System	17,724,051		5.00%		0.42%	74,441
29104 - Client Service Applications	7,996,214		5.00%		0.42%	33,584
29105 - SaaS - 3 yr Contract	-647,744		0.00%		0.00%	0
29200 - Transportation Equipment	134,371		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-3,922		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	122,683		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	3,004,096		5.00%		0.42%	12,617
29700 - Communication Equipment	24,831,248		5.56%		0.46%	114,224
29800 - Miscellaneous Equipment	2,348,123		5.00%		0.42%	9,862
<b>Total</b>	<b>325,274,802</b>					<b>2,230,050</b>

A/ WHN Rate Base Workpaper RB-20-3.46.

B/ WHN Rate Base Workpaper RB-20-3.80.

## WHN Rate Base Workpapers - October 2020 JOINT Depreciation Expense

Account	Average Plant In Service Oct-20	A/	Current Annual Depr Rates	B/	Current Monthly Depr Rates	Depreciation Expense Oct-20
20300 - Miscellaneous Intangible PI	24,336,998		20.00%		1.67%	406,428
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	17,546,260		4.50%		0.38%	66,676
28104 - Meters - Meter Accessories	171,945		14.46%		1.21%	2,081
28105 - Meters - Meter Acc, ERTs	18,866,908		14.46%		1.21%	228,290
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,370,626		2.10%		0.18%	9,667
29001 - S&I - Leasehold Impr	6,674,429		4.76%		0.40%	26,698
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	16,114,646		5.00%		0.42%	67,682
29101 - Electronic Data Processing	8,121,331		0.00%		0.00%	0
29102 - PC Equipment	30,253,989		0.00%		0.00%	0
29103 - Customer Information System	17,724,472		5.00%		0.42%	74,443
29104 - Client Service Applications	9,450,071		5.00%		0.42%	39,690
29105 - SaaS - 3 yr Contract	-803,416		0.00%		0.00%	0
29200 - Transportation Equipment	158,802		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-4,635		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	144,989		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	2,951,916		5.00%		0.42%	12,398
29700 - Communication Equipment	24,736,485		5.56%		0.46%	113,788
29800 - Miscellaneous Equipment	2,404,346		5.00%		0.42%	10,098
<b>Total</b>	<b>327,195,368</b>					<b>2,238,670</b>

A/ WHN Rate Base Workpaper RB-20-3.47.

B/ WHN Rate Base Workpaper RB-20-3.80.

Account	Average Plant In Service Nov-20	A/	Current Annual Depr Rates	B/	Current Monthly Depr Rates	Depreciation Expense Nov-20
20300 - Miscellaneous Intangible PI	24,333,673		20.00%		1.67%	406,372
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	17,645,611		4.50%		0.38%	67,053
28104 - Meters - Meter Accessories	198,398		14.46%		1.21%	2,401
28105 - Meters - Meter Acc, ERTs	18,977,708		14.46%		1.21%	229,630
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,398,096		2.10%		0.18%	9,717
29001 - S&I - Leasehold Impr	6,707,695		4.76%		0.40%	26,831
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	16,296,406		5.00%		0.42%	68,445
29101 - Electronic Data Processing	8,302,091		0.00%		0.00%	0
29102 - PC Equipment	30,264,110		0.00%		0.00%	0
29103 - Customer Information System	17,724,893		5.00%		0.42%	74,445
29104 - Client Service Applications	10,903,928		5.00%		0.42%	45,796
29105 - SaaS - 3 yr Contract	-959,088		0.00%		0.00%	0
29200 - Transportation Equipment	183,233		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-5,348		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	167,295		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	2,899,736		5.00%		0.42%	12,179
29700 - Communication Equipment	24,641,722		5.56%		0.46%	113,352
29800 - Miscellaneous Equipment	2,460,569		5.00%		0.42%	10,334
<b>Total</b>	<b>329,115,934</b>					<b>2,247,286</b>

A/ WHN Rate Base Workpaper RB-20-3.48.

B/ WHN Rate Base Workpaper RB-20-3.80.

## WHN Rate Base Workpapers - December 2020 JOINT Depreciation Expense

Account	Average Plant In Service Dec-20	A/ A/	Current Annual Depr Rates	B/ B/	Current Monthly Depr Rates	Depreciation Expense Dec-20
20300 - Miscellaneous Intangible PI	24,330,348		20.00%		1.67%	406,317
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	17,744,962		4.50%		0.38%	67,431
28104 - Meters - Meter Accessories	224,851		14.46%		1.21%	2,721
28105 - Meters - Meter Acc, ERTs	19,088,508		14.46%		1.21%	230,971
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,425,566		2.10%		0.18%	9,766
29001 - S&I - Leasehold Impr	6,740,961		4.76%		0.40%	26,964
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	16,478,166		5.00%		0.42%	69,208
29101 - Electronic Data Processing	8,482,851		0.00%		0.00%	0
29102 - PC Equipment	30,274,231		0.00%		0.00%	0
29103 - Customer Information System	17,725,314		5.00%		0.42%	74,446
29104 - Client Service Applications	12,357,785		5.00%		0.42%	51,903
29105 - SaaS - 3 yr Contract	-1,114,760		0.00%		0.00%	0
29200 - Transportation Equipment	207,664		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-6,061		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	189,601		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	2,847,556		5.00%		0.42%	11,960
29700 - Communication Equipment	24,546,959		5.56%		0.46%	112,916
29800 - Miscellaneous Equipment	2,516,792		5.00%		0.42%	10,571
<b>Total</b>	<b>331,036,500</b>					<b>2,255,905</b>

A/ WHN Rate Base Workpaper RB-20-3.49.

B/ WHN Rate Base Workpaper RB-20-3.80.

Account	Average Plant In Service Jan-21	A/	Current Annual Depr Rates	B/	Current Monthly Depr Rates	Depreciation Expense Jan-21
20300 - Miscellaneous Intangible PI	24,327,023		20.00%		1.67%	406,261
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	17,844,313		4.50%		0.38%	67,808
28104 - Meters - Meter Accessories	251,304		14.46%		1.21%	3,041
28105 - Meters - Meter Acc, ERTs	19,199,308		14.46%		1.21%	232,312
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,453,036		2.10%		0.18%	9,815
29001 - S&I - Leasehold Impr	6,774,227		4.76%		0.40%	27,097
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	16,659,926		5.00%		0.42%	69,972
29101 - Electronic Data Processing	8,663,611		0.00%		0.00%	0
29102 - PC Equipment	30,284,352		0.00%		0.00%	0
29103 - Customer Information System	17,725,735		5.00%		0.42%	74,448
29104 - Client Service Applications	13,811,642		5.00%		0.42%	58,009
29105 - SaaS - 3 yr Contract	-1,270,432		0.00%		0.00%	0
29200 - Transportation Equipment	232,095		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-6,774		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	211,907		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	2,795,376		5.00%		0.42%	11,741
29700 - Communication Equipment	24,452,196		5.56%		0.46%	112,480
29800 - Miscellaneous Equipment	2,573,015		5.00%		0.42%	10,807
<b>Total</b>	<b>332,957,066</b>					<b>2,264,522</b>

A/ WHN Rate Base Workpaper RB-20-3.50.

B/ WHN Rate Base Workpaper RB-20-3.80.

Account	Average Plant In Service Feb-21	A/	Current Annual Depr Rates	B/	Current Monthly Depr Rates	Depreciation Expense Feb-21
20300 - Miscellaneous Intangible PI	24,323,698		20.00%		1.67%	406,206
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	17,943,664		4.50%		0.38%	68,186
28104 - Meters - Meter Accessories	277,757		14.46%		1.21%	3,361
28105 - Meters - Meter Acc, ERTs	19,310,108		14.46%		1.21%	233,652
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,480,506		2.10%		0.18%	9,865
29001 - S&I - Leasehold Impr	6,807,493		4.76%		0.40%	27,230
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	16,841,686		5.00%		0.42%	70,735
29101 - Electronic Data Processing	8,844,371		0.00%		0.00%	0
29102 - PC Equipment	30,294,473		0.00%		0.00%	0
29103 - Customer Information System	17,726,156		5.00%		0.42%	74,450
29104 - Client Service Applications	15,265,499		5.00%		0.42%	64,115
29105 - SaaS - 3 yr Contract	-1,426,104		0.00%		0.00%	0
29200 - Transportation Equipment	256,526		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-7,487		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	234,213		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	2,743,196		5.00%		0.42%	11,521
29700 - Communication Equipment	24,357,433		5.56%		0.46%	112,044
29800 - Miscellaneous Equipment	2,629,238		5.00%		0.42%	11,043
<b>Total</b>	<b>334,877,632</b>					<b>2,273,139</b>

A/ WHN Rate Base Workpaper RB-20-3.51.

B/ WHN Rate Base Workpaper RB-20-3.80.



Account	Average Plant In Service Mar-21	A/	Current Annual Depr Rates	B/	Current Monthly Depr Rates	Depreciation Expense Mar-21
20300 - Miscellaneous Intangible PI	24,320,373		20.00%		1.67%	406,150
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	18,043,015		4.50%		0.38%	68,563
28104 - Meters - Meter Accessories	304,210		14.46%		1.21%	3,681
28105 - Meters - Meter Acc, ERTs	19,420,908		14.46%		1.21%	234,993
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,507,976		2.10%		0.18%	9,914
29001 - S&I - Leasehold Impr	6,840,759		4.76%		0.40%	27,363
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	17,023,446		5.00%		0.42%	71,498
29101 - Electronic Data Processing	9,025,131		0.00%		0.00%	0
29102 - PC Equipment	30,304,594		0.00%		0.00%	0
29103 - Customer Information System	17,726,577		5.00%		0.42%	74,452
29104 - Client Service Applications	16,719,356		5.00%		0.42%	70,221
29105 - SaaS - 3 yr Contract	-1,581,776		0.00%		0.00%	0
29200 - Transportation Equipment	280,957		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-8,200		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	256,519		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	2,691,016		5.00%		0.42%	11,302
29700 - Communication Equipment	24,262,670		5.56%		0.46%	111,608
29800 - Miscellaneous Equipment	2,685,461		5.00%		0.42%	11,279
<b>Total</b>	<b>336,798,198</b>					<b>2,281,755</b>

A/ WHN Rate Base Workpaper RB-20-3.52

B/ WHN Rate Base Workpaper RB-20-3.80.

Account	Average Plant In Service Apr-21	A/ Current Annual Depr Rates	B/ Current Monthly Depr Rates	Depreciation Expense Apr-21
20300 - Miscellaneous Intangible PI	24,317,048	20.00%	1.67%	406,095
20310 - Misc Intangible Plt - 10 Yr	140,536,818	10.00%	0.83%	1,166,456
28100 - Meters	18,142,366	4.50%	0.38%	68,941
28104 - Meters - Meter Accessories	330,663	14.46%	1.21%	4,001
28105 - Meters - Meter Acc, ERTs	19,531,708	14.46%	1.21%	236,334
28900 - Non-depr Land & Land Rights	0	0.00%	0.00%	0
29000 - Structures and Improvements	5,535,446	2.10%	0.18%	9,964
29001 - S&I - Leasehold Impr	6,874,025	4.76%	0.40%	27,496
29002 - Compressed Natural Gas	2,908	0.00%	0.00%	0
29100 - Office Furniture and Equipm	17,205,206	5.00%	0.42%	72,262
29101 - Electronic Data Processing	9,205,891	0.00%	0.00%	0
29102 - PC Equipment	30,314,715	0.00%	0.00%	0
29103 - Customer Information System	17,726,998	5.00%	0.42%	74,453
29104 - Client Service Applications	18,173,213	5.00%	0.42%	76,327
29105 - SaaS - 3 yr Contract	-1,737,448	0.00%	0.00%	0
29200 - Transportation Equipment	305,388	0.00%	0.00%	0
29204 - Trans Equip - Leased Buyout	-8,913	0.00%	0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	278,825	0.00%	0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0.00%	0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	15.40%	1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	8.83%	0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	7.29%	0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	4.94%	0.41%	90
29400 - Tools, Shop & Garage Equip	2,638,836	5.00%	0.42%	11,083
29700 - Communication Equipment	24,167,907	5.56%	0.46%	111,172
29800 - Miscellaneous Equipment	2,741,684	5.00%	0.42%	11,515
<b>Total</b>	<b>338,718,764</b>			<b>2,290,374</b>

A/ WHN Rate Base Workpaper RB-20-3.53.

B/ WHN Rate Base Workpaper RB-20-3.80.

Account	Average Plant In Service May-21	A/ A/	Current Annual Depr Rates	B/ B/	Current Monthly Depr Rates	Depreciation Expense May-21
20300 - Miscellaneous Intangible PI	24,313,723		20.00%		1.67%	406,039
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	18,241,717		4.50%		0.38%	69,319
28104 - Meters - Meter Accessories	357,116		14.46%		1.21%	4,321
28105 - Meters - Meter Acc, ERTs	19,642,508		14.46%		1.21%	237,674
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,562,916		2.10%		0.18%	10,013
29001 - S&I - Leasehold Impr	6,907,291		4.76%		0.40%	27,629
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	17,386,966		5.00%		0.42%	73,025
29101 - Electronic Data Processing	9,386,651		0.00%		0.00%	0
29102 - PC Equipment	30,324,836		0.00%		0.00%	0
29103 - Customer Information System	17,727,419		5.00%		0.42%	74,455
29104 - Client Service Applications	19,627,070		5.00%		0.42%	82,434
29105 - SaaS - 3 yr Contract	-1,893,120		0.00%		0.00%	0
29200 - Transportation Equipment	329,819		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-9,626		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	301,131		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	2,586,656		5.00%		0.42%	10,864
29700 - Communication Equipment	24,073,144		5.56%		0.46%	110,736
29800 - Miscellaneous Equipment	2,797,907		5.00%		0.42%	11,751
<b>Total</b>	<b>340,639,330</b>					<b>2,298,991</b>

A/ WHN Rate Base Workpaper RB-20-3.54.

B/ WHN Rate Base Workpaper RB-20-3.80.

Account	Average Plant In Service Jun-21	A/ A/	Current Annual Depr Rates	B/ B/	Current Monthly Depr Rates	Depreciation Expense Jun-21
20300 - Miscellaneous Intangible PI	24,310,398		20.00%		1.67%	405,984
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	18,341,068		4.50%		0.38%	69,696
28104 - Meters - Meter Accessories	383,569		14.46%		1.21%	4,641
28105 - Meters - Meter Acc, ERTs	19,753,308		14.46%		1.21%	239,015
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,590,386		2.10%		0.18%	10,063
29001 - S&I - Leasehold Impr	6,940,557		4.76%		0.40%	27,762
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	17,568,726		5.00%		0.42%	73,789
29101 - Electronic Data Processing	9,567,411		0.00%		0.00%	0
29102 - PC Equipment	30,334,957		0.00%		0.00%	0
29103 - Customer Information System	17,727,840		5.00%		0.42%	74,457
29104 - Client Service Applications	21,080,927		5.00%		0.42%	88,540
29105 - SaaS - 3 yr Contract	-2,048,792		0.00%		0.00%	0
29200 - Transportation Equipment	354,250		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-10,339		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	323,437		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	2,534,476		5.00%		0.42%	10,645
29700 - Communication Equipment	23,978,381		5.56%		0.46%	110,301
29800 - Miscellaneous Equipment	2,854,130		5.00%		0.42%	11,987
<b>Total</b>	<b>342,559,896</b>					<b>2,307,611</b>

A/ WHN Rate Base Workpaper RB-20-3.55.

B/ WHN Rate Base Workpaper RB-20-3.80.

Account	Average Plant In Service Jul-21	A/ A/	Current Annual Depr Rates	B/ B/	Current Monthly Depr Rates	Depreciation Expense Jul-21
20300 - Miscellaneous Intangible PI	24,307,073		20.00%		1.67%	405,928
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	18,440,419		4.50%		0.38%	70,074
28104 - Meters - Meter Accessories	410,022		14.46%		1.21%	4,961
28105 - Meters - Meter Acc, ERTs	19,864,108		14.46%		1.21%	240,356
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,617,856		2.10%		0.18%	10,112
29001 - S&I - Leasehold Impr	6,973,823		4.76%		0.40%	27,895
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	17,750,486		5.00%		0.42%	74,552
29101 - Electronic Data Processing	9,748,171		0.00%		0.00%	0
29102 - PC Equipment	30,345,078		0.00%		0.00%	0
29103 - Customer Information System	17,728,261		5.00%		0.42%	74,459
29104 - Client Service Applications	22,534,784		5.00%		0.42%	94,646
29105 - SaaS - 3 yr Contract	-2,204,464		0.00%		0.00%	0
29200 - Transportation Equipment	378,681		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-11,052		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	345,743		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	2,482,296		5.00%		0.42%	10,426
29700 - Communication Equipment	23,883,618		5.56%		0.46%	109,865
29800 - Miscellaneous Equipment	2,910,353		5.00%		0.42%	12,223
<b>Total</b>	<b>344,480,462</b>					<b>2,316,228</b>

A/ WHN Rate Base Workpaper RB-20-3.56.

B/ WHN Rate Base Workpaper RB-20-3.80.

Account	Average Plant In Service Aug-21	A/ A/	Current Annual Depr Rates	B/ B/	Current Monthly Depr Rates	Depreciation Expense Aug-21
20300 - Miscellaneous Intangible PI	24,303,748		20.00%		1.67%	405,873
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	18,539,770		4.50%		0.38%	70,451
28104 - Meters - Meter Accessories	436,475		14.46%		1.21%	5,281
28105 - Meters - Meter Acc, ERTs	19,974,908		14.46%		1.21%	241,696
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,645,326		2.10%		0.18%	10,162
29001 - S&I - Leasehold Impr	7,007,089		4.76%		0.40%	28,028
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	17,932,246		5.00%		0.42%	75,315
29101 - Electronic Data Processing	9,928,931		0.00%		0.00%	0
29102 - PC Equipment	30,355,199		0.00%		0.00%	0
29103 - Customer Information System	17,728,682		5.00%		0.42%	74,460
29104 - Client Service Applications	23,988,641		5.00%		0.42%	100,752
29105 - SaaS - 3 yr Contract	-2,360,136		0.00%		0.00%	0
29200 - Transportation Equipment	403,112		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-11,765		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	368,049		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	2,430,116		5.00%		0.42%	10,206
29700 - Communication Equipment	23,788,855		5.56%		0.46%	109,429
29800 - Miscellaneous Equipment	2,966,576		5.00%		0.42%	12,460
<b>Total</b>	<b>346,401,028</b>					<b>2,324,844</b>

A/ WHN Rate Base Workpaper RB-20-3.57.

B/ WHN Rate Base Workpaper RB-20-3.80.

## WHN Rate Base Workpapers - September 2021 JOINT Depreciation Expense

Account	Average Plant In Service Sep-21	A/ A/	Current Annual Depr Rates	B/ B/	Current Monthly Depr Rates	Depreciation Expense Sep-21
20300 - Miscellaneous Intangible PI	24,300,423		20.00%		1.67%	405,817
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	18,639,121		4.50%		0.38%	70,829
28104 - Meters - Meter Accessories	462,928		14.46%		1.21%	5,601
28105 - Meters - Meter Acc, ERTs	20,085,708		14.46%		1.21%	243,037
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,672,796		2.10%		0.18%	10,211
29001 - S&I - Leasehold Impr	7,040,355		4.76%		0.40%	28,161
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	18,114,006		5.00%		0.42%	76,079
29101 - Electronic Data Processing	10,109,691		0.00%		0.00%	0
29102 - PC Equipment	30,365,320		0.00%		0.00%	0
29103 - Customer Information System	17,729,103		5.00%		0.42%	74,462
29104 - Client Service Applications	25,442,498		5.00%		0.42%	106,858
29105 - SaaS - 3 yr Contract	-2,515,808		0.00%		0.00%	0
29200 - Transportation Equipment	427,543		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-12,478		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	390,355		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	2,377,936		5.00%		0.42%	9,987
29700 - Communication Equipment	23,694,092		5.56%		0.46%	108,993
29800 - Miscellaneous Equipment	3,022,799		5.00%		0.42%	12,696
<b>Total</b>	<b>348,321,594</b>					<b>2,333,462</b>

A/ WHN Rate Base Workpaper RB-20-3.58.

B/ WHN Rate Base Workpaper RB-20-3.80.

## WHN Rate Base Workpapers - October 2021 JOINT Depreciation Expense

Account	Average Plant In Service Oct-21	A/	Current Annual Depr Rates	B/	Current Monthly Depr Rates	Depreciation Expense Oct-21
20300 - Miscellaneous Intangible PI	24,297,098		20.00%		1.67%	405,762
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	18,738,472		4.50%		0.38%	71,206
28104 - Meters - Meter Accessories	489,381		14.46%		1.21%	5,922
28105 - Meters - Meter Acc, ERTs	20,196,508		14.46%		1.21%	244,378
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,700,266		2.10%		0.18%	10,260
29001 - S&I - Leasehold Impr	7,073,621		4.76%		0.40%	28,294
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	18,295,766		5.00%		0.42%	76,842
29101 - Electronic Data Processing	10,290,451		0.00%		0.00%	0
29102 - PC Equipment	30,375,441		0.00%		0.00%	0
29103 - Customer Information System	17,729,524		5.00%		0.42%	74,464
29104 - Client Service Applications	26,896,355		5.00%		0.42%	112,965
29105 - SaaS - 3 yr Contract	-2,671,480		0.00%		0.00%	0
29200 - Transportation Equipment	451,974		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-13,191		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	412,661		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	2,325,756		5.00%		0.42%	9,768
29700 - Communication Equipment	23,599,329		5.56%		0.46%	108,557
29800 - Miscellaneous Equipment	3,079,022		5.00%		0.42%	12,932
<b>Total</b>	<b>350,242,160</b>					<b>2,342,081</b>

A/ WHN Rate Base Workpaper RB-20-3.59.

B/ WHN Rate Base Workpaper RB-20-3.80.



Account	Average Plant In Service Nov-21	A/	Current Annual Depr Rates	B/	Current Monthly Depr Rates	Depreciation Expense Nov-21
20300 - Miscellaneous Intangible PI	24,293,773		20.00%		1.67%	405,706
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	18,837,823		4.50%		0.38%	71,584
28104 - Meters - Meter Accessories	515,834		14.46%		1.21%	6,242
28105 - Meters - Meter Acc, ERTs	20,307,308		14.46%		1.21%	245,718
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,727,736		2.10%		0.18%	10,310
29001 - S&I - Leasehold Impr	7,106,887		4.76%		0.40%	28,428
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	18,477,526		5.00%		0.42%	77,606
29101 - Electronic Data Processing	10,471,211		0.00%		0.00%	0
29102 - PC Equipment	30,385,562		0.00%		0.00%	0
29103 - Customer Information System	17,729,945		5.00%		0.42%	74,466
29104 - Client Service Applications	28,350,212		5.00%		0.42%	119,071
29105 - SaaS - 3 yr Contract	-2,827,152		0.00%		0.00%	0
29200 - Transportation Equipment	476,405		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-13,904		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	434,967		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	2,273,576		5.00%		0.42%	9,549
29700 - Communication Equipment	23,504,566		5.56%		0.46%	108,121
29800 - Miscellaneous Equipment	3,135,245		5.00%		0.42%	13,168
<b>Total</b>	<b>352,162,726</b>					<b>2,350,700</b>

A/ WHN Rate Base Workpaper RB-20-3.60.

B/ WHN Rate Base Workpaper RB-20-3.80.

## WHN Rate Base Workpapers - December 2021 JOINT Depreciation Expense

Account	Average Plant In Service Dec-21	A/	Current Annual Depr Rates	B/	Current Monthly Depr Rates	Depreciation Expense Dec-21
20300 - Miscellaneous Intangible PI	24,290,448		20.00%		1.67%	405,650
20310 - Misc Intangible Plt - 10 Yr	140,536,818		10.00%		0.83%	1,166,456
28100 - Meters	18,937,174		4.50%		0.38%	71,961
28104 - Meters - Meter Accessories	542,287		14.46%		1.21%	6,562
28105 - Meters - Meter Acc, ERTs	20,418,108		14.46%		1.21%	247,059
28900 - Non-depr Land & Land Rights	0		0.00%		0.00%	0
29000 - Structures and Improvements	5,755,206		2.10%		0.18%	10,359
29001 - S&I - Leasehold Impr	7,140,153		4.76%		0.40%	28,561
29002 - Compressed Natural Gas	2,908		0.00%		0.00%	0
29100 - Office Furniture and Equipm	18,659,286		5.00%		0.42%	78,369
29101 - Electronic Data Processing	10,651,971		0.00%		0.00%	0
29102 - PC Equipment	30,395,683		0.00%		0.00%	0
29103 - Customer Information System	17,730,366		5.00%		0.42%	74,468
29104 - Client Service Applications	29,804,069		5.00%		0.42%	125,177
29105 - SaaS - 3 yr Contract	-2,982,824		0.00%		0.00%	0
29200 - Transportation Equipment	500,836		0.00%		0.00%	0
29204 - Trans Equip - Leased Buyout	-14,617		0.00%		0.00%	0
29211 - Trucks 1/2 & 3/4 Ton	457,273		0.00%		0.00%	0
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0.00%		0.00%	0
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		15.40%		1.28%	1,799
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		8.83%		0.74%	6,012
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		7.29%		0.61%	6,374
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		4.94%		0.41%	90
29400 - Tools, Shop & Garage Equip	2,221,396		5.00%		0.42%	9,330
29700 - Communication Equipment	23,409,803		5.56%		0.46%	107,685
29800 - Miscellaneous Equipment	3,191,468		5.00%		0.42%	13,404
<b>Total</b>	<b>354,083,292</b>					<b>2,359,316</b>

A/ WHN Rate Base Workpaper RB-20-3.61.

B/ WHN Rate Base Workpaper RB-20-3.80.

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Mar-20	A/ 3 Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Apr-20	Avg Plant in Service Apr-20
20300 - Miscellaneous Intangible PI	24,358,610	-3,325	0	24,355,285	24,356,948
20310 - Misc Intangible Plt - 10 Yr	140,536,818	0	0	140,536,818	140,536,818
28100 - Meters	16,900,478	467,722	-368,371	16,999,829	16,950,154
28104 - Meters - Meter Accessories	0	27,908	-1,455	26,453	13,227
28105 - Meters - Meter Acc, ERTs	18,146,708	139,026	-28,226	18,257,508	18,202,108
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	5,192,071	28,519	-1,049	5,219,541	5,205,806
29001 - S&I - Leasehold Impr	6,458,200	47,691	-14,425	6,491,466	6,474,833
29002 - Compressed Natural Gas	2,908	0	0	2,908	2,908
29100 - Office Furniture and Equipm	14,933,206	181,760	0	15,114,966	15,024,086
29101 - Electronic Data Processing	6,946,391	314,287	-133,527	7,127,151	7,036,771
29102 - PC Equipment	30,188,203	10,121	0	30,198,324	30,193,263
29103 - Customer Information System	17,721,735	421	0	17,722,156	17,721,946
29104 - Client Service Applications	0	1,948,141	-494,284	1,453,857	726,929
29105 - SaaS - 3 yr Contract	208,452	0	-155,672	52,780	130,616
29200 - Transportation Equipment	0	24,431	0	24,431	12,216
29204 - Trans Equip - Leased Buyout	0	0	-713	-713	-357
29211 - Trucks 1/2 & 3/4 Ton	0	22,306	0	22,306	11,153
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0	0	415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	0	0	140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	0	0	812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	0	0	1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	0	0	21,889	21,889
29400 - Tools, Shop & Garage Equip	3,291,086	-52,180	0	3,238,906	3,264,996
29700 - Communication Equipment	25,352,445	77,003	-171,766	25,257,682	25,305,063
29800 - Miscellaneous Equipment	2,038,897	56,223	0	2,095,120	2,067,008
<b>Total</b>	<b>314,711,689</b>	<b>3,290,054</b>	<b>-1,369,488</b>	<b>316,632,255</b>	<b>315,671,972</b>

A/ WHN Rate Base Workpaper RB-10-3.80.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Apr-20	A/ 4 Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service May-20	Avg Plant in Service May-20
20300 - Miscellaneous Intangible PI	24,355,285	-3,325	0	24,351,960	24,353,623
20310 - Misc Intangible Plt - 10 Yr	140,536,818	0	0	140,536,818	140,536,818
28100 - Meters	16,999,829	467,722	-368,371	17,099,180	17,049,505
28104 - Meters - Meter Accessories	26,453	27,908	-1,455	52,906	39,680
28105 - Meters - Meter Acc, ERTs	18,257,508	139,026	-28,226	18,368,308	18,312,908
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	5,219,541	28,519	-1,049	5,247,011	5,233,276
29001 - S&I - Leasehold Impr	6,491,466	47,691	-14,425	6,524,732	6,508,099
29002 - Compressed Natural Gas	2,908	0	0	2,908	2,908
29100 - Office Furniture and Equipm	15,114,966	181,760	0	15,296,726	15,205,846
29101 - Electronic Data Processing	7,127,151	314,287	-133,527	7,307,911	7,217,531
29102 - PC Equipment	30,198,324	10,121	0	30,208,445	30,203,384
29103 - Customer Information System	17,722,156	421	0	17,722,577	17,722,367
29104 - Client Service Applications	1,453,857	1,948,141	-494,284	2,907,714	2,180,786
29105 - SaaS - 3 yr Contract	52,780	0	-155,672	-102,892	-25,056
29200 - Transportation Equipment	24,431	24,431	0	48,862	36,647
29204 - Trans Equip - Leased Buyout	-713	0	-713	-1,426	-1,070
29211 - Trucks 1/2 & 3/4 Ton	22,306	22,306	0	44,612	33,459
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0	0	415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	0	0	140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	0	0	812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	0	0	1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	0	0	21,889	21,889
29400 - Tools, Shop & Garage Equip	3,238,906	-52,180	0	3,186,726	3,212,816
29700 - Communication Equipment	25,257,682	77,003	-171,766	25,162,919	25,210,300
29800 - Miscellaneous Equipment	2,095,120	56,223	0	2,151,343	2,123,231
<b>Total</b>	<b>316,632,255</b>	<b>3,290,054</b>	<b>-1,369,488</b>	<b>318,552,821</b>	<b>317,592,538</b>

A/ WHN Rate Base Workpaper RB-20-3.41.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service May-20	5		Monthly Plant Retirements	C/	Plant in Service Jun-20	Avg Plant in Service Jun-20
		A/	Monthly Plant Additions				
20300 - Miscellaneous Intangible PI	24,351,960		-3,325	0		24,348,635	24,350,298
20310 - Misc Intangible Plt - 10 Yr	140,536,818		0	0		140,536,818	140,536,818
28100 - Meters	17,099,180		467,722	-368,371		17,198,531	17,148,856
28104 - Meters - Meter Accessories	52,906		27,908	-1,455		79,359	66,133
28105 - Meters - Meter Acc, ERTs	18,368,308		139,026	-28,226		18,479,108	18,423,708
28900 - Non-depr Land & Land Rights	0		0	0		0	0
29000 - Structures and Improvements	5,247,011		28,519	-1,049		5,274,481	5,260,746
29001 - S&I - Leasehold Impr	6,524,732		47,691	-14,425		6,557,998	6,541,365
29002 - Compressed Natural Gas	2,908		0	0		2,908	2,908
29100 - Office Furniture and Equipm	15,296,726		181,760	0		15,478,486	15,387,606
29101 - Electronic Data Processing	7,307,911		314,287	-133,527		7,488,671	7,398,291
29102 - PC Equipment	30,208,445		10,121	0		30,218,566	30,213,505
29103 - Customer Information System	17,722,577		421	0		17,722,998	17,722,788
29104 - Client Service Applications	2,907,714		1,948,141	-494,284		4,361,571	3,634,643
29105 - SaaS - 3 yr Contract	-102,892		0	-155,672		-258,564	-180,728
29200 - Transportation Equipment	48,862		24,431	0		73,293	61,078
29204 - Trans Equip - Leased Buyout	-1,426		0	-713		-2,139	-1,783
29211 - Trucks 1/2 & 3/4 Ton	44,612		22,306	0		66,918	55,765
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0	0		415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		0	0		140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		0	0		812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		0	0		1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		0	0		21,889	21,889
29400 - Tools, Shop & Garage Equip	3,186,726		-52,180	0		3,134,546	3,160,636
29700 - Communication Equipment	25,162,919		77,003	-171,766		25,068,156	25,115,537
29800 - Miscellaneous Equipment	2,151,343		56,223	0		2,207,566	2,179,454
<b>Total</b>	<b>318,552,821</b>		<b>3,290,054</b>	<b>-1,369,488</b>		<b>320,473,387</b>	<b>319,513,104</b>

A/ WHN Rate Base Workpaper RB-20-3.42.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Jun-20	6		Monthly Plant Retirements	C/	Plant in Service Jul-20	Avg Plant in Service Jul-20
		A/	Monthly Plant Additions				
20300 - Miscellaneous Intangible PI	24,348,635		-3,325	0		24,345,310	24,346,973
20310 - Misc Intangible Plt - 10 Yr	140,536,818		0	0		140,536,818	140,536,818
28100 - Meters	17,198,531		467,722	-368,371		17,297,882	17,248,207
28104 - Meters - Meter Accessories	79,359		27,908	-1,455		105,812	92,586
28105 - Meters - Meter Acc, ERTs	18,479,108		139,026	-28,226		18,589,908	18,534,508
28900 - Non-depr Land & Land Rights	0		0	0		0	0
29000 - Structures and Improvements	5,274,481		28,519	-1,049		5,301,951	5,288,216
29001 - S&I - Leasehold Impr	6,557,998		47,691	-14,425		6,591,264	6,574,631
29002 - Compressed Natural Gas	2,908		0	0		2,908	2,908
29100 - Office Furniture and Equipm	15,478,486		181,760	0		15,660,246	15,569,366
29101 - Electronic Data Processing	7,488,671		314,287	-133,527		7,669,431	7,579,051
29102 - PC Equipment	30,218,566		10,121	0		30,228,687	30,223,626
29103 - Customer Information System	17,722,998		421	0		17,723,419	17,723,209
29104 - Client Service Applications	4,361,571		1,948,141	-494,284		5,815,428	5,088,500
29105 - SaaS - 3 yr Contract	-258,564		0	-155,672		-414,236	-336,400
29200 - Transportation Equipment	73,293		24,431	0		97,724	85,509
29204 - Trans Equip - Leased Buyout	-2,139		0	-713		-2,852	-2,496
29211 - Trucks 1/2 & 3/4 Ton	66,918		22,306	0		89,224	78,071
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0	0		415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		0	0		140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		0	0		812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		0	0		1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		0	0		21,889	21,889
29400 - Tools, Shop & Garage Equip	3,134,546		-52,180	0		3,082,366	3,108,456
29700 - Communication Equipment	25,068,156		77,003	-171,766		24,973,393	25,020,774
29800 - Miscellaneous Equipment	2,207,566		56,223	0		2,263,789	2,235,677
<b>Total</b>	<b>320,473,387</b>		<b>3,290,054</b>	<b>-1,369,488</b>		<b>322,393,953</b>	<b>321,433,670</b>

A/ WHN Rate Base Workpaper RB-20-3.43.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Jul-20	A/ 7 Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Aug-20	Avg Plant in Service Aug-20
20300 - Miscellaneous Intangible PI	24,345,310	-3,325	0	24,341,985	24,343,648
20310 - Misc Intangible Plt - 10 Yr	140,536,818	0	0	140,536,818	140,536,818
28100 - Meters	17,297,882	467,722	-368,371	17,397,233	17,347,558
28104 - Meters - Meter Accessories	105,812	27,908	-1,455	132,265	119,039
28105 - Meters - Meter Acc, ERTs	18,589,908	139,026	-28,226	18,700,708	18,645,308
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	5,301,951	28,519	-1,049	5,329,421	5,315,686
29001 - S&I - Leasehold Impr	6,591,264	47,691	-14,425	6,624,530	6,607,897
29002 - Compressed Natural Gas	2,908	0	0	2,908	2,908
29100 - Office Furniture and Equipm	15,660,246	181,760	0	15,842,006	15,751,126
29101 - Electronic Data Processing	7,669,431	314,287	-133,527	7,850,191	7,759,811
29102 - PC Equipment	30,228,687	10,121	0	30,238,808	30,233,747
29103 - Customer Information System	17,723,419	421	0	17,723,840	17,723,630
29104 - Client Service Applications	5,815,428	1,948,141	-494,284	7,269,285	6,542,357
29105 - SaaS - 3 yr Contract	-414,236	0	-155,672	-569,908	-492,072
29200 - Transportation Equipment	97,724	24,431	0	122,155	109,940
29204 - Trans Equip - Leased Buyout	-2,852	0	-713	-3,565	-3,209
29211 - Trucks 1/2 & 3/4 Ton	89,224	22,306	0	111,530	100,377
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0	0	415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	0	0	140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	0	0	812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	0	0	1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	0	0	21,889	21,889
29400 - Tools, Shop & Garage Equip	3,082,366	-52,180	0	3,030,186	3,056,276
29700 - Communication Equipment	24,973,393	77,003	-171,766	24,878,630	24,926,011
29800 - Miscellaneous Equipment	2,263,789	56,223	0	2,320,012	2,291,900
<b>Total</b>	<b>322,393,953</b>	<b>3,290,054</b>	<b>-1,369,488</b>	<b>324,314,519</b>	<b>323,354,236</b>

A/ WHN Rate Base Workpaper RB-20-3.44.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Aug-20	8		Plant in Service Sep-20	Avg Plant in Service Sep-20
		A/ Monthly Plant Additions	B/ Monthly Plant Retirements		
20300 - Miscellaneous Intangible PI	24,341,985	-3,325	0	24,338,660	24,340,323
20310 - Misc Intangible Plt - 10 Yr	140,536,818	0	0	140,536,818	140,536,818
28100 - Meters	17,397,233	467,722	-368,371	17,496,584	17,446,909
28104 - Meters - Meter Accessories	132,265	27,908	-1,455	158,718	145,492
28105 - Meters - Meter Acc, ERTs	18,700,708	139,026	-28,226	18,811,508	18,756,108
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	5,329,421	28,519	-1,049	5,356,891	5,343,156
29001 - S&I - Leasehold Impr	6,624,530	47,691	-14,425	6,657,796	6,641,163
29002 - Compressed Natural Gas	2,908	0	0	2,908	2,908
29100 - Office Furniture and Equipm	15,842,006	181,760	0	16,023,766	15,932,886
29101 - Electronic Data Processing	7,850,191	314,287	-133,527	8,030,951	7,940,571
29102 - PC Equipment	30,238,808	10,121	0	30,248,929	30,243,868
29103 - Customer Information System	17,723,840	421	0	17,724,261	17,724,051
29104 - Client Service Applications	7,269,285	1,948,141	-494,284	8,723,142	7,996,214
29105 - SaaS - 3 yr Contract	-569,908	0	-155,672	-725,580	-647,744
29200 - Transportation Equipment	122,155	24,431	0	146,586	134,371
29204 - Trans Equip - Leased Buyout	-3,565	0	-713	-4,278	-3,922
29211 - Trucks 1/2 & 3/4 Ton	111,530	22,306	0	133,836	122,683
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0	0	415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	0	0	140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	0	0	812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	0	0	1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	0	0	21,889	21,889
29400 - Tools, Shop & Garage Equip	3,030,186	-52,180	0	2,978,006	3,004,096
29700 - Communication Equipment	24,878,630	77,003	-171,766	24,783,867	24,831,248
29800 - Miscellaneous Equipment	2,320,012	56,223	0	2,376,235	2,348,123
<b>Total</b>	<b>324,314,519</b>	<b>3,290,054</b>	<b>-1,369,488</b>	<b>326,235,085</b>	<b>325,274,802</b>

A/ WHN Rate Base Workpaper RB-20-3.45.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).



## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Sep-20	9		Plant in Service Oct-20	Avg Plant in Service Oct-20
		A/ Monthly Plant Additions	B/ Monthly Plant Retirements		
20300 - Miscellaneous Intangible PI	24,338,660	-3,325	0	24,335,335	24,336,998
20310 - Misc Intangible Plt - 10 Yr	140,536,818	0	0	140,536,818	140,536,818
28100 - Meters	17,496,584	467,722	-368,371	17,595,935	17,546,260
28104 - Meters - Meter Accessories	158,718	27,908	-1,455	185,171	171,945
28105 - Meters - Meter Acc, ERTs	18,811,508	139,026	-28,226	18,922,308	18,866,908
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	5,356,891	28,519	-1,049	5,384,361	5,370,626
29001 - S&I - Leasehold Impr	6,657,796	47,691	-14,425	6,691,062	6,674,429
29002 - Compressed Natural Gas	2,908	0	0	2,908	2,908
29100 - Office Furniture and Equipm	16,023,766	181,760	0	16,205,526	16,114,646
29101 - Electronic Data Processing	8,030,951	314,287	-133,527	8,211,711	8,121,331
29102 - PC Equipment	30,248,929	10,121	0	30,259,050	30,253,989
29103 - Customer Information System	17,724,261	421	0	17,724,682	17,724,472
29104 - Client Service Applications	8,723,142	1,948,141	-494,284	10,176,999	9,450,071
29105 - SaaS - 3 yr Contract	-725,580	0	-155,672	-881,252	-803,416
29200 - Transportation Equipment	146,586	24,431	0	171,017	158,802
29204 - Trans Equip - Leased Buyout	-4,278	0	-713	-4,991	-4,635
29211 - Trucks 1/2 & 3/4 Ton	133,836	22,306	0	156,142	144,989
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0	0	415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	0	0	140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	0	0	812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	0	0	1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	0	0	21,889	21,889
29400 - Tools, Shop & Garage Equip	2,978,006	-52,180	0	2,925,826	2,951,916
29700 - Communication Equipment	24,783,867	77,003	-171,766	24,689,104	24,736,485
29800 - Miscellaneous Equipment	2,376,235	56,223	0	2,432,458	2,404,346
<b>Total</b>	<b>326,235,085</b>	<b>3,290,054</b>	<b>-1,369,488</b>	<b>328,155,651</b>	<b>327,195,368</b>

A/ WHN Rate Base Workpaper RB-20-3.46.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Oct-20	A/ 10 Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Nov-20	Avg Plant in Service Nov-20
20300 - Miscellaneous Intangible PI	24,335,335	-3,325	0	24,332,010	24,333,673
20310 - Misc Intangible Plt - 10 Yr	140,536,818	0	0	140,536,818	140,536,818
28100 - Meters	17,595,935	467,722	-368,371	17,695,286	17,645,611
28104 - Meters - Meter Accessories	185,171	27,908	-1,455	211,624	198,398
28105 - Meters - Meter Acc, ERTs	18,922,308	139,026	-28,226	19,033,108	18,977,708
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	5,384,361	28,519	-1,049	5,411,831	5,398,096
29001 - S&I - Leasehold Impr	6,691,062	47,691	-14,425	6,724,328	6,707,695
29002 - Compressed Natural Gas	2,908	0	0	2,908	2,908
29100 - Office Furniture and Equipm	16,205,526	181,760	0	16,387,286	16,296,406
29101 - Electronic Data Processing	8,211,711	314,287	-133,527	8,392,471	8,302,091
29102 - PC Equipment	30,259,050	10,121	0	30,269,171	30,264,110
29103 - Customer Information System	17,724,682	421	0	17,725,103	17,724,893
29104 - Client Service Applications	10,176,999	1,948,141	-494,284	11,630,856	10,903,928
29105 - SaaS - 3 yr Contract	-881,252	0	-155,672	-1,036,924	-959,088
29200 - Transportation Equipment	171,017	24,431	0	195,448	183,233
29204 - Trans Equip - Leased Buyout	-4,991	0	-713	-5,704	-5,348
29211 - Trucks 1/2 & 3/4 Ton	156,142	22,306	0	178,448	167,295
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0	0	415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	0	0	140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	0	0	812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	0	0	1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	0	0	21,889	21,889
29400 - Tools, Shop & Garage Equip	2,925,826	-52,180	0	2,873,646	2,899,736
29700 - Communication Equipment	24,689,104	77,003	-171,766	24,594,341	24,641,722
29800 - Miscellaneous Equipment	2,432,458	56,223	0	2,488,681	2,460,569
<b>Total</b>	<b>328,155,651</b>	<b>3,290,054</b>	<b>-1,369,488</b>	<b>330,076,217</b>	<b>329,115,934</b>

A/ WHN Rate Base Workpaper RB-20-3.47.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Nov-20	A/ 11 Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Dec-20	Avg Plant in Service Dec-20
20300 - Miscellaneous Intangible PI	24,332,010	-3,325	0	24,328,685	24,330,348
20310 - Misc Intangible Plt - 10 Yr	140,536,818	0	0	140,536,818	140,536,818
28100 - Meters	17,695,286	467,722	-368,371	17,794,637	17,744,962
28104 - Meters - Meter Accessories	211,624	27,908	-1,455	238,077	224,851
28105 - Meters - Meter Acc, ERTs	19,033,108	139,026	-28,226	19,143,908	19,088,508
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	5,411,831	28,519	-1,049	5,439,301	5,425,566
29001 - S&I - Leasehold Impr	6,724,328	47,691	-14,425	6,757,594	6,740,961
29002 - Compressed Natural Gas	2,908	0	0	2,908	2,908
29100 - Office Furniture and Equipm	16,387,286	181,760	0	16,569,046	16,478,166
29101 - Electronic Data Processing	8,392,471	314,287	-133,527	8,573,231	8,482,851
29102 - PC Equipment	30,269,171	10,121	0	30,279,292	30,274,231
29103 - Customer Information System	17,725,103	421	0	17,725,524	17,725,314
29104 - Client Service Applications	11,630,856	1,948,141	-494,284	13,084,713	12,357,785
29105 - SaaS - 3 yr Contract	-1,036,924	0	-155,672	-1,192,596	-1,114,760
29200 - Transportation Equipment	195,448	24,431	0	219,879	207,664
29204 - Trans Equip - Leased Buyout	-5,704	0	-713	-6,417	-6,061
29211 - Trucks 1/2 & 3/4 Ton	178,448	22,306	0	200,754	189,601
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0	0	415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	0	0	140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	0	0	812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	0	0	1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	0	0	21,889	21,889
29400 - Tools, Shop & Garage Equip	2,873,646	-52,180	0	2,821,466	2,847,556
29700 - Communication Equipment	24,594,341	77,003	-171,766	24,499,578	24,546,959
29800 - Miscellaneous Equipment	2,488,681	56,223	0	2,544,904	2,516,792
<b>Total</b>	<b>330,076,217</b>	<b>3,290,054</b>	<b>-1,369,488</b>	<b>331,996,783</b>	<b>331,036,500</b>

A/ WHN Rate Base Workpaper RB-20-3.48.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Dec-20	A/ 12 Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Jan-21	Avg Plant in Service Jan-21
20300 - Miscellaneous Intangible PI	24,328,685	-3,325	0	24,325,360	24,327,023
20310 - Misc Intangible Plt - 10 Yr	140,536,818	0	0	140,536,818	140,536,818
28100 - Meters	17,794,637	467,722	-368,371	17,893,988	17,844,313
28104 - Meters - Meter Accessories	238,077	27,908	-1,455	264,530	251,304
28105 - Meters - Meter Acc, ERTs	19,143,908	139,026	-28,226	19,254,708	19,199,308
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	5,439,301	28,519	-1,049	5,466,771	5,453,036
29001 - S&I - Leasehold Impr	6,757,594	47,691	-14,425	6,790,860	6,774,227
29002 - Compressed Natural Gas	2,908	0	0	2,908	2,908
29100 - Office Furniture and Equipm	16,569,046	181,760	0	16,750,806	16,659,926
29101 - Electronic Data Processing	8,573,231	314,287	-133,527	8,753,991	8,663,611
29102 - PC Equipment	30,279,292	10,121	0	30,289,413	30,284,352
29103 - Customer Information System	17,725,524	421	0	17,725,945	17,725,735
29104 - Client Service Applications	13,084,713	1,948,141	-494,284	14,538,570	13,811,642
29105 - SaaS - 3 yr Contract	-1,192,596	0	-155,672	-1,348,268	-1,270,432
29200 - Transportation Equipment	219,879	24,431	0	244,310	232,095
29204 - Trans Equip - Leased Buyout	-6,417	0	-713	-7,130	-6,774
29211 - Trucks 1/2 & 3/4 Ton	200,754	22,306	0	223,060	211,907
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0	0	415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	0	0	140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	0	0	812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	0	0	1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	0	0	21,889	21,889
29400 - Tools, Shop & Garage Equip	2,821,466	-52,180	0	2,769,286	2,795,376
29700 - Communication Equipment	24,499,578	77,003	-171,766	24,404,815	24,452,196
29800 - Miscellaneous Equipment	2,544,904	56,223	0	2,601,127	2,573,015
<b>Total</b>	<b>331,996,783</b>	<b>3,290,054</b>	<b>-1,369,488</b>	<b>333,917,349</b>	<b>332,957,066</b>

A/ WHN Rate Base Workpaper RB-20-3.49.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Jan-21	A/ 13 Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Feb-21	Avg Plant in Service Feb-21
20300 - Miscellaneous Intangible PI	24,325,360	-3,325	0	24,322,035	24,323,698
20310 - Misc Intangible Plt - 10 Yr	140,536,818	0	0	140,536,818	140,536,818
28100 - Meters	17,893,988	467,722	-368,371	17,993,339	17,943,664
28104 - Meters - Meter Accessories	264,530	27,908	-1,455	290,983	277,757
28105 - Meters - Meter Acc, ERTs	19,254,708	139,026	-28,226	19,365,508	19,310,108
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	5,466,771	28,519	-1,049	5,494,241	5,480,506
29001 - S&I - Leasehold Impr	6,790,860	47,691	-14,425	6,824,126	6,807,493
29002 - Compressed Natural Gas	2,908	0	0	2,908	2,908
29100 - Office Furniture and Equipm	16,750,806	181,760	0	16,932,566	16,841,686
29101 - Electronic Data Processing	8,753,991	314,287	-133,527	8,934,751	8,844,371
29102 - PC Equipment	30,289,413	10,121	0	30,299,534	30,294,473
29103 - Customer Information System	17,725,945	421	0	17,726,366	17,726,156
29104 - Client Service Applications	14,538,570	1,948,141	-494,284	15,992,427	15,265,499
29105 - SaaS - 3 yr Contract	-1,348,268	0	-155,672	-1,503,940	-1,426,104
29200 - Transportation Equipment	244,310	24,431	0	268,741	256,526
29204 - Trans Equip - Leased Buyout	-7,130	0	-713	-7,843	-7,487
29211 - Trucks 1/2 & 3/4 Ton	223,060	22,306	0	245,366	234,213
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0	0	415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	0	0	140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	0	0	812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	0	0	1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	0	0	21,889	21,889
29400 - Tools, Shop & Garage Equip	2,769,286	-52,180	0	2,717,106	2,743,196
29700 - Communication Equipment	24,404,815	77,003	-171,766	24,310,052	24,357,433
29800 - Miscellaneous Equipment	2,601,127	56,223	0	2,657,350	2,629,238
<b>Total</b>	<b>333,917,349</b>	<b>3,290,054</b>	<b>-1,369,488</b>	<b>335,837,915</b>	<b>334,877,632</b>

A/ WHN Rate Base Workpaper RB-20-3.50.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Feb-21	A/ 14 Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Mar-21	Avg Plant in Service Mar-21
20300 - Miscellaneous Intangible PI	24,322,035	-3,325	0	24,318,710	24,320,373
20310 - Misc Intangible Plt - 10 Yr	140,536,818	0	0	140,536,818	140,536,818
28100 - Meters	17,993,339	467,722	-368,371	18,092,690	18,043,015
28104 - Meters - Meter Accessories	290,983	27,908	-1,455	317,436	304,210
28105 - Meters - Meter Acc, ERTs	19,365,508	139,026	-28,226	19,476,308	19,420,908
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	5,494,241	28,519	-1,049	5,521,711	5,507,976
29001 - S&I - Leasehold Impr	6,824,126	47,691	-14,425	6,857,392	6,840,759
29002 - Compressed Natural Gas	2,908	0	0	2,908	2,908
29100 - Office Furniture and Equipm	16,932,566	181,760	0	17,114,326	17,023,446
29101 - Electronic Data Processing	8,934,751	314,287	-133,527	9,115,511	9,025,131
29102 - PC Equipment	30,299,534	10,121	0	30,309,655	30,304,594
29103 - Customer Information System	17,726,366	421	0	17,726,787	17,726,577
29104 - Client Service Applications	15,992,427	1,948,141	-494,284	17,446,284	16,719,356
29105 - SaaS - 3 yr Contract	-1,503,940	0	-155,672	-1,659,612	-1,581,776
29200 - Transportation Equipment	268,741	24,431	0	293,172	280,957
29204 - Trans Equip - Leased Buyout	-7,843	0	-713	-8,556	-8,200
29211 - Trucks 1/2 & 3/4 Ton	245,366	22,306	0	267,672	256,519
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0	0	415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	0	0	140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	0	0	812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	0	0	1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	0	0	21,889	21,889
29400 - Tools, Shop & Garage Equip	2,717,106	-52,180	0	2,664,926	2,691,016
29700 - Communication Equipment	24,310,052	77,003	-171,766	24,215,289	24,262,670
29800 - Miscellaneous Equipment	2,657,350	56,223	0	2,713,573	2,685,461
<b>Total</b>	<b>335,837,915</b>	<b>3,290,054</b>	<b>-1,369,488</b>	<b>337,758,481</b>	<b>336,798,198</b>

A/ WHN Rate Base Workpaper RB-20-3.51.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Mar-21	A/ 15 Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Apr-21	Avg Plant in Service Apr-21
20300 - Miscellaneous Intangible PI	24,318,710	-3,325	0	24,315,385	24,317,048
20310 - Misc Intangible Plt - 10 Yr	140,536,818	0	0	140,536,818	140,536,818
28100 - Meters	18,092,690	467,722	-368,371	18,192,041	18,142,366
28104 - Meters - Meter Accessories	317,436	27,908	-1,455	343,889	330,663
28105 - Meters - Meter Acc, ERTs	19,476,308	139,026	-28,226	19,587,108	19,531,708
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	5,521,711	28,519	-1,049	5,549,181	5,535,446
29001 - S&I - Leasehold Impr	6,857,392	47,691	-14,425	6,890,658	6,874,025
29002 - Compressed Natural Gas	2,908	0	0	2,908	2,908
29100 - Office Furniture and Equipm	17,114,326	181,760	0	17,296,086	17,205,206
29101 - Electronic Data Processing	9,115,511	314,287	-133,527	9,296,271	9,205,891
29102 - PC Equipment	30,309,655	10,121	0	30,319,776	30,314,715
29103 - Customer Information System	17,726,787	421	0	17,727,208	17,726,998
29104 - Client Service Applications	17,446,284	1,948,141	-494,284	18,900,141	18,173,213
29105 - SaaS - 3 yr Contract	-1,659,612	0	-155,672	-1,815,284	-1,737,448
29200 - Transportation Equipment	293,172	24,431	0	317,603	305,388
29204 - Trans Equip - Leased Buyout	-8,556	0	-713	-9,269	-8,913
29211 - Trucks 1/2 & 3/4 Ton	267,672	22,306	0	289,978	278,825
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0	0	415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	0	0	140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	0	0	812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	0	0	1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	0	0	21,889	21,889
29400 - Tools, Shop & Garage Equip	2,664,926	-52,180	0	2,612,746	2,638,836
29700 - Communication Equipment	24,215,289	77,003	-171,766	24,120,526	24,167,907
29800 - Miscellaneous Equipment	2,713,573	56,223	0	2,769,796	2,741,684
<b>Total</b>	<b>337,758,481</b>	<b>3,290,054</b>	<b>-1,369,488</b>	<b>339,679,047</b>	<b>338,718,764</b>

A/ WHN Rate Base Workpaper RB-20-3.52.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Apr-21	16		Monthly Plant Retirements	C/	Plant in Service May-21	Avg Plant in Service May-21
		A/	Monthly Plant Additions				
20300 - Miscellaneous Intangible PI	24,315,385		-3,325	0		24,312,060	24,313,723
20310 - Misc Intangible Plt - 10 Yr	140,536,818		0	0		140,536,818	140,536,818
28100 - Meters	18,192,041		467,722	-368,371		18,291,392	18,241,717
28104 - Meters - Meter Accessories	343,889		27,908	-1,455		370,342	357,116
28105 - Meters - Meter Acc, ERTs	19,587,108		139,026	-28,226		19,697,908	19,642,508
28900 - Non-depr Land & Land Rights	0		0	0		0	0
29000 - Structures and Improvements	5,549,181		28,519	-1,049		5,576,651	5,562,916
29001 - S&I - Leasehold Impr	6,890,658		47,691	-14,425		6,923,924	6,907,291
29002 - Compressed Natural Gas	2,908		0	0		2,908	2,908
29100 - Office Furniture and Equipm	17,296,086		181,760	0		17,477,846	17,386,966
29101 - Electronic Data Processing	9,296,271		314,287	-133,527		9,477,031	9,386,651
29102 - PC Equipment	30,319,776		10,121	0		30,329,897	30,324,836
29103 - Customer Information System	17,727,208		421	0		17,727,629	17,727,419
29104 - Client Service Applications	18,900,141		1,948,141	-494,284		20,353,998	19,627,070
29105 - SaaS - 3 yr Contract	-1,815,284		0	-155,672		-1,970,956	-1,893,120
29200 - Transportation Equipment	317,603		24,431	0		342,034	329,819
29204 - Trans Equip - Leased Buyout	-9,269		0	-713		-9,982	-9,626
29211 - Trucks 1/2 & 3/4 Ton	289,978		22,306	0		312,284	301,131
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0	0		415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		0	0		140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		0	0		812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		0	0		1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		0	0		21,889	21,889
29400 - Tools, Shop & Garage Equip	2,612,746		-52,180	0		2,560,566	2,586,656
29700 - Communication Equipment	24,120,526		77,003	-171,766		24,025,763	24,073,144
29800 - Miscellaneous Equipment	2,769,796		56,223	0		2,826,019	2,797,907
<b>Total</b>	<b>339,679,047</b>		<b>3,290,054</b>	<b>-1,369,488</b>		<b>341,599,613</b>	<b>340,639,330</b>

A/ WHN Rate Base Workpaper RB-20-3.53.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).



## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service May-21	A/ 17 Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Jun-21	Avg Plant in Service Jun-21
20300 - Miscellaneous Intangible PI	24,312,060	-3,325	0	24,308,735	24,310,398
20310 - Misc Intangible Plt - 10 Yr	140,536,818	0	0	140,536,818	140,536,818
28100 - Meters	18,291,392	467,722	-368,371	18,390,743	18,341,068
28104 - Meters - Meter Accessories	370,342	27,908	-1,455	396,795	383,569
28105 - Meters - Meter Acc, ERTs	19,697,908	139,026	-28,226	19,808,708	19,753,308
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	5,576,651	28,519	-1,049	5,604,121	5,590,386
29001 - S&I - Leasehold Impr	6,923,924	47,691	-14,425	6,957,190	6,940,557
29002 - Compressed Natural Gas	2,908	0	0	2,908	2,908
29100 - Office Furniture and Equipm	17,477,846	181,760	0	17,659,606	17,568,726
29101 - Electronic Data Processing	9,477,031	314,287	-133,527	9,657,791	9,567,411
29102 - PC Equipment	30,329,897	10,121	0	30,340,018	30,334,957
29103 - Customer Information System	17,727,629	421	0	17,728,050	17,727,840
29104 - Client Service Applications	20,353,998	1,948,141	-494,284	21,807,855	21,080,927
29105 - SaaS - 3 yr Contract	-1,970,956	0	-155,672	-2,126,628	-2,048,792
29200 - Transportation Equipment	342,034	24,431	0	366,465	354,250
29204 - Trans Equip - Leased Buyout	-9,982	0	-713	-10,695	-10,339
29211 - Trucks 1/2 & 3/4 Ton	312,284	22,306	0	334,590	323,437
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0	0	415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	0	0	140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	0	0	812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	0	0	1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	0	0	21,889	21,889
29400 - Tools, Shop & Garage Equip	2,560,566	-52,180	0	2,508,386	2,534,476
29700 - Communication Equipment	24,025,763	77,003	-171,766	23,931,000	23,978,381
29800 - Miscellaneous Equipment	2,826,019	56,223	0	2,882,242	2,854,130
<b>Total</b>	<b>341,599,613</b>	<b>3,290,054</b>	<b>-1,369,488</b>	<b>343,520,179</b>	<b>342,559,896</b>

A/ WHN Rate Base Workpaper RB-20-3.54.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Jun-21	A/ 18 Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Jul-21	Avg Plant in Service Jul-21
20300 - Miscellaneous Intangible PI	24,308,735	-3,325	0	24,305,410	24,307,073
20310 - Misc Intangible Plt - 10 Yr	140,536,818	0	0	140,536,818	140,536,818
28100 - Meters	18,390,743	467,722	-368,371	18,490,094	18,440,419
28104 - Meters - Meter Accessories	396,795	27,908	-1,455	423,248	410,022
28105 - Meters - Meter Acc, ERTs	19,808,708	139,026	-28,226	19,919,508	19,864,108
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	5,604,121	28,519	-1,049	5,631,591	5,617,856
29001 - S&I - Leasehold Impr	6,957,190	47,691	-14,425	6,990,456	6,973,823
29002 - Compressed Natural Gas	2,908	0	0	2,908	2,908
29100 - Office Furniture and Equipm	17,659,606	181,760	0	17,841,366	17,750,486
29101 - Electronic Data Processing	9,657,791	314,287	-133,527	9,838,551	9,748,171
29102 - PC Equipment	30,340,018	10,121	0	30,350,139	30,345,078
29103 - Customer Information System	17,728,050	421	0	17,728,471	17,728,261
29104 - Client Service Applications	21,807,855	1,948,141	-494,284	23,261,712	22,534,784
29105 - SaaS - 3 yr Contract	-2,126,628	0	-155,672	-2,282,300	-2,204,464
29200 - Transportation Equipment	366,465	24,431	0	390,896	378,681
29204 - Trans Equip - Leased Buyout	-10,695	0	-713	-11,408	-11,052
29211 - Trucks 1/2 & 3/4 Ton	334,590	22,306	0	356,896	345,743
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0	0	415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	0	0	140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	0	0	812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	0	0	1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	0	0	21,889	21,889
29400 - Tools, Shop & Garage Equip	2,508,386	-52,180	0	2,456,206	2,482,296
29700 - Communication Equipment	23,931,000	77,003	-171,766	23,836,237	23,883,618
29800 - Miscellaneous Equipment	2,882,242	56,223	0	2,938,465	2,910,353
<b>Total</b>	<b>343,520,179</b>	<b>3,290,054</b>	<b>-1,369,488</b>	<b>345,440,745</b>	<b>344,480,462</b>

A/ WHN Rate Base Workpaper RB-20-3.55.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Jul-21	A/ 19 Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Aug-21	Avg Plant in Service Aug-21
20300 - Miscellaneous Intangible PI	24,305,410	-3,325	0	24,302,085	24,303,748
20310 - Misc Intangible Plt - 10 Yr	140,536,818	0	0	140,536,818	140,536,818
28100 - Meters	18,490,094	467,722	-368,371	18,589,445	18,539,770
28104 - Meters - Meter Accessories	423,248	27,908	-1,455	449,701	436,475
28105 - Meters - Meter Acc, ERTs	19,919,508	139,026	-28,226	20,030,308	19,974,908
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	5,631,591	28,519	-1,049	5,659,061	5,645,326
29001 - S&I - Leasehold Impr	6,990,456	47,691	-14,425	7,023,722	7,007,089
29002 - Compressed Natural Gas	2,908	0	0	2,908	2,908
29100 - Office Furniture and Equipm	17,841,366	181,760	0	18,023,126	17,932,246
29101 - Electronic Data Processing	9,838,551	314,287	-133,527	10,019,311	9,928,931
29102 - PC Equipment	30,350,139	10,121	0	30,360,260	30,355,199
29103 - Customer Information System	17,728,471	421	0	17,728,892	17,728,682
29104 - Client Service Applications	23,261,712	1,948,141	-494,284	24,715,569	23,988,641
29105 - SaaS - 3 yr Contract	-2,282,300	0	-155,672	-2,437,972	-2,360,136
29200 - Transportation Equipment	390,896	24,431	0	415,327	403,112
29204 - Trans Equip - Leased Buyout	-11,408	0	-713	-12,121	-11,765
29211 - Trucks 1/2 & 3/4 Ton	356,896	22,306	0	379,202	368,049
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0	0	415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	0	0	140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	0	0	812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	0	0	1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	0	0	21,889	21,889
29400 - Tools, Shop & Garage Equip	2,456,206	-52,180	0	2,404,026	2,430,116
29700 - Communication Equipment	23,836,237	77,003	-171,766	23,741,474	23,788,855
29800 - Miscellaneous Equipment	2,938,465	56,223	0	2,994,688	2,966,576
<b>Total</b>	<b>345,440,745</b>	<b>3,290,054</b>	<b>-1,369,488</b>	<b>347,361,311</b>	<b>346,401,028</b>

A/ WHN Rate Base Workpaper RB-20-3.56.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Aug-21	A/ 20 Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Sep-21	Avg Plant in Service Sep-21
20300 - Miscellaneous Intangible PI	24,302,085	-3,325	0	24,298,760	24,300,423
20310 - Misc Intangible Plt - 10 Yr	140,536,818	0	0	140,536,818	140,536,818
28100 - Meters	18,589,445	467,722	-368,371	18,688,796	18,639,121
28104 - Meters - Meter Accessories	449,701	27,908	-1,455	476,154	462,928
28105 - Meters - Meter Acc, ERTs	20,030,308	139,026	-28,226	20,141,108	20,085,708
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	5,659,061	28,519	-1,049	5,686,531	5,672,796
29001 - S&I - Leasehold Impr	7,023,722	47,691	-14,425	7,056,988	7,040,355
29002 - Compressed Natural Gas	2,908	0	0	2,908	2,908
29100 - Office Furniture and Equipm	18,023,126	181,760	0	18,204,886	18,114,006
29101 - Electronic Data Processing	10,019,311	314,287	-133,527	10,200,071	10,109,691
29102 - PC Equipment	30,360,260	10,121	0	30,370,381	30,365,320
29103 - Customer Information System	17,728,892	421	0	17,729,313	17,729,103
29104 - Client Service Applications	24,715,569	1,948,141	-494,284	26,169,426	25,442,498
29105 - SaaS - 3 yr Contract	-2,437,972	0	-155,672	-2,593,644	-2,515,808
29200 - Transportation Equipment	415,327	24,431	0	439,758	427,543
29204 - Trans Equip - Leased Buyout	-12,121	0	-713	-12,834	-12,478
29211 - Trucks 1/2 & 3/4 Ton	379,202	22,306	0	401,508	390,355
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0	0	415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	0	0	140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	0	0	812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	0	0	1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	0	0	21,889	21,889
29400 - Tools, Shop & Garage Equip	2,404,026	-52,180	0	2,351,846	2,377,936
29700 - Communication Equipment	23,741,474	77,003	-171,766	23,646,711	23,694,092
29800 - Miscellaneous Equipment	2,994,688	56,223	0	3,050,911	3,022,799
<b>Total</b>	<b>347,361,311</b>	<b>3,290,054</b>	<b>-1,369,488</b>	<b>349,281,877</b>	<b>348,321,594</b>

A/ WHN Rate Base Workpaper RB-20-3.57.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Sep-21	21		Monthly Plant Retirements	C/ C/	Plant in Service Oct-21	Avg Plant in Service Oct-21
		A/ A/	Monthly Plant Additions				
20300 - Miscellaneous Intangible PI	24,298,760		-3,325	0		24,295,435	24,297,098
20310 - Misc Intangible Plt - 10 Yr	140,536,818		0	0		140,536,818	140,536,818
28100 - Meters	18,688,796		467,722	-368,371		18,788,147	18,738,472
28104 - Meters - Meter Accessories	476,154		27,908	-1,455		502,607	489,381
28105 - Meters - Meter Acc, ERTs	20,141,108		139,026	-28,226		20,251,908	20,196,508
28900 - Non-depr Land & Land Rights	0		0	0		0	0
29000 - Structures and Improvements	5,686,531		28,519	-1,049		5,714,001	5,700,266
29001 - S&I - Leasehold Impr	7,056,988		47,691	-14,425		7,090,254	7,073,621
29002 - Compressed Natural Gas	2,908		0	0		2,908	2,908
29100 - Office Furniture and Equipm	18,204,886		181,760	0		18,386,646	18,295,766
29101 - Electronic Data Processing	10,200,071		314,287	-133,527		10,380,831	10,290,451
29102 - PC Equipment	30,370,381		10,121	0		30,380,502	30,375,441
29103 - Customer Information System	17,729,313		421	0		17,729,734	17,729,524
29104 - Client Service Applications	26,169,426		1,948,141	-494,284		27,623,283	26,896,355
29105 - SaaS - 3 yr Contract	-2,593,644		0	-155,672		-2,749,316	-2,671,480
29200 - Transportation Equipment	439,758		24,431	0		464,189	451,974
29204 - Trans Equip - Leased Buyout	-12,834		0	-713		-13,547	-13,191
29211 - Trucks 1/2 & 3/4 Ton	401,508		22,306	0		423,814	412,661
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0	0		415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		0	0		140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		0	0		812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		0	0		1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		0	0		21,889	21,889
29400 - Tools, Shop & Garage Equip	2,351,846		-52,180	0		2,299,666	2,325,756
29700 - Communication Equipment	23,646,711		77,003	-171,766		23,551,948	23,599,329
29800 - Miscellaneous Equipment	3,050,911		56,223	0		3,107,134	3,079,022
<b>Total</b>	<b>349,281,877</b>		<b>3,290,054</b>	<b>-1,369,488</b>		<b>351,202,443</b>	<b>350,242,160</b>

A/ WHN Rate Base Workpaper RB-20-3.58.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in	A/	22	B/	Monthly	C/	Plant in	Avg Plant in
	Service		Monthly		Monthly		Service	
	Oct-21		Additions		Retirements		Nov-21	Nov-21
20300 - Miscellaneous Intangible PI	24,295,435		-3,325		0		24,292,110	24,293,773
20310 - Misc Intangible Plt - 10 Yr	140,536,818		0		0		140,536,818	140,536,818
28100 - Meters	18,788,147		467,722		-368,371		18,887,498	18,837,823
28104 - Meters - Meter Accessories	502,607		27,908		-1,455		529,060	515,834
28105 - Meters - Meter Acc, ERTs	20,251,908		139,026		-28,226		20,362,708	20,307,308
28900 - Non-depr Land & Land Rights	0		0		0		0	0
29000 - Structures and Improvements	5,714,001		28,519		-1,049		5,741,471	5,727,736
29001 - S&I - Leasehold Impr	7,090,254		47,691		-14,425		7,123,520	7,106,887
29002 - Compressed Natural Gas	2,908		0		0		2,908	2,908
29100 - Office Furniture and Equipm	18,386,646		181,760		0		18,568,406	18,477,526
29101 - Electronic Data Processing	10,380,831		314,287		-133,527		10,561,591	10,471,211
29102 - PC Equipment	30,380,502		10,121		0		30,390,623	30,385,562
29103 - Customer Information System	17,729,734		421		0		17,730,155	17,729,945
29104 - Client Service Applications	27,623,283		1,948,141		-494,284		29,077,140	28,350,212
29105 - SaaS - 3 yr Contract	-2,749,316		0		-155,672		-2,904,988	-2,827,152
29200 - Transportation Equipment	464,189		24,431		0		488,620	476,405
29204 - Trans Equip - Leased Buyout	-13,547		0		-713		-14,260	-13,904
29211 - Trucks 1/2 & 3/4 Ton	423,814		22,306		0		446,120	434,967
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586		0		0		415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562		0		0		140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482		0		0		812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962		0		0		1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889		0		0		21,889	21,889
29400 - Tools, Shop & Garage Equip	2,299,666		-52,180		0		2,247,486	2,273,576
29700 - Communication Equipment	23,551,948		77,003		-171,766		23,457,185	23,504,566
29800 - Miscellaneous Equipment	3,107,134		56,223		0		3,163,357	3,135,245
Total	351,202,443		3,290,054		-1,369,488		353,123,009	352,162,726

A/ WHN Rate Base Workpaper RB-20-3.59.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - Joint Monthly Plant Additions, Retirements &amp; Balance by Account

Account	Plant in Service Nov-21	A/ 23 Monthly Plant Additions	B/ Monthly Plant Retirements	C/ Plant in Service Dec-21	Avg Plant in Service Dec-21
20300 - Miscellaneous Intangible PI	24,292,110	-3,325	0	24,288,785	24,290,448
20310 - Misc Intangible Plt - 10 Yr	140,536,818	0	0	140,536,818	140,536,818
28100 - Meters	18,887,498	467,722	-368,371	18,986,849	18,937,174
28104 - Meters - Meter Accessories	529,060	27,908	-1,455	555,513	542,287
28105 - Meters - Meter Acc, ERTs	20,362,708	139,026	-28,226	20,473,508	20,418,108
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	5,741,471	28,519	-1,049	5,768,941	5,755,206
29001 - S&I - Leasehold Impr	7,123,520	47,691	-14,425	7,156,786	7,140,153
29002 - Compressed Natural Gas	2,908	0	0	2,908	2,908
29100 - Office Furniture and Equipm	18,568,406	181,760	0	18,750,166	18,659,286
29101 - Electronic Data Processing	10,561,591	314,287	-133,527	10,742,351	10,651,971
29102 - PC Equipment	30,390,623	10,121	0	30,400,744	30,395,683
29103 - Customer Information System	17,730,155	421	0	17,730,576	17,730,366
29104 - Client Service Applications	29,077,140	1,948,141	-494,284	30,530,997	29,804,069
29105 - SaaS - 3 yr Contract	-2,904,988	0	-155,672	-3,060,660	-2,982,824
29200 - Transportation Equipment	488,620	24,431	0	513,051	500,836
29204 - Trans Equip - Leased Buyout	-14,260	0	-713	-14,973	-14,617
29211 - Trucks 1/2 & 3/4 Ton	446,120	22,306	0	468,426	457,273
29240 - PNG GAS TRANSP-3 YR MTR RD	415,586	0	0	415,586	415,586
29241 - PNG GAS TRANSP - 5 YR RURAL	140,562	0	0	140,562	140,562
29242 - PNG GAS TRANSP - 7 YR URBAN	812,482	0	0	812,482	812,482
29243 - PNG GAS TRANSP - 10 YR HD	1,044,962	0	0	1,044,962	1,044,962
29244 - PNG GAS-15 YR TRAILER/OTHR	21,889	0	0	21,889	21,889
29400 - Tools, Shop & Garage Equip	2,247,486	-52,180	0	2,195,306	2,221,396
29700 - Communication Equipment	23,457,185	77,003	-171,766	23,362,422	23,409,803
29800 - Miscellaneous Equipment	3,163,357	56,223	0	3,219,580	3,191,468
<b>Total</b>	<b>353,123,009</b>	<b>3,290,054</b>	<b>-1,369,488</b>	<b>355,043,575</b>	<b>354,083,292</b>

A/ WHN Rate Base Workpaper RB-20-3.60.

B/ WHN Rate Base Workpaper RB-20-3.90 (WHN) and RB-20-3.92 (Non-Print) (Company).

C/ WHN Rate Base Workpaper RB-20-3.91 (WHN) and RB-20-2.93 (Company).

## WHN Rate Base Workpapers - 3-State Common Plant Depreciation Rates

SOURCE: Bowman Workpaper - 6-Detail Plant in Service and Depr Exp, Tab E-3 State

No source documentation given for Piedmont Depreciation Rates.

Account/Account Description	Current 4/1/20
<b>Intangible Plant:</b>	
20300 - 5 Year Software	20.00%
20310 - 10 Year Software	10.00%
<b>Total Intangible Plant</b>	
<b>Distribution Plant:</b>	
28100 - Meters	4.50%
28105 - Meters - Meter Acc, ERTs	14.46%
<b>Total Distribution Plant</b>	
<b>Depreciation General Plant:</b>	
29000 - Structures and Improvements	2.10%
29201 - Transportation - 5-Year Rural Use	15.40%
29202 - Transportation - 7-Year Urban Use	8.83%
29203 - Transportation - 10-Year Heavy Duty	7.29%
29204 - 15-Year Transportation - Trailers & Other	4.94%
<b>Total General Plant Depreciated</b>	
<b>Amortized General Plant:</b>	
29001 - S&I - Leasehold Impr	4.76%
29100 - Office Furniture and Equipm	5.00%
29102 - PC Equipment (Fully Depreciated)	0.00%
29102 - PC Equipment	20.00%
29103 - Customer Information System	5.00%
29105 - SaaS - 3 yr Contract	0.00%
29400 - Tools, Shop & Garage Equip	5.00%
29700 - Communication Equipment	5.56%
29800 - Miscellaneous Equipment	5.00%
<b>Total General Plant Amortized</b>	



Source: WHN Rate Base Workpaper RB-10-3.20.

Account	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020	3-Year Average	Monthly
20300 - Miscellaneous Intangible Pl	0	0	-119,685	-39,895	-3,325
20310 - Misc Intangible Plt - 10 Yr	0	0	0	0	0
28100 - Meters	3,737,743	1,475,831	11,624,404	5,612,660	467,722
28104 - Meters - Meter Accessories	0	0	1,004,696	334,899	27,908
28105 - Meters - Meter Acc, ERTs	1,626,406	2,063,013	1,315,500	1,668,306	139,026
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	-1,161,308	235,644	1,952,364	342,233	28,519
29001 - S&I - Leasehold Impr	2,149,442	-494,987	62,415	572,290	47,691
29002 - Compressed Natural Gas	0	0	0	0	0
29100 - Office Furniture and Equipm	478,966	456,478	5,607,902	2,181,116	181,760
29101 - Electronic Data Processing	77,609	3,852,501	7,384,221	3,771,443	314,287
29102 - PC Equipment	16,517	320,142	27,713	121,457	10,121
29103 - Customer Information System	0	15,171	0	5,057	421
29104 - Client Service Applications	65,068,994	3,008,632	2,055,443	23,377,690	1,948,141
29105 - SaaS - 3 yr Contract	0	0	0	0	0
29200 - Transportation Equipment	0	879,516	0	293,172	24,431
29204 - Trans Equip - Leased Buyout	0	0	0	0	0
29211 - Trucks 1/2 & 3/4 Ton	0	803,026	0	267,675	22,306
29240 - PNG GAS TRANSP-3 YR MTR RD	0	0	0	0	0
29241 - PNG GAS TRANSP - 5 YR RURAL	0	0	0	0	0
29242 - PNG GAS TRANSP - 7 YR URBAN	0	0	0	0	0
29243 - PNG GAS TRANSP - 10 YR HD	0	0	0	0	0
29244 - PNG GAS-15 YR TRAILER/OTHR	0	0	0	0	0
29400 - Tools, Shop & Garage Equip	-2,375,180	503,829	-7,139	-626,163	-52,180
29700 - Communication Equipment	1,921,433	493,881	356,790	924,035	77,003
29800 - Miscellaneous Equipment	0	103,524	1,920,489	674,671	56,223
<b>Total</b>	<b>71,540,623</b>	<b>13,716,201</b>	<b>33,185,114</b>	<b>39,480,646</b>	<b>3,290,054</b>

## WHN Rate Base Workpapers - Historical 3-State Common Average Plant Retirements-Summary

Source: WHN Rate Base Workpapers RB-10-3.40.

Account	12 ME 03-2018	12 ME 03-2019	12 ME 03-2020	3-Year Average	Monthly
20300 - Miscellaneous Intangible Pl	0	0	0	0	0
20310 - Misc Intangible Plt - 10 Yr	0	0	0	0	0
28100 - Meters	-2,348,324	-3,362,868	-7,550,154	-4,420,449	-368,371
28104 - Meters - Meter Accessories	-52,384	0	0	-17,461	-1,455
28105 - Meters - Meter Acc, ERTs	-1,016,149	0	0	-338,716	-28,226
28900 - Non-depr Land & Land Rights	0	0	0	0	0
29000 - Structures and Improvements	0	-37,748	0	-12,583	-1,049
29001 - S&I - Leasehold Impr	-519,306	0	0	-173,102	-14,425
29002 - Compressed Natural Gas	0	0	0	0	0
29100 - Office Furniture and Equipm	0	0	0	0	0
29101 - Electronic Data Processing	-6,003	-3,850,265	-950,693	-1,602,321	-133,527
29102 - PC Equipment	-3,532,490	-930,094	0	0	0
29103 - Customer Information System	0	0	0	0	0
29104 - Client Service Applications	-560,589	-17,233,651	0	-5,931,414	-494,284
29105 - SaaS - 3 yr Contract	0	-5,604,196	0	-1,868,065	-155,672
29200 - Transportation Equipment	0	0	0	0	0
29204 - Trans Equip - Leased Buyout	-25,667	0	0	-8,556	-713
29211 - Trucks 1/2 & 3/4 Ton	0	0	0	0	0
29240 - PNG GAS TRANSP-3 YR MTR RD	0	0	0	0	0
29241 - PNG GAS TRANSP - 5 YR RURAL	0	0	0	0	0
29242 - PNG GAS TRANSP - 7 YR URBAN	0	0	0	0	0
29243 - PNG GAS TRANSP - 10 YR HD	0	0	0	0	0
29244 - PNG GAS-15 YR TRAILER/OTHR	0	0	0	0	0
29400 - Tools, Shop & Garage Equip	0	0	0	0	0
29700 - Communication Equipment	-531,168	-2,464,326	-3,188,078	-2,061,191	-171,766
29800 - Miscellaneous Equipment	0	0	0	0	0
<b>Annual Total</b>	<b>-8,592,082</b>	<b>-33,483,147</b>	<b>-11,688,925</b>	<b>-16,433,857</b>	<b>-1,369,488</b>

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Company Forecasted 3-State Plant Additions**

**RB-20-3.92 (Non-Print)**

11/29/20 12:30 PM

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Contributions in Aid of Construction**

Accounts	Description
271000	NARUC CIAC TN 2017

**SOURCE:** WHN Rate Base Workpaper RB-25-9.00 (Non-Print).

<b>Date</b>	<b>Amount</b>
Mar-19	-5,828,754
Apr-19	-5,828,754
May-19	-5,828,754
Jun-19	-5,828,754
Jul-19	-5,828,754
Aug-19	-5,828,754
Sep-19	-5,828,754
Oct-19	-5,828,754
Nov-19	-5,828,754
Dec-19	-5,828,754
Jan-20	-5,828,754
Feb-20	-5,828,754
Mar-20	-5,828,754
<b>Average</b>	<b>-5,828,754</b>

**NOTE:** Company converted to FERC USOA from NARUC with the Duke acquisition.

FERC USOA does not recognize CIAOC but instead credits contributions directly to plant in service.

As a result, CIAOC remains static during the test period.



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Accumulated Deferred Income Taxes**

<b>Accounts</b>	<b>Description</b>
190001	Adit: Prepaid: Federal Taxes
190002	Adit: Prepaid: State Taxes
190013	LT Def tax asset: Fed-190
190155	Deferred Tax - Nol
190156	Deferred Tax_State NOLs
282100	Adit: PpandE: Federal Taxes
282101	Adit: PpandE: State Taxes
283020	Valuation Allowance
283100	Adit: Other: Federal Taxes
283101	Adit: Other: State Taxes
182320	Regulatory Asset - Inc Tax
254036	Reg Liab - Excess Fed ADIT
254038	Excess ADIT Grossup LT
254100	Regulatory Liability - Inc Tax
254150	Reg Liab - State Tax Rate Change

	<b>Test Period</b>	<b>Attrition Period</b>
Accumulated Deferred Income Taxes	112,775,252 <b>A/</b>	129,979,358 <b>A/</b>
Regulatory Liability	81,854,145 <b>B/</b>	66,957,647 <b>C/</b>
<b>Total Accumulated Deferred Income Tax</b>	<b>194,629,398</b>	<b>196,937,005</b>
Plus excluded ADIT Items		3,023,348 <b>D/</b>
<b>Final Accumulated Deferred Income Tax</b>		<b>199,960,353</b>

A/ WHN Rate Base Workpaper RB-30-2.00.

B/ WHN Rate Base Workpaper RB-30-5.00.

C/ WHN Rate Base Workpaper RB-30-4.00.

D/ DD Workpaper DND RB-2.



Date	Deferred Tax	A/	Plant In Service	B/	ADIT/Plant Ratio
Mar-19	(114,119,853)		1,233,424,578		-9.25%
Apr-19	(114,119,853)		1,241,479,058		-9.19%
May-19	(115,225,570)		1,273,401,480		-9.05%
Jun-19	(114,994,931)		1,276,332,195		-9.01%
Jul-19	(114,994,931)		1,282,277,074		-8.97%
Aug-19	(118,475,713)		1,300,765,378		-9.11%
Sep-19	(117,390,495)		1,312,945,015		-8.94%
Oct-19	(117,390,495)		1,333,018,275		-8.81%
Nov-19	(118,307,867)		1,363,046,607		-8.68%
Dec-19	(104,490,798)		1,370,557,728		-7.62%
Jan-20	(104,428,078)		1,376,339,572		-7.59%
Feb-20	(104,428,078)		1,383,201,893		-7.55%
Mar-20	(107,711,616)		1,386,190,548		-7.77%
<b>Average</b>	<b>-112,775,252</b>		<b>1,317,921,492</b>		<b>-8.58%</b>

Date	Plant In Service	C/	ADIT/Plant Ratio	ADIT
Dec-20	1,463,467,587		-8.58%	-125,562,807
Jan-21	1,472,046,930		-8.58%	-126,298,899
Feb-21	1,480,626,275		-8.58%	-127,034,991
Mar-21	1,489,205,618		-8.58%	-127,771,082
Apr-21	1,497,784,962		-8.58%	-128,507,174
May-21	1,506,364,307		-8.58%	-129,243,266
Jun-21	1,514,943,650		-8.58%	-129,979,358
Jul-21	1,523,522,994		-8.58%	-130,715,450
Aug-21	1,532,102,338		-8.58%	-131,451,542
Sep-21	1,540,681,682		-8.58%	-132,187,633
Oct-21	1,549,261,026		-8.58%	-132,923,725
Nov-21	1,557,840,370		-8.58%	-133,659,817
Dec-21	1,566,419,714		-8.58%	-134,395,909
<b>Average</b>	<b>1,514,943,650</b>			<b>-129,979,358</b>

A/ DND Rate Base Workpaper RB-2-1.

B/ WHN Rate Base Workpaper RB-10-1.01.

C/ WHN Rate Base Workpaper RB-10-1.00.

Line No.	Test Period		Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	13month Avg
1	Accumulated Deferred Income Taxes	A/	\$ (102,672,210)	\$ (102,672,210)	\$ (104,176,336)	\$ (105,006,112)	\$ (105,006,112)	\$ (108,973,155)	\$ (118,448,307)	\$ (118,448,307)	\$ (122,353,527)	\$ (109,324,181)	\$ (109,261,461)	\$ (109,261,461)	\$ (112,882,864)	(109,883,557)
2	Regulatory Liability		(83,911,377)	(83,911,377)	(83,911,377)	(83,644,950)	(83,644,950)	(83,178,112)	(83,001,762)	(82,914,757)	(81,265,719)	(79,987,034)	(79,987,034)	(78,626,173)	(76,385,401)	(81,874,617)
3	Total ADIT and EDIT		<u>(186,583,587)</u>	<u>(186,583,587)</u>	<u>(188,087,713)</u>	<u>(188,651,062)</u>	<u>(188,651,062)</u>	<u>(192,151,267)</u>	<u>(201,450,069)</u>	<u>(201,363,064)</u>	<u>(203,619,246)</u>	<u>(189,311,215)</u>	<u>(189,248,495)</u>	<u>(187,887,634)</u>	<u>(189,268,265)</u>	<u>(191,758,174)</u>
4	Excluded ADIT Components	B/	<u>11,447,643</u>	<u>11,447,643</u>	<u>11,049,234</u>	<u>9,988,819</u>	<u>9,988,819</u>	<u>9,502,558</u>	<u>(1,057,812)</u>	<u>(1,057,812)</u>	<u>(4,045,660)</u>	<u>(4,833,383)</u>	<u>(4,833,383)</u>	<u>(4,833,383)</u>	<u>(5,171,248)</u>	<u>2,891,695</u>
5	Net ADIT Balance (Line 1 + Line 4)		(114,119,853)	(114,119,853)	(115,225,570)	(114,994,931)	(114,994,931)	(118,475,713)	(117,390,495)	(117,390,495)	(118,307,867)	(104,490,798)	(104,428,078)	(104,428,078)	(107,711,616)	(112,775,252)
6	Consumer Advocate Test Period ADIT/Regulatory Liability Balance		(198,031,230)	(198,031,230)	(199,136,947)	(198,639,880)	(198,639,881)	(201,653,825)	(200,392,257)	(200,305,252)	(199,573,586)	(184,477,833)	(184,415,113)	(183,054,251)	(184,097,016)	(194,649,869)

A/ Workpaper WHN RB-30-2.00  
B/ Workpaper DND RB 2.3

**Piedmont Natural Gas Company, Inc.**  
**Docket 20-00086**  
**CAD DR 2-56 Item Attachment 2 of 2**



Excluded ADIT Items

Code	Name	March-19	April-19	May-19	June-19	July-19	August-19	September-19	October-19	November-19	December-19	January-20	February-20	March-20
F_RGAL_190001-253602	FERC - FIT Adj Offset to Regulatory Asset (253602)	(131,642)	(131,642)	(131,642)	(131,642)	(131,642)	(131,642)	(131,642)	(131,642)	(131,642)	(131,642)	(131,642)	(131,642)	(109,664)
F_RGAL_190002-253602	FERC - SIT Adj Offset to Reg Liab	(756)	(756)	(775)	(756)	(756)	(803)	(813)	(813)	(832)	(830)	(830)	(830)	(561)
T11A01	Bad Debt MIB	(853)	(853)	(853)	(853)	(853)	(853)	(853)	(853)	(853)	(853)	(853)	(853)	(853)
T11A40	SEVERANCE RESERVE - LT	6,268	6,268	(29)	250,269	250,269	249,885	251,202	251,202	13,824	8,263	8,263	8,263	8,466
T19A02	Deferred Compensation	273,233	273,233	273,233	22,755	22,755	-	-	-	-	-	-	-	-
T20A41	Rate Refunds	2,462,525	2,462,525	2,607,842	1,728,484	1,728,484	1,728,484	1,728,484	1,728,484	1,728,484	1,728,484	1,728,484	1,728,484	1,728,484
T22A07	Charitable Contribution Carryover	131,899	131,899	102,588	87,933	87,933	70,495	67,583	67,583	22,528	161,160	161,160	161,160	130,343
T22A29	Non-qualified Pension - Accrual	120,931	120,931	131,502	130,926	130,926	129,429	128,508	128,508	141,479	146,725	146,725	146,725	141,171
T22B13	ANNUAL INCENTIVE PLAN COMP	90,823	90,823	155,102	187,265	187,265	269,530	292,181	292,181	374,953	452,521	452,521	452,521	105,702
AT_OTH_190_NC_Federal NOL	190155, Other NC Federal NOLs	14,247,259	14,247,259	13,643,755	13,340,684	13,340,684	12,734,542	3,594,575	3,594,575	1,068,056	-	-	-	-
AT_OTH_190_NC_STATE_NOL	Other NC State NOLs	1,085,050	1,085,050	1,085,050	1,085,050	1,085,050	1,085,050	1,085,050	1,085,050	1,120,962	1,120,962	1,120,962	1,120,962	1,110,320
AT_OTH_190_OTHER_STATE_NOL	Other State NOLs	70,232	70,232	70,232	70,232	70,232	70,232	70,232	70,232	70,232	70,232	70,232	70,232	69,565
AT_OTH_292_NC_Alt Fuel Credit	OTH NC AT DTA for Alt Fuel Credit Basis Reduction-Fed	(2,986)	(2,986)	(2,986)	(2,986)	(2,986)	(2,986)	(2,986)	(2,986)	(2,986)	(2,986)	(2,986)	(2,986)	(2,958)
F_ARAM_282100-253602	FERC - FIT Plant Adj Offset to Regulatory asset (253602)	-	-	-	-	-	-	-	-	-	-	-	-	-
F_ARAM_282101-253602	FERC - SIT Adj Offset to Regulatory asset (253602)	-	-	-	-	-	-	-	-	-	-	-	-	-
TNC010	NC - Bonus Depreciation Adj.	707,626	707,626	681,767	688,838	688,838	642,978	617,742	617,742	572,063	551,937	551,937	551,937	506,068
TNJ010	NJ - Bonus Depreciation Adj.	(11,977)	(11,977)	(13,213)	(13,830)	(13,830)	(15,066)	(16,299)	(16,299)	(18,409)	(19,331)	(19,331)	(19,331)	(21,394)
TSC010	SC - SC Bonus Depreciation Adj.	582,761	582,761	582,304	577,077	577,077	566,620	556,185	556,185	538,330	530,534	530,534	530,534	512,714
F_RGAL_GROSSUP_283100-182320-Alt Fuel Credit	OTH NC AT DTA for Alt Fuel Credit Basis Reduct-Grossup-Fed	(794)	(794)	(794)	(794)	(794)	(794)	(794)	(794)	(794)	(794)	(794)	(794)	(786)
F_RGAL_GROSSUP_283101-182320-Alt Fuel Credit	OTH NC AT DTA for Alt Fuel Credit Basis Reduction-Grossup-ST	(135)	(135)	(135)	(135)	(135)	(135)	(135)	(135)	(135)	(135)	(135)	(135)	(134)
T16B08	Reg Asset - Environmental	(57,603)	(57,603)	(43,143)	(40,622)	(40,622)	(30,982)	(1,009,984)	(1,009,984)	(1,000,343)	(1,041,998)	(1,041,998)	(1,041,998)	(989,378)
T16B22	NC Storm Defense - Matthew	-	-	-	-	-	-	-	-	(22,263)	(22,263)	(22,263)	(22,263)	(22,263)
T16B29	Reg Asset-Pension Post Retirement PAA-FAS87Qual and Oth	(3,126,510)	(3,126,510)	(3,144,672)	(2,747,416)	(2,747,416)	(2,684,086)	(3,347,538)	(3,347,538)	(3,656,151)	(3,382,849)	(3,382,849)	(3,382,849)	(3,344,598)
T16B36	Regulatory Asset/Liab Def Revenue NC	-	-	-	-	-	-	-	-	-	-	-	-	-
T16B37	Reg Asset-Pension Post Retirement PAA-FAS87NQ and Oth	(3,630)	(3,630)	(3,585)	(3,562)	(3,562)	(3,517)	(3,494)	(3,494)	(3,449)	(3,449)	(3,449)	(3,449)	(3,449)
T16B38	Reg Asset-Pension Post Retirement PAA-FAS 106 and Oth	-	-	-	-	-	-	(34,831)	(34,831)	(34,831)	(34,831)	(34,831)	(34,831)	(34,831)
T16B40	Reg Asset - Accr Pension FAS158 - FAS87NQ	(21,595)	(21,595)	(32,861)	(38,495)	(38,495)	(49,761)	(20,563)	(20,563)	(31,830)	53,245	53,245	53,245	(48,289)
T16B41	Reg Asset - Accr Pension FAS158 - FAS 106/112	-	-	-	-	-	-	-	-	-	-	-	-	84,659
T16B74	Regulatory Fee - North Carolina	-	-	-	-	-	-	-	-	-	-	-	-	-
T17A06	SC Commission Fee	-	-	-	-	-	-	-	-	-	-	-	-	-
T20A36	Reg Asset Deferred Pension Costs	(3,393,829)	(3,393,829)	(3,287,587)	(3,234,465)	(3,234,465)	(3,128,223)	(3,611,838)	(3,611,838)	(3,505,596)	(3,452,475)	(3,452,475)	(3,452,475)	(3,382,726)
T22A23	Retirement Plan Expense - Overfunded	(1,589,055)	(1,589,055)	(1,621,867)	(1,945,109)	(1,945,109)	(1,985,838)	(1,267,783)	(1,267,783)	(1,308,721)	(1,605,972)	(1,605,972)	(1,605,972)	(1,648,677)
T22B16	Miscellaneous NC Taxable Income Adj - DTL	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	Subtotal Excluded Items	11,447,643	11,447,643	11,049,234	9,988,819	9,988,819	9,502,558	(1,057,812)	(1,057,812)	(4,045,660)	(4,833,383)	(4,833,383)	(4,833,383)	(5,171,248)

SOURCE: WHN Rate Base Workpaper RB-30-9.00 (Non-Print).

Date	PIEDMONT			Allocation Factor	Tennessee Allocation	Tennessee Direct	Total
	Corporate Office	Three State	Total				
Mar-19	77,731,672	-2,221,820	75,509,852	15.80%	11,930,557	90,741,653	102,672,210
Apr-19	77,731,672	-2,221,820	75,509,852	15.80%	11,930,557	90,741,653	102,672,210
May-19	78,943,146	-2,192,443	76,750,703	15.80%	12,126,611	92,049,725	104,176,336
Jun-19	76,726,743	-2,170,875	74,555,868	15.80%	11,779,827	93,226,285	105,006,112
Jul-19	76,726,743	-2,170,875	74,555,868	15.80%	11,779,827	93,226,285	105,006,112
Aug-19	72,038,452	-2,146,116	69,892,336	15.80%	11,042,989	97,930,166	108,973,155
Sep-19	68,458,754	-2,143,723	66,315,031	15.80%	10,477,775	107,970,532	118,448,307
Oct-19	68,458,754	-2,143,723	66,315,031	15.80%	10,477,775	107,970,532	118,448,307
Nov-19	71,631,993	-2,142,313	69,489,680	15.80%	10,979,369	111,374,158	122,353,527
Dec-19	43,961,587	-2,148,034	41,813,553	15.80%	6,606,541	102,717,640	109,324,181
Jan-20	43,961,587	-2,148,034	41,813,553	15.65%	6,543,821	102,717,640	109,261,461
Feb-20	43,961,587	-2,148,034	41,813,553	15.65%	6,543,821	102,717,640	109,261,461
Mar-20	45,771,761	-1,785,888	43,985,873	15.65%	6,883,789	105,999,075	112,882,864
Average	65,084,958	-2,137,208	62,947,750	A/	9,931,020	99,952,537	109,883,557

A/ WHN Rate Base Workpaper RB-100-1.00.

Date	Beginning Balance	Amortization	Ending Balance	
Mar-20			76,364,987	A/
Apr-20	76,364,987	627,156	75,737,831	A/
May-20	75,737,831	627,156	75,110,675	
Jun-20	75,110,675	627,156	74,483,519	
Jul-20	74,483,519	627,156	73,856,363	
Aug-20	73,856,363	627,156	73,229,207	
Sep-20	73,229,207	627,156	72,602,051	
Oct-20	72,602,051	627,156	71,974,895	
Nov-20	71,974,895	627,156	71,347,739	
Dec-20	71,347,739	627,156	70,720,583	
Jan-21	70,720,583	627,156	70,093,427	
Feb-21	70,093,427	627,156	69,466,271	
Mar-21	69,466,271	627,156	68,839,115	
Apr-21	68,839,115	627,156	68,211,959	
May-21	68,211,959	627,156	67,584,803	
Jun-21	67,584,803	627,156	66,957,647	
Jul-21	66,957,647	627,156	66,330,491	
Aug-21	66,330,491	627,156	65,703,335	
Sep-21	65,703,335	627,156	65,076,179	
Oct-21	65,076,179	627,156	64,449,023	
Nov-21	64,449,023	627,156	63,821,867	
Dec-21	63,821,867	627,156	63,194,711	
				Attrition Average
				<b>66,957,647</b>

A/ WHN Rate Base Workpaper RB-30-5.00.

SOURCE: WHN Rate Base Workpaper RB-30-9.01 (Non-Print).

Date	PIEDMONT			Allocation Factor	Tennessee Allocation	Tennessee Direct	Total
	Corporate Office	Three State	Total				
Mar-19	-65,219	0	-65,219	15.80%	-10,305	83,901,071	83,890,766
Apr-19	-65,219	0	-65,219	15.80%	-10,305	83,901,071	83,890,766
May-19	-65,219	0	-65,219	15.80%	-10,305	83,901,071	83,890,766
Jun-19	-65,219	0	-65,219	15.80%	-10,305	83,634,645	83,624,340
Jul-19	-65,219	0	-65,219	15.80%	-10,305	83,634,645	83,624,340
Aug-19	-65,219	0	-65,219	15.80%	-10,305	83,167,807	83,157,502
Sep-19	289,374	0	289,374	15.80%	45,721	82,935,431	82,981,152
Oct-19	-261,296	0	-261,296	15.80%	-41,285	82,935,431	82,894,146
Nov-19	289,374	0	289,374	15.80%	45,721	81,199,389	81,245,110
Dec-19	289,374	0	289,374	15.80%	45,721	79,920,704	79,966,425
Jan-20	18,924	0	18,924	15.65%	2,962	79,964,868	79,967,830
Feb-20	-8,684,403	0	-8,684,403	15.65%	-1,359,109	79,964,868	78,605,759
Mar-20	-65,219	0	-65,219	15.65%	-10,207	76,375,194	76,364,987
Average	<b>-655,014</b>	<b>0</b>	<b>-655,014</b>	<b>A/</b>	<b>-102,485</b>	<b>81,956,630</b>	<b>81,854,145</b>

Annual Amortization **7,525,877**

Average Monthly Amortization **627,156**

A/ WHN Rate Base Workpaper RB-100-1.00.







Accounts	Description
164100	Storage Gas - Current Inventory

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**SOURCE:** WHN Rate Base Workpaper RB-35-9.00 (Non-Print).

<b>Date</b>	<b>Amount</b>
Mar-19	5,427,973
Apr-19	5,266,536
May-19	5,760,704
Jun-19	6,883,155
Jul-19	7,858,136
Aug-19	8,684,977
Sep-19	9,374,176
Oct-19	9,740,747
Nov-19	11,802,122
Dec-19	10,915,251
Jan-20	8,467,799
Feb-20	6,206,145
Mar-20	5,456,997
<b>Average</b>	<b>7,834,209</b>



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Customer Deposits**

<b>Accounts</b>	<b>Description</b>
235140	Special Customer Deposits

**SOURCE:** WHN Rate Base Workpaper RB-40-9.00 (Non-Print).

<b>Date</b>	<b>Amount</b>		
Mar-19	4,241,803	Tennessee 13-Month Average	4,244,585
Apr-19	4,209,322	Compound Customer Growth Factor	1.028981 <b>A/</b>
May-19	4,146,781	<b>Attrition Period Customer Deposits</b>	<b>4,367,597</b>
Jun-19	4,147,311		
Jul-19	4,167,889		
Aug-19	4,160,142		
Sep-19	4,156,271		
Oct-19	4,214,378		
Nov-19	4,303,999		
Dec-19	4,371,025		
Jan-20	4,329,238		
Feb-20	4,365,339		
Mar-20	4,366,103		
<b>Average</b>	<b>4,244,585</b>		

A/ WHN Rate Base Workpaper RB-110-1.00.





**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**  
**WHN Rate Base Workpapers - Accrued Interest on Customer Deposits**

Accounts	Description
237220	Int Accrued on NC Cust Deposit

**SOURCE:** WHN Rate Base Workpaper RB-40-9.00 (Non-Print).

<u>Date</u>	<u>Amount</u>		<u>Amount</u>
Mar-19	267,541	Tennessee 13-Month Average	303,252
Apr-19	269,183	Compound Customer Growth Factor	1.028981 A/
May-19	275,836	<b>Attrition Period Customer Deposits</b>	<b>312,040</b>
Jun-19	285,529		
Jul-19	293,359		
Aug-19	299,826		
Sep-19	305,922		
Oct-19	313,778		
Nov-19	322,234		
Dec-19	327,857		
Jan-20	321,143		
Feb-20	328,129		
Mar-20	331,936		
<b>Average</b>	<b>303,252</b>		

A/ WHN Rate Base Workpaper RB-110-1.00.



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Deferred Rate Case Costs**

Company has included Deferred Rate Case Costs with Deferred Debits.  
See WHN Rate Base Workpaper RB-65-1.00.

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Cash**

Accounts	Description
131100	Cash - Various Banks
131240	Cash BOA 0336 PNG
131241	Cash BOA 9617 PNG
131242	Cash BOA 8875 PNG
131244	Cash BOA 0460 PNG
131245	Cash WELLS 9479 PNG
131248	Cash BOA 9077 PNG
131250	Cash BOA 1639 PNG
131255	Cash BOA 7206 PNG
131703	Cash - BankofAmerica Disb

	<b>Amount</b>
Attrition Period Forecast	<b>0</b>

Cash is not a component of Working Capital.

Accounts	Description
154100	Inventory
154410	Working Stock
163110	Stores Expense



SOURCE: WHN Rate Base Workpaper RB-60-9.00 (Non-Print).

TENNESSEE DIRECT					PIEDMONT ALLOCATION			Total M&S
Date	Inventory	Working Stock	Stores Expense	Total	Stores Expense	Tennessee Allocator	Tennessee Allocation	
Mar-19	184,728	3	-1,150,640	-965,909	5,986,281	15.80%	945,832	-20,077
Apr-19	185,356	3	-1,134,319	-948,960	6,010,469	15.80%	949,654	694
May-19	187,242	3	-1,113,054	-925,809	6,044,277	15.80%	954,996	29,187
Jun-19	188,476	3	-1,093,507	-905,028	6,067,649	15.80%	958,689	53,661
Jul-19	188,476	3	-1,077,597	-889,118	6,086,431	15.80%	961,656	72,538
Aug-19	279,829	3	-1,051,669	-771,837	6,228,613	15.80%	984,121	212,284
Sep-19	279,829	3	-1,034,958	-755,126	6,253,547	15.80%	988,060	232,934
Oct-19	279,829	3	-1,008,419	-728,587	6,268,801	15.80%	990,471	261,884
Nov-19	279,829	3	-1,057,165	-777,333	6,283,665	15.80%	992,819	215,486
Dec-19	279,829	3	-1,053,810	-773,978	6,289,614	15.80%	993,759	219,781
Jan-20	279,829	3	-1,001,010	-721,178	6,262,676	15.65%	980,109	258,931
Feb-20	279,829	3	-951,315	-671,483	6,249,299	15.65%	978,015	306,532
Mar-20	279,829	3	-928,709	-648,877	6,202,883	15.65%	970,751	321,874
Average	244,070	3	-1,050,475	-806,402	6,171,862		972,995	166,593

A/

	Amount
Average Test Period Balance	166,593
Compound Inflation & Customer Growth Rate	1.061624 B/
Attrition Period Materials & Supplies	176,859

A/ WHN Rate Base Workpaper RB-100-1.00

B/ WHN Rate Base Workpaper RB-110-1.00.



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Deferred Debits**

<b>Accounts</b>	<b>Description</b>
182963	TN Hedging Open Positions
182008	Rate Case Cost TN Cur
182014	Rate Case Cost TN LT
182498	Current Environmental Costs TN
186004	TN Environmental Expense
182300	Pension Deferred Costs
182627	Current TN Deferred Pension
182012	Deferred Expenses - TN Flood
182521	Deferred Expense TN Flood

Deferred Debit	Average Balance		Test Period	Attrition Period	Amortization	
	Test Period	Attrition Period			Test Period	Attrition Period
Deferred Hedging Costs	487,570	487,570	A/		0	0 A/
Deferred Rate Case Costs	38,070	0	B/		82,485	0 B/
Deferred Environmental Costs	412,311	339,041	C/		243,756	135,612 C/
Deferred Pension Funding	15,220,904	-176,638	D/		2,686,344	-70,655 D/
Deferred Flood Restoration Costs	50,753	0	E/		109,966	0 E/
<b>Total</b>	<b>16,209,609</b>	<b>649,973</b>			<b>3,122,551</b>	<b>64,957</b>
					<b>Change</b>	<b>-3,057,594 F/</b>

A/ WHN Rate Base Workpaper RB-65-2.00.

B/ WHN Rate Base Workpaper RB-65-3.00.

C/ WHN Rate Base Workpaper RB-65-4.00.

D/ WHN Rate Base Workpaper RB-65-5.00.

E/ WHN Rate Base Workpaper RB-65-6.00.

F/ Amortization change reflected on WHN Expense Workpaper E-40-1.00.

WHN Rate Base Workpapers - Deferred Debits-Summary

Deferred Debit	Average Balance				
	Test Period	A/	Attrition Period		A/
			Piedmont	B/	WHN
Deferred Hedging Costs	487,570		487,570		487,570
Deferred Rate Case Costs	38,070		818,333		0
Deferred Environmental Costs	412,311		339,009		339,041
Deferred Pension Funding	15,220,904		9,885,817		-176,638
Deferred Flood Restoration Costs	50,753		0		0
<b>Total</b>	<b>16,209,609</b>		<b>11,530,729</b>		<b>649,973</b>

Deferred Debit	Annual Amortization				
	Test Period	A/	Attrition Period		A/
			Piedmont	B/	WHN
Deferred Hedging Costs	0		0		0
Deferred Rate Case Costs	82,485		327,333		0
Deferred Environmental Costs	243,756		135,604		135,612
Deferred Pension Funding	2,686,344		3,954,327		-70,655
Deferred Flood Restoration Costs	109,966		0		0
<b>Total</b>	<b>3,122,551</b>		<b>4,417,264</b>		<b>64,957</b>

A/ WHN Rate Base Workpaper RB-65-1.00.

B/ Bowman Workpaper - WorkingCapital Adj, D

**SOURCE:** WHN Rate Base Workpaper RB-65-9.00 (Non-Print).

Date	Amount		Amount
Mar-19	301,252	Tennessee 13-Month Average	487,570
Apr-19	351,219	Compound Customer Growth Factor	1.000000 A/
May-19	352,846	<b>Attrition Period Customer Deposits</b>	<b>487,570</b>
Jun-19	517,274		
Jul-19	530,292		
Aug-19	542,710	<b>Amortization</b>	<b>0</b>
Sep-19	534,684	No amortization associated with hedging.	
Oct-19	546,061		
Nov-19	531,445		
Dec-19	507,316		
Jan-20	535,712		
Feb-20	545,056		
Mar-20	542,546		
<b>Average</b>	<b>487,570</b>		

A/ No Inflation or Growth Factor associated with Hedging Activity.

Company response to CA1-88 regarding hedging.

- f. Open hedging positions are not included in the deferred account and therefore not reflected in the Gas Procurement Mechanism Gains/Losses until they expire. The hedging plan allows for hedges to be made on a 12-month time horizon so hedges could theoretically be open for 12 months before they expire. In essence, Piedmont has paid for the hedging options which has been deemed to be a recoverable expense but does not recover it until it expires.

**SOURCE:** Rate Schedule 316 from Company Tariff.

*Company relies on this language for inclusion of open positions of hedging costs in rate base.*

Exhibit\_(PKP-1)  
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Piedmont Natural Gas Company, Inc.  
Tennessee Service Schedule No. 316

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supply purchases at the benchmark first-of-the-month or daily index, as appropriate, on the pipeline and in the zone in which the sale takes place. The difference between the Company's actual costs and such index price is taken into account under the Plan. After deducting the total transaction costs from the sales proceeds, any remaining margin will be credited to commodity gas costs and shared with customers on a 75%- customer / 25%-stockholders basis.

#### **Capacity Management**

To the extent the Company is able to release transportation or storage capacity, or generate transportation or storage margin associated with off-system or wholesale sales-for-resale, the associated cost savings and/or asset management fees, or other forms of compensation associated with such activities, shall be shared by the Company and customers according to the following sharing formula: 75%-customers / 25%-stockholders. The Company shall notify the TPUC Staff and the Consumer Advocate and Protection Division of the Office of the Attorney General (CAD) of all "other forms of compensation" prior to inclusion of such compensation in the Plan.

#### **Hedging Activities**

The Company may engage in hedging transactions<sup>5</sup> within the PGA/ACA mechanism. Costs related to hedging transactions may be recovered through the ACA account; provided, however, that such costs recovered through the ACA account shall not exceed one percent (1%) of total annual gas costs.<sup>6</sup> Costs related to hedging transactions recoverable through the ACA account shall be defined as all direct, transaction related costs arising from the Company's prudent efforts to stabilize or hedge its commodity gas costs including, without limitation, brokerage fees, and the costs of financial instruments.

All costs related to hedging transactions, in addition to all gains and losses from hedging transactions, shall be credited/debited to the ACA account in the respective month that each hedging transaction closes. Costs related to hedging transactions that are incurred prior to the month that the hedging transaction closes shall be temporarily recorded in a separate, non-interest-bearing account for tracking purposes.

#### **Determination of Shared Saving**

Each month during the term of the Plan, the Company will compute any gains or losses in accordance with the Plan. If the Company earns a gain, a separate Incentive Plan Account (IPA) will be debited with such gain. If the Company incurs a loss, that same IPA will be credited with such loss. During a Plan Year, the Company will be limited to overall gains or losses totaling \$1.6 million. Interest shall be computed on balances in the IPA using the same interest rate and methods as used in the Company's Actual Cost Adjustment (ACA) account. The offsetting

<sup>5</sup> Hedging transactions, as used herein, shall include but not be limited to futures contracts, financial derivative products, storage swap arrangements, or other private agreements to hedge, manage or reduce gas costs.

<sup>6</sup> One percent (1%) of total annual gas costs, for the purposes of establishing a recovery cap, shall be computed from the most current audited and approved gas costs for the Company in a TRA docket as of the first day of the month, 12 months prior to the first day of the period under audit.

	<u>Amortization</u>	<u>A/</u>	<u>Balance</u>	
Estimated Balance at December 31, 2020			512,780	B/
January 2021 Amortization	14,244		498,536	
February	14,244		484,292	
March	14,244		470,048	
April	14,244		455,804	
May	14,244		441,560	
June	14,244		427,316	
July	14,244		413,072	
August	14,244		398,828	
September	14,244		384,584	
October	14,244		370,340	
November	14,244		356,096	
December	14,244		341,852	
<b>Total/Average</b>	<b>170,928</b>		<b>427,316</b>	
Test Period Balance			<b>38,070</b>	C/
<hr/>				
Deferred Rate Case Cost assuming a separate recovery mechanism	<b>0</b>	D/	<b>0</b>	D/
<hr/>				
Forecast to use	<b>0</b>		<b>0</b>	

A/ Assumes 36-Month Amortization Period.

B/ WHN Rate Base Workpaper RB-65-3.01.

C/ WHN Rate Base Workpaper RB-65-3.02.

D/ Proposal to amortize rate case costs outside of base rates.



**SOURCE:** Bowman Workpaper - 5B DefRateCase Adj, Summary Worksheet

	<b>Company Estimate</b>	<b>WHN Estimate</b>
<b>Projected Rate Case Costs</b>		
<b>Outside Legal Expenses:</b>		
McGuire Woods	500,000	289,000
Waller, Landsden, Dortch & Davis	35,000	20,230
<b>Total Outside Legal Expenses</b>	<b>535,000</b>	<b>309,230</b>
<b>Consultant Expenses</b>		
Alliance Consulting Group - Depreciation Study	82,000	47,400
Scott Madden - ROE Consultant	100,000	57,800
Scott Madden - Annual Mechanism Consultant	60,000	0
Management Applications Consulting - Lead/Lag	75,000	43,350
Management Applications Consulting - CCOSS	75,000	0
<b>Total Consultant Expenses</b>	<b>392,000</b>	<b>148,550</b>
<b>Other Expenses</b>		
Notice Requirement - The Tennessean	15,000	15,000
Company Travel Expenses	40,000	40,000
<b>Total Other Expenses</b>	<b>55,000</b>	<b>55,000</b>
<b>Total Estimated Rate Case Cost</b>	<b>982,000</b>	<b>512,780</b>

NOTE: In CA1-43, the Company was asked to provide the source and support for these costs. In their supplemental response, the Company provided the contracts with each of the consultants. However, with the exception of Alliance Consulting, only hourly rates were provided instead of cost details. This leads me to presume that the Company has no support for its estimated total costs above.

In the Alliance Consulting response (Attachment 1 of CA1-43) the estimated cost was \$39,500. I've increased this amount by 20% to consider data responses and hearing testimony which produces \$47,400 which is 58% of the Company's estimate of \$82,000. As a result, I have reduced all consultant costs to 58% of the Company's estimate.

In the Management Applications Consulting contracts, I have eliminated the costs related to the Class Cost of Service Study in conformance with Consumer Advocate testimony in the last Chattanooga Gas Company rate case because the Commission has never accepted a Class Cost of Service Study and therefore these costs are imprudent and unnecessary.

In the Scott Madden - Annual Mechanism Consultant contract, I have eliminated this cost because it does not pertain to the rate case

Alliance Consulting Depreciation Study Contract	39,500
Increase for data request responses and hearing testimony.	20.00%
<b>Adjusted Estimated Cost</b>	<b>47,400</b>
Company Estimate	82,000
<b>Adjusted Estimate Percent of Company Estimate</b>	<b>57.80%</b>

**SOURCE:** WHN Rate Base Workpaper RB-65-9.00 (Non-Print).

TEST PERIOD	
Date	Amount
Mar-19	82,485
Apr-19	74,987
May-19	67,488
Jun-19	59,989
Jul-19	52,491
Aug-19	44,992
Sep-19	37,493
Oct-19	29,995
Nov-19	22,496
Dec-19	14,997
Jan-20	7,499
Feb-20	0
Mar-20	0
Average	<b>38,070</b>
Amortization	<b>82,485</b>

## PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

## WHN Rate Base Workpapers - Deferred Debits-Environmental Costs - Attrition Period Forecast

Unamortized Balance at December 31, 2020

406,847 A/

Proposed Amortization Period (Months)

36 B/

Monthly Amortization

11,301

## Attrition Period Balance

Month	Beginning Balance	Additions	Amortization	Ending Balance
Dec-20				406,847
Jan-21	406,847	0	11,301	395,546
Feb-21	395,546	0	11,301	384,245
Mar-21	384,245	0	11,301	372,944
Apr-21	372,944	0	11,301	361,643
May-21	361,643	0	11,301	350,342
Jun-21	350,342	0	11,301	339,041
Jul-21	339,041	0	11,301	327,740
Aug-21	327,740	0	11,301	316,439
Sep-21	316,439	0	11,301	305,138
Oct-21	305,138	0	11,301	293,837
Nov-21	293,837	0	11,301	282,536
Dec-21	282,536	0	11,301	271,235
<b>Total/Average</b>		<b>0</b>	<b>135,612</b>	<b>339,041</b>

A/ WHN Rate Base Workpaper RB-65-4.01.

B/ Company Workpaper - 5B DefEnv Adj, &lt;1&gt; Balance Summary.

## PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

## WHN Rate Base Workpapers - Deferred Debits-Environmental Costs - Pro Forma Test Period Balance

Unamortized Balance at March 31, 2019	223,478	A/
Incremental Environmental Cleanup Expenses - 2012 to 2016	209,724	B/
Incremental Environmental Cleanup Expenses - 2017	5,607	B/
<b>Adjusted Balance at March 31, 2019</b>	<b>438,809</b>	

## Test Period Balance:

Month	Beginning Balance	Additions	Amortization	Ending Balance
Mar-19				438,809
Apr-19	438,809	3,091	20,313	421,587 C/
May-19	421,587	315	20,313	401,589 C/
Jun-19	401,589	0	20,313	381,276 C/
Jul-19	381,276	4,913	20,313	365,876 C/
Aug-19	365,876	0	20,313	345,563 C/
Sep-19	345,563	15,454	20,313	340,704 C/
Oct-19	340,704	54,331	20,313	374,722 C/
Nov-19	374,722	17,782	20,313	372,190 C/
Dec-19	372,190	17,325	20,313	369,202 C/
Jan-20	369,202	0	20,313	348,889 C/
Feb-20	348,889	281,401	20,313	609,977 C/
Mar-20	609,977	0	20,313	589,664 C/
<b>Total/Average</b>		<b>394,611</b>	<b>243,756</b>	<b>412,311</b>

## Stub Period Balance:

Month	Beginning Balance	Additions	Amortization	Ending Balance
Mar-20				589,664
Apr-20	589,664	0	20,313	569,351 C/
May-20	569,351	0	20,313	549,038 C/
Jun-20	549,038	0	20,313	528,725 C/
Jul-20	528,725	0	20,313	508,412 C/
Aug-20	508,412	0	20,313	488,099 C/
Sep-20	488,099	0	20,313	467,786 C/
Oct-20	467,786	0	20,313	447,473 C/
Nov-20	447,473	0	20,313	427,160 C/
Dec-20	427,160	0	20,313	406,847 C/
<b>Total/Average</b>		<b>0</b>	<b>182,817</b>	<b>498,255</b>

A/ WHN Rate Base Workpaper RB-65-4.02.

B/ WHN Rate Base Workpaper RB-65-4.03.

C/ Additions per WHN Rate Base Workpaper RB-65-4.03, Amortization per WHN Rate Base Workpaper RB-65-4.02.

WHN Rate Base Workpapers - Deferred Debits-Environmental Costs - Amortized Balance

Annual Amortization 243,760 A/

Monthly Amortization 20,313

B/

	2012	2013	2014	2015	2016	2017	2018	2019	2020
January		1,726,640	1,482,884	1,239,128	995,372	751,616	507,860	264,104	20,348
February	<b>1,950,083</b>	1,706,327	1,462,571	1,218,815	975,059	731,303	487,547	243,791	35
March	1,929,770	1,686,014	1,442,258	1,198,502	954,746	710,990	467,234	223,478	-20,278
April	1,909,457	1,665,701	1,421,945	1,178,189	934,433	690,677	446,921	203,165	
May	1,889,144	1,645,388	1,401,632	1,157,876	914,120	670,364	426,608	182,852	
June	1,868,831	1,625,075	1,381,319	1,137,563	893,807	650,051	406,295	162,539	
July	1,848,518	1,604,762	1,361,006	1,117,250	873,494	629,738	385,982	142,226	
August	1,828,205	1,584,449	1,340,693	1,096,937	853,181	609,425	365,669	121,913	
September	1,807,892	1,564,136	1,320,380	1,076,624	832,868	589,112	345,356	101,600	
October	1,787,579	1,543,823	1,300,067	1,056,311	812,555	568,799	325,043	81,287	
November	1,767,266	1,523,510	1,279,754	1,035,998	792,242	548,486	304,730	60,974	
December	1,746,953	1,503,197	1,259,441	1,015,685	771,929	528,173	284,417	40,661	

A/ WHN Rate Base Workpaper RB-65-4.04.

B/ Company Workpaper - 5B DefEnv Adj, <1> Balance Summary.

SOURCE: Bowman Workpaper - 5B DefRateCase Adj, &lt;1&gt; Balance Summary

Year	Month	Vendor	Amount
<b>Expenditures 6-1-2011 to 12-31-2017</b>			
2012	1	RC ROBERTS CONSULTING INC	394
2012	3	AMEC E&I INC	181
2012	4	STATE OF TENNESSEE	3,000
2012	6	AMEC E&I INC	205
2012	6	AMEC E&I INC	1,010
2012	6	EQ - THE ENVIRONMENTAL QUALITY CO INC	3,312
2012	6	HEPACO INC	43,908
2012	6	PACE ANALYTICAL SERVICES INC	1,832
2013	6	STATE OF TENNESSEE DIV OF REMEDIATION	263
2012	7	EQ - THE ENVIRONMENTAL QUALITY CO INC	687
2012	7	EQ - THE ENVIRONMENTAL QUALITY CO INC	426
2012	7	AMEC E&I INC	342
2012	7	EQ - THE ENVIRONMENTAL QUALITY CO INC	4,376
2012	7	RC ROBERTS CONSULTING INC	538
2011	9	RC ROBERTS CONSULTING INC	436
2011	9	EQ - THE ENVIRONMENTAL QUALITY CO INC	3,260
2011	10	EQ - THE ENVIRONMENTAL QUALITY CO INC	644
2012	10	HEPACO INC	49,113
2011	11	EQ - THE ENVIRONMENTAL QUALITY CO INC	1,960
2011	12	AMEC E&I INC	893
2012	12	RC ROBERTS CONSULTING INC	850
2011	9	HEPACO INC	92,093
<b>Total</b>			<b>209,724</b>
<b>Expenditures 1-1-2017 to 12-31-2018</b>			
2017	5	ANCHOR QEA OF NORTH CAROLINA PLLC	491
2017	10	SHIELD ENGINEERING INC	250
2017		ARCADIS US INC	4,866
<b>Total</b>			<b>5,607</b>
<b>Expenditures 1-1-2019 to 12-31-2020</b>			
2019	5	ERM-SOUTHEAST INC	315
2019	7	ERM-SOUTHEAST INC	4,913
2019	9	ERM-SOUTHEAST INC	15,454
2019	4	ERM-SOUTHEAST INC	1,336
2019	4	SHIELD ENGINEERING INC	1,755
2019	10	ERM-SOUTHEAST INC	25,630
2019	10	ERM-SOUTHEAST INC	28,701
2019	11	ERM-SOUTHEAST INC	17,782
2019	12	ERM-SOUTHEAST INC	17,325
2020	2	ERM-SOUTHEAST INC	281,401
<b>Total</b>			<b>394,611</b>
<b>Grand Total</b>			<b>609,942</b>

SOURCE: WHN Rate Base Workpaper RB-65-9.00 (Non-Print).

TEST PERIOD	
Date	Amount
Mar-19	242,717
Apr-19	202,090
May-19	181,776
Jun-19	171,155
Jul-19	150,842
Aug-19	130,528
Sep-19	4,256,212
Oct-19	4,235,898
Nov-19	4,215,585
Dec-19	4,391,127
Jan-20	4,370,814
Feb-20	4,350,500
Mar-20	4,169,375
Average	<b>2,389,894</b>

**NOTE:** It appears that the Company has directly expensed much of their environmental costs instead of deferring and amortizing. It also appears from the activity above that this error was discovered in September 2019. In the rate case, the Company has attempted to correct this error by discarding the actual amounts per books and instead replacing it with pro forma calculations.

The Company was originally allowed to defer environmental costs in Docket 92-16160.  
See CA1-85 for a copy of this Order (Note dissent by Commissioner Hewlett).

In Docket 11-00144, the Company was allowed to continue amortizing these costs at \$243,760 (\$20,313) in the last rate case per year.  
See Paragraph 14b of the Commission Order in Docket 11-00144 from CA1-85 for these details.

**243,760**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086****WHN Rate Base Workpapers - Deferred Debits-Pension Costs - Attrition Period Forecast**

Unamortized Balance at December 31, 2020	11,862,974	<b>A/</b>
Proposed Amortization Period (Months)	60	<b>B/</b>
<b>Monthly Amortization</b>	<b>197,716</b>	

**Attrition Period Balance**

Month	Beginning Balance	Additions	Amortization	Ending Balance
Dec-20				11,862,974
Jan-21	11,862,974	0	197,716	11,665,258
Feb-21	11,665,258	0	197,716	11,467,542
Mar-21	11,467,542	0	197,716	11,269,826
Apr-21	11,269,826	0	197,716	11,072,110
May-21	11,072,110	0	197,716	10,874,394
Jun-21	10,874,394	0	197,716	10,676,678
Jul-21	10,676,678	0	197,716	10,478,962
Aug-21	10,478,962	0	197,716	10,281,246
Sep-21	10,281,246	0	197,716	10,083,530
Oct-21	10,083,530	0	197,716	9,885,814
Nov-21	9,885,814	0	197,716	9,688,098
Dec-21	9,688,098	0	197,716	9,490,382
<b>Total/Average</b>		<b>0</b>	<b>2,372,592</b>	<b>10,676,678</b>

A/ WHN Rate Base Workpaper RB-65-5.01.

B/ WHN Proposed Period to keep amortization approximately equal to current \$223,862 amount.



To Calculate Consumer Advocate Deferred Debit Balances

<u>Item</u>		<u>Piedmont Deferred Debit Request - Attrition Period</u>	<u>Consumer Advocate Adjustment</u>		<u>Consumer Advocate Balance - Attrition Period</u>
Deferred Debits	A/	\$ 9,885,818	\$ (10,062,456)	B/	\$ (176,638)

A/ Piedmont WorkingCapital\_Adj file/ Tab D  
B/ Update reference when schedules are finalized.

Piedmont Natural Gas Company, Inc.  
 TN Deferred Pension Account -A/C 018617 (2012-2016)/ A/C 0182627 & 0182300 (2017 - current)  
 Defined Benefit Pension Attrition Balance  
 Test Period: 12 Months Ending March 31, 2020  
 Attrition Period: 12 Months Ending December 31, 2021

Workpaper DND - RB- 1.2

TN Deferred Pension	A/ Amounts Per Piedmont		Consumer Advocate Adjustment		Regulatory Amortization	Consumer Advocate Attrition Period 5 (Prior Balance - Column 4)
	Regulatory Amortization	Balance				
	1	2			4	
March 31, 2020 (end of Test Period)		\$ 13,877,738	C/ \$ (12,074,947)			\$ 1,802,792
April 30, 2020	\$ (223,862)	\$ 13,653,876		D/ \$ (223,862)	\$ (223,862)	\$ 1,578,930
May 31, 2020	\$ (223,862)	\$ 13,430,014			\$ (223,862)	\$ 1,355,068
June 30, 2020	\$ (223,862)	\$ 13,206,152			\$ (223,862)	\$ 1,131,206
July 31, 2020	\$ (223,862)	\$ 12,982,291			\$ (223,862)	\$ 907,344
August 31, 2020	\$ (223,862)	\$ 12,758,429			\$ (223,862)	\$ 683,482
September 30, 2020	\$ (223,862)	\$ 12,534,567			\$ (223,862)	\$ 459,620
October 31, 2020	\$ (223,862)	\$ 12,310,705			\$ (223,862)	\$ 235,758
November 30, 2020	\$ (223,862)	\$ 12,086,843			\$ (223,862)	\$ 11,896
December 31, 2020	\$ (223,862)	\$ 11,862,981			\$ (223,862)	\$ (211,966)
January 31, 2021	\$ (329,527)	\$ 11,533,454		E/ \$ 5,888	\$ 5,888	\$ (206,078)
February 28, 2021	\$ (329,527)	\$ 11,203,926			\$ 5,888	\$ (200,190)
March 31, 2021	\$ (329,527)	\$ 10,874,399			\$ 5,888	\$ (194,302)
April 30, 2021	\$ (329,527)	\$ 10,544,872			\$ 5,888	\$ (188,414)
May 31, 2021	\$ (329,527)	\$ 10,215,345			\$ 5,888	\$ (182,526)
June 30, 2021	\$ (329,527)	\$ 9,885,818			\$ 5,888	\$ (176,638)
July 31, 2021	\$ (329,527)	\$ 9,556,290			\$ 5,888	\$ (170,750)
August 31, 2021	\$ (329,527)	\$ 9,226,763			\$ 5,888	\$ (164,862)
September 30, 2021	\$ (329,527)	\$ 8,897,236			\$ 5,888	\$ (158,974)
October 31, 2021	\$ (329,527)	\$ 8,567,709			\$ 5,888	\$ (153,086)
November 30, 2021	\$ (329,527)	\$ 8,238,181			\$ 5,888	\$ (147,198)
December 31, 2021 (end of Attrition Period)	\$ (329,527)	\$ 7,908,654			\$ 5,888	\$ (141,310)
<b>13-Month Average: Dec 2020 - Dec 2021</b>		<b>B/ \$ 9,885,818</b>				<b>\$ (176,638)</b>

A/ Piedmont File 5B\_DefPensionAmort/Attrition Balance Tab. Balances Carried forward to Piedmont proposed Rate Base

B/ Piedmont Balance Transferred to Piedmont Working Capital Adjustment Tab D

C/ Deferred Pension Expense and Pension Deferrals CA Workpapers

D/ Piedmont File 5B\_DefPensionAmort Adj/Summary Tab, Note (a)

E/ The Monthly portion of the annual credit (\$70,655) computed in CA Deferred Pension Expense Workpaper

**Piedmont Natural Gas Company, Inc.**

**Docket No. 20-00086**

**Workpaper DND - RB-1.3**

**To Calculate Consumer Advocate Deferred Pension Asset**

			<b>Piedmont Funding Request</b>	<b>Consumer Advocate Adjustment</b>	<b>Consumer Advocate Eligible Funding</b>
FY	2012	A/	\$ 3,356,000	\$ (3,356,000)	B/ 0
FY	2013	"	\$ 3,590,000	\$ (3,590,000)	0
FY	2014	"	\$ 1,807,000	\$ (1,807,000)	0
FY	2015	"	\$ 1,716,000	\$ (1,716,000)	0
FY	2016	"	\$ 1,734,000	\$ (1,734,000)	0
FY	2017	"	\$ 1,898,600	\$ -	\$ 1,898,600
FY	2018	"	\$ -	\$ -	\$ -
FY	2019	"	\$ -	\$ 128,053	\$ 128,053
FY	2020	"	\$ -	\$ -	
TOTAL			\$ 14,101,600	\$ (12,074,947) C/	\$ 2,026,653
			<b>Contributions necessary to aovide PBGC Insurance Premiums</b>	<b>Tennessee Allocation Percentage</b>	<b>Eligible Contributions</b>
	2017	B/	\$ 11,000,000	17.00%	D/ \$ 1,870,000
	2018	"	\$ -	17.00%	\$ -
	2019	"	\$ 753,255	17.00%	\$ 128,053

A/ See Piedmont Schedule 5B\_DefPensionAmort

B/ Response to Consumer Advocate Request 2-7

C/ Transferred to DND RB-1.2

D/ Approximates Value Requested by Piedmont; therefore no adjustment necessary

Piedmont Natural Gas Company, Inc.  
 TN Deferred Pension Account -A/C 018617 (2012-2016)/ A/C 0182627 & 0182300 (2017 - current)  
 Defined Benefit Pension Summary Worksheet

Workpaper DND - RB-1.4

Line No.		Piedmont Request	Consumer Advocate Adjustment	Consumer Advocate Attrition Period
1	TN Deferred Pension Account Balance as of 2/29/2012 as approved in Docket No. 11-00144	\$ 21,490,746		\$ 21,490,746
2	Less: Total Amortized Expenses from 3/1/2012-3/31/2020 (a)	\$ 21,714,608		\$ 21,714,608
3	Plus: Incremental Pension Funding , as deferred (b)	\$ 14,101,600	\$ (12,074,947)	\$ 2,026,653 A/
4	Account Balance as of March 31, 2020 (Line 1 - Line 2 + Line 3)	\$ 13,877,738	\$ (12,074,947)	\$ 1,802,792
5	Less: Total Amortized Expenses from 4/1/2020 - 12/31/2020 (f)	\$ 2,014,757		\$ 2,014,757
6	Unamortized Account Balance as of January 1, 2021 (Line 4 - Line 5)	\$ 11,862,981		\$ (211,966)
7	Proposed amortization period, in years	3		3
8	Annual amortization amount (Line 6 / Line 7)	\$ 3,954,327	\$ (4,024,982)	\$ (70,655)

Notes (Piedmont)

- (a) Amortized expense recovery of \$223,861.94/month (\$2,686,343 annual amortization) as allowed per Docket No. 11-00144 Paragraph 14a:  
 \$223,861.94/month for 97 months (3/1/2012 - 3/31/2020) = \$ 21,714,608
- (b) These expenses have been deferred pursuant to the regulatory accounting treatment granted in Docket No. 96-00977 (orders dated 2/17/1997 & 6/9/1997), and as upheld though subsequent TRA approvals of deferred pension expense recovery ordered in Docket Nos. 99-00994 and 03-00313.
- (c) No contributions were made to the plan on behalf of Piedmont during 2018.  
 Effective January 1, 2018, Duke restructured its qualified non-contributory defined benefit retirement plans (including the acquired Piedmont plan) into a single active plan.
- (d) No deferral was made to the regulatory asset during 2019.
- (e) No contributions are expected for fiscal year 2020.
- (f) Amortized annual expense recovery of \$223,861.94, as allowed per Docket No. 11-00144 Paragraph 14a:  
 \$223,861.94/month for 9 months (4/1/2020 - 12/31/2020) = \$ 2,014,757

A/ See Pension Deferrals Worksheet

Piedmont Natural Gas Company, Inc.  
 TN Deferred Pension Account -A/C 018617 (2012-2016)/ A/C 0182627 & 0182300 (2017 - current)  
 Defined Benefit Pension Summary Worksheet

Workpaper DND - RB-1.5

Line No.			Piedmont Request	Consumer Advocate Adjustment	Consumer Advocate Attrition Period
1	TN Deferred Pension Account Balance as of 2/29/2012 as approved in Docket No. 11-00144	A/	\$ 21,490,746		\$ 21,490,746
2	Less: Total Amortized Expenses from 3/1/2012-3/31/2020 (a)	A/	\$ 21,714,608		\$ 21,714,608
3	Plus: Incremental Pension Funding , as deferred (b)	A/	\$ 14,101,600	\$ (12,074,947) B/	\$ 2,026,653
4	Account Balance as of March 31, 2020 (Line 1 - Line 2 + Line 3)		\$ 13,877,738	\$ (12,074,947)	\$ 1,802,792
5	Less: Total Amortized Expenses from 4/1/2020 - 12/31/2020 (f)	A/	\$ 2,014,757		\$ 2,014,757
6	Unamortized Account Balance as of January 1, 2021 (Line 4 - Line 5)		\$ 11,862,981		\$ (211,966)
7	Proposed amortization period, in years		3		3
8	Annual amortization amount (Line 6 / Line 7)		\$ 3,954,327	\$ (4,024,982)	\$ (70,655)

Notes (Piedmont)

(a) Amortized expense recovery of \$223,861.94/month (\$2,686,343 annual amortization) as allowed per Docket No. 11-00144 Paragraph 14a:  
 \$223,861.94/month for 97 months (3/1/2012 - 3/31/2020) = \$ 21,714,608

(b) These expenses have been deferred pursuant to the regulatory accounting treatment granted in Docket No. 96-00977 (orders dated 2/17/1997 & 6/9/1997), and as upheld though subsequent TRA approvals of deferred pension expense recovery ordered in Docket Nos. 99-00994 and 03-00313.

(c) No contributions were made to the plan on behalf of Piedmont during 2018.  
 Effective January 1, 2018, Duke restructured its qualified non-contributory defined benefit retirement plans (including the acquired Piedmont plan) into a single active plan.

(d) No deferral was made to the regulatory asset during 2019.

(e) No contributions are expected for fiscal year 2020.

(f) Amortized annual expense recovery of \$223,861.94, as allowed per Docket No. 11-00144 Paragraph 14a:  
 \$223,861.94/month for 9 months (4/1/2020 - 12/31/2020) = \$ 2,014,757

A/ Piedmont Exhibit 5B\_DefPensionAmort Adj

B/ See Workpaper DND-RB-1.2

Unmortized Balance at March 31, 2019	2,462,476	A/
Incremental Pension Funding - 2012 to 2020	14,101,600	B/
<b>Adjusted Balance at March 31, 2019</b>	<b>16,564,076</b>	

## Test Period Balance:

Month	Beginning Balance	Funding	Amortization	Ending Balance
Mar-19				16,564,076
Apr-19	16,564,076	0	223,862	16,340,214 C/
May-19	16,340,214	0	223,862	16,116,352 C/
Jun-19	16,116,352	0	223,862	15,892,490 C/
Jul-19	15,892,490	0	223,862	15,668,628 C/
Aug-19	15,668,628	0	223,862	15,444,766 C/
Sep-19	15,444,766	0	223,862	15,220,904 C/
Oct-19	15,220,904	0	223,862	14,997,042 C/
Nov-19	14,997,042	0	223,862	14,773,180 C/
Dec-19	14,773,180	0	223,862	14,549,318 C/
Jan-20	14,549,318	0	223,862	14,325,456 C/
Feb-20	14,325,456	0	223,862	14,101,594 C/
Mar-20	14,101,594	0	223,862	13,877,732 C/
<b>Total/Average</b>		<b>0</b>	<b>2,686,344</b>	<b>15,220,904</b>

## Stub Period Balance:

Month	Beginning Balance	Additions	Amortization	Ending Balance
Mar-20				13,877,732
Apr-20	13,877,732	0	223,862	13,653,870 C/
May-20	13,653,870	0	223,862	13,430,008 C/
Jun-20	13,430,008	0	223,862	13,206,146 C/
Jul-20	13,206,146	0	223,862	12,982,284 C/
Aug-20	12,982,284	0	223,862	12,758,422 C/
Sep-20	12,758,422	0	223,862	12,534,560 C/
Oct-20	12,534,560	0	223,862	12,310,698 C/
Nov-20	12,310,698	0	223,862	12,086,836 C/
Dec-20	12,086,836	0	223,862	11,862,974 C/
<b>Total/Average</b>		<b>0</b>	<b>2,014,758</b>	<b>12,870,353</b>

A/ WHN Rate Base Workpaper RB-65-5.02.

B/ WHN Rate Base Workpaper RB-65-5.03.

C/ Amortization per WHN Rate Base Workpaper RB-65-5.02.

WHN Rate Base Workpapers - Deferred Debits-Pension Costs - Amortized Balance

Annual Amortization 2,686,343 A/

Monthly Amortization 223,862

B/

	2012	2013	2014	2015	2016	2017	2018	2019	2020
January		19,028,264	16,341,920	13,655,576	10,969,232	8,282,888	5,596,544	2,910,200	223,856
February	<b>21,490,746</b>	18,804,402	16,118,058	13,431,714	10,745,370	8,059,026	5,372,682	2,686,338	-6
March	21,266,884	18,580,540	15,894,196	13,207,852	10,521,508	7,835,164	5,148,820	2,462,476	-223,868
April	21,043,022	18,356,678	15,670,334	12,983,990	10,297,646	7,611,302	4,924,958	2,238,614	
May	20,819,160	18,132,816	15,446,472	12,760,128	10,073,784	7,387,440	4,701,096	2,014,752	
June	20,595,298	17,908,954	15,222,610	12,536,266	9,849,922	7,163,578	4,477,234	1,790,890	
July	20,371,436	17,685,092	14,998,748	12,312,404	9,626,060	6,939,716	4,253,372	1,567,028	
August	20,147,574	17,461,230	14,774,886	12,088,542	9,402,198	6,715,854	4,029,510	1,343,166	
September	19,923,712	17,237,368	14,551,024	11,864,680	9,178,336	6,491,992	3,805,648	1,119,304	
October	19,699,850	17,013,506	14,327,162	11,640,818	8,954,474	6,268,130	3,581,786	895,442	
November	19,475,988	16,789,644	14,103,300	11,416,956	8,730,612	6,044,268	3,357,924	671,580	
December	19,252,126	16,565,782	13,879,438	11,193,094	8,506,750	5,820,406	3,134,062	447,718	

A/ WHN Rate Base Workpaper RB-65-5.04.

B/ Company Workpaper - 5B DefPensionAmort, Attrition Balance.

SOURCE: Bowman Workpaper - 5B DefPensionAmort, Attrition Balance

Fiscal Year	Date	Description	Amount
2013	Nov-12	To defer TN portion (16.78% - current 3-state net plant % allocation) of pension funding payment in accordance with the TRA Order 96-00977 dated February 19, 1997. The funding payment of \$20,000,000 was made in November 1, 2012.	3,356,000
2014	Nov-13	To defer TN portion (17.95% - current 3-state net plant % allocation) of pension funding payment in accordance with the TRA Order 96-00977 dated February 19, 1997. The funding payment of \$20,000,000 was made in November 2013.	3,590,000
2015	Nov-14	To defer TN portion (18.07% - current 3-state net plant % allocation) of \$10m pension funding payment in accordance with the TRA Order 96-00977 dated February 19, 1997. The funding payment of \$10,000,000 was made in November 2014 to A/C#12801.	1,807,000
2016	Nov-15	To defer TN portion (17.16% - current 3-state net plant % allocation) of \$10m pension funding payment in accordance with the TRA Order 96-00977 dated February 19, 1997. The funding payment of \$10,000,000 was made in November 2015 to A/C#12801.	1,716,000
2016	Dec-16	To defer TN portion (17.34% - current 3-state composite % allocation) of \$10m pension funding payment in accordance with the TRA Order 96-00977 dated February 19, 1997. The funding payment of \$10,000,000 was made in December 2016 to A/C#12801.	1,734,000
2017	Dec-17	To defer TN portion (17.26% -	1,898,600
<b>Total Deferred</b>			<b>14,101,600</b>



SOURCE: WHN Rate Base Workpaper RB-65-9.00 (Non-Print).

TEST PERIOD	
Date	Amount
Mar-19	13,877,738
Apr-19	13,653,876
May-19	13,430,014
Jun-19	13,206,152
Jul-19	12,982,290
Aug-19	12,758,428
Sep-19	15,220,910
Oct-19	14,997,048
Nov-19	14,773,186
Dec-19	14,549,324
Jan-20	14,325,462
Feb-20	14,549,324
Mar-20	14,325,462
Average	<u>14,049,940</u>

From the Commission Order in Docket 11-00144:

14. Amortization of Deferred Costs. Embedded within the cost of service described above, Piedmont and Consumer Advocate also agree that it is appropriate to provide for the 8-year amortization of certain deferred regulatory assets and rate case expense in the following annual amounts:
- a. \$2,686,343 in deferred defined benefit pension costs, as authorized by Authority Order dated June 9, 1997 in Docket No. 96-00977;
  - b. \$243,760 in deferred environmental clean-up costs, as authorized by Tennessee Public Service Commission Order dated December 21, 1992 in Docket No. 92-16160;
  - c. \$119,963 in deferred flood response costs as authorized by Authority Order dated November 10, 2010 in Docket No. 10-00185; and
  - d. \$89,983 in rate case expense incurred by Piedmont in conjunction with

Annual Amortization 2,686,343

Monthly Amortization 223,862

**NOTE:** It appears that the Company has not appropriately deferred and then amortized their pension costs. In the rate case, the Company has attempted to correct this error by discarding the actual amounts per books and instead replacing it with pro forma calculations.

SOURCE: WHN Rate Base Workpaper RB-65-9.00 (Non-Print).

TEST PERIOD	
Date	Amount
Mar-19	109,966
Apr-19	99,969
May-19	89,972
Jun-19	79,975
Jul-19	69,978
Aug-19	59,981
Sep-19	49,984
Oct-19	39,988
Nov-19	29,991
Dec-19	19,994
Jan-20	9,997
Feb-20	0
Mar-20	0
Average	<u>50,753</u>
Amortization	<u>109,966</u>

From the Commission Order in Docket 11-00144:

14. Amortization of Deferred Costs. Embedded within the cost of service described above, Piedmont and Consumer Advocate also agree that it is appropriate to provide for the 8-year amortization of certain deferred regulatory assets and rate case expense in the following annual amounts:
- a. \$2,686,343 in deferred defined benefit pension costs, as authorized by Authority Order dated June 9, 1997 in Docket No. 96-00977;
  - b. \$243,760 in deferred environmental clean-up costs, as authorized by Tennessee Public Service Commission Order dated December 21, 1992 in Docket No. 92-16160;
  - c. \$119,963 in deferred flood response costs as authorized by Authority Order dated November 10, 2010 in Docket No. 10-00185; and
  - d. \$89,983 in rate case expense incurred by Piedmont in conjunction with

Annual Amortization 119,963

Monthly Amortization 9,997

**NOTE:** It appears that the Company has not appropriately deferred and then amortized their pension costs. In the rate case, the Company has attempted to correct this error by discarding the actual amounts per books and instead replacing it with pro forma calculations.



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**  
**WHN Rate Base Workpapers - Prepaid Insurance**

Accounts	Description
165075	Interco Prepaid Insu SchM
165100	Unexpired Insurance

165075-InterCompany						
Date	Beginning Balance	Premium	Amortization	Ending Balance	Tennessee Allocation	Tennessee Amount
Dec-20				-2	15.67%	0 C/
Jan-21	-2	1,349,961	112,497	1,237,462	15.67%	193,910 C/
Feb-21	1,237,462	0	112,497	1,124,966	15.67%	176,282 C/
Mar-21	1,124,966	0	112,497	1,012,469	15.67%	158,654 C/
Apr-21	1,012,469	0	112,497	899,972	15.67%	141,026 C/
May-21	899,972	0	112,497	787,475	15.67%	123,397 C/
Jun-21	787,475	0	112,497	674,979	15.67%	105,769 C/
Jul-21	674,979	0	112,497	562,482	15.67%	88,141 C/
Aug-21	562,482	0	112,497	449,985	15.67%	70,513 C/
Sep-21	449,985	0	112,497	337,488	15.67%	52,884 C/
Oct-21	337,488	0	112,497	224,992	15.67%	35,256 C/
Nov-21	224,992	0	112,497	112,495	15.67%	17,628 C/
Dec-21	112,495	0	112,497	-2	15.67%	0 C/
Average		A/	1,349,961	571,135	B/	89,497
Annual Amortization						211,539

165100-Unexpired						
Date	Beginning Balance	Premium	Amortization	Ending Balance	Tennessee Allocation	Tennessee Amount
Dec-20				336,819	15.67%	52,780 C/
Jan-21	336,819	0	16,039	320,780	15.67%	50,266 C/
Feb-21	320,780	0	16,039	304,741	15.67%	47,753 C/
Mar-21	304,741	0	16,039	288,702	15.67%	45,240 C/
Apr-21	288,702	0	16,039	272,663	15.67%	42,726 C/
May-21	272,663	0	16,039	256,624	15.67%	40,213 C/
Jun-21	256,624	0	16,039	240,585	15.67%	37,700 C/
Jul-21	240,585	0	16,039	224,546	15.67%	35,186 C/
Aug-21	224,546	0	16,039	208,507	15.67%	32,673 C/
Sep-21	208,507	0	16,039	192,468	15.67%	30,160 C/
Oct-21	192,468	0	16,039	176,429	15.67%	27,646 C/
Nov-21	176,429	0	16,039	160,390	15.67%	25,133 C/
Dec-21	160,390	0	16,039	144,351	15.67%	22,620 C/
Average			192,468	240,585	B/	37,700
Annual Amortization						30,160

Total Balance 127,197

Total Amortization 241,699

A/ WHN Rate Base Workpaper RB-70-2.00.

B/ WHN Rate Base Workpaper RB-100-1.00.

C/ Beginning Balances and Monthly Amortization Rates per WHN Rate Base Workpaper RB-70-3.00.

The Company forecasted its estimated premiums for 2021 to be as follows:

Month	Type	Premium
01/31/21	Property	343,370 A/
02/28/21	Liability	1,268,225 A/
	<b>Total</b>	<b><u>1,611,595</u></b>

In CA2-153, I requested the support for this premium and the Company responded as follows:

**RESPONSE:** The premium forecasts were developed by the Company's Corporate Insurance department using the latest market information available at the time of the estimate and with consultations with our external insurance experts. These costs are estimates by the Company and actual premium costs can only be known with complete certainty when the final exposure and loss information is received at the end of the year.

Since this response was incomplete, the Company provided a supplemental response to CA2-153. However, this response referred to information without any source or support.

As a result, I've determined that the Company's 2021 premium estimate cannot be used.

Instead, I've decided to use the actual January 2020 premium of

**1,349,961 B/**

A/ Contained within Bowman Workpaper - WorkingCapital Adj, E.

B/ WHN Rate Base Workpaper RB-70-9.00 (Non-Print).

SOURCE: WHN Rate Base Workpaper RB-65-9.00 (Non-Print).

TEST PERIOD		TEST PERIOD		Total	Tennessee Allocation	Tennessee Amount
165075-InterCompany		165100-Unexpired				
Date	Amount	Date	Amount			
Mar-19	1,219,745	Mar-19	673,639	1,893,384	15.80%	299,155
Apr-19	1,084,218	Apr-19	657,600	1,741,818	15.80%	275,207
May-19	948,691	May-19	641,561	1,590,252	15.80%	251,260
Jun-19	813,164	Jun-19	625,522	1,438,686	15.80%	227,312
Jul-19	677,636	Jul-19	609,483	1,287,119	15.80%	203,365
Aug-19	542,109	Aug-19	593,444	1,135,553	15.80%	179,417
Sep-19	406,582	Sep-19	577,405	983,987	15.80%	155,470
Oct-19	271,055	Oct-19	561,366	832,421	15.80%	131,523
Nov-19	135,527	Nov-19	545,326	680,853	15.80%	107,575
Dec-19	0	Dec-19	529,287	529,287	15.80%	83,627
Jan-20	1,349,961	Jan-20	513,248	1,863,209	15.65%	291,592
Feb-20	1,227,238	Feb-20	497,209	1,724,447	15.65%	269,876
Mar-20	1,104,514	Mar-20	481,170	1,585,684	15.65%	248,160
Average	752,342	Average	577,405	1,329,746		209,503
Monthly Am	122,724	Monthly Am	16,039	138,763		21,716

A/

STUB PERIOD		
165075-InterCompany		
Date	Amortization	Amount
Mar-20		1,104,514
Apr-20	122,724	981,790
May-20	122,724	859,066
Jun-20	122,724	736,342
Jul-20	122,724	613,618
Aug-20	122,724	490,894
Sep-20	122,724	368,170
Oct-20	122,724	245,446
Nov-20	122,724	122,722
Dec-20	122,724	-2
Total	<b>1,104,516</b>	

STUB PERIOD		
165100-Unexpired		
Date	Amortization	Amount
Mar-20		481,170
Apr-20	16,039	465,131
May-20	16,039	449,092
Jun-20	16,039	433,053
Jul-20	16,039	417,014
Aug-20	16,039	400,975
Sep-20	16,039	384,936
Oct-20	16,039	368,897
Nov-20	16,039	352,858
Dec-20	16,039	336,819
Total	<b>144,351</b>	

A/ WHN Rate Base Workpaper RB-100-1.00.

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Prepaid Insurance - Pivot Table**

**RB-70-9.00 (Non-Print)**

11/29/20 12:30 PM



<b>Accounts</b>	<b>Description</b>
128716	Prefunded Pension (major)
128719	Prefunded OPEB
182312	OPEB FAS 106 - Medical
182318	Other Reg Assets - Gen Acct
182801	Pension Post Retire P Acctg - FAS87 NQ
186171	eg Asset FAS 158 OCI NQ
186806	Pension settlement charges
228300	Accum Provision - OPEB
228301	Accum Provision - PNG SERP
228303	Accum Provision - Dir Retire
228314	OPEB NonCur Liab - Life
228315	OPEB NonCur Liab - Medical
228325	Schm Post Emp FAS 112
253275	Pension Liability - FAS 87 NQ
253630	Schm Exec Cash Bal Plan
254689	Reg Liability - OPEB
254690	OPEB regulatory liability

<b>Date</b>	<b>Assets</b>	<b>A/</b>	<b>Liabilities</b>	<b>B/</b>	<b>Net Assets</b>	<b>Tennessee Allocation</b>	<b>C/</b>	<b>Tennessee Amount</b>
Mar-19	124,635,037		3,863,721		120,771,316	15.80%		19,081,868
Apr-19	125,308,677		3,392,017		121,916,660	15.80%		19,262,832
May-19	125,982,317		3,428,858		122,553,459	15.80%		19,363,447
Jun-19	127,437,793		5,814,289		121,623,504	15.80%		19,216,514
Jul-19	128,039,900		5,635,067		122,404,833	15.80%		19,339,964
Aug-19	128,642,007		5,454,880		123,187,127	15.80%		19,463,566
Sep-19	131,222,740		5,956,271		125,266,469	15.80%		19,792,102
Oct-19	131,693,549		5,724,547		125,969,002	15.80%		19,903,102
Nov-19	132,164,359		7,161,070		125,003,289	15.80%		19,750,520
Dec-19	132,032,455		5,640,063		126,392,392	15.80%		19,969,998
Jan-20	132,505,609		5,535,012		126,970,597	15.65%		19,870,898
Feb-20	132,950,889		5,441,127		127,509,762	15.65%		19,955,278
Mar-20	137,053,762		8,953,499		128,100,263	15.65%		20,047,691
<b>Average</b>	<b>129,974,546</b>		<b>5,538,494</b>		<b>124,436,052</b>			<b>19,616,752</b>

**NOTE:** It has been decided by CA Staff that it is inappropriate to include these amounts in a rate case.

**Test Period** **0 D/**

**Attrition Period** **0 D/**

A/ WHN Rate Base Workpaper RB-75-3.00.

B/ WHN Rate Base Workpaper RB-75-4.00.

C/ WHN Rate Base Workpaper RB-100-1.00.

D/ WHN Rate Base Workpaper RB-75-2.00.

It is not clear at all to me that these amounts would be included in Rate Base/Working Capital.

In all likelihood, this funding has been turned over to a 3rd-party actuary, so it is unclear why these amounts are on the books.

It appears instead that that Piedmont Staff has done a "deep dive" into their trial balance and just pulled out all accounts to place into the rate case without any consideration of what these accounts represent or whether they belong in the rate case.

The Company has offered no testimony on the inclusion of these accounts in the current case.

In the prior case (Docket 11-00144) the Company only included the OPEB liability accounts as a reduction to rate base. Since these amounts were a reduction to rate base, they were accepted by the Consumer Advocate without any discussion of their appropriateness.

There is no comparable adjustment for this type of item that I can find in either the last Atmos rate case (14-00146) or the last Chattanooga Gas rate case (18-00017).

Tennessee already includes the cost of pensions as a deferred debit - See WHN Rate Base workpaper RB-65-1.00.

Since Tennessee has already included the cost of pension expense in rates (through deferred debits), I've determined that it is inappropriate to include the net cumulative funding of the assets and liabilities in rate base.

Therefore, this category should be excluded from rate base.

<b>Test Period Amount</b>	<b>0</b>
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<b>Attrition Period Amount</b>	<b>0</b>
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## WHN Rate Base Workpapers - Pension - Asset Summary

SOURCE: WHN Rate Base Workpaper RB-75-9.00 (Non-Print).

TEST PERIOD ASSET ACCOUNTS								
Date	128716	128719	182312	182318	182801	186171	186806	Total
Mar-19	42,383,227	0	0	81,159,730	96,830	995,250	0	124,635,037
Apr-19	42,820,811	0	0	81,401,937	96,225	989,704	0	125,308,677
May-19	43,258,395	0	0	81,644,144	95,620	984,158	0	125,982,317
Jun-19	51,879,902	0	0	71,048,552	95,015	978,612	3,435,712	127,437,793
Jul-19	52,423,068	0	0	71,143,009	94,410	973,066	3,406,347	128,039,900
Aug-19	52,966,234	0	0	71,237,466	93,805	967,520	3,376,982	128,642,007
Sep-19	33,814,270	0	929,016	88,933,042	93,200	961,974	6,491,238	131,222,740
Oct-19	34,360,221	0	929,016	88,920,285	92,595	956,428	6,435,004	131,693,549
Nov-19	34,906,172	0	929,016	88,907,528	91,990	950,882	6,378,771	132,164,359
Dec-19	42,834,463	0	0	80,201,351	-124,929	1,326,126	7,795,444	132,032,455
Jan-20	43,307,617	0	0	80,201,351	-124,929	1,326,126	7,795,444	132,505,609
Feb-20	43,892,745	0	0	80,214,619	-123,189	1,308,916	7,657,798	132,950,889
Mar-20	44,421,886	3,643,656	0	80,221,253	-122,319	1,300,311	7,588,975	137,053,762
<b>Average</b>	<b>43,328,385</b>	<b>280,281</b>	<b>214,388</b>	<b>80,402,636</b>	<b>27,256</b>	<b>1,078,390</b>	<b>4,643,209</b>	<b>129,974,546</b>

**Note:** For Account 182318 - Other Reg Assets - Gen Acct, Company uses Total Company deferral instead of 3-State Deferral.  
Total Company deferral consists of Tennessee + 3-State.

Account	Title
128716	Prefunded Pension (major)
128719	Prefunded OPEB
182312	OPEB FAS 106 - Medical
182318	Other Reg Assets - Gen Acct
182801	Pension Post Retire P Acctg - FAS87 NQ
186171	eg Asset FAS 158 OCI NQ
186806	Pension settlement charges

SOURCE: WHN Rate Base Workpaper RB-75-9.00 (Non-Print).

TEST PERIOD LIABILITY ACCOUNTS											
Date	228300	228301	228303	228314	228315	228325	253275	253630	254689	254690	Total
Mar-19	214,748	-25,535	3,299,648	0	710,140	-469,625	0	128,585	5,760	0	3,863,721
Apr-19	219,755	-25,535	3,274,017	0	659,811	-724,840	0	138,845	-150,036	0	3,392,017
May-19	219,755	-25,535	3,248,386	0	623,988	-793,704	312,695	149,105	-305,832	0	3,428,858
Jun-19	219,755	-25,535	3,222,755	0	582,291	1,804,591	312,695	159,365	-461,628	0	5,814,289
Jul-19	219,755	-25,535	3,197,123	0	546,727	1,832,101	312,695	169,625	-617,424	0	5,635,067
Aug-19	217,714	-25,535	3,171,492	0	508,995	1,872,051	303,498	179,885	-773,220	0	5,454,880
Sep-19	217,714	-25,535	3,145,861	0	477,725	1,656,060	294,301	190,145	0	0	5,956,271
Oct-19	217,714	-25,535	3,120,230	0	438,586	1,662,233	266,710	200,405	-155,796	0	5,724,547
Nov-19	217,714	-25,535	3,508,106	0	353,420	2,949,939	257,513	211,505	-311,592	0	7,161,070
Dec-19	-56,311	-25,535	3,441,175	0	-3,550,612	2,831,350	248,316	5,413	2,746,267	0	5,640,063
Jan-20	-56,311	-25,535	3,421,544	0	-3,785,078	2,989,593	239,119	5,413	2,746,267	0	5,535,012
Feb-20	-56,311	-25,535	3,384,489	276	-3,729,029	3,196,348	229,923	5,775	2,434,675	516	5,441,127
Mar-20	-56,311	-25,535	3,356,174	49,672	-240,327	3,363,491	220,726	5,956	2,278,879	774	8,953,499
Average	133,798	-25,535	3,291,615	3,842	-492,566	1,705,353	230,630	119,232	572,025	99	5,538,494

**Note:** For Account 228300 - Accumulated Provision OPEB, Company uses Total Company deferral instead of 3-State Deferral.

Total Company deferral consists of North Carolina + Tennessee + 3-State.

Account	Title
228300	Accum Provision - OPEB
228301	Accum Provision - PNG SERP
228303	Accum Provision - Dir Retire
228314	OPEB NonCur Liab - Life
228315	OPEB NonCur Liab - Medical
228325	Schm Post Emp FAS 112
253275	Pension Liability - FAS 87 NQ
253630	Schm Exec Cash Bal Plan
254689	Reg Liability - OPEB
254690	OPEB regulatory liability



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**  
**WHN Rate Base Workpapers - Fleets & Overhead**

<b>Accounts</b>	<b>Description</b>
186120	Misc. Wip - Fp Dist. Wids
803290	Miscellaneous Expense
803400	Auto and Truck Exp Distributed

WHN Rate Base Workpapers - Fleet & Overhead - Attrition Period Forecast

Piedmont Totals							
Date	186120	A/	803290	A/	803400	A/	Total
Mar-19	-87,745		692,205		0		604,460
Apr-19	-78,371		773,058		0		694,687
May-19	-93,822		193,421		0		99,599
Jun-19	-65,250		246,346		0		181,096
Jul-19	-50,816		313,639		0		262,823
Aug-19	-64,341		368,382		0		304,041
Sep-19	-52,688		196,418		0		143,730
Oct-19	-34,864		78,080		0		43,216
Nov-19	-105,274		255,513		0		150,239
Dec-19	-100,161		165,649		0		65,488
Jan-20	-74,492		226,182		0		151,690
Feb-20	-46,848		282,401		0		235,553
Mar-20	-10,077		2,295,643		-1,279,046		1,006,520
Average	-66,519		468,226		-98,388		303,319

Date	Piedmont Total	Tennessee Allocation B/	Tennessee Allocated	Tennessee Direct A/	Total
Mar-19	604,460	15.80%	95,505	38,421	133,926
Apr-19	694,687	15.80%	109,761	42,131	151,892
May-19	99,599	15.80%	15,737	43,610	59,347
Jun-19	181,096	15.80%	28,613	78,985	107,598
Jul-19	262,823	15.80%	41,526	82,341	123,867
Aug-19	304,041	15.80%	48,038	84,852	132,890
Sep-19	143,730	15.80%	22,709	116,602	139,311
Oct-19	43,216	15.80%	6,828	121,021	127,849
Nov-19	150,239	15.80%	23,738	45,421	69,159
Dec-19	65,488	15.80%	10,347	66,073	76,420
Jan-20	151,690	15.65%	23,739	70,521	94,260
Feb-20	235,553	15.65%	36,864	75,289	112,153
Mar-20	1,006,520	15.65%	157,520	105,773	263,293
Average	303,319		47,763	74,695	122,459

Test Period Expense	122,459
Inflation Factor	1.046460 C/
Attrition Period Forecast	128,148

	Accounts	Description
A/ WHN Rate Base Workpaper RB-80-2.00.	186120	Misc. Wip - Fp Dist. Wids
B/ WHN Rate Base Workpaper RB-100-1.00.	803290	Miscellaneous Expense
C/ WHN Rate Base Workpaper RB-110-1.00.	803400	Auto and Truck Exp Distributed



SOURCE: WHN Rate Base Workpaper RB-80-9.00 (Non-Print).

## TENNESSEE ACCOUNTS

Date	186120	803290	803400	Total
Mar-19	38,421	3,113,008	0	3,151,429
Apr-19	42,131	3,114,370	0	3,156,501
May-19	43,610	3,116,198	0	3,159,808
Jun-19	78,985	3,117,220	0	3,196,205
Jul-19	82,341	3,117,220	0	3,199,561
Aug-19	84,852	3,117,220	0	3,202,072
Sep-19	116,602	3,127,106	0	3,243,708
Oct-19	121,021	3,127,106	0	3,248,127
Nov-19	45,421	3,127,106	0	3,172,527
Dec-19	66,073	3,127,106	0	3,193,179
Jan-20	70,521	3,127,106	0	3,197,627
Feb-20	75,289	3,127,106	0	3,202,395
Mar-20	105,773	3,462,526	0	3,568,299
<b>Average</b>	<b>74,695</b>	<b>3,147,723</b>	<b>0</b>	<b>3,222,418</b>

## 3-STATE ACCOUNTS

Date	186120	803290	803400	Total
Mar-19	-87,745	-23,337,169	0	-23,424,914
Apr-19	-78,371	-23,298,624	0	-23,376,995
May-19	-93,822	-23,548,068	0	-23,641,890
Jun-19	-65,250	-23,529,367	0	-23,594,617
Jul-19	-50,816	-23,511,317	0	-23,562,133
Aug-19	-64,341	-23,493,272	0	-23,557,613
Sep-19	-52,688	-23,579,723	0	-23,632,411
Oct-19	-34,864	-23,555,062	0	-23,589,926
Nov-19	-105,274	-23,535,849	0	-23,641,123
Dec-19	-100,161	-23,560,867	0	-23,661,028
Jan-20	-74,492	-23,542,011	0	-23,616,503
Feb-20	-46,848	-23,523,155	0	-23,570,003
Mar-20	-10,077	-23,504,299	0	-23,514,376
<b>Average</b>	<b>-66,519</b>	<b>-23,501,445</b>	<b>0</b>	<b>-23,567,964</b>

## TOTAL ACCOUNTS

Date	186120	803290	803400	Total
Mar-19	0	692,205	0	692,205
Apr-19	0	773,058	0	773,058
May-19	0	193,421	0	193,421
Jun-19	0	246,346	0	246,346
Jul-19	0	313,639	0	313,639
Aug-19	0	368,382	0	368,382
Sep-19	0	196,418	0	196,418
Oct-19	0	78,080	0	78,080
Nov-19	0	255,513	0	255,513
Dec-19	0	165,649	0	165,649
Jan-20	0	226,182	0	226,182
Feb-20	0	282,401	0	282,401
Mar-20	0	2,295,643	-1,279,046	1,016,597
<b>Average</b>	<b>0</b>	<b>468,226</b>	<b>-98,388</b>	<b>369,838</b>



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Accounts Payable Related to CWIP**

<b>Accounts</b>	<b>Description</b>
232000	A/P Vendors Payable
232002	A/P - Misc - Gen - Acctg
232016	AP PS8.9 Vendors Payable
232300	A/P - Transportation
232892	A/P Miscellaneous
232897	Misc AP - Manual
232996	Capital - Accruals
242110	Contract Retentions

## WHN Rate Base Workpapers - Accounts Payable Related to CWIP - Attrition Period Forecast

Date	Accounts Payable A/	CWIP Allocation B/	Tennessee Allocation C/	Tennessee Amount
Mar-19	97,267,594	58.68%	15.80%	9,018,107
Apr-19	91,834,801	58.68%	15.80%	8,514,408
May-19	125,719,324	58.68%	15.80%	11,655,992
Jun-19	108,808,153	58.68%	15.80%	10,088,083
Jul-19	93,309,736	58.68%	15.80%	8,651,156
Aug-19	89,847,130	58.68%	15.80%	8,330,123
Sep-19	95,948,945	58.68%	15.80%	8,895,849
Oct-19	129,971,177	58.68%	15.80%	12,050,200
Nov-19	103,263,045	58.68%	15.80%	9,573,971
Dec-19	116,043,611	58.68%	15.80%	10,758,914
Jan-20	55,356,803	58.68%	15.65%	5,083,648
Feb-20	79,216,005	58.68%	15.65%	7,274,738
Mar-20	104,752,300	58.68%	15.65%	9,619,844
<b>Average</b>	<b>99,333,740</b>			<b>9,193,464</b>

Test Period Expense	9,193,464
Inflation Factor	1.046460 D/
<b>Attrition Period Forecast</b>	<b>9,620,592</b>

A/ WHN Rate Base Workpaper RB-85-3.00.

B/ WHN Rate Base Workpaper RB-85-2.00.

C/ WHN Rate Base Workpaper RB-100-1.00.

D/ WHN Rate Base Workpaper RB-110-1.00.

**CWIP Allocation Factor Calculation:**

	<b>Amount</b>	<b>Percentage</b>	
Construction Work in Process	982,365,689	58.68%	A/
Materials & Supplies	2,189,782	0.13%	A/
Operations & Maintenance Expense	653,959,645	39.06%	A/
Other	35,674,939	2.13%	A/
<b>Total</b>	<b>1,674,190,055</b>	<b>100.00%</b>	

A/ Company response to CA2-193.

**SOURCE:** WHN Rate Base Workpaper RB-85-9.00 (Non-Print).

PIEDMONT 3-STATE ACCOUNTS									
Date	232000	232002	232016	232300	232892	232897	232996	242110	Total
Mar-19	0	692,486	45,774,555	28,507	33,101	3,153,411	45,746,229	1,839,305	97,267,594
Apr-19	0	498,490	48,637,359	1,246,367	34,695	2,771,336	36,728,078	1,918,476	91,834,801
May-19	0	185,662	79,507,810	1,104,621	31,278	2,897,049	39,898,631	2,094,273	125,719,324
Jun-19	0	493,938	59,083,118	972,658	39,707	3,049,609	43,811,488	1,357,635	108,808,153
Jul-19	0	523,619	60,070,520	2,382,028	47,723	2,592,726	26,300,635	1,392,485	93,309,736
Aug-19	0	207,905	57,646,296	1,714,808	46,091	2,311,216	27,455,458	465,356	89,847,130
Sep-19	0	472,252	59,757,074	1,007,527	48,893	2,581,566	32,049,641	31,992	95,948,945
Oct-19	0	277,541	96,279,388	1,190,260	45,521	2,133,558	29,852,254	192,655	129,971,177
Nov-19	0	224,979	55,555,803	1,408,227	56,703	2,453,506	42,222,340	1,341,487	103,263,045
Dec-19	0	1,088,418	55,432,902	41,059	63,736	2,689,705	55,783,076	944,715	116,043,611
Jan-20	1,472,685	417,353	33,642,292	41,059	59,247	2,058,283	16,505,250	1,160,634	55,356,803
Feb-20	0	514,302	42,540,799	41,059	64,339	2,008,399	33,161,191	885,916	79,216,005
Mar-20	0	621,477	51,463,962	29,938	67,868	2,608,537	48,902,335	1,058,183	104,752,300
<b>Average</b>	<b>113,283</b>	<b>478,340</b>	<b>57,337,837</b>	<b>862,163</b>	<b>49,146</b>	<b>2,562,223</b>	<b>36,801,277</b>	<b>1,129,470</b>	<b>99,333,740</b>

Accounts	Description
232000	A/P Vendors Payable
232002	A/P - Misc - Gen - Acctg
232016	AP PS8.9 Vendors Payable
232300	A/P - Transportation
232892	A/P Miscellaneous
232897	Misc AP - Manual
232996	Capital - Accruals
242110	Contract Retentions



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Accounts Payable Related to Materials & Supplies**

<b>Accounts</b>	<b>Description</b>
232000	A/P Vendors Payable
232002	A/P - Misc - Gen - Acctg
232016	AP PS8.9 Vendors Payable
232300	A/P - Transportation
232892	A/P Miscellaneous
232897	Misc AP - Manual
232996	Capital - Accruals
242110	Contract Retentions



## WHN Rate Base Workpapers - Accounts Payable Related to Materials &amp; Supplies - Attrition Period Forecast

Date	Accounts Payable A/	CWIP Allocation B/	Tennessee Allocation C/	Tennessee Amount
Mar-19	97,267,594	0.13%	15.80%	19,979
Apr-19	91,834,801	0.13%	15.80%	18,863
May-19	125,719,324	0.13%	15.80%	25,823
Jun-19	108,808,153	0.13%	15.80%	22,349
Jul-19	93,309,736	0.13%	15.80%	19,166
Aug-19	89,847,130	0.13%	15.80%	18,455
Sep-19	95,948,945	0.13%	15.80%	19,708
Oct-19	129,971,177	0.13%	15.80%	26,696
Nov-19	103,263,045	0.13%	15.80%	21,210
Dec-19	116,043,611	0.13%	15.80%	23,835
Jan-20	55,356,803	0.13%	15.65%	11,262
Feb-20	79,216,005	0.13%	15.65%	16,116
Mar-20	104,752,300	0.13%	15.65%	21,312
<b>Average</b>	<b>99,333,740</b>			<b>20,367</b>

Test Period Expense	20,367
Inflation Factor	1.046460 D/
<b>Attrition Period Forecast</b>	<b>21,313</b>

A/ WHN Rate Base Workpaper RB-90-3.00.

B/ WHN Rate Base Workpaper RB-90-2.00.

C/ WHN Rate Base Workpaper RB-100-1.00.

D/ WHN Rate Base Workpaper RB-110-1.00.

## CWIP Allocation Factor Calculation:

	Amount	Percentage
Construction Work in Process	982,365,689	58.68% A/
Materials & Supplies	2,189,782	0.13% A/
Operations & Maintenance Expense	653,959,645	39.06% A/
Other	35,674,939	2.13% A/
<b>Total</b>	<b>1,674,190,055</b>	<b>100.00%</b>

A/ Company response to CA2-193.

**SOURCE:** WHN Rate Base Workpaper RB-90-9.00 (Non-Print).

PIEDMONT 3-STATE ACCOUNTS									
Date	232000	232002	232016	232300	232892	232897	232996	242110	Total
Mar-19	0	692,486	45,774,555	28,507	33,101	3,153,411	45,746,229	1,839,305	97,267,594
Apr-19	0	498,490	48,637,359	1,246,367	34,695	2,771,336	36,728,078	1,918,476	91,834,801
May-19	0	185,662	79,507,810	1,104,621	31,278	2,897,049	39,898,631	2,094,273	125,719,324
Jun-19	0	493,938	59,083,118	972,658	39,707	3,049,609	43,811,488	1,357,635	108,808,153
Jul-19	0	523,619	60,070,520	2,382,028	47,723	2,592,726	26,300,635	1,392,485	93,309,736
Aug-19	0	207,905	57,646,296	1,714,808	46,091	2,311,216	27,455,458	465,356	89,847,130
Sep-19	0	472,252	59,757,074	1,007,527	48,893	2,581,566	32,049,641	31,992	95,948,945
Oct-19	0	277,541	96,279,388	1,190,260	45,521	2,133,558	29,852,254	192,655	129,971,177
Nov-19	0	224,979	55,555,803	1,408,227	56,703	2,453,506	42,222,340	1,341,487	103,263,045
Dec-19	0	1,088,418	55,432,902	41,059	63,736	2,689,705	55,783,076	944,715	116,043,611
Jan-20	1,472,685	417,353	33,642,292	41,059	59,247	2,058,283	16,505,250	1,160,634	55,356,803
Feb-20	0	514,302	42,540,799	41,059	64,339	2,008,399	33,161,191	885,916	79,216,005
Mar-20	0	621,477	51,463,962	29,938	67,868	2,608,537	48,902,335	1,058,183	104,752,300
<b>Average</b>	<b>113,283</b>	<b>478,340</b>	<b>57,337,837</b>	<b>862,163</b>	<b>49,146</b>	<b>2,562,223</b>	<b>36,801,277</b>	<b>1,129,470</b>	<b>99,333,740</b>

Accounts	Description
232000	A/P Vendors Payable
232002	A/P - Misc - Gen - Acctg
232016	AP PS8.9 Vendors Payable
232300	A/P - Transportation
232892	A/P Miscellaneous
232897	Misc AP - Manual
232996	Capital - Accruals
242110	Contract Retentions



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Accrued Vacation**

<b>Account</b>	<b>Description</b>
242490	Vacation Carryover

**WHN Rate Base Workpapers - Accrued Vacation - Attrition Period Forecast**

<b>Date</b>	<b>Accrued Vacation A/</b>	<b>Tennessee Allocation B/</b>	<b>Tennessee Amount</b>
Mar-19	14,572,178	15.80%	2,302,404
Apr-19	14,567,130	15.80%	2,301,607
May-19	14,537,293	15.80%	2,296,892
Jun-19	14,534,276	15.80%	2,296,416
Jul-19	14,530,276	15.80%	2,295,784
Aug-19	14,512,699	15.80%	2,293,006
Sep-19	14,477,435	15.80%	2,287,435
Oct-19	14,438,622	15.80%	2,281,302
Nov-19	14,433,647	15.80%	2,280,516
Dec-19	14,907,852	15.80%	2,355,441
Jan-20	14,863,649	15.65%	2,326,161
Feb-20	14,857,008	15.65%	2,325,122
Mar-20	14,856,428	15.65%	2,325,031
<b>Average</b>	<b><u>14,622,192</u></b>		<b><u>2,305,163</u></b>

Test Period Expense	2,305,163
Compound Salary & Wage Factor	1.053089 C/
<b>Attrition Period Forecast</b>	<b><u>2,427,542</u></b>

A/ WHN Rate Base Workpaper RB-95-2.00.

B/ WHN Rate Base Workpaper RB-100-1.00.

C/ WHN Rate Base Workpaper RB-110-1.00.

**SOURCE:** WHN Rate Base Workpaper RB-95-9.00 (Non-Print).

<b>Date</b>	<b>242490</b>
Mar-19	14,572,178
Apr-19	14,567,130
May-19	14,537,293
Jun-19	14,534,276
Jul-19	14,530,276
Aug-19	14,512,699
Sep-19	14,477,435
Oct-19	14,438,622
Nov-19	14,433,647
Dec-19	14,907,852
Jan-20	14,863,649
Feb-20	14,857,008
Mar-20	14,856,428
<b>Average</b>	<b>14,622,192</b>





**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Rate Base Workpapers - Allocation Factor Calculations**

**2019 Allocation Factor Calculation:**

**2018 Historical Amounts**

Assets by State as of 12-31-18

CWIP by State as of 12-31-18

**Total**

**Balances as of 12-31-18**

NC	SC	TN	Total
3,563,753,980	386,726,051	748,253,681	4,698,733,713
228,529,984	22,762,780	40,048,024	291,340,787
<b>3,792,283,964</b>	<b>409,488,831</b>	<b>788,301,705</b>	<b>4,990,074,500</b>

**2019 Allocation Factors**

Assets by State

CWIP by State

**Total**

75.84%	8.23%	15.92%	100.00%
78.44%	7.81%	13.75%	100.00%
<b>76.00%</b>	<b>8.21%</b>	<b>15.80%</b>	<b>100.00%</b>

**2020 Allocation Factor Calculation:**

**2019 Historical Amounts**

Assets by State as of 12-31-19

CWIP by State as of 12-31-19

**Total**

**Balances as of 12-31-19**

NC	SC	TN	Total
4,095,683,008	416,238,359	874,982,201	5,386,903,569
328,785,172	13,878,473	25,988,079	368,651,725
<b>4,424,468,181</b>	<b>430,116,833</b>	<b>900,970,280</b>	<b>5,755,555,294</b>

**2020 Allocation Factors**

Assets by State

CWIP by State

**Total**

76.03%	7.73%	16.24%	100.00%
89.19%	3.76%	7.05%	100.00%
<b>76.87%</b>	<b>7.47%</b>	<b>15.65%</b>	<b>100.00%</b>

**2021 Allocation Factor Calculation:**

**2020 Historical Amounts**

Assets by State as of 12-31-20

CWIP by State as of 12-31-20

**Total**

**Forecasted Balances as of 12-31-20**

NC	SC	TN	Total
4,285,327,299	426,817,760	890,744,517	5,602,889,576
280,959,079	14,410,125	39,859,805	335,229,009
<b>4,566,286,378</b>	<b>441,227,885</b>	<b>930,604,322</b>	<b>5,938,118,585</b>

**2021 Allocation Factors**

Assets by State

CWIP by State

**Total**

76.48%	7.62%	15.90%	100.00%
83.81%	4.30%	11.89%	100.00%
<b>76.90%</b>	<b>7.43%</b>	<b>15.67%</b>	<b>100.00%</b>

SOURCE: BOWMAN WORKPAPER - WorkingCapital Adj, Net Plant Factor Actual and Net Plant Factor Attrition.

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Expense Workpapers - Growth Rates**

**Compound Inflation Calculation:**

Forecasted GDP Growth for 2020

Forecasted GDP Growth for 2021

**Average GDP Growth Rate****Average GDP Growth Factor**

Months between End of Test Period and End of Attrition Period (3-31-2020 to 12-31-2021)

**Attrition Period Compound Inflation Factor****WHN  
Amount**

2.6060% A/

2.6520% A/

**2.6290%****1.026290****Company  
Amount**

21

**1.046460****1.046460 E/****Customer Growth Calculation**

Compound Customer Growth

50% Application

**Attrition Period Compound Customer Growth Factor**

1.028981 B/

50.00% C/

**1.014491****1.032521 E/****Total Growth Factor (Non-Wage)****1.061624****1.080492 E/****Compound Salary & Wage Rate Change Factor****1.053089 D/****1.053089 E/**

A/ WHN Expense Workpaper RB-110-2.00.

B/ WHN Expense Workpaper RB-110-3.00.

C/ Recognition that not all expenses increase by customer growth.

D/ WHN Expense Workpaper RB-110-4.00.

E/ WHN Expense Workpaper RB-110-5.00.

2020	2.606%
2021	2.652%

SOURCE: Company response to MFR 30, Table 1 on Page 107 - Consumer Price Index All-Urban, Appendix A, Page 3.

Compares favorably with BLS on E-110-2.01. Use Company proposed factors here.

Table 1: Selected U.S. and Tennessee Economic Indicators, Seasonally Adjusted

January 2020

	History		Forecast Data										Annual			
	2019:2	2019:3	2019:4	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2021:3	2021:4	2022:1	2018	2019	2020	2021
CHAINED PRICE INDEX, GDP (2012=100.0).....	112.2	112.6	113.3	113.9	114.5	115.1	115.7	116.4	117.0	117.7	118.5	119.2	110.4	112.4	114.8	117.4
% Chg Prev Qtr SAAR.....	2.42	1.66	2.30	2.08	2.17	2.10	2.15	2.33	2.37	2.43	2.44	2.44	2.40	1.83	2.11	2.29
% Chg Same Qtr Last Yr.....	1.78	1.89	1.88	2.11	2.05	2.16	2.12	2.19	2.24	2.32	2.39	2.42	2.40	1.83	2.11	2.29
US PERS CONSUMP DEFL (2012=100.0).....	109.5	109.9	110.5	111.0	111.6	112.0	112.4	112.9	113.5	114.1	114.7	115.3	108.1	109.7	111.7	113.8
% Chg Prev Qtr SAAR.....	2.38	1.53	2.04	1.79	2.10	1.66	1.38	1.79	1.98	2.15	2.15	2.04	2.09	1.45	1.86	1.82
% Chg Same Qtr Last Yr.....	1.42	1.41	1.58	1.93	1.86	1.90	1.73	1.73	1.70	1.82	2.02	2.08	2.09	1.45	1.86	1.82
CONSUMER PRICE INDEX, ALL-URBAN (82-84=1,000).....	2.551	2.563	2.578	2.589	2.604	2.613	2.618	2.629	2.643	2.660	2.677	2.692	2.511	2.556	2.606	2.652
% Chg Prev Qtr SAAR.....	2.92	1.79	2.45	1.60	2.44	1.39	0.73	1.68	2.17	2.61	2.60	2.21	2.44	1.81	1.94	1.78
% Chg Same Qtr Last Yr.....	1.82	1.76	2.00	2.19	2.07	1.97	1.54	1.56	1.49	1.79	2.26	2.40	2.44	1.81	1.94	1.78
BANK PRIME INTEREST RATE (%).....	5.5	5.3	4.8	4.7	4.8	4.8	4.8	5.0	5.0	5.3	5.3	5.5	4.9	5.3	4.8	5.1
FEDERAL FUNDS RATE (% per annum).....	2.397	2.190	1.700	1.624	1.625	1.626	1.667	1.877	1.915	2.127	2.152	2.378	1.832	2.172	1.636	2.018
30-YEAR FIXED MORTGAGE RATE (%).....	4.0	3.7	3.7	3.7	3.9	4.0	4.1	4.2	4.3	4.3	4.4	4.5	4.5	3.9	3.9	4.3
TN TAXABLE SALES (MIL2012\$).....	32041	32286	32451	32624	32838	33075	33314	33574	33770	33972	34230	34490	123681	128388	131850	135546
% Chg Prev Qtr SAAR.....	5.57	3.09	2.06	2.15	2.65	2.92	2.92	3.16	2.36	2.41	3.07	3.08	4.58	3.81	2.70	2.80
% Chg Same Qtr Last Yr.....	4.27	4.47	3.21	3.21	2.49	2.44	2.66	2.91	2.84	2.71	2.75	2.73	4.58	3.81	2.70	2.80
TN TAXABLE SALES (MIL\$).....	35092	35507	35913	36305	36699	37142	37559	38019	38444	38861	39324	39851	133758	140929	147704	154648
% Chg Prev Qtr SAAR.....	8.08	4.82	4.65	4.43	4.42	4.91	4.56	5.00	4.55	4.40	4.86	5.47	6.76	5.36	4.81	4.70
% Chg Same Qtr Last Yr.....	5.75	5.98	5.01	5.49	4.58	4.60	4.58	4.72	4.75	4.63	4.70	4.82	6.76	5.36	4.81	4.70
TN AVG ANNUAL WAGE, NONFARM (2012\$).....	47922	47906	47909	48014	48209	48342	48542	48771	48936	49126	49351	49496	47014	47878	48277	49046
% Chg Prev Qtr SAAR.....	1.22	-0.13	0.03	0.88	1.64	1.11	1.66	1.90	1.36	1.57	1.84	1.18	1.27	1.84	0.83	1.59
% Chg Same Qtr Last Yr.....	2.32	1.29	2.15	0.50	0.60	0.91	1.32	1.58	1.51	1.62	1.67	1.49	1.27	1.84	0.83	1.59
TN AVG ANNUAL WAGE, NONFARM (\$)......	52485	52686	53021	53431	53878	54287	54727	55228	55709	56195	56695	57190	50843	52552	54081	55957
% Chg Prev Qtr SAAR.....	3.63	1.54	2.57	3.13	3.39	3.07	3.28	3.72	3.53	3.54	3.60	3.54	3.38	3.36	2.91	3.47
% Chg Same Qtr Last Yr.....	3.77	2.75	3.93	2.72	2.65	3.04	3.22	3.36	3.40	3.52	3.60	3.55	3.38	3.36	2.91	3.47

Boyd Center for Business and Economic Research, University of Tennessee

Tennessee Econometric Model

Source: Bureau of Labor Statistics Website.

Forecast for Gas Service Sector

3.80%

10/15/2020

Table 2. Consumer Price Index for All Urban Consumers (CPI-U): U. S. city average, by detailed expenditure category



U.S. BUREAU OF LABOR STATISTICS

## Economic News Release

CPI PRINT:

Table 2. Consumer Price Index for All Urban Consumers (CPI-U): U. S. city average, by detailed expenditure category

**Table 2. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by detailed expenditure category, September 2020**

[1982-84=100, unless otherwise noted]

Expenditure category	Relative importance Aug. 2020	Unadjusted percent change		Seasonally adjusted percent change		
		Sep. 2019- Sep. 2020	Aug. 2020- Sep. 2020	Jun. 2020- Jul. 2020	Jul. 2020- Aug. 2020	Aug. 2020- Sep. 2020
All items	100.000	1.4	0.1	0.6	0.4	0.2
Food	14.100	3.9	0.0	-0.4	0.1	0.0
Energy	6.144	-7.7	0.8	2.5	0.9	0.8
Energy commodities	3.019	-15.5	0.6	5.3	2.0	-0.1
Fuel oil and other fuels	0.133	-17.6	-1.4	2.3	2.3	-3.1
Fuel oil	0.076	-27.2	-3.0	4.3	3.9	-5.3
Propane, kerosene, and firewood <sup>(5)</sup>	0.057	-1.1	0.8	0.4	-0.7	-0.6
Motor fuel	2.886	-15.4	0.7	5.5	2.0	0.1
Gasoline (all types)	2.824	-15.4	0.7	5.6	2.0	0.1
Gasoline, unleaded regular <sup>(3)</sup>		-15.8	0.8	5.6	2.0	0.1
Gasoline, unleaded midgrade <sup>(3)(2)</sup>		-13.2	0.8	5.5	1.7	0.3
Gasoline, unleaded premium <sup>(3)</sup>		-12.4	0.6	4.9	2.3	0.0
Other motor fuels <sup>(2)</sup>	0.063	-17.5	-0.3	1.0	0.4	-1.6
Energy services	3.125	1.4	0.9	0.0	-0.2	1.6
Electricity	2.468	0.7	0.3	0.3	0.2	0.0
Utility (piped) gas service	0.657	3.8	3.0	-1.0	-0.2	4.2

	<b>Residential</b>		<b>Commercial</b>		<b>Total</b>
Test Period Bills (4-1-19 to 3-31-20)	<u>2,043,725</u>	<b>A/</b>	<u>210,508</u>	<b>B/</b>	<u>2,254,233</u>
Attrition Period Bills (1-1-21 to 12-31-21)	<u>2,106,494</u>	<b>A/</b>	<u>213,070</u>	<b>B</b>	<u>2,319,564</u>
<b>Growth</b>	<u><b>62,769</b></u>		<u><b>2,562</b></u>		<u><b>65,331</b></u>
<b>Compound Growth Rate for 21 Months (3-31-20 to 12-31-21)</b>	<u><b>3.0713%</b></u>		<u><b>1.2171%</b></u>		<u><b>2.8981%</b></u>
<b>Compound Growth Factor</b>	<u><b>1.030713</b></u>		<u><b>1.012171</b></u>		<u><b>1.028981</b></u>

A/ WHN Revenue Workpaper R-10-1.03.

B/ WHN Revenue Workpaper R-15-1.03.

SOURCE: Company response to CA2-98.

## Historical Merit Increases

Year	Exempt	Non-Exempt
2019	3.0%	3.0%
2018	3.0%	3.0%
2017	3.0%	3.0%
2016	3.0%	3.0%
2015	3.0%	3.0%
2014	3.0%	3.0%
2013	3.0%	3.0%

Average Annual Wage Increase Rate 3.00%

Average Annual Wage Increase Factor 1.030000

Compound Rate for 21 Months 1.053089  
(4-1-2020 to 12-31-2020)



**SOURCE:** Bowman Workpaper - SW Growth Factors, Growth Factors

**Growth & Inflation Factor Calculations:**

Compound Customer Growth Factor	1.032521
Compound Inflation Factor	1.046460
<b>Compound Growth &amp; Inflation Factor</b>	<b>1.080492</b>

<b>Compound Salary &amp; Wage Rate Change Factor</b>	<b>1.053089</b>
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**Customer Growth Factor Calculation:**

	Amount
Residential & Commercial Customers Billed in December 2019	189,891
Residential & Commercial Customers Forecast to be Billed in December 2020	193,002
Residential & Commercial Customers Forecast to be Billed in December 2021	196,024
<b>Customer Annual Growth Rate</b>	<b>0.018456</b> Error Here
<b>Annual Customer Growth Factor</b>	<b>1.018456</b> Should be
	24 Months

Months between End of Test Period and End of Attrition Period (3-31-2020 to 12-31-2021)	21
<b>Compound Customer Growth Factor</b>	<b>1.032521</b>

**Inflation Factor Calculation:**

	Amount
Forecasted GDP Growth for 2020	2.6060%
Forecasted GDP Growth for 2021	2.6520%
<b>Average GDP Growth Rate</b>	<b>2.6290%</b>
<b>Average GDP Growth Factor</b>	<b>1.026290</b>

Months between End of Test Period and End of Attrition Period (3-31-2020 to 12-31-2021)	21
<b>Compound Inflation Factor</b>	<b>1.046460</b>

**Salary & Wage Rate Change Calculation:**

	Amount
Average 2018 Salary & Wage Rate Increase	3.0000%
Average 2019 Salary & Wage Rate Increase	3.0000%
<b>Average Annual Rate Increase Rate</b>	<b>3.0000%</b>
<b>Average Annual Rate Increase Factor</b>	<b>1.030000</b>

Months between End of Test Period and End of Attrition Period (3-31-2020 to 12-31-2021)	21
<b>Compound Salary &amp; Wage Rate Change Factor</b>	<b>1.053089</b>

Tariff	Consumer Advocate	Piedmont	K/	Difference
301 - Residential	CONTAINS CONFIDENTIAL PROPRIETARY DATA			
302 - Small General Service				
352 - Medium General Service				
303 - Large General Firm Sales Service				
304 - Large General Interruptible Sales Service				
313 - Large General Firm Transportation Service				
314 - Large General Interruptible Transportation Service				
310 - Sale for Resale				
373 - Special Contract				
<b>Total Sales and Transportation Revenue</b>	<b>\$178,253,226</b>	<b>\$176,402,065</b>		<b>\$1,851,162</b>
Other Revenue	2,052,502 J/	1,120,277		932,225
<b>Total Revenue</b>	<b>\$180,305,729</b>	<b>\$177,522,342</b>		<b>\$2,783,387</b>
Proposed Elimination of IMR Rider	0	35,853,030		-35,853,030
Proposed Elimination of ADIT Refund Rider	0	-9,333,185		9,333,185
<b>Net Revenue</b>	<b>\$180,305,729</b>	<b>\$204,042,187</b>		<b>-\$23,736,458</b>
<b>Recap:</b>				
Attrition Period Margin	\$117,956,282 L/	\$116,050,088 L/		\$1,906,194
Proposed Elimination of IMR Rider	0	35,853,030		-35,853,030
Proposed Elimination of ADIT Refund Rider	0	-9,333,185		9,333,185
Attrition Period Gas Cost	62,349,447 M/	61,472,254 M/		877,193
<b>Net Revenue</b>	<b>\$180,305,729</b>	<b>\$204,042,187</b>		<b>-\$23,736,458</b>

- A/ WHN Revenue Workpaper R-10-1.00.  
 B/ WHN Revenue Workpaper R-15-1.00.  
 C/ WHN Revenue Workpaper R-20-1.00.  
 D/ WHN Revenue Workpaper R-25-1.00.  
 E/ WHN Revenue Workpaper R-30-1.00.  
 F/ WHN Revenue Workpaper R-35-1.00.  
 G/ WHN Revenue Workpaper R-40-1.00.  
 H/ WHN Revenue Workpaper R-45-1.00.  
 I/ WHN Revenue Workpaper R-50-1.00.  
 J/ WHN Revenue Workpaper R-65-1.00.  
 K/ WHN Revenue Workpaper R-1-1.02.  
 L/ WHN Revenue Workpaper R-1-1.01.  
 M/ WHN Revenue Workpaper R-80-1.00.

## WHN Revenue Workpapers - Attrition Period Margin Calculation

Tariff	Consumer Advocate	Piedmont	Difference
301 - Residential	CONTAINS CONFIDENTIAL PROPRIETARY DATA		
302 - Small General Service			
352 - Medium General Service			
303 - Large General Firm Sales Service			
304 - Large General Interruptible Sales Service			
313 - Large General Firm Transportation Service			
314 - Large General Interruptible Transportation Service			
310 - Sale for Resale			
373 - Special Contract			
<b>Total Sales and Transportation Margin</b>	<b>\$115,903,779</b>	<b>\$114,929,811</b>	<b>\$973,969</b>
Other Margin	2,052,502 J/	1,120,277 T/	932,225
<b>Total Margin</b>	<b>\$117,956,282</b>	<b>\$116,050,088 U/</b>	<b>\$1,906,194</b>

A/ WHN Revenue Workpaper R-10-1.00.

B/ WHN Revenue Workpaper R-15-1.00.

C/ WHN Revenue Workpaper R-20-1.00.

D/ WHN Revenue Workpaper R-25-1.00.

E/ WHN Revenue Workpaper R-30-1.00.

F/ WHN Revenue Workpaper R-35-1.00.

G/ WHN Revenue Workpaper R-40-1.00.

H/ WHN Revenue Workpaper R-45-1.00.

I/ WHN Revenue Workpaper R-50-1.00.

J/ WHN Revenue Workpaper R-65-1.00.

K/ WHN Revenue Workpaper R-10-1.01.

L/ WHN Revenue Workpaper R-15-1.01.

M/ WHN Revenue Workpaper R-20-1.01.

N/ WHN Revenue Workpaper R-25-1.01.

O/ WHN Revenue Workpaper R-30-1.01.

P/ WHN Revenue Workpaper R-35-1.01.

Q/ WHN Revenue Workpaper R-40-1.01.

R/ WHN Revenue Workpaper R-45-1.01

S/ WHN Revenue Workpaper R-50-1.01

T/ WHN Revenue Workpaper R-65-1.01

U/ Ties to Company amount on Net Operating Income and Rate of Return Schedule.

Tariff	Piedmont Revenue	Proposed Rider Elimination			Piedmont Net Revenue
		IMR Rider	K/ ADIT Refund	L/ ADIT Refund	
301 - Residential	CONTAINS CONFIDENTIAL PROPRIETARY DATA				
302 - Small General Service					
352 - Medium General Service					
303 - Large General Firm Sales Service					
304 - Large General Interruptible Sales Service					
313 - Large General Firm Transportation Service					
314 - Large General Interruptible Transportation Service					
310 - Sale for Resale					
373 - Special Contract					
Total Sales and Transportation Revenue	\$202,921,910	- \$35,853,030	\$9,333,185		\$176,402,065
Other Revenues	1,120,277 J/	0	0		1,120,277
Total Revenues	\$204,042,187	- \$35,853,030 U/	\$9,333,185		\$177,522,342

- A/ WHN Revenue Workpaper R-10-1.01.
- B/ WHN Revenue Workpaper R-15-1.01.
- C/ WHN Revenue Workpaper R-20-1.01.
- D/ WHN Revenue Workpaper R-25-1.01.
- E/ WHN Revenue Workpaper R-30-1.01.
- F/ WHN Revenue Workpaper R-35-1.01.
- G/ WHN Revenue Workpaper R-40-1.01.
- H/ WHN Revenue Workpaper R-45-1.01.
- I/ WHN Revenue Workpaper R-50-1.01.
- J/ WHN Revenue Workpaper R-65-1.01.
- K/ WHN Revenue Workpaper R-55-1.00.
- L/ WHN Revenue Workpaper R-60-1.00.

SOURCE: Company response to CA1-1.

Component	Amount
0480000-Residential Gas Sales	\$119,625,716
0481000-Industrial Sales	1,567,233
0481200-Gas Commercial Sales	72,875,126
0487001-Discounts Earn/Lost	1,472,734
0488000-Misc Service Revenue	250,320
0489000-Transp Gas of Others	10,668,354
0493000-Rent from Gas Properties	43,314
0481203-CNG Volume Rebate	-4,826
0489030-Indust Gas Transp Only	330,931
0495022-Com Sales to Transport Cust	9,027
0495024-Secondary Market Sales	370,701
0483011-Sales of Gas for Resale	44,622
0496020-Provision for Rate Refund	-610,705
<b>Total Revenues</b>	<b>\$206,642,547</b>
0804000-Natural Gas City Gate Purchase	\$70,783,661
0804001-Cost of Gas - Unbilled Revenue	-2,476,637
<b>Total Gas Cost</b>	<b>\$68,307,024</b>
<b>Gross Margin</b>	<b>\$138,335,523</b>

Tariff	Test Period		Attrition Period		Total Adjustments	
	Piedmont	Consumer Advocate	Piedmont	Consumer Advocate	Piedmont	Consumer Advocate
<b>Volumes (Therms):</b> 301 - Residential 302 - Small General Service 352 - Medium General Service 303 - Large General Firm Sales Service 304 - Large General Interruptible Sales Service 313 - Large General Firm Transportation Service 314 - Large General Interruptible Transportation Service 310 - Sale for Resale 373 - Special Contract <b>Total Volumes (Therms)</b>						
CONTAINS CONFIDENTIAL PROPRIETARY DATA						

<b>Bills:</b>						
301 - Residential	2,043,725 <b>A/</b>	2,043,725 <b>A/</b>	2,104,399 <b>C/</b>	2,106,494 <b>B/</b>	60,674	62,769
302 - Small General Service	210,508 <b>D/</b>	210,508 <b>D/</b>	212,805 <b>F/</b>	213,070 <b>E/</b>	2,297	2,562
352 - Medium General Service	6,591 <b>G/</b>	6,591 <b>G/</b>	6,820 <b>I/</b>	7,368 <b>H/</b>	229	777
303 - Large General Firm Sales Service	619 <b>J/</b>	619 <b>J/</b>	619 <b>L/</b>	619 <b>K/</b>	0	0
304 - Large General Interruptible Sales Service	24 <b>N/</b>	24 <b>N/</b>	24 <b>P/</b>	24 <b>O/</b>	0	0
313 - Large General Firm Transportation Service	916 <b>Q/</b>	916 <b>Q/</b>	928 <b>S/</b>	928 <b>R/</b>	12	12
314 - Large General Interruptible Transportation Service	588 <b>U/</b>	588 <b>U/</b>	588 <b>W/</b>	588 <b>V/</b>	0	0
310 - Sale for Resale	36 <b>X/</b>	36 <b>X/</b>	24 <b>Z/</b>	36 <b>Y/</b>	-12	0
373 - Special Contract	12 <b>AB/</b>	12 <b>AB</b>	12 <b>AD/</b>	12 <b>AC/</b>	0	0
<b>Total Bills</b>	<b>2,263,019</b>	<b>2,263,019</b>	<b>2,326,219</b>	<b>2,329,139</b>	<b>63,200</b>	<b>66,120</b>

<b>Billing Demand/Capacity (Dkt):</b>						
301 - Residential	0	0	0	0	0	0
302 - Small General Service	0	0	0	0	0	0
352 - Medium General Service	0	0	0	0	0	0
303 - Large General Firm Sales Service	81,089 <b>M/</b>	81,089 <b>M/</b>	80,958 <b>L/</b>	89,727 <b>K/</b>	-131	8,638
304 - Large General Interruptible Sales Service	0	0	0	0	0	0
313 - Large General Firm Transportation Service	159,462 <b>T/</b>	159,462 <b>T/</b>	160,281 <b>S/</b>	176,764 <b>R/</b>	819	17,303
314 - Large General Interruptible Transportation Service	0	0	0	0	0	0
310 - Sale for Resale	1,800 <b>AA/</b>	1,800 <b>AA/</b>	1,800 <b>Z/</b>	1,800 <b>Y/</b>	0	0
373 - Special Contract	0	0	0	0	0	0
<b>Total Billing Demand/Capacity</b>	<b>242,351</b>	<b>242,351</b>	<b>243,039</b>	<b>268,292</b>	<b>688</b>	<b>25,941</b>

A/ WHN Revenue Workpaper R-10-3.00.  
 B/ WHN Revenue Workpaper R-10-1.00.  
 C/ WHN Revenue Workpaper R-10-1.01.  
 D/ WHN Revenue Workpaper R-15-3.00.  
 E/ WHN Revenue Workpaper R-15-1.00.  
 F/ WHN Revenue Workpaper R-15-1.01.  
 G/ WHN Revenue Workpaper R-20-3.00.  
 H/ WHN Revenue Workpaper R-20-1.00.  
 I/ WHN Revenue Workpaper R-20-1.01.  
 J/ WHN Revenue Workpaper R-25-3.00.  
 K/ WHN Revenue Workpaper R-25-1.00.  
 L/ WHN Revenue Workpaper R-25-1.01.  
 M/ WHN Revenue Workpaper R-25-1.03.  
 N/ WHN Revenue Workpaper R-30-3.00.  
 O/ WHN Revenue Workpaper R-30-1.00.  
 P/ WHN Revenue Workpaper R-30-1.01.  
 Q/ WHN Revenue Workpaper R-35-3.00.  
 R/ WHN Revenue Workpaper R-35-1.00.  
 S/ WHN Revenue Workpaper R-35-1.01.  
 T/ WHN Revenue Workpaper R-35-1.03.  
 U/ WHN Revenue Workpaper R-40-3.00.  
 V/ WHN Revenue Workpaper R-40-1.00.  
 W/ WHN Revenue Workpaper R-40-1.01.  
 X/ WHN Revenue Workpaper R-45-3.00.  
 Y/ WHN Revenue Workpaper R-45-1.00.  
 Z/ WHN Revenue Workpaper R-45-1.01.  
 AA/ WHN Revenue Workpaper R-45-1.03.  
 AB/ WHN Revenue Workpaper R-50-1.00.  
 AC/ WHN Revenue Workpaper R-50-1.01.  
 AD/ WHN Revenue Workpaper R-50-1.03.

Tariff	Test Period	A/ Weather Adjustment	Customer Growth	Attrition Period
<b>Volumes (Therms):</b>				
301 - Residential				
302 - Small General Service				
352 - Medium General Service				
303 - Large General Firm Sales Service				
304 - Large General Interruptible Sales Service				
313 - Large General Firm Transportation Service				
314 - Large General Interruptible Transportation Service				
310 - Sale for Resale				
373 - Special Contract				
<b>Total Volumes (Therms)</b>				
<b>CONTAINS CONFIDENTIAL PROPRIETARY DATA</b>				
<b>Bills:</b>				
301 - Residential	2,043,725	0	62,769 <b>K/</b>	2,106,494
302 - Small General Service	210,508	0	2,562 <b>L/</b>	213,070
352 - Medium General Service	6,591	0	777 <b>M/</b>	7,368
303 - Large General Firm Sales Service	619	0	0 <b>N/</b>	619
304 - Large General Interruptible Sales Service	24	0	0 <b>O/</b>	24
313 - Large General Firm Transportation Service	916	0	12 <b>P/</b>	928
314 - Large General Interruptible Transportation Service	588	0	0 <b>Q/</b>	588
310 - Sale for Resale	36	0	0 <b>R/</b>	36
373 - Special Contract	12	0	0 <b>S/</b>	12
<b>Total Bills</b>	<b>2,263,019</b>	<b>0</b>	<b>66,120</b>	<b>2,329,139</b>
<b>Billing Demand/Capacity (Dkt):</b>				
301 - Residential	0	0	0 <b>K/</b>	0
302 - Small General Service	0	0	0 <b>L/</b>	0
352 - Medium General Service	0	0	0 <b>M/</b>	0
303 - Large General Firm Sales Service	81,089	0	8,638 <b>N/</b>	89,727
304 - Large General Interruptible Sales Service	0	0	0 <b>O/</b>	0
313 - Large General Firm Transportation Service	159,462	0	17,303 <b>P/</b>	176,764
314 - Large General Interruptible Transportation Service	0	0	0 <b>Q/</b>	0
310 - Sale for Resale	1,800	0	0 <b>R/</b>	1,800
373 - Special Contract	0	0	0 <b>S/</b>	0
<b>Total Billing Demand/Capacity</b>	<b>242,351</b>	<b>0</b>	<b>25,941</b>	<b>268,292</b>

A/ WHN Revenue Workpaper R-1-3.00.  
 B/ WHN Revenue Workpaper R-10-3.00.  
 C/ WHN Revenue Workpaper R-15-3.00.  
 D/ WHN Revenue Workpaper R-20-3.00.  
 E/ WHN Revenue Workpaper R-25-3.00.  
 F/ WHN Revenue Workpaper R-30-3.00.  
 G/ WHN Revenue Workpaper R-35-3.00.  
 H/ WHN Revenue Workpaper R-40-3.00.  
 I/ WHN Revenue Workpaper R-45-3.00.  
 J/ WHN Revenue Workpaper R-50-3.00.  
 K/ WHN Revenue Workpaper R-10-1.00.  
 L/ WHN Revenue Workpaper R-15-1.00.  
 M/ WHN Revenue Workpaper R-20-1.00.  
 N/ WHN Revenue Workpaper R-25-1.00.  
 O/ WHN Revenue Workpaper R-30-1.00.  
 P/ WHN Revenue Workpaper R-35-1.00.  
 Q/ WHN Revenue Workpaper R-40-1.00.  
 R/ WHN Revenue Workpaper R-45-1.00.  
 S/ WHN Revenue Workpaper R-50-1.00.

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This workpaper is too voluminous for printing and is only being provided in electronic format.

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Integrity Management Rider Summaries**

Tariff	Consumer Advocate	Piedmont	Difference
301 - Residential	\$0 <b>A/</b>	\$21,384,182 <b>J/</b>	-\$21,384,182
302 - Small General Service	0 <b>B/</b>	8,970,428 <b>K/</b>	-8,970,428
352 - Medium General Service	0 <b>C/</b>	2,215,717 <b>L/</b>	-2,215,717
303 - Large General Firm Sales Service	0 <b>D/</b>	478,996 <b>M/</b>	-478,996
304 - Large General Interruptible Sales Service	0 <b>E/</b>	4,661 <b>N/</b>	-4,661
313 - Large General Firm Transportation Service	0 <b>F/</b>	1,284,614 <b>O/</b>	-1,284,614
314 - Large General Interruptible Transportation Service	0 <b>G/</b>	1,504,393 <b>P/</b>	-1,504,393
310 - Sale for Resale	0 <b>H/</b>	10,039 <b>Q/</b>	-10,039
373 - Special Contract	0 <b>I/</b>	0 <b>R/</b>	0
<b>Total Integrity Management Rider Adjustment</b>	<b>\$0</b>	<b>\$35,853,030</b>	<b>-\$35,853,030</b>

**NOTE:**

Company incorrectly includes IMR revenues within the base rate calculation.

The IMR surcharge is based on plant investment that is already recognized as a component of rate base in this case.

Therefore, the IMR surcharge will cease simultaneously with the implementation of new base rates.

As a result, the Consumer Advocate has excluded all IMR revenue from its revenue calculation.

A/ WHN Revenue Workpaper R-10-1.00.

B/ WHN Revenue Workpaper R-15-1.00.

C/ WHN Revenue Workpaper R-20-1.00.

D/ WHN Revenue Workpaper R-25-1.00.

E/ WHN Revenue Workpaper R-30-1.00.

F/ WHN Revenue Workpaper R-35-1.00.

G/ WHN Revenue Workpaper R-40-1.00.

H/ WHN Revenue Workpaper R-45-1.00.

I/ WHN Revenue Workpaper R-50-1.00.

J/ WHN Revenue Workpaper R-10-1.01.

K/ WHN Revenue Workpaper R-15-1.01.

L/ WHN Revenue Workpaper R-20-1.01.

M/ WHN Revenue Workpaper R-25-1.01.

N/ WHN Revenue Workpaper R-30-1.01.

O/ WHN Revenue Workpaper R-35-1.01.

P/ WHN Revenue Workpaper R-40-1.01.

Q/ WHN Revenue Workpaper R-45-1.01.

R/ WHN Revenue Workpaper R-50-1.01.

SOURCE: Couzens Workpaper - Sales & Transportation Pro Forma Revenue, Integrity Management Rider

Apportionment:	Monthly Percentage	A/ IMR By Month	B/ Rate 301 Allocation	31.20% C/		4.95% C/			4.21% C/		Total
				25.020% Rate 302 Allocation	6.180% Rate 352 Allocation	1.336% Rate 303 Allocation	3.583% Rate 313 Allocation	0.028% Rate 310 Allocation	0.013% Rate 304 Allocation	4.196% Rate 314 Allocation	
January	17.22%	6,174,093	3,682,476	1,544,758	381,559	82,486	221,218	1,729	803	259,065	6,174,093
February	16.39%	5,875,320	3,504,276	1,470,005	363,095	78,494	210,513	1,645	764	246,528	5,875,320
March	12.37%	4,436,298	2,645,985	1,109,962	274,163	59,269	158,953	1,242	577	186,147	4,436,298
April	8.00%	2,866,810	1,709,880	717,276	177,169	38,301	102,718	803	373	120,291	2,866,810
May	5.06%	1,815,053	1,082,570	454,126	112,170	24,249	65,033	508	236	76,160	1,815,053
June	3.58%	1,285,261	766,581	321,572	79,429	17,171	46,051	360	167	53,930	1,285,261
July	3.34%	1,196,697	713,758	299,414	73,956	15,988	42,878	335	156	50,213	1,196,697
August	3.36%	1,206,052	719,338	301,754	74,534	16,113	43,213	338	157	50,606	1,206,052
September	3.37%	1,207,316	720,092	302,071	74,612	16,130	43,258	338	157	50,659	1,207,316
October	4.79%	1,717,787	1,024,557	429,790	106,159	22,950	61,548	481	223	72,078	1,717,787
November	8.69%	3,114,345	1,857,520	779,209	192,467	41,608	111,587	872	405	130,678	3,114,345
December	13.83%	4,957,998	2,957,148	1,240,491	306,404	66,239	177,645	1,388	645	208,038	4,957,998
<b>Total</b>	<b>100.00%</b>	<b>35,853,031</b>	<b>21,384,182</b>	<b>8,970,428</b>	<b>2,215,717</b>	<b>478,996</b>	<b>1,284,614</b>	<b>10,039</b>	<b>4,661</b>	<b>1,504,393</b>	<b>35,853,031</b>

A/ WHN Revenue Workpaper R-55-4.00.

B/ WHN Revenue Workpaper R-55-3.00.

C/ WHN Revenue Workpaper R-55-5.00.

**SOURCE:** Couzens Workpaper - Sales & Transportation Pro Forma Revenue, Integrity Management Rider  
and Couzens Workpaper - SW Revenues - IMR Rev Req for Attrition Pd, Summary

	Amount
<b>IMR Computation by Vintage Year:</b>	
Vintage Year 1 - 03/12 to 10/13	8,384,293
Vintage Year 2 - 11/13 to 10/14	4,622,391
Vintage Year 3 - 11/14 to 10/15	1,618,049
Vintage Year 4 - 11/15 to 10/16	1,804,986
Vintage Year 5 - 11/16 to 10/17	3,525,633
Vintage Year 6 - 11/17 to 10/18	3,046,489
Vintage Year 7 - 11/18 to 10/19	4,322,221
Vintage Year 8 - 11/19 to 10/20	8,528,969
<b>Total IMRR</b>	<b>35,853,031</b>

**NOTES:**

Vintage Years 1-7 based on calculations contained in previous IMR filings - amounts are NOT verified.

Vintage Year 8 based on Company budget - amount is NOT verified (See Company response to CA1-24c).

**SOURCE:** Commission Approved IMR Filing in Docket No. 19-00107.

Throughput (Dts):	Residential	Commercial	LGS Firm	LGS Interruptible	Total	%
November	973,336	584,122	215,868	682,506	2,455,832	8.69%
December	1,730,608	941,038	357,459	880,548	3,909,653	13.83%
January	2,359,111	1,236,854	373,276	899,370	4,868,611	17.22%
February	2,385,891	1,246,332	272,366	728,423	4,633,012	16.39%
March	1,619,952	886,901	238,238	753,173	3,498,264	12.37%
April	916,259	542,351	161,907	640,120	2,260,637	8.00%
May	373,476	290,661	152,836	614,296	1,431,269	5.06%
June	147,666	185,427	108,789	571,617	1,013,499	3.58%
July	108,017	166,853	110,733	558,058	943,661	3.34%
August	107,902	166,553	112,060	564,523	951,038	3.36%
September	110,242	166,151	121,273	554,369	952,035	3.37%
October	297,754	251,717	154,075	651,023	1,354,569	4.79%
<b>Total</b>	<b>11,130,214</b>	<b>6,664,960</b>	<b>2,378,880</b>	<b>8,098,026</b>	<b>28,272,080</b>	<b>100.00%</b>

*All amounts confirmed and tied to 2011 rate case in Docket 11-00144.*

**SOURCE:** Commission Approved IMR Filing in Docket No. 19-00107.

**IM Margin Allocation From Docket 11-00144:**

Residential (301)  
Small & Medium General Service (302, 352)  
Large General Service - Firm (303, 313, 310)  
Large General Service - Interruptible (304, 314)  
**Total Margin**

<u>Amount</u>	<u>Percentage</u>
62,049,925	59.64%
32,459,219	31.20%
5,145,869	4.95%
4,378,934	4.21%
<b>104,033,947</b>	<b>100.00%</b>

*All amounts confirmed and tied to 2011 rate case in Docket 11-00144.*

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Excess ADIT Refund Summary**



Tariff	Consumer Advocate	Piedmont	Difference
301 - Residential	\$0 <b>A/</b>	-\$5,466,684 <b>J/</b>	\$5,466,684
302 - Small General Service	0 <b>B/</b>	-2,195,895 <b>K/</b>	2,195,895
352 - Medium General Service	0 <b>C/</b>	-822,401 <b>L/</b>	822,401
303 - Large General Firm Sales Service	0 <b>D/</b>	-54,605 <b>M/</b>	54,605
304 - Large General Interruptible Sales Service	0 <b>E/</b>	-1,739 <b>N/</b>	1,739
313 - Large General Firm Transportation Service	0 <b>F/</b>	-144,065 <b>O/</b>	144,065
314 - Large General Interruptible Transportation Service	0 <b>G/</b>	-647,148 <b>P/</b>	647,148
310 - Sale for Resale	0 <b>H/</b>	-648 <b>Q/</b>	648
373 - Special Contract	0 <b>I/</b>	0 <b>R/</b>	0
<b>Total Docket 18-00040 Excess ADIT Refund</b>	<b>\$0</b>	<b>-\$9,333,185</b>	<b>\$9,333,185</b>

**NOTE:**

Company incorrectly includes Excess ADIT revenues within the base rate calculation.  
See WHN Revenue Workpaper R-60-2.00 for details.

- A/ WHN Revenue Workpaper R-10-1.00.
- B/ WHN Revenue Workpaper R-15-1.00.
- C/ WHN Revenue Workpaper R-20-1.00.
- D/ WHN Revenue Workpaper R-25-1.00.
- E/ WHN Revenue Workpaper R-30-1.00.
- F/ WHN Revenue Workpaper R-35-1.00.
- G/ WHN Revenue Workpaper R-40-1.00.
- H/ WHN Revenue Workpaper R-45-1.00.
- I/ WHN Revenue Workpaper R-50-1.00.
- J/ WHN Revenue Workpaper R-10-1.01.
- K/ WHN Revenue Workpaper R-15-1.01.
- L/ WHN Revenue Workpaper R-20-1.01.
- M/ WHN Revenue Workpaper R-25-1.01.
- N/ WHN Revenue Workpaper R-30-1.01.
- O/ WHN Revenue Workpaper R-35-1.01.
- P/ WHN Revenue Workpaper R-40-1.01.
- Q/ WHN Revenue Workpaper R-45-1.01.
- R/ WHN Revenue Workpaper R-50-1.01.

**FW: Excess ADIT within Piedmont's Rate Case**

David N. Dittmore &lt;David.Dittmore@ag.tn.gov&gt;

Thu 10/29/2020 6:18 AM

To: Hal Novak <halnovak@WHNConsulting.com>; Alex Bradley <Alex.Bradley@ag.tn.gov>; Craig C. Cox <Craig.Cox@ag.tn.gov>

Hal, see notes 1 and 2 below. These refunds would be debits to revenue for book purposes, but should not be included in the computation of pro-forma revenue. In other words the revenue requirement deficiency in this case should not be increased or in any way affected by the \$9M. These are one-off refunds which are temporary, should not be incorporated into base rates, nor should the debits factor into pro-forma revenue...just like any current over/under recovery of purchased gas costs would not be added or subtracted to revenue for purposes of determining the Company's revenue requirement.

**From:** David N. Dittmore**Sent:** Monday, September 7, 2020 8:09 PM**To:** Hal Novak <halnovak@WHNConsulting.com>; Daniel P. Whitaker <Daniel.Whitaker@ag.tn.gov>**Subject:** RE: Excess ADIT within Piedmont's Rate Case

The various reductions in revenue requirement associated with the TCJA are reflected differently for ratemaking purposes:

1. Income Tax Expense Savings – from 1/1/18 through 5/31/19 - \$3,653,3362 (annual amount), resulting in a residential credit of (\$.01958) to be in effect for three years. Any under/over collection would flow through to the Company's ACA. The starting point for these credits was June 1, 2019. This amount was identified in a compliance filing pursuant to a Commission Order.
2. Income Tax Expense Savings – Going Forward - \$5,581,438 credit, resulting in a residential credit of (\$.02991) per dekatherm. This amount was stipulated and should be in effect until new base rates are determined. The rate reduction occurred within the volumetric portion of base rates. Of course the ongoing benefits of the lower tax rates are reflected within the Company's use of the 21% federal tax rate.
3. Unprotected EADIT - \$7,857,319 credit to be effective at the same time as rates became effective in 18-00126, per the litigated portion of the TPUC order in 18-00040. This is the \$.04211 credit you referenced. The Company has reflected a reduction in Income Tax Expense for the Amortization of Unprotected Excess ADIT of (6,877,608), reflected within the Revenue Requirement tab within the Revenue Requirement Summary file, line 109. I will investigate the difference. I do know there are true-ups to these amounts/balances when tax returns are filed, but I'm not aware of anything they submitted to us reconciling the identified credit in the Stipulation and Agreement to this reduced amount. I wasn't totally clear from your e-mail whether they propose to terminate the credit at the time new base rates become effective? That would seem to make sense to me as they're reflecting the credit within the Revenue Requirement Summary.
4. Protected EADIT – In the Commissions' 18-00040 order it required the Company to begin amortization of the Protected EADIT at the earlier of its next rate case or when the unprotected amortization expires. Therefore this amortization – identified as \$1.5 million annually – gross of tax should be reflected within this filing. I have not identified it yet, but will incorporate discovery into the next round if I haven't located it.

So in summary I need to have the company reconcile the Unprotected EADIT balances in this case with the S&A in 18-00040 as well as confirm the Protected EADIT amortization is in this case.

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From: Hal Novak <[halnovak@WHNConsulting.com](mailto:halnovak@WHNConsulting.com)>

Sent: Monday, September 7, 2020 5:09 PM

To: David N. Dittmore <[David.Dittmore@ag.tn.gov](mailto:David.Dittmore@ag.tn.gov)>; Daniel P. Whitaker <[Daniel.Whitaker@ag.tn.gov](mailto:Daniel.Whitaker@ag.tn.gov)>

Subject: Excess ADIT within Piedmont's Rate Case

Dave/Dan -

In Docket 18-00040, the Commission established a refund methodology of excess ADIT. For example, right now Piedmont has a refund rate of \$-0.04211/therm for residential customers embedded in their billing rates for Excess ADIT.

In the current rate case, Piedmont is proposing to remove this refund from the billing rate. Instead, Piedmont includes in revenues (as an offset) the \$0.04211/therm rate for residential customers at the forecasted residential volumes.

At this point, I'm trying to reconcile the Company's proposed rate case treatment of this refund with the Commission Order in 18-00040. It seems to me that the best way to treat this item would be to leave it out of the rate case entirely - and then let it true up at some point. However, the Commission Order appears to mention that this refund would somehow fit in with Piedmont's next rate case.

Do you have any idea of how we intended to treat excess ADIT from 18-00040 within this rate case?

**Hal Novak, CPA**

**WHN CONSULTING**

[www.whnconsulting.com](http://www.whnconsulting.com)

Phone: 713-298-1760

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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Gas Cost Summaries**

## WHN Revenue Workpapers - Attrition Period Gas Cost

Tariff	Consumer Advocate	Piedmont	Difference
301 - Residential	\$35,503,462 <b>A/</b>	\$35,432,839 <b>J/</b>	\$70,623
302 - Small General Service	16,292,889 <b>B/</b>	16,295,473 <b>K/</b>	-2,584
352 - Medium General Service	6,594,349 <b>C/</b>	6,102,937 <b>L/</b>	491,412
303 - Large General Firm Sales Service	2,419,134 <b>D/</b>	2,242,314 <b>M/</b>	176,820
304 - Large General Interruptible Sales Service	53,489 <b>E/</b>	50,069 <b>N/</b>	3,420
313 - Large General Firm Transportation Service	1,464,122 <b>F/</b>	1,327,591 <b>O/</b>	136,531
314 - Large General Interruptible Transportation Service	0 <b>G/</b>	0 <b>P/</b>	0
310 - Sale for Resale	22,002 <b>H/</b>	21,031 <b>Q/</b>	971
373 - Special Contract	0 <b>I/</b>	0 <b>R/</b>	0
<b>Total Attrition Period Gas Cost</b>	<b>\$62,349,447</b>	<b>\$61,472,254</b>	<b>\$877,193</b>

- A/ WHN Revenue Workpaper R-10-1.00.
- B/ WHN Revenue Workpaper R-15-1.00.
- C/ WHN Revenue Workpaper R-20-1.00.
- D/ WHN Revenue Workpaper R-25-1.00.
- E/ WHN Revenue Workpaper R-30-1.00.
- F/ WHN Revenue Workpaper R-35-1.00.
- G/ WHN Revenue Workpaper R-40-1.00.
- H/ WHN Revenue Workpaper R-45-1.00.
- I/ WHN Revenue Workpaper R-50-1.00.
- J/ WHN Revenue Workpaper R-10-1.01.
- K/ WHN Revenue Workpaper R-15-1.01.
- L/ WHN Revenue Workpaper R-20-1.01.
- M/ WHN Revenue Workpaper R-25-1.01.
- N/ WHN Revenue Workpaper R-30-1.01.
- O/ WHN Revenue Workpaper R-35-1.01.
- P/ WHN Revenue Workpaper R-40-1.01.
- Q/ WHN Revenue Workpaper R-45-1.01.
- R/ WHN Revenue Workpaper R-50-1.01.

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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Billing Demand Rates**

	<b>Current Demand Rates/Dkt</b>	<b>Company Proposed Rates/Dkt</b>	<b>Difference</b>
301 - Residential	\$0.7577 A/	0.7823 B/	0.0246
302 - Small General Service	0.7577 A/	0.7323 B/	-0.0254
352 - Medium General Service	0.7577 A/	0.7394 B/	-0.0183
303 - Large General Sales Service	8.2829 A/	6.7158 B/	-1.5671
313 - Large Firm Transportation Service	8.2829 A/	8.3617 B/	0.0788
310 - Sale for Resale	8.2829 A/	1.3372 B/	-6.9457

Company is proposing to change demand billing rate allocation between customer classes.

This has never been proposed as a component of a rate case (to my knowledge).

WHN 9-20-20

A/ WHN Revenue Workpaper R-110-1.00.

B/ Couzens Workpaper - KAC Exhibits 6-29, Exhibit (KAC-4).

## WHN Revenue Workpapers - Impact of Proposed Change in Billing Demand Allocation Between Tariffs

Tariff	Attrition Dkt Determinant	A/	Demand Billing Rates				Impact
			Current Rates/Dkt	B/	Proposed Rates/Dkt	B/	
301 - Residential	13,007,790		\$0.7577		\$0.7823		319,992
302 - Small General Service	5,969,403		0.7577		0.7323		-151,623
352 - Medium General Service	2,416,044		0.7577		0.7394		-44,214
303 - Large General Sales Service	89,727		8.2829		6.7158		-140,611
313 - Large Firm Transportation Service	176,764		8.2829		8.3617		13,929
310 - Sale for Resale	1,800		8.2829		1.3372		-12,502
<b>Total</b>							<b>-15,029</b>

A/ WHN Revenue Workpaper R-1-3.00.

A/ WHN Revenue Workpaper R-85-1.00.



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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Pipeline Throughput**

Piedmont has a provision in its tariff that weights transportation by assuming a 50/50 split between throughput on GULF COAST, Tenn 500 So LA Z1 and GULF COAST, Tenn 800 So LA Z1.

This tariff provision impacts the following Rate Schedules:

Rate 307 - Balancing Cash-Out & Agency Authorization	A/
Rate 313 - Firm Transportation.	B/

A data request has been issued to review the weighting factors in the Company's tariff.

A/ See WHN Revenue Workpaper R-95-2.00.

B/ See WHN Revenue Workpaper R-95-3.00.

SOURCE: Powers Workpaper - Exhibit PKP-1, Rate Schedule 307, Page 3 of 5.

Exhibit\_(PKP-1)  
 Page 16 of 78

Piedmont Natural Gas Company, Inc.  
 Tennessee Service Schedule No. 307

Second Revised Page 3 of 5

fuel and surcharges, and deliver to the Company's city gate, times the premium percentage corresponding to the percentage of the deficiency listed in the table below.

If the Customer (or Agent) is "long" by more than 2% of the monthly volume consumed, the price paid by the Company to the Customer (or Agent) for each dekatherm of the total surplus will be equal to the lowest "Weighted Index Price" for any week beginning in the calendar month as published in *Natural Gas Week*, plus the pipelines Rate Schedule FT variable charges, including applicable fuel and surcharges, at the applicable pipeline percentages that comprise the "Weighted Index Price" and deliver to the Company's city gate, times the premium percentage corresponding to the percentage of the deficiency listed in the table below.

Percentage of the Imbalance	Short (Premium)	Long (Discount)
Over 2% & equal to or less than 5%	110%	90%
Over 5% & equal to or less than 10%	120%	80%
Over 10% & equal to or less than 15%	130%	70%
Over 15% & equal to or less than 20%	140%	60%
Over 20%	150%	50%

The "Weighted Index Price" shall be derived from the prices published in *Natural Gas Week* in the table Natural Gas Weekly Spot Prices for the following pipeline designations and weighted by the corresponding percentages set forth below:

GULF COAST, Tenn 500 So LA Z1	X	.5
+		
GULF COAST, Tenn 800 So LA Z1	X	.5

If an index listed in the table above fails to publish, the Company will use an average of the published corresponding Gas Daily indexes for the corresponding dates not published in *Natural Gas Week*.

The Company will collect gross receipts tax on the incremental gas related charges.

Any difference between the actual cost of gas incurred by the Company and the Index price as defined in the previous paragraph will be accounted for in the Actual Cost Adjustment account in a manner consistent with Service Schedule No. 311, "Purchased Gas Adjustment (PGA) Rider." Increments or decrements which may result from the PGA adjustments will not apply to the cash-out of imbalances.

#### **AGENCY AUTHORIZATION FORM**

Certain Rate Schedules permit a Customer to appoint a Customer's Agent to act on its behalf with respect to nominations, imbalance resolution, and/or billing. Customer shall authorize a Customer's Agent by executing an Agency Authorization Form in the form attached to this Rate Schedule. In order to be considered a Customer's Agent, a third-party must execute and be in compliance with all of the terms of the Customer Agent Agreement form set forth in Appendix A to the Company's Service Regulations. To the extent that the Agent appointed by the Customer is common to other Customers of the Company, the Company will permit such Agent to aggregate all such qualifying Customers' transportation quantities for purposes of administering Service to such Agent. Once a Customer has designated an Agent, the Agent is then authorized

EFFECTIVE: January 1, 2021

SOURCE: Powers Workpaper - Exhibit PKP-1, Rate Schedule 313, Page 2 of 5.

Exhibit\_(PKP-1)  
 Page 33 of 78

Piedmont Natural Gas Company, Inc.  
 Tennessee Rate Schedule No. 313

Fifth Revised Page 2 of 4

Customer's account under this Rate Schedule on a day-to-day basis in accordance with the Customer's scheduled and confirmed nominations, subject to such maximum allowable daily deliveries as may be specified in the Gas Service Contract. The Company reserves the right to suspend Service on any day when, in the Company's sole opinion, its operating conditions are such that suspension of Service is necessary. The Company reserves the right to limit, allocate, or direct third party gas nominations among the interstate pipelines serving the Company's distribution system, when, in the Company's sole opinion, such action is necessary to maintain the operational integrity of the system.

#### STANDBY SALES SERVICE

At the option of the Customer, an election may be made monthly to receive Standby Sales Service from the Company under this Rate Schedule for delivery to the Customer at the Company's city gate. The Customer will also receive Standby Sales Service as a default if the Customer or the Customer's agent fails to submit a timely and valid nomination for transportation Service. In addition to paying the Monthly Standby Index Price set forth below for Standby Sales Service hereunder, the Customer will utilize the transportation Services and incur the charges otherwise applicable under this Rate Schedule to cause such gas supplies to be delivered to the Customer's meter. The price which the Customer shall pay for the gas supplied under this paragraph will be the "Monthly Standby Index Price" defined as follows: The weighted average index price for the applicable month as published in the first *Natural Gas Week* for such month in the table "Natural Gas Weekly Spot Prices" indicated specifically under the "Bid Week" column for:

GULF COAST, Tenn 500 So LA Z1	X	.5
+		
GULF COAST, Tenn 800 So LA Z1	X	.5

If the Customer nominates transportation Service hereunder and purchases gas supplies from a third party supplier, and such Customer's consumption exceeds actual deliveries to the Company from such third party supplier to the point where operational problems are created for the Company, then the Company shall have the right, at its sole discretion, to initiate Standby Sales Service to the Customer. The price for such Service shall be the same as set forth above except when the Company is required by such imbalance shortfall to purchase incremental volumes of gas supplies. In this case the Customer receiving Standby Sales Service will pay the higher of (on a daily basis) the "Monthly Standby Index Price" or the "Daily Standby Index Price" defined as follows:

The "Daily Standby Index Price" will be equal to the "Midpoint" daily index price as published in Gas Daily for the day of consumption as stated in the "Daily Price Survey", "Louisiana/Southeast", "Tennessee, 500 Leg." For days of consumption when the Gas Daily is not published, the Gas Daily price shall equal the average of the corresponding index prices as published on the nearest preceding and nearest subsequent day by Gas Daily.

For Days of consumption when any component of the "Monthly Standby Index Price" is not published, the component of the "Monthly Standby Index Price" that was not published shall equal the corresponding midpoint daily index price as published in Gas Daily for the first day of the month of flow. For days of consumption when the "Daily Standby Index Price" is not published, the "Daily Price" shall equal the average of the corresponding index prices as published on the nearest preceding and nearest subsequent day by Gas Daily.

EFFECTIVE: January 1, 2021

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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - 25 Largest Customers**

The Company has identified the following customers as the 25 Largest for the Test Period

Number	Customer	S2K Rate	Tariff Rate	2019 Usage
1	CONTAINS CONFIDENTIAL PROPRIETARY DATA			
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

**SOURCE:** Company response to CA1-20.

However, the Industrial Rate Schedules reflected the following weather normalization correlations:

Rate 303 - Firm Sales	98.51%	R-25-3.00
Rate 304 - Interruptible Sales	51.04%	R-30-3.00
Rate 313 - Firm Transportation	96.51%	R-35-3.00
Rate 314 - Interruptible Transportation	98.48%	R-40-3.00
Rate 303/313 Combined Firm	97.91%	R-42-3.00
Rate 304/314 Combined Interruptible	98.54%	R-43-3.00

The high correlations shown above (near 99%) indicate that weather explains virtually all of the volatility in consumption for these customers. Therefore, because of time constraints, I have found no need to examine the historic data of these customers for any cause in consumption volatility.

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**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Residential Revenue Forecast**

	Billing Determinant	Rate	Margin
<b>Total Residential Margin</b>			
<b>Customer Charges:</b>			
Summer	1,219,829 A/	\$13.45 C/	\$16,406,693
Winter	886,665 A/	17.45 C/	15,472,313
<b>Total Customer Charge Revenue</b>	<b>2,106,494</b>		<b>\$31,879,006</b>
<b>Commodity Charges:</b>			
Summer Therms	29,109,162 B/	\$0.24009 C/	\$6,988,819
Winter Therms	100,968,738 B/	\$0.29009 C/	29,290,021
<b>Total Commodity Charge Revenue</b>	<b>130,077,900</b>		<b>\$36,278,840</b>
<b>Total Residential Margin</b>			<b>\$68,157,846</b>
<b>Gas Cost:</b>			
Demand	130,077,900	0.07577 C/	\$9,856,002
Commodity	130,077,900	0.19717 C/	25,647,460
<b>Total Gas Cost</b>			<b>\$35,503,462</b>
<b>Other Charges:</b>			
Integrity Management Rider Surcharge			0 D/
Docket 18-00040 Excess ADIT			0 E/
<b>Total Other Charges</b>			<b>0</b>
<b>Total Revenues</b>			<b>\$103,661,308</b>

A/ WHN Revenue Workpaper R-10-1.03.

B/ WHN Revenue Workpaper R-10-1.02.

C/ WHN Revenue Workpaper R-110-1.00.

D/ IMR Surcharge is excluded from the Consumer Advocate's case. See WHN Revenue Workpaper R-55-1.00 for details.

E/ Excess ADIT is excluded from the Consumer Advocate's case. See WHN Workpaper R-60-1.00 for details.



SOURCE: Couzens Workpaper - Sales &amp; Transportation Pro Forma Revenue, A-Summary Pro Forma Revs

	Billing Determinant	Rate	Margin
<b>Total Residential Margin</b>			
<b>Customer Charges:</b>			
Summer	1,224,674	\$13.45	\$16,471,865
Winter	879,725	17.45	15,351,201
<b>Total Customer Charge Revenue</b>	<b>2,104,399</b>		<b>\$31,823,067</b>
<b>Commodity Charges:</b>			
Summer Therms	29,236,290	\$0.24009	\$7,019,341
Winter Therms	100,582,860	0.29009	29,178,082
<b>Total Commodity Charge Revenue</b>	<b>129,819,150</b>		<b>\$36,197,423</b>
<b>Total Residential Margin</b>			<b>\$68,020,490</b>
<hr/>			
<b>Gas Cost:</b>			
Demand	129,819,150	\$0.07577	\$9,836,397
Commodity	129,819,150	0.19717	25,596,442
<b>Total Gas Cost</b>			<b>\$35,432,839</b>
<hr/>			
<b>Other Charges:</b>			
Integrity Management Rider Surcharge			\$21,384,182
Docket 18-00040 Excess ADIT	129,819,150	-\$0.04211	-5,466,684
<b>Total Other Charges</b>			<b>\$15,917,498</b>
<b>Total Revenues</b>			<b>\$119,370,827</b>

	Winter	Summer	Total
Attrition Period Residential Usage	100,968,738	29,109,162	130,077,900 A/
Winter/Summer Percentage	77.62%	22.38%	100.00%

**Historic Usage:**  
**For the 12 Months Ended March**

MONTH	2015	2016	2017	2018	2019	2020	Average
April	11,440,614	9,158,282	7,981,472	8,308,108	12,942,568	10,706,784	10,089,638 B/
May	4,189,393	3,598,743	3,849,440	3,466,722	6,268,071	4,180,337	4,258,784 B/
June	2,430,711	2,340,039	2,712,281	2,536,235	2,290,562	2,502,052	2,468,647 B/
July	1,868,447	2,004,384	1,888,665	1,969,111	1,827,276	2,012,046	1,928,322 B/
August	1,797,861	1,732,161	1,690,126	1,758,705	1,719,601	1,853,321	1,758,629 B/
September	1,796,926	1,875,800	1,871,334	2,078,896	1,950,336	1,957,164	1,921,743 B/
October	2,407,152	2,637,027	1,994,565	2,232,784	2,415,541	2,335,813	2,337,147 B/
November	9,078,222	4,942,079	3,986,067	7,769,511	10,307,018	10,086,725	7,694,937 B/
December	17,949,027	11,165,919	14,832,111	16,119,598	19,992,349	18,333,507	16,398,752 B/
January	25,622,995	18,493,602	21,278,516	31,969,737	21,062,323	19,309,797	22,956,162 B/
February	25,707,206	23,221,736	16,260,452	24,618,181	23,389,331	21,228,260	22,404,194 B/
March	26,057,214	16,284,942	12,163,554	13,053,596	18,029,455	17,708,962	17,216,287 B/
<b>Total</b>	<b>130,345,768</b>	<b>97,454,714</b>	<b>90,508,583</b>	<b>115,881,184</b>	<b>122,194,431</b>	<b>112,214,768</b>	<b>111,433,241</b>
Summer Usage (Apr - Oct)	25,931,104	23,346,436	21,987,883	22,350,561	29,413,955	25,547,517	24,762,909
Winter Usage (Nov - Mar)	104,414,664	74,108,278	68,520,700	93,530,623	92,780,476	86,667,251	86,670,332
<b>Total</b>	<b>130,345,768</b>	<b>97,454,714</b>	<b>90,508,583</b>	<b>115,881,184</b>	<b>122,194,431</b>	<b>112,214,768</b>	<b>111,433,241</b>
Summer Percentage	19.89%	23.96%	24.29%	19.29%	24.07%	22.77%	22.38%
Winter Percentage	80.11%	76.04%	75.71%	80.71%	75.93%	77.23%	77.62%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

A/ WHN Revenue Workpaper R-10-1.04.

B/ WHN Revenue Workpaper R-10-4.00.

	Winter	Summer	Total
Attrition Period Residential Bills	886,665	1,219,829	2,106,494 A/
Winter/Summer Percentage	42.09%	57.91%	100.00%

**Historic Bill Counts:**  
**For the 12 Months Ended March**

MONTH	2015	2016	2017	2018	2019	2020	Average
April	155,849	158,055	160,471	163,613	167,376	170,097	162,577 B/
May	155,308	157,305	160,102	163,525	167,280	169,601	162,187 B/
June	154,554	156,877	159,809	163,186	166,605	169,085	161,686 B/
July	154,310	156,543	159,449	162,650	166,208	169,056	161,369 B/
August	153,870	156,082	159,436	162,810	165,999	168,810	161,168 B/
September	153,830	156,161	159,177	162,490	165,557	168,663	160,980 B/
October	153,837	156,469	159,389	162,792	165,851	168,917	161,209 B/
November	154,964	157,513	160,259	164,104	167,336	170,072	162,375 B/
December	156,929	159,162	162,110	165,598	168,925	171,645	164,062 B/
January	157,615	160,018	163,364	166,618	169,619	172,211	164,908 B/
February	157,936	160,565	163,592	167,225	169,837	172,594	165,292 B/
March	158,379	160,922	163,800	167,367	170,026	172,974	165,578 B/
<b>Total</b>	<b>1,867,381</b>	<b>1,895,672</b>	<b>1,930,958</b>	<b>1,971,978</b>	<b>2,010,619</b>	<b>2,043,725</b>	<b>1,953,389</b>
Summer Bills (Apr - Oct)	1,081,558	1,097,492	1,117,833	1,141,066	1,164,876	1,184,229	1,131,176
Winter Bills (Nov - Mar)	785,823	798,180	813,125	830,912	845,743	859,496	822,213
<b>Total</b>	<b>1,867,381</b>	<b>1,895,672</b>	<b>1,930,958</b>	<b>1,971,978</b>	<b>2,010,619</b>	<b>2,043,725</b>	<b>1,953,389</b>
Summer Percentage	57.92%	57.89%	57.89%	57.86%	57.94%	57.94%	57.91%
Winter Percentage	42.08%	42.11%	42.11%	42.14%	42.06%	42.06%	42.09%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

A/ WHN Revenue Workpaper R-10-1.04.

B/ WHN Revenue Workpaper R-10-4.00.

**Attrition Period Monthly Growth in Residential Bills**

	<b>2,989</b>	<b>A/</b>
	<b>Growth</b>	<b>Total</b>
Test Period Number of Residential Bills - 12 Months Ended March, 2020		2,043,725 <b>A/</b>
April-20	2,989	2,046,714
May-20	2,989	2,049,703
June-20	2,989	2,052,692
July-20	2,989	2,055,681
August-20	2,989	2,058,670
September-20	2,989	2,061,659
October-20	2,989	2,064,648
November-20	2,989	2,067,637
December-20	2,989	2,070,626
January-21	2,989	2,073,615
February-21	2,989	2,076,604
March-21	2,989	2,079,593
April-21	2,989	2,082,582
May-21	2,989	2,085,571
June-21	2,989	2,088,560
July-21	2,989	2,091,549
August-21	2,989	2,094,538
September-21	2,989	2,097,527
October-21	2,989	2,100,516
November-21	2,989	2,103,505
December-21	2,989	2,106,494

Attrition Period Residential Bills	2,106,494	
Normalized Usage per Bill (Therms)	61.7509	<b>B/</b>
<b>Total Residential Sales Volume - Therms</b>	<b>130,077,900</b>	

A/ WHN Revenue Workpaper R-10-1.05.

B/ WHN Revenue Workpaper R-10-2.00.

Historic Bill Counts:

For the 12 Months Ended March

MONTH	2015	2016	2017	2018	2019	2020
April	155,849	158,055	160,471	163,613	167,376	170,097
May	155,308	157,305	160,102	163,525	167,280	169,601
June	154,554	156,877	159,809	163,186	166,605	169,085
July	154,310	156,543	159,449	162,650	166,208	169,056
August	153,870	156,082	159,436	162,810	165,999	168,810
September	153,830	156,161	159,177	162,490	165,557	168,663
October	153,837	156,469	159,389	162,792	165,851	168,917
November	154,964	157,513	160,259	164,104	167,336	170,072
December	156,929	159,162	162,110	165,598	168,925	171,645
January	157,615	160,018	163,364	166,618	169,619	172,211
February	157,936	160,565	163,592	167,225	169,837	172,594
March	158,379	160,922	163,800	167,367	170,026	172,974
<b>Total</b>	<b>1,867,381</b>	<b>1,895,672</b>	<b>1,930,958</b>	<b>1,971,978</b>	<b>2,010,619</b>	<b>2,043,725</b>

Source: WHN Revenue Workpaper R-10-4.00.

Annual Bill Growth Calculation:

Year	Bills	Growth
2015	1,867,381	-
2016	1,895,672	28,291
2017	1,930,958	35,286
2018	1,971,978	41,020
2019	2,010,619	38,641
2020	2,043,725	33,106

Five-Year Average 35,269

Four-Year Average 37,013

Three-Year Average 37,589

Two-Year Average 35,874

One-Year Average 33,106

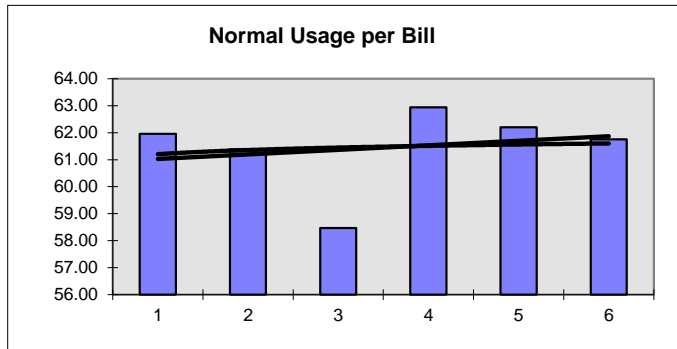
The Two-Year Average Growth was chosen as the most representative of the Attrition Year.

Annual Bill Growth Forecast	35,874
Test Period Bills	2,043,725
<b>Annual Percentage Growth</b>	<b><u>1.76%</u></b>

Annual Bill Growth Forecast	35,874
Months per Year	12
<b>Monthly Bill Growth</b>	<b><u>2,989</u></b>

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2015	1	61.9563	61.0274	61.0087	-
2016	2	61.3805	61.1958	61.1776	-0.93%
2017	3	58.4677	61.3642	61.3470	-4.75%
2018	4	62.9371	61.5327	61.5168	7.64%
2019	5	62.1983	61.7011	61.6871	-1.17%
2020	6	61.7509	61.8696	61.8579	-0.72%
Forecast	7.25		62.0802	62.0720	61.7626

Regression Statistics		
	Linear	Logarithmic
Constant	60.858903	4.108252
X Coefficient	0.168449	0.002765
R Squared	0.041321	0.040715

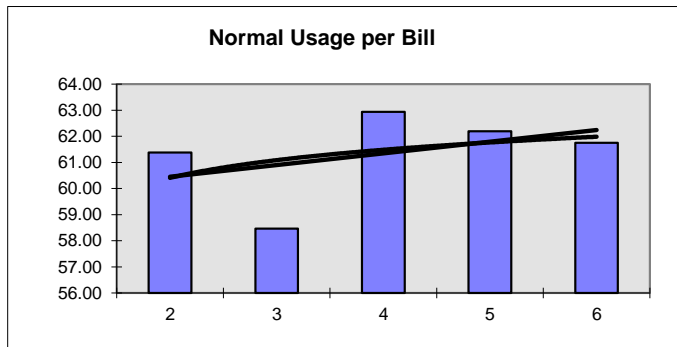


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - Residential Conservation and Growth-5 Year Analysis  
Cycle Data

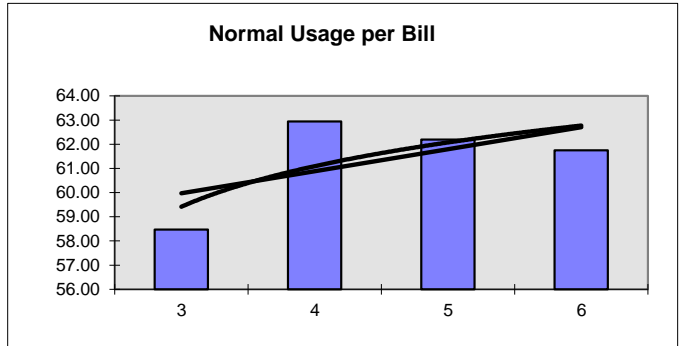
Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2016	2	61.3805	60.4526	60.4279	-
2017	3	58.4677	60.8998	60.8760	-4.75%
2018	4	62.9371	61.3469	61.3275	7.64%
2019	5	62.1983	61.7940	61.7823	-1.17%
2020	6	61.7509	62.2412	62.2404	-0.72%
Forecast	7.25		62.8001	62.8179	61.9450

Regression Statistics		
	Linear	Logarithmic
Constant	59.558376	4.086674
X Coefficient	0.447133	0.007388
R Squared	0.170766	0.170673



Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2017	3	58.4677	59.9719	59.9312	-
2018	4	62.9371	60.8830	60.8497	7.64%
2019	5	62.1983	61.7940	61.7823	-1.17%
2020	6	61.7509	62.7051	62.7291	-0.72%
Forecast	7.25		63.8439	63.9331	63.2341

Regression Statistics		
	Linear	Logarithmic
Constant	57.238709	4.047570
X Coefficient	0.911066	0.015209
R Squared	0.354529	0.361713

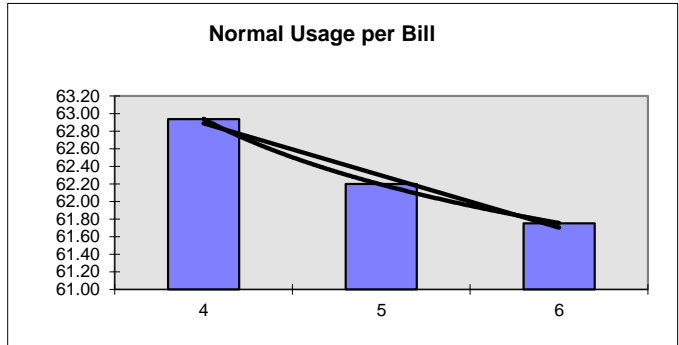


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - Residential Conservation and Growth-3 Year Analysis  
Cycle Data

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2018	4	62.9371	62.8886	62.8890	-
2019	5	62.1983	62.2954	62.2935	-1.17%
2020	6	61.7509	61.7023	61.7037	-0.72%
Forecast	7.25		60.9609	60.9742	61.0211

Regression Statistics		
	Linear	Logarithmic
Constant	65.261030	4.179427
X Coefficient	-0.593119	-0.009514
R Squared	0.980283	0.980982



Trend	From The 12 Months Ended		Cycle Data	
	Month	Year	Time Series Forecast	Adjusted Forecast
Linear Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018	60.9609	60.9609
Logarithmic Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018	60.9742	60.9742
Year To Year Change	March	2015	61.7626	61.7626
	March	2016	61.9450	61.9450
	March	2017	63.2341	
	March	2018	61.0211	61.0211
<b>Average</b>			<b>61.6497</b>	<b>61.3328</b>
One Standard Deviation			0.8100	
<b>Upper</b> End of Range			62.4596	
<b>Lower</b> End of Range			60.8397	
Number in Range			5.0000	
Weighted Average Forecast at Midpoint				<b>61.3328</b>
Test Period Amount				<b>61.7509</b>
Compound Growth Factor				<b>0.99322893</b>
Annualized Growth Rate				<b>0.99457947</b>
Test Period Sales				112,214,768
Weather Adjustment				13,987,052
Normal Sales				<b>126,201,820</b>
Usage Adjustment				-854,521
Adjusted Sales				<b>125,347,299</b>

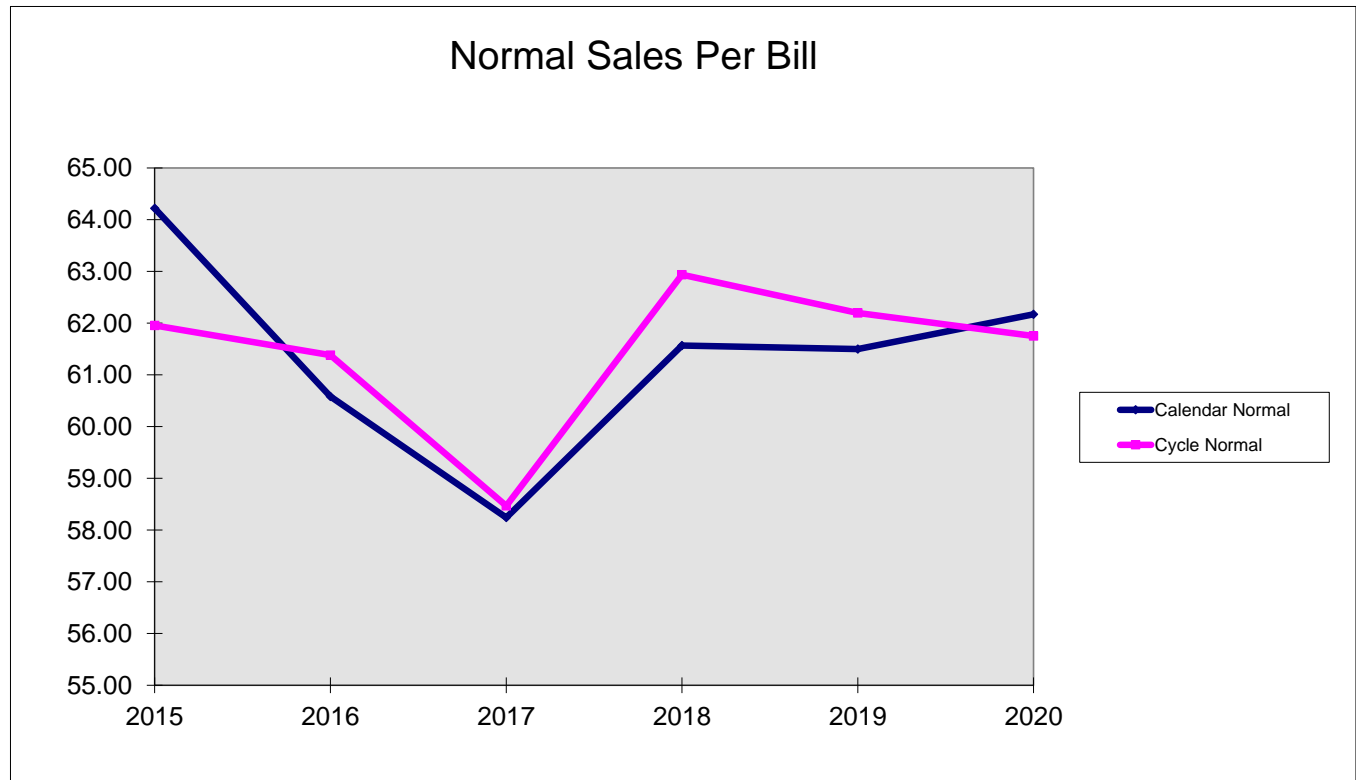


CALENDAR DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	130,345,768	1,867,381	763.7715	119,925,547	-10,420,221	75.46%	64.2213
2016	97,454,714	1,895,672	720.9108	114,841,649	17,386,935	75.97%	60.5810
2017	90,508,583	1,930,958	693.0620	112,462,030	21,953,447	78.56%	58.2416
2018	115,881,184	1,971,978	732.1961	121,406,418	5,525,234	76.89%	61.5658
2019	122,194,431	2,010,619	732.3949	123,654,842	1,460,411	76.79%	61.5009
2020	112,214,768	2,043,725	740.5744	127,061,900	14,847,132	76.97%	62.1717

CYCLE DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	130,345,768	1,867,381	737.0260	115,696,015	-14,649,753	97.36%	61.9563
2016	97,454,714	1,895,672	730.1981	116,357,312	18,902,598	93.45%	61.3805
2017	90,508,583	1,930,958	695.6212	112,898,716	22,390,133	96.37%	58.4677
2018	115,881,184	1,971,978	748.8062	124,110,615	8,229,431	96.89%	62.9371
2019	122,194,431	2,010,619	740.7040	125,057,093	2,862,662	97.27%	62.1983
2020	112,214,768	2,043,725	735.4804	126,201,820	13,987,052	93.57%	61.7509



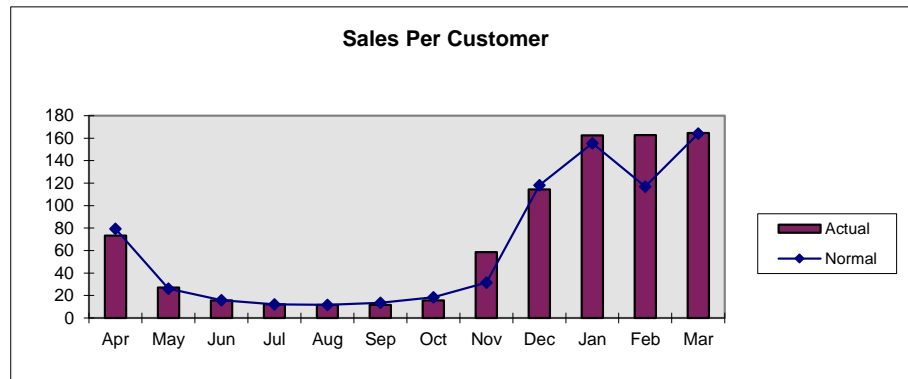
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	11,440,614	155,849	73.4083	144	182
May	4,189,393	155,308	26.9747	50	45
June	2,430,711	154,554	15.7273	0	1
July	1,868,447	154,310	12.1084	0	0
August	1,797,861	153,870	11.6843	0	0
September	1,796,926	153,830	11.6812	3	15
October	2,407,152	153,837	15.6474	150	168
November	9,078,222	154,964	58.5828	621	451
December	17,949,027	156,929	114.3767	671	695
January	25,622,995	157,615	162.5670	840	795
February	25,707,206	157,936	162.7698	905	617
March	26,057,214	158,379	164.5244	441	438
<b>TOTAL</b>	<b>130,345,768</b>	<b>1,867,381</b>	<b>830.0524</b>	<b>3,825</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	38	6.0661	79.4744	12,386,010	945,396
May	-5	-0.8126	26.1621	4,063,190	-126,203
June	1	0.2000	15.9273	2,461,622	30,911
July	0	0.0000	12.1084	1,868,447	0
August	0	0.0159	11.7002	1,800,308	2,447
September	12	1.8824	13.5636	2,086,496	289,570
October	18	2.8029	18.4503	2,838,342	431,190
November	-170	-26.9594	31.6234	4,900,486	-4,177,736
December	24	3.7711	118.1478	18,540,822	591,795
January	-45	-7.0898	155.4772	24,505,536	-1,117,459
February	-288	-45.7036	117.0662	18,488,962	-7,218,244
March	-3	-0.4539	164.0705	25,985,326	-71,888
<b>TOTAL</b>	<b>-418</b>	<b>-66.2809</b>	<b>763.7715</b>	<b>119,925,547</b>	<b>-10,420,221</b>

Regression Output:

Constant 18.58054593  
Std Err of Y Est 33.63900917  
R Squared 0.75462730  
  
X Coefficient 0.15871525  
Std Err of Coef. 0.02861973



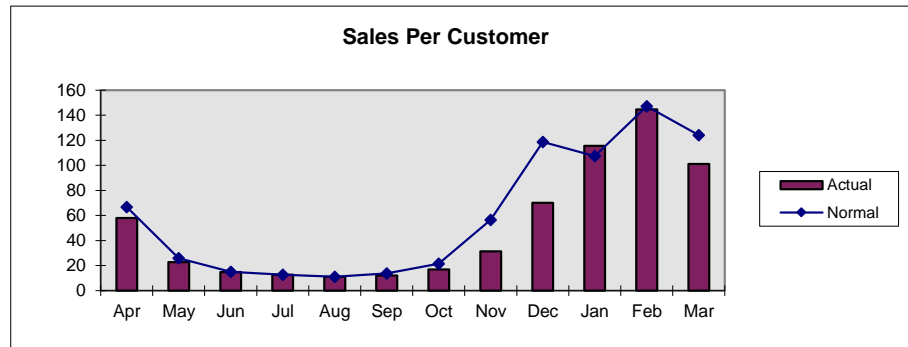
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	9,158,282	158,055	57.9436	123	182
May	3,598,743	157,305	22.8775	24	45
June	2,340,039	156,877	14.9164	0	1
July	2,004,384	156,543	12.8040	0	0
August	1,732,161	156,082	11.0978	0	0
September	1,875,800	156,161	12.0120	3	15
October	2,637,027	156,469	16.8534	137	168
November	4,942,079	157,513	31.3757	283	451
December	11,165,919	159,162	70.1544	370	695
January	18,493,602	160,018	115.5720	850	795
February	23,221,736	160,565	144.6251	600	617
March	16,284,942	160,922	101.1977	285	438
<b>TOTAL</b>	<b>97,454,714</b>	<b>1,895,672</b>	<b>611.4296</b>	<b>2,675</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	59	8.8525	66.7961	10,557,464	1,399,182
May	21	3.1212	25.9987	4,089,723	490,980
June	1	0.1884	15.1048	2,369,595	29,556
July	0	0.0000	12.8040	2,004,384	0
August	0	0.0149	11.1127	1,734,487	2,326
September	12	1.7729	13.7849	2,152,658	276,858
October	31	4.5832	21.4366	3,354,156	717,129
November	168	25.1344	56.5101	8,901,074	3,958,995
December	325	48.5467	118.7011	18,892,709	7,726,790
January	-55	-8.1723	107.3997	17,185,887	-1,307,715
February	17	2.5472	147.1723	23,630,727	408,991
March	153	22.8921	124.0898	19,968,785	3,683,843
<b>TOTAL</b>	<b>732</b>	<b>109.48</b>	<b>720.9108</b>	<b>114,841,649</b>	<b>17,386,935</b>

Regression Output:

Constant 17.62982340  
Std Err of Y Est 24.05519016  
R Squared 0.75974882  
  
X Coefficient 0.14948477  
Std Err of Coef. 0.02658243



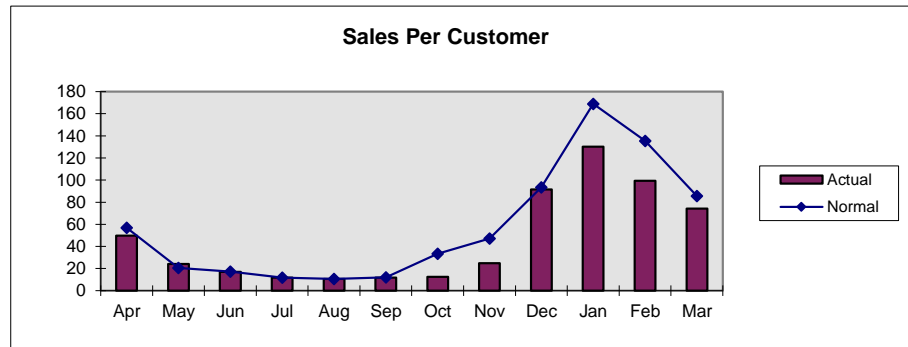
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,981,472	160,471	49.7378	136	182
May	3,849,440	160,102	24.0437	67	45
June	2,712,281	159,809	16.9720	0	1
July	1,888,665	159,449	11.8449	0	0
August	1,690,126	159,436	10.6007	0	0
September	1,871,334	159,177	11.7563	13	15
October	1,994,565	159,389	12.5138	33	168
November	3,986,067	160,259	24.8727	308	451
December	14,832,111	162,110	91.4941	683	695
January	21,278,516	163,364	130.2522	546	795
February	16,260,452	163,592	99.3964	385	617
March	12,163,554	163,800	74.2586	365	438
<b>TOTAL</b>	<b>90,508,583</b>	<b>1,930,958</b>	<b>557.7431</b>	<b>2,536</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	46.2200	7.1775	56.9153	9,133,253	1,151,781
May	-22.1200	-3.4350	20.6087	3,299,490	-549,950
June	1.2600	0.1957	17.1677	2,743,556	31,275
July	0.0000	0.0000	11.8449	1,888,665	0
August	0.1000	0.0155	10.6162	1,692,597	2,471
September	1.8600	0.2888	12.0451	1,917,304	45,970
October	134.6600	20.9115	33.4253	5,327,628	3,333,063
November	143.1400	22.2283	47.1010	7,548,352	3,562,285
December	11.7600	1.8262	93.3203	15,128,156	296,045
January	249.3300	38.7187	168.9709	27,603,758	6,325,242
February	232.0400	36.0337	135.4301	22,155,277	5,894,825
March	73.1400	11.3580	85.6166	14,023,994	1,860,440
<b>TOTAL</b>	<b>871.3900</b>	<b>135.3189</b>	<b>693.0620</b>	<b>112,462,030</b>	<b>21,953,447</b>

Regression Output:

Constant 13.66043748  
Std Err of Y Est 20.34688818  
R Squared 0.78564753  
  
X Coefficient 0.15529095  
Std Err of Coef. 0.02565054



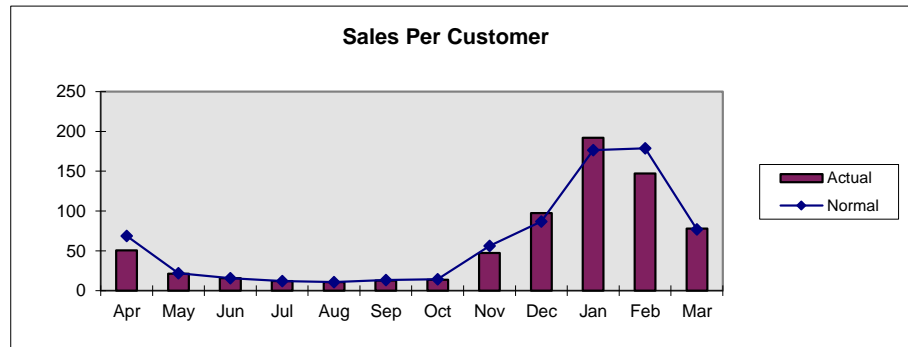
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	8,308,108	163,613	50.7790	76	182
May	3,466,722	163,525	21.2000	41	45
June	2,536,235	163,186	15.5420	0	1
July	1,969,111	162,650	12.1064	0	0
August	1,758,705	162,810	10.8022	0	0
September	2,078,896	162,490	12.7940	12	15
October	2,232,784	162,792	13.7156	163	168
November	7,769,511	164,104	47.3450	399	451
December	16,119,598	165,598	97.3417	758	695
January	31,969,737	166,618	191.8744	886	795
February	24,618,181	167,225	147.2159	429	617
March	13,053,596	167,367	77.9938	444	438
<b>TOTAL</b>	<b>115,881,184</b>	<b>1,971,978</b>	<b>698.7101</b>	<b>3,208</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	106.2200	17.8388	68.6178	11,226,768	2,918,660
May	3.8800	0.6516	21.8516	3,573,275	106,553
June	1.2600	0.2116	15.7536	2,570,765	34,530
July	0.0000	0.0000	12.1064	1,969,111	0
August	0.1000	0.0168	10.8190	1,761,440	2,735
September	2.8600	0.4803	13.2743	2,156,940	78,044
October	4.6600	0.7826	14.4982	2,360,185	127,401
November	52.1400	8.7565	56.1015	9,206,488	1,436,977
December	-63.2400	-10.6207	86.7210	14,360,831	-1,758,767
January	-90.6700	-15.2273	176.6471	29,432,595	-2,537,142
February	188.0400	31.5799	178.7958	29,899,130	5,280,949
March	-5.8600	-0.9841	77.0097	12,888,890	-164,706
<b>TOTAL</b>	<b>199.3900</b>	<b>33.4860</b>	<b>732.1961</b>	<b>121,406,418</b>	<b>5,525,234</b>

Regression Output:

Constant 13.32924631  
Std Err of Y Est 30.21180154  
R Squared 0.76886424  
  
X Coefficient 0.16794239  
Std Err of Coef. 0.02911850



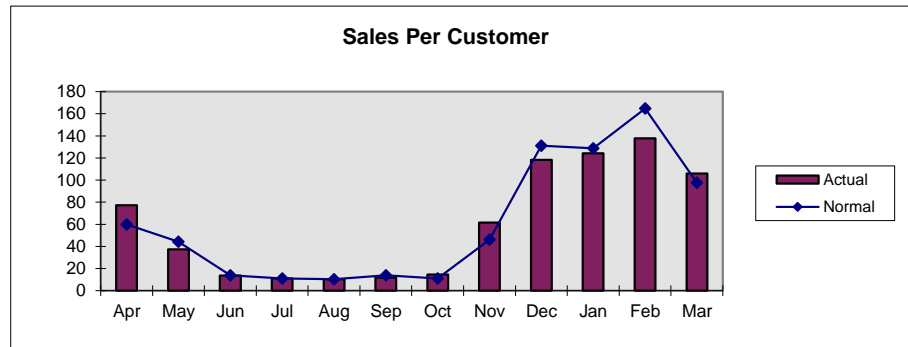
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	12,942,568	167,376	77.3263	295	182
May	6,268,071	167,280	37.4705	1	45
June	2,290,562	166,605	13.7485	0	1
July	1,827,276	166,208	10.9939	0	0
August	1,719,601	165,999	10.3591	0	0
September	1,950,336	165,557	11.7805	2	15
October	2,415,541	165,851	14.5645	190	168
November	10,307,018	167,336	61.5947	551	451
December	19,992,349	168,925	118.3504	613	695
January	21,062,323	169,619	124.1743	766	795
February	23,389,331	169,837	137.7163	443	617
March	18,029,455	170,026	106.0394	493	438
<b>TOTAL</b>	<b>122,194,431</b>	<b>2,010,619</b>	<b>724.1185</b>	<b>3,354</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-112.7800	-17.4831	59.8432	10,016,317	-2,926,251
May	43.8800	6.8022	44.2727	7,405,943	1,137,872
June	1.2600	0.1953	13.9438	2,323,100	32,538
July	0.0000	0.0000	10.9939	1,827,276	0
August	0.1000	0.0155	10.3746	1,722,174	2,573
September	12.8600	1.9935	13.7740	2,280,374	330,038
October	-22.3400	-3.4631	11.1014	1,841,182	-574,359
November	-99.8600	-15.4802	46.1145	7,716,623	-2,590,395
December	81.7600	12.6744	131.0248	22,133,372	2,141,023
January	29.3300	4.5467	128.7210	21,833,530	771,207
February	174.0400	26.9795	164.6958	27,971,448	4,582,117
March	-54.8600	-8.5043	97.5351	16,583,503	-1,445,952
<b>TOTAL</b>	<b>53.3900</b>	<b>8.2764</b>	<b>732.3949</b>	<b>123,654,842</b>	<b>1,460,411</b>

Regression Output:

Constant 17.01536969  
Std Err of Y Est 25.43970723  
R Squared 0.76791992  
  
X Coefficient 0.15501911  
Std Err of Coef. 0.02694922



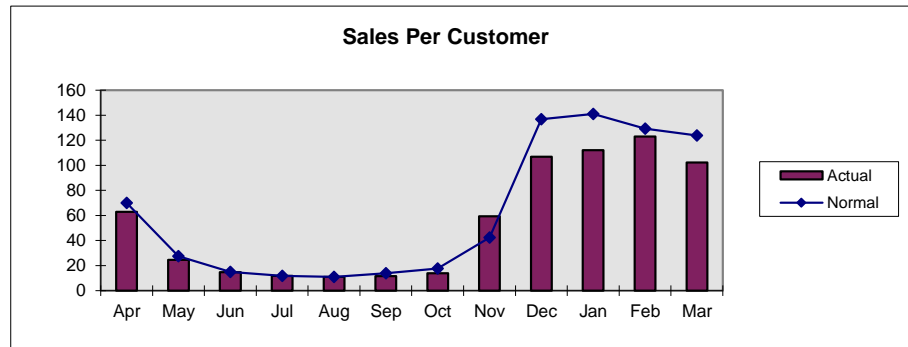
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	10,706,784	170,097	62.9452	137	182
May	4,180,337	169,601	24.6481	27	45
June	2,502,052	169,085	14.7976	0	1
July	2,012,046	169,056	11.9017	0	0
August	1,853,321	168,810	10.9787	0	0
September	1,957,164	168,663	11.6040	0	15
October	2,335,813	168,917	13.8282	143	168
November	10,086,725	170,072	59.3086	559	451
December	18,333,507	171,645	106.8106	503	695
January	19,309,797	172,211	112.1287	610	795
February	21,228,260	172,594	122.9954	576	617
March	17,708,962	172,974	102.3793	300	438
<b>TOTAL</b>	<b>112,214,768</b>	<b>2,043,725</b>	<b>654.3259</b>	<b>2,855</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	45.2200	7.0605	70.0057	11,907,754	1,200,970
May	17.8800	2.7917	27.4398	4,653,812	473,475
June	1.2600	0.1967	14.9943	2,535,311	33,259
July	0.0000	0.0000	11.9017	2,012,046	0
August	0.1000	0.0156	10.9943	1,855,954	2,633
September	14.8600	2.3202	13.9242	2,348,496	391,332
October	24.6600	3.8503	17.6785	2,986,194	650,381
November	-107.8600	-16.8409	42.4677	7,222,559	-2,864,166
December	191.7600	29.9408	136.7514	23,472,696	5,139,189
January	185.3300	28.9369	141.0656	24,293,049	4,983,252
February	41.0400	6.4079	129.4033	22,334,225	1,105,965
March	138.1400	21.5688	123.9481	21,439,804	3,730,842
<b>TOTAL</b>	<b>552.3900</b>	<b>86.2485</b>	<b>740.5744</b>	<b>127,061,900</b>	<b>14,847,132</b>

Regression Output:

Constant 17.37954470  
Std Err of Y Est 22.91753211  
R Squared 0.76970742  
  
X Coefficient 0.15613710  
Std Err of Coef. 0.02700743



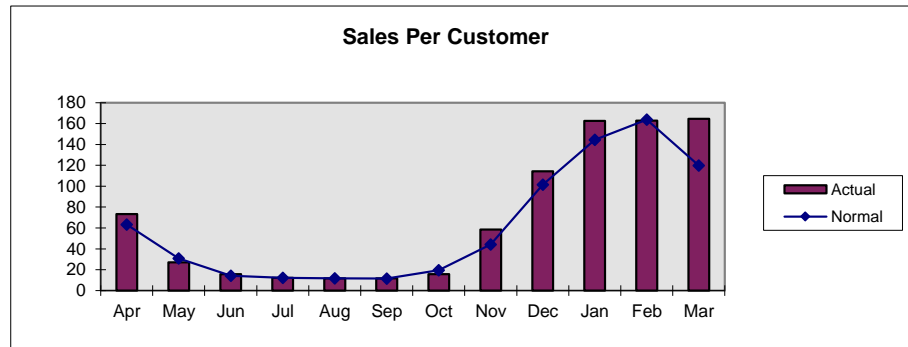
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	11,440,614	155,849	73.4083	357	302
May	4,189,393	155,308	26.9747	78	99
June	2,430,711	154,554	15.7273	22	14
July	1,868,447	154,310	12.1084	0	0
August	1,797,861	153,870	11.6843	0	0
September	1,796,926	153,830	11.6812	2	1
October	2,407,152	153,837	15.6474	39	60
November	9,078,222	154,964	58.5828	401	322
December	17,949,027	156,929	114.3767	640	570
January	25,622,995	157,615	162.5670	846	749
February	25,707,206	157,936	162.7698	774	780
March	26,057,214	158,379	164.5244	751	510
<b>TOTAL</b>	<b>130,345,768</b>	<b>1,867,381</b>	<b>830.0524</b>	<b>3,910</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-54.5900	-10.1039	63.3044	9,865,931	-1,574,683
May	21.0800	3.9016	30.8763	4,795,343	605,950
June	-8.2300	-1.5233	14.2040	2,195,279	-235,432
July	0.0600	0.0111	12.1195	1,870,160	1,713
August	0.1000	0.0185	11.7028	1,800,708	2,847
September	-0.7000	-0.1296	11.5516	1,776,990	-19,936
October	21.3100	3.9442	19.5916	3,013,916	606,764
November	-78.5600	-14.5404	44.0424	6,824,983	-2,253,239
December	-69.9500	-12.9468	101.4299	15,917,299	-2,031,728
January	-97.2200	-17.9941	144.5729	22,786,855	-2,836,140
February	5.5600	1.0291	163.7989	25,869,738	162,532
March	-241.4700	-44.6928	119.8316	18,978,813	-7,078,401
<b>TOTAL</b>	<b>-502.6100</b>	<b>-93.0264</b>	<b>737.0260</b>	<b>115,696,015</b>	<b>-14,649,753</b>

Regression Output:

Constant 8.86372788  
Std Err of Y Est 11.02434947  
R Squared 0.97364605  
  
X Coefficient 0.18508635  
Std Err of Coef. 0.00962934





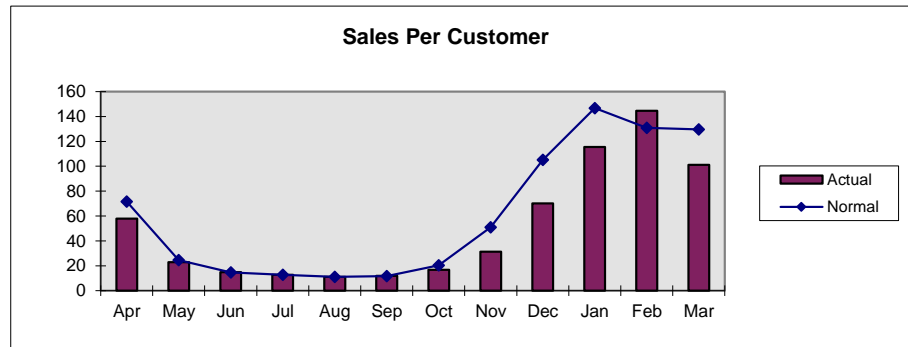
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	9,158,282	158,055	57.9436	221	302
May	3,598,743	157,305	22.8775	89	99
June	2,340,039	156,877	14.9164	15	14
July	2,004,384	156,543	12.8040	0	0
August	1,732,161	156,082	11.0978	0	0
September	1,875,800	156,161	12.0120	3	1
October	2,637,027	156,469	16.8534	40	60
November	4,942,079	157,513	31.3757	206	322
December	11,165,919	159,162	70.1544	362	570
January	18,493,602	160,018	115.5720	563	749
February	23,221,736	160,565	144.6251	861	780
March	16,284,942	160,922	101.1977	340	510
<b>TOTAL</b>	<b>97,454,714</b>	<b>1,895,672</b>	<b>611.4296</b>	<b>2,700</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	81.4100	13.6685	71.6121	11,318,657	2,160,375
May	10.0800	1.6924	24.5699	3,864,966	266,223
June	-1.2300	-0.2065	14.7099	2,307,644	-32,395
July	0.0600	0.0101	12.8141	2,005,965	1,581
August	0.1000	0.0168	11.1146	1,734,783	2,622
September	-1.7000	-0.2854	11.7266	1,831,232	-44,568
October	20.3100	3.4100	20.2634	3,170,586	533,559
November	116.4400	19.5499	50.9256	8,021,442	3,079,363
December	208.0500	34.9309	105.0853	16,725,591	5,559,672
January	185.7800	31.1918	146.7638	23,484,851	4,991,249
February	-81.4400	-13.6735	130.9516	21,026,250	-2,195,486
March	169.5300	28.4635	129.6612	20,865,345	4,580,403
<b>TOTAL</b>	<b>707.3900</b>	<b>118.7685</b>	<b>730.1981</b>	<b>116,357,312</b>	<b>18,902,598</b>

Regression Output:

Constant 13.17574316  
Std Err of Y Est 12.55840872  
R Squared 0.93451872  
  
X Coefficient 0.16789657  
Std Err of Coef. 0.01405421



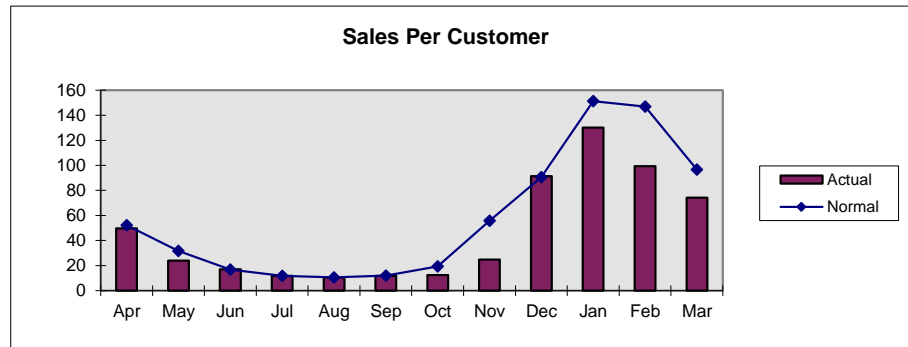
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,981,472	160,471	49.7378	287	302
May	3,849,440	160,102	24.0437	54	99
June	2,712,281	159,809	16.9720	15	14
July	1,888,665	159,449	11.8449	0	0
August	1,690,126	159,436	10.6007	0	0
September	1,871,334	159,177	11.7563	0	1
October	1,994,565	159,389	12.5138	19	60
November	3,986,067	160,259	24.8727	139	322
December	14,832,111	162,110	91.4941	576	570
January	21,278,516	163,364	130.2522	624	749
February	16,260,452	163,592	99.3964	497	780
March	12,163,554	163,800	74.2586	377	510
<b>TOTAL</b>	<b>90,508,583</b>	<b>1,930,958</b>	<b>557.7431</b>	<b>2,588</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	15.4100	2.5930	52.3308	8,397,573	416,101
May	45.0800	7.5856	31.6293	5,063,910	1,214,470
June	-1.2300	-0.2070	16.7650	2,679,201	-33,080
July	0.0600	0.0101	11.8550	1,890,275	1,610
August	0.1000	0.0168	10.6175	1,692,805	2,679
September	1.3000	0.2188	11.9751	1,906,162	34,828
October	41.3100	6.9512	19.4650	3,102,510	1,107,945
November	183.4400	30.8673	55.7400	8,932,830	4,946,763
December	-5.9500	-1.0012	90.4929	14,669,806	-162,305
January	124.7800	20.9966	151.2488	24,708,605	3,430,089
February	282.5600	47.5462	146.9426	24,038,630	7,778,178
March	132.5300	22.3007	96.5593	15,816,409	3,652,855
<b>TOTAL</b>	<b>819.3900</b>	<b>137.8781</b>	<b>695.6212</b>	<b>112,898,716</b>	<b>22,390,133</b>

Regression Output:

Constant 10.18850684  
Std Err of Y Est 8.37608539  
R Squared 0.96367424  
  
X Coefficient 0.16826932  
Std Err of Coef. 0.01033111



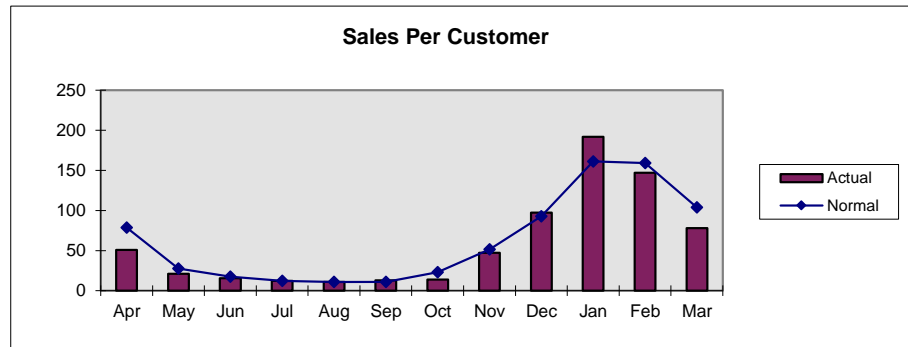
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	8,308,108	163,613	50.7790	150	302
May	3,466,722	163,525	21.2000	65	99
June	2,536,235	163,186	15.5420	3	14
July	1,969,111	162,650	12.1064	0	0
August	1,758,705	162,810	10.8022	0	0
September	2,078,896	162,490	12.7940	12	1
October	2,232,784	162,792	13.7156	9	60
November	7,769,511	164,104	47.3450	299	322
December	16,119,598	165,598	97.3417	596	570
January	31,969,737	166,618	191.8744	916	749
February	24,618,181	167,225	147.2159	715	780
March	13,053,596	167,367	77.9938	369	510
<b>TOTAL</b>	<b>115,881,184</b>	<b>1,971,978</b>	<b>698.7101</b>	<b>3,134</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	152.4100	27.9277	78.7067	12,877,443	4,569,335
May	34.0800	6.2448	27.4448	4,487,903	1,021,181
June	10.7700	1.9735	17.5155	2,858,283	322,048
July	0.0600	0.0110	12.1174	1,970,900	1,789
August	0.1000	0.0183	10.8205	1,761,684	2,979
September	-10.7000	-1.9607	10.8333	1,760,302	-318,594
October	51.3100	9.4021	23.1177	3,763,371	1,530,587
November	23.4400	4.2952	51.6402	8,474,371	704,860
December	-25.9500	-4.7551	92.5866	15,332,163	-787,435
January	-167.2200	-30.6415	161.2329	26,864,312	-5,105,425
February	64.5600	11.8300	159.0459	26,596,453	1,978,272
March	140.5300	25.7508	103.7446	17,363,430	4,309,834
<b>TOTAL</b>	<b>273.3900</b>	<b>50.0961</b>	<b>748.8062</b>	<b>124,110,615</b>	<b>8,229,431</b>

**Regression Output:**

Constant 10.36951670  
Std Err of Y Est 11.08181774  
R Squared 0.96890175  
  
X Coefficient 0.18324057  
Std Err of Coef. 0.01038125



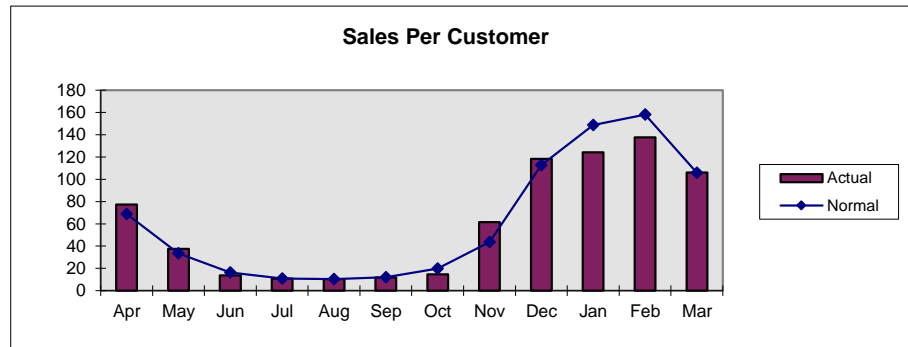
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	12,942,568	167,376	77.3263	350	302
May	6,268,071	167,280	37.4705	121	99
June	2,290,562	166,605	13.7485	0	14
July	1,827,276	166,208	10.9939	0	0
August	1,719,601	165,999	10.3591	0	0
September	1,950,336	165,557	11.7805	0	1
October	2,415,541	165,851	14.5645	31	60
November	10,307,018	167,336	61.5947	423	322
December	19,992,349	168,925	118.3504	601	570
January	21,062,323	169,619	124.1743	612	749
February	23,389,331	169,837	137.7163	666	780
March	18,029,455	170,026	106.0394	511	510
<b>TOTAL</b>	<b>122,194,431</b>	<b>2,010,619</b>	<b>724.1185</b>	<b>3,315</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-47.5900	-8.5431	68.7832	11,512,658	-1,429,910
May	-21.9200	-3.9350	33.5355	5,609,824	-658,247
June	13.7700	2.4719	16.2204	2,702,393	411,831
July	0.0600	0.0108	11.0047	1,829,071	1,795
August	0.1000	0.0180	10.3771	1,722,589	2,988
September	1.3000	0.2334	12.0139	1,988,977	38,641
October	29.3100	5.2616	19.8261	3,288,183	872,642
November	-100.5600	-18.0520	43.5427	7,286,269	-3,020,749
December	-30.9500	-5.5560	112.7944	19,053,802	-938,547
January	136.7800	24.5541	148.7284	25,227,165	4,164,842
February	113.5600	20.3857	158.1020	26,851,577	3,462,246
March	-1.4700	-0.2639	105.7755	17,984,585	-44,870
<b>TOTAL</b>	<b>92.3900</b>	<b>16.5855</b>	<b>740.7040</b>	<b>125,057,093</b>	<b>2,862,662</b>

Regression Output:

Constant 10.75217925  
Std Err of Y Est 8.73031685  
R Squared 0.97266786  
  
X Coefficient 0.17951505  
Std Err of Coef. 0.00951602



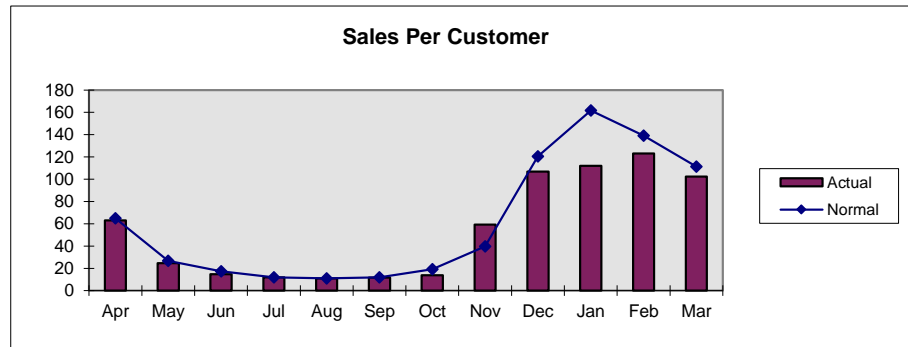
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	10,706,784	170,097	62.9452	291	302
May	4,180,337	169,601	24.6481	87	99
June	2,502,052	169,085	14.7976	0	14
July	2,012,046	169,056	11.9017	0	0
August	1,853,321	168,810	10.9787	0	0
September	1,957,164	168,663	11.6040	0	1
October	2,335,813	168,917	13.8282	30	60
November	10,086,725	170,072	59.3086	434	322
December	18,333,507	171,645	106.8106	491	570
January	19,309,797	172,211	112.1287	465	749
February	21,228,260	172,594	122.9954	687	780
March	17,708,962	172,974	102.3793	458	510
<b>TOTAL</b>	<b>112,214,768</b>	<b>2,043,725</b>	<b>654.3259</b>	<b>2,943</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	11.4100	1.9940	64.9392	11,045,957	339,173
May	12.0800	2.1110	26.7591	4,538,365	358,028
June	13.7700	2.4064	17.2040	2,908,938	406,886
July	0.0600	0.0105	11.9122	2,013,821	1,775
August	0.1000	0.0175	10.9962	1,856,275	2,954
September	1.3000	0.2272	11.8312	1,995,484	38,320
October	30.3100	5.2968	19.1250	3,230,533	894,720
November	-111.5600	-19.4956	39.8130	6,771,069	-3,315,656
December	79.0500	13.8144	120.6250	20,704,680	2,371,173
January	283.7800	49.5919	161.7206	27,850,068	8,540,271
February	92.5600	16.1753	139.1707	24,020,020	2,791,760
March	51.5300	9.0051	111.3844	19,266,610	1,557,648
<b>TOTAL</b>	<b>464.3900</b>	<b>81.1545</b>	<b>735.4804</b>	<b>126,201,820</b>	<b>13,987,052</b>

Regression Output:

Constant 11.66855064  
Std Err of Y Est 12.10915860  
R Squared 0.93570574  
  
X Coefficient 0.17475479  
Std Err of Coef. 0.01448590



SOURCE: Revenue Workpaper R-10-5.00 (Non-Print).

THERMS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	20,824,510	20,013,924	16,534,279	20,379,530	22,685,486	28,679,979	29,307,299	19,895,276	20,646,551	27,986,071	25,622,995	18,493,602	21,278,516	31,969,737	21,062,323	19,309,797
February	-	19,837,564	17,631,428	24,492,779	22,303,905	23,855,636	27,170,204	24,595,687	17,219,694	21,056,980	31,323,345	25,707,206	23,221,736	16,260,452	24,618,181	23,389,331	21,228,260
March	-	16,081,848	14,115,368	16,700,417	17,704,892	16,749,340	20,651,401	13,956,715	12,897,541	18,644,964	20,066,499	26,057,214	16,284,942	12,163,554	13,053,596	18,029,455	17,708,962
April	-	9,615,703	8,457,915	7,287,740	9,887,694	8,809,153	8,691,716	9,923,668	4,020,520	13,474,335	11,440,614	9,158,282	7,981,472	8,308,108	12,942,568	10,706,784	-
May	-	4,864,139	3,040,388	4,756,209	4,620,398	4,409,977	3,182,458	3,820,813	3,368,481	5,000,006	4,189,393	3,598,743	3,849,440	3,466,722	6,268,071	4,180,337	-
June	-	2,255,046	2,173,709	2,124,738	2,365,384	2,190,510	1,986,500	2,591,864	2,070,454	2,606,619	2,430,711	2,340,039	2,712,281	2,536,235	2,290,562	2,502,052	-
July	-	1,809,049	1,753,123	1,727,098	1,742,288	1,800,963	1,603,102	1,740,122	1,648,721	1,725,612	1,868,447	2,004,384	1,888,665	1,969,111	1,827,276	2,012,046	-
August	-	1,629,251	1,565,142	1,611,907	1,642,607	1,731,530	1,514,414	1,496,226	1,486,172	1,786,779	1,797,861	1,732,161	1,690,126	1,758,705	1,719,601	1,853,321	-
September	-	1,705,898	1,723,997	1,623,434	1,685,556	1,692,537	1,613,034	1,741,339	1,759,541	1,771,009	1,796,926	1,875,800	1,871,334	2,078,896	1,950,336	1,957,164	-
October	2,302,529	2,163,312	2,760,235	1,813,991	2,040,256	2,518,815	2,222,777	2,438,450	2,409,354	2,255,432	2,407,152	2,637,027	1,994,565	2,232,784	2,415,541	2,335,813	-
November	4,063,876	6,477,426	9,178,245	6,158,234	7,353,095	6,939,143	5,296,044	6,765,525	8,934,489	8,529,808	9,078,222	4,942,079	3,986,067	7,769,511	10,307,018	10,086,725	-
December	14,538,346	17,932,152	15,172,301	13,624,117	18,883,507	15,252,283	17,168,174	13,220,308	12,878,507	18,532,057	17,949,027	11,165,919	14,832,111	16,119,598	19,992,349	18,333,507	-
Total	20,904,751	105,195,898	97,585,775	98,454,943	110,609,112	108,635,373	119,779,803	111,598,016	88,588,750	116,030,152	132,334,268	116,841,849	98,806,341	95,942,192	129,354,836	116,448,858	58,247,019

BILLS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	139,409	142,204	144,757	147,416	148,336	149,115	150,511	151,270	153,021	155,785	157,615	160,018	163,364	166,618	169,619	172,211
February	-	139,825	142,499	145,304	147,992	148,639	149,633	150,767	151,588	153,195	156,070	157,936	160,565	163,592	167,225	169,837	172,594
March	-	140,018	142,778	145,497	148,171	148,442	149,850	150,713	151,856	153,427	156,461	158,379	160,922	163,800	167,367	170,026	172,974
April	-	139,592	141,957	144,883	147,948	147,771	149,425	150,258	150,965	153,519	155,849	158,055	160,471	163,613	167,376	170,097	-
May	-	138,536	140,901	144,325	147,225	146,703	148,326	149,468	150,545	153,199	155,308	157,305	160,102	163,525	167,280	169,601	-
June	-	137,535	140,259	143,290	146,612	145,727	147,976	148,712	149,738	152,660	154,554	156,877	159,809	163,186	166,605	169,085	-
July	-	136,976	139,743	142,833	145,800	145,171	147,825	147,848	149,438	152,581	154,310	156,543	159,449	162,650	166,208	169,056	-
August	-	136,724	139,388	142,544	145,097	144,839	147,449	147,545	149,372	152,394	153,870	156,082	159,436	162,810	165,999	168,810	-
September	-	136,612	139,420	142,499	144,586	144,731	146,860	147,499	149,316	152,248	153,830	156,161	159,177	162,490	165,557	168,663	-
October	134,330	136,860	140,078	142,905	144,678	145,127	146,626	147,853	149,785	152,491	153,837	156,469	159,389	162,792	165,851	168,917	-
November	135,746	138,923	142,213	144,265	145,710	146,580	147,737	149,173	151,194	153,804	154,964	157,513	160,259	164,104	167,336	170,072	-
December	138,023	141,139	143,641	146,500	147,572	148,000	149,341	150,551	152,368	155,050	156,929	159,162	162,110	165,598	168,925	171,645	-
Total	408,099	1,662,149	1,695,081	1,729,602	1,758,807	1,760,066	1,780,163	1,790,898	1,807,435	1,837,589	1,861,767	1,888,097	1,921,707	1,961,524	2,002,347	2,035,428	517,779

Usage/Bill	51.22	63.29	57.57	56.92	62.89	61.72	67.29	62.31	49.01	63.14	71.08	61.88	51.42	48.91	64.60	57.21	112.49
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This workpaper is too voluminous to print and is only being provided in electronic format.

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Small General Service Revenue Forecast**



	Billing Determinant	Rate	Margin
<b>Total Small General Service (SGS) Margin</b>			
<b>Customer Charges:</b>			
Summer	123,412 A/	\$44.00 C/	\$5,430,129
Winter	89,658 A/	44.00 C/	3,944,951
<b>Total Customer Charge Revenue</b>	<b>213,070</b>		<b>\$9,375,080</b>
<b>Commodity Charges:</b>			
Summer Therms	18,713,425 B/	\$0.27387 C/	\$5,125,046
Winter Therms	40,980,607 B/	\$0.32787 C/	13,436,312
<b>Total Commodity Charge Revenue</b>	<b>59,694,032</b>		<b>\$18,561,358</b>
<b>Total SGS Margin</b>			<b>\$27,936,438</b>
<b>Gas Cost:</b>			
Demand	59,694,032	0.07577 C/	\$4,523,017
Commodity	59,694,032	0.19717 C/	11,769,872
<b>Total Gas Cost</b>			<b>\$16,292,889</b>
<b>Other Charges:</b>			
Integrity Management Rider Surcharge			0 D/
Docket 18-00040 Excess ADIT			0 E/
<b>Total Other Charges</b>			<b>0</b>
<b>Total Revenues</b>			<b>\$44,229,327</b>

A/ WHN Revenue Workpaper R-15-1.03.

B/ WHN Revenue Workpaper R-15-1.02.

C/ WHN Revenue Workpaper R-110-1.00.

D/ IMR Surcharge is excluded from the Consumer Advocate's case. See WHN Revenue Workpaper R-55-1.00 for details.

E/ Excess ADIT is excluded from the Consumer Advocate's case. See WHN Workpaper R-60-1.00 for details.

SOURCE: Couzens Workpaper - Sales &amp; Transportation Pro Forma Revenue, A-Summary Pro Forma Revs

	Billing Determinant	Rate	Margin
<b>Total SGS Margin</b>			
<b>Customer Charges:</b>			
Summer	212,805	\$44.00	\$9,363,420
Winter	0	44.00	0
<b>Total Customer Charge Revenue</b>	<b>212,805</b>		<b>\$9,363,420</b>
<b>Commodity Charges:</b>			
Summer Therms	18,887,207	\$0.27387	\$5,172,639
Winter Therms	40,816,290	0.32787	13,382,437
<b>Total Commodity Charge Revenue</b>	<b>59,703,497</b>		<b>\$18,555,076</b>
<b>Total SGS Margin</b>			<b>\$27,918,496</b>
<hr/>			
<b>Gas Cost:</b>			
Demand	59,703,497	\$0.07577	\$4,523,734
Commodity	59,703,497	0.19717	11,771,739
<b>Total Gas Cost</b>			<b>\$16,295,473</b>
<hr/>			
<b>Other Charges:</b>			
Integrity Management Rider Surcharge			\$8,970,428
Docket 18-00040 Excess ADIT	59,703,497	-\$0.03678	-2,195,895
<b>Total Other Charges</b>			<b>\$6,774,533</b>
<b>Total Revenues</b>			<b>\$50,988,502</b>

	Winter	Summer	Total	
Attrition Period Small General Service (SGS) Usage	40,980,607	18,713,425	59,694,032	A/
Winter/Summer Percentage	68.65%	31.35%	100.00%	

**Historic Usage:**  
**For the 12 Months Ended March**

MONTH	2015	2016	2017	2018	2019	2020	Average	
April	4,898,764	4,462,471	3,905,905	3,798,685	5,716,112	5,097,326	4,646,544	B/
May	2,573,926	2,461,193	2,620,591	2,321,793	3,315,230	2,719,260	2,668,666	B/
June	1,956,588	1,953,938	2,122,682	2,133,039	2,104,321	2,129,356	2,066,654	B/
July	1,858,978	1,949,581	1,726,429	1,869,594	1,821,263	1,982,692	1,868,090	B/
August	1,731,995	1,795,963	1,677,616	1,913,710	1,833,630	1,856,635	1,801,592	B/
September	1,756,489	1,785,101	1,891,295	1,924,206	2,006,548	1,934,048	1,882,948	B/
October	2,116,972	2,218,312	1,874,459	2,061,359	2,179,791	2,141,128	2,098,670	B/
November	4,385,534	2,906,241	2,552,763	4,067,386	5,194,641	4,731,896	3,973,077	B/
December	7,921,400	5,026,025	6,340,099	6,830,906	8,557,208	7,591,560	7,044,533	B/
January	10,801,835	8,645,897	8,598,099	13,600,104	9,393,889	8,192,387	9,872,035	B/
February	11,245,581	10,080,158	6,773,308	9,943,883	9,672,283	8,638,174	9,392,231	B/
March	10,651,066	7,449,190	5,313,493	5,976,208	7,854,945	7,138,739	7,397,274	B/
<b>Total</b>	<b>61,899,128</b>	<b>50,734,070</b>	<b>45,396,739</b>	<b>56,440,873</b>	<b>59,649,861</b>	<b>54,153,201</b>	<b>54,712,312</b>	
Summer Usage (Apr - Oct)	16,893,712	16,626,559	15,818,977	16,022,386	18,976,895	17,860,445	17,033,162	
Winter Usage (Nov - Mar)	45,005,416	34,107,511	29,577,762	40,418,487	40,672,966	36,292,756	37,679,150	
<b>Total</b>	<b>61,899,128</b>	<b>50,734,070</b>	<b>45,396,739</b>	<b>56,440,873</b>	<b>59,649,861</b>	<b>54,153,201</b>	<b>54,712,312</b>	
Summer Percentage	27.29%	32.77%	34.85%	28.39%	31.81%	32.98%	31.35%	
Winter Percentage	72.71%	67.23%	65.15%	71.61%	68.19%	67.02%	68.65%	
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	

A/ WHN Revenue Workpaper R-15-1.04.

B/ WHN Revenue Workpaper R-15-4.00.

	Winter	Summer	Total
Attrition Period Small General Service (SGS) Bills	89,658	123,412	213,070 A/
Winter/Summer Percentage	42.08%	57.92%	100.00%

## Historic Bill Counts:

For the 12 Months Ended March

MONTH	2015	2016	2017	2018	2019	2020	Average	
April	16,961	17,185	17,323	17,275	17,596	17,771	17,352	B/
May	16,822	17,061	17,218	17,210	17,553	17,650	17,252	B/
June	16,796	16,961	16,924	17,212	17,437	17,426	17,126	B/
July	16,733	16,879	16,834	17,134	17,382	17,391	17,059	B/
August	16,605	16,820	16,805	17,135	17,328	17,334	17,005	B/
September	16,551	16,781	16,756	17,080	17,260	17,280	16,951	B/
October	16,544	16,773	16,735	17,082	17,265	17,286	16,948	B/
November	16,716	16,889	16,814	17,221	17,458	17,468	17,094	B/
December	17,072	17,161	17,094	17,425	17,668	17,677	17,350	B/
January	17,169	17,302	17,300	17,561	17,766	17,707	17,468	B/
February	17,208	17,383	17,363	17,638	17,779	17,766	17,523	B/
March	17,228	17,400	17,337	17,615	17,784	17,752	17,519	B/
<b>Total</b>	<b>202,405</b>	<b>204,595</b>	<b>204,503</b>	<b>207,588</b>	<b>210,276</b>	<b>210,508</b>	<b>206,646</b>	
Summer Bills (Apr - Oct)	117,012	118,460	118,595	120,128	121,821	122,138	119,692	
Winter Bills (Nov - Mar)	85,393	86,135	85,908	87,460	88,455	88,370	86,954	
<b>Total</b>	<b>202,405</b>	<b>204,595</b>	<b>204,503</b>	<b>207,588</b>	<b>210,276</b>	<b>210,508</b>	<b>206,646</b>	
Summer Percentage	57.81%	57.90%	57.99%	57.87%	57.93%	58.02%	57.92%	
Winter Percentage	42.19%	42.10%	42.01%	42.13%	42.07%	41.98%	42.08%	
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	

A/ WHN Revenue Workpaper R-15-1.04.

B/ WHN Revenue Workpaper R-15-4.00.

**Attrition Period Monthly Growth in SGS Bills**

		<b>122</b>	<b>A/</b>
	<b>Growth</b>	<b>Total</b>	
Test Period Number of SGS Bills - 12 Months Ended March, 2020		210,508	<b>A/</b>
April-20	122	210,630	
May-20	122	210,752	
June-20	122	210,874	
July-20	122	210,996	
August-20	122	211,118	
September-20	122	211,240	
October-20	122	211,362	
November-20	122	211,484	
December-20	122	211,606	
January-21	122	211,728	
February-21	122	211,850	
March-21	122	211,972	
April-21	122	212,094	
May-21	122	212,216	
June-21	122	212,338	
July-21	122	212,460	
August-21	122	212,582	
September-21	122	212,704	
October-21	122	212,826	
November-21	122	212,948	
December-21	122	213,070	

Attrition Period SGS Bills	213,070	
Normalized Usage per Bill (Therms)	280.1616	<b>B/</b>
<b>Total SGS Sales Volume - Therms</b>	<b>59,694,032</b>	

A/ WHN Revenue Workpaper R-15-1.05.

B/ WHN Revenue Workpaper R-15-2.00.

**Historic Bill Counts:**

**For the 12 Months Ended March**

<b>MONTH</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
April	16,961	17,185	17,323	17,275	17,596	17,771
May	16,822	17,061	17,218	17,210	17,553	17,650
June	16,796	16,961	16,924	17,212	17,437	17,426
July	16,733	16,879	16,834	17,134	17,382	17,391
August	16,605	16,820	16,805	17,135	17,328	17,334
September	16,551	16,781	16,756	17,080	17,260	17,280
October	16,544	16,773	16,735	17,082	17,265	17,286
November	16,716	16,889	16,814	17,221	17,458	17,468
December	17,072	17,161	17,094	17,425	17,668	17,677
January	17,169	17,302	17,300	17,561	17,766	17,707
February	17,208	17,383	17,363	17,638	17,779	17,766
March	17,228	17,400	17,337	17,615	17,784	17,752
<b>Total</b>	<b>202,405</b>	<b>204,595</b>	<b>204,503</b>	<b>207,588</b>	<b>210,276</b>	<b>210,508</b>

Source: WHN Revenue Workpaper R-15-4.00.

**Annual Bill Growth Calculation:**

<b>Year</b>	<b>Bills</b>	<b>Growth</b>
2015	202,405	-
2016	204,595	2,190
2017	204,503	-92
2018	207,588	3,085
2019	210,276	2,688
2020	210,508	232

Five-Year Average 1,621

Four-Year Average 1,478

Three-Year Average 2,002

Two-Year Average 1,460

One-Year Average 232

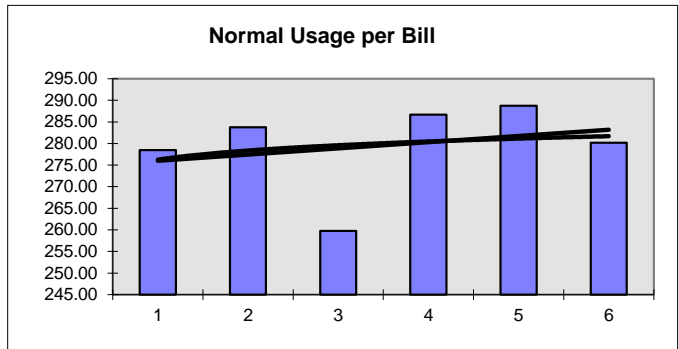
*The Two-Year Average Growth was chosen as the most representative of the Attrition Year.*

Annual Bill Growth Forecast	1,460
Test Period Bills	210,508
<b>Annual Percentage Growth</b>	<b><u>0.69%</u></b>

Annual Bill Growth Forecast	1,460
Months per Year	12
<b>Monthly Bill Growth</b>	<b><u>122</u></b>

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2015	1	278.4720	275.9935	275.8287	-
2016	2	283.7373	277.4315	277.2600	1.89%
2017	3	259.7463	278.8696	278.6987	-8.46%
2018	4	286.7008	280.3077	280.1449	10.38%
2019	5	288.7142	281.7458	281.5985	0.70%
2020	6	280.1616	283.1839	283.0597	-2.96%
Forecast	7.25		284.9815	284.8969	281.2495

RegSGSsion Statistics		
	Linear	Logarithmic
Constant	274.555362	5.614605
X Coefficient	1.438094	0.005176
R Squared	0.066242	0.064069

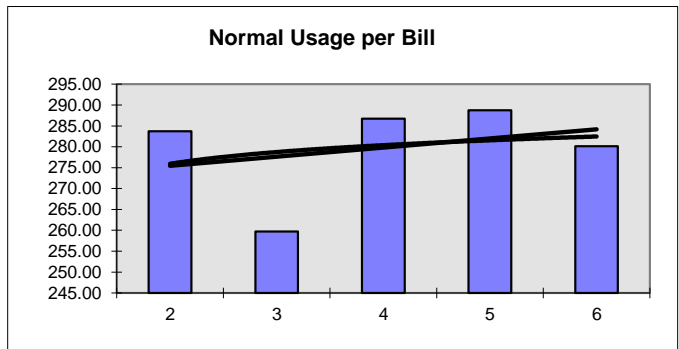


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - SGS Conservation and Growth-5 Year Analysis  
Cycle Data

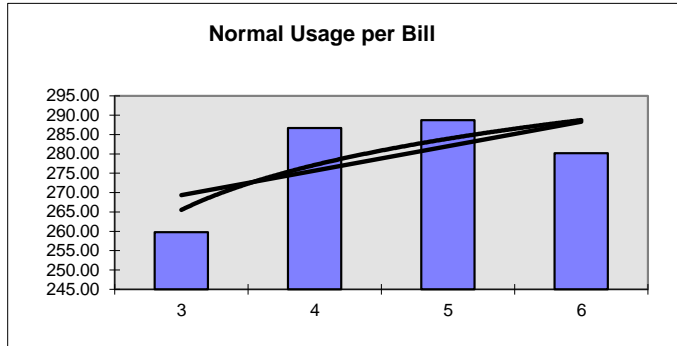
Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2016	2	283.7373	275.4488	275.1526	-
2017	3	259.7463	277.6304	277.3729	-8.46%
2018	4	286.7008	279.8120	279.6110	10.38%
2019	5	288.7142	281.9937	281.8672	0.70%
2020	6	280.1616	284.1753	284.1416	-2.96%
Forecast	7.25		286.9024	287.0105	279.8655

RegSGSsion Statistics		
	Linear	Logarithmic
Constant	271.085464	5.601253
X Coefficient	2.181643	0.008037
R Squared	0.087353	0.088445



Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2017	3	259.7463	269.3418	268.9808	-
2018	4	286.7008	275.6678	275.3486	10.38%
2019	5	288.7142	281.9937	281.8672	0.70%
2020	6	280.1616	288.3196	288.5402	-2.96%
Forecast	7.25		296.2270	297.1039	289.6689

RegSGSsion Statistics		
	Linear	Logarithmic
Constant	250.364079	5.524445
X Coefficient	6.325920	0.023398
R Squared	0.380676	0.389137

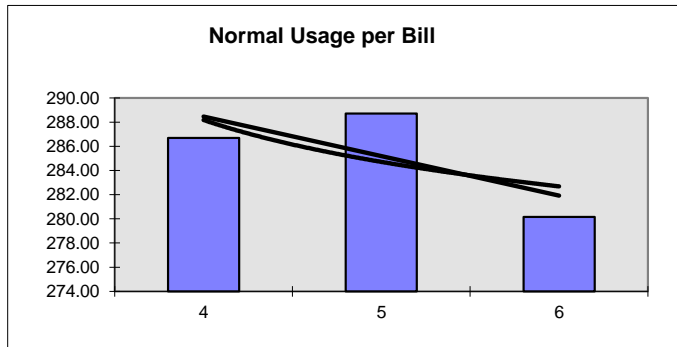


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - SGS Conservation and Growth-3 Year Analysis  
Cycle Data

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2018	4	286.7008	288.4618	288.4776	-
2019	5	288.7142	285.1922	285.1687	0.70%
2020	6	280.1616	281.9226	281.8978	-2.96%
Forecast	7.25		277.8356	277.8619	276.2098

RegSGSsion Statistics		
	Linear	Logarithmic
Constant	301.540283	5.710763
X Coefficient	-3.269618	-0.011536
R Squared	0.534688	0.537521





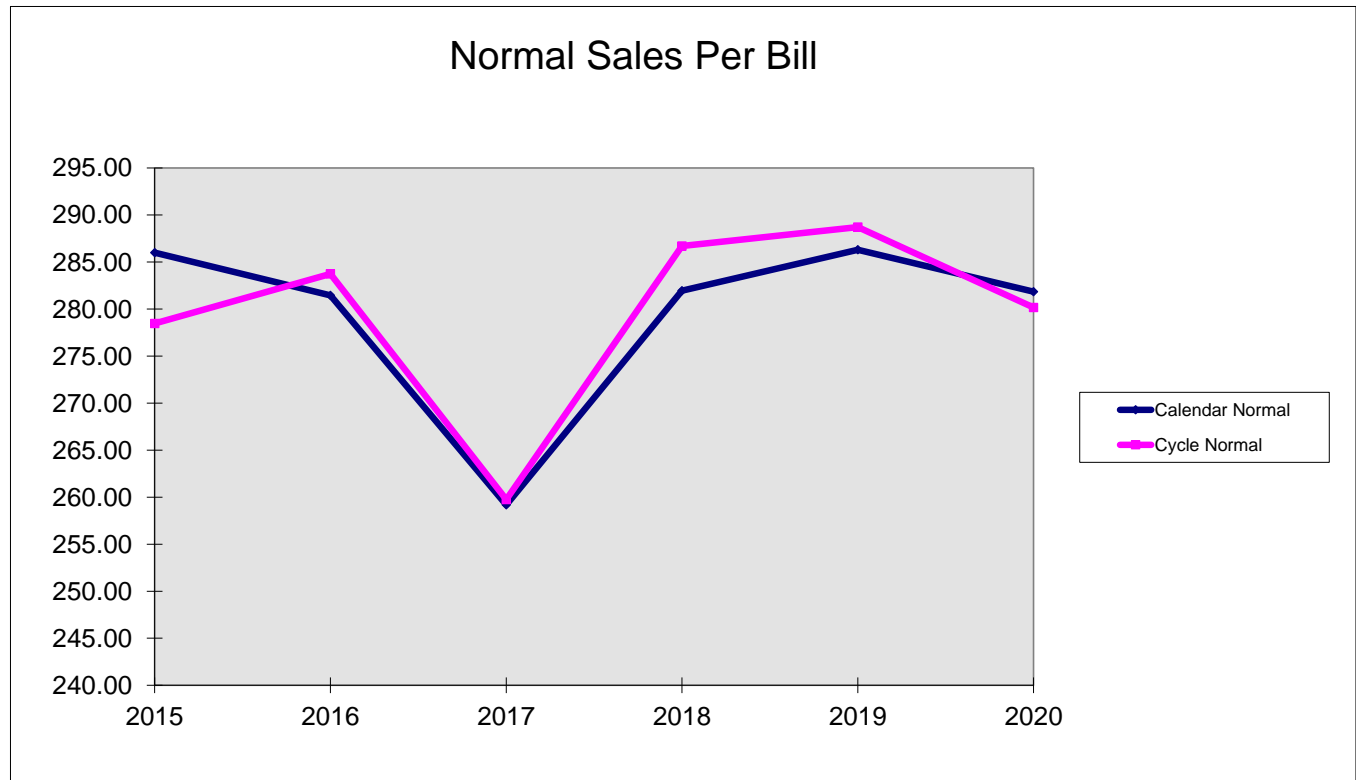
Trend	From The 12 Months Ended		Cycle Data	
	Month	Year	Time Series Forecast	Adjusted Forecast
Linear Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Logarithmic Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Year To Year Change	March	2015	281.2495	281.2495
	March	2016	279.8655	279.8655
	March	2017	289.6689	
	March	2018	276.2098	
<b>Average</b>			<b>281.7484</b>	<b>280.5575</b>
One Standard Deviation			4.9296	
<b>Upper</b> End of Range			286.6781	
<b>Lower</b> End of Range			276.8188	
Number in Range			2.0000	
Weighted Average Forecast at Midpoint				<b>280.5575</b>
Test Period Amount				<b>280.1616</b>
Compound Growth Factor				<b>1.00141322</b>
Annualized Growth Rate				<b>1.00113042</b>
Test Period Sales				54,153,201
Weather Adjustment				4,823,053
Normal Sales				<b>58,976,254</b>
Usage Adjustment				83,346
Adjusted Sales				<b>59,059,600</b>

CALENDAR DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	61,899,128	202,405	3,400.2238	57,888,570	-4,010,558	78.10%	286.0037
2016	50,734,070	204,595	3,352.8305	57,584,060	6,849,990	78.05%	281.4539
2017	45,396,739	204,503	3,090.1001	53,002,259	7,605,520	79.29%	259.1759
2018	56,440,873	207,588	3,358.5001	58,528,555	2,087,682	77.64%	281.9458
2019	59,649,861	210,276	3,413.7682	60,202,419	552,558	80.57%	286.3019
2020	54,153,201	210,508	3,363.5067	59,333,190	5,179,989	78.31%	281.8572

CYCLE DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	61,899,128	202,405	3,311.8409	56,364,116	-5,535,012	96.91%	278.4720
2016	50,734,070	204,595	3,378.7039	58,051,234	7,317,164	92.47%	283.7373
2017	45,396,739	204,503	3,095.9589	53,118,898	7,722,159	96.17%	259.7463
2018	56,440,873	207,588	3,416.2713	59,515,649	3,074,776	95.97%	286.7008
2019	59,649,861	210,276	3,442.5095	60,709,664	1,059,803	97.74%	288.7142
2020	54,153,201	210,508	3,343.2579	58,976,254	4,823,053	93.14%	280.1616



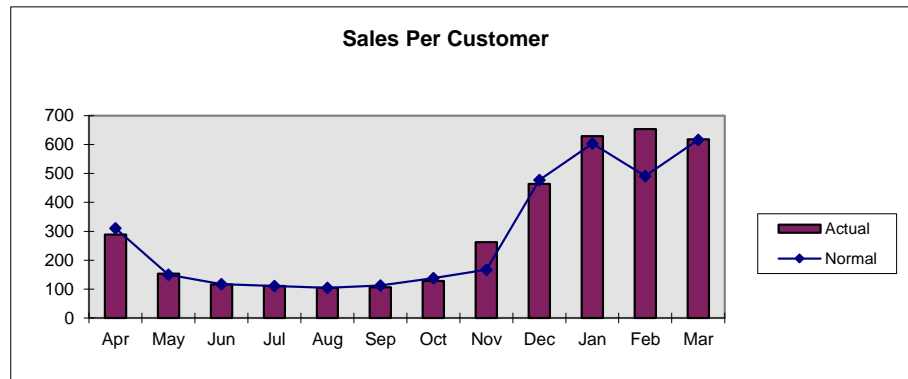
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	4,898,764	16,961	288.8252	144	182
May	2,573,926	16,822	153.0095	50	45
June	1,956,588	16,796	116.4913	0	1
July	1,858,978	16,733	111.0965	0	0
August	1,731,995	16,605	104.3056	0	0
September	1,756,489	16,551	106.1259	3	15
October	2,116,972	16,544	127.9601	150	168
November	4,385,534	16,716	262.3555	621	451
December	7,921,400	17,072	463.9995	671	695
January	10,801,835	17,169	629.1476	840	795
February	11,245,581	17,208	653.5089	905	617
March	10,651,066	17,228	618.2416	441	438
<b>TOTAL</b>	<b>61,899,128</b>	<b>202,405</b>	<b>3,635.0672</b>	<b>3,825</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	38	21.4931	310.3183	5,263,308	364,544
May	-5	-2.8792	150.1303	2,525,492	-48,434
June	1	0.7086	117.1999	1,968,490	11,902
July	0	0.0000	111.0965	1,858,978	0
August	0	0.0562	104.3618	1,732,928	933
September	12	6.6695	112.7954	1,866,876	110,387
October	18	9.9311	137.8912	2,281,272	164,300
November	-170	-95.5210	166.8345	2,788,805	-1,596,729
December	24	13.3615	477.3610	8,149,508	228,108
January	-45	-25.1202	604.0274	10,370,546	-431,289
February	-288	-161.9347	491.5742	8,459,009	-2,786,572
March	-3	-1.6083	616.6333	10,623,358	-27,708
<b>TOTAL</b>	<b>-418</b>	<b>-234.8434</b>	<b>3,400.2238</b>	<b>57,888,570</b>	<b>-4,010,558</b>

RegSGSsion Output:

Constant 123.67274378  
Std Err of Y Est 110.66988017  
R Squared 0.78104142  
  
X Coefficient 0.56235144  
Std Err of Coef. 0.09415681



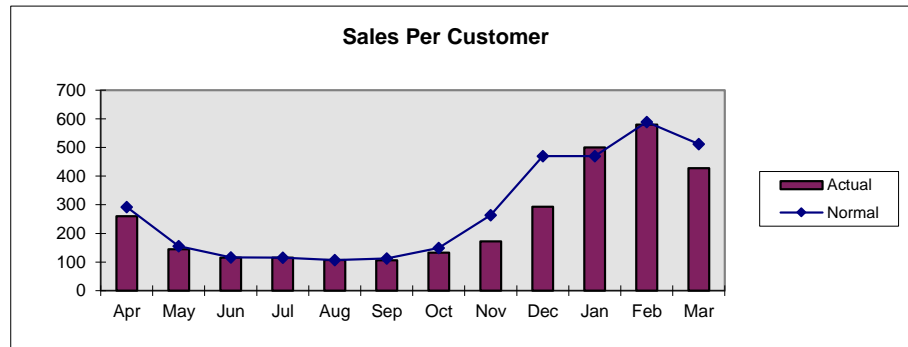
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	4,462,471	17,185	259.6724	123	182
May	2,461,193	17,061	144.2584	24	45
June	1,953,938	16,961	115.2018	0	1
July	1,949,581	16,879	115.5033	0	0
August	1,795,963	16,820	106.7754	0	0
September	1,785,101	16,781	106.3763	3	15
October	2,218,312	16,773	132.2549	137	168
November	2,906,241	16,889	172.0789	283	451
December	5,026,025	17,161	292.8748	370	695
January	8,645,897	17,302	499.7051	850	795
February	10,080,158	17,383	579.8860	600	617
March	7,449,190	17,400	428.1144	285	438
<b>TOTAL</b>	<b>50,734,070</b>	<b>204,595</b>	<b>2,952.7019</b>	<b>2,675</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	59	32.3538	292.0262	5,018,471	556,000
May	21	11.4074	155.6658	2,655,815	194,622
June	1	0.6884	115.8902	1,965,614	11,676
July	0	0.0000	115.5033	1,949,581	0
August	0	0.0546	106.8300	1,796,881	918
September	12	6.4795	112.8558	1,893,833	108,732
October	31	16.7506	149.0055	2,499,270	280,958
November	168	91.8604	263.9393	4,457,671	1,551,430
December	325	177.4270	470.3018	8,070,850	3,044,825
January	-55	-29.8680	469.8371	8,129,121	-516,776
February	17	9.3095	589.1955	10,241,985	161,827
March	153	83.6654	511.7798	8,904,968	1,455,778
<b>TOTAL</b>	<b>732</b>	<b>400.13</b>	<b>3,352.8305</b>	<b>57,584,060</b>	<b>6,849,990</b>

RegSGSsion Output:

Constant 124.27184346  
Std Err of Y Est 82.91084506  
R Squared 0.78049266  
  
X Coefficient 0.54633263  
Std Err of Coef. 0.09162147



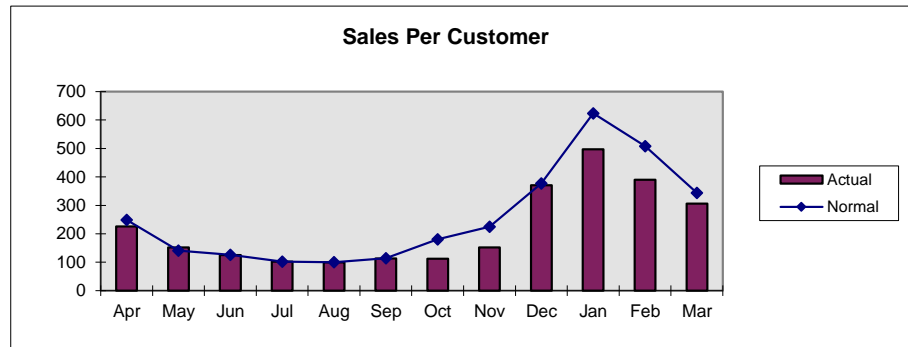
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	3,905,905	17,323	225.4751	136	182
May	2,620,591	17,218	152.2007	67	45
June	2,122,682	16,924	125.4244	0	1
July	1,726,429	16,834	102.5561	0	0
August	1,677,616	16,805	99.8284	0	0
September	1,891,295	16,756	112.8727	13	15
October	1,874,459	16,735	112.0083	33	168
November	2,552,763	16,814	151.8237	308	451
December	6,340,099	17,094	370.8962	683	695
January	8,598,099	17,300	496.9999	546	795
February	6,773,308	17,363	390.1001	385	617
March	5,313,493	17,337	306.4828	365	438
<b>TOTAL</b>	<b>45,396,739</b>	<b>204,503</b>	<b>2,646.6683</b>	<b>2,536</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	46.2200	23.5204	248.9955	4,313,349	407,444
May	-22.1200	-11.2564	140.9443	2,426,778	-193,813
June	1.2600	0.6412	126.0656	2,133,534	10,852
July	0.0000	0.0000	102.5561	1,726,429	0
August	0.1000	0.0509	99.8793	1,678,471	855
September	1.8600	0.9465	113.8192	1,907,155	15,860
October	134.6600	68.5256	180.5339	3,021,235	1,146,776
November	143.1400	72.8409	224.6646	3,777,510	1,224,747
December	11.7600	5.9844	376.8806	6,442,396	102,297
January	249.3300	126.8787	623.8786	10,793,101	2,195,002
February	232.0400	118.0802	508.1803	8,823,535	2,050,227
March	73.1400	37.2194	343.7022	5,958,766	645,273
<b>TOTAL</b>	<b>871.3900</b>	<b>443.4318</b>	<b>3,090.1001</b>	<b>53,002,259</b>	<b>7,605,520</b>

RegSGSsion Output:

Constant 113.01267339  
Std Err of Y Est 65.23718176  
R Squared 0.79290102  
  
X Coefficient 0.50887863  
Std Err of Coef. 0.08224201



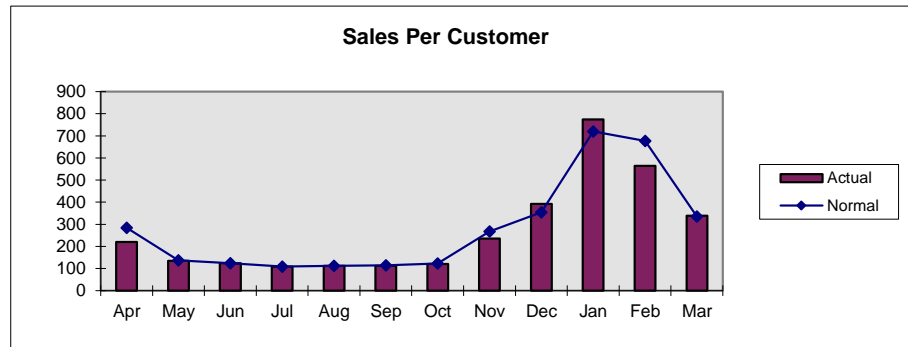
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	3,798,685	17,275	219.8949	76	182
May	2,321,793	17,210	134.9095	41	45
June	2,133,039	17,212	123.9274	0	1
July	1,869,594	17,134	109.1160	0	0
August	1,913,710	17,135	111.6843	0	0
September	1,924,206	17,080	112.6584	12	15
October	2,061,359	17,082	120.6743	163	168
November	4,067,386	17,221	236.1876	399	451
December	6,830,906	17,425	392.0176	758	695
January	13,600,104	17,561	774.4493	886	795
February	9,943,883	17,638	563.7761	429	617
March	5,976,208	17,615	339.2681	444	438
<b>TOTAL</b>	<b>56,440,873</b>	<b>207,588</b>	<b>3,238.5636</b>	<b>3,208</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	106.2200	63.8931	283.7880	4,902,438	1,103,753
May	3.8800	2.3339	137.2434	2,361,959	40,166
June	1.2600	0.7579	124.6853	2,146,084	13,045
July	0.0000	0.0000	109.1160	1,869,594	0
August	0.1000	0.0602	111.7445	1,914,742	1,032
September	2.8600	1.7203	114.3787	1,953,589	29,383
October	4.6600	2.8031	123.4774	2,109,242	47,883
November	52.1400	31.3631	267.5507	4,607,490	540,104
December	-63.2400	-38.0399	353.9777	6,168,061	-662,845
January	-90.6700	-54.5395	719.9098	12,642,336	-957,768
February	188.0400	113.1092	676.8853	11,938,903	1,995,020
March	-5.8600	-3.5249	335.7432	5,914,117	-62,091
<b>TOTAL</b>	<b>199.3900</b>	<b>119.9365</b>	<b>3,358.5001</b>	<b>58,528,555</b>	<b>2,087,682</b>

RegSGSsion Output:

Constant 109.07483515  
Std Err of Y Est 105.92423218  
R Squared 0.77636247  
  
X Coefficient 0.60151670  
Std Err of Coef. 0.10209107



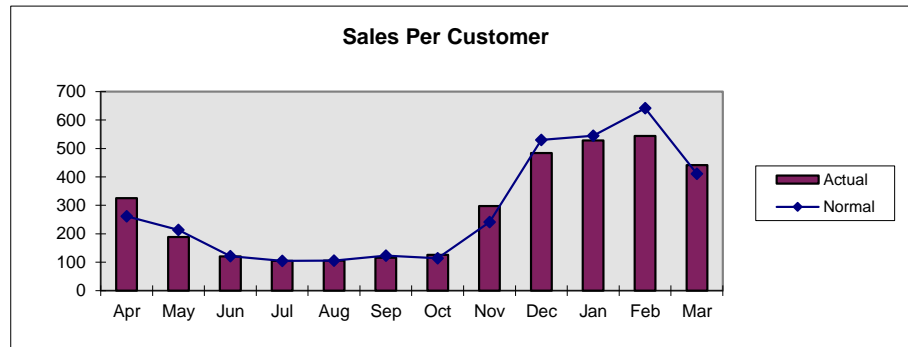
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	5,716,112	17,596	324.8529	295	182
May	3,315,230	17,553	188.8697	1	45
June	2,104,321	17,437	120.6814	0	1
July	1,821,263	17,382	104.7787	0	0
August	1,833,630	17,328	105.8189	0	0
September	2,006,548	17,260	116.2542	2	15
October	2,179,791	17,265	126.2549	190	168
November	5,194,641	17,458	297.5508	551	451
December	8,557,208	17,668	484.3337	613	695
January	9,393,889	17,766	528.7566	766	795
February	9,672,283	17,779	544.0285	443	617
March	7,854,945	17,784	441.6861	493	438
<b>TOTAL</b>	<b>59,649,861</b>	<b>210,276</b>	<b>3,383.8663</b>	<b>3,354</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-112.7800	-63.1643	261.6886	4,604,673	-1,111,439
May	43.8800	24.5757	213.4454	3,746,607	431,377
June	1.2600	0.7057	121.3871	2,116,626	12,305
July	0.0000	0.0000	104.7787	1,821,263	0
August	0.1000	0.0560	105.8749	1,834,600	970
September	12.8600	7.2025	123.4567	2,130,863	124,315
October	-22.3400	-12.5119	113.7430	1,963,773	-216,018
November	-99.8600	-55.9282	241.6226	4,218,246	-976,395
December	81.7600	45.7910	530.1247	9,366,243	809,035
January	29.3300	16.4267	545.1833	9,685,726	291,837
February	174.0400	97.4739	641.5024	11,405,271	1,732,988
March	-54.8600	-30.7252	410.9609	7,308,528	-546,417
<b>TOTAL</b>	<b>53.3900</b>	<b>29.9019</b>	<b>3,413.7682</b>	<b>60,202,419</b>	<b>552,558</b>

RegSGSsion Output:

Constant 125.45034196  
Std Err of Y Est 82.10864258  
R Squared 0.80567560  
  
X Coefficient 0.56006625  
Std Err of Coef. 0.08698071



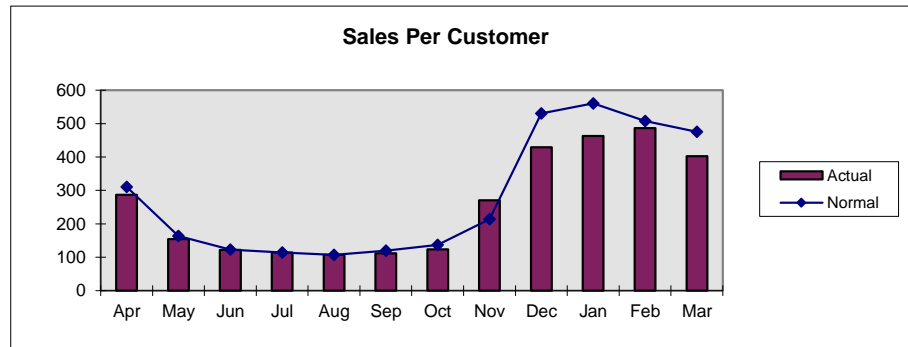
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	5,097,326	17,771	286.8339	137	182
May	2,719,260	17,650	154.0657	27	45
June	2,129,356	17,426	122.1942	0	1
July	1,982,692	17,391	114.0068	0	0
August	1,856,635	17,334	107.1094	0	0
September	1,934,048	17,280	111.9241	0	15
October	2,141,128	17,286	123.8649	143	168
November	4,731,896	17,468	270.8894	559	451
December	7,591,560	17,677	429.4597	503	695
January	8,192,387	17,707	462.6637	610	795
February	8,638,174	17,766	486.2194	576	617
March	7,138,739	17,752	402.1372	300	438
<b>TOTAL</b>	<b>54,153,201</b>	<b>210,508</b>	<b>3,071.3685</b>	<b>2,855</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	45.2200	23.9151	310.7490	5,522,321	424,995
May	17.8800	9.4561	163.5218	2,886,160	166,900
June	1.2600	0.6664	122.8606	2,140,969	11,613
July	0.0000	0.0000	114.0068	1,982,692	0
August	0.1000	0.0529	107.1623	1,857,552	917
September	14.8600	7.8589	119.7830	2,069,850	135,802
October	24.6600	13.0417	136.9066	2,366,567	225,439
November	-107.8600	-57.0430	213.8464	3,735,469	-996,427
December	191.7600	101.4146	530.8743	9,384,266	1,792,706
January	185.3300	98.0140	560.6777	9,927,921	1,735,534
February	41.0400	21.7045	507.9239	9,023,776	385,602
March	138.1400	73.0570	475.1942	8,435,647	1,296,908
<b>TOTAL</b>	<b>552.3900</b>	<b>292.1382</b>	<b>3,363.5067</b>	<b>59,333,190</b>	<b>5,179,989</b>

RegSGSsion Output:

Constant 130.12231173  
Std Err of Y Est 74.68124402  
R Squared 0.78312857  
  
X Coefficient 0.52886191  
Std Err of Coef. 0.08800897





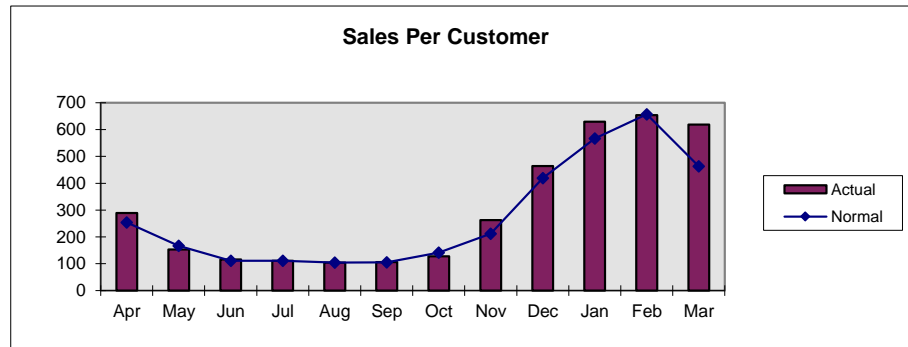
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	4,898,764	16,961	288.8252	357	302
May	2,573,926	16,822	153.0095	78	99
June	1,956,588	16,796	116.4913	22	14
July	1,858,978	16,733	111.0965	0	0
August	1,731,995	16,605	104.3056	0	0
September	1,756,489	16,551	106.1259	2	1
October	2,116,972	16,544	127.9601	39	60
November	4,385,534	16,716	262.3555	401	322
December	7,921,400	17,072	463.9995	640	570
January	10,801,835	17,169	629.1476	846	749
February	11,245,581	17,208	653.5089	774	780
March	10,651,066	17,228	618.2416	751	510
<b>TOTAL</b>	<b>61,899,128</b>	<b>202,405</b>	<b>3,635.0672</b>	<b>3,910</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-54.5900	-35.1066	253.7186	4,303,321	-595,443
May	21.0800	13.5565	166.5660	2,801,973	228,047
June	-8.2300	-5.2927	111.1986	1,867,692	-88,896
July	0.0600	0.0386	111.1351	1,859,624	646
August	0.1000	0.0643	104.3699	1,733,063	1,068
September	-0.7000	-0.4502	105.6757	1,749,038	-7,451
October	21.3100	13.7044	141.6645	2,343,698	226,726
November	-78.5600	-50.5216	211.8339	3,541,015	-844,519
December	-69.9500	-44.9845	419.0150	7,153,425	-767,975
January	-97.2200	-62.5218	566.6258	9,728,398	-1,073,437
February	5.5600	3.5756	657.0845	11,307,110	61,529
March	-241.4700	-155.2883	462.9533	7,975,759	-2,675,307
<b>TOTAL</b>	<b>-502.6100</b>	<b>-323.2263</b>	<b>3,311.8409</b>	<b>56,364,116</b>	<b>-5,535,012</b>

RegSGSSion Output:

Constant 93.38028090  
Std Err of Y Est 41.57751789  
R Squared 0.96909561  
  
X Coefficient 0.64309560  
Std Err of Coef. 0.03631636



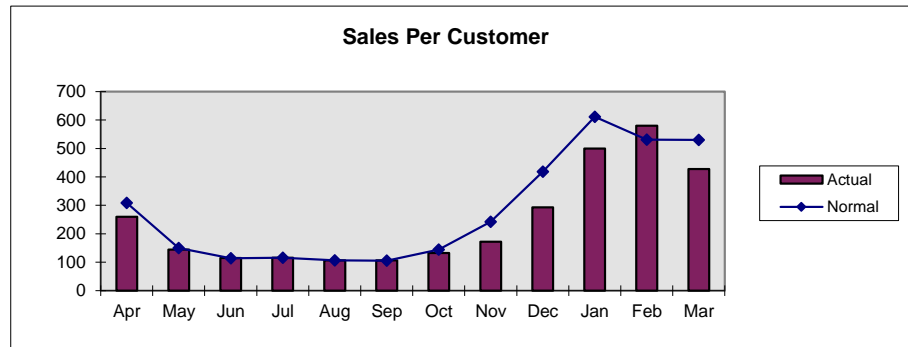
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	4,462,471	17,185	259.6724	221	302
May	2,461,193	17,061	144.2584	89	99
June	1,953,938	16,961	115.2018	15	14
July	1,949,581	16,879	115.5033	0	0
August	1,795,963	16,820	106.7754	0	0
September	1,785,101	16,781	106.3763	3	1
October	2,218,312	16,773	132.2549	40	60
November	2,906,241	16,889	172.0789	206	322
December	5,026,025	17,161	292.8748	362	570
January	8,645,897	17,302	499.7051	563	749
February	10,080,158	17,383	579.8860	861	780
March	7,449,190	17,400	428.1144	340	510
<b>TOTAL</b>	<b>50,734,070</b>	<b>204,595</b>	<b>2,952.7019</b>	<b>2,700</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	81.4100	49.0265	308.6989	5,304,991	842,520
May	10.0800	6.0703	150.3287	2,564,758	103,565
June	-1.2300	-0.7407	114.4611	1,941,375	-12,563
July	0.0600	0.0361	115.5394	1,950,190	609
August	0.1000	0.0602	106.8356	1,796,976	1,013
September	-1.7000	-1.0238	105.3525	1,767,921	-17,180
October	20.3100	12.2310	144.4859	2,423,463	205,151
November	116.4400	70.1221	242.2010	4,090,533	1,184,292
December	208.0500	125.2912	418.1660	7,176,147	2,150,122
January	185.7800	111.8798	611.5849	10,581,641	1,935,744
February	-81.4400	-49.0445	530.8415	9,227,617	-852,541
March	169.5300	102.0938	530.2082	9,225,622	1,776,432
<b>TOTAL</b>	<b>707.3900</b>	<b>426.0020</b>	<b>3,378.7039</b>	<b>58,051,234</b>	<b>7,317,164</b>

RegSGSsion Output:

Constant 110.55970943  
Std Err of Y Est 48.56908029  
R Squared 0.92467379  
  
X Coefficient 0.60221681  
Std Err of Coef. 0.05435402



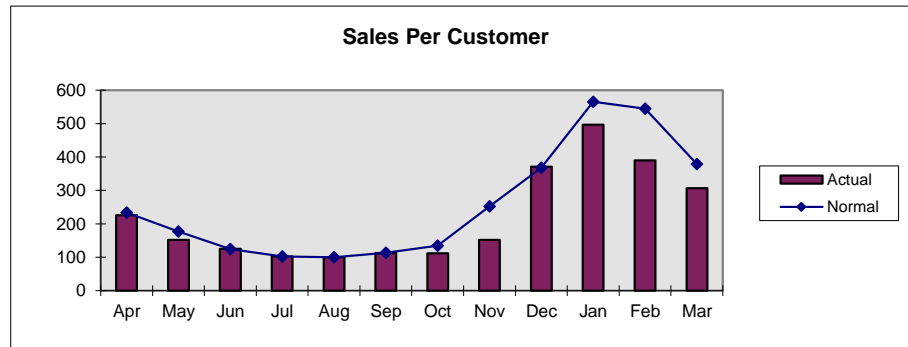
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	3,905,905	17,323	225.4751	287	302
May	2,620,591	17,218	152.2007	54	99
June	2,122,682	16,924	125.4244	15	14
July	1,726,429	16,834	102.5561	0	0
August	1,677,616	16,805	99.8284	0	0
September	1,891,295	16,756	112.8727	0	1
October	1,874,459	16,735	112.0083	19	60
November	2,552,763	16,814	151.8237	139	322
December	6,340,099	17,094	370.8962	576	570
January	8,598,099	17,300	496.9999	624	749
February	6,773,308	17,363	390.1001	497	780
March	5,313,493	17,337	306.4828	377	510
<b>TOTAL</b>	<b>45,396,739</b>	<b>204,503</b>	<b>2,646.6683</b>	<b>2,588</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	15.4100	8.4497	233.9248	4,052,279	146,374
May	45.0800	24.7184	176.9191	3,046,192	425,601
June	-1.2300	-0.6744	124.7500	2,111,268	-11,414
July	0.0600	0.0329	102.5890	1,726,983	554
August	0.1000	0.0548	99.8832	1,678,537	921
September	1.3000	0.7128	113.5855	1,903,239	11,944
October	41.3100	22.6512	134.6595	2,253,527	379,068
November	183.4400	100.5844	252.4081	4,243,989	1,691,226
December	-5.9500	-3.2625	367.6337	6,284,330	-55,769
January	124.7800	68.4198	565.4197	9,781,762	1,183,663
February	282.5600	154.9342	545.0343	9,463,431	2,690,123
March	132.5300	72.6693	379.1521	6,573,361	1,259,868
<b>TOTAL</b>	<b>819.3900</b>	<b>449.2906</b>	<b>3,095.9589</b>	<b>53,118,898</b>	<b>7,722,159</b>

RegSGSsion Output:

Constant 102.30063491  
Std Err of Y Est 28.04723859  
R Squared 0.96172037  
  
X Coefficient 0.54832329  
Std Err of Coef. 0.03459363



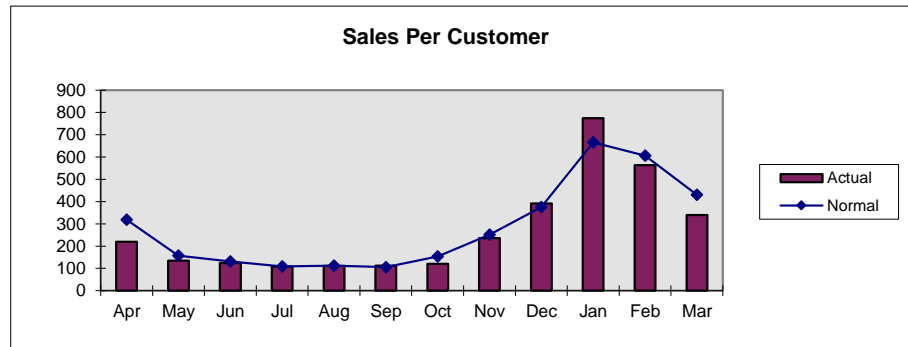
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	3,798,685	17,275	219.8949	150	302
May	2,321,793	17,210	134.9095	65	99
June	2,133,039	17,212	123.9274	3	14
July	1,869,594	17,134	109.1160	0	0
August	1,913,710	17,135	111.6843	0	0
September	1,924,206	17,080	112.6584	12	1
October	2,061,359	17,082	120.6743	9	60
November	4,067,386	17,221	236.1876	299	322
December	6,830,906	17,425	392.0176	596	570
January	13,600,104	17,561	774.4493	916	749
February	9,943,883	17,638	563.7761	715	780
March	5,976,208	17,615	339.2681	369	510
<b>TOTAL</b>	<b>56,440,873</b>	<b>207,588</b>	<b>3,238.5636</b>	<b>3,134</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	152.4100	99.0688	318.9637	5,510,099	1,711,414
May	34.0800	22.1525	157.0620	2,703,038	381,245
June	10.7700	7.0007	130.9281	2,253,535	120,496
July	0.0600	0.0390	109.1550	1,870,262	668
August	0.1000	0.0650	111.7493	1,914,824	1,114
September	-10.7000	-6.9552	105.7032	1,805,411	-118,795
October	51.3100	33.3523	154.0266	2,631,083	569,724
November	23.4400	15.2364	251.4240	4,329,772	262,386
December	-25.9500	-16.8679	375.1497	6,536,983	-293,923
January	-167.2200	-108.6955	665.7538	11,691,302	-1,908,802
February	64.5600	41.9650	605.7411	10,684,062	740,179
March	140.5300	91.3466	430.6147	7,585,278	1,609,070
<b>TOTAL</b>	<b>273.3900</b>	<b>177.7077</b>	<b>3,416.2713</b>	<b>59,515,649</b>	<b>3,074,776</b>

RegSGSsion Output:

Constant 100.11804392  
Std Err of Y Est 44.97998473  
R Squared 0.95967330  
  
X Coefficient 0.65001502  
Std Err of Coef. 0.04213646



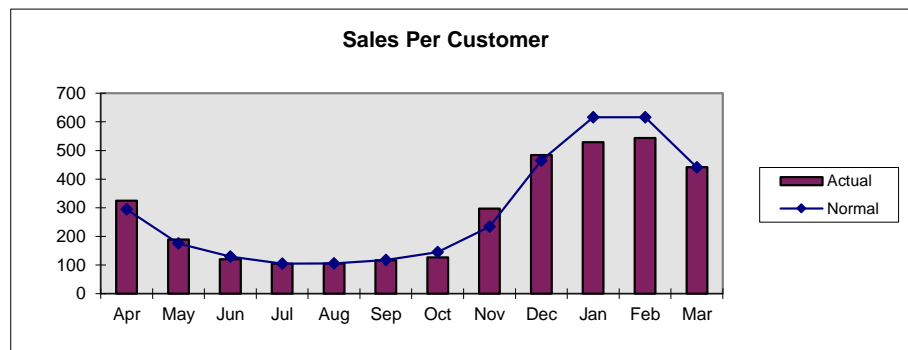
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	5,716,112	17,596	324.8529	350	302
May	3,315,230	17,553	188.8697	121	99
June	2,104,321	17,437	120.6814	0	14
July	1,821,263	17,382	104.7787	0	0
August	1,833,630	17,328	105.8189	0	0
September	2,006,548	17,260	116.2542	0	1
October	2,179,791	17,265	126.2549	31	60
November	5,194,641	17,458	297.5508	423	322
December	8,557,208	17,668	484.3337	601	570
January	9,393,889	17,766	528.7566	612	749
February	9,672,283	17,779	544.0285	666	780
March	7,854,945	17,784	441.6861	511	510
<b>TOTAL</b>	<b>59,649,861</b>	<b>210,276</b>	<b>3,383.8663</b>	<b>3,315</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-47.5900	-30.2069	294.6460	5,184,591	-531,521
May	-21.9200	-13.9133	174.9564	3,071,010	-244,220
June	13.7700	8.7403	129.4217	2,256,726	152,405
July	0.0600	0.0381	104.8168	1,821,925	662
August	0.1000	0.0635	105.8824	1,834,730	1,100
September	1.3000	0.8252	117.0794	2,020,791	14,243
October	29.3100	18.6040	144.8589	2,500,989	321,198
November	-100.5600	-63.8287	233.7221	4,080,320	-1,114,321
December	-30.9500	-19.6450	464.6887	8,210,120	-347,088
January	136.7800	86.8188	615.5754	10,936,312	1,542,423
February	113.5600	72.0803	616.1088	10,953,799	1,281,516
March	-1.4700	-0.9331	440.7530	7,838,351	-16,594
<b>TOTAL</b>	<b>92.3900</b>	<b>58.6432</b>	<b>3,442.5095</b>	<b>60,709,664</b>	<b>1,059,803</b>

RegSGSsion Output:

Constant 106.64389136  
Std Err of Y Est 27.98952014  
R Squared 0.97741914  
  
X Coefficient 0.63473292  
Std Err of Coef. 0.03050850



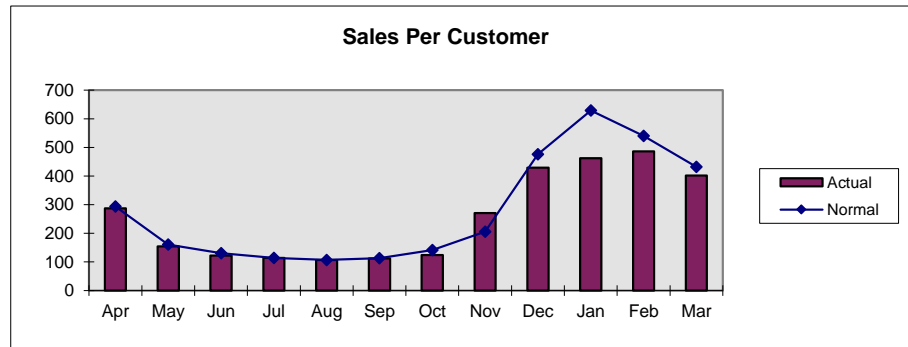
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	5,097,326	17,771	286.8339	291	302
May	2,719,260	17,650	154.0657	87	99
June	2,129,356	17,426	122.1942	0	14
July	1,982,692	17,391	114.0068	0	0
August	1,856,635	17,334	107.1094	0	0
September	1,934,048	17,280	111.9241	0	1
October	2,141,128	17,286	123.8649	30	60
November	4,731,896	17,468	270.8894	434	322
December	7,591,560	17,677	429.4597	491	570
January	8,192,387	17,707	462.6637	465	749
February	8,638,174	17,766	486.2194	687	780
March	7,138,739	17,752	402.1372	458	510
<b>TOTAL</b>	<b>54,153,201</b>	<b>210,508</b>	<b>3,071.3685</b>	<b>2,943</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	11.4100	6.6803	293.5142	5,216,042	118,716
May	12.0800	7.0726	161.1383	2,844,091	124,831
June	13.7700	8.0620	130.2562	2,269,844	140,488
July	0.0600	0.0351	114.0419	1,983,302	610
August	0.1000	0.0585	107.1679	1,857,649	1,014
September	1.3000	0.7611	112.6852	1,947,200	13,152
October	30.3100	17.7458	141.6107	2,447,882	306,754
November	-111.5600	-65.3158	205.5736	3,590,960	-1,140,936
December	79.0500	46.2819	475.7416	8,409,685	818,125
January	283.7800	166.1466	628.8103	11,134,345	2,941,958
February	92.5600	54.1917	540.4111	9,600,944	962,770
March	51.5300	30.1696	432.3068	7,674,310	535,571
<b>TOTAL</b>	<b>464.3900</b>	<b>271.8894</b>	<b>3,343.2579</b>	<b>58,976,254</b>	<b>4,823,053</b>

Regression Output:

Constant 112.35917400  
Std Err of Y Est 42.00264223  
R Squared 0.93139868  
  
X Coefficient 0.58547686  
Std Err of Coef. 0.05024677



SOURCE: Revenue Workpaper R-15-5.00 (Non-Print).

THERMS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	11,220,281	8,996,916	7,502,854	8,890,989	9,784,640	11,591,471	11,649,215	7,592,849	8,261,609	11,809,960	10,801,835	8,645,897	8,598,099	13,600,104	9,393,889	8,192,387
February	-	10,546,110	8,103,243	10,493,764	9,496,536	9,854,887	11,309,808	9,829,265	6,649,840	8,033,476	12,487,904	11,245,581	10,080,158	6,773,308	9,943,883	9,672,283	8,638,174
March	-	8,920,125	6,481,849	6,283,649	7,622,305	6,884,979	8,229,061	5,716,414	4,967,229	7,251,613	8,303,869	10,651,066	7,449,190	5,313,493	5,976,208	7,854,945	7,138,739
April	-	5,246,473	3,911,562	3,550,998	4,621,041	3,998,818	3,744,457	4,262,767	2,338,548	5,281,874	4,898,764	4,462,471	3,905,905	3,798,685	5,716,112	5,097,326	-
May	-	3,183,826	2,451,987	2,491,058	2,685,006	2,451,331	2,062,166	2,275,007	1,989,550	2,627,817	2,573,926	2,461,193	2,620,591	2,321,793	3,315,230	2,719,260	-
June	-	1,711,137	1,696,294	1,720,161	1,979,713	1,681,937	1,631,651	1,808,583	1,735,482	1,921,813	1,956,588	1,953,938	2,122,682	2,133,039	2,104,321	2,129,356	-
July	-	1,660,229	1,625,450	1,592,278	1,512,818	1,575,616	1,518,271	1,555,456	1,530,266	1,606,588	1,858,978	1,949,581	1,726,429	1,869,594	1,821,263	1,982,692	-
August	-	1,567,986	1,507,670	1,545,417	1,569,665	1,512,140	1,498,376	1,426,280	1,491,483	1,703,672	1,731,995	1,795,963	1,677,616	1,913,710	1,833,630	1,856,635	-
September	-	1,613,854	1,633,335	1,666,354	1,603,665	1,525,192	1,591,388	1,622,574	1,635,376	1,661,355	1,756,489	1,785,101	1,891,295	1,924,206	2,006,548	1,934,048	-
October	2,433,526	1,885,613	2,044,535	1,704,923	1,797,801	1,936,594	1,779,696	1,852,425	1,749,943	1,962,743	2,116,972	2,218,312	1,874,459	2,061,359	2,179,791	2,141,128	-
November	3,035,894	3,462,442	4,172,239	3,113,409	3,529,079	2,907,086	2,674,010	2,975,801	3,844,233	3,813,735	4,385,534	2,906,241	2,552,763	4,067,386	5,194,641	4,731,896	-
December	8,828,634	8,493,436	6,375,677	5,752,114	7,869,266	6,204,352	7,614,975	5,276,636	5,043,599	7,554,941	7,921,400	5,026,025	6,340,099	6,830,906	8,557,208	7,591,560	-
Total	14,298,054	59,511,512	49,000,757	47,416,979	53,177,884	50,317,572	55,245,330	50,250,423	40,568,398	51,681,236	61,802,379	57,257,307	50,887,084	47,605,578	62,248,939	57,105,018	23,969,300

BILLS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	16,836	16,504	16,438	16,570	16,646	16,611	16,686	16,547	16,639	16,904	17,169	17,302	17,300	17,561	17,766	17,707
February	-	16,878	16,547	16,502	16,671	16,664	16,702	16,699	16,577	16,682	16,995	17,208	17,383	17,363	17,638	17,779	17,766
March	-	16,845	16,509	16,485	16,638	16,561	16,742	16,638	16,562	16,695	17,024	17,228	17,400	17,337	17,615	17,784	17,752
April	-	16,702	16,329	16,361	16,627	16,400	16,608	16,551	16,430	16,675	16,961	17,185	17,323	17,275	17,596	17,771	-
May	-	16,485	16,050	16,255	16,460	16,212	16,404	16,384	16,295	16,564	16,822	17,061	17,218	17,210	17,553	17,650	-
June	-	16,001	15,889	16,141	16,338	16,060	16,321	16,202	16,159	16,473	16,796	16,961	16,924	17,212	17,437	17,426	-
July	-	15,834	15,742	16,011	16,217	15,999	16,245	16,139	16,103	16,421	16,733	16,879	16,834	17,134	17,382	17,391	-
August	-	15,756	15,657	15,960	16,125	15,914	16,172	16,060	16,053	16,337	16,605	16,820	16,805	17,135	17,328	17,334	-
September	-	15,693	15,650	15,886	16,053	15,849	16,042	16,048	15,979	16,272	16,551	16,781	16,756	17,080	17,260	17,280	-
October	16,011	15,680	15,621	15,870	16,000	15,843	15,985	16,004	16,014	16,275	16,544	16,773	16,735	17,082	17,265	17,286	-
November	16,202	15,976	15,955	15,988	16,167	16,061	16,128	16,198	16,246	16,501	16,716	16,889	16,814	17,221	17,458	17,468	-
December	16,564	16,358	16,272	16,373	16,518	16,329	16,495	16,395	16,448	16,730	17,072	17,161	17,094	17,425	17,668	17,677	-
Total	48,777	195,044	192,725	194,270	196,384	194,538	196,455	196,004	195,413	198,264	201,723	204,115	204,588	206,774	209,761	210,612	53,225

Usage/Bill	293.13	305.12	254.25	244.08	270.79	258.65	281.21	256.37	207.60	260.67	306.37	280.51	248.73	230.23	296.76	271.14	450.34
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This workpaper is too voluminous to print and is only being provided in electronic format.



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Medium General Service Revenue Forecast**

	Billing Determinant	Rate	Margin
<b>Total Medium General Service (MGS) Margin</b>			
<b>Customer Charges:</b>			
Summer	4,282 A/	\$225.00 C/	\$963,475
Winter	3,086 A/	225.00 C/	694,325
<b>Total Customer Charge Revenue</b>	<b>7,368</b>		<b>\$1,657,800</b>
<b>Commodity Charges:</b>			
Summer Therms	7,535,012 B/	\$0.27387 C/	\$2,063,614
Winter Therms	16,625,423 B/	\$0.32787 C/	5,450,977
<b>Total Commodity Charge Revenue</b>	<b>24,160,435</b>		<b>\$7,514,591</b>
<b>Total MGS Margin</b>			<b>\$9,172,391</b>
<hr/>			
<b>Gas Cost:</b>			
Demand	24,160,435	0.07577 C/	\$1,830,636
Commodity	24,160,435	0.19717 C/	4,763,713
<b>Total Gas Cost</b>			<b>\$6,594,349</b>
<hr/>			
<b>Other Charges:</b>			
Integrity Management Rider Surcharge			0 D/
Docket 18-00040 Excess ADIT			0 E/
<b>Total Other Charges</b>			<b>0</b>
<b>Total Revenues</b>			<b>\$15,766,740</b>

A/ WHN Revenue Workpaper R-20-1.03.

B/ WHN Revenue Workpaper R-20-1.02.

C/ WHN Revenue Workpaper R-110-1.00.

D/ IMR Surcharge is excluded from the Consumer Advocate's case. See WHN Revenue Workpaper R-55-1.00 for details.

E/ Excess ADIT is excluded from the Consumer Advocate's case. See WHN Workpaper R-60-1.00 for details.

SOURCE: Couzens Workpaper - Sales &amp; Transportation Pro Forma Revenue, A-Summary Pro Forma Revs

	Billing Determinant	Rate	Margin
<b>Total MGS Margin</b>			
<b>Customer Charges:</b>			
Summer	6,820	\$225.00	\$1,534,500
Winter	0	225.00	0
<b>Total Customer Charge Revenue</b>	<b>6,820</b>		<b>\$1,534,500</b>
<b>Commodity Charges:</b>			
Summer Therms	6,789,592	\$0.27387	\$1,859,466
Winter Therms	15,570,403	0.32787	5,105,068
<b>Total Commodity Charge Revenue</b>	<b>22,359,995</b>		<b>\$6,964,534</b>
<b>Total MGS Margin</b>			<b>\$8,499,034</b>
<hr/>			
<b>Gas Cost:</b>			
Demand	22,359,995	\$0.07577	\$1,694,217
Commodity	22,359,995	0.19717	4,408,720
<b>Total Gas Cost</b>			<b>\$6,102,937</b>
<hr/>			
<b>Other Charges:</b>			
Integrity Management Rider Surcharge			\$2,215,717
Docket 18-00040 Excess ADIT	22,359,995	-\$0.03678	-822,401
<b>Total Other Charges</b>			<b>\$1,393,316</b>
<b>Total Revenues</b>			<b>\$15,995,287</b>

	Winter	Summer	Total
Attrition Period Medium General Service (MGS) Usage	16,625,423	7,535,012	24,160,435 A/
Winter/Summer Percentage	68.81%	31.19%	100.00%

**Historic Usage:**  
**For the 12 Months Ended March**

MONTH	2015	2016	2017	2018	2019	2020	Average
April	1,571,835	1,320,938	1,119,340	1,410,424	1,902,079	1,520,145	1,474,127 B/
May	843,170	655,376	721,923	861,974	1,077,981	846,135	834,427 B/
June	591,242	564,364	737,447	656,843	658,030	724,819	655,458 B/
July	520,714	521,087	550,093	590,459	558,673	688,824	571,642 B/
August	500,245	460,297	533,928	551,738	540,671	628,147	535,838 B/
September	523,060	513,008	598,572	644,794	586,696	668,510	589,107 B/
October	669,128	651,665	673,787	724,366	700,139	773,300	698,731 B/
November	1,472,839	906,525	1,016,771	1,511,620	1,732,505	1,999,097	1,439,893 B/
December	2,278,822	1,468,378	2,471,409	2,314,757	2,627,974	2,969,799	2,355,190 B/
January	2,992,015	2,294,273	3,196,436	4,154,443	2,835,711	3,067,387	3,090,044 B/
February	2,941,984	2,452,795	2,465,557	2,925,867	2,887,417	3,240,841	2,819,077 B/
March	2,717,177	1,861,459	1,980,929	1,647,825	2,353,919	2,609,587	2,195,149 B/
<b>Total</b>	<b>17,622,231</b>	<b>13,670,165</b>	<b>16,066,192</b>	<b>17,995,110</b>	<b>18,461,795</b>	<b>19,736,591</b>	<b>17,258,681</b>
Summer Usage (Apr - Oct)	5,219,394	4,686,735	4,935,090	5,440,598	6,024,269	5,849,880	5,359,328
Winter Usage (Nov - Mar)	12,402,837	8,983,430	11,131,102	12,554,512	12,437,526	13,886,711	11,899,353
<b>Total</b>	<b>17,622,231</b>	<b>13,670,165</b>	<b>16,066,192</b>	<b>17,995,110</b>	<b>18,461,795</b>	<b>19,736,591</b>	<b>17,258,681</b>
Summer Percentage	29.62%	34.28%	30.72%	30.23%	32.63%	29.64%	31.19%
Winter Percentage	70.38%	65.72%	69.28%	69.77%	67.37%	70.36%	68.81%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

A/ WHN Revenue Workpaper R-20-1.04.

B/ WHN Revenue Workpaper R-20-4.00.

	Winter	Summer	Total
Attrition Period Medium General Service (MGS) Bills	3,086	4,282	7,368 A/
Winter/Summer Percentage	41.88%	58.12%	100.00%

**Historic Bill Counts:**  
**For the 12 Months Ended March**

MONTH	2015	2016	2017	2018	2019	2020	Average
April	427	349	344	546	462	459	431 B/
May	428	351	346	542	465	463	433 B/
June	354	352	545	464	461	564	457 B/
July	354	350	544	462	460	566	456 B/
August	354	345	543	462	463	566	456 B/
September	352	342	542	459	456	566	453 B/
October	349	343	543	461	457	563	453 B/
November	352	343	543	460	457	566	454 B/
December	351	345	542	461	458	570	455 B/
January	355	345	548	459	460	568	456 B/
February	350	345	546	462	460	571	456 B/
March	351	348	544	463	461	569	456 B/
<b>Total</b>	<b>4,377</b>	<b>4,158</b>	<b>6,130</b>	<b>5,701</b>	<b>5,520</b>	<b>6,591</b>	<b>5,413</b>
Summer Bills (Apr - Oct)	2,618	2,432	3,407	3,396	3,224	3,747	3,137
Winter Bills (Nov - Mar)	1,759	1,726	2,723	2,305	2,296	2,844	2,276
<b>Total</b>	<b>4,377</b>	<b>4,158</b>	<b>6,130</b>	<b>5,701</b>	<b>5,520</b>	<b>6,591</b>	<b>5,413</b>
Summer Percentage	59.81%	58.49%	55.58%	59.57%	58.41%	56.85%	58.12%
Winter Percentage	40.19%	41.51%	44.42%	40.43%	41.59%	43.15%	41.88%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

A/ WHN Revenue Workpaper R-20-1.04.

B/ WHN Revenue Workpaper R-20-4.00.

**Attrition Period Monthly Growth in MGS Bills**

	<u><b>37</b></u> <b>A/</b>	
	<b>Growth</b>	<b>Total</b>
Test Period Number of MGS Bills - 12 Months Ended March, 2020		6,591 <b>A/</b>
April-20	37	6,628
May-20	37	6,665
June-20	37	6,702
July-20	37	6,739
August-20	37	6,776
September-20	37	6,813
October-20	37	6,850
November-20	37	6,887
December-20	37	6,924
January-21	37	6,961
February-21	37	6,998
March-21	37	7,035
April-21	37	7,072
May-21	37	7,109
June-21	37	7,146
July-21	37	7,183
August-21	37	7,220
September-21	37	7,257
October-21	37	7,294
November-21	37	7,331
December-21	37	7,368

Attrition Period MGS Bills	7,368	
Normalized Usage per Bill (Therms)	3,279.1036	<b>B/</b>
<b>Total MGS Sales Volume - Therms</b>	<b>24,160,435</b>	

A/ WHN Revenue Workpaper R-20-1.05.

B/ WHN Revenue Workpaper R-20-2.00.

Historic Bill Counts:

For the 12 Months Ended March

MONTH	2015	2016	2017	2018	2019	2020
April	427	349	344	546	462	459
May	428	351	346	542	465	463
June	354	352	545	464	461	564
July	354	350	544	462	460	566
August	354	345	543	462	463	566
September	352	342	542	459	456	566
October	349	343	543	461	457	563
November	352	343	543	460	457	566
December	351	345	542	461	458	570
January	355	345	548	459	460	568
February	350	345	546	462	460	571
March	351	348	544	463	461	569
<b>Total</b>	<b>4,377</b>	<b>4,158</b>	<b>6,130</b>	<b>5,701</b>	<b>5,520</b>	<b>6,591</b>

Source: WHN Revenue Workpaper R-20-4.00.

Annual Bill Growth Calculation:

Year	Bills	Growth
2015	4,377	-
2016	4,158	-219
2017	6,130	1,972
2018	5,701	-429
2019	5,520	-181
2020	6,591	1,071

Five-Year Average 443

Four-Year Average 608

Three-Year Average 154

Two-Year Average 445

One-Year Average 1,071

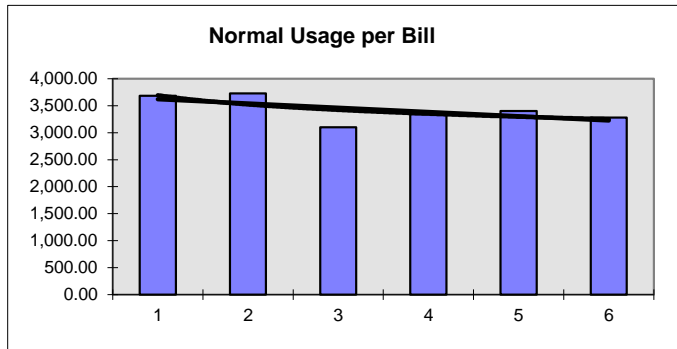
The Two-Year Average Growth was chosen as the most representative of the Attrition Year.

Annual Bill Growth Forecast	445
Test Period Bills	6,591
<b>Annual Percentage Growth</b>	<b><u>6.75%</u></b>

Annual Bill Growth Forecast	445
Months per Year	12
<b>Monthly Bill Growth</b>	<b><u>37</u></b>

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2015	1	3,683.6895	3,620.5682	3,612.4042	-
2016	2	3,729.2547	3,541.7368	3,532.6847	1.24%
2017	3	3,100.8618	3,462.9054	3,454.7245	-16.85%
2018	4	3,345.8146	3,384.0741	3,378.4848	7.90%
2019	5	3,402.2143	3,305.2427	3,303.9275	1.69%
2020	6	3,279.1036	3,226.4113	3,231.0155	-3.62%
Forecast	7.25		3,127.8721	3,142.1341	3,200.2133

Regression Statistics		
	Linear	Logarithmic
Constant	3,699.399541	8.214444
X Coefficient	-78.831366	-0.022315
R Squared	0.371650	0.350290

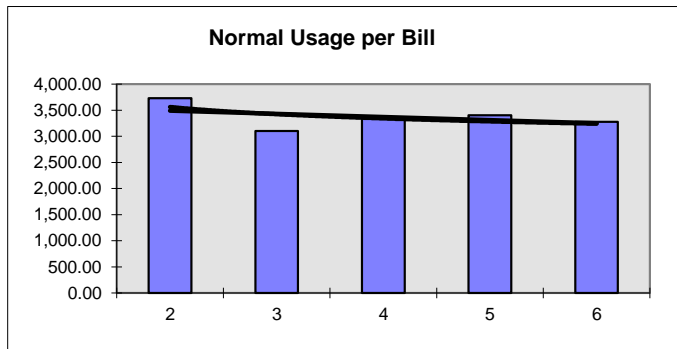


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - MGS Conservation and Growth-5 Year Analysis  
Cycle Data

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2016	2	3,729.2547	3,491.2397	3,477.8876	-
2017	3	3,100.8618	3,431.3448	3,421.1340	-16.85%
2018	4	3,345.8146	3,371.4498	3,365.3065	7.90%
2019	5	3,402.2143	3,311.5548	3,310.3901	1.69%
2020	6	3,279.1036	3,251.6599	3,256.3698	-3.62%
Forecast	7.25		3,176.7912	3,190.0824	3,167.9579

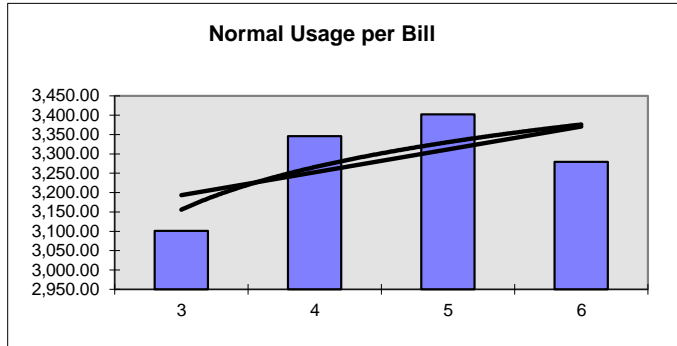
Regression Statistics		
	Linear	Logarithmic
Constant	3,611.029667	8.187086
X Coefficient	-59.894964	-0.016453
R Squared	0.169719	0.149817





Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2017	3	3,100.8618	3,193.3298	3,190.5355	-
2018	4	3,345.8146	3,252.4423	3,249.9103	7.90%
2019	5	3,402.2143	3,311.5548	3,310.3901	1.69%
2020	6	3,279.1036	3,370.6674	3,371.9954	-3.62%
Forecast	7.25		3,444.5580	3,450.6167	3,360.8271

Regression Statistics		
	Linear	Logarithmic
Constant	3,015.992288	8.012628
X Coefficient	59.112511	0.018439
R Squared	0.340287	0.347816

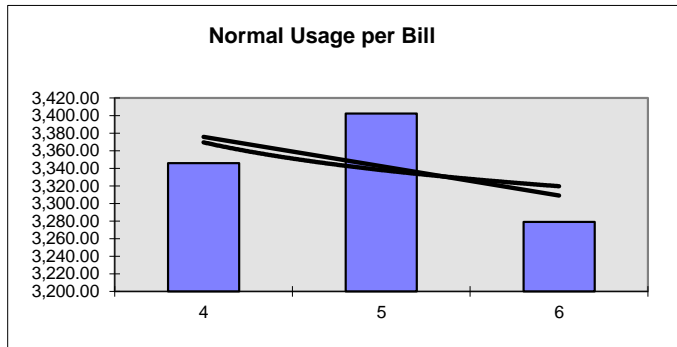


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - MGS Conservation and Growth-3 Year Analysis  
Cycle Data

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2018	4	3,345.8146	3,375.7330	3,375.8224	-
2019	5	3,402.2143	3,342.3775	3,341.9983	1.69%
2020	6	3,279.1036	3,309.0220	3,308.5131	-3.62%
Forecast	7.25		3,267.3277	3,267.1280	3,239.5387

Regression Statistics		
	Linear	Logarithmic
Constant	3,509.154930	8.164674
X Coefficient	-33.355484	-0.010070
R Squared	0.292947	0.297749



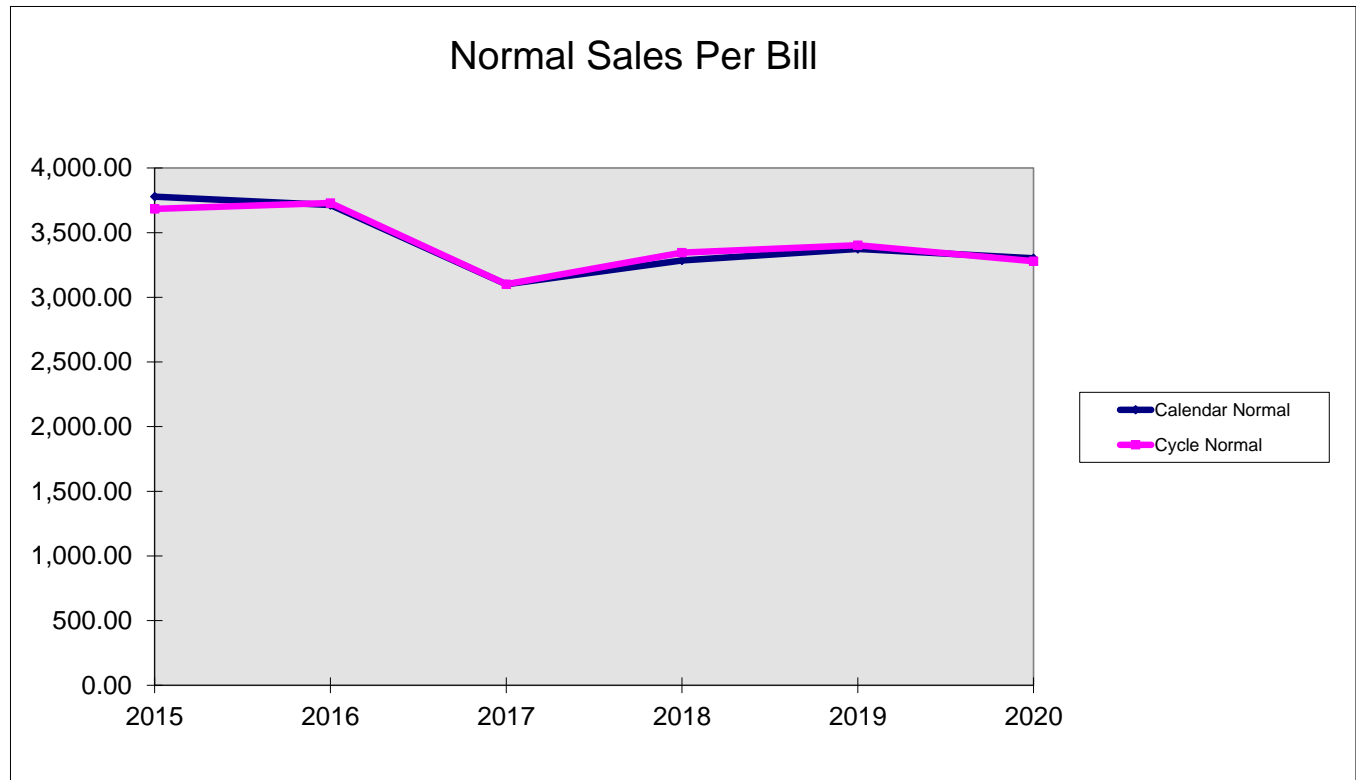
Trend	From The 12 Months Ended		Cycle Data	
	Month	Year	Time Series Forecast	Adjusted Forecast
Linear Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Logarithmic Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Year To Year Change	March	2015	3,200.2133	3,200.2133
	March	2016	3,167.9579	
	March	2017	3,360.8271	
	March	2018	3,239.5387	3,239.5387
<b>Average</b>			<b>3,242.1342</b>	<b>3,219.8760</b>
One Standard Deviation			73.0654	
<b>Upper</b> End of Range			3,315.1997	
<b>Lower</b> End of Range			3,169.0688	
Number in Range			2.0000	
Weighted Average Forecast at Midpoint				<b>3,219.8760</b>
Test Period Amount				<b>3,279.1036</b>
Compound Growth Factor				<b>0.98193786</b>
Annualized Growth Rate				<b>0.98552400</b>
Test Period Sales				19,736,591
Weather Adjustment				1,875,981
Normal Sales				<b>21,612,572</b>
Usage Adjustment				-390,369
Adjusted Sales				<b>21,222,203</b>

CALENDAR DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	17,622,231	4,377	45,715.9827	16,536,873	-1,085,358	84.58%	3,778.1295
2016	13,670,165	4,158	44,618.4025	15,443,605	1,773,440	82.42%	3,714.1907
2017	16,066,192	6,130	36,902.9440	19,006,418	2,940,226	79.22%	3,100.5576
2018	17,995,110	5,701	39,720.1513	18,724,644	729,534	82.59%	3,284.4490
2019	18,461,795	5,520	40,494.8185	18,625,498	163,703	82.38%	3,374.1844
2020	19,736,591	6,591	39,344.9811	21,760,850	2,024,259	82.65%	3,301.6007

CYCLE DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	17,622,231	4,377	44,663.3925	16,123,509	-1,498,722	98.70%	3,683.6895
2016	13,670,165	4,158	44,794.5812	15,506,241	1,836,076	92.16%	3,729.2547
2017	16,066,192	6,130	37,002.6597	19,008,283	2,942,091	97.06%	3,100.8618
2018	17,995,110	5,701	40,359.3734	19,074,489	1,079,379	97.27%	3,345.8146
2019	18,461,795	5,520	40,831.2336	18,780,223	318,428	98.69%	3,402.2143
2020	19,736,591	6,591	39,038.5930	21,612,572	1,875,981	95.16%	3,279.1036



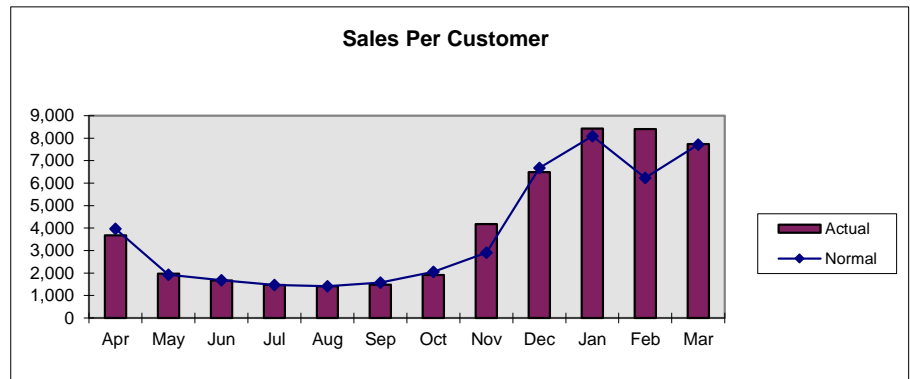
**For the 12 Months Ended March 31, 2015**

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,571,835	427	3,681.1124	144	182
May	843,170	428	1,970.0234	50	45
June	591,242	354	1,670.1751	0	1
July	520,714	354	1,470.9435	0	0
August	500,245	354	1,413.1215	0	0
September	523,060	352	1,485.9659	3	15
October	669,128	349	1,917.2722	150	168
November	1,472,839	352	4,184.2017	621	451
December	2,278,822	351	6,492.3704	671	695
January	2,992,015	355	8,428.2113	840	795
February	2,941,984	350	8,405.6686	905	617
March	2,717,177	351	7,741.2450	441	438
<b>TOTAL</b>	<b>17,622,231</b>	<b>4,377</b>	<b>48,860.3109</b>	<b>3,825</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	38	287.7714	3,968.8838	1,694,713	122,878
May	-5	-38.5502	1,931.4732	826,671	-16,499
June	1	9.4870	1,679.6621	594,600	3,358
July	0	0.0000	1,470.9435	520,714	0
August	0	0.7529	1,413.8744	500,512	267
September	12	89.2980	1,575.2639	554,493	31,433
October	18	132.9682	2,050.2404	715,534	46,406
November	-170	-1,278.9339	2,905.2678	1,022,654	-450,185
December	24	178.8971	6,671.2675	2,341,615	62,793
January	-45	-336.3357	8,091.8756	2,872,616	-119,399
February	-288	-2,168.1491	6,237.5195	2,183,132	-758,852
March	-3	-21.5339	7,719.7111	2,709,619	-7,558
<b>TOTAL</b>	<b>-418</b>	<b>-3,144.3282</b>	<b>45,715.9827</b>	<b>16,536,873</b>	<b>-1,085,358</b>

**Regression Output:**

Constant 1,671.71503252  
Std Err of Y Est 1,194.88148710  
R Squared 0.84581092  
X Coefficient 7.52934132  
Std Err of Coef. 1.01659308



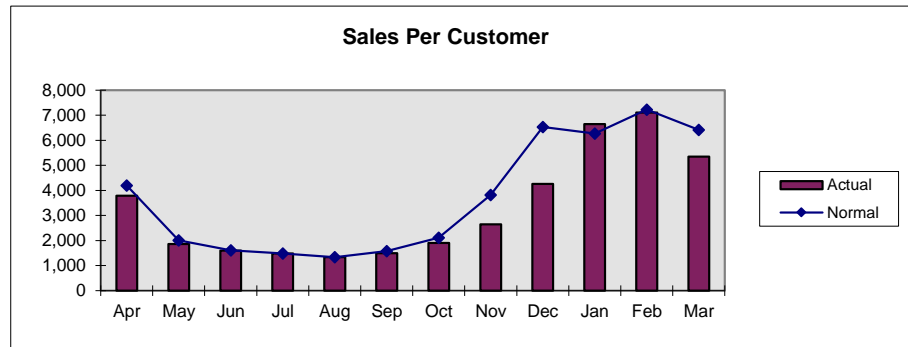
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,320,938	349	3,784.9226	123	182
May	655,376	351	1,867.1681	24	45
June	564,364	352	1,603.3068	0	1
July	521,087	350	1,488.8200	0	0
August	460,297	345	1,334.1942	0	0
September	513,008	342	1,500.0234	3	15
October	651,665	343	1,899.8980	137	168
November	906,525	343	2,642.9300	283	451
December	1,468,378	345	4,256.1681	370	695
January	2,294,273	345	6,650.0667	850	795
February	2,452,795	345	7,109.5507	600	617
March	1,861,459	348	5,349.0201	285	438
<b>TOTAL</b>	<b>13,670,165</b>	<b>4,158</b>	<b>39,486.0688</b>	<b>2,675</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	59	414.9931	4,199.9157	1,465,771	144,833
May	21	146.3198	2,013.4879	706,734	51,358
June	1	8.8296	1,612.1364	567,472	3,108
July	0	0.0000	1,488.8200	521,087	0
August	0	0.7008	1,334.8950	460,539	242
September	12	83.1107	1,583.1341	541,432	28,424
October	31	214.8546	2,114.7526	725,360	73,695
November	168	1,178.2665	3,821.1965	1,310,670	404,145
December	325	2,275.8048	6,531.9729	2,253,531	785,153
January	-55	-383.1083	6,266.9584	2,162,101	-132,172
February	17	119.4104	7,228.9611	2,493,992	41,197
March	153	1,073.1517	6,422.1718	2,234,916	373,457
<b>TOTAL</b>	<b>732</b>	<b>5,132.33</b>	<b>44,618.4025</b>	<b>15,443,605</b>	<b>1,773,440</b>

Regression Output:

Constant 1,728.38346262  
Std Err of Y Est 926.13704136  
R Squared 0.82420297  
  
X Coefficient 7.00765129  
Std Err of Coef. 1.02343712



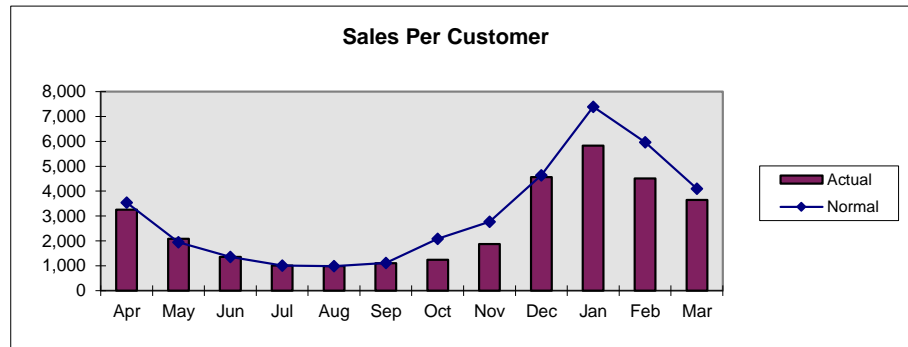
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,119,340	344	3,253.8953	136	182
May	721,923	346	2,086.4827	67	45
June	737,447	545	1,353.1138	0	1
July	550,093	544	1,011.2004	0	0
August	533,928	543	983.2928	0	0
September	598,572	542	1,104.3764	13	15
October	673,787	543	1,240.8600	33	168
November	1,016,771	543	1,872.5064	308	451
December	2,471,409	542	4,559.7952	683	695
January	3,196,436	548	5,832.9124	546	795
February	2,465,557	546	4,515.6722	385	617
March	1,980,929	544	3,641.4136	365	438
<b>TOTAL</b>	<b>16,066,192</b>	<b>6,130</b>	<b>31,455.5212</b>	<b>2,536</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	46.2200	288.9405	3,542.8358	1,218,736	99,396
May	-22.1200	-138.2814	1,948.2013	674,078	-47,845
June	1.2600	7.8768	1,360.9906	741,740	4,293
July	0.0000	0.0000	1,011.2004	550,093	0
August	0.1000	0.6251	983.9179	534,267	339
September	1.8600	11.6276	1,116.0040	604,874	6,302
October	134.6600	841.8159	2,082.6759	1,130,893	457,106
November	143.1400	894.8279	2,767.3343	1,502,663	485,892
December	11.7600	73.5167	4,633.3119	2,511,255	39,846
January	249.3300	1,558.6660	7,391.5784	4,050,585	854,149
February	232.0400	1,450.5790	5,966.2512	3,257,573	792,016
March	73.1400	457.2287	4,098.6423	2,229,661	248,732
<b>TOTAL</b>	<b>871.3900</b>	<b>5,447.4228</b>	<b>36,902.9440</b>	<b>19,006,418</b>	<b>2,940,226</b>

Regression Output:

Constant 1,300.16047501  
Std Err of Y Est 803.04205817  
R Squared 0.79223568  
  
X Coefficient 6.25141778  
Std Err of Coef. 1.01236425



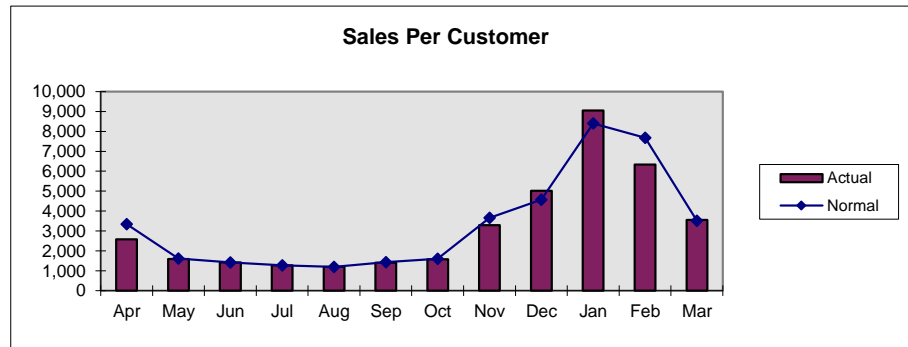
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,410,424	546	2,583.1941	76	182
May	861,974	542	1,590.3579	41	45
June	656,843	464	1,415.6099	0	1
July	590,459	462	1,278.0498	0	0
August	551,738	462	1,194.2381	0	0
September	644,794	459	1,404.7800	12	15
October	724,366	461	1,571.2928	163	168
November	1,511,620	460	3,286.1304	399	451
December	2,314,757	461	5,021.1649	758	695
January	4,154,443	459	9,051.0741	886	795
February	2,925,867	462	6,333.0455	429	617
March	1,647,825	463	3,559.0173	444	438
<b>TOTAL</b>	<b>17,995,110</b>	<b>5,701</b>	<b>38,287.9548</b>	<b>3,208</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	106.2200	762.9665	3,346.1606	1,827,004	416,580
May	3.8800	27.8696	1,618.2275	877,079	15,105
June	1.2600	9.0504	1,424.6603	661,042	4,199
July	0.0000	0.0000	1,278.0498	590,459	0
August	0.1000	0.7183	1,194.9564	552,070	332
September	2.8600	20.5431	1,425.3231	654,223	9,429
October	4.6600	33.4723	1,604.7651	739,797	15,431
November	52.1400	374.5159	3,660.6463	1,683,897	172,277
December	-63.2400	-454.2459	4,566.9190	2,105,350	-209,407
January	-90.6700	-651.2726	8,399.8015	3,855,509	-298,934
February	188.0400	1,350.6706	7,683.7161	3,549,877	624,010
March	-5.8600	-42.0917	3,516.9256	1,628,337	-19,488
<b>TOTAL</b>	<b>199.3900</b>	<b>1,432.1965</b>	<b>39,720.1513</b>	<b>18,724,644</b>	<b>729,534</b>

Regression Output:

Constant 1,270.43709022  
Std Err of Y Est 1,082.12272130  
R Squared 0.82587741  
  
X Coefficient 7.18288955  
Std Err of Coef. 1.04296314



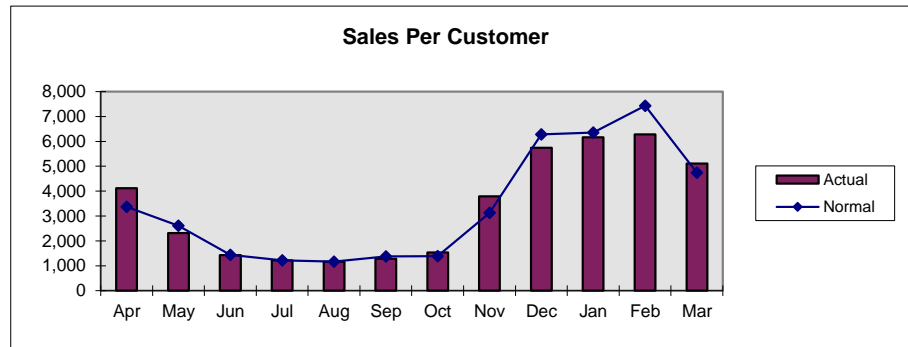
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,902,079	462	4,117.0541	295	182
May	1,077,981	465	2,318.2387	1	45
June	658,030	461	1,427.3970	0	1
July	558,673	460	1,214.5065	0	0
August	540,671	463	1,167.7559	0	0
September	586,696	456	1,286.6140	2	15
October	700,139	457	1,532.0328	190	168
November	1,732,505	457	3,791.0394	551	451
December	2,627,974	458	5,737.9345	613	695
January	2,835,711	460	6,164.5891	766	795
February	2,887,417	460	6,276.9935	443	617
March	2,353,919	461	5,106.1150	493	438
<b>TOTAL</b>	<b>18,461,795</b>	<b>5,520</b>	<b>40,140.2706</b>	<b>3,354</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-112.7800	-748.9403	3,368.1138	1,556,069	-346,010
May	43.8800	291.3947	2,609.6334	1,213,480	135,499
June	1.2600	8.3673	1,435.7643	661,887	3,857
July	0.0000	0.0000	1,214.5065	558,673	0
August	0.1000	0.6641	1,168.4200	540,978	307
September	12.8600	85.3996	1,372.0136	625,638	38,942
October	-22.3400	-148.3537	1,383.6791	632,341	-67,798
November	-99.8600	-663.1422	3,127.8972	1,429,449	-303,056
December	81.7600	542.9452	6,280.8797	2,876,643	248,669
January	29.3300	194.7723	6,359.3614	2,925,306	89,595
February	174.0400	1,155.7507	7,432.7442	3,419,062	531,645
March	-54.8600	-364.3098	4,741.8052	2,185,972	-167,947
<b>TOTAL</b>	<b>53.3900</b>	<b>354.5479</b>	<b>40,494.8185</b>	<b>18,625,498</b>	<b>163,703</b>

Regression Output:

Constant 1,488.94161560  
Std Err of Y Est 916.88333115  
R Squared 0.82377258  
  
X Coefficient 6.64071890  
Std Err of Coef. 0.97128834





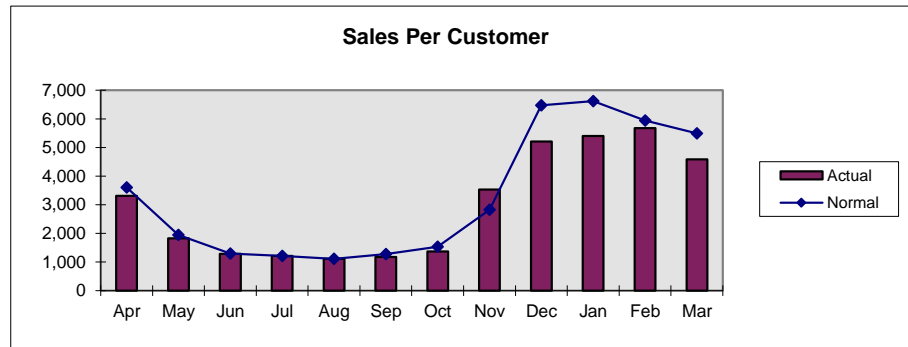
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,520,145	459	3,311.8627	137	182
May	846,135	463	1,827.5054	27	45
June	724,819	564	1,285.1401	0	1
July	688,824	566	1,217.0035	0	0
August	628,147	566	1,109.8004	0	0
September	668,510	566	1,181.1131	0	15
October	773,300	563	1,373.5346	143	168
November	1,999,097	566	3,531.9735	559	451
December	2,969,799	570	5,210.1737	503	695
January	3,067,387	568	5,400.3292	610	795
February	3,240,841	571	5,675.7285	576	617
March	2,609,587	569	4,586.2689	300	438
<b>TOTAL</b>	<b>19,736,591</b>	<b>6,591</b>	<b>35,710.4337</b>	<b>2,855</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	45.2200	297.5330	3,609.3957	1,656,713	136,568
May	17.8800	117.6446	1,945.1500	900,604	54,469
June	1.2600	8.2904	1,293.4305	729,495	4,676
July	0.0000	0.0000	1,217.0035	688,824	0
August	0.1000	0.6580	1,110.4584	628,519	372
September	14.8600	97.7740	1,278.8871	723,850	55,340
October	24.6600	162.2548	1,535.7894	864,649	91,349
November	-107.8600	-709.6839	2,822.2896	1,597,416	-401,681
December	191.7600	1,261.7187	6,471.8924	3,688,979	719,180
January	185.3300	1,219.4114	6,619.7406	3,760,013	692,626
February	41.0400	270.0299	5,945.7584	3,395,028	154,187
March	138.1400	908.9165	5,495.1854	3,126,760	517,173
<b>TOTAL</b>	<b>552.3900</b>	<b>3,634.5474</b>	<b>39,344.9811</b>	<b>21,760,850</b>	<b>2,024,259</b>

Regression Output:

Constant 1,410.45485426  
Std Err of Y Est 808.92947137  
R Squared 0.82650448  
  
X Coefficient 6.57967615  
Std Err of Coef. 0.95329220



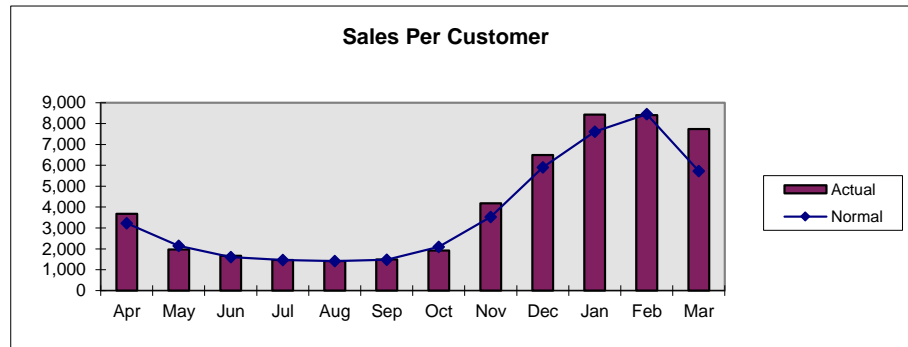
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,571,835	427	3,681.1124	357	302
May	843,170	428	1,970.0234	78	99
June	591,242	354	1,670.1751	22	14
July	520,714	354	1,470.9435	0	0
August	500,245	354	1,413.1215	0	0
September	523,060	352	1,485.9659	2	1
October	669,128	349	1,917.2722	39	60
November	1,472,839	352	4,184.2017	401	322
December	2,278,822	351	6,492.3704	640	570
January	2,992,015	355	8,428.2113	846	749
February	2,941,984	350	8,405.6686	774	780
March	2,717,177	351	7,741.2450	751	510
<b>TOTAL</b>	<b>17,622,231</b>	<b>4,377</b>	<b>48,860.3109</b>	<b>3,910</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-54.5900	-455.8401	3,225.2723	1,377,191	-194,644
May	21.0800	176.0232	2,146.0466	918,508	75,338
June	-8.2300	-68.7225	1,601.4526	566,914	-24,328
July	0.0600	0.5010	1,471.4445	520,891	177
August	0.1000	0.8350	1,413.9565	500,541	296
September	-0.7000	-5.8452	1,480.1207	521,002	-2,058
October	21.3100	177.9438	2,095.2160	731,230	62,102
November	-78.5600	-655.9955	3,528.2062	1,241,929	-230,910
December	-69.9500	-584.0999	5,908.2705	2,073,803	-205,019
January	-97.2200	-811.8111	7,616.4002	2,703,822	-288,193
February	5.5600	46.4274	8,452.0960	2,958,234	16,250
March	-241.4700	-2,016.3345	5,724.9105	2,009,444	-707,733
<b>TOTAL</b>	<b>-502.6100</b>	<b>-4,196.9184</b>	<b>44,663.3925</b>	<b>16,123,509</b>	<b>-1,498,722</b>

Regression Output:

Constant 1,350.90333056  
Std Err of Y Est 347.01150114  
R Squared 0.98699556  
  
X Coefficient 8.35024833  
Std Err of Coef. 0.30310119



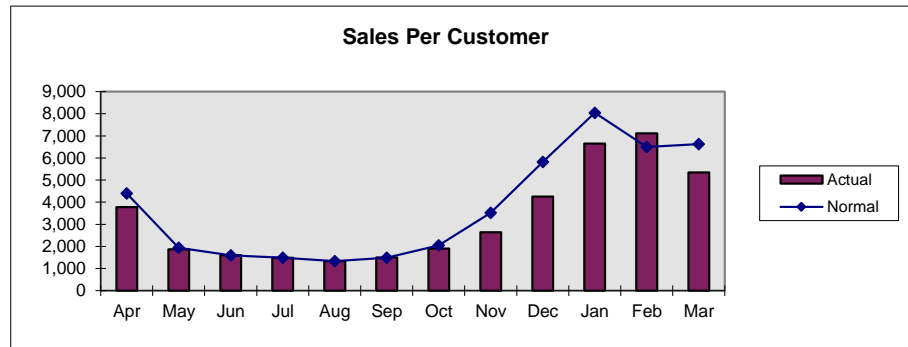
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,320,938	349	3,784.9226	221	302
May	655,376	351	1,867.1681	89	99
June	564,364	352	1,603.3068	15	14
July	521,087	350	1,488.8200	0	0
August	460,297	345	1,334.1942	0	0
September	513,008	342	1,500.0234	3	1
October	651,665	343	1,899.8980	40	60
November	906,525	343	2,642.9300	206	322
December	1,468,378	345	4,256.1681	362	570
January	2,294,273	345	6,650.0667	563	749
February	2,452,795	345	7,109.5507	861	780
March	1,861,459	348	5,349.0201	340	510
<b>TOTAL</b>	<b>13,670,165</b>	<b>4,158</b>	<b>39,486.0688</b>	<b>2,700</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	81.4100	610.9303	4,395.8529	1,534,153	213,215
May	10.0800	75.6440	1,942.8121	681,927	26,551
June	-1.2300	-9.2304	1,594.0764	561,115	-3,249
July	0.0600	0.4503	1,489.2703	521,245	158
August	0.1000	0.7504	1,334.9446	460,556	259
September	-1.7000	-12.7574	1,487.2660	508,645	-4,363
October	20.3100	152.4136	2,052.3116	703,943	52,278
November	116.4400	873.8082	3,516.7382	1,206,241	299,716
December	208.0500	1,561.2831	5,817.4512	2,007,021	538,643
January	185.7800	1,394.1609	8,044.2276	2,775,259	480,986
February	-81.4400	-611.1555	6,498.3952	2,241,946	-210,849
March	169.5300	1,272.2149	6,621.2350	2,304,190	442,731
<b>TOTAL</b>	<b>707.3900</b>	<b>5,308.5124</b>	<b>44,794.5812</b>	<b>15,506,241</b>	<b>1,836,076</b>

Regression Output:

Constant 1,602.02369699  
Std Err of Y Est 618.45882197  
R Squared 0.92160604  
  
X Coefficient 7.50436459  
Std Err of Coef. 0.69212187



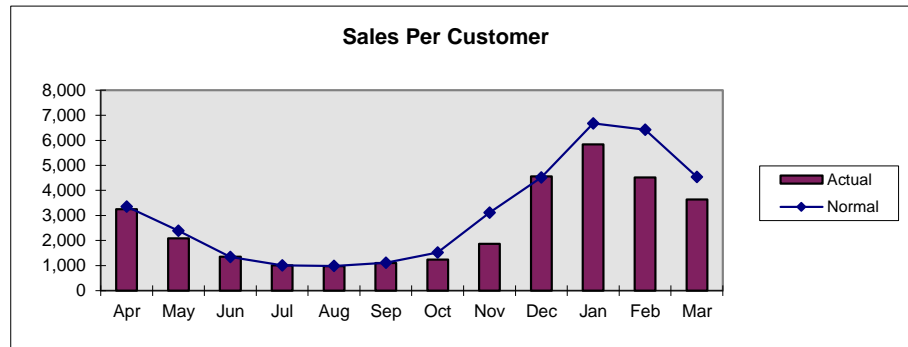
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,119,340	344	3,253.8953	287	302
May	721,923	346	2,086.4827	54	99
June	737,447	545	1,353.1138	15	14
July	550,093	544	1,011.2004	0	0
August	533,928	543	983.2928	0	0
September	598,572	542	1,104.3764	0	1
October	673,787	543	1,240.8600	19	60
November	1,016,771	543	1,872.5064	139	322
December	2,471,409	542	4,559.7952	576	570
January	3,196,436	548	5,832.9124	624	749
February	2,465,557	546	4,515.6722	497	780
March	1,980,929	544	3,641.4136	377	510
<b>TOTAL</b>	<b>16,066,192</b>	<b>6,130</b>	<b>31,455.5212</b>	<b>2,588</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	15.4100	104.3232	3,358.2185	1,155,227	35,887
May	45.0800	305.1843	2,391.6670	827,517	105,594
June	-1.2300	-8.3269	1,344.7869	732,909	-4,538
July	0.0600	0.4062	1,011.6066	550,314	221
August	0.1000	0.6770	983.9698	534,296	368
September	1.3000	8.8008	1,113.1772	603,342	4,770
October	41.3100	279.6621	1,520.5221	825,644	151,857
November	183.4400	1,241.8593	3,114.3657	1,691,101	674,330
December	-5.9500	-40.2805	4,519.5147	2,449,577	-21,832
January	124.7800	844.7405	6,677.6529	3,659,354	462,918
February	282.5600	1,912.8857	6,428.5579	3,509,993	1,044,436
March	132.5300	897.2068	4,538.6204	2,469,009	488,080
<b>TOTAL</b>	<b>819.3900</b>	<b>5,547.1385</b>	<b>37,002.6597</b>	<b>19,008,283</b>	<b>2,942,091</b>

Regression Output:

Constant 1,161.26480983  
Std Err of Y Est 302.09882120  
R Squared 0.97059695  
  
X Coefficient 6.76983906  
Std Err of Coef. 0.37261051



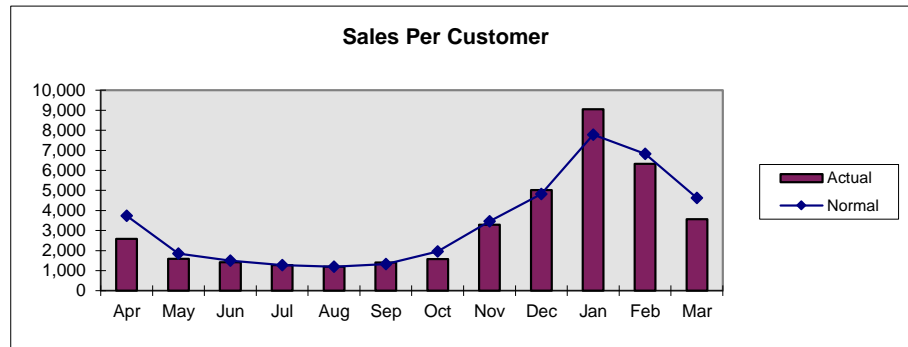
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,410,424	546	2,583.1941	150	302
May	861,974	542	1,590.3579	65	99
June	656,843	464	1,415.6099	3	14
July	590,459	462	1,278.0498	0	0
August	551,738	462	1,194.2381	0	0
September	644,794	459	1,404.7800	12	1
October	724,366	461	1,571.2928	9	60
November	1,511,620	460	3,286.1304	299	322
December	2,314,757	461	5,021.1649	596	570
January	4,154,443	459	9,051.0741	916	749
February	2,925,867	462	6,333.0455	715	780
March	1,647,825	463	3,559.0173	369	510
<b>TOTAL</b>	<b>17,995,110</b>	<b>5,701</b>	<b>38,287.9548</b>	<b>3,134</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	152.4100	1,154.7786	3,737.9727	2,040,933	630,509
May	34.0800	258.2170	1,848.5749	1,001,928	139,954
June	10.7700	81.6020	1,497.2119	694,706	37,863
July	0.0600	0.4546	1,278.5044	590,669	210
August	0.1000	0.7577	1,194.9958	552,088	350
September	-10.7000	-81.0717	1,323.7083	607,582	-37,212
October	51.3100	388.7651	1,960.0579	903,587	179,221
November	23.4400	177.6000	3,463.7304	1,593,316	81,696
December	-25.9500	-196.6177	4,824.5472	2,224,116	-90,641
January	-167.2200	-1,266.9909	7,784.0832	3,572,894	-581,549
February	64.5600	489.1576	6,822.2031	3,151,858	225,991
March	140.5300	1,064.7663	4,623.7836	2,140,812	492,987
<b>TOTAL</b>	<b>273.3900</b>	<b>2,071.4186</b>	<b>40,359.3734</b>	<b>19,074,489</b>	<b>1,079,379</b>

Regression Output:

Constant 1,211.85783837  
Std Err of Y Est 428.19311152  
R Squared 0.97273651  
  
X Coefficient 7.57679027  
Std Err of Coef. 0.40112376



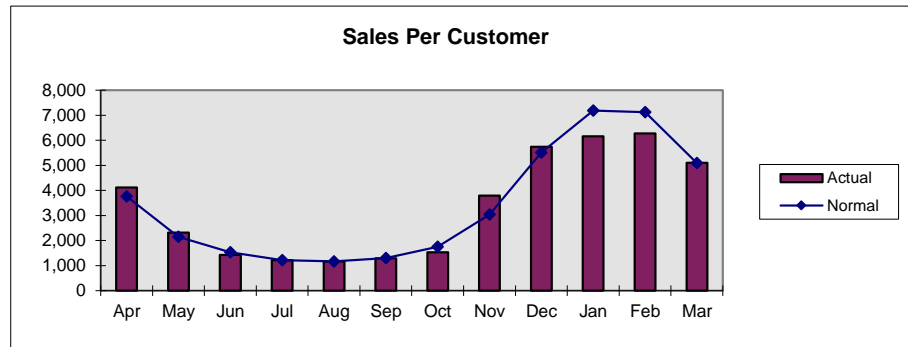
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,902,079	462	4,117.0541	350	302
May	1,077,981	465	2,318.2387	121	99
June	658,030	461	1,427.3970	0	14
July	558,673	460	1,214.5065	0	0
August	540,671	463	1,167.7559	0	0
September	586,696	456	1,286.6140	0	1
October	700,139	457	1,532.0328	31	60
November	1,732,505	457	3,791.0394	423	322
December	2,627,974	458	5,737.9345	601	570
January	2,835,711	460	6,164.5891	612	749
February	2,887,417	460	6,276.9935	666	780
March	2,353,919	461	5,106.1150	511	510
<b>TOTAL</b>	<b>18,461,795</b>	<b>5,520</b>	<b>40,140.2706</b>	<b>3,315</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-47.5900	-355.9144	3,761.1397	1,737,647	-164,432
May	-21.9200	-163.9345	2,154.3042	1,001,751	-76,230
June	13.7700	102.9826	1,530.3796	705,505	47,475
July	0.0600	0.4487	1,214.9552	558,879	206
August	0.1000	0.7479	1,168.5038	541,017	346
September	1.3000	9.7224	1,296.3364	591,129	4,433
October	29.3100	219.2026	1,751.2354	800,315	100,176
November	-100.5600	-752.0646	3,038.9748	1,388,811	-343,694
December	-30.9500	-231.4678	5,506.4667	2,521,962	-106,012
January	136.7800	1,022.9454	7,187.5345	3,306,266	470,555
February	113.5600	849.2885	7,126.2820	3,278,090	390,673
March	-1.4700	-10.9938	5,095.1212	2,348,851	-5,068
<b>TOTAL</b>	<b>92.3900</b>	<b>690.9630</b>	<b>40,831.2336</b>	<b>18,780,223</b>	<b>318,428</b>

Regression Output:

Constant 1,279.01383610  
Std Err of Y Est 250.39372536  
R Squared 0.98685707  
  
X Coefficient 7.47876456  
Std Err of Coef. 0.27292847



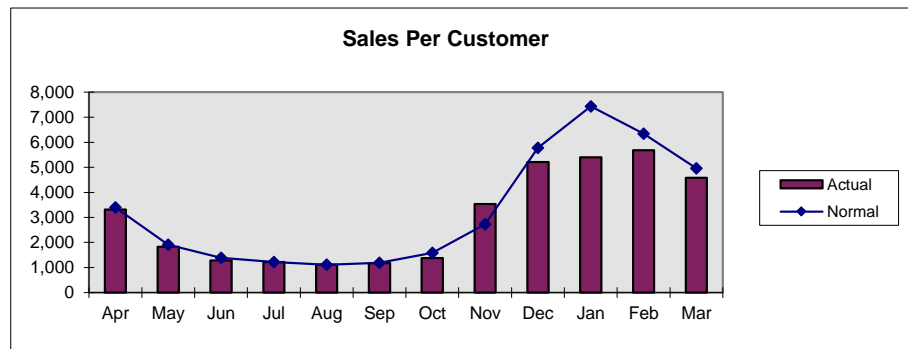
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,520,145	459	3,311.8627	291	302
May	846,135	463	1,827.5054	87	99
June	724,819	564	1,285.1401	0	14
July	688,824	566	1,217.0035	0	0
August	628,147	566	1,109.8004	0	0
September	668,510	566	1,181.1131	0	1
October	773,300	563	1,373.5346	30	60
November	1,999,097	566	3,531.9735	434	322
December	2,969,799	570	5,210.1737	491	570
January	3,067,387	568	5,400.3292	465	749
February	3,240,841	571	5,675.7285	687	780
March	2,609,587	569	4,586.2689	458	510
<b>TOTAL</b>	<b>19,736,591</b>	<b>6,591</b>	<b>35,710.4337</b>	<b>2,943</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	11.4100	81.7724	3,393.6351	1,557,679	37,534
May	12.0800	86.5741	1,914.0795	886,219	40,084
June	13.7700	98.6859	1,383.8260	780,478	55,659
July	0.0600	0.4300	1,217.4335	689,067	243
August	0.1000	0.7167	1,110.5171	628,553	406
September	1.3000	9.3168	1,190.4299	673,783	5,273
October	30.3100	217.2237	1,590.7583	895,597	122,297
November	-111.5600	-799.5208	2,732.4527	1,546,568	-452,529
December	79.0500	566.5303	5,776.7040	3,292,721	322,922
January	283.7800	2,033.7756	7,434.1048	4,222,572	1,155,185
February	92.5600	663.3528	6,339.0813	3,619,615	378,774
March	51.5300	369.3018	4,955.5707	2,819,720	210,133
<b>TOTAL</b>	<b>464.3900</b>	<b>3,328.1593</b>	<b>39,038.5930</b>	<b>21,612,572</b>	<b>1,875,981</b>

Regression Output:

Constant 1,218.22810972  
Std Err of Y Est 427.33541145  
R Squared 0.95158224  
  
X Coefficient 7.16673338  
Std Err of Coef. 0.51121129



SOURCE: Revenue Workpaper R-20-5.00 (Non-Print).

THERMS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	483,537	2,294,150	2,553,852	2,527,616	2,879,310	3,463,672	3,324,249	2,886,932	2,984,825	3,603,556	2,992,015	2,294,273	3,196,436	4,154,443	2,835,711	3,067,387
February	-	417,225	2,270,262	2,867,498	2,532,278	2,789,884	3,295,610	2,846,026	2,507,098	2,785,581	3,637,196	2,941,984	2,452,795	2,465,557	2,925,867	2,887,417	3,240,841
March	-	414,780	1,882,117	1,949,517	2,239,968	2,049,475	2,597,622	1,719,662	1,889,994	2,638,210	2,543,767	2,717,177	1,861,459	1,980,929	1,647,825	2,353,919	2,609,587
April	-	307,571	1,020,640	1,154,138	1,410,156	1,345,322	1,222,523	1,364,159	949,721	1,885,042	1,571,835	1,320,938	1,119,340	1,410,424	1,902,079	1,520,145	-
May	-	259,706	697,432	913,747	860,239	789,947	701,403	730,869	790,596	974,473	843,170	655,376	721,923	861,974	1,077,981	846,135	-
June	-	596,432	615,454	514,910	586,460	575,602	478,052	626,803	615,395	602,494	591,242	564,364	737,447	656,843	658,030	724,819	-
July	-	533,522	494,237	508,760	502,379	504,171	417,182	528,041	488,102	460,847	520,714	521,087	550,093	590,459	558,673	688,824	-
August	-	492,934	489,973	465,705	465,863	492,610	397,325	471,838	532,113	526,461	500,245	460,297	533,928	551,738	540,671	628,147	-
September	-	526,608	559,534	450,266	487,471	524,254	493,280	593,641	517,655	512,644	523,060	513,008	598,572	644,794	586,696	668,510	-
October	272,881	673,626	856,679	510,526	590,408	687,905	563,498	736,546	677,970	635,783	669,128	651,665	673,787	724,366	700,139	773,300	-
November	299,836	1,249,114	1,513,827	1,077,439	1,167,256	1,153,233	1,004,614	1,256,795	1,612,449	1,364,451	1,472,839	906,525	1,016,771	1,511,620	1,732,505	1,999,097	-
December	461,872	2,627,115	2,107,063	1,783,868	2,495,861	2,164,499	2,407,364	2,145,444	1,939,629	2,472,921	2,278,822	1,468,378	2,471,409	2,314,757	2,627,974	2,969,799	-
<b>Total</b>	<b>1,034,589</b>	<b>8,582,170</b>	<b>14,801,368</b>	<b>14,750,226</b>	<b>15,865,955</b>	<b>15,956,212</b>	<b>17,042,145</b>	<b>16,344,073</b>	<b>15,407,654</b>	<b>17,843,732</b>	<b>18,755,574</b>	<b>15,712,814</b>	<b>15,031,797</b>	<b>16,909,897</b>	<b>19,112,883</b>	<b>18,895,823</b>	<b>8,917,815</b>

BILLS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	48	367	425	399	424	422	407	488	495	423	355	345	548	459	460	568
February	-	47	360	405	398	420	422	405	488	501	427	350	345	546	462	460	571
March	-	48	362	389	397	420	423	405	491	498	431	351	348	544	463	461	569
April	-	48	361	394	399	420	420	405	491	494	427	349	344	546	462	459	-
May	-	46	358	423	402	419	421	405	491	492	428	351	346	542	465	463	-
June	-	368	419	382	410	422	410	482	496	431	354	352	545	464	461	564	-
July	-	366	417	393	424	424	410	485	496	428	354	350	544	462	460	566	-
August	-	367	418	397	426	422	409	484	495	428	354	345	543	462	463	566	-
September	-	369	418	383	422	425	406	483	498	427	352	342	542	459	456	566	-
October	49	364	419	389	416	420	405	484	496	424	349	343	543	461	457	563	-
November	47	366	411	398	420	426	407	487	495	424	352	343	543	460	457	566	-
December	47	365	424	400	420	422	407	489	496	425	351	345	542	461	458	570	-
<b>Total</b>	<b>143</b>	<b>2,802</b>	<b>4,734</b>	<b>4,778</b>	<b>4,933</b>	<b>5,064</b>	<b>4,962</b>	<b>5,421</b>	<b>5,921</b>	<b>5,467</b>	<b>4,602</b>	<b>4,176</b>	<b>5,530</b>	<b>5,955</b>	<b>5,523</b>	<b>6,264</b>	<b>1,708</b>

Usage/Bill	7,234.89	3,062.87	3,126.61	3,087.11	3,216.29	3,150.91	3,434.53	3,014.96	2,602.20	3,263.90	4,075.53	3,762.65	2,718.23	2,839.61	3,460.60	3,016.57	5,221.20
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This workpaper is too voluminous to print and is only being provided in electronic format.

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Large Firm General Service Revenue Forecast**

	Billing Determinant	Rate	Margin
<b>Total Large Firm General Service (LFGS) Margin</b>			
<b>Customer Charges:</b>			
Annual	619 A/	\$800.00000 D/	\$495,200
<b>Total Customer Charge Margin</b>	<b>619</b>		<b>\$495,200</b>
<b>Commodity Charges:</b>			
Step 1 - 0 to 15,000 Therms per Month	5,742,666 B/	\$0.09195 D/	\$528,038
Step 2 - 15,001 to 40,000 Therms per Month	2,288,713 B/	0.08466 D/	193,762
Step 3 - 40,001 to 90,000 Therms per Month	359,107 B/	0.05963 D/	21,414
Step 4 - Over 90,000 Therms per Month	109,455 B/	0.02277 D/	2,492
<b>Total Commodity Charge Margin</b>	<b>8,499,941</b>		<b>\$745,706</b>
<b>Billing Demand:</b>			
Billing Demand (Dkt)	89,727 C/	8.00000 D/	\$717,818
<b>Total Billing Demand Margin</b>	<b>89,727</b>		<b>\$717,818</b>
<b>Minimum Margin Agreement Margin</b>			
Under Armour			\$0 E/
<b>Total Minimum Margin Agreement Margin</b>			<b>\$0</b>
<b>Total LFGS Margin</b>			<b>\$1,958,724</b>
<b>LFGS Gas Cost:</b>			
Demand	89,727	8.2829 D/	\$743,201
Commodity	8,499,941	0.19717 D/	1,675,933
<b>Total LFGS Gas Cost</b>			<b>\$2,419,134</b>
<b>LFGS Other Charges:</b>			
Integrity Management Rider Surcharge			0 F/
Docket 18-00040 Excess ADIT			0 G/
<b>Total LFGS Other Charges</b>			<b>0</b>
<b>Total LFGS Revenues</b>			<b>\$4,377,858</b>

A/ WHN Revenue Workpaper R-25-1.04.

B/ WHN Revenue Workpaper R-25-1.02.

C/ WHN Revenue Workpaper R-25-1.03.

D/ WHN Revenue Workpaper R-110-1.00.

E/ Minimum Margin Agreement Contracts were never approved by the Commission. See WHN Workpaper R-60-2.00 for details.

F/ IMR Surcharge is excluded from the Consumer Advocate's case. See WHN Revenue Workpaper R-55-1.00 for details.

G/ Excess ADIT is excluded from the Consumer Advocate's case. See WHN Workpaper R-60-1.00 for details.

SOURCE: Couzens Workpaper - Sales &amp; Transportation Pro Forma Revenue, A-Summary Pro Forma Revs

	Billing Determinant	Rate	Margin
<b>Total LFGS Margin</b>			
<b>Customer Charges:</b>			
Annual	619	\$800.00	\$495,200
<b>Total Customer Charge Margin</b>	<b>619</b>		<b>\$495,200</b>
<b>Commodity Charges:</b>			
Step 1 - 0 to 15,000 Therms per Month	5,706,654	\$0.09195	\$524,727
Step 2 - 15,001 to 40,000 Therms per Month	2,177,246	0.08466	184,326
Step 3 - 40,001 to 90,000 Therms per Month	87,634	0.05963	5,226
Step 4 - Over 90,000 Therms per Month	0	0.02277	0
<b>Total Commodity Charge Margin</b>	<b>7,971,534</b>		<b>\$714,279</b>
<b>Billing Demand:</b>			
Billing Demand (Dkt)	80,958	8.00000	\$647,664
<b>Total Billing Demand Margin</b>	<b>80,958</b>		<b>\$647,664</b>
<b>Minimum Margin Agreement Margin</b>			
Under Armour			\$13,505
<b>Total Minimum Margin Agreement Margin</b>			<b>\$13,505</b>
<b>Total LFGS Margin</b>			<b>\$1,870,648</b>
<b>Gas Cost:</b>			
Demand	80,958	\$8.28290	\$670,567
Commodity	7,971,534	0.19717	1,571,747
<b>Total Gas Cost</b>			<b>\$2,242,314</b>
<b>Other Charges:</b>			
Integrity Management Rider Surcharge			\$478,996
Docket 18-00040 Excess ADIT	7,971,534	-\$0.00685	-54,605
<b>Total Other Charges</b>			<b>\$424,391</b>
<b>Total Revenues</b>			<b>\$4,537,353</b>

	Step 1	Step 2	Step 3	Step 4	Total	
Attrition Period Large Firm General Service (LFGS) Usage	5,742,666	2,288,713	359,107	109,455	8,499,941	A/
Step Percentage	67.56%	26.93%	4.22%	1.29%	100.00%	

**Summary:**

For the 12 Months Ended March 31, 2015	68.97%	29.45%	1.58%	0.00%	100.00%
For the 12 Months Ended March 31, 2016	64.29%	24.99%	8.40%	2.31%	100.00%
For the 12 Months Ended March 31, 2017	65.53%	20.76%	8.95%	4.76%	100.00%
For the 12 Months Ended March 31, 2018	66.75%	29.00%	3.60%	0.65%	100.00%
For the 12 Months Ended March 31, 2019	67.69%	30.17%	2.14%	0.00%	100.00%
For the 12 Months Ended March 31, 2020	72.14%	27.19%	0.67%	0.00%	100.00%
<b>Average</b>	<b>67.56%</b>	<b>26.93%</b>	<b>4.22%</b>	<b>1.29%</b>	<b>100.00%</b>

**For the 12 Months Ended March 31, 2015**

	Step 1	Step 2	Step 3	Step 4	Total	B/
April-14	329,395	95,871	4,225	0	429,491	
May	261,895	69,236	0	0	331,131	
June	223,241	50,566	0	0	273,807	
July	232,612	55,506	0	0	288,118	
August	223,703	56,740	0	0	280,443	
September	237,512	55,946	0	0	293,458	
October	281,300	65,223	3,150	0	349,673	
November	532,575	163,536	7,865	0	703,976	
December	576,355	249,346	5,921	0	831,622	
January-15	623,399	462,207	17,205	0	1,102,811	
February	610,025	482,163	13,311	0	1,105,499	
March	552,930	193,826	55,802	0	802,558	
<b>Total</b>	<b>4,684,942</b>	<b>2,000,166</b>	<b>107,479</b>	<b>0</b>	<b>6,792,587</b>	
<b>Step Percentage</b>	<b>68.97%</b>	<b>29.45%</b>	<b>1.58%</b>	<b>0.00%</b>	<b>100.00%</b>	

**For the 12 Months Ended March 31, 2016**

	Step 1	Step 2	Step 3	Step 4	Total	B/
April-15	354,287	139,422	29,918	0	523,627	
May	276,845	88,483	36,341	0	401,669	
June	260,321	79,282	45,843	0	385,446	
July	255,005	77,419	50,000	5,299	387,723	
August	253,168	85,809	51,430	12,000	402,407	
September	242,074	79,148	50,000	18,842	390,064	
October	307,351	98,904	51,208	21,424	478,887	
November	443,682	119,463	50,000	14,156	627,301	
December	509,784	157,869	50,508	23,378	741,539	
January-16	631,906	448,510	66,363	14,922	1,161,701	
February	607,638	283,868	57,880	21,154	970,540	
March	434,678	120,561	58,776	33,498	647,513	
<b>Total</b>	<b>4,576,739</b>	<b>1,778,738</b>	<b>598,267</b>	<b>164,673</b>	<b>7,118,417</b>	
<b>Step Percentage</b>	<b>64.29%</b>	<b>24.99%</b>	<b>8.40%</b>	<b>2.31%</b>	<b>100.00%</b>	

**For the 12 Months Ended March 31, 2017**

	Step 1	Step 2	Step 3	Step 4	Total	B/
April-16	330,387	84,853	50,000	26,887	492,127	
May	276,111	79,572	50,000	33,813	439,496	
June	234,842	64,333	50,000	47,078	396,253	
July	236,862	59,290	50,000	18,422	364,574	
August	244,611	73,927	50,000	39,122	407,660	
September	256,121	63,710	50,000	29,067	398,898	
October	284,762	72,634	50,000	26,168	433,564	
November	426,303	105,826	50,999	22,107	605,235	
December	638,071	320,704	58,096	18,345	1,035,216	
January-17	600,101	242,354	57,233	20,777	920,465	
February	511,274	125,120	51,059	14,479	701,932	
March	519,102	151,853	55,566	34,942	761,463	
<b>Total</b>	<b>4,558,547</b>	<b>1,444,176</b>	<b>622,953</b>	<b>331,207</b>	<b>6,956,883</b>	
<b>Step Percentage</b>	<b>65.53%</b>	<b>20.76%</b>	<b>8.95%</b>	<b>4.76%</b>	<b>100.00%</b>	

A/ WHN Revenue Workpaper R-25-1.04.

B/ WHN Revenue Workpaper R-25-5.00 (Non-Print).

**For the 12 Months Ended March 31, 2018**

	Step 1	Step 2	Step 3	Step 4	Total	B/
April-17	306,950	83,613	50,000	19,038	459,601	
May	304,277	118,568	50,000	28,292	501,137	
June	245,756	85,522	0	0	331,278	
July	237,130	72,318	0	0	309,448	
August	246,973	100,294	0	0	347,267	
September	247,988	93,784	1,566	0	343,338	
October	342,947	98,722	10,949	0	452,618	
November	501,874	160,458	16,893	0	679,225	
December	624,389	379,537	38,436	0	1,042,362	
January-18	659,202	514,930	67,575	0	1,241,707	
February	569,573	181,997	8,808	0	760,378	
March	557,809	215,156	16,943	0	789,908	
<b>Total</b>	<b>4,844,868</b>	<b>2,104,899</b>	<b>261,170</b>	<b>47,330</b>	<b>7,258,267</b>	
<b>Step Percentage</b>	<b>66.75%</b>	<b>29.00%</b>	<b>3.60%</b>	<b>0.65%</b>	<b>100.00%</b>	

**For the 12 Months Ended March 31, 2019**

	Step 1	Step 2	Step 3	Step 4	Total	B/
April-18	467,584	149,275	11,091	0	627,950	
May	258,714	91,385	0	0	350,099	
June	238,107	82,773	0	0	320,880	
July	236,935	82,992	0	0	319,927	
August	253,536	94,706	0	0	348,242	
September	255,380	92,991	0	0	348,371	
October	381,177	170,884	58,272	55,981	666,314	
November	619,250	268,428	16,163	-55,981	847,860	
December	650,628	368,507	28,924	0	1,048,059	
January-19	680,114	452,229	20,391	0	1,152,734	
February	617,237	243,336	14,526	0	875,099	
March	634,159	261,614	17,928	0	913,701	
<b>Total</b>	<b>5,292,821</b>	<b>2,359,120</b>	<b>167,295</b>	<b>0</b>	<b>7,819,236</b>	
<b>Step Percentage</b>	<b>67.69%</b>	<b>30.17%</b>	<b>2.14%</b>	<b>0.00%</b>	<b>100.00%</b>	

**For the 12 Months Ended March 31, 2020**

	Step 1	Step 2	Step 3	Step 4	Total	B/
April-19	399,085	129,889	0	0	528,974	
May	312,205	108,061	0	0	420,266	
June	276,905	96,622	0	0	373,527	
July	275,954	99,518	0	0	375,472	
August	284,167	110,900	1,570	0	396,637	
September	281,454	97,654	0	0	379,108	
October	402,816	139,687	3,101	0	545,604	
November	708,623	280,469	12,862	0	1,001,954	
December	703,626	295,157	1,533	0	1,000,316	
January-20	752,710	340,933	14,980	0	1,108,623	
February	736,073	327,456	18,588	0	1,082,117	
March	534,292	110,296	0	0	644,588	
<b>Total</b>	<b>5,667,910</b>	<b>2,136,642</b>	<b>52,634</b>	<b>0</b>	<b>7,857,186</b>	
<b>Step Percentage</b>	<b>72.14%</b>	<b>27.19%</b>	<b>0.67%</b>	<b>0.00%</b>	<b>100.00%</b>	

A/ WHN Revenue Workpaper R-25-1.04.

B/ WHN Revenue Workpaper R-25-5.00 (Non-Print).

	Amount	
Attrition Period Large Firm General Service (LFGS) Usage	8,499,941	A/
Average Billing Demand Percentage	1.06%	
<b>Attrition Period Large Firm General Service (LFGS) Billing Demand</b>	<b>89,858</b>	
CONTAINS CONFIDENTIAL PROPRIETARY DATA		C/
<b>Total LFGS Billing Demand</b>	<b>89,727</b>	D/

**Billing Demand Summary:**

	Demand	Usage	Percentage
For the 12 Months Ended March 31, 2015	71,418	6,792,587	1.05%
For the 12 Months Ended March 31, 2016	78,995	7,118,417	1.11%
For the 12 Months Ended March 31, 2017	76,192	6,956,883	1.10%
For the 12 Months Ended March 31, 2018	72,696	7,258,267	1.00%
For the 12 Months Ended March 31, 2019	82,338	7,819,236	1.05%
For the 12 Months Ended March 31, 2020	81,089	7,857,186	1.03%
<b>Average</b>	<b>77,121</b>	<b>7,300,429</b>	<b>1.06%</b>

**Billing Demand - For the 12 Months Ended March**

	2015	2016	2017	2018	2019	2020	B/
April	4,802	6,303	6,756	6,294	6,555	6,986	
May	4,802	6,203	6,896	6,210	6,555	6,986	
June	6,153	6,399	6,346	5,774	6,759	6,642	
July	6,335	6,399	6,364	5,774	6,612	6,783	
August	6,153	6,399	6,311	5,774	6,843	6,783	
September	6,153	6,756	6,311	5,774	6,993	6,783	
October	6,153	6,756	6,210	5,774	6,943	6,833	
November	6,153	6,756	6,092	5,774	7,079	6,833	
December	6,153	6,756	6,204	5,653	7,067	6,833	
January	6,153	6,756	6,204	5,714	7,067	6,543	
February	6,153	6,756	6,204	7,629	6,975	6,543	
March	6,253	6,756	6,294	6,555	6,891	6,543	
<b>Total</b>	<b>71,418</b>	<b>78,995</b>	<b>76,192</b>	<b>72,696</b>	<b>82,338</b>	<b>81,089</b>	

**Usage - For the 12 Months Ended March**

	2015	2016	2017	2018	2019	2020	B/
April	429,491	523,627	492,127	459,601	627,950	528,974	
May	331,131	401,669	439,496	501,137	350,099	420,266	
June	273,807	385,446	396,253	331,278	320,880	373,527	
July	288,118	387,723	364,574	309,448	319,927	375,472	
August	280,443	402,407	407,660	347,267	348,242	396,637	
September	293,458	390,064	398,898	343,338	348,371	379,108	
October	349,673	478,887	433,564	452,618	666,314	545,604	
November	703,976	627,301	605,235	679,225	847,860	1,001,954	
December	831,622	741,539	1,035,216	1,042,362	1,048,059	1,000,316	
January	1,102,811	1,161,701	920,465	1,241,707	1,152,734	1,108,623	
February	1,105,499	970,540	701,932	760,378	875,099	1,082,117	
March	802,558	647,513	761,463	789,908	913,701	644,588	
<b>Total</b>	<b>6,792,587</b>	<b>7,118,417</b>	<b>6,956,883</b>	<b>7,258,267</b>	<b>7,819,236</b>	<b>7,857,186</b>	

A/ WHN Revenue Workpaper R-25-1.04.

B/ WHN Revenue Workpaper R-25-4.00.

C/ WHN Revenue Workpaper R-25-1.06.

D/ WHN Revenue Workpaper R-25-1.07.

Attrition Period Monthly Growth in LFGS Bills

		0	A/
	Growth	Total	
Test Period Number of LFGS Bills - 12 Months Ended March, 2020		619	A/
April-20	0	619	
May-20	0	619	
June-20	0	619	
July-20	0	619	
August-20	0	619	
September-20	0	619	
October-20	0	619	
November-20	0	619	
December-20	0	619	
January-21	0	619	
February-21	0	619	
March-21	0	619	
April-21	0	619	
May-21	0	619	
June-21	0	619	
July-21	0	619	
August-21	0	619	
September-21	0	619	
October-21	0	619	
November-21	0	619	
December-21	0	619	

Attrition Period LFGS Bills	619	
Normalized Usage per Bill (Therms)	13,713.2569	B/
<b>Total LFGS Sales Volume - Therms</b>	<b>8,488,506</b>	
CONTAINS CONFIDENTIAL PROPRIETARY DATA		
<b>Total LFGS Usage - Therms</b>	<b>8,499,941</b>	C/ D/

A/ WHN Revenue Workpaper R-25-1.05.

B/ WHN Revenue Workpaper R-25-2.00.

C/ WHN Revenue Workpaper R-25-1.06.

D/ WHN Revenue Workpaper R-25-1.07.



**Historic Bill Counts:**

**For the 12 Months Ended March**

<b>MONTH</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
April	45	43	44	47	45	48
May	46	42	45	46	45	48
June	41	43	46	46	46	51
July	42	43	47	45	46	52
August	41	43	46	45	46	52
September	41	44	46	45	49	53
October	41	44	45	45	48	53
November	41	45	45	46	49	53
December	41	44	46	45	49	53
January	41	44	46	44	49	52
February	41	44	47	46	49	52
March	43	44	47	46	47	52
<b>Total</b>	<b>504</b>	<b>523</b>	<b>550</b>	<b>546</b>	<b>568</b>	<b>619</b>

**Source:** WHN Revenue Workpaper R-25-4.00.

**Annual Bill Growth Calculation:**

<b>Year</b>	<b>Bills</b>	<b>Growth</b>
2015	504	-
2016	523	19
2017	550	27
2018	546	-4
2019	568	22
2020	619	51

Five-Year Average 23

Four-Year Average 24

Three-Year Average 23

Two-Year Average 37

One-Year Average 51

Manual Input 0

*Zero growth (0) was chosen as the most representative of the Attrition Year.*

Annual Bill Growth Forecast	0
Test Period Bills	619
<b>Annual Percentage Growth</b>	<b>0.00%</b>

Annual Bill Growth Forecast	0
Months per Year	12
<b>Monthly Bill Growth</b>	<b>0</b>

SOURCE: Couzens Workpaper - Sales & Transportation Pro Forma Revenue, Customer Usage Adjustments

HONEST ORIGINS-INCREASED PRODUCTION PROJECTION

Rate	Description	Jan-20	Feb-20	Mar-20	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Total	Winter	Summer
303-Test Period	Large General Sales Service															
	Bills															
	Demand															
	DTs - First 1,500															
	DTs - Next 2,500															
	DTs - Next 5,000															
	DTs - Over 9,000															
	Total															
303-Attr Period	Large General Sales Service															
	Bills															
	Demand															
	DTs - First 1,500															
	DTs - Next 2,500															
	DTs - Next 5,000															
	DTs - Over 9,000															
	Total															
303-Adjustment	Large General Sales Service															
	Bills															
	Demand															
	DTs - First 1,500															
	DTs - Next 2,500															
	DTs - Next 5,000															
	DTs - Over 9,000															
	Total															

CONTAINS CONFIDENTIAL PROPRIETARY DATA

SOURCE: Couzens Workpaper - Sales & Transportation Pro Forma Revenue, Customer Usage Adjustments

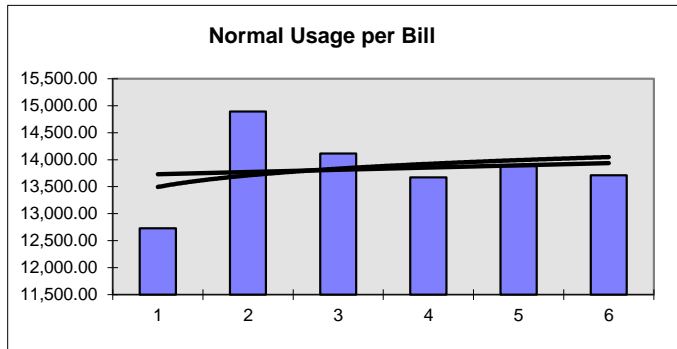
NASHVILLE AIRPORT-DECLINE IN USAGE DUE TO LOWER AIR TRAVEL AND TOURISM

Rate	Description	Jan-20	Feb-20	Mar-20	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Total	Winter	Summer
303/343 Test Period	LGS-Motor Vehicle Fuel															
	Bills															
	Demand															
	DTs - First 1,500															
	DTs - Next 2,500															
	DTs - Next 5,000															
	DTs - Over 9,000															
	Total															
Rate	Description															
303/343 Attr Period	LGS-Motor Vehicle Fuel															
	Bills															
	Demand															
	DTs - First 1,500															
	DTs - Next 2,500															
	DTs - Next 5,000															
	DTs - Over 9,000															
	Total															
Rate	Description															
303/343 Adjustment	LGS-Motor Vehicle Fuel															
	Bills															
	Demand															
	DTs - First 1,500															
	DTs - Next 2,500															
	DTs - Next 5,000															
	DTs - Over 9,000															
	Total															

CONTAINS CONFIDENTIAL PROPRIETARY DATA

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2015	1	12,729.0813	13,730.7978	13,691.7595	-
2016	2	14,892.9293	13,771.9380	13,742.4051	17.00%
2017	3	14,115.0382	13,813.0782	13,793.2381	-5.22%
2018	4	13,670.9487	13,854.2184	13,844.2592	-3.15%
2019	5	13,880.6356	13,895.3586	13,895.4689	1.53%
2020	6	13,713.2569	13,936.4988	13,946.8681	-1.21%
Forecast	7.25		13,987.9241	14,011.3845	14,021.0423

Regression Statistics		
	Linear	Logarithmic
Constant	13,689.657617	9.520857
X Coefficient	41.140201	0.003692
R Squared	0.012018	0.018358

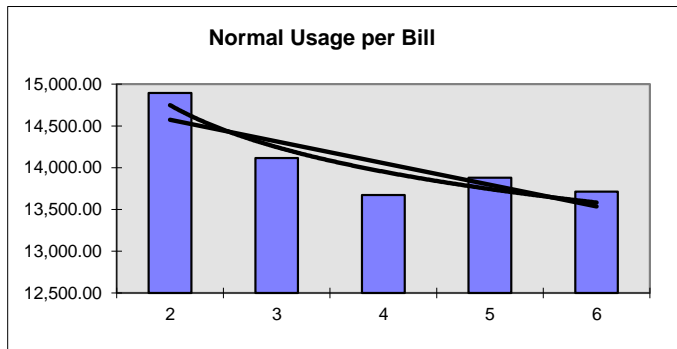


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - LFGS Conservation and Growth-5 Year Analysis  
Calendar Data

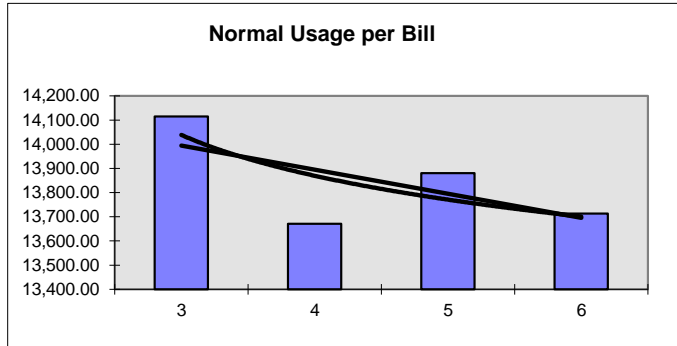
Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2016	2	14,892.9293	14,573.3112	14,567.7509	-
2017	3	14,115.0382	14,313.9365	14,305.3120	-5.22%
2018	4	13,670.9487	14,054.5617	14,047.6009	-3.15%
2019	5	13,880.6356	13,795.1870	13,794.5325	1.53%
2020	6	13,713.2569	13,535.8122	13,546.0231	-1.21%
Forecast	7.25		13,211.5938	13,241.6726	13,369.5187

Regression Statistics		
	Linear	Logarithmic
Constant	15,092.060675	9.622924
X Coefficient	-259.374740	-0.018179
R Squared	0.672473	0.674535



Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2017	3	14,115.0382	13,994.3184	13,992.9639	-
2018	4	13,670.9487	13,894.7527	13,893.3940	-3.15%
2019	5	13,880.6356	13,795.1870	13,794.5325	1.53%
2020	6	13,713.2569	13,695.6213	13,696.3745	-1.21%
Forecast	7.25		13,571.1641	13,574.6586	13,552.4159

Regression Statistics		
	Linear	Logarithmic
Constant	14,293.015528	9.567733
X Coefficient	-99.565710	-0.007141
R Squared	0.406816	0.403975

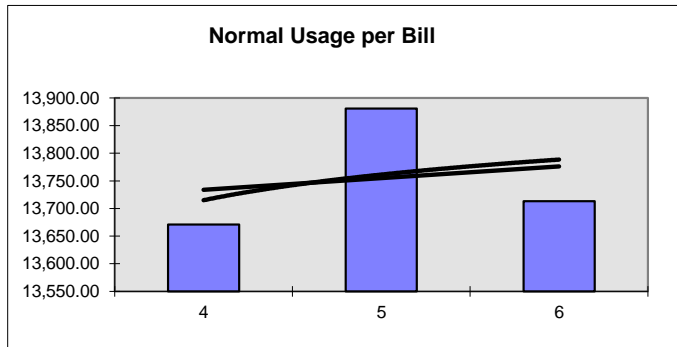


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - LFGS Conservation and Growth-3 Year Analysis  
Calendar Data

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2018	4	13,670.9487	13,733.7930	13,733.4155	-
2019	5	13,880.6356	13,754.9470	13,754.6498	1.53%
2020	6	13,713.2569	13,776.1011	13,775.9170	-1.21%
Forecast	7.25		13,802.5437	13,802.5472	13,741.3723

Regression Statistics		
	Linear	Logarithmic
Constant	13,649.176679	9.521407
X Coefficient	21.154074	0.001545
R Squared	0.036394	0.036871



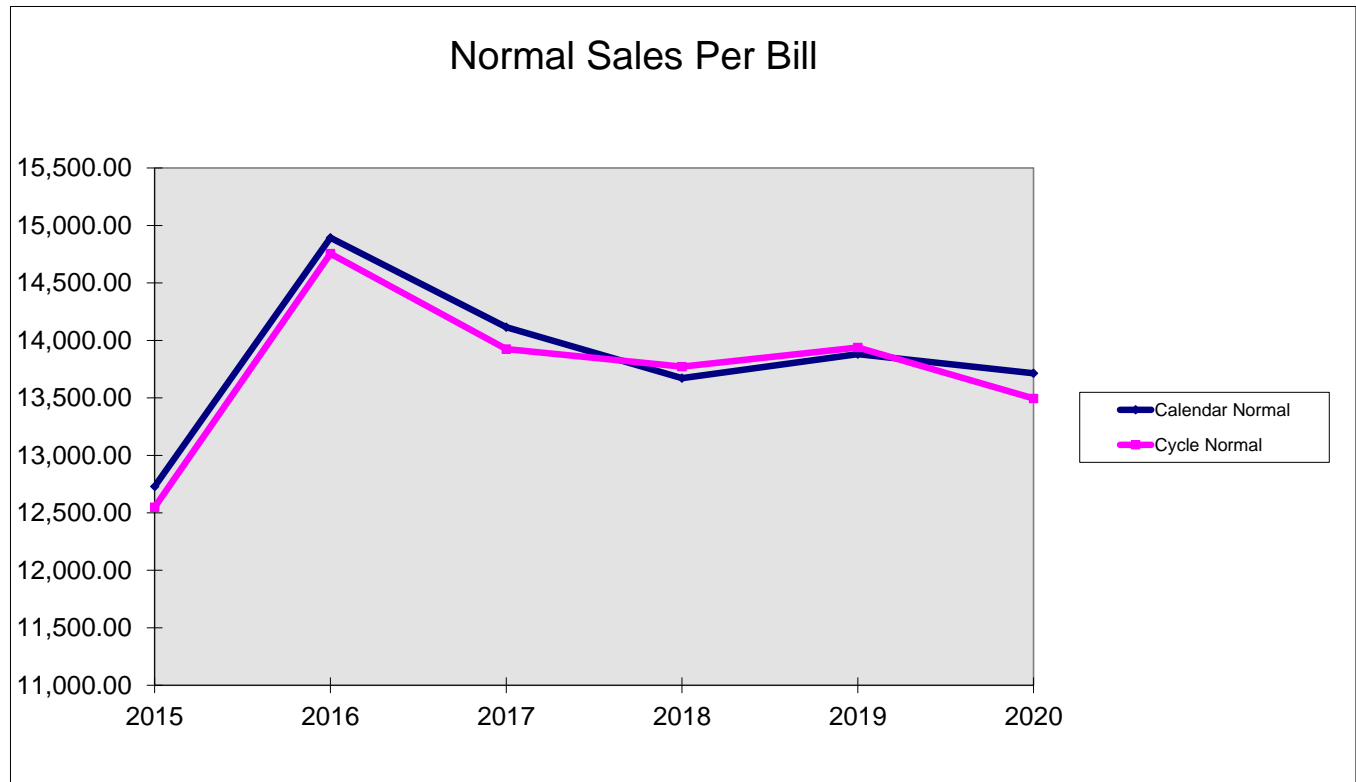
Trend	From The 12 Months Ended		Calendar Data	
	Month	Year	Time Series Forecast	Adjusted Forecast
Linear Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Logarithmic Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Year To Year Change	March	2015	14,021.0423	
	March	2016	13,369.5187	
	March	2017	13,552.4159	13,552.4159
	March	2018	13,741.3723	13,741.3723
<b>Average</b>			<b>13,671.0873</b>	<b>13,646.8941</b>
One Standard Deviation			241.0576	
<b>Upper</b> End of Range			13,912.1449	
<b>Lower</b> End of Range			13,430.0297	
Number in Range			2.0000	
Weighted Average Forecast at Midpoint				<b>13,646.8941</b>
Test Period Amount				<b>13,713.2569</b>
Compound Growth Factor				<b>0.99516068</b>
Annualized Growth Rate				<b>0.99612667</b>
Test Period Sales				7,857,186
Weather Adjustment				631,320
Normal Sales				<b>8,488,506</b>
Usage Adjustment				-41,079
Adjusted Sales				<b>8,447,427</b>

CALENDAR DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	6,792,587	504	153,522.0378	6,415,457	-377,130	96.82%	12,729.0813
2016	7,118,417	523	178,007.7320	7,789,002	670,585	99.21%	14,892.9293
2017	6,956,883	550	169,140.4858	7,763,271	806,388	98.26%	14,115.0382
2018	7,258,267	546	164,326.3808	7,464,338	206,071	97.49%	13,670.9487
2019	7,819,236	568	164,892.2867	7,884,201	64,965	96.88%	13,880.6356
2020	7,857,186	619	163,895.8246	8,488,506	631,320	98.51%	13,713.2569

CYCLE DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	6,792,587	504	151,692.5646	6,324,601	-467,986	90.94%	12,548.8115
2016	7,118,417	523	176,389.6589	7,716,750	598,333	82.81%	14,754.7801
2017	6,956,883	550	166,805.9532	7,658,871	701,988	87.26%	13,925.2200
2018	7,258,267	546	165,482.0156	7,519,514	261,247	88.20%	13,772.0037
2019	7,819,236	568	165,655.9614	7,917,283	98,047	84.70%	13,938.8785
2020	7,857,186	619	161,291.1278	8,353,694	496,508	83.65%	13,495.4669



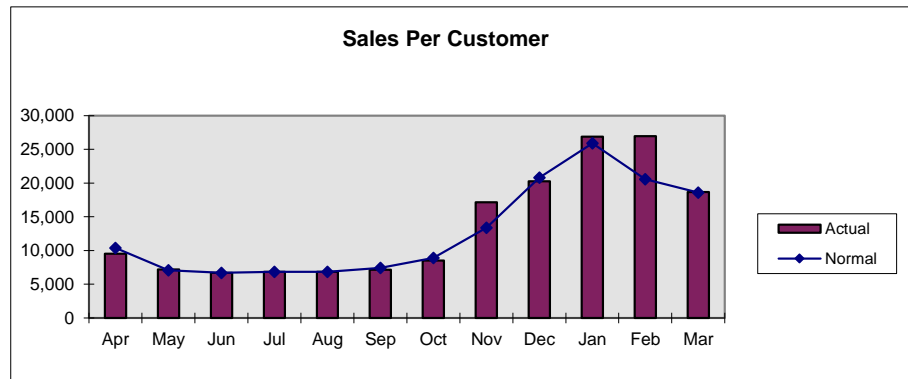
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	429,491	45	9,544.2444	144	182
May	331,131	46	7,198.5000	50	45
June	273,807	41	6,678.2195	0	1
July	288,118	42	6,859.9524	0	0
August	280,443	41	6,840.0732	0	0
September	293,458	41	7,157.5122	3	15
October	349,673	41	8,528.6098	150	168
November	703,976	41	17,170.1463	621	451
December	831,622	41	20,283.4634	671	695
January	1,102,811	41	26,897.8293	840	795
February	1,105,499	41	26,963.3902	905	617
March	802,558	43	18,664.1395	441	438
<b>TOTAL</b>	<b>6,792,587</b>	<b>504</b>	<b>162,786.0803</b>	<b>3,825</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	38	847.8526	10,392.0970	467,644	38,153
May	-5	-113.5794	7,084.9206	325,906	-5,225
June	1	27.9512	6,706.1707	274,953	1,146
July	0	0.0000	6,859.9524	288,118	0
August	0	2.2183	6,842.2915	280,534	91
September	12	263.0961	7,420.6083	304,245	10,787
October	18	391.7602	8,920.3700	365,735	16,062
November	-170	-3,768.0857	13,402.0606	549,484	-154,492
December	24	527.0795	20,810.5429	853,232	21,610
January	-45	-990.9360	25,906.8933	1,062,183	-40,628
February	-288	-6,387.9546	20,575.4356	843,593	-261,906
March	-3	-63.4447	18,600.6948	799,830	-2,728
<b>TOTAL</b>	<b>-418</b>	<b>-9,264.0425</b>	<b>153,522.0378</b>	<b>6,415,457</b>	<b>-377,130</b>

Regression Output:

Constant 6,494.52278421  
Std Err of Y Est 1,493.14278600  
R Squared 0.96824775  
  
X Coefficient 22.18347892  
Std Err of Coef. 1.27035077





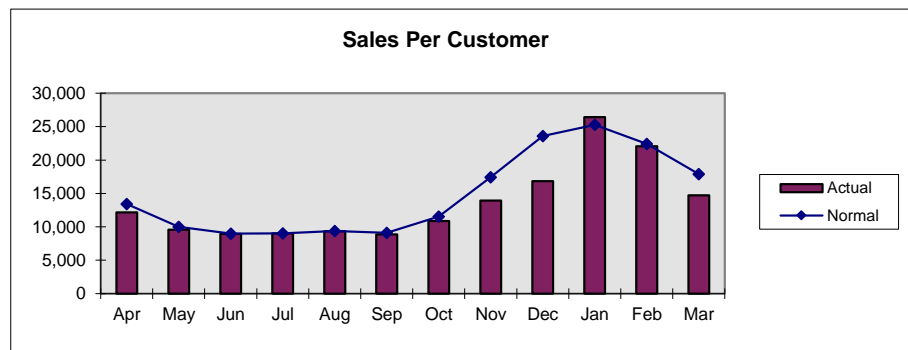
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	523,627	43	12,177.3721	123	182
May	401,669	42	9,563.5476	24	45
June	385,446	43	8,963.8605	0	1
July	387,723	43	9,016.8140	0	0
August	402,407	43	9,358.3023	0	0
September	390,064	44	8,865.0909	3	15
October	478,887	44	10,883.7955	137	168
November	627,301	45	13,940.0222	283	451
December	741,539	44	16,853.1591	370	695
January	1,161,701	44	26,402.2955	850	795
February	970,540	44	22,057.7273	600	617
March	647,513	44	14,716.2045	285	438
<b>TOTAL</b>	<b>7,118,417</b>	<b>523</b>	<b>162,798.1914</b>	<b>2,675</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	59	1,229.8215	13,407.1936	576,509	52,882
May	21	433.6149	9,997.1625	419,881	18,212
June	1	26.1664	8,990.0269	386,571	1,125
July	0	0.0000	9,016.8140	387,723	0
August	0	2.0767	9,360.3790	402,496	89
September	12	246.2966	9,111.3875	400,901	10,837
October	31	636.7161	11,520.5116	506,903	28,016
November	168	3,491.7628	17,431.7850	784,430	157,129
December	325	6,744.2898	23,597.4489	1,038,288	296,749
January	-55	-1,135.3317	25,266.9638	1,111,746	-49,955
February	17	353.8696	22,411.5969	986,110	15,570
March	153	3,180.2579	17,896.4624	787,444	139,931
<b>TOTAL</b>	<b>732</b>	<b>15,209.54</b>	<b>178,007.7320</b>	<b>7,789,002</b>	<b>670,585</b>

Regression Output:

Constant 8,937.20629430  
Std Err of Y Est 529.62968847  
R Squared 0.99211987  
  
X Coefficient 20.76699659  
Std Err of Coef. 0.58527266



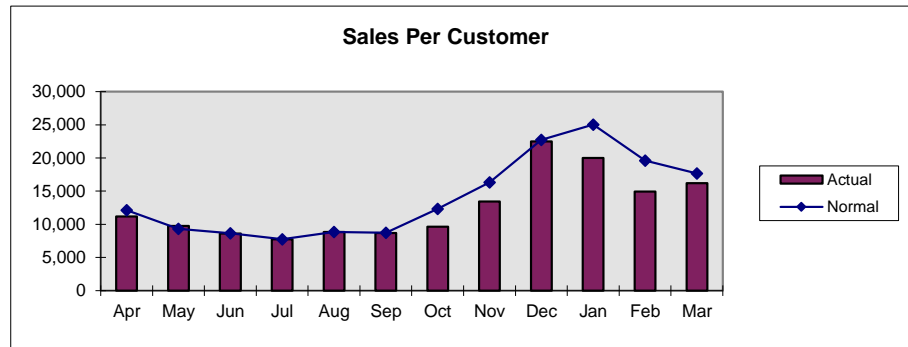
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	492,127	44	11,184.7045	136	182
May	439,496	45	9,766.5778	67	45
June	396,253	46	8,614.1957	0	1
July	364,574	47	7,756.8936	0	0
August	407,660	46	8,862.1739	0	0
September	398,898	46	8,671.6957	13	15
October	433,564	45	9,634.7556	33	168
November	605,235	45	13,449.6667	308	451
December	1,035,216	46	22,504.6957	683	695
January	920,465	46	20,010.1087	546	795
February	701,932	47	14,934.7234	385	617
March	761,463	47	16,201.3404	365	438
<b>TOTAL</b>	<b>6,956,883</b>	<b>550</b>	<b>151,591.5316</b>	<b>2,536</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	46.2200	930.8262	12,115.5307	533,083	40,956
May	-22.1200	-445.4755	9,321.1023	419,450	-20,046
June	1.2600	25.3752	8,639.5709	397,420	1,167
July	0.0000	0.0000	7,756.8936	364,574	0
August	0.1000	2.0139	8,864.1878	407,753	93
September	1.8600	37.4586	8,709.1543	400,621	1,723
October	134.6600	2,711.9225	12,346.6781	555,601	122,037
November	143.1400	2,882.7016	16,332.3683	734,957	129,722
December	11.7600	236.8351	22,741.5308	1,046,110	10,894
January	249.3300	5,021.2657	25,031.3744	1,151,443	230,978
February	232.0400	4,673.0618	19,607.7852	921,566	219,634
March	73.1400	1,472.9691	17,674.3095	830,693	69,230
<b>TOTAL</b>	<b>871.3900</b>	<b>17,548.9542</b>	<b>169,140.4858</b>	<b>7,763,271</b>	<b>806,388</b>

Regression Output:

Constant 8,376.57810355  
Std Err of Y Est 671.70755761  
R Squared 0.98262723  
  
X Coefficient 20.13903561  
Std Err of Coef. 0.84679590



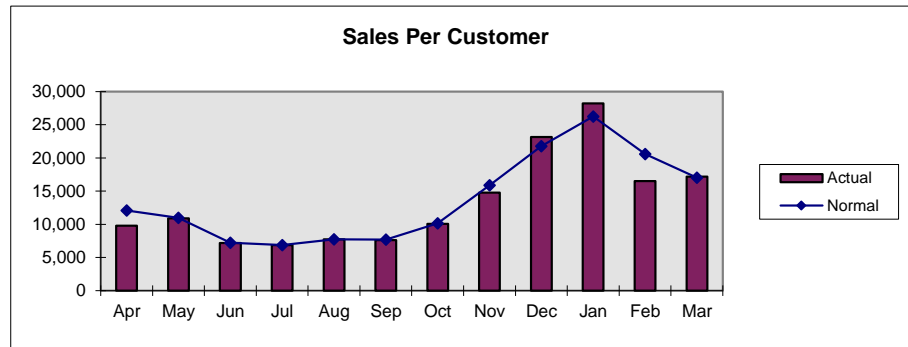
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	459,601	47	9,778.7447	76	182
May	501,137	46	10,894.2826	41	45
June	331,278	46	7,201.6957	0	1
July	309,448	45	6,876.6222	0	0
August	347,267	45	7,717.0444	0	0
September	343,338	45	7,629.7333	12	15
October	452,618	45	10,058.1778	163	168
November	679,225	46	14,765.7609	399	451
December	1,042,362	45	23,163.6000	758	695
January	1,241,707	44	28,220.6136	886	795
February	760,378	46	16,529.9565	429	617
March	789,908	46	17,171.9130	444	438
<b>TOTAL</b>	<b>7,258,267</b>	<b>546</b>	<b>160,008.1448</b>	<b>3,208</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	106.2200	2,300.4315	12,079.1762	567,721	108,120
May	3.8800	84.0301	10,978.3127	505,002	3,865
June	1.2600	27.2881	7,228.9838	332,533	1,255
July	0.0000	0.0000	6,876.6222	309,448	0
August	0.1000	2.1657	7,719.2101	347,364	97
September	2.8600	61.9397	7,691.6730	346,125	2,787
October	4.6600	100.9227	10,159.1005	457,160	4,542
November	52.1400	1,129.2082	15,894.9691	731,169	51,944
December	-63.2400	-1,369.6035	21,793.9965	980,730	-61,632
January	-90.6700	-1,963.6615	26,256.9521	1,155,306	-86,401
February	188.0400	4,072.4264	20,602.3829	947,710	187,332
March	-5.8600	-126.9114	17,045.0016	784,070	-5,838
<b>TOTAL</b>	<b>199.3900</b>	<b>4,318.2360</b>	<b>164,326.3808</b>	<b>7,464,338</b>	<b>206,071</b>

Regression Output:

Constant 7,544.31128455  
Std Err of Y Est 1,141.15942233  
R Squared 0.97485726  
  
X Coefficient 21.65723484  
Std Err of Coef. 1.09986344



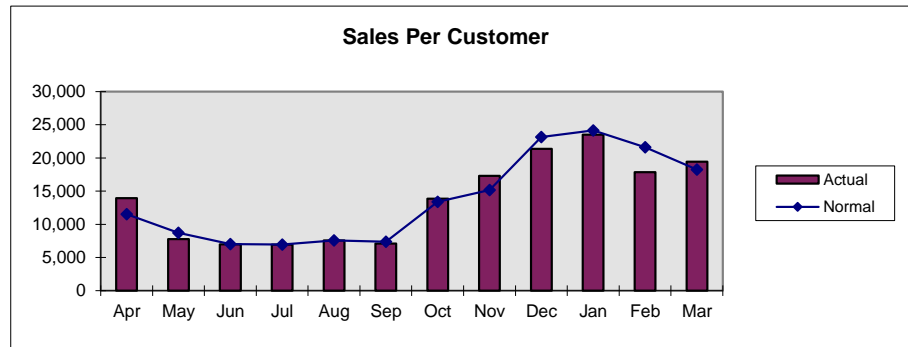
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	627,950	45	13,954.4444	295	182
May	350,099	45	7,779.9778	1	45
June	320,880	46	6,975.6522	0	1
July	319,927	46	6,954.9348	0	0
August	348,242	46	7,570.4783	0	0
September	348,371	49	7,109.6122	2	15
October	666,314	48	13,881.5417	190	168
November	847,860	49	17,303.2653	551	451
December	1,048,059	49	21,388.9592	613	695
January	1,152,734	49	23,525.1837	766	795
February	875,099	49	17,859.1633	443	617
March	913,701	47	19,440.4468	493	438
<b>TOTAL</b>	<b>7,819,236</b>	<b>568</b>	<b>163,743.6596</b>	<b>3,354</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-112.7800	-2,426.3375	11,528.1069	518,765	-109,185
May	43.8800	944.0299	8,724.0077	392,580	42,481
June	1.2600	27.1075	7,002.7597	322,127	1,247
July	0.0000	0.0000	6,954.9348	319,927	0
August	0.1000	2.1514	7,572.6297	348,341	99
September	12.8600	276.6687	7,386.2809	361,928	13,557
October	-22.3400	-480.6205	13,400.9212	643,244	-23,070
November	-99.8600	-2,148.3779	15,154.8874	742,589	-105,271
December	81.7600	1,758.9764	23,147.9356	1,134,249	86,190
January	29.3300	631.0027	24,156.1864	1,183,653	30,919
February	174.0400	3,744.2789	21,603.4422	1,058,569	183,470
March	-54.8600	-1,180.2525	18,260.1943	858,229	-55,472
<b>TOTAL</b>	<b>53.3900</b>	<b>1,148.6271</b>	<b>164,892.2867</b>	<b>7,884,201</b>	<b>64,965</b>

Regression Output:

Constant 7,632.17026306  
Std Err of Y Est 1,151.77626371  
R Squared 0.96883855  
  
X Coefficient 21.51389876  
Std Err of Coef. 1.22011909



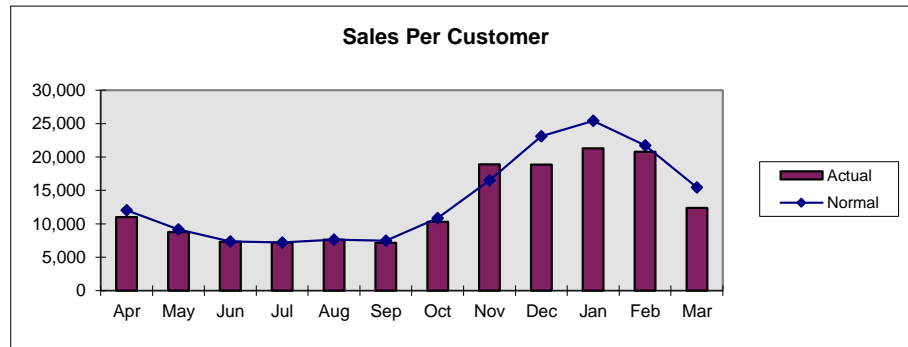
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	528,974	48	11,020.2917	137	182
May	420,266	48	8,755.5417	27	45
June	373,527	51	7,324.0588	0	1
July	375,472	52	7,220.6154	0	0
August	396,637	52	7,627.6346	0	0
September	379,108	53	7,152.9811	0	15
October	545,604	53	10,294.4151	143	168
November	1,001,954	53	18,904.7925	559	451
December	1,000,316	53	18,873.8868	503	695
January	1,108,623	52	21,319.6731	610	795
February	1,082,117	52	20,809.9423	576	617
March	644,588	52	12,395.9231	300	438
<b>TOTAL</b>	<b>7,857,186</b>	<b>619</b>	<b>151,699.7561</b>	<b>2,855</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	45.2200	998.4001	12,018.6918	576,897	47,923
May	17.8800	394.7677	9,150.3094	439,215	18,949
June	1.2600	27.8192	7,351.8780	374,946	1,419
July	0.0000	0.0000	7,220.6154	375,472	0
August	0.1000	2.2079	7,629.8425	396,752	115
September	14.8600	328.0899	7,481.0710	396,497	17,389
October	24.6600	544.4614	10,838.8765	574,460	28,856
November	-107.8600	-2,381.4116	16,523.3809	875,739	-126,215
December	191.7600	4,233.8168	23,107.7036	1,224,708	224,392
January	185.3300	4,091.8506	25,411.5237	1,321,399	212,776
February	41.0400	906.1110	21,716.0533	1,129,235	47,118
March	138.1400	3,049.9555	15,445.8786	803,186	158,598
<b>TOTAL</b>	<b>552.3900</b>	<b>12,196.0685</b>	<b>163,895.8246</b>	<b>8,488,506</b>	<b>631,320</b>

Regression Output:

Constant 7,388.74902927  
Std Err of Y Est 729.33684480  
R Squared 0.98507182  
  
X Coefficient 22.07872775  
Std Err of Coef. 0.85949536



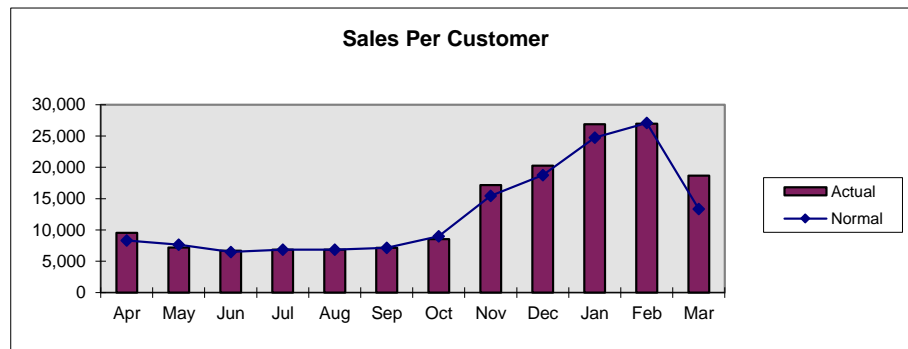
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	429,491	45	9,544.2444	357	302
May	331,131	46	7,198.5000	78	99
June	273,807	41	6,678.2195	22	14
July	288,118	42	6,859.9524	0	0
August	280,443	41	6,840.0732	0	0
September	293,458	41	7,157.5122	2	1
October	349,673	41	8,528.6098	39	60
November	703,976	41	17,170.1463	401	322
December	831,622	41	20,283.4634	640	570
January	1,102,811	41	26,897.8293	846	749
February	1,105,499	41	26,963.3902	774	780
March	802,558	43	18,664.1395	751	510
<b>TOTAL</b>	<b>6,792,587</b>	<b>504</b>	<b>162,786.0803</b>	<b>3,910</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-54.5900	-1,204.9005	8,339.3439	375,270	-54,221
May	21.0800	465.2739	7,663.7739	352,534	21,403
June	-8.2300	-181.6510	6,496.5685	266,359	-7,448
July	0.0600	1.3243	6,861.2767	288,174	56
August	0.1000	2.2072	6,842.2804	280,533	90
September	-0.7000	-15.4503	7,142.0619	292,825	-633
October	21.3100	470.3504	8,998.9602	368,957	19,284
November	-78.5600	-1,733.9619	15,436.1844	632,884	-71,092
December	-69.9500	-1,543.9236	18,739.5398	768,321	-63,301
January	-97.2200	-2,145.8220	24,752.0073	1,014,832	-87,979
February	5.5600	122.7193	27,086.1095	1,110,530	5,031
March	-241.4700	-5,329.6815	13,334.4580	573,382	-229,176
<b>TOTAL</b>	<b>-502.6100</b>	<b>-11,093.5157</b>	<b>151,692.5646</b>	<b>6,324,601</b>	<b>-467,986</b>

Regression Output:

Constant 6,373.77317618  
Std Err of Y Est 2,522.03242060  
R Squared 0.90941148  
  
X Coefficient 22.07181641  
Std Err of Coef. 2.20289822



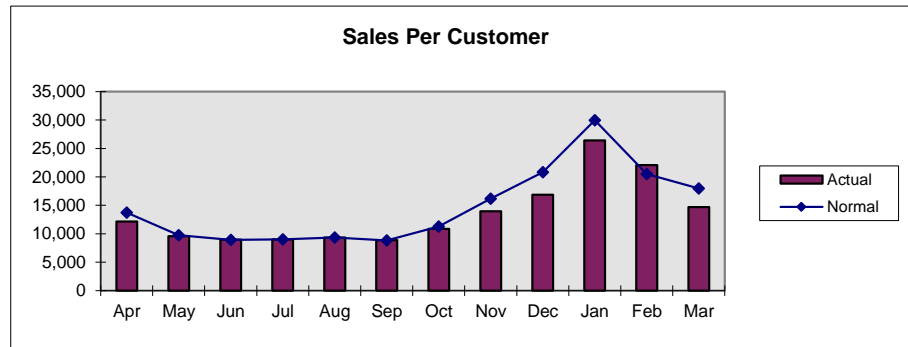
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	523,627	43	12,177.3721	221	302
May	401,669	42	9,563.5476	89	99
June	385,446	43	8,963.8605	15	14
July	387,723	43	9,016.8140	0	0
August	402,407	43	9,358.3023	0	0
September	390,064	44	8,865.0909	3	1
October	478,887	44	10,883.7955	40	60
November	627,301	45	13,940.0222	206	322
December	741,539	44	16,853.1591	362	570
January	1,161,701	44	26,402.2955	563	749
February	970,540	44	22,057.7273	861	780
March	647,513	44	14,716.2045	340	510
<b>TOTAL</b>	<b>7,118,417</b>	<b>523</b>	<b>162,798.1914</b>	<b>2,700</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	81.4100	1,564.1745	13,741.5466	590,887	67,260
May	10.0800	193.6725	9,757.2201	409,803	8,134
June	-1.2300	-23.6327	8,940.2278	384,430	-1,016
July	0.0600	1.1528	9,017.9668	387,773	50
August	0.1000	1.9214	9,360.2237	402,490	83
September	-1.7000	-32.6630	8,832.4279	388,627	-1,437
October	20.3100	390.2270	11,274.0225	496,057	17,170
November	116.4400	2,237.2248	16,177.2470	727,976	100,675
December	208.0500	3,997.3774	20,850.5365	917,424	175,885
January	185.7800	3,569.4919	29,971.7874	1,318,759	157,058
February	-81.4400	-1,564.7509	20,492.9764	901,691	-68,849
March	169.5300	3,257.2718	17,973.4763	790,833	143,320
<b>TOTAL</b>	<b>707.3900</b>	<b>13,591.4675</b>	<b>176,389.6589</b>	<b>7,716,750</b>	<b>598,333</b>

Regression Output:

Constant 9,243.46896877  
Std Err of Y Est 2,473.99474709  
R Squared 0.82805635  
  
X Coefficient 19.21354214  
Std Err of Coef. 2.76866595



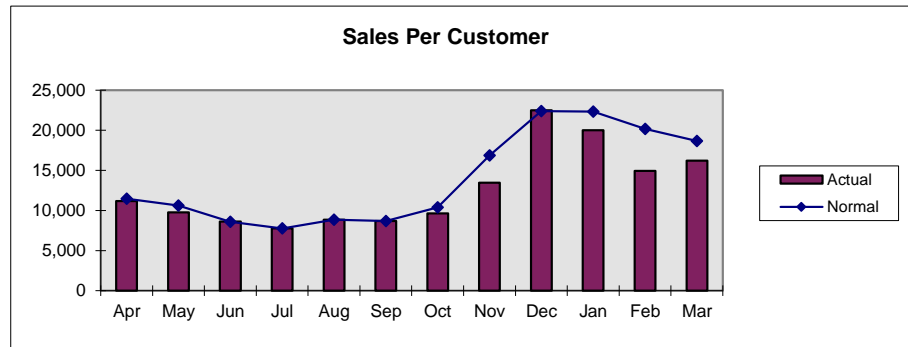
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	492,127	44	11,184.7045	287	302
May	439,496	45	9,766.5778	54	99
June	396,253	46	8,614.1957	15	14
July	364,574	47	7,756.8936	0	0
August	407,660	46	8,862.1739	0	0
September	398,898	46	8,671.6957	0	1
October	433,564	45	9,634.7556	19	60
November	605,235	45	13,449.6667	139	322
December	1,035,216	46	22,504.6957	576	570
January	920,465	46	20,010.1087	624	749
February	701,932	47	14,934.7234	497	780
March	761,463	47	16,201.3404	377	510
<b>TOTAL</b>	<b>6,956,883</b>	<b>550</b>	<b>151,591.5316</b>	<b>2,588</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	15.4100	286.1327	11,470.8372	504,717	12,590
May	45.0800	837.0448	10,603.6226	477,163	37,667
June	-1.2300	-22.8386	8,591.3571	395,202	-1,051
July	0.0600	1.1141	7,758.0077	364,626	52
August	0.1000	1.8568	8,864.0307	407,745	85
September	1.3000	24.1384	8,695.8341	400,008	1,110
October	41.3100	767.0435	10,401.7991	468,081	34,517
November	183.4400	3,406.1112	16,855.7779	758,510	153,275
December	-5.9500	-110.4795	22,394.2162	1,030,134	-5,082
January	124.7800	2,316.9132	22,327.0219	1,027,043	106,578
February	282.5600	5,246.5699	20,181.2933	948,521	246,589
March	132.5300	2,460.8151	18,662.1555	877,121	115,658
<b>TOTAL</b>	<b>819.3900</b>	<b>15,214.4216</b>	<b>166,805.9532</b>	<b>7,658,871</b>	<b>701,988</b>

Regression Output:

Constant 8,628.13217085  
Std Err of Y Est 1,818.83737804  
R Squared 0.87262147  
  
X Coefficient 18.56798513  
Std Err of Coef. 2.24336501





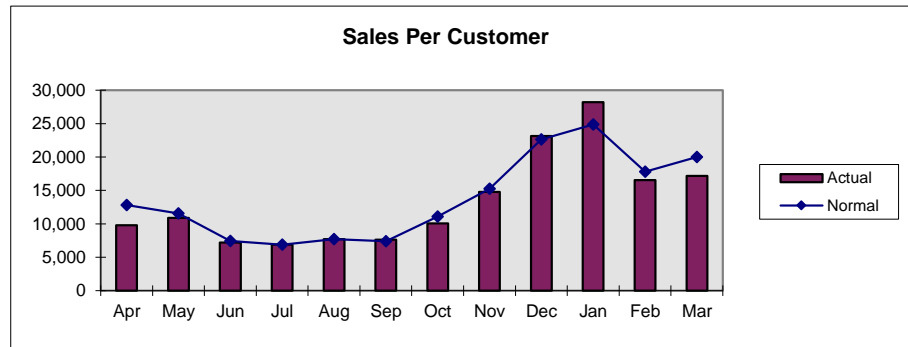
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	459,601	47	9,778.7447	150	302
May	501,137	46	10,894.2826	65	99
June	331,278	46	7,201.6957	3	14
July	309,448	45	6,876.6222	0	0
August	347,267	45	7,717.0444	0	0
September	343,338	45	7,629.7333	12	1
October	452,618	45	10,058.1778	9	60
November	679,225	46	14,765.7609	299	322
December	1,042,362	45	23,163.6000	596	570
January	1,241,707	44	28,220.6136	916	749
February	760,378	46	16,529.9565	715	780
March	789,908	46	17,171.9130	369	510
<b>TOTAL</b>	<b>7,258,267</b>	<b>546</b>	<b>160,008.1448</b>	<b>3,134</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	152.4100	3,051.5843	12,830.3290	603,025	143,424
May	34.0800	682.3568	11,576.6394	532,525	31,388
June	10.7700	215.6392	7,417.3349	341,197	9,919
July	0.0600	1.2013	6,877.8235	309,502	54
August	0.1000	2.0022	7,719.0466	347,357	90
September	-10.7000	-214.2376	7,415.4957	333,697	-9,641
October	51.3100	1,027.3394	11,085.5172	498,848	46,230
November	23.4400	469.3205	15,235.0814	700,814	21,589
December	-25.9500	-519.5762	22,644.0238	1,018,981	-23,381
January	-167.2200	-3,348.1132	24,872.5004	1,094,390	-147,317
February	64.5600	1,292.6336	17,822.5901	819,839	59,461
March	140.5300	2,813.7205	19,985.6335	919,339	129,431
<b>TOTAL</b>	<b>273.3900</b>	<b>5,473.8708</b>	<b>165,482.0156</b>	<b>7,519,514</b>	<b>261,247</b>

Regression Output:

Constant 8,104.87944668  
Std Err of Y Est 2,472.23370122  
R Squared 0.88199540  
  
X Coefficient 20.02220531  
Std Err of Coef. 2.31594493



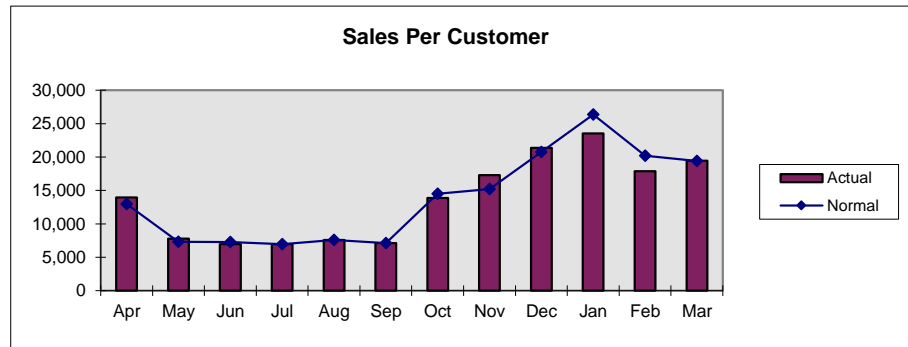
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	627,950	45	13,954.4444	350	302
May	350,099	45	7,779.9778	121	99
June	320,880	46	6,975.6522	0	14
July	319,927	46	6,954.9348	0	0
August	348,242	46	7,570.4783	0	0
September	348,371	49	7,109.6122	0	1
October	666,314	48	13,881.5417	31	60
November	847,860	49	17,303.2653	423	322
December	1,048,059	49	21,388.9592	601	570
January	1,152,734	49	23,525.1837	612	749
February	875,099	49	17,859.1633	666	780
March	913,701	47	19,440.4468	511	510
<b>TOTAL</b>	<b>7,819,236</b>	<b>568</b>	<b>163,743.6596</b>	<b>3,315</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-47.5900	-985.0248	12,969.4196	583,624	-44,326
May	-21.9200	-453.7034	7,326.2744	329,682	-20,417
June	13.7700	285.0135	7,260.6657	333,991	13,111
July	0.0600	1.2419	6,956.1767	319,984	57
August	0.1000	2.0698	7,572.5481	348,337	95
September	1.3000	26.9076	7,136.5198	349,689	1,318
October	29.3100	606.6627	14,488.2044	695,434	29,120
November	-100.5600	-2,081.4056	15,221.8597	745,871	-101,989
December	-30.9500	-640.6076	20,748.3516	1,016,669	-31,390
January	136.7800	2,831.0925	26,356.2762	1,291,458	138,724
February	113.5600	2,350.4815	20,209.6448	990,273	115,174
March	-1.4700	-30.4263	19,410.0205	912,271	-1,430
<b>TOTAL</b>	<b>92.3900</b>	<b>1,912.3018</b>	<b>165,655.9614</b>	<b>7,917,283</b>	<b>98,047</b>

Regression Output:

Constant 7,927.44201485  
Std Err of Y Est 2,551.97940445  
R Squared 0.84701963  
  
X Coefficient 20.69814643  
Std Err of Coef. 2.78165052



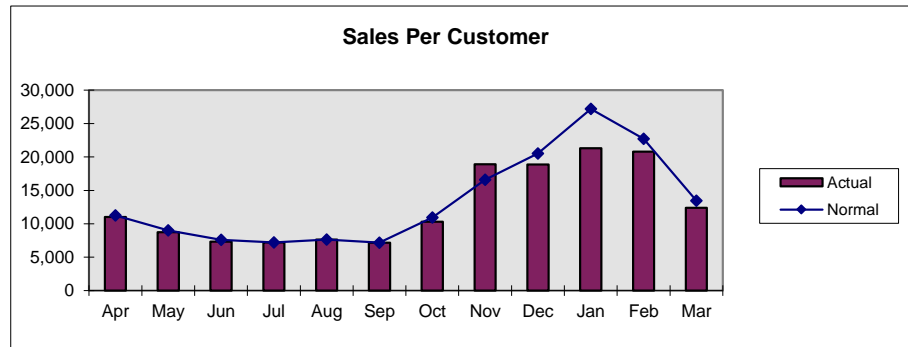
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	528,974	48	11,020.2917	291	302
May	420,266	48	8,755.5417	87	99
June	373,527	51	7,324.0588	0	14
July	375,472	52	7,220.6154	0	0
August	396,637	52	7,627.6346	0	0
September	379,108	53	7,152.9811	0	1
October	545,604	53	10,294.4151	30	60
November	1,001,954	53	18,904.7925	434	322
December	1,000,316	53	18,873.8868	491	570
January	1,108,623	52	21,319.6731	465	749
February	1,082,117	52	20,809.9423	687	780
March	644,588	52	12,395.9231	458	510
<b>TOTAL</b>	<b>7,857,186</b>	<b>619</b>	<b>151,699.7561</b>	<b>2,943</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	11.4100	235.6587	11,255.9504	540,286	11,312
May	12.0800	249.4967	9,005.0384	432,242	11,976
June	13.7700	284.4014	7,608.4602	388,031	14,504
July	0.0600	1.2392	7,221.8546	375,536	64
August	0.1000	2.0654	7,629.7000	396,744	107
September	1.3000	26.8498	7,179.8309	380,531	1,423
October	30.3100	626.0136	10,920.4287	578,783	33,179
November	-111.5600	-2,304.1268	16,600.6657	879,835	-122,119
December	79.0500	1,632.6750	20,506.5618	1,086,848	86,532
January	283.7800	5,861.1070	27,180.7801	1,413,401	304,778
February	92.5600	1,911.7065	22,721.6488	1,181,526	99,409
March	51.5300	1,064.2852	13,460.2083	699,931	55,343
<b>TOTAL</b>	<b>464.3900</b>	<b>9,591.3717</b>	<b>161,291.1278</b>	<b>8,353,694</b>	<b>496,508</b>

Regression Output:

Constant 7,576.32641601  
Std Err of Y Est 2,413.45651288  
R Squared 0.83653321  
  
X Coefficient 20.65370000  
Std Err of Coef. 2.88716119



SOURCE: Revenue Workpaper R-25-5.00 (Non-Print).

THERMS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
January	-	748,342	587,316	813,282	871,408	884,805	977,629	1,086,350	793,453	859,429	1,284,198	1,102,811	1,161,701	920,465	1,241,707	1,152,734	1,108,623	
February	-	639,891	644,260	820,053	703,906	623,108	885,064	765,990	778,978	760,949	1,003,822	1,105,499	970,540	701,932	760,378	875,099	1,082,117	
March	-	592,100	548,754	383,938	511,860	482,780	541,443	555,180	449,204	783,011	844,293	802,558	647,513	761,463	789,908	913,701	644,588	
April	-	278,812	270,075	305,397	299,201	396,906	291,999	325,910	354,130	381,072	429,491	523,627	492,127	459,601	627,950	528,974	-	
May	-	200,598	258,313	202,290	202,958	248,541	180,866	291,880	275,305	248,881	331,131	401,669	439,496	501,137	350,099	420,266	-	
June	-	134,887	225,557	194,563	176,462	188,232	169,710	224,119	188,217	237,714	273,807	385,446	396,253	331,278	320,880	373,527	-	
July	-	133,528	216,533	190,949	166,052	190,091	182,960	208,292	181,847	234,640	288,118	387,723	364,574	309,448	319,927	375,472	-	
August	-	157,136	221,969	174,282	178,321	195,048	185,750	222,214	209,603	257,279	280,443	402,407	407,660	347,267	348,242	396,637	-	
September	-	209,646	226,146	187,996	190,342	205,406	215,220	277,978	214,319	275,124	293,458	390,064	398,898	343,338	348,371	379,108	-	
October	199,198	315,919	394,285	257,920	317,345	336,630	321,360	377,813	332,311	432,665	349,673	478,887	433,564	452,618	666,314	545,604	-	
November	391,152	439,975	565,256	497,377	553,656	406,295	500,010	495,903	576,189	753,952	703,976	627,301	605,235	679,225	847,860	1,001,954	-	
December	800,233	812,807	728,228	638,957	735,498	808,334	1,028,160	754,847	675,512	947,931	831,622	741,539	1,035,216	1,042,362	1,048,059	1,000,316	-	
Total		1,390,583	4,663,641	4,886,692	4,667,004	4,907,009	4,966,176	5,480,171	5,586,476	5,029,068	6,172,647	6,914,032	7,349,531	7,352,777	6,850,134	7,669,695	7,963,392	2,835,328

BILLS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	44	42	40	38	35	37	40	41	41	45	41	44	46	44	49	52
February	-	45	41	39	38	35	36	42	41	41	45	41	44	47	46	49	52
March	-	44	41	39	38	35	36	41	42	41	45	43	44	47	46	47	52
April	-	43	41	40	38	36	36	41	41	41	45	43	44	47	45	48	-
May	-	44	42	39	38	36	36	41	41	41	46	42	45	46	45	48	-
June	-	43	40	40	35	36	38	41	40	44	41	43	46	46	46	51	-
July	-	43	40	39	35	36	39	41	40	44	42	43	47	45	46	52	-
August	-	42	40	39	35	36	38	41	40	44	41	43	46	45	46	52	-
September	-	42	38	39	34	36	38	41	40	44	41	44	46	45	49	53	-
October	45	42	38	39	34	37	38	42	40	45	41	44	45	45	48	53	-
November	44	43	38	39	35	35	39	41	41	45	41	45	45	46	49	53	-
December	44	42	38	38	35	38	40	41	41	46	41	44	46	45	49	53	-
Total	133	517	479	470	433	431	451	493	488	517	514	516	542	550	559	608	156

Usage/Bill	10,455.51	9,020.58	10,201.86	9,929.80	11,332.58	11,522.45	12,151.16	11,331.59	10,305.47	11,939.36	13,451.42	14,243.28	13,566.01	12,454.79	13,720.38	13,097.68	18,175.18
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DEMAND	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	4,935	4,660	4,533	4,929	4,741	4,859	5,195	5,526	4,371	4,802	6,153	6,756	6,204	5,714	7,067	6,543
February	-	5,024	4,660	4,583	4,929	4,741	4,722	5,598	5,526	4,371	4,802	6,153	6,756	6,204	7,629	6,975	6,543
March	-	4,935	4,660	4,583	4,929	4,741	4,400	5,486	5,526	4,371	4,802	6,253	6,756	6,294	6,555	6,891	6,543
April	-	4,885	4,660	4,746	4,929	4,849	4,722	5,436	5,526	4,371	4,802	6,303	6,756	6,294	6,555	6,986	-
May	-	4,935	4,816	4,583	4,929	4,849	4,722	5,436	5,526	4,371	4,802	6,203	6,896	6,210	6,555	6,986	-
June	-	4,860	4,747	5,176	4,691	4,732	4,993	5,452	4,321	4,752	6,153	6,399	6,346	5,774	6,759	6,642	-
July	-	4,860	4,747	5,010	4,691	4,732	4,993	5,701	4,321	4,752	6,335	6,399	6,364	5,774	6,612	6,783	-
August	-	4,803	4,747	5,010	4,754	4,732	4,889	5,526	4,321	4,752	6,153	6,399	6,311	5,774	6,843	6,783	-
September	-	4,803	4,533	5,010	4,691	4,732	4,889	5,526	4,321	4,752	6,153	6,756	6,311	5,774	6,993	6,783	-
October	5,027	4,803	4,533	5,010	4,691	4,732	4,889	5,526	4,321	4,802	6,153	6,756	6,210	5,774	6,943	6,833	-
November	4,935	4,660	4,533	5,010	4,741	4,630	4,989	5,526	4,371	4,802	6,153	6,756	6,092	5,774	7,079	6,833	-
December	4,935	4,660	4,533	4,929	4,741	4,859	5,155	5,526	4,371	4,802	6,153	6,756	6,204	5,653	7,067	6,833	-
Total	14,897	58,163	55,829	58,183	57,649	57,072	58,222	65,935	57,981	55,271	67,265	77,286	77,758	71,501	81,302	82,395	19,628

This workpaper is too voluminous to print and is only being provided in electronic format.

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Large Interruptible General Service Revenue Forecast**

	Billing Determinant	Rate	Margin
<b>Total Large Interruptible General Service (LIGS) Margin</b>			
<b>Customer Charges:</b>			
Annual	24 A/	\$800.00000 C/	\$19,200
<b>Total Customer Charge Margin</b>	<b>24</b>		<b>\$19,200</b>
<b>Commodity Charges:</b>			
Step 1 - 0 to 15,000 Therms per Month	207,834 B/	\$0.09195 C/	\$19,110
Step 2 - 15,001 to 40,000 Therms per Month	63,450 B/	0.08466 C/	5,372
Step 3 - 40,001 to 90,000 Therms per Month	0 B/	0.05963 C/	0
Step 4 - Over 90,000 Therms per Month	0 B/	0.02277 C/	0
<b>Total Commodity Charge Margin</b>	<b>271,284</b>		<b>\$24,482</b>
<b>Total LIGS Margin</b>			<b>\$43,682</b>
<b>LIGS Gas Cost:</b>			
Commodity	271,284	0.19717 D/	53,489
<b>Total LIGS Gas Cost</b>			<b>\$53,489</b>
<b>LIGS Other Charges:</b>			
Integrity Management Rider Surcharge			0 D/
Docket 18-00040 Excess ADIT			0 E/
<b>Total LIGS Other Charges</b>			<b>0</b>
<b>Total LIGS Revenues</b>			<b>\$97,171</b>

A/ WHN Revenue Workpaper R-30-1.04.

B/ WHN Revenue Workpaper R-30-1.02.

C/ WHN Revenue Workpaper R-110-1.00.

D/ IMR Surcharge is excluded from the Consumer Advocate's case. See WHN Revenue Workpaper R-55-1.00 for details.

E/ Excess ADIT is excluded from the Consumer Advocate's case. See WHN Workpaper R-60-1.00 for details.

SOURCE: Couzens Workpaper - Sales &amp; Transportation Pro Forma Revenue, A-Summary Pro Forma Revs

	Billing Determinant	Rate	Margin
<b>Total LIGS Margin</b>			
<b>Customer Charges:</b>			
Annual	24	\$800.00	\$19,200
<b>Total Customer Charge Margin</b>	<b>24</b>		<b>\$19,200</b>
<b>Commodity Charges:</b>			
Step 1 - 0 to 15,000 Therms per Month	180,095	\$0.09195	\$16,560
Step 2 - 15,001 to 40,000 Therms per Month	73,841	0.08466	6,251
Step 3 - 40,001 to 90,000 Therms per Month	0	0.05963	0
Step 4 - Over 90,000 Therms per Month	0	0.02277	0
<b>Total Commodity Charge Margin</b>	<b>253,936</b>		<b>\$22,811</b>
<b>Total LIGS Margin</b>			<b>\$42,011</b>
<hr/>			
<b>Gas Cost:</b>			
Commodity	253,936	0.19717	50,069
<b>Total Gas Cost</b>			<b>\$50,069</b>
<hr/>			
<b>Other Charges:</b>			
Integrity Management Rider Surcharge			\$4,661
Docket 18-00040 Excess ADIT	253,936	-\$0.00685	-1,739
<b>Total Other Charges</b>			<b>\$2,922</b>
<b>Total Revenues</b>			<b>\$95,002</b>



	Step 1	Step 2	Step 3	Step 4	Total	
Attrition Period Large Interruptible General Service (LIGS) Usage	207,834	63,450	0	0	271,284	A/
Step Percentage	76.61%	23.39%	0.00%	0.00%	100.00%	

**Summary:**

For the 12 Months Ended March 31, 2015	69.12%	30.88%	0.00%	0.00%	100.00%
For the 12 Months Ended March 31, 2016	87.87%	12.13%	0.00%	0.00%	100.00%
For the 12 Months Ended March 31, 2017	85.63%	14.37%	0.00%	0.00%	100.00%
For the 12 Months Ended March 31, 2018	73.31%	26.69%	0.00%	0.00%	100.00%
For the 12 Months Ended March 31, 2019	72.82%	27.18%	0.00%	0.00%	100.00%
For the 12 Months Ended March 31, 2020	70.92%	29.08%	0.00%	0.00%	100.00%
<b>Average</b>	<b>76.61%</b>	<b>23.39%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>100.00%</b>

For the 12 Months Ended March 31, 2015	Step 1	Step 2	Step 3	Step 4	Total	B/
April-14	21,568	0	0	0	21,568	
May	5,429	0	0	0	5,429	
June	15,000	7,292	0	0	22,292	
July	15,000	5,696	0	0	20,696	
August	15,000	3,476	0	0	18,476	
September	10,204	0	0	0	10,204	
October	20,723	0	0	0	20,723	
November	19,052	12,635	0	0	31,687	
December	20,365	13,958	0	0	34,323	
January-15	15,000	16,615	0	0	31,615	
February	15,000	22,863	0	0	37,863	
March	21,300	3,989	0	0	25,289	
<b>Total</b>	<b>193,641</b>	<b>86,524</b>	<b>0</b>	<b>0</b>	<b>280,165</b>	
<b>Step Percentage</b>	<b>69.12%</b>	<b>30.88%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2016	Step 1	Step 2	Step 3	Step 4	Total	B/
April-15	13,637	0	0	0	13,637	
May	3,534	0	0	0	3,534	
June	5,132	0	0	0	5,132	
July	641	0	0	0	641	
August	15,011	2,838	0	0	17,849	
September	16,145	0	0	0	16,145	
October	22,371	0	0	0	22,371	
November	14,471	0	0	0	14,471	
December	19,300	422	0	0	19,722	
January-16	15,000	13,388	0	0	28,388	
February	15,000	4,386	0	0	19,386	
March	12,064	0	0	0	12,064	
<b>Total</b>	<b>152,306</b>	<b>21,034</b>	<b>0</b>	<b>0</b>	<b>173,340</b>	
<b>Step Percentage</b>	<b>87.87%</b>	<b>12.13%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2017	Step 1	Step 2	Step 3	Step 4	Total	B/
April-16	7,885	0	0	0	7,885	
May	20,961	14,481	0	0	35,442	
June	13,314	0	0	0	13,314	
July	21	0	0	0	21	
August	12,853	0	0	0	12,853	
September	16,742	4,643	0	0	21,385	
October	20,564	1,200	0	0	21,764	
November	15,597	0	0	0	15,597	
December	16,606	4,880	0	0	21,486	
January-17	15,053	3,402	0	0	18,455	
February	13,565	0	0	0	13,565	
March	17,323	0	0	0	17,323	
<b>Total</b>	<b>170,484</b>	<b>28,606</b>	<b>0</b>	<b>0</b>	<b>199,090</b>	
<b>Step Percentage</b>	<b>85.63%</b>	<b>14.37%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>100.00%</b>	

A/ WHN Revenue Workpaper R-30-1.04.

B/ WHN Revenue Workpaper R-30-5.00 (Non-Print).

For the 12 Months Ended March 31, 2018	Step 1	Step 2	Step 3	Step 4	Total	B/
April-17	20,539	0	0	0	20,539	
May	12,983	0	0	0	12,983	
June	15,000	20,179	0	0	35,179	
July	4,265	0	0	0	4,265	
August	9,408	0	0	0	9,408	
September	11,283	0	0	0	11,283	
October	24,810	6,126	0	0	30,936	
November	29,339	11,472	0	0	40,811	
December	28,413	12,894	0	0	41,307	
January-18	15,000	17,497	0	0	32,497	
February	15,000	1,603	0	0	16,603	
March	15,421	3,584	0	0	19,005	
<b>Total</b>	<b>201,461</b>	<b>73,355</b>	<b>0</b>	<b>0</b>	<b>274,816</b>	
<b>Step Percentage</b>	<b>73.31%</b>	<b>26.69%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2019	Step 1	Step 2	Step 3	Step 4	Total	B/
April-18	16,468	0	0	0	16,468	
May	15,974	4,626	0	0	20,600	
June	15,000	22,443	0	0	37,443	
July	5,241	0	0	0	5,241	
August	8,988	0	0	0	8,988	
September	16,913	9,018	0	0	25,931	
October	25,429	10,760	0	0	36,189	
November	30,000	8,910	0	0	38,910	
December	21,061	6,208	0	0	27,269	
January-19	15,000	11,745	0	0	26,745	
February	15,000	1,843	0	0	16,843	
March	17,383	0	0	0	17,383	
<b>Total</b>	<b>202,457</b>	<b>75,553</b>	<b>0</b>	<b>0</b>	<b>278,010</b>	
<b>Step Percentage</b>	<b>72.82%</b>	<b>27.18%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2020	Step 1	Step 2	Step 3	Step 4	Total	B/
April-19	13,788	0	0	0	13,788	
May	9,094	0	0	0	9,094	
June	12,359	0	0	0	12,359	
July	9,547	0	0	0	9,547	
August	2,845	0	0	0	2,845	
September	15,074	14,420	0	0	29,494	
October	27,819	3,600	0	0	31,419	
November	22,644	11,881	0	0	34,525	
December	21,870	12,154	0	0	34,024	
January-20	15,033	13,689	0	0	28,722	
February	15,000	14,104	0	0	29,104	
March	15,022	3,993	0	0	19,015	
<b>Total</b>	<b>180,095</b>	<b>73,841</b>	<b>0</b>	<b>0</b>	<b>253,936</b>	
<b>Step Percentage</b>	<b>70.92%</b>	<b>29.08%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>100.00%</b>	

A/ WHN Revenue Workpaper R-30-1.04.

B/ WHN Revenue Workpaper R-30-5.00 (Non-Print).

**Attrition Period Monthly Growth in LIGS Bills**

		<u><u>0</u></u>	<b>A/</b>
	<b>Growth</b>	<b>Total</b>	
Test Period Number of LIGS Bills - 12 Months Ended March, 2020		24	<b>A/</b>
April-20	0	24	
May-20	0	24	
June-20	0	24	
July-20	0	24	
August-20	0	24	
September-20	0	24	
October-20	0	24	
November-20	0	24	
December-20	0	24	
January-21	0	24	
February-21	0	24	
March-21	0	24	
April-21	0	24	
May-21	0	24	
June-21	0	24	
July-21	0	24	
August-21	0	24	
September-21	0	24	
October-21	0	24	
November-21	0	24	
December-21	0	24	

Attrition Period LIGS Bills	24	
Normalized Usage per Bill (Therms)	11,303.5000	<b>B/</b>
<b>Total LIGS Sales Volume - Therms</b>	<u><u>271,284</u></u>	

A/ WHN Revenue Workpaper R-30-1.05.

B/ WHN Revenue Workpaper R-30-2.00.

Historic Bill Counts:

For the 12 Months Ended March

MONTH	2015	2016	2017	2018	2019	2020
April	2	2	2	2	2	2
May	2	2	2	2	2	2
June	2	2	2	2	2	2
July	2	2	2	2	2	2
August	2	2	2	2	2	2
September	2	2	2	2	2	2
October	2	2	2	2	2	2
November	2	2	2	2	2	2
December	2	2	2	2	2	2
January	2	2	2	2	2	2
February	2	2	2	2	2	2
March	2	2	2	2	3	2
<b>Total</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>25</b>	<b>24</b>

Source: WHN Revenue Workpaper R-30-4.00.

Annual Bill Growth Calculation:

Year	Bills	Growth
2015	24	-
2016	24	0
2017	24	0
2018	24	0
2019	25	1
2020	24	-1

Five-Year Average 0

Four-Year Average 0

Three-Year Average 0

Two-Year Average 0

One-Year Average -1

Manual Input 0

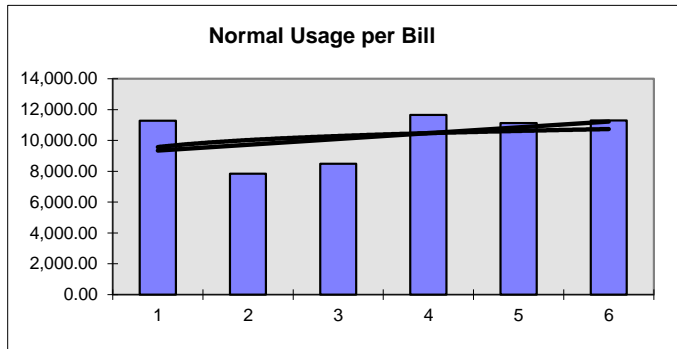
Zero growth (0) was chosen as the most representative of the Attrition Year.

Annual Bill Growth Forecast	0
Test Period Bills	24
<b>Annual Percentage Growth</b>	<b>0.00%</b>

Annual Bill Growth Forecast	0
Months per Year	12
<b>Monthly Bill Growth</b>	<b>0</b>

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2015	1	11,271.7917	9,343.8079	9,210.5112	-
2016	2	7,849.5833	9,719.5537	9,580.1233	-30.36%
2017	3	8,495.6250	10,095.2994	9,964.5677	8.23%
2018	4	11,649.3333	10,471.0451	10,364.4396	37.12%
2019	5	11,129.2000	10,846.7908	10,780.3581	-4.46%
2020	6	11,303.5000	11,222.5365	11,212.9671	1.57%
Forecast	7.25		11,692.2187	11,778.2224	11,646.2383

Regression Statistics		
	Linear	Logarithmic
Constant	8,968.062222	9.088756
X Coefficient	375.745714	0.039345
R Squared	0.180105	0.183364

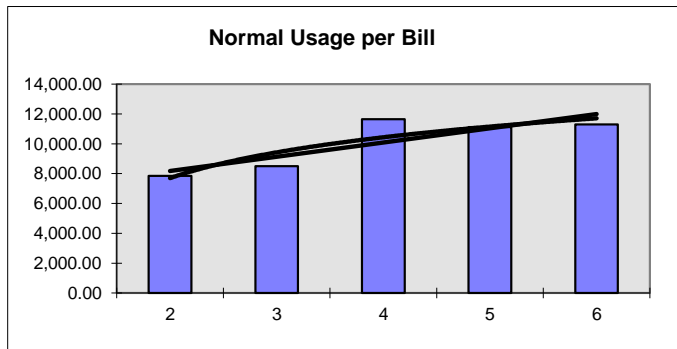


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - LIGS Conservation and Growth-5 Year Analysis  
Calendar Data

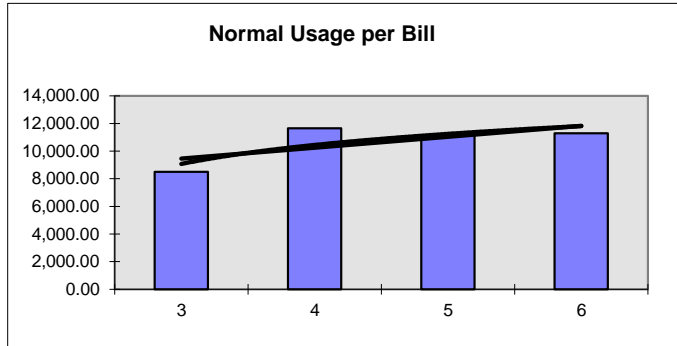
Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2016	2	7,849.5833	8,177.1667	8,150.8654	-
2017	3	8,495.6250	9,131.3075	9,007.4913	8.23%
2018	4	11,649.3333	10,085.4483	9,954.1454	37.12%
2019	5	11,129.2000	11,039.5892	11,000.2893	-4.46%
2020	6	11,303.5000	11,993.7300	12,156.3791	1.57%
Forecast	7.25		13,186.4060	13,773.8198	12,822.4776

Regression Statistics		
	Linear	Logarithmic
Constant	6,268.885000	8.806014
X Coefficient	954.140833	0.099932
R Squared	0.725670	0.740486



Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2017	3	8,495.6250	9,458.8908	9,353.2161	-
2018	4	11,649.3333	10,249.2400	10,143.3763	37.12%
2019	5	11,129.2000	11,039.5892	11,000.2893	-4.46%
2020	6	11,303.5000	11,829.9383	11,929.5943	1.57%
Forecast	7.25		12,817.8748	13,202.3924	12,937.6811

Regression Statistics		
	Linear	Logarithmic
Constant	7,087.843333	8.900174
X Coefficient	790.349167	0.081101
R Squared	0.496026	0.511142

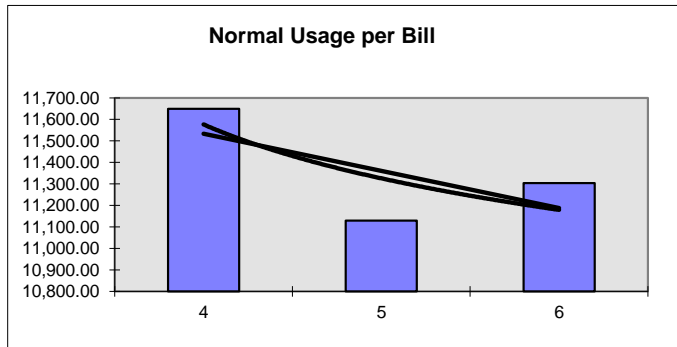


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - LIGS Conservation and Growth-3 Year Analysis  
Calendar Data

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2018	4	11,649.3333	11,533.5944	11,531.0818	-
2019	5	11,129.2000	11,360.6778	11,358.6309	-4.46%
2020	6	11,303.5000	11,187.7611	11,188.7590	1.57%
Forecast	7.25		10,971.6153	10,979.9872	11,099.0834

Regression Statistics		
	Linear	Logarithmic
Constant	12,225.261111	9.413075
X Coefficient	-172.916667	-0.015068
R Squared	0.426617	0.420979



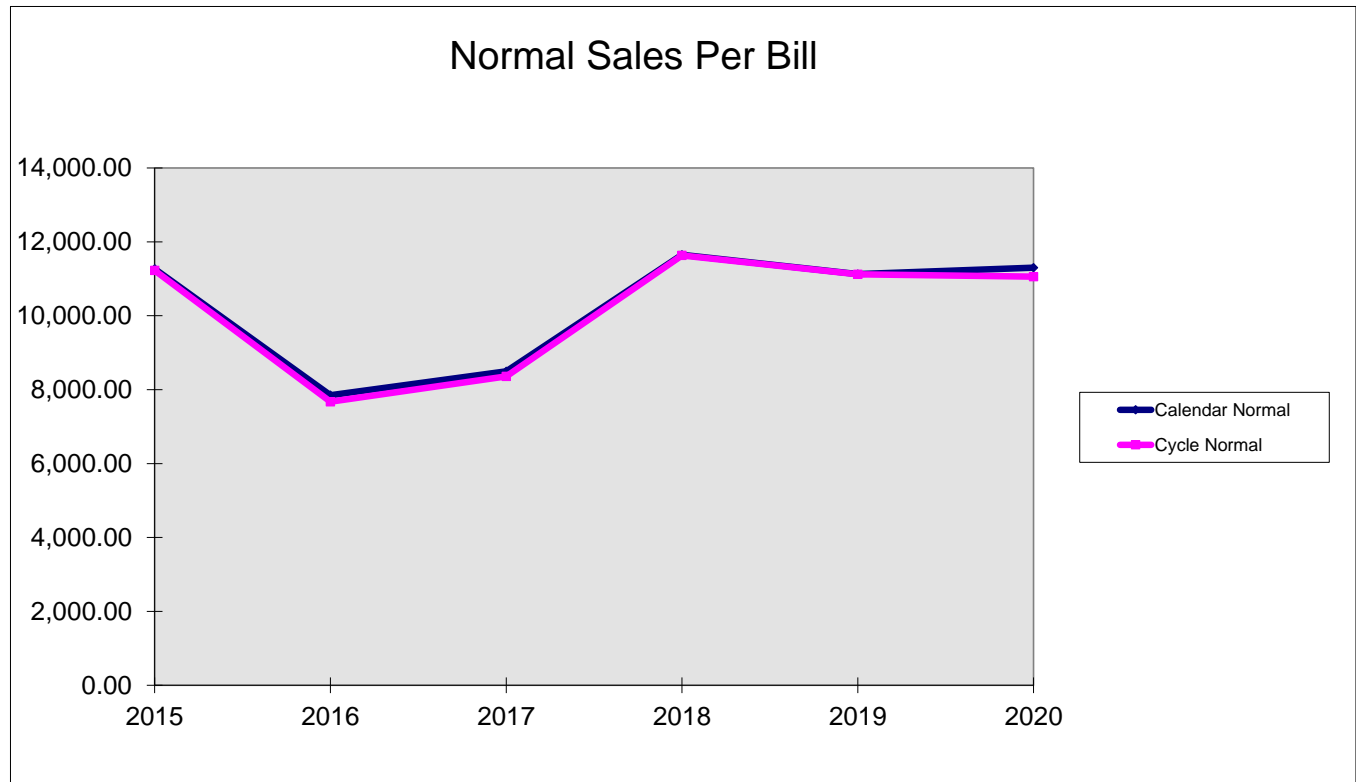
Trend	From The 12 Months Ended		Calendar Data	
	Month	Year	Time Series Forecast	Adjusted Forecast
Linear Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Logarithmic Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Year To Year Change	March	2015	11,646.2383	11,646.2383
	March	2016	12,822.4776	12,822.4776
	March	2017	12,937.6811	
	March	2018	11,099.0834	
<b>Average</b>			<b>12,126.3701</b>	<b>12,234.3579</b>
One Standard Deviation			779.2040	
<b>Upper</b> End of Range			12,905.5741	
<b>Lower</b> End of Range			11,347.1661	
Number in Range			2.0000	
Weighted Average Forecast at Midpoint				<b>12,234.3579</b>
Test Period Amount				<b>11,303.5000</b>
Compound Growth Factor				<b>1.08235130</b>
Annualized Growth Rate				<b>1.06535560</b>
Test Period Sales				253,936
Weather Adjustment				17,348
Normal Sales				<b>271,284</b>
Usage Adjustment				22,341
Adjusted Sales				<b>293,625</b>

CALENDAR DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	280,165	24	135,261.4993	270,523	-9,642	73.02%	11,271.7917
2016	173,340	24	94,194.7869	188,390	15,050	47.59%	7,849.5833
2017	199,090	24	101,947.4077	203,895	4,805	2.34%	8,495.6250
2018	274,816	24	139,792.8297	279,584	4,768	34.41%	11,649.3333
2019	278,010	25	136,333.6728	278,230	220	4.54%	11,129.2000
2020	253,936	24	135,642.1580	271,284	17,348	51.04%	11,303.5000

CYCLE DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	280,165	24	134,738.4905	269,476	-10,689	58.77%	11,228.1667
2016	173,340	24	92,093.2581	184,186	10,846	25.84%	7,674.4167
2017	199,090	24	100,283.8353	200,567	1,477	0.26%	8,356.9583
2018	274,816	24	139,584.5252	279,170	4,354	16.14%	11,632.0833
2019	278,010	25	136,137.1123	278,069	59	0.02%	11,122.7600
2020	253,936	24	132,688.9979	265,378	11,442	30.49%	11,057.4167





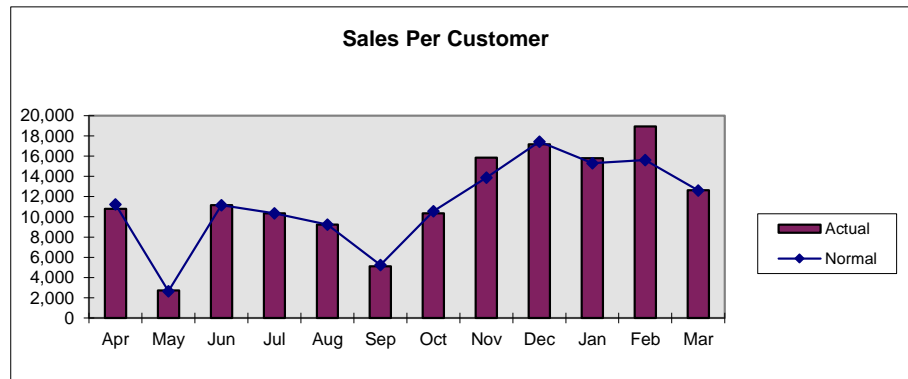
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	21,568	2	10,784.0000	144	182
May	5,429	2	2,714.5000	50	45
June	22,292	2	11,146.0000	0	1
July	20,696	2	10,348.0000	0	0
August	18,476	2	9,238.0000	0	0
September	10,204	2	5,102.0000	3	15
October	20,723	2	10,361.5000	150	168
November	31,687	2	15,843.5000	621	451
December	34,323	2	17,161.5000	671	695
January	31,615	2	15,807.5000	840	795
February	37,863	2	18,931.5000	905	617
March	25,289	2	12,644.5000	441	438
<b>TOTAL</b>	<b>280,165</b>	<b>24</b>	<b>140,082.5000</b>	<b>3,825</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	38	441.2218	11,225.2218	22,450	882
May	-5	-59.1066	2,655.3934	5,311	-118
June	1	14.5458	11,160.5458	22,321	29
July	0	0.0000	10,348.0000	20,696	0
August	0	1.1544	9,239.1544	18,478	2
September	12	136.9150	5,238.9150	10,478	274
October	18	203.8717	10,565.3717	21,131	408
November	-170	-1,960.9089	13,882.5911	27,765	-3,922
December	24	274.2917	17,435.7917	34,872	549
January	-45	-515.6823	15,291.8177	30,584	-1,031
February	-288	-3,324.2867	15,607.2133	31,214	-6,649
March	-3	-33.0166	12,611.4834	25,223	-66
<b>TOTAL</b>	<b>-418</b>	<b>-4,821.0007</b>	<b>135,261.4993</b>	<b>270,523</b>	<b>-9,642</b>

Regression Output:

Constant 7,993.80707754  
Std Err of Y Est 2,608.28732974  
R Squared 0.73018967  
  
X Coefficient 11.54426538  
Std Err of Coef. 2.21910446



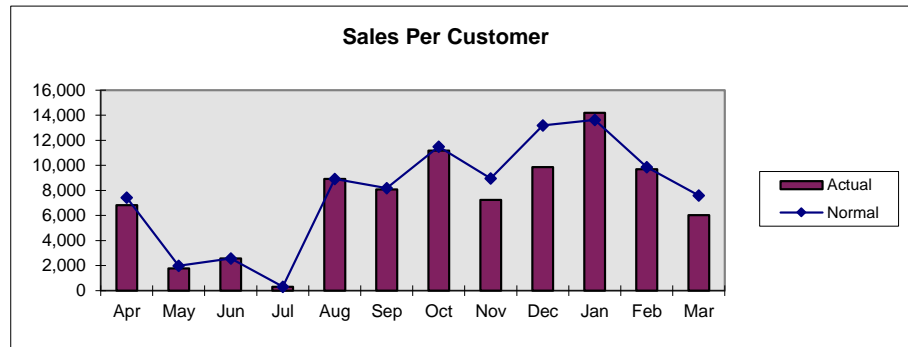
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	13,637	2	6,818.5000	123	182
May	3,534	2	1,767.0000	24	45
June	5,132	2	2,566.0000	0	1
July	641	2	320.5000	0	0
August	17,849	2	8,924.5000	0	0
September	16,145	2	8,072.5000	3	15
October	22,371	2	11,185.5000	137	168
November	14,471	2	7,235.5000	283	451
December	19,722	2	9,861.0000	370	695
January	28,388	2	14,194.0000	850	795
February	19,386	2	9,693.0000	600	617
March	12,064	2	6,032.0000	285	438
<b>TOTAL</b>	<b>173,340</b>	<b>24</b>	<b>86,670.0000</b>	<b>2,675</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	59	608.4434	7,426.9434	14,854	1,217
May	21	214.5272	1,981.5272	3,963	429
June	1	12.9456	2,578.9456	5,158	26
July	0	0.0000	320.5000	641	0
August	0	1.0274	8,925.5274	17,851	2
September	12	121.8531	8,194.3531	16,389	244
October	31	315.0097	11,500.5097	23,001	630
November	168	1,727.5190	8,963.0190	17,926	3,455
December	325	3,336.6783	13,197.6783	26,395	6,673
January	-55	-561.6954	13,632.3046	27,265	-1,123
February	17	175.0739	9,868.0739	19,736	350
March	153	1,573.4047	7,605.4047	15,211	3,147
<b>TOTAL</b>	<b>732</b>	<b>7,524.79</b>	<b>94,194.7869</b>	<b>188,390</b>	<b>15,050</b>

Regression Output:

Constant 4,932.18961702  
Std Err of Y Est 3,085.64258783  
R Squared 0.47586496  
  
X Coefficient 10.27428957  
Std Err of Coef. 3.40982062



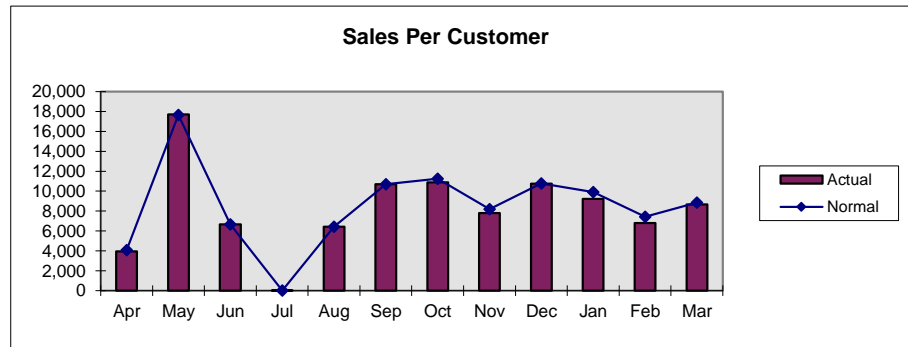
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,885	2	3,942.5000	136	182
May	35,442	2	17,721.0000	67	45
June	13,314	2	6,657.0000	0	1
July	21	2	10.5000	0	0
August	12,853	2	6,426.5000	0	0
September	21,385	2	10,692.5000	13	15
October	21,764	2	10,882.0000	33	168
November	15,597	2	7,798.5000	308	451
December	21,486	2	10,743.0000	683	695
January	18,455	2	9,227.5000	546	795
February	13,565	2	6,782.5000	385	617
March	17,323	2	8,661.5000	365	438
<b>TOTAL</b>	<b>199,090</b>	<b>24</b>	<b>99,545.0000</b>	<b>2,536</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	46.2200	127.4278	4,069.9278	8,140	255
May	-22.1200	-60.9845	17,660.0155	35,320	-122
June	1.2600	3.4738	6,660.4738	13,321	7
July	0.0000	0.0000	10.5000	21	0
August	0.1000	0.2757	6,426.7757	12,854	1
September	1.8600	5.1280	10,697.6280	21,395	10
October	134.6600	371.2554	11,253.2554	22,507	743
November	143.1400	394.6346	8,193.1346	16,386	789
December	11.7600	32.4221	10,775.4221	21,551	65
January	249.3300	687.3986	9,914.8986	19,830	1,375
February	232.0400	639.7304	7,422.2304	14,844	1,279
March	73.1400	201.6458	8,863.1458	17,726	403
<b>TOTAL</b>	<b>871.3900</b>	<b>2,402.4077</b>	<b>101,947.4077</b>	<b>203,895</b>	<b>4,805</b>

Regression Output:

Constant 7,712.77420825  
Std Err of Y Est 4,469.78359589  
R Squared 0.02337891  
  
X Coefficient 2.75698324  
Std Err of Coef. 5.63488436



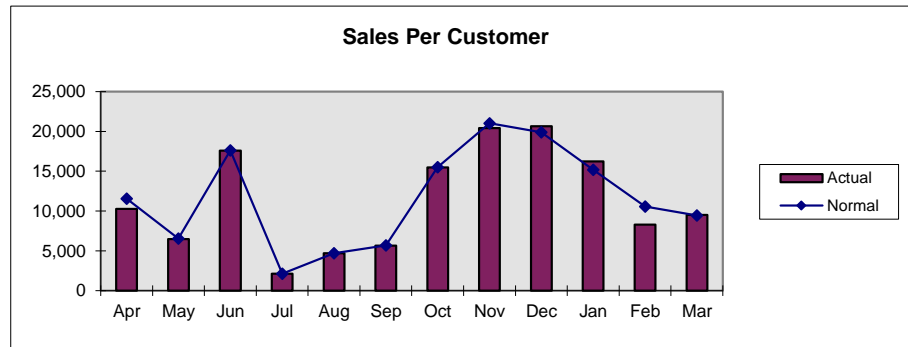
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	20,539	2	10,269.5000	76	182
May	12,983	2	6,491.5000	41	45
June	35,179	2	17,589.5000	0	1
July	4,265	2	2,132.5000	0	0
August	9,408	2	4,704.0000	0	0
September	11,283	2	5,641.5000	12	15
October	30,936	2	15,468.0000	163	168
November	40,811	2	20,405.5000	399	451
December	41,307	2	20,653.5000	758	695
January	32,497	2	16,248.5000	886	795
February	16,603	2	8,301.5000	429	617
March	19,005	2	9,502.5000	444	438
<b>TOTAL</b>	<b>274,816</b>	<b>24</b>	<b>137,408.0000</b>	<b>3,208</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	106.2200	1,270.4580	11,539.9580	23,080	2,541
May	3.8800	46.4072	6,537.9072	13,076	93
June	1.2600	15.0704	17,604.5704	35,209	30
July	0.0000	0.0000	2,132.5000	4,265	0
August	0.1000	1.1961	4,705.1961	9,410	2
September	2.8600	34.2074	5,675.7074	11,351	68
October	4.6600	55.7365	15,523.7365	31,047	111
November	52.1400	623.6272	21,029.1272	42,058	1,247
December	-63.2400	-756.3902	19,897.1098	39,794	-1,513
January	-90.6700	-1,084.4702	15,164.0298	30,328	-2,169
February	188.0400	2,249.0766	10,550.5766	21,101	4,498
March	-5.8600	-70.0893	9,432.4107	18,865	-140
<b>TOTAL</b>	<b>199.3900</b>	<b>2,384.8297</b>	<b>139,792.8297</b>	<b>279,584</b>	<b>4,768</b>

Regression Output:

Constant 8,253.19189208  
Std Err of Y Est 5,417.72113062  
R Squared 0.34412224  
  
X Coefficient 11.96062883  
Std Err of Coef. 5.22166603



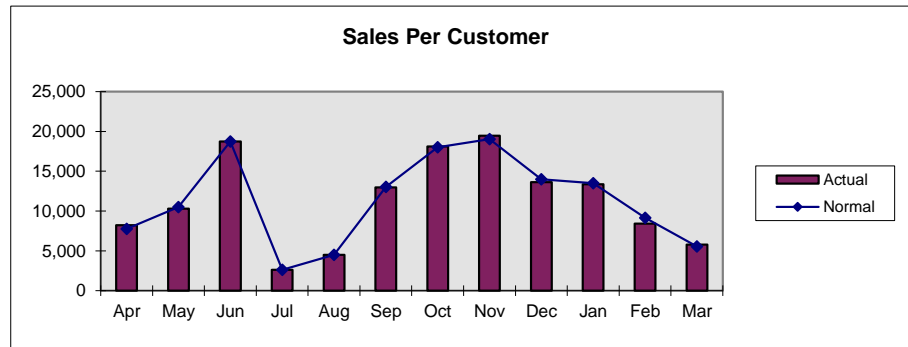
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	16,468	2	8,234.0000	295	182
May	20,600	2	10,300.0000	1	45
June	37,443	2	18,721.5000	0	1
July	5,241	2	2,620.5000	0	0
August	8,988	2	4,494.0000	0	0
September	25,931	2	12,965.5000	2	15
October	36,189	2	18,094.5000	190	168
November	38,910	2	19,455.0000	551	451
December	27,269	2	13,634.5000	613	695
January	26,745	2	13,372.5000	766	795
February	16,843	2	8,421.5000	443	617
March	17,383	3	5,794.3333	493	438
<b>TOTAL</b>	<b>278,010</b>	<b>25</b>	<b>136,107.8333</b>	<b>3,354</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-112.7800	-477.0589	7,756.9411	15,514	-954
May	43.8800	185.6122	10,485.6122	20,971	371
June	1.2600	5.3298	18,726.8298	37,454	11
July	0.0000	0.0000	2,620.5000	5,241	0
August	0.1000	0.4230	4,494.4230	8,989	1
September	12.8600	54.3977	13,019.8977	26,040	109
October	-22.3400	-94.4981	18,000.0019	36,000	-189
November	-99.8600	-422.4074	19,032.5926	38,065	-845
December	81.7600	345.8445	13,980.3445	27,961	692
January	29.3300	124.0658	13,496.5658	26,993	248
February	174.0400	736.1885	9,157.6885	18,315	1,472
March	-54.8600	-232.0576	5,562.2757	16,687	-696
<b>TOTAL</b>	<b>53.3900</b>	<b>225.8395</b>	<b>136,333.6728</b>	<b>278,230</b>	<b>220</b>

Regression Output:

Constant 10,160.03557778  
Std Err of Y Est 5,787.52774099  
R Squared 0.04543905  
  
X Coefficient 4.22999595  
Std Err of Coef. 6.13094166



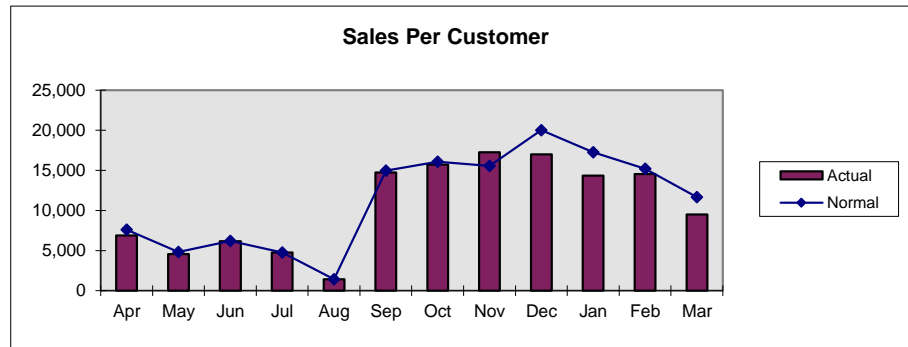
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	13,788	2	6,894.0000	137	182
May	9,094	2	4,547.0000	27	45
June	12,359	2	6,179.5000	0	1
July	9,547	2	4,773.5000	0	0
August	2,845	2	1,422.5000	0	0
September	29,494	2	14,747.0000	0	15
October	31,419	2	15,709.5000	143	168
November	34,525	2	17,262.5000	559	451
December	34,024	2	17,012.0000	503	695
January	28,722	2	14,361.0000	610	795
February	29,104	2	14,552.0000	576	617
March	19,015	2	9,507.5000	300	438
<b>TOTAL</b>	<b>253,936</b>	<b>24</b>	<b>126,968.0000</b>	<b>2,855</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	45.2200	710.0878	7,604.0878	15,208	1,420
May	17.8800	280.7689	4,827.7689	9,656	562
June	1.2600	19.7857	6,199.2857	12,399	40
July	0.0000	0.0000	4,773.5000	9,547	0
August	0.1000	1.5703	1,424.0703	2,848	3
September	14.8600	233.3460	14,980.3460	29,961	467
October	24.6600	387.2350	16,096.7350	32,193	774
November	-107.8600	-1,693.7212	15,568.7788	31,138	-3,387
December	191.7600	3,011.1996	20,023.1996	40,046	6,022
January	185.3300	2,910.2295	17,271.2295	34,542	5,820
February	41.0400	644.4495	15,196.4495	30,393	1,289
March	138.1400	2,169.2069	11,676.7069	23,353	4,338
<b>TOTAL</b>	<b>552.3900</b>	<b>8,674.1580</b>	<b>135,642.1580</b>	<b>271,284</b>	<b>17,348</b>

Regression Output:

Constant 6,844.67080146  
Std Err of Y Est 4,126.66542712  
R Squared 0.51043712  
  
X Coefficient 15.70295985  
Std Err of Coef. 4.86311612



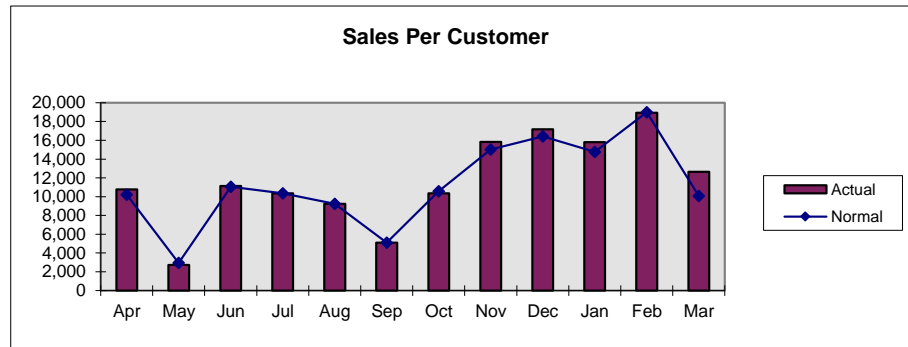
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	21,568	2	10,784.0000	357	302
May	5,429	2	2,714.5000	78	99
June	22,292	2	11,146.0000	22	14
July	20,696	2	10,348.0000	0	0
August	18,476	2	9,238.0000	0	0
September	10,204	2	5,102.0000	2	1
October	20,723	2	10,361.5000	39	60
November	31,687	2	15,843.5000	401	322
December	34,323	2	17,161.5000	640	570
January	31,615	2	15,807.5000	846	749
February	37,863	2	18,931.5000	774	780
March	25,289	2	12,644.5000	751	510
<b>TOTAL</b>	<b>280,165</b>	<b>24</b>	<b>140,082.5000</b>	<b>3,910</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-54.5900	-580.4291	10,203.5709	20,407	-1,161
May	21.0800	224.1335	2,938.6335	5,877	448
June	-8.2300	-87.5056	11,058.4944	22,117	-175
July	0.0600	0.6380	10,348.6380	20,697	1
August	0.1000	1.0633	9,239.0633	18,478	2
September	-0.7000	-7.4428	5,094.5572	10,189	-15
October	21.3100	226.5789	10,588.0789	21,176	453
November	-78.5600	-835.2906	15,008.2094	30,016	-1,671
December	-69.9500	-743.7446	16,417.7554	32,836	-1,487
January	-97.2200	-1,033.6933	14,773.8067	29,548	-2,067
February	5.5600	59.1168	18,990.6168	37,981	118
March	-241.4700	-2,567.4340	10,077.0660	20,154	-5,135
<b>TOTAL</b>	<b>-502.6100</b>	<b>-5,344.0095</b>	<b>134,738.4905</b>	<b>269,476</b>	<b>-10,689</b>

Regression Output:

Constant 8,209.11311509  
Std Err of Y Est 3,224.40383264  
R Squared 0.58766845  
  
X Coefficient 10.63251729  
Std Err of Coef. 2.81639261



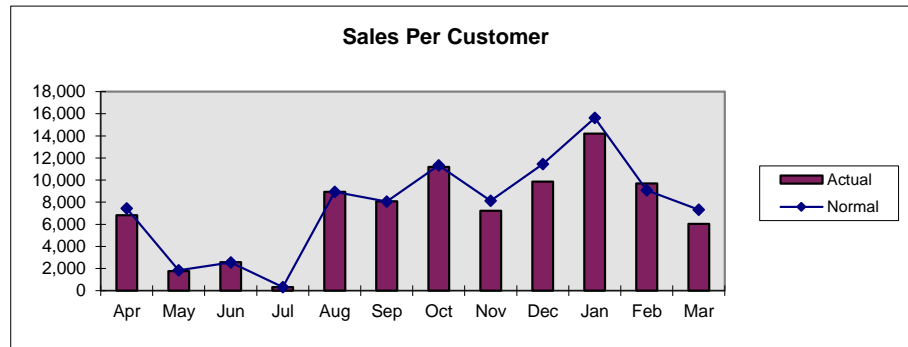
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	13,637	2	6,818.5000	221	302
May	3,534	2	1,767.0000	89	99
June	5,132	2	2,566.0000	15	14
July	641	2	320.5000	0	0
August	17,849	2	8,924.5000	0	0
September	16,145	2	8,072.5000	3	1
October	22,371	2	11,185.5000	40	60
November	14,471	2	7,235.5000	206	322
December	19,722	2	9,861.0000	362	570
January	28,388	2	14,194.0000	563	749
February	19,386	2	9,693.0000	861	780
March	12,064	2	6,032.0000	340	510
<b>TOTAL</b>	<b>173,340</b>	<b>24</b>	<b>86,670.0000</b>	<b>2,700</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	81.4100	624.1358	7,442.6358	14,885	1,248
May	10.0800	77.2791	1,844.2791	3,689	155
June	-1.2300	-9.4299	2,556.5701	5,113	-19
July	0.0600	0.4600	320.9600	642	1
August	0.1000	0.7667	8,925.2667	17,851	2
September	-1.7000	-13.0332	8,059.4668	16,119	-26
October	20.3100	155.7081	11,341.2081	22,682	311
November	116.4400	892.6959	8,128.1959	16,256	1,785
December	208.0500	1,595.0308	11,456.0308	22,912	3,190
January	185.7800	1,424.2962	15,618.2962	31,237	2,849
February	-81.4400	-624.3658	9,068.6342	18,137	-1,249
March	169.5300	1,299.7144	7,331.7144	14,663	2,599
<b>TOTAL</b>	<b>707.3900</b>	<b>5,423.2581</b>	<b>92,093.2581</b>	<b>184,186</b>	<b>10,846</b>

Regression Output:

Constant 5,497.52075855  
Std Err of Y Est 3,670.48173865  
R Squared 0.25835156  
  
X Coefficient 7.66657441  
Std Err of Coef. 4.10766345





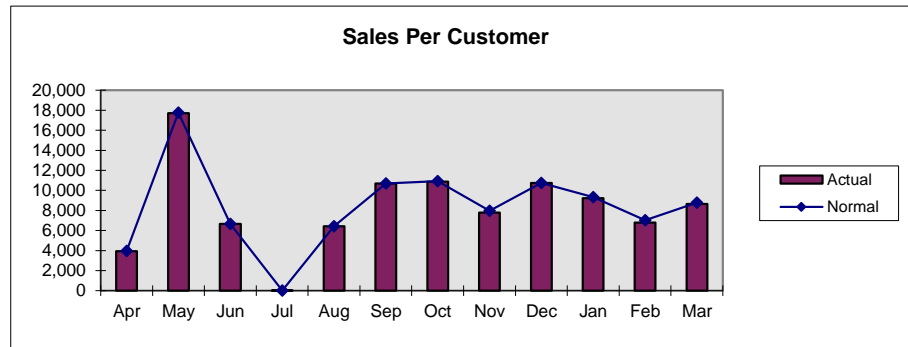
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,885	2	3,942.5000	287	302
May	35,442	2	17,721.0000	54	99
June	13,314	2	6,657.0000	15	14
July	21	2	10.5000	0	0
August	12,853	2	6,426.5000	0	0
September	21,385	2	10,692.5000	0	1
October	21,764	2	10,882.0000	19	60
November	15,597	2	7,798.5000	139	322
December	21,486	2	10,743.0000	576	570
January	18,455	2	9,227.5000	624	749
February	13,565	2	6,782.5000	497	780
March	17,323	2	8,661.5000	377	510
<b>TOTAL</b>	<b>199,090</b>	<b>24</b>	<b>99,545.0000</b>	<b>2,588</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	15.4100	13.8950	3,956.3950	7,913	28
May	45.0800	40.6482	17,761.6482	35,523	81
June	-1.2300	-1.1091	6,655.8909	13,312	-2
July	0.0600	0.0541	10.5541	21	0
August	0.1000	0.0902	6,426.5902	12,853	0
September	1.3000	1.1722	10,693.6722	21,387	2
October	41.3100	37.2488	10,919.2488	21,838	74
November	183.4400	165.4059	7,963.9059	15,928	331
December	-5.9500	-5.3651	10,737.6349	21,475	-11
January	124.7800	112.5128	9,340.0128	18,680	225
February	282.5600	254.7814	7,037.2814	14,075	510
March	132.5300	119.5009	8,781.0009	17,562	239
<b>TOTAL</b>	<b>819.3900</b>	<b>738.8353</b>	<b>100,283.8353</b>	<b>200,567</b>	<b>1,477</b>

Regression Output:

Constant 8,100.95226622  
Std Err of Y Est 4,517.05533661  
R Squared 0.00261249  
  
X Coefficient 0.90168965  
Std Err of Coef. 5.57136334



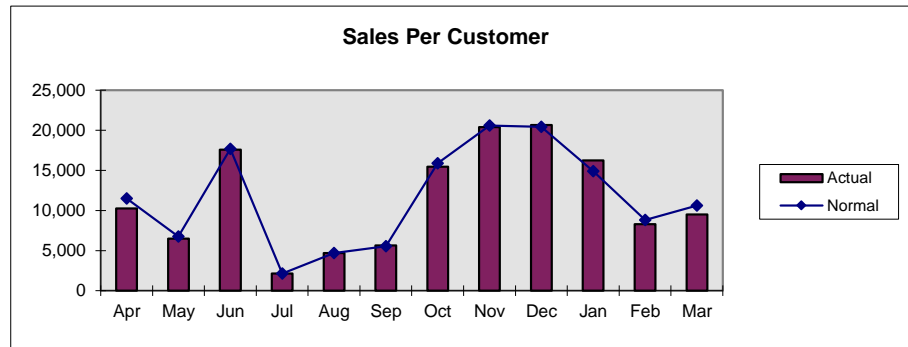
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	20,539	2	10,269.5000	150	302
May	12,983	2	6,491.5000	65	99
June	35,179	2	17,589.5000	3	14
July	4,265	2	2,132.5000	0	0
August	9,408	2	4,704.0000	0	0
September	11,283	2	5,641.5000	12	1
October	30,936	2	15,468.0000	9	60
November	40,811	2	20,405.5000	299	322
December	41,307	2	20,653.5000	596	570
January	32,497	2	16,248.5000	916	749
February	16,603	2	8,301.5000	715	780
March	19,005	2	9,502.5000	369	510
<b>TOTAL</b>	<b>274,816</b>	<b>24</b>	<b>137,408.0000</b>	<b>3,134</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	152.4100	1,213.3736	11,482.8736	22,966	2,427
May	34.0800	271.3193	6,762.8193	13,526	543
June	10.7700	85.7426	17,675.2426	35,350	171
July	0.0600	0.4777	2,132.9777	4,266	1
August	0.1000	0.7961	4,704.7961	9,410	2
September	-10.7000	-85.1853	5,556.3147	11,113	-170
October	51.3100	408.4916	15,876.4916	31,753	817
November	23.4400	186.6116	20,592.1116	41,184	373
December	-25.9500	-206.5944	20,446.9056	40,894	-413
January	-167.2200	-1,331.2797	14,917.2203	29,834	-2,663
February	64.5600	513.9781	8,815.4781	17,631	1,028
March	140.5300	1,118.7940	10,621.2940	21,243	2,238
<b>TOTAL</b>	<b>273.3900</b>	<b>2,176.5252</b>	<b>139,584.5252</b>	<b>279,170</b>	<b>4,354</b>

Regression Output:

Constant 9,371.45439015  
Std Err of Y Est 6,126.11903098  
R Squared 0.16138916  
  
X Coefficient 7.96124675  
Std Err of Coef. 5.73884027



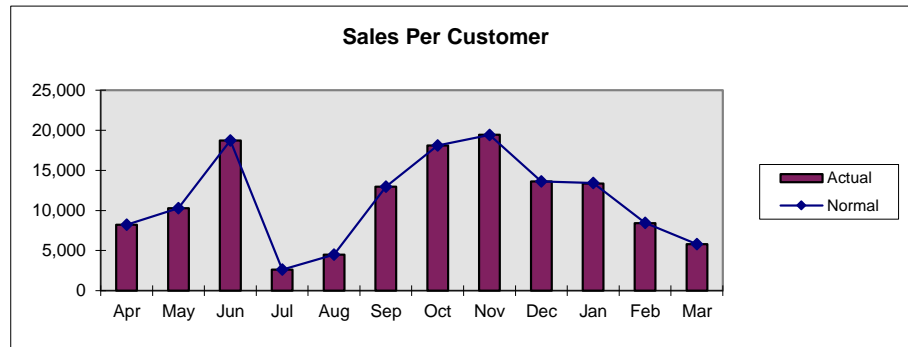
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	16,468	2	8,234.0000	350	302
May	20,600	2	10,300.0000	121	99
June	37,443	2	18,721.5000	0	14
July	5,241	2	2,620.5000	0	0
August	8,988	2	4,494.0000	0	0
September	25,931	2	12,965.5000	0	1
October	36,189	2	18,094.5000	31	60
November	38,910	2	19,455.0000	423	322
December	27,269	2	13,634.5000	601	570
January	26,745	2	13,372.5000	612	749
February	16,843	2	8,421.5000	666	780
March	17,383	3	5,794.3333	511	510
<b>TOTAL</b>	<b>278,010</b>	<b>25</b>	<b>136,107.8333</b>	<b>3,315</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-47.5900	-15.0815	8,218.9185	16,438	-30
May	-21.9200	-6.9465	10,293.0535	20,586	-14
June	13.7700	4.3638	18,725.8638	37,452	9
July	0.0600	0.0190	2,620.5190	5,241	0
August	0.1000	0.0317	4,494.0317	8,988	0
September	1.3000	0.4120	12,965.9120	25,932	1
October	29.3100	9.2885	18,103.7885	36,208	19
November	-100.5600	-31.8679	19,423.1321	38,846	-64
December	-30.9500	-9.8082	13,624.6918	27,249	-20
January	136.7800	43.3462	13,415.8462	26,832	87
February	113.5600	35.9877	8,457.4877	16,915	72
March	-1.4700	-0.4658	5,793.8675	17,382	-1
<b>TOTAL</b>	<b>92.3900</b>	<b>29.2790</b>	<b>136,137.1123</b>	<b>278,069</b>	<b>59</b>

Regression Output:

Constant 11,254.77462601  
Std Err of Y Est 5,922.96187740  
R Squared 0.00024089  
  
X Coefficient 0.31690432  
Std Err of Coef. 6.45601212



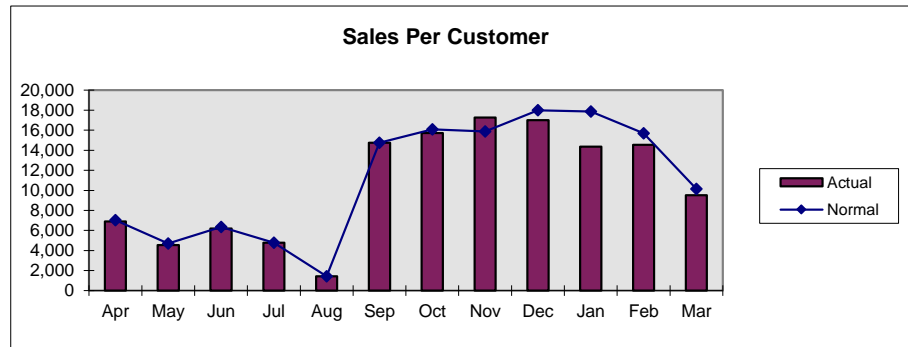
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	13,788	2	6,894.0000	291	302
May	9,094	2	4,547.0000	87	99
June	12,359	2	6,179.5000	0	14
July	9,547	2	4,773.5000	0	0
August	2,845	2	1,422.5000	0	0
September	29,494	2	14,747.0000	0	1
October	31,419	2	15,709.5000	30	60
November	34,525	2	17,262.5000	434	322
December	34,024	2	17,012.0000	491	570
January	28,722	2	14,361.0000	465	749
February	29,104	2	14,552.0000	687	780
March	19,015	2	9,507.5000	458	510
<b>TOTAL</b>	<b>253,936</b>	<b>24</b>	<b>126,968.0000</b>	<b>2,943</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	11.4100	140.5641	7,034.5641	14,069	281
May	12.0800	148.8181	4,695.8181	9,392	298
June	13.7700	169.6379	6,349.1379	12,698	339
July	0.0600	0.7392	4,774.2392	9,548	1
August	0.1000	1.2319	1,423.7319	2,847	2
September	1.3000	16.0152	14,763.0152	29,526	32
October	30.3100	373.4005	16,082.9005	32,166	747
November	-111.5600	-1,374.3503	15,888.1497	31,776	-2,749
December	79.0500	973.8472	17,985.8472	35,972	1,948
January	283.7800	3,495.9943	17,856.9943	35,714	6,992
February	92.5600	1,140.2820	15,692.2820	31,385	2,281
March	51.5300	634.8178	10,142.3178	20,285	1,270
<b>TOTAL</b>	<b>464.3900</b>	<b>5,720.9979</b>	<b>132,688.9979</b>	<b>265,378</b>	<b>11,442</b>

Regression Output:

Constant 7,559.33820222  
Std Err of Y Est 4,917.29015559  
R Squared 0.30487703  
  
X Coefficient 12.31938212  
Std Err of Coef. 5.88243842



SOURCE: Revenue Workpaper R-30-5.00 (Non-Print).

THERMS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	0	0	0	0	0	0	0	24,620	33,629	38,796	31,615	28,388	18,455	32,497	26,745	28,722
February	-	0	0	0	0	0	0	0	20,899	26,956	31,609	37,863	19,386	13,565	16,603	16,843	29,104
March	-	0	0	0	0	0	0	8,020	8,762	27,750	33,413	25,289	12,064	17,323	19,005	17,383	19,015
April	-	0	0	0	0	0	0	6,800	10,806	20,123	21,568	13,637	7,885	20,539	16,468	13,788	-
May	-	0	0	0	0	0	0	4,460	1,514	14,415	5,429	3,534	35,442	12,983	20,600	9,094	-
June	-	0	0	0	0	0	0	0	0	22,292	5,132	13,314	35,179	37,443	12,359	-	-
July	-	0	0	0	0	0	0	0	3,645	0	20,696	641	21	4,265	5,241	9,547	-
August	-	0	0	0	0	0	0	0	6,088	2,666	18,476	17,849	12,853	9,408	8,988	2,845	-
September	-	0	0	0	0	0	0	0	2,749	21,096	10,204	16,145	21,385	11,283	25,931	29,494	-
October	0	0	0	0	0	0	0	0	17,683	31,142	20,723	22,371	21,764	30,936	36,189	31,419	-
November	0	0	0	0	0	0	0	14,573	24,754	31,629	31,687	14,471	15,597	40,811	38,910	34,525	-
December	0	0	0	0	0	0	0	20,311	27,341	41,106	34,323	19,722	21,486	41,307	27,269	34,024	-
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>54,164</b>	<b>148,861</b>	<b>250,512</b>	<b>289,216</b>	<b>208,269</b>	<b>209,585</b>	<b>256,054</b>	<b>285,144</b>	<b>238,066</b>	<b>76,841</b>

BILLS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	0	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
February	-	0	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
March	-	0	1	1	1	1	1	2	1	2	2	2	2	2	2	3	2
April	-	1	1	1	1	1	1	2	1	2	2	2	2	2	2	2	-
May	-	1	1	1	1	1	1	2	1	2	2	2	2	2	2	2	-
June	-	1	1	1	1	1	1	2	1	2	2	2	2	2	2	2	-
July	-	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	-
August	-	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	-
September	-	1	1	1	1	1	1	2	2	3	2	2	2	2	2	2	-
October	0	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	-
November	0	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	-
December	0	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	-
<b>Total</b>	<b>0</b>	<b>9</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>22</b>	<b>20</b>	<b>25</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>25</b>	<b>6</b>

Usage/Bill	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,462.00	7,443.05	10,020.48	12,050.67	8,677.88	8,732.71	10,668.92	11,881.00	9,522.64	12,806.83
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This workpaper is too voluminous to print and is only being provided in electronic format.

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Large Firm Transportation Service Revenue Forecast**

Total Large Firm General Service (LFTS) Margin	Billing Determinant	Rate	Margin
<b>Customer Charges:</b>			
Annual	928 A/	\$800.00000 D/	\$742,400
<b>Total Customer Charge Margin</b>	<b>928</b>		<b>\$742,400</b>
<b>Commodity Charges:</b>			
Step 1 - 0 to 15,000 Therms per Month	11,456,640 B/	\$0.09195 D/	\$1,053,438
Step 2 - 15,001 to 40,000 Therms per Month	6,719,886 B/	0.08466 D/	568,906
Step 3 - 40,001 to 90,000 Therms per Month	2,958,716 B/	0.05963 D/	176,428
Step 4 - Over 90,000 Therms per Month	500,933 B/	0.02277 D/	11,406
<b>Total Commodity Charge Margin</b>	<b>21,636,175</b>		<b>\$1,810,178</b>
<b>Billing Demand:</b>			
Billing Demand (Dkt)	176,764 C/	8.00000 D/	\$1,414,115
<b>Total Billing Demand Margin</b>	<b>176,764</b>		<b>\$1,414,115</b>
<b>Minimum Margin Agreement Margin</b>			
Under Armour			\$0 E/
<b>Total Minimum Margin Agreement Margin</b>			<b>\$0</b>
<b>Total LFTS Margin</b>			<b>\$3,966,693</b>
<hr/>			
<b>LFTS Gas Cost:</b>			
Demand	176,764	8.2829 D/	\$1,464,122
<b>Total LFTS Gas Cost</b>			<b>\$1,464,122</b>
<hr/>			
<b>LFTS Other Charges:</b>			
Integrity Management Rider Surcharge			0 F/
Docket 18-00040 Excess ADIT			0 G/
<b>Total LFTS Other Charges</b>			<b>0</b>
<b>Total LFTS Revenues</b>			<b>\$5,430,815</b>

A/ WHN Revenue Workpaper R-35-1.04.

B/ WHN Revenue Workpaper R-35-1.02.

C/ WHN Revenue Workpaper R-35-1.03.

D/ WHN Revenue Workpaper R-110-1.00.

E/ Minimum Margin Agreement Contracts were never approved by the Commission. See WHN Workpaper R-60-2.00 for details.

F/ IMR Surcharge is excluded from the Consumer Advocate's case. See WHN Revenue Workpaper R-55-1.00 for details.

G/ Excess ADIT is excluded from the Consumer Advocate's case. See WHN Workpaper R-60-1.00 for details.



SOURCE: Couzens Workpaper - Sales &amp; Transportation Pro Forma Revenue, A-Summary Pro Forma Revs

Total LFTS Margin	Billing Determinant	Rate	Margin
<b>Customer Charges:</b>			
Annual	928	\$800.00	\$742,400
<b>Total Customer Charge Margin</b>	<b>928</b>		<b>\$742,400</b>
<b>Commodity Charges:</b>			
Step 1 - 0 to 15,000 Therms per Month	10,750,896	\$0.09195	\$988,545
Step 2 - 15,001 to 40,000 Therms per Month	6,432,621	0.08466	544,586
Step 3 - 40,001 to 90,000 Therms per Month	3,050,468	0.05963	181,899
Step 4 - Over 90,000 Therms per Month	797,430	0.02277	18,157
<b>Total Commodity Charge Margin</b>	<b>21,031,415</b>		<b>\$1,733,187</b>
<b>Billing Demand:</b>			
Billing Demand (Dkt)	160,281	8.00000	\$1,282,248
<b>Total Billing Demand Margin</b>	<b>160,281</b>		<b>\$1,282,248</b>
<b>Minimum Margin Agreement Margin</b>			
Core Civic of Tennessee			\$238,800
<b>Total Minimum Margin Agreement Margin</b>			<b>\$238,800</b>
<b>Total LFTS Margin</b>			<b>\$3,996,635</b>
<b>Gas Cost:</b>			
Demand	160,281	\$8.28290	\$1,327,591
<b>Total Gas Cost</b>			<b>\$1,327,591</b>
<b>Other Charges:</b>			
Integrity Management Rider Surcharge			\$1,284,614
Docket 18-00040 Excess ADIT	21,031,415	-\$0.00685	-144,065
<b>Total Other Charges</b>			<b>\$1,140,549</b>
<b>Total Revenues</b>			<b>\$6,464,775</b>

	Step 1	Step 2	Step 3	Step 4	Total	
Attrition Period Large Firm Transportation Service (LFTS) Usage	11,456,640	6,719,886	2,958,716	500,933	21,636,175	A/
Step Percentage	52.95%	31.06%	13.67%	2.32%	100.00%	

**Summary:**

For the 12 Months Ended March 31, 2015	52.59%	32.53%	12.94%	1.94%	100.00%
For the 12 Months Ended March 31, 2016	56.00%	31.74%	11.30%	0.96%	100.00%
For the 12 Months Ended March 31, 2017	57.39%	29.99%	12.13%	0.49%	100.00%
For the 12 Months Ended March 31, 2018	50.83%	31.00%	15.45%	2.73%	100.00%
For the 12 Months Ended March 31, 2019	50.14%	30.47%	15.48%	3.92%	100.00%
For the 12 Months Ended March 31, 2020	50.75%	30.63%	14.76%	3.86%	100.00%
<b>Average</b>	<b>52.95%</b>	<b>31.06%</b>	<b>13.67%</b>	<b>2.32%</b>	<b>100.00%</b>

For the 12 Months Ended March 31, 2015	Step 1	Step 2	Step 3	Step 4	Total	B/
April-14	879,084	433,518	148,457	0	1,461,059	
May	760,949	356,259	119,886	35,167	1,272,261	
June	665,466	315,828	103,876	11,178	1,096,348	
July	667,938	327,935	112,671	8,721	1,117,265	
August	653,466	319,027	124,357	8,439	1,105,289	
September	686,871	347,083	109,673	21,859	1,165,486	
October	817,123	429,396	170,814	18,074	1,435,407	
November	1,071,152	669,519	301,357	29,095	2,071,123	
December	1,084,333	748,262	326,340	74,492	2,233,427	
January-15	1,091,886	937,871	403,641	83,219	2,516,617	
February	1,090,271	953,790	398,485	85,167	2,527,713	
March	1,055,584	670,561	269,346	12,581	2,008,072	
<b>Total</b>	<b>10,524,123</b>	<b>6,509,049</b>	<b>2,588,903</b>	<b>387,992</b>	<b>20,010,067</b>	
<b>Step Percentage</b>	<b>52.59%</b>	<b>32.53%</b>	<b>12.94%</b>	<b>1.94%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2016	Step 1	Step 2	Step 3	Step 4	Total	B/
April-15	810,577	426,969	127,665	10,794	1,376,005	
May	730,261	360,212	92,407	0	1,182,880	
June	679,298	319,015	104,753	12,421	1,115,487	
July	672,038	305,525	99,717	6,464	1,083,744	
August	688,632	340,147	108,405	0	1,137,184	
September	771,107	355,186	94,008	27,397	1,247,698	
October	835,097	438,016	134,148	4,547	1,411,808	
November	973,745	495,270	207,052	11,069	1,687,136	
December	1,053,412	585,878	191,228	0	1,830,518	
January-16	1,170,568	990,082	444,383	78,254	2,683,287	
February	1,144,349	762,957	318,162	28,490	2,253,958	
March	986,465	580,281	200,275	0	1,767,021	
<b>Total</b>	<b>10,515,549</b>	<b>5,959,538</b>	<b>2,122,203</b>	<b>179,436</b>	<b>18,776,726</b>	
<b>Step Percentage</b>	<b>56.00%</b>	<b>31.74%</b>	<b>11.30%</b>	<b>0.96%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2017	Step 1	Step 2	Step 3	Step 4	Total	B/
April-16	861,880	432,369	178,007	12,147	1,484,403	
May	791,472	372,571	133,974	0	1,298,017	
June	705,496	271,590	126,986	2,673	1,106,745	
July	685,152	253,932	125,299	0	1,064,383	
August	716,727	275,864	130,011	0	1,122,602	
September	724,729	283,059	130,684	0	1,138,472	
October	808,501	356,251	150,343	0	1,315,095	
November	972,032	529,060	169,946	9,102	1,680,140	
December	1,119,840	790,969	342,913	38,225	2,291,947	
January-17	1,090,451	749,308	314,067	12,568	2,166,394	
February	1,023,815	566,865	208,417	9,528	1,808,625	
March	1,015,175	612,583	211,576	6,330	1,845,664	
<b>Total</b>	<b>10,515,270</b>	<b>5,494,421</b>	<b>2,222,223</b>	<b>90,573</b>	<b>18,322,487</b>	
<b>Step Percentage</b>	<b>57.39%</b>	<b>29.99%</b>	<b>12.13%</b>	<b>0.49%</b>	<b>100.00%</b>	

A/ WHN Revenue Workpaper R-35-1.04.

B/ WHN Revenue Workpaper R-35-5.00 (Non-Print).

For the 12 Months Ended March 31, 2018	Step 1	Step 2	Step 3	Step 4	Total	B/
April-17	814,587	335,451	137,342	0	1,287,380	
May	775,849	332,178	129,056	0	1,237,083	
June	733,071	297,580	187,214	29,017	1,246,882	
July	703,904	272,080	179,400	26,710	1,182,094	
August	727,402	341,265	210,369	74,336	1,353,372	
September	749,826	351,471	194,536	28,160	1,323,993	
October	866,448	521,993	226,341	49,376	1,664,158	
November	1,017,571	674,350	277,415	48,101	2,017,437	
December	1,119,476	923,219	420,750	67,726	2,531,171	
January-18	1,134,604	1,043,486	602,348	133,606	2,914,044	
February	1,026,312	711,761	345,464	54,327	2,137,864	
March	1,077,970	748,902	355,294	65,062	2,247,228	
<b>Total</b>	<b>10,747,020</b>	<b>6,553,736</b>	<b>3,265,529</b>	<b>576,421</b>	<b>21,142,706</b>	
<b>Step Percentage</b>	<b>50.83%</b>	<b>31.00%</b>	<b>15.45%</b>	<b>2.73%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2019	Step 1	Step 2	Step 3	Step 4	Total	B/
April-18	1,017,687	611,010	282,393	62,019	1,973,109	
May	777,759	353,213	216,180	63,015	1,410,167	
June	723,508	291,837	211,755	61,560	1,288,660	
July	713,952	266,490	190,143	43,777	1,214,362	
August	723,758	322,891	222,993	84,243	1,353,885	
September	740,103	310,828	195,565	33,254	1,279,750	
October	940,524	522,768	226,761	55,844	1,745,897	
November	1,114,196	801,970	341,657	70,002	2,327,825	
December	1,122,982	873,517	406,350	76,579	2,479,428	
January-19	1,140,736	981,504	504,901	151,227	2,778,368	
February	1,114,039	734,746	323,035	93,887	2,265,707	
March	1,102,349	755,226	345,385	82,353	2,285,313	
<b>Total</b>	<b>11,231,593</b>	<b>6,826,000</b>	<b>3,467,118</b>	<b>877,760</b>	<b>22,402,471</b>	
<b>Step Percentage</b>	<b>50.14%</b>	<b>30.47%</b>	<b>15.48%</b>	<b>3.92%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2020	Step 1	Step 2	Step 3	Step 4	Total	B/
April-19	893,535	501,749	222,381	48,931	1,666,596	
May	786,742	383,962	214,115	65,039	1,449,858	
June	704,853	346,611	216,541	48,893	1,316,898	
July	684,506	338,641	189,280	53,864	1,266,291	
August	702,524	338,483	206,538	71,895	1,319,440	
September	689,178	293,152	161,546	49,269	1,193,145	
October	849,547	475,830	241,731	78,545	1,645,653	
November	1,059,265	698,579	291,061	63,170	2,112,075	
December	1,035,318	728,848	332,408	78,156	2,174,730	
January-20	1,063,467	841,795	353,141	93,226	2,351,629	
February	1,059,080	797,541	368,112	83,282	2,308,015	
March	962,319	585,430	253,614	63,160	1,864,523	
<b>Total</b>	<b>10,490,334</b>	<b>6,330,621</b>	<b>3,050,468</b>	<b>797,430</b>	<b>20,668,853</b>	
<b>Step Percentage</b>	<b>50.75%</b>	<b>30.63%</b>	<b>14.76%</b>	<b>3.86%</b>	<b>100.00%</b>	

A/ WHN Revenue Workpaper R-35-1.04.

B/ WHN Revenue Workpaper R-35-5.00 (Non-Print).

	Amount
Attrition Period Large Firm Transportation Service (LFTS) Usage	21,636,175 A/
Average Billing Demand Percentage	0.81%
<b>Attrition Period Large Firm Transportation Service (LFTS) Billing Demand</b>	<b>175,945</b>
CONTAINS CONFIDENTIAL PROPRIETARY DATA	
<b>Total LFTS Billing Demand</b>	<b>176,764</b>

## Billing Demand Summary:

	Demand	Usage	Percentage
For the 12 Months Ended March 31, 2015	163,077	20,010,067	0.81%
For the 12 Months Ended March 31, 2016	167,351	18,776,726	0.89%
For the 12 Months Ended March 31, 2017	161,254	18,322,487	0.88%
For the 12 Months Ended March 31, 2018	157,846	21,142,706	0.75%
For the 12 Months Ended March 31, 2019	173,567	22,402,471	0.77%
For the 12 Months Ended March 31, 2020	159,462	20,668,853	0.77%
<b>Average</b>	<b>163,760</b>	<b>20,220,552</b>	<b>0.81%</b>

## Billing Demand - For the 12 Months Ended March

	2015	2016	2017	2018	2019	2020	B/
April	11,604	13,995	14,065	13,036	13,152	14,638	
May	11,604	14,112	14,128	13,036	13,152	14,638	
June	14,124	13,809	13,392	13,216	14,828	13,126	
July	13,994	13,809	13,392	13,216	14,682	13,000	
August	13,994	13,809	13,392	13,216	14,682	13,000	
September	13,994	13,809	13,392	13,216	14,682	13,000	
October	13,994	13,809	13,493	13,152	14,732	13,000	
November	13,994	14,001	13,493	13,152	14,732	13,311	
December	13,994	14,001	13,219	13,152	14,732	12,937	
January	13,895	14,065	13,219	13,152	14,732	12,937	
February	13,945	14,065	13,036	13,152	14,732	12,937	
March	13,945	14,065	13,036	13,152	14,732	12,937	
<b>Total</b>	<b>163,077</b>	<b>167,351</b>	<b>161,254</b>	<b>157,846</b>	<b>173,567</b>	<b>159,462</b>	

## Usage - For the 12 Months Ended March

	2015	2016	2017	2018	2019	2020	B/
April	1,461,059	1,376,005	1,484,403	1,287,380	1,973,109	1,666,596	
May	1,272,261	1,182,880	1,298,017	1,237,083	1,410,167	1,449,858	
June	1,096,348	1,115,487	1,106,745	1,246,882	1,288,660	1,316,898	
July	1,117,265	1,083,744	1,064,383	1,182,094	1,214,362	1,266,291	
August	1,105,289	1,137,184	1,122,602	1,353,372	1,353,885	1,319,440	
September	1,165,486	1,247,698	1,138,472	1,323,993	1,279,750	1,193,145	
October	1,435,407	1,411,808	1,315,095	1,664,158	1,745,897	1,645,653	
November	2,071,123	1,687,136	1,680,140	2,017,437	2,327,825	2,112,075	
December	2,233,427	1,830,518	2,291,947	2,531,171	2,479,428	2,174,730	
January	2,516,617	2,683,287	2,166,394	2,914,044	2,778,368	2,351,629	
February	2,527,713	2,253,958	1,808,625	2,137,864	2,265,707	2,308,015	
March	2,008,072	1,767,021	1,845,664	2,247,228	2,285,313	1,864,523	
<b>Total</b>	<b>20,010,067</b>	<b>18,776,726</b>	<b>18,322,487</b>	<b>21,142,706</b>	<b>22,402,471</b>	<b>20,668,853</b>	

A/ WHN Revenue Workpaper R-35-1.04.

B/ WHN Revenue Workpaper R-35-4.00.

C/ WHN Revenue Workpaper R-35-1.06.

D/ WHN Revenue Workpaper R-35-1.07.

Attrition Period Monthly Growth in LFTS Bills

		0	A/
	Growth	Total	
Test Period Number of LFTS Bills - 12 Months Ended March, 2020		916	A/
April-20	0	916	
May-20	0	916	
June-20	0	916	
July-20	0	916	
August-20	0	916	
September-20	0	916	
October-20	0	916	
November-20	0	916	
December-20	0	916	
January-21	0	916	
February-21	0	916	
March-21	0	916	
April-21	0	916	
May-21	0	916	
June-21	0	916	
July-21	0	916	
August-21	0	916	
September-21	0	916	
October-21	0	916	
November-21	0	916	
December-21	0	916	

Attrition Period LFTS Bills	916	
Normalized Usage per Bill (Therms)	23,580.6976	B/
<b>Total LFTS Sales Volume - Therms</b>	<b>21,599,919</b>	
CONTAINS CONFIDENTIAL PROPRIETARY DATA		
<b>Total LFTS Usage - Therms</b>	<b>21,636,175</b>	C/ D/
Attrition Period Bills	916	
CONTAINS CONFIDENTIAL PROPRIETARY DATA		
<b>Total LFTS Bills</b>	<b>928</b>	C/ D/

A/ WHN Revenue Workpaper R-35-1.05.

B/ WHN Revenue Workpaper R-35-2.00.

C/ WHN Revenue Workpaper R-35-1.06.

D/ WHN Revenue Workpaper R-35-1.07.

Historic Bill Counts:

For the 12 Months Ended March

MONTH	2015	2016	2017	2018	2019	2020
April	82	77	80	80	78	79
May	82	77	79	79	79	78
June	77	78	82	79	80	77
July	76	78	81	79	78	76
August	76	78	81	79	78	76
September	76	78	81	79	78	77
October	76	78	82	78	79	76
November	76	79	82	78	79	77
December	76	79	82	78	79	75
January	75	80	80	78	79	75
February	76	80	80	78	79	75
March	77	80	81	78	79	75
<b>Total</b>	<b>925</b>	<b>942</b>	<b>971</b>	<b>943</b>	<b>945</b>	<b>916</b>

Source: WHN Revenue Workpaper R-35-4.00.

Annual Bill Growth Calculation:

Year	Bills	Growth
2015	925	-
2016	942	17
2017	971	29
2018	943	-28
2019	945	2
2020	916	-29

Five-Year Average -2

Four-Year Average -7

Three-Year Average -18

Two-Year Average -14

One-Year Average -29

Manual Input 0

Zero growth (0) was chosen as the most representative of the Attrition Year.

Annual Bill Growth Forecast	0
Test Period Bills	916
<b>Annual Percentage Growth</b>	<b>0.00%</b>

Annual Bill Growth Forecast	0
Months per Year	12
<b>Monthly Bill Growth</b>	<b>0</b>

**WASTE MANAGEMENT-MYATT - NEW CUSTOMER**

CONTAINS CONFIDENTIAL PROPRIETARY DATA

SOURCE: Couzens Workpaper - Sales & Transportation Pro Forma Revenue, Customer Usage Adjustments

TRILLIUM CNG - INCREASED USAGE PROJECTION

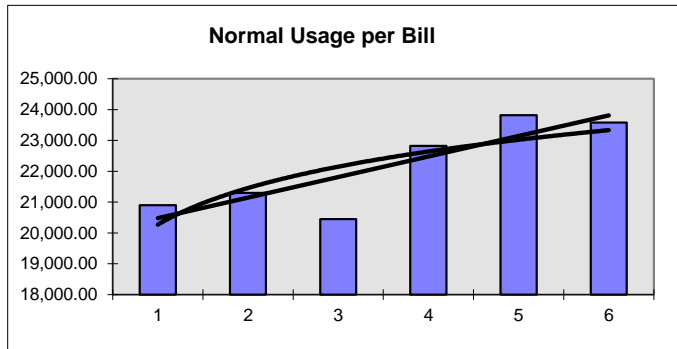
Rate	Description	Jan-20	Feb-20	Mar-20	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Total	Winter	Summer
313/343 Test Period	FT-Motor Vehicle Fuel															
	Bills															
	Demand															
	DTs - First 1,500															
	DTs - Next 2,500															
	DTs - Next 5,000															
	DTs - Over 9,000															
	Total															
313/343 Attr Period	FT-Motor Vehicle Fuel															
	Bills															
	Demand															
	DTs - First 1,500															
	DTs - Next 2,500															
	DTs - Next 5,000															
	DTs - Over 9,000															
	Total															
313/343 Adjustment	FT-Motor Vehicle Fuel															
	Bills															
	Demand															
	DTs - First 1,500															
	DTs - Next 2,500															
	DTs - Next 5,000															
	DTs - Over 9,000															
	Total															

CONTAINS CONFIDENTIAL PROPRIETARY DATA



Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2015	1	20,903.1308	20,480.0948	20,512.2056	-
2016	2	21,301.0987	21,146.2594	21,135.5024	1.90%
2017	3	20,445.6787	21,812.4240	21,777.7392	-4.02%
2018	4	22,825.1972	22,478.5886	22,439.4914	11.64%
2019	5	23,817.2349	23,144.7532	23,121.3520	4.35%
2020	6	23,580.6976	23,810.9178	23,823.9320	-0.99%
Forecast	7.25		<b>24,643.6236</b>	<b>24,732.2547</b>	<b>24,342.3880</b>

Regression Statistics		
	Linear	Logarithmic
Constant	19,813.930222	9.898841
X Coefficient	666.164602	0.029934
R Squared	0.742286	0.734227

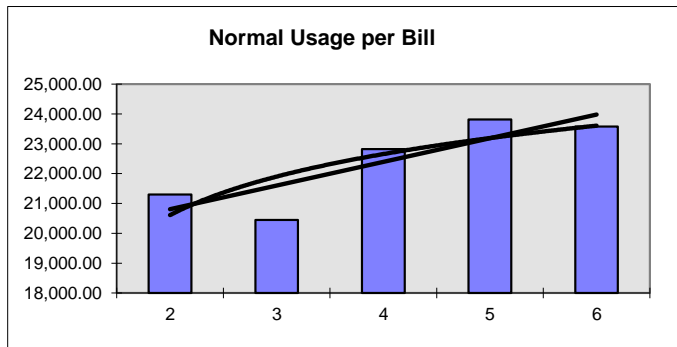


**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - LFTS Conservation and Growth-5 Year Analysis**  
Calendar Data

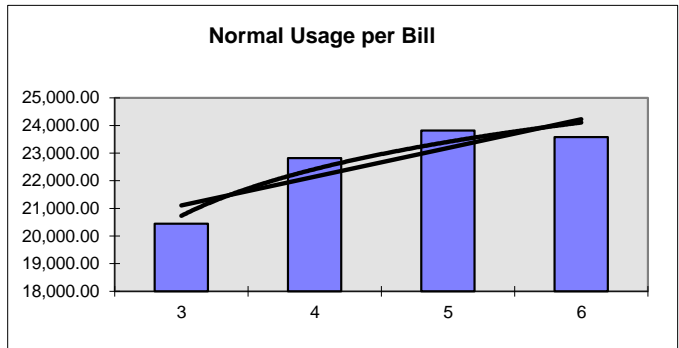
Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2016	2	21,301.0987	20,807.8306	20,818.6898	-
2017	3	20,445.6787	21,600.9060	21,573.1371	-4.02%
2018	4	22,825.1972	22,393.9814	22,354.9248	11.64%
2019	5	23,817.2349	23,187.0568	23,165.0436	4.35%
2020	6	23,580.6976	23,980.1322	24,004.5203	-0.99%
Forecast	7.25		<b>24,971.4765</b>	<b>25,096.7751</b>	<b>24,392.2340</b>

Regression Statistics		
	Linear	Logarithmic
Constant	19,221.679841	9.872411
X Coefficient	793.075398	0.035598
R Squared	0.730495	0.720015



Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2017	3	20,445.6787	21,107.6379	21,084.5673	-
2018	4	22,825.1972	22,147.3474	22,100.3376	11.64%
2019	5	23,817.2349	23,187.0568	23,165.0436	4.35%
2020	6	23,580.6976	24,226.7663	24,281.0430	-0.99%
Forecast	7.25		<b>25,526.4031</b>	<b>25,751.9492</b>	<b>25,062.7295</b>

Regression Statistics		
	Linear	Logarithmic
Constant	17,988.509619	9.815142
X Coefficient	1,039.709443	0.047052
R Squared	0.759427	0.753779

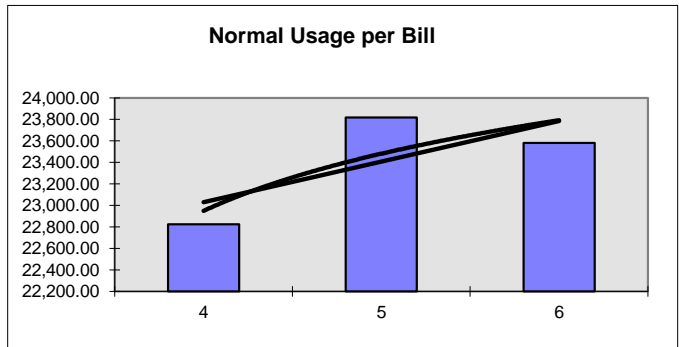


**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - LFTS Conservation and Growth-3 Year Analysis**  
Calendar Data

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2018	4	22,825.1972	23,029.9597	23,025.8915	-
2019	5	23,817.2349	23,407.7099	23,403.8610	4.35%
2020	6	23,580.6976	23,785.4601	23,788.0348	-0.99%
Forecast	7.25		<b>24,257.6478</b>	<b>24,277.1322</b>	<b>24,075.9073</b>

Regression Statistics		
	Linear	Logarithmic
Constant	21,518.959032	9.979248
X Coefficient	377.750178	0.016282
R Squared	0.531496	0.535539



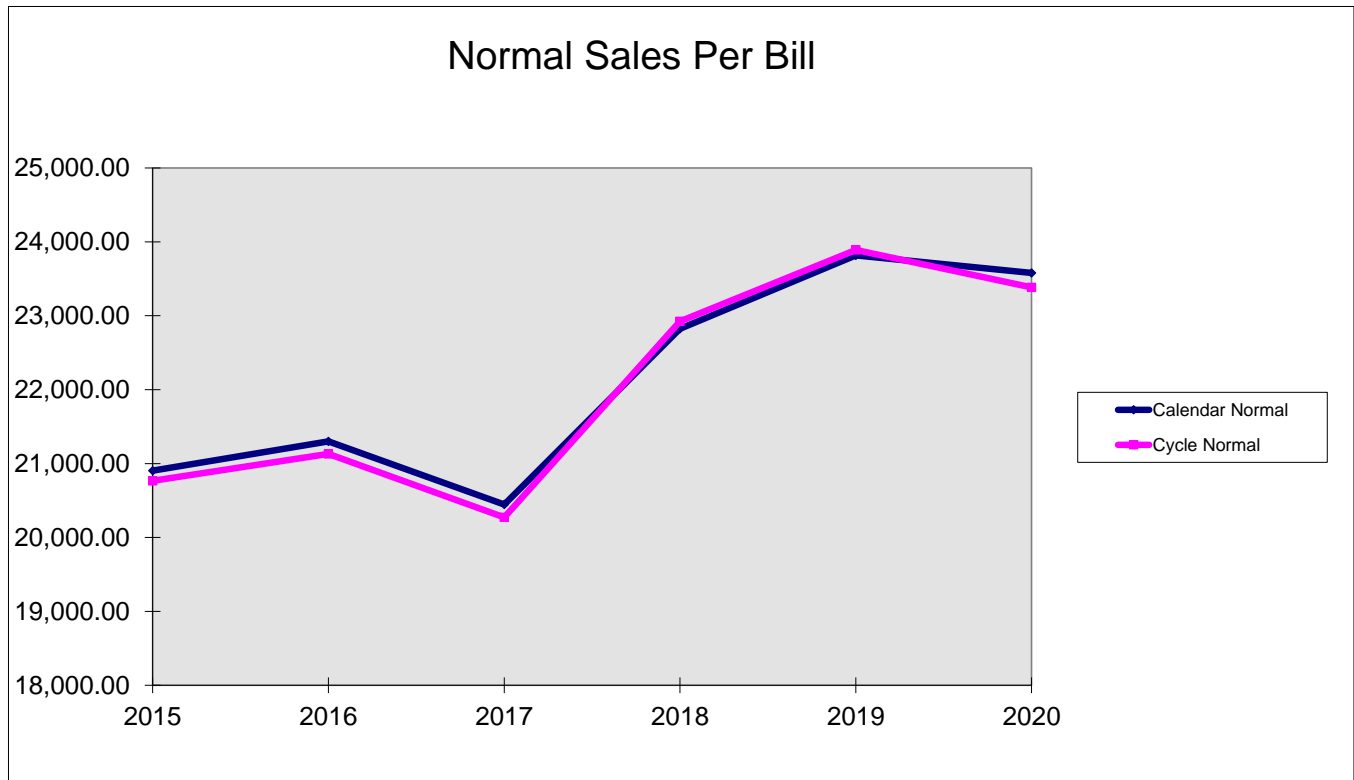
Trend	From The 12 Months Ended		Calendar Data	
	Month	Year	Time Series Forecast	Adjusted Forecast
Linear Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Logarithmic Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Year To Year Change	March	2015	24,342.3880	24,342.3880
	March	2016	24,392.2340	24,392.2340
	March	2017	25,062.7295	
	March	2018	24,075.9073	
<b>Average</b>			<b>24,468.3147</b>	<b>24,367.3110</b>
One Standard Deviation			363.6476	
<b>Upper</b> End of Range			24,831.9623	
<b>Lower</b> End of Range			24,104.6671	
Number in Range			2.0000	
Weighted Average Forecast at Midpoint				<b>24,367.3110</b>
Test Period Amount				<b>23,580.6976</b>
Compound Growth Factor				<b>1.03335836</b>
Annualized Growth Rate				<b>1.02659883</b>
Test Period Sales				20,668,853
Weather Adjustment				931,066
Normal Sales				<b>21,599,919</b>
Usage Adjustment				720,538
Adjusted Sales				<b>22,320,457</b>

CALENDAR DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	20,010,067	925	251,624.4229	19,335,396	-674,671	98.91%	20,903.1308
2016	18,776,726	942	254,773.9571	20,065,635	1,288,909	99.16%	21,301.0987
2017	18,322,487	971	245,432.9499	19,852,754	1,530,267	97.23%	20,445.6787
2018	21,142,706	943	274,440.3536	21,524,161	381,455	97.17%	22,825.1972
2019	22,402,471	945	285,612.1105	22,507,287	104,816	98.57%	23,817.2349
2020	20,668,853	916	283,764.5349	21,599,919	931,066	96.51%	23,580.6976

CYCLE DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	20,010,067	925	250,139.5606	19,210,031	-800,036	88.08%	20,767.6011
2016	18,776,726	942	252,692.3312	19,904,640	1,127,914	78.92%	21,130.1911
2017	18,322,487	971	243,373.8550	19,684,067	1,361,580	91.26%	20,271.9537
2018	21,142,706	943	275,611.5402	21,617,615	474,909	84.52%	22,924.3001
2019	22,402,471	945	286,499.5872	22,576,361	173,890	88.27%	23,890.3291
2020	20,668,853	916	281,408.5723	21,419,779	750,926	86.91%	23,384.0382



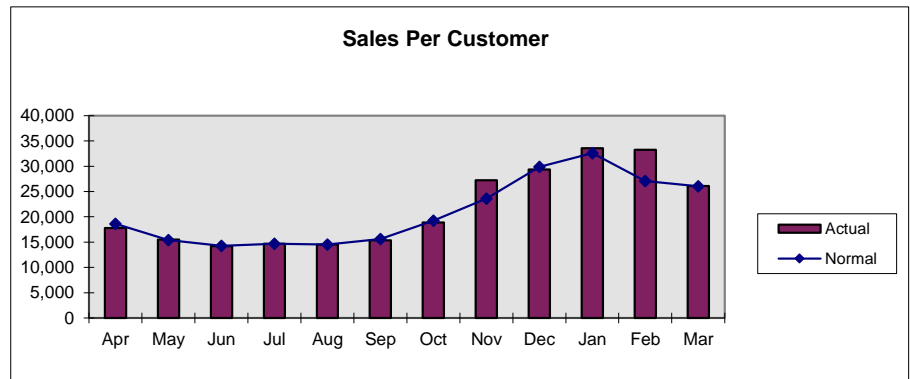
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,461,059	82	17,817.7927	144	182
May	1,272,261	82	15,515.3780	50	45
June	1,096,348	77	14,238.2857	0	1
July	1,117,265	76	14,700.8553	0	0
August	1,105,289	76	14,543.2763	0	0
September	1,165,486	76	15,335.3421	3	15
October	1,435,407	76	18,886.9342	150	168
November	2,071,123	76	27,251.6184	621	451
December	2,233,427	76	29,387.1974	671	695
January	2,516,617	75	33,554.8933	840	795
February	2,527,713	76	33,259.3816	905	617
March	2,008,072	77	26,078.8571	441	438
<b>TOTAL</b>	<b>20,010,067</b>	<b>925</b>	<b>260,569.8122</b>	<b>3,825</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	38	818.6892	18,636.4819	1,528,192	67,133
May	-5	-109.6726	15,405.7054	1,263,268	-8,993
June	1	26.9898	14,265.2755	1,098,426	2,078
July	0	0.0000	14,700.8553	1,117,265	0
August	0	2.1420	14,545.4183	1,105,452	163
September	12	254.0464	15,589.3885	1,184,794	19,308
October	18	378.2849	19,265.2191	1,464,157	28,750
November	-170	-3,638.4757	23,613.1427	1,794,599	-276,524
December	24	508.9496	29,896.1470	2,272,107	38,680
January	-45	-956.8510	32,598.0423	2,444,853	-71,764
February	-288	-6,168.2294	27,091.1522	2,058,928	-468,785
March	-3	-61.2625	26,017.5946	2,003,355	-4,717
<b>TOTAL</b>	<b>-418</b>	<b>-8,945.3893</b>	<b>251,624.4229</b>	<b>19,335,396</b>	<b>-674,671</b>

Regression Output:

Constant 14,886.38630212  
Std Err of Y Est 835.65016800  
R Squared 0.98910371  
  
X Coefficient 21.42043832  
Std Err of Coef. 0.71096271



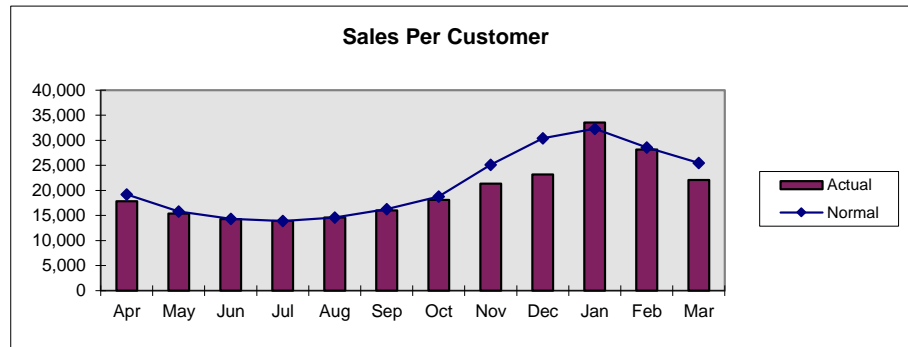
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,376,005	77	17,870.1948	123	182
May	1,182,880	77	15,362.0779	24	45
June	1,115,487	78	14,301.1154	0	1
July	1,083,744	78	13,894.1538	0	0
August	1,137,184	78	14,579.2821	0	0
September	1,247,698	78	15,996.1282	3	15
October	1,411,808	78	18,100.1026	137	168
November	1,687,136	79	21,356.1519	283	451
December	1,830,518	79	23,171.1139	370	695
January	2,683,287	80	33,541.0875	850	795
February	2,253,958	80	28,174.4750	600	617
March	1,767,021	80	22,087.7625	285	438
<b>TOTAL</b>	<b>18,776,726</b>	<b>942</b>	<b>238,433.6456</b>	<b>2,675</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	59	1,321.2540	19,191.4488	1,477,742	101,737
May	21	465.8525	15,827.9304	1,218,751	35,871
June	1	28.1118	14,329.2272	1,117,680	2,193
July	0	0.0000	13,894.1538	1,083,744	0
August	0	2.2311	14,581.5132	1,137,358	174
September	12	264.6078	16,260.7360	1,268,337	20,639
October	31	684.0535	18,784.1561	1,465,164	53,356
November	168	3,751.3619	25,107.5138	1,983,494	296,358
December	325	7,245.7018	30,416.8157	2,402,928	572,410
January	-55	-1,219.7392	32,321.3483	2,585,708	-97,579
February	17	380.1785	28,554.6535	2,284,372	30,414
March	153	3,416.6978	25,504.4603	2,040,357	273,336
<b>TOTAL</b>	<b>732</b>	<b>16,340.31</b>	<b>254,773.9571</b>	<b>20,065,635</b>	<b>1,288,909</b>

Regression Output:

Constant 14,895.98948116  
Std Err of Y Est 586.02968643  
R Squared 0.99164529  
  
X Coefficient 22.31094274  
Std Err of Coef. 0.64759804



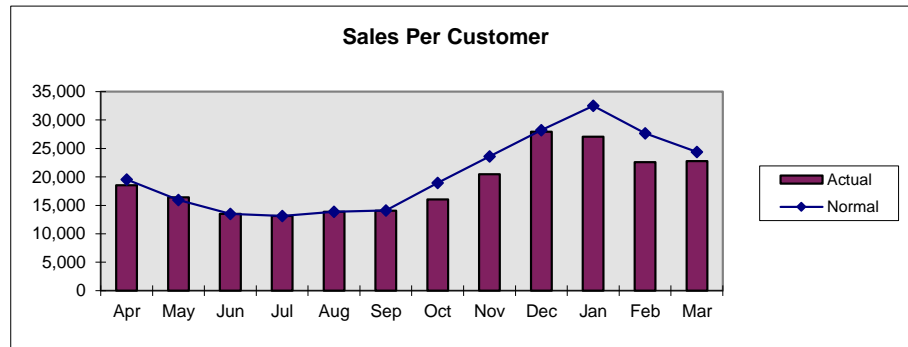
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,484,403	80	18,555.0375	136	182
May	1,298,017	79	16,430.5949	67	45
June	1,106,745	82	13,496.8902	0	1
July	1,064,383	81	13,140.5309	0	0
August	1,122,602	81	13,859.2840	0	0
September	1,138,472	81	14,055.2099	13	15
October	1,315,095	82	16,037.7439	33	168
November	1,680,140	82	20,489.5122	308	451
December	2,291,947	82	27,950.5732	683	695
January	2,166,394	80	27,079.9250	546	795
February	1,808,625	80	22,607.8125	385	617
March	1,845,664	81	22,785.9753	365	438
<b>TOTAL</b>	<b>18,322,487</b>	<b>971</b>	<b>226,489.0894</b>	<b>2,536</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	46.2200	1,004.8144	19,559.8519	1,564,788	80,385
May	-22.1200	-480.8848	15,949.7101	1,260,027	-37,990
June	1.2600	27.3922	13,524.2824	1,108,991	2,246
July	0.0000	0.0000	13,140.5309	1,064,383	0
August	0.1000	2.1740	13,861.4580	1,122,778	176
September	1.8600	40.4361	14,095.6460	1,141,747	3,275
October	134.6600	2,927.4840	18,965.2279	1,555,149	240,054
November	143.1400	3,111.8376	23,601.3498	1,935,311	255,171
December	11.7600	255.6603	28,206.2335	2,312,911	20,964
January	249.3300	5,420.3889	32,500.3139	2,600,025	433,631
February	232.0400	5,044.5075	27,652.3200	2,212,186	403,561
March	73.1400	1,590.0503	24,376.0256	1,974,458	128,794
<b>TOTAL</b>	<b>871.3900</b>	<b>18,943.8605</b>	<b>245,432.9499</b>	<b>19,852,754</b>	<b>1,530,267</b>

Regression Output:

Constant 14,279.74248004  
Std Err of Y Est 920.02668847  
R Squared 0.97232439  
  
X Coefficient 21.73981849  
Std Err of Coef. 1.15984228



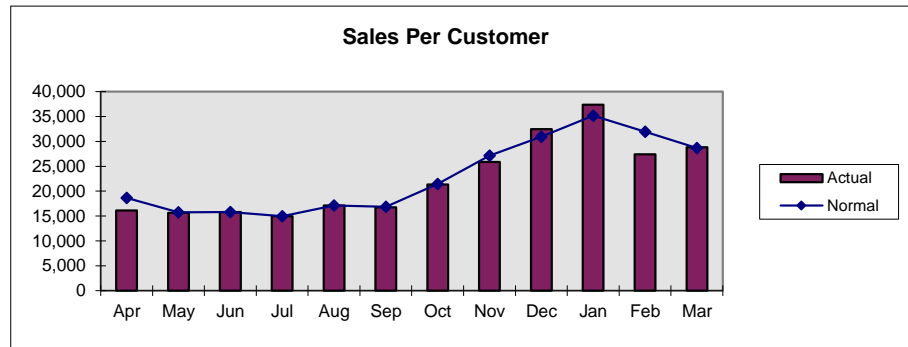
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,287,380	80	16,092.2500	76	182
May	1,237,083	79	15,659.2785	41	45
June	1,246,882	79	15,783.3165	0	1
July	1,182,094	79	14,963.2152	0	0
August	1,353,372	79	17,131.2911	0	0
September	1,323,993	79	16,759.4051	12	15
October	1,664,158	78	21,335.3590	163	168
November	2,017,437	78	25,864.5769	399	451
December	2,531,171	78	32,450.9103	758	695
January	2,914,044	78	37,359.5385	886	795
February	2,137,864	78	27,408.5128	429	617
March	2,247,228	78	28,810.6154	444	438
<b>TOTAL</b>	<b>21,142,706</b>	<b>943</b>	<b>269,618.2691</b>	<b>3,208</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	106.2200	2,568.8441	18,661.0941	1,492,888	205,508
May	3.8800	93.8346	15,753.1131	1,244,496	7,413
June	1.2600	30.4721	15,813.7886	1,249,289	2,407
July	0.0000	0.0000	14,963.2152	1,182,094	0
August	0.1000	2.4184	17,133.7095	1,353,563	191
September	2.8600	69.1668	16,828.5719	1,329,457	5,464
October	4.6600	112.6983	21,448.0573	1,672,948	8,790
November	52.1400	1,260.9634	27,125.5403	2,115,792	98,355
December	-63.2400	-1,529.4079	30,921.5024	2,411,877	-119,294
January	-90.6700	-2,192.7801	35,166.7584	2,743,007	-171,037
February	188.0400	4,547.5941	31,956.1069	2,492,576	354,712
March	-5.8600	-141.7193	28,668.8961	2,236,174	-11,054
<b>TOTAL</b>	<b>199.3900</b>	<b>4,822.0845</b>	<b>274,440.3536</b>	<b>21,524,161</b>	<b>381,455</b>

Regression Output:

Constant 16,002.95030514  
Std Err of Y Est 1,354.19197145  
R Squared 0.97169821  
  
X Coefficient 24.18418500  
Std Err of Coef. 1.30518682





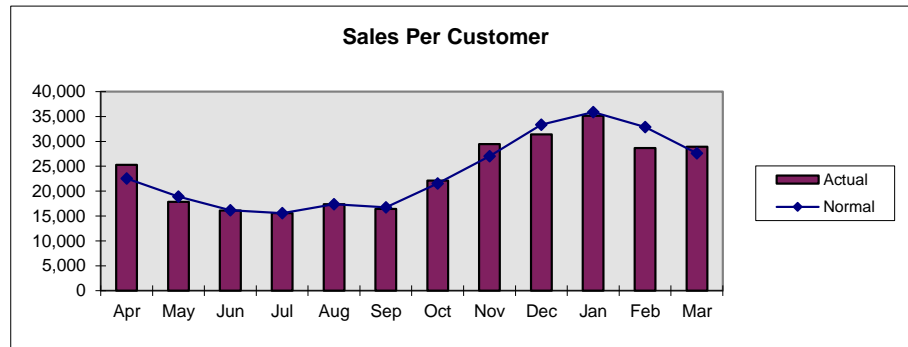
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,973,109	78	25,296.2692	295	182
May	1,410,167	79	17,850.2152	1	45
June	1,288,660	80	16,108.2500	0	1
July	1,214,362	78	15,568.7436	0	0
August	1,353,885	78	17,357.5000	0	0
September	1,279,750	78	16,407.0513	2	15
October	1,745,897	79	22,099.9620	190	168
November	2,327,825	79	29,466.1392	551	451
December	2,479,428	79	31,385.1646	613	695
January	2,778,368	79	35,169.2152	766	795
February	2,265,707	79	28,679.8354	443	617
March	2,285,313	79	28,928.0127	493	438
<b>TOTAL</b>	<b>22,402,471</b>	<b>945</b>	<b>284,316.3584</b>	<b>3,354</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-112.7800	-2,737.1219	22,559.1473	1,759,613	-213,496
May	43.8800	1,064.9486	18,915.1638	1,494,298	84,131
June	1.2600	30.5797	16,138.8297	1,291,106	2,446
July	0.0000	0.0000	15,568.7436	1,214,362	0
August	0.1000	2.4270	17,359.9270	1,354,074	189
September	12.8600	312.1066	16,719.1579	1,304,094	24,344
October	-22.3400	-542.1822	21,557.7798	1,703,065	-42,832
November	-99.8600	-2,423.5591	27,042.5801	2,136,364	-191,461
December	81.7600	1,984.2799	33,369.4445	2,636,186	156,758
January	29.3300	711.8264	35,881.0416	2,834,602	56,234
February	174.0400	4,223.8756	32,903.7110	2,599,393	333,686
March	-54.8600	-1,331.4285	27,596.5842	2,180,130	-105,183
<b>TOTAL</b>	<b>53.3900</b>	<b>1,295.7521</b>	<b>285,612.1105</b>	<b>22,507,287</b>	<b>104,816</b>

Regression Output:

Constant 16,909.68557570  
Std Err of Y Est 871.94476047  
R Squared 0.98572170  
  
X Coefficient 24.26956813  
Std Err of Coef. 0.92368325



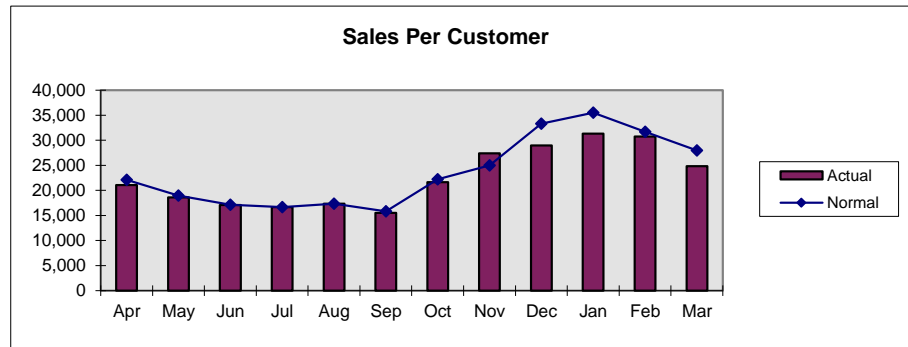
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,666,596	79	21,096.1519	137	182
May	1,449,858	78	18,587.9231	27	45
June	1,316,898	77	17,102.5714	0	1
July	1,266,291	76	16,661.7237	0	0
August	1,319,440	76	17,361.0526	0	0
September	1,193,145	77	15,495.3896	0	15
October	1,645,653	76	21,653.3289	143	168
November	2,112,075	77	27,429.5455	559	451
December	2,174,730	75	28,996.4000	503	695
January	2,351,629	75	31,355.0533	610	795
February	2,308,015	75	30,773.5333	576	617
March	1,864,523	75	24,860.3067	300	438
<b>TOTAL</b>	<b>20,668,853</b>	<b>916</b>	<b>271,372.9801</b>	<b>2,855</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	45.2200	1,014.4031	22,110.5550	1,746,734	80,138
May	17.8800	401.0952	18,989.0183	1,481,143	31,285
June	1.2600	28.2651	17,130.8365	1,319,074	2,176
July	0.0000	0.0000	16,661.7237	1,266,291	0
August	0.1000	2.2433	17,363.2959	1,319,610	170
September	14.8600	333.3487	15,828.7383	1,218,813	25,668
October	24.6600	553.1884	22,206.5173	1,687,695	42,042
November	-107.8600	-2,419.5824	25,009.9631	1,925,767	-186,308
December	191.7600	4,301.6792	33,298.0792	2,497,356	322,626
January	185.3300	4,157.4374	35,512.4907	2,663,437	311,808
February	41.0400	920.6347	31,694.1680	2,377,063	69,048
March	138.1400	3,098.8421	27,959.1488	2,096,936	232,413
<b>TOTAL</b>	<b>552.3900</b>	<b>12,391.5548</b>	<b>283,764.5349</b>	<b>21,599,919</b>	<b>931,066</b>

Regression Output:

Constant 17,277.32087870  
Std Err of Y Est 1,145.12651324  
R Squared 0.96507482  
  
X Coefficient 22.43261980  
Std Err of Coef. 1.34948745



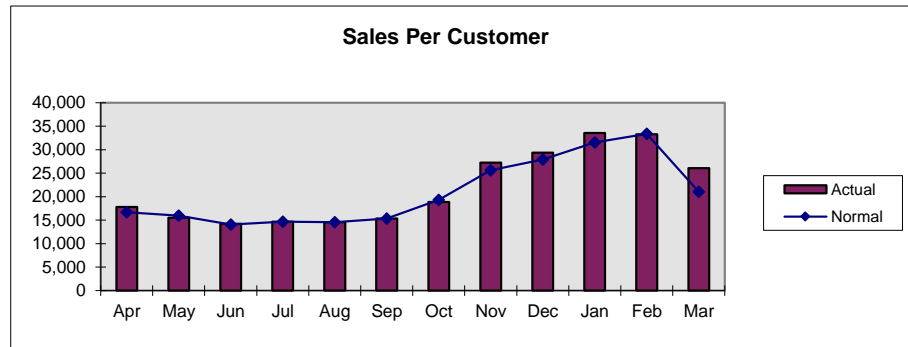
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,461,059	82	17,817.7927	357	302
May	1,272,261	82	15,515.3780	78	99
June	1,096,348	77	14,238.2857	22	14
July	1,117,265	76	14,700.8553	0	0
August	1,105,289	76	14,543.2763	0	0
September	1,165,486	76	15,335.3421	2	1
October	1,435,407	76	18,886.9342	39	60
November	2,071,123	76	27,251.6184	401	322
December	2,233,427	76	29,387.1974	640	570
January	2,516,617	75	33,554.8933	846	749
February	2,527,713	76	33,259.3816	774	780
March	2,008,072	77	26,078.8571	751	510
<b>TOTAL</b>	<b>20,010,067</b>	<b>925</b>	<b>260,569.8122</b>	<b>3,910</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-54.5900	-1,132.8613	16,684.9314	1,368,164	-92,895
May	21.0800	437.4559	15,952.8339	1,308,132	35,871
June	-8.2300	-170.7904	14,067.4953	1,083,197	-13,151
July	0.0600	1.2451	14,702.1004	1,117,360	95
August	0.1000	2.0752	14,545.3515	1,105,447	158
September	-0.7000	-14.5265	15,320.8156	1,164,382	-1,104
October	21.3100	442.2289	19,329.1631	1,469,016	33,609
November	-78.5600	-1,630.2910	25,621.3274	1,947,221	-123,902
December	-69.9500	-1,451.6148	27,935.5826	2,123,104	-110,323
January	-97.2200	-2,017.5266	31,537.3667	2,365,303	-151,314
February	5.5600	115.3821	33,374.7637	2,536,482	8,769
March	-241.4700	-5,011.0282	21,067.8289	1,622,223	-385,849
<b>TOTAL</b>	<b>-502.6100</b>	<b>-10,430.2516</b>	<b>250,139.5606</b>	<b>19,210,031</b>	<b>-800,036</b>

Regression Output:

Constant 14,952.40001187  
Std Err of Y Est 2,764.08833460  
R Squared 0.88078426  
  
X Coefficient 20.75217699  
Std Err of Coef. 2.41432474



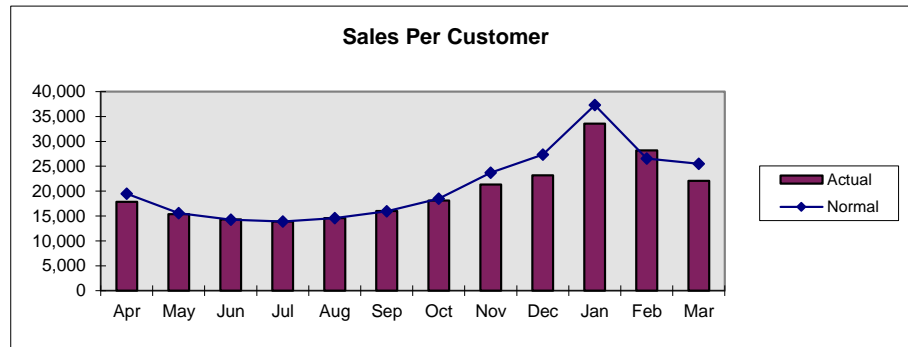
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,376,005	77	17,870.1948	221	302
May	1,182,880	77	15,362.0779	89	99
June	1,115,487	78	14,301.1154	15	14
July	1,083,744	78	13,894.1538	0	0
August	1,137,184	78	14,579.2821	0	0
September	1,247,698	78	15,996.1282	3	1
October	1,411,808	78	18,100.1026	40	60
November	1,687,136	79	21,356.1519	206	322
December	1,830,518	79	23,171.1139	362	570
January	2,683,287	80	33,541.0875	563	749
February	2,253,958	80	28,174.4750	861	780
March	1,767,021	80	22,087.7625	340	510
<b>TOTAL</b>	<b>18,776,726</b>	<b>942</b>	<b>238,433.6456</b>	<b>2,700</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	81.4100	1,640.9613	19,511.1561	1,502,359	126,354
May	10.0800	203.1801	15,565.2580	1,198,525	15,645
June	-1.2300	-24.7928	14,276.3226	1,113,553	-1,934
July	0.0600	1.2094	13,895.3632	1,083,838	94
August	0.1000	2.0157	14,581.2978	1,137,341	157
September	-1.7000	-34.2665	15,961.8617	1,245,025	-2,673
October	20.3100	409.3837	18,509.4863	1,443,740	31,932
November	116.4400	2,347.0523	23,703.2042	1,872,553	185,417
December	208.0500	4,193.6125	27,364.7264	2,161,813	331,295
January	185.7800	3,744.7216	37,285.8091	2,982,865	299,578
February	-81.4400	-1,641.5660	26,532.9090	2,122,633	-131,325
March	169.5300	3,417.1743	25,504.9368	2,040,395	273,374
<b>TOTAL</b>	<b>707.3900</b>	<b>14,258.6856</b>	<b>252,692.3312</b>	<b>19,904,640</b>	<b>1,127,914</b>

Regression Output:

Constant 15,334.20103532  
Std Err of Y Est 2,943.63414095  
R Squared 0.78920515  
  
X Coefficient 20.15675303  
Std Err of Coef. 3.29424289



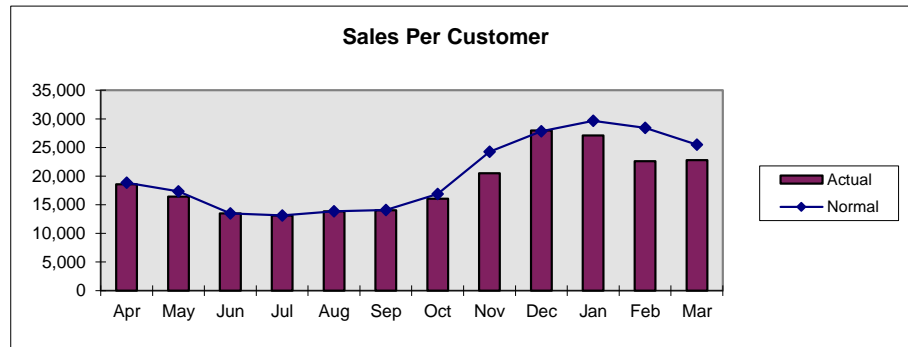
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,484,403	80	18,555.0375	287	302
May	1,298,017	79	16,430.5949	54	99
June	1,106,745	82	13,496.8902	15	14
July	1,064,383	81	13,140.5309	0	0
August	1,122,602	81	13,859.2840	0	0
September	1,138,472	81	14,055.2099	0	1
October	1,315,095	82	16,037.7439	19	60
November	1,680,140	82	20,489.5122	139	322
December	2,291,947	82	27,950.5732	576	570
January	2,166,394	80	27,079.9250	624	749
February	1,808,625	80	22,607.8125	497	780
March	1,845,664	81	22,785.9753	377	510
<b>TOTAL</b>	<b>18,322,487</b>	<b>971</b>	<b>226,489.0894</b>	<b>2,588</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	15.4100	317.5463	18,872.5838	1,509,807	25,404
May	45.0800	928.9413	17,359.5362	1,371,403	73,386
June	-1.2300	-25.3460	13,471.5442	1,104,667	-2,078
July	0.0600	1.2364	13,141.7673	1,064,483	100
August	0.1000	2.0607	13,861.3447	1,122,769	167
September	1.3000	26.7885	14,081.9984	1,140,642	2,170
October	41.3100	851.2548	16,888.9987	1,384,898	69,803
November	183.4400	3,780.0576	24,269.5698	1,990,105	309,965
December	-5.9500	-122.6087	27,827.9645	2,281,893	-10,054
January	124.7800	2,571.2799	29,651.2049	2,372,096	205,702
February	282.5600	5,822.5745	28,430.3870	2,274,431	465,806
March	132.5300	2,730.9803	25,516.9556	2,066,873	221,209
<b>TOTAL</b>	<b>819.3900</b>	<b>16,884.7656</b>	<b>243,373.8550</b>	<b>19,684,067</b>	<b>1,361,580</b>

Regression Output:

Constant 14,429.95416312  
Std Err of Y Est 1,634.71542746  
R Squared 0.91262631  
  
X Coefficient 20.60650676  
Std Err of Coef. 2.01626788



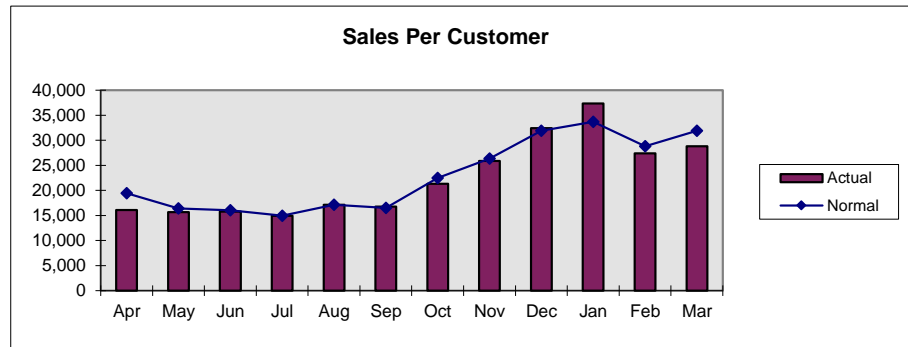
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,287,380	80	16,092.2500	150	302
May	1,237,083	79	15,659.2785	65	99
June	1,246,882	79	15,783.3165	3	14
July	1,182,094	79	14,963.2152	0	0
August	1,353,372	79	17,131.2911	0	0
September	1,323,993	79	16,759.4051	12	1
October	1,664,158	78	21,335.3590	9	60
November	2,017,437	78	25,864.5769	299	322
December	2,531,171	78	32,450.9103	596	570
January	2,914,044	78	37,359.5385	916	749
February	2,137,864	78	27,408.5128	715	780
March	2,247,228	78	28,810.6154	369	510
<b>TOTAL</b>	<b>21,142,706</b>	<b>943</b>	<b>269,618.2691</b>	<b>3,134</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	152.4100	3,341.1407	19,433.3907	1,554,671	267,291
May	34.0800	747.1037	16,406.3822	1,296,104	59,021
June	10.7700	236.1006	16,019.4171	1,265,534	18,652
July	0.0600	1.3153	14,964.5305	1,182,198	104
August	0.1000	2.1922	17,133.4833	1,353,545	173
September	-10.7000	-234.5660	16,524.8391	1,305,462	-18,531
October	51.3100	1,124.8207	22,460.1797	1,751,894	87,736
November	23.4400	513.8530	26,378.4299	2,057,518	40,081
December	-25.9500	-568.8774	31,882.0329	2,486,799	-44,372
January	-167.2200	-3,665.8064	33,693.7321	2,628,111	-285,933
February	64.5600	1,415.2880	28,823.8008	2,248,256	110,392
March	140.5300	3,080.7067	31,891.3221	2,487,523	240,295
<b>TOTAL</b>	<b>273.3900</b>	<b>5,993.2711</b>	<b>275,611.5402</b>	<b>21,617,615</b>	<b>474,909</b>

Regression Output:

Constant 16,742.87852575  
Std Err of Y Est 3,167.49448619  
R Squared 0.84515930  
  
X Coefficient 21.92205706  
Std Err of Coef. 2.96725298



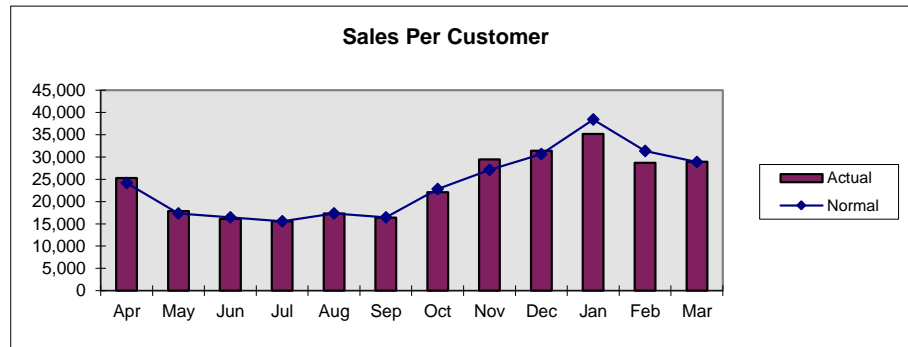
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,973,109	78	25,296.2692	350	302
May	1,410,167	79	17,850.2152	121	99
June	1,288,660	80	16,108.2500	0	14
July	1,214,362	78	15,568.7436	0	0
August	1,353,885	78	17,357.5000	0	0
September	1,279,750	78	16,407.0513	0	1
October	1,745,897	79	22,099.9620	31	60
November	2,327,825	79	29,466.1392	423	322
December	2,479,428	79	31,385.1646	601	570
January	2,778,368	79	35,169.2152	612	749
February	2,265,707	79	28,679.8354	666	780
March	2,285,313	79	28,928.0127	511	510
<b>TOTAL</b>	<b>22,402,471</b>	<b>945</b>	<b>284,316.3584</b>	<b>3,315</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-47.5900	-1,124.5789	24,171.6903	1,885,392	-87,717
May	-21.9200	-517.9821	17,332.2331	1,369,246	-40,921
June	13.7700	325.3930	16,433.6430	1,314,691	26,031
July	0.0600	1.4178	15,570.1614	1,214,473	111
August	0.1000	2.3631	17,359.8631	1,354,069	184
September	1.3000	30.7197	16,437.7710	1,282,146	2,396
October	29.3100	692.6121	22,792.5741	1,800,613	54,716
November	-100.5600	-2,376.2903	27,089.8489	2,140,098	-187,727
December	-30.9500	-731.3662	30,653.7984	2,421,650	-57,778
January	136.7800	3,232.1897	38,401.4049	3,033,711	255,343
February	113.5600	2,683.4878	31,363.3232	2,477,703	211,996
March	-1.4700	-34.7369	28,893.2758	2,282,569	-2,744
<b>TOTAL</b>	<b>92.3900</b>	<b>2,183.2288</b>	<b>286,499.5872</b>	<b>22,576,361</b>	<b>173,890</b>

Regression Output:

Constant 17,165.08429379  
Std Err of Y Est 2,499.56173985  
R Squared 0.88266538  
  
X Coefficient 23.63057221  
Std Err of Coef. 2.72451541



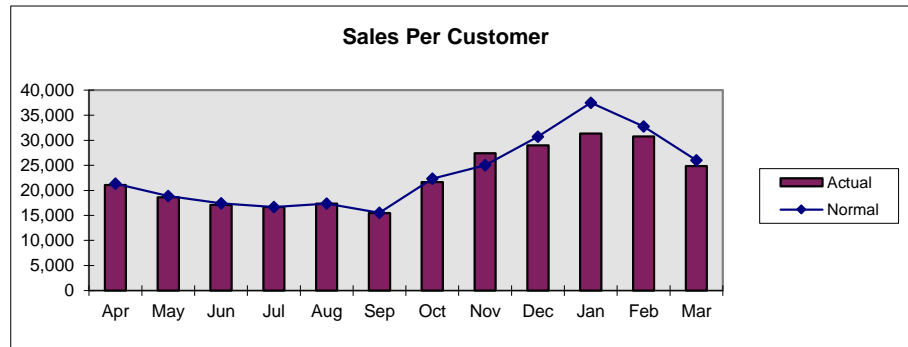
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,666,596	79	21,096.1519	291	302
May	1,449,858	78	18,587.9231	87	99
June	1,316,898	77	17,102.5714	0	14
July	1,266,291	76	16,661.7237	0	0
August	1,319,440	76	17,361.0526	0	0
September	1,193,145	77	15,495.3896	0	1
October	1,645,653	76	21,653.3289	30	60
November	2,112,075	77	27,429.5455	434	322
December	2,174,730	75	28,996.4000	491	570
January	2,351,629	75	31,355.0533	465	749
February	2,308,015	75	30,773.5333	687	780
March	1,864,523	75	24,860.3067	458	510
<b>TOTAL</b>	<b>20,668,853</b>	<b>916</b>	<b>271,372.9801</b>	<b>2,943</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	11.4100	246.5732	21,342.7251	1,686,075	19,479
May	12.0800	261.0520	18,848.9751	1,470,220	20,362
June	13.7700	297.5734	17,400.1448	1,339,811	22,913
July	0.0600	1.2966	16,663.0203	1,266,390	99
August	0.1000	2.1610	17,363.2136	1,319,604	164
September	1.3000	28.0933	15,523.4829	1,195,308	2,163
October	30.3100	655.0072	22,308.3361	1,695,434	49,781
November	-111.5600	-2,410.8415	25,018.7040	1,926,440	-185,635
December	79.0500	1,708.2917	30,704.6917	2,302,852	128,122
January	283.7800	6,132.5618	37,487.6151	2,811,571	459,942
February	92.5600	2,000.2464	32,773.7797	2,458,033	150,018
March	51.5300	1,113.5771	25,973.8838	1,948,041	83,518
<b>TOTAL</b>	<b>464.3900</b>	<b>10,035.5922</b>	<b>281,408.5723</b>	<b>21,419,779</b>	<b>750,926</b>

Regression Output:

Constant 17,314.49678403  
Std Err of Y Est 2,216.61463886  
R Squared 0.86913842  
  
X Coefficient 21.61026798  
Std Err of Coef. 2.65168389





SOURCE: Revenue Workpaper R-35-5.00 (Non-Print).

THERMS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
January	-	2,564,690	2,378,106	2,432,090	2,502,573	2,414,717	2,583,312	4,134,890	2,106,388	2,361,773	2,952,561	2,516,617	2,683,287	2,166,394	2,914,044	2,778,368	2,351,629	
February	-	2,223,673	2,354,768	2,487,190	2,143,350	1,769,910	2,386,852	3,202,200	1,913,693	2,064,491	2,477,223	2,527,713	2,253,958	1,808,625	2,137,864	2,265,707	2,308,015	
March	-	2,238,786	2,072,711	1,615,605	1,840,360	1,648,589	1,852,491	3,076,180	1,416,645	2,215,175	2,201,958	2,008,072	1,767,021	1,845,664	2,247,228	2,285,313	1,864,523	
April	-	1,564,834	1,405,536	1,547,263	1,510,789	1,318,038	1,236,183	2,366,080	1,290,324	1,575,177	1,461,059	1,376,005	1,484,403	1,287,380	1,973,109	1,666,596	-	
May	-	1,420,047	1,349,935	1,205,425	1,230,648	1,097,610	2,865,733	2,336,080	1,359,656	1,339,127	1,272,261	1,182,880	1,298,017	1,237,083	1,410,167	1,449,858	-	
June	-	1,220,049	1,166,453	1,060,402	938,119	941,943	914,850	2,042,195	1,069,138	1,108,679	1,096,348	1,115,487	1,106,745	1,246,882	1,288,660	1,316,898	-	
July	-	1,095,247	1,057,885	1,006,262	922,297	986,293	1,860,800	1,955,248	1,031,481	1,092,800	1,117,265	1,083,744	1,064,383	1,182,094	1,214,362	1,266,291	-	
August	-	1,149,788	1,169,615	1,018,741	994,938	985,253	1,948,210	2,068,348	1,073,595	1,108,969	1,105,289	1,137,184	1,122,602	1,353,372	1,353,885	1,319,440	-	
September	-	1,146,332	1,227,052	1,007,643	963,473	1,010,134	1,998,380	2,152,666	1,122,824	1,135,770	1,165,486	1,247,698	1,138,472	1,323,993	1,279,750	1,193,145	-	
October	1,394,010	1,541,207	1,613,897	1,285,957	1,351,286	1,394,000	2,335,890	2,606,991	1,577,047	1,544,158	1,435,407	1,411,808	1,315,095	1,664,158	1,745,897	1,645,653	-	
November	1,768,774	1,888,778	1,899,827	1,742,088	1,782,239	1,543,407	2,913,950	2,952,857	1,991,374	2,094,065	2,071,123	1,687,136	1,680,140	2,017,437	2,327,825	2,112,075	-	
December	2,570,736	2,714,081	2,183,814	2,038,843	2,167,364	2,239,588	3,984,390	3,437,735	2,014,216	2,410,865	2,233,427	1,830,518	2,291,947	2,531,171	2,479,428	2,174,730	-	
Total		5,733,520	20,767,512	19,879,599	18,447,509	18,347,436	17,349,482	26,881,041	32,331,470	17,966,381	20,051,049	20,589,407	19,124,862	19,206,070	19,664,253	22,372,219	21,474,074	6,524,167

BILLS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	99	98	91	90	85	87	87	87	88	84	75	80	80	78	79	75
February	-	100	98	92	89	85	87	86	87	88	84	76	80	80	78	79	75
March	-	101	98	92	90	86	87	86	86	88	81	77	80	81	78	79	75
April	-	100	98	92	89	85	87	86	86	88	82	77	80	80	78	79	-
May	-	99	97	92	88	85	88	86	86	88	82	77	79	79	79	78	-
June	-	100	93	90	84	86	85	88	88	84	77	78	82	79	80	77	-
July	-	100	93	90	84	86	86	89	88	84	76	78	81	79	78	76	-
August	-	100	91	90	84	87	86	88	88	84	76	78	81	79	78	76	-
September	-	98	92	89	86	86	86	88	87	84	76	78	81	79	78	77	-
October	98	98	91	89	86	86	86	88	87	84	76	78	82	78	79	76	-
November	99	98	91	89	86	86	86	88	89	84	76	79	82	78	79	77	-
December	99	98	91	90	86	87	86	88	88	84	76	79	82	78	79	75	-
Total	296	1,191	1,131	1,086	1,042	1,030	1,037	1,048	1,047	1,028	946	930	970	950	942	928	225

<b>Usage/Bill</b>	<b>19,370.00</b>	<b>17,437.04</b>	<b>17,577.01</b>	<b>16,986.66</b>	<b>17,607.90</b>	<b>16,844.16</b>	<b>25,921.93</b>	<b>30,850.64</b>	<b>17,159.87</b>	<b>19,504.91</b>	<b>21,764.70</b>	<b>20,564.37</b>	<b>19,800.07</b>	<b>20,699.21</b>	<b>23,749.70</b>	<b>23,140.17</b>	<b>28,996.30</b>
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DEMAND	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	14,754	14,313	13,420	13,597	12,651	12,765	18,603	12,845	11,906	11,643	13,895	14,065	13,219	13,152	14,732	12,937
February	-	14,840	14,313	13,420	13,308	12,651	12,765	18,201	12,845	11,906	11,643	13,945	14,065	13,036	13,152	14,732	12,937
March	-	14,537	14,263	13,191	13,010	12,794	12,765	18,201	12,765	11,906	11,604	13,945	14,065	13,036	13,152	14,732	12,937
April	-	14,790	14,313	13,420	13,457	12,687	22,650	18,201	12,765	11,906	11,604	13,995	14,065	13,036	13,152	14,638	-
May	-	14,790	14,157	13,420	13,159	12,687	22,650	18,201	12,765	11,906	11,604	14,112	14,128	13,036	13,152	14,638	-
June	-	14,726	13,610	13,383	12,809	12,713	13,209	18,074	11,953	11,698	14,124	13,809	13,392	13,216	14,828	13,126	-
July	-	14,726	13,491	13,383	12,809	12,713	18,438	18,609	11,953	11,698	13,994	13,809	13,392	13,216	14,682	13,000	-
August	-	14,726	13,491	13,303	12,809	12,713	18,438	18,341	11,953	11,643	13,994	13,809	13,392	13,216	14,682	13,000	-
September	-	14,374	13,420	13,303	12,872	12,713	18,438	18,341	11,796	11,643	13,994	13,809	13,392	13,216	14,682	13,000	-
October	14,657	14,374	13,420	13,303	12,872	12,713	18,438	18,341	11,796	11,643	13,994	13,809	13,493	13,152	14,732	13,000	-
November	14,754	14,313	13,420	13,303	12,872	12,713	18,438	18,341	11,906	11,643	13,994	14,001	13,493	13,152	14,732	13,311	-
December	14,754	14,313	13,420	13,242	12,872	12,765	18,438	18,341	11,906	11,643	13,994	14,001	13,219	13,152	14,732	12,937	-
Total	44,165	175,263	165,631	160,089	156,448	152,510	207,430	219,794	147,245	141,140	156,184	166,940	164,159	157,680	168,828	164,845	38,812

This workpaper is too voluminous to print and is only being provided in electronic format.

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Large Interruptible Transportation Service Revenue Forecast**

Total Large Interruptible Transportation Service (LITS) Margin	Billing Determinant	Rate	Margin
<b>Customer Charges:</b>			
Annual	588 A/	\$800.00000 C/	\$470,400
<b>Total Customer Charge Margin</b>	<b>588</b>		<b>\$470,400</b>
<b>Commodity Charges:</b>			
Step 1 - 0 to 15,000 Therms per Month	8,667,771 B/	\$0.09195 C/	\$797,002
Step 2 - 15,001 to 40,000 Therms per Month	11,104,770 B/	0.08466 C/	940,130
Step 3 - 40,001 to 90,000 Therms per Month	11,962,651 B/	0.05963 C/	713,333
Step 4 - Over 90,000 Therms per Month	64,265,711 B/	0.02277 C/	1,463,330
<b>Total Commodity Charge Margin</b>	<b>96,000,903</b>		<b>\$3,913,795</b>
<b>Total LIGT Margin</b>			<b>\$4,384,195</b>
<hr/>			
<b>LITS Other Charges:</b>			
Integrity Management Rider Surcharge			0 D/
Docket 18-00040 Excess ADIT			0 E/
<b>Total LITS Other Charges</b>			<b>0</b>
<b>Total LITS Revenues</b>			<b>\$4,384,195</b>

A/ WHN Revenue Workpaper R-40-1.04.

B/ WHN Revenue Workpaper R-40-1.02.

C/ WHN Revenue Workpaper R-110-1.00.

D/ IMR Surcharge is excluded from the Consumer Advocate's case. See WHN Revenue Workpaper R-55-1.00 for details.

E/ Excess ADIT is excluded from the Consumer Advocate's case. See WHN Workpaper R-60-1.00 for details.

SOURCE: Couzens Workpaper - Sales &amp; Transportation Pro Forma Revenue, A-Summary Pro Forma Revs

	Billing Determinant	Rate	Margin
<b>Total LITS Margin</b>			
<b>Customer Charges:</b>			
Annual	588	\$800.00	\$470,400
<b>Total Customer Charge Margin</b>	<b>588</b>		<b>\$470,400</b>
<b>Commodity Charges:</b>			
Step 1 - 0 to 15,000 Therms per Month	8,280,035	\$0.09195	\$761,349
Step 2 - 15,001 to 40,000 Therms per Month	10,929,953	0.08466	925,330
Step 3 - 40,001 to 90,000 Therms per Month	11,821,980	0.05963	704,945
Step 4 - Over 90,000 Therms per Month	63,442,255	0.02277	1,444,580
<b>Total Commodity Charge Margin</b>	<b>94,474,223</b>		<b>\$3,836,204</b>
<b>Total LITS Margin</b>			<b>\$4,306,604</b>
<b>Other Charges:</b>			
Integrity Management Rider Surcharge			\$1,504,393
Docket 18-00040 Excess ADIT	94,474,223	-\$0.00685	-647,148
<b>Total Other Charges</b>			<b>\$857,245</b>
<b>Total Revenues</b>			<b>\$5,163,849</b>

	Step 1	Step 2	Step 3	Step 4	Total	
Attrition Period Large Interruptible Transportation Service (LITS) Usage	8,667,771	11,104,770	11,962,651	64,265,711	96,000,903	A/
Step Percentage	9.03%	11.57%	12.46%	66.94%	100.00%	

**Summary:**

For the 12 Months Ended March 31, 2015	9.97%	12.08%	13.07%	64.89%	100.00%
For the 12 Months Ended March 31, 2016	9.20%	11.49%	12.51%	66.80%	100.00%
For the 12 Months Ended March 31, 2017	8.74%	11.34%	12.27%	67.65%	100.00%
For the 12 Months Ended March 31, 2018	8.94%	11.66%	12.55%	66.85%	100.00%
For the 12 Months Ended March 31, 2019	8.44%	11.11%	11.94%	68.50%	100.00%
For the 12 Months Ended March 31, 2020	8.89%	11.73%	12.42%	66.97%	100.00%
<b>Average</b>	<b>9.03%</b>	<b>11.57%</b>	<b>12.46%</b>	<b>66.94%</b>	<b>100.00%</b>

For the 12 Months Ended March 31, 2015	Step 1	Step 2	Step 3	Step 4	Total	B/
April-14	710,303	858,049	901,318	3,664,091	6,133,761	
May	709,781	821,666	843,450	3,262,306	5,637,203	
June	703,008	770,129	802,091	3,079,075	5,354,303	
July	703,134	801,651	818,876	3,531,325	5,854,986	
August	699,008	796,596	821,433	3,657,243	5,974,280	
September	712,000	840,125	831,841	3,754,688	6,138,654	
October	744,055	912,003	966,751	3,992,364	6,615,173	
November	766,347	991,996	1,049,394	5,812,371	8,620,108	
December	750,621	974,181	1,080,233	6,515,628	9,320,663	
January-15	733,164	925,094	1,120,943	6,847,486	9,626,687	
February	723,518	899,162	1,080,874	6,385,612	9,089,166	
March	732,824	938,667	1,077,577	6,062,260	8,811,328	
<b>Total</b>	<b>8,687,763</b>	<b>10,529,319</b>	<b>11,394,781</b>	<b>56,564,449</b>	<b>87,176,312</b>	
<b>Step Percentage</b>	<b>9.97%</b>	<b>12.08%</b>	<b>13.07%</b>	<b>64.89%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2016	Step 1	Step 2	Step 3	Step 4	Total	B/
April-15	718,246	865,957	969,079	4,696,038	7,249,320	
May	717,754	857,192	863,133	4,095,545	6,533,624	
June	708,196	861,795	888,189	4,009,903	6,468,083	
July	702,529	826,322	945,971	4,171,953	6,646,775	
August	705,290	853,897	923,267	4,414,277	6,896,731	
September	706,872	851,560	890,961	4,304,627	6,754,020	
October	718,990	929,000	983,881	4,555,480	7,187,351	
November	742,568	927,988	962,550	5,091,037	7,724,143	
December	728,934	938,764	960,505	6,085,549	8,713,752	
January-16	710,293	924,750	1,125,159	7,977,292	10,737,494	
February	679,045	905,381	1,090,185	6,745,138	9,419,749	
March	702,595	921,076	1,012,775	5,868,946	8,505,392	
<b>Total</b>	<b>8,541,312</b>	<b>10,663,682</b>	<b>11,615,655</b>	<b>62,015,785</b>	<b>92,836,434</b>	
<b>Step Percentage</b>	<b>9.20%</b>	<b>11.49%</b>	<b>12.51%</b>	<b>66.80%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2017	Step 1	Step 2	Step 3	Step 4	Total	B/
April-16	698,590	900,361	960,997	5,031,025	7,590,973	
May	697,255	895,695	896,104	4,920,924	7,409,978	
June	668,380	830,838	894,535	4,312,379	6,706,132	
July	655,947	809,931	825,919	4,556,664	6,848,461	
August	674,663	863,045	915,215	4,639,753	7,092,676	
September	679,905	887,029	934,496	4,346,172	6,847,602	
October	690,294	909,092	964,104	4,353,212	6,916,702	
November	694,613	942,795	1,039,267	5,187,913	7,864,588	
December	723,254	938,592	1,050,893	7,400,744	10,113,483	
January-17	682,807	930,579	1,093,973	7,263,380	9,970,739	
February	681,325	859,188	982,156	5,771,629	8,294,298	
March	714,340	952,166	1,047,216	6,175,402	8,889,124	
<b>Total</b>	<b>8,261,373</b>	<b>10,719,311</b>	<b>11,604,875</b>	<b>63,959,197</b>	<b>94,544,756</b>	
<b>Step Percentage</b>	<b>8.74%</b>	<b>11.34%</b>	<b>12.27%</b>	<b>67.65%</b>	<b>100.00%</b>	

A/ WHN Revenue Workpaper R-40-1.04.

B/ WHN Revenue Workpaper R-40-5.00 (Non-Print).

For the 12 Months Ended March 31, 2018	Step 1	Step 2	Step 3	Step 4	Total	B/
April-17	691,398	893,256	906,606	4,749,958	7,241,218	
May	682,226	882,577	939,806	4,829,892	7,334,501	
June	658,888	818,623	905,966	4,177,487	6,560,964	
July	666,916	824,798	808,484	4,124,118	6,424,316	
August	675,117	828,741	885,979	3,496,911	5,886,748	
September	675,125	844,762	855,200	3,397,454	5,772,541	
October	690,000	890,087	988,442	3,913,863	6,482,392	
November	698,247	954,687	997,844	5,582,158	8,232,936	
December	705,074	962,516	1,080,770	6,899,939	9,648,299	
January-18	682,716	957,016	1,162,830	7,895,649	10,698,211	
February	674,145	875,341	969,898	5,858,397	8,377,781	
March	689,102	951,412	994,550	6,315,924	8,950,988	
<b>Total</b>	<b>8,188,954</b>	<b>10,683,816</b>	<b>11,496,375</b>	<b>61,241,750</b>	<b>91,610,895</b>	
<b>Step Percentage</b>	<b>8.94%</b>	<b>11.66%</b>	<b>12.55%</b>	<b>66.85%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2019	Step 1	Step 2	Step 3	Step 4	Total	B/
April-18	688,838	960,370	1,051,099	5,820,667	8,520,974	
May	678,965	850,783	874,854	4,805,255	7,209,857	
June	658,346	782,466	856,222	4,231,865	6,528,899	
July	657,488	804,046	869,931	4,414,428	6,745,893	
August	672,940	817,139	867,530	4,425,555	6,783,164	
September	675,624	828,513	819,503	4,068,516	6,392,156	
October	690,309	934,509	1,012,869	5,301,313	7,939,000	
November	711,339	990,279	1,039,494	6,553,989	9,295,101	
December	720,000	989,400	1,047,437	6,887,801	9,644,638	
January-19	705,000	975,428	1,120,814	7,601,159	10,402,401	
February	666,388	894,992	959,163	6,072,283	8,592,826	
March	705,267	1,000,747	1,123,858	6,593,351	9,423,223	
<b>Total</b>	<b>8,230,504</b>	<b>10,828,672</b>	<b>11,642,774</b>	<b>66,776,182</b>	<b>97,478,132</b>	
<b>Step Percentage</b>	<b>8.44%</b>	<b>11.11%</b>	<b>11.94%</b>	<b>68.50%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2020	Step 1	Step 2	Step 3	Step 4	Total	B/
April-19	704,083	949,740	1,001,196	4,664,413	7,319,432	
May	695,108	886,673	864,640	4,456,921	6,903,342	
June	662,764	826,943	789,708	4,204,439	6,483,854	
July	674,318	839,906	857,615	4,357,954	6,729,793	
August	674,151	849,919	857,669	4,217,442	6,599,181	
September	675,000	823,233	787,743	4,027,735	6,313,711	
October	709,523	952,808	981,580	4,832,126	7,476,037	
November	696,437	1,000,790	1,111,593	6,364,755	9,173,575	
December	689,272	971,298	1,081,957	6,440,328	9,182,855	
January-20	697,691	934,904	1,130,940	6,969,616	9,733,151	
February	694,714	923,615	1,071,544	6,594,380	9,284,253	
March	706,974	970,124	1,031,745	5,266,381	7,975,224	
<b>Total</b>	<b>8,280,035</b>	<b>10,929,953</b>	<b>11,567,930</b>	<b>62,396,490</b>	<b>93,174,408</b>	
<b>Step Percentage</b>	<b>8.89%</b>	<b>11.73%</b>	<b>12.42%</b>	<b>66.97%</b>	<b>100.00%</b>	

A/ WHN Revenue Workpaper R-40-1.04.

B/ WHN Revenue Workpaper R-40-5.00 (Non-Print).

Attrition Period Monthly Growth in LITS Bills

		0	A/
	Growth	Total	
Test Period Number of LITS Bills - 12 Months Ended March, 2020		588	A/
April-20	0	588	
May-20	0	588	
June-20	0	588	
July-20	0	588	
August-20	0	588	
September-20	0	588	
October-20	0	588	
November-20	0	588	
December-20	0	588	
January-21	0	588	
February-21	0	588	
March-21	0	588	
April-21	0	588	
May-21	0	588	
June-21	0	588	
July-21	0	588	
August-21	0	588	
September-21	0	588	
October-21	0	588	
November-21	0	588	
December-21	0	588	

Attrition Period LITS Bills	588	
Normalized Usage per Bill (Therms)	163,045.7840	B/
<b>Total LITS Sales Volume - Therms</b>	<b>95,870,921</b>	

CONTAINS CONFIDENTIAL PROPRIETARY DATA

A/ WHN Revenue Workpaper R-40-1.05.

B/ WHN Revenue Workpaper R-40-2.00.

C/ WHN Revenue Workpaper R-40-1.06.



Historic Bill Counts:

For the 12 Months Ended March

MONTH	2015	2016	2017	2018	2019	2020
April	52	51	49	49	48	49
May	52	51	49	48	48	49
June	52	51	49	48	48	49
July	52	51	49	48	48	49
August	52	51	49	48	48	49
September	52	51	49	48	48	49
October	52	51	48	48	48	49
November	52	51	50	48	49	49
December	52	51	50	48	49	49
January	51	50	49	48	49	49
February	51	49	49	48	49	49
March	51	49	49	48	49	49
<b>Total</b>	<b>621</b>	<b>607</b>	<b>589</b>	<b>577</b>	<b>581</b>	<b>588</b>

Source: WHN Revenue Workpaper R-40-4.00.

Annual Bill Growth Calculation:

Year	Bills	Growth
2015	621	-
2016	607	-14
2017	589	-18
2018	577	-12
2019	581	4
2020	588	7

Five-Year Average -7

Four-Year Average -5

Three-Year Average 0

Two-Year Average 6

One-Year Average 7

Manual Input 0

Zero growth (0) was chosen as the most representative of the Attrition Year.

Annual Bill Growth Forecast	0
Test Period Bills	588
<b>Annual Percentage Growth</b>	<b>0.00%</b>

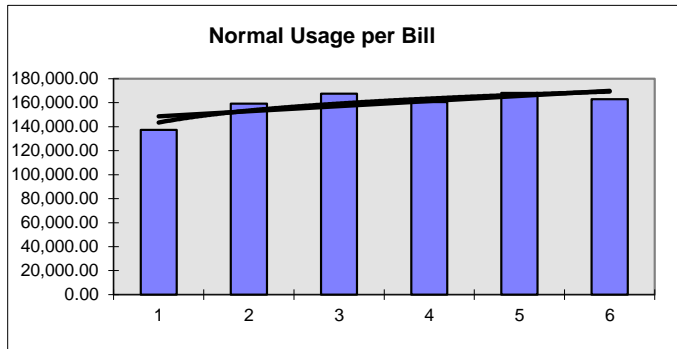
Annual Bill Growth Forecast	0
Months per Year	12
<b>Monthly Bill Growth</b>	<b>0</b>

SOURCE: Couzens Workpaper - Sales & Transportation Pro Forma Revenue, Customer Usage Adjustments

CONTAINS CONFIDENTIAL PROPRIETARY DATA

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2015	1	137,304.9404	148,645.5717	148,149.3690	-
2016	2	159,190.2125	152,895.8830	152,363.8104	15.94%
2017	3	167,435.6604	157,146.1944	156,698.1411	5.18%
2018	4	160,445.7660	161,396.5057	161,155.7715	-4.17%
2019	5	168,205.7367	165,646.8170	165,740.2092	4.84%
2020	6	163,045.7840	169,897.1283	170,455.0616	-3.07%
Forecast	7.25		175,210.0174	176,537.6845	170,708.8215

Regression Statistics		
	Linear	Logarithmic
Constant	144,395.260416	11.877926
X Coefficient	4,250.311314	0.028050
R Squared	0.490417	0.490461

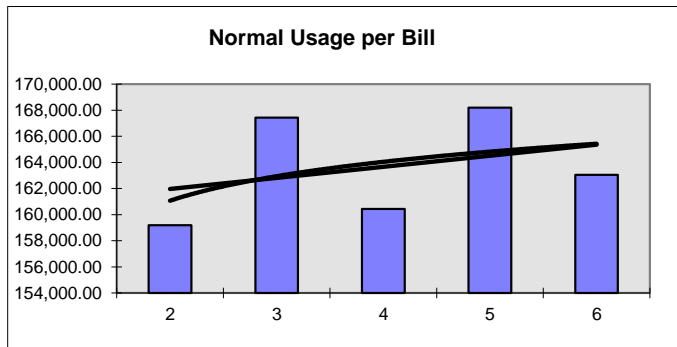


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - LITS Conservation and Growth-5 Year Analysis  
Calendar Data

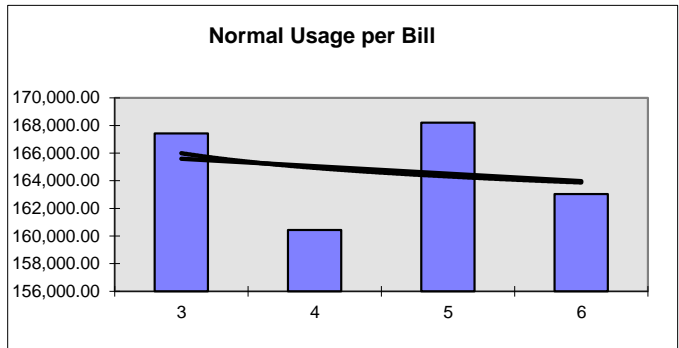
Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2016	2	159,190.2125	161,968.3881	161,917.1082	-
2017	3	167,435.6604	162,816.5100	162,768.6140	5.18%
2018	4	160,445.7660	163,664.6319	163,624.5978	-4.17%
2019	5	168,205.7367	164,512.7539	164,485.0831	4.84%
2020	6	163,045.7840	165,360.8758	165,350.0936	-3.07%
Forecast	7.25		166,421.0282	166,437.7566	164,460.3124

Regression Statistics		
	Linear	Logarithmic
Constant	160,272.144251	11.984350
X Coefficient	848.121921	0.005245
R Squared	0.109640	0.112524



Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2017	3	167,435.6604	165,594.6856	165,556.8070	-
2018	4	160,445.7660	165,053.7197	165,020.0750	-4.17%
2019	5	168,205.7367	164,512.7539	164,485.0831	4.84%
2020	6	163,045.7840	163,971.7880	163,951.8256	-3.07%
Forecast	7.25		<b>163,295.5807</b>	<b>163,287.6843</b>	<b>161,413.0197</b>

Regression Statistics		
	Linear	Logarithmic
Constant	167,217.583181	12.026811
X Coefficient	-540.965865	-0.003247
R Squared	0.036057	0.035117

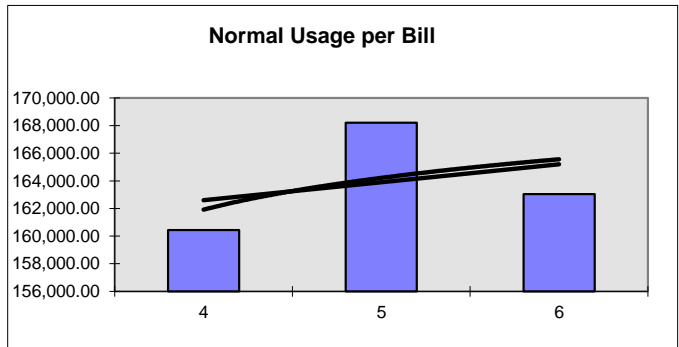


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - LITS Conservation and Growth-3 Year Analysis  
Calendar Data

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2018	4	160,445.7660	162,599.0866	162,555.7077	-
2019	5	168,205.7367	163,899.0956	163,867.5193	4.84%
2020	6	163,045.7840	165,199.1046	165,189.9172	-3.07%
Forecast	7.25		<b>166,824.1158</b>	<b>166,857.9316</b>	<b>164,850.3080</b>

Regression Statistics		
	Linear	Logarithmic
Constant	157,399.050613	11.966626
X Coefficient	1,300.008991	0.008038
R Squared	0.108332	0.112026



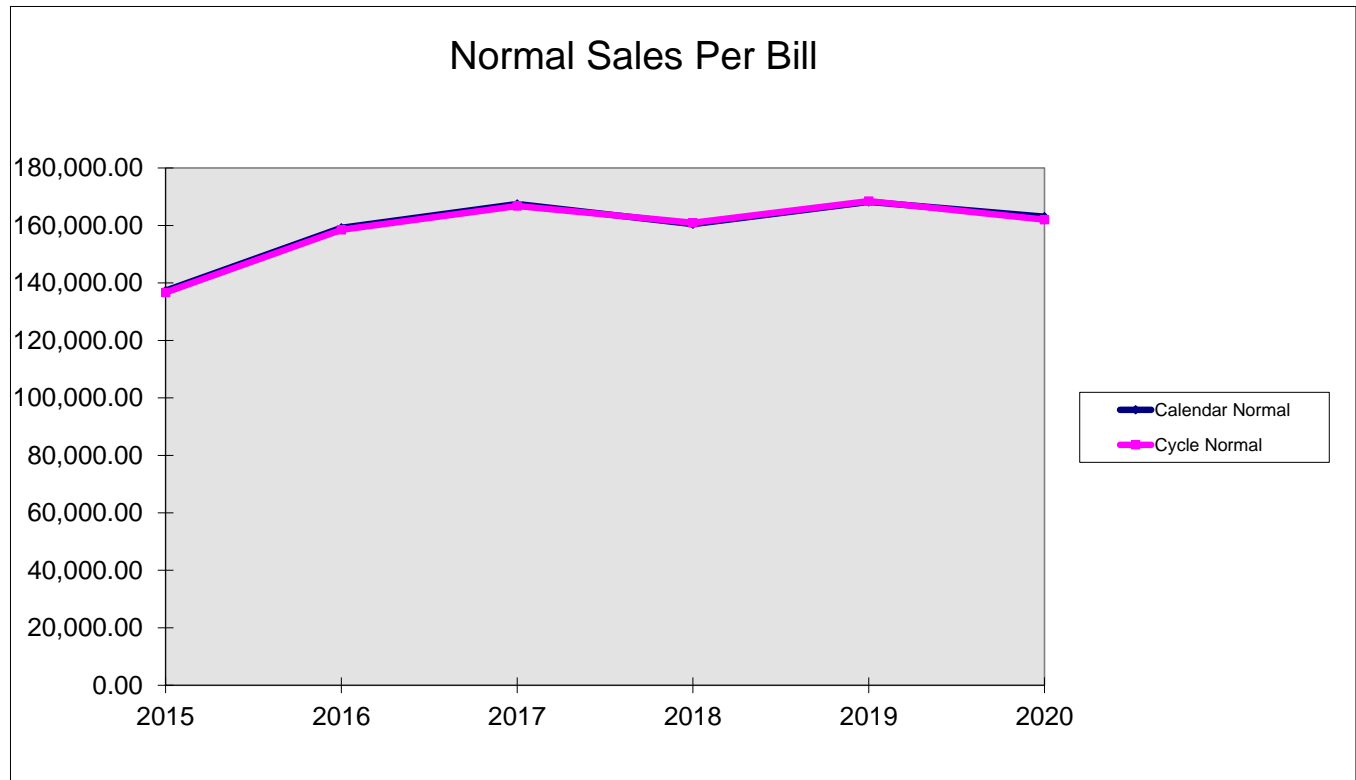
Trend	From The 12 Months Ended		Calendar Data	
	Month	Year	Time Series Forecast	Adjusted Forecast
Linear Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Logarithmic Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Year To Year Change	March	2015	170,708.8215	
	March	2016	164,460.3124	164,460.3124
	March	2017	161,413.0197	
	March	2018	164,850.3080	164,850.3080
<b>Average</b>			<b>165,358.1154</b>	<b>164,655.3102</b>
One Standard Deviation			3,363.6942	
<b>Upper</b> End of Range			168,721.8096	
<b>Lower</b> End of Range			161,994.4212	
Number in Range			2.0000	
Weighted Average Forecast at Midpoint				<b>164,655.3102</b>
Test Period Amount				<b>163,045.7840</b>
Compound Growth Factor				<b>1.00987162</b>
Annualized Growth Rate				<b>1.00788953</b>
Test Period Sales				93,174,408
Weather Adjustment				2,696,513
Normal Sales				<b>95,870,921</b>
Usage Adjustment				946,401
Adjusted Sales				<b>96,817,322</b>

CALENDAR DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	87,176,312	621	1,649,541.2776	85,266,368	-1,909,944	91.92%	137,304.9404
2016	92,836,434	607	1,913,805.3471	96,628,459	3,792,025	96.11%	159,190.2125
2017	94,544,756	589	2,008,208.3669	98,619,604	4,074,848	92.78%	167,435.6604
2018	91,610,895	577	1,925,392.1543	92,577,207	966,312	91.83%	160,445.7660
2019	97,478,132	581	2,015,603.3719	97,727,533	249,401	95.25%	168,205.7367
2020	93,174,408	588	1,956,549.4027	95,870,921	2,696,513	98.48%	163,045.7840

CYCLE DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	87,176,312	621	1,641,993.9224	84,873,663	-2,302,649	87.03%	136,672.5652
2016	92,836,434	607	1,905,761.9793	96,213,249	3,376,815	80.04%	158,506.1763
2017	94,544,756	589	2,000,011.4752	98,228,480	3,683,724	89.07%	166,771.6129
2018	91,610,895	577	1,931,000.4755	92,850,028	1,239,133	84.94%	160,918.5927
2019	97,478,132	581	2,018,728.4376	97,875,708	397,576	80.03%	168,460.7711
2020	93,174,408	588	1,944,251.7916	95,268,339	2,093,931	81.54%	162,020.9847



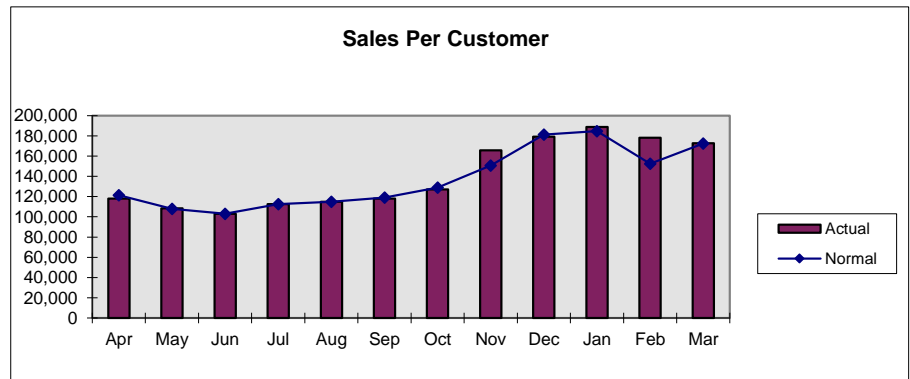
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	6,133,761	52	117,956.9423	144	182
May	5,637,203	52	108,407.7500	50	45
June	5,354,303	52	102,967.3654	0	1
July	5,854,986	52	112,595.8846	0	0
August	5,974,280	52	114,890.0000	0	0
September	6,138,654	52	118,051.0385	3	15
October	6,615,173	52	127,214.8654	150	168
November	8,620,108	52	165,771.3077	621	451
December	9,320,663	52	179,243.5192	671	695
January	9,626,687	51	188,758.5686	840	795
February	9,089,166	51	178,218.9412	905	617
March	8,811,328	51	172,771.1373	441	438
<b>TOTAL</b>	<b>87,176,312</b>	<b>621</b>	<b>1,686,847.3201</b>	<b>3,825</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	38	3,414.2787	121,371.2210	6,311,303	177,542
May	-5	-457.3811	107,950.3689	5,613,419	-23,784
June	1	112.5586	103,079.9240	5,360,156	5,853
July	0	0.0000	112,595.8846	5,854,986	0
August	0	8.9332	114,898.9332	5,974,745	465
September	12	1,059.4805	119,110.5190	6,193,747	55,093
October	18	1,577.6076	128,792.4730	6,697,209	82,036
November	-170	-15,173.9766	150,597.3311	7,831,061	-789,047
December	24	2,122.5343	181,366.0535	9,431,035	110,372
January	-45	-3,990.4718	184,768.0968	9,423,173	-203,514
February	-288	-25,724.1157	152,494.8255	7,777,236	-1,311,930
March	-3	-255.4902	172,515.6471	8,798,298	-13,030
<b>TOTAL</b>	<b>-418</b>	<b>-37,306.0425</b>	<b>1,649,541.2776</b>	<b>85,266,368</b>	<b>-1,909,944</b>

Regression Output:

Constant 112,095.95419684  
Std Err of Y Est 9,846.85519098  
R Squared 0.91916206  
  
X Coefficient 89.33225354  
Std Err of Coef. 8.37760475



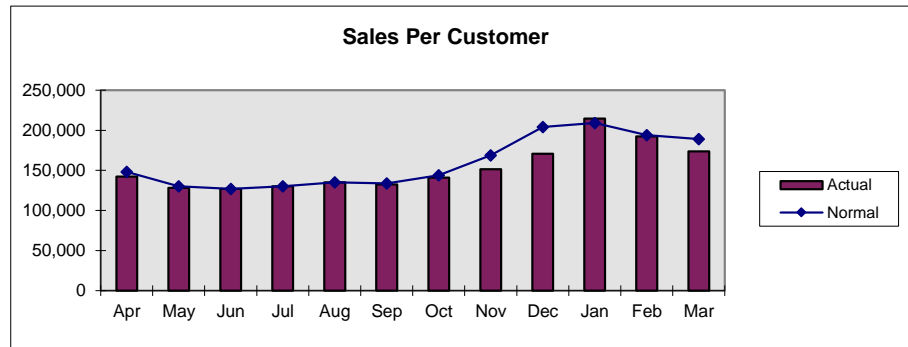
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,249,320	51	142,143.5294	123	182
May	6,533,624	51	128,110.2745	24	45
June	6,468,083	51	126,825.1569	0	1
July	6,646,775	51	130,328.9216	0	0
August	6,896,731	51	135,230.0196	0	0
September	6,754,020	51	132,431.7647	3	15
October	7,187,351	51	140,928.4510	137	168
November	7,724,143	51	151,453.7843	283	451
December	8,713,752	51	170,857.8824	370	695
January	10,737,494	50	214,749.8800	850	795
February	9,419,749	49	192,239.7755	600	617
March	8,505,392	49	173,579.4286	285	438
<b>TOTAL</b>	<b>92,836,434</b>	<b>607</b>	<b>1,838,878.8684</b>	<b>2,675</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	59	6,058.4471	148,201.9765	7,558,301	308,981
May	21	2,136.1090	130,246.3835	6,642,566	108,942
June	1	128.9031	126,954.0600	6,474,657	6,574
July	0	0.0000	130,328.9216	6,646,775	0
August	0	10.2304	135,240.2500	6,897,253	522
September	12	1,213.3263	133,645.0910	6,815,900	61,880
October	31	3,136.6428	144,065.0938	7,347,320	159,969
November	168	17,201.4065	168,655.1908	8,601,415	877,272
December	325	33,224.2702	204,082.1526	10,408,190	1,694,438
January	-55	-5,592.9636	209,156.9164	10,457,846	-279,648
February	17	1,743.2614	193,983.0369	9,505,169	85,420
March	153	15,666.8455	189,246.2741	9,273,067	767,675
<b>TOTAL</b>	<b>732</b>	<b>74,926.48</b>	<b>1,913,805.3471</b>	<b>96,628,459</b>	<b>3,792,025</b>

Regression Output:

Constant 130,434.62314543  
Std Err of Y Est 5,893.03072177  
R Squared 0.96105845  
  
X Coefficient 102.30407127  
Std Err of Coef. 6.51215333





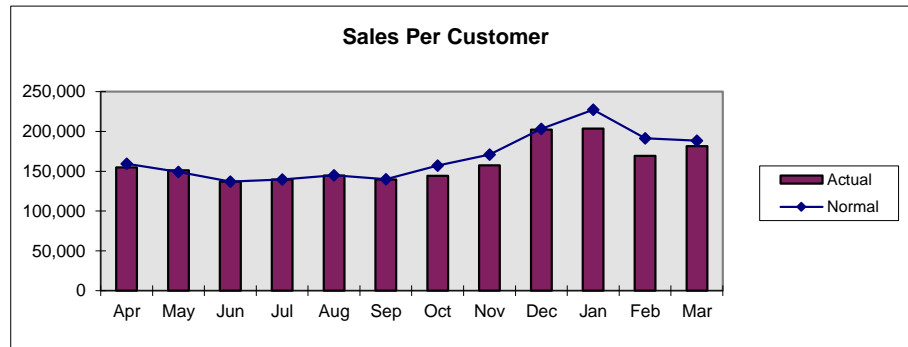
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,590,973	49	154,917.8163	136	182
May	7,409,978	49	151,224.0408	67	45
June	6,706,132	49	136,859.8367	0	1
July	6,848,461	49	139,764.5102	0	0
August	7,092,676	49	144,748.4898	0	0
September	6,847,602	49	139,746.9796	13	15
October	6,916,702	48	144,097.9583	33	168
November	7,864,588	50	157,291.7600	308	451
December	10,113,483	50	202,269.6600	683	695
January	9,970,739	49	203,484.4694	546	795
February	8,294,298	49	169,271.3878	385	617
March	8,889,124	49	181,410.6939	365	438
<b>TOTAL</b>	<b>94,544,756</b>	<b>589</b>	<b>1,925,087.6028</b>	<b>2,536</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	46.2200	4,408.8660	159,326.6823	7,807,007	216,034
May	-22.1200	-2,109.9982	149,114.0426	7,306,588	-103,390
June	1.2600	120.1898	136,980.0265	6,712,021	5,889
July	0.0000	0.0000	139,764.5102	6,848,461	0
August	0.1000	9.5389	144,758.0287	7,093,143	467
September	1.8600	177.4230	139,924.4026	6,856,296	8,694
October	134.6600	12,845.0431	156,943.0014	7,533,264	616,562
November	143.1400	13,653.9393	170,945.6993	8,547,285	682,697
December	11.7600	1,121.7712	203,391.4312	10,169,572	56,089
January	249.3300	23,783.2659	227,267.7353	11,136,119	1,165,380
February	232.0400	22,133.9952	191,405.3830	9,378,864	1,084,566
March	73.1400	6,976.7299	188,387.4238	9,230,984	341,860
<b>TOTAL</b>	<b>871.3900</b>	<b>83,120.7641</b>	<b>2,008,208.3669</b>	<b>98,619,604</b>	<b>4,074,848</b>

Regression Output:

Constant 140,265.15384621  
Std Err of Y Est 6,673.46830971  
R Squared 0.92782722  
  
X Coefficient 95.38870531  
Std Err of Coef. 8.41298497



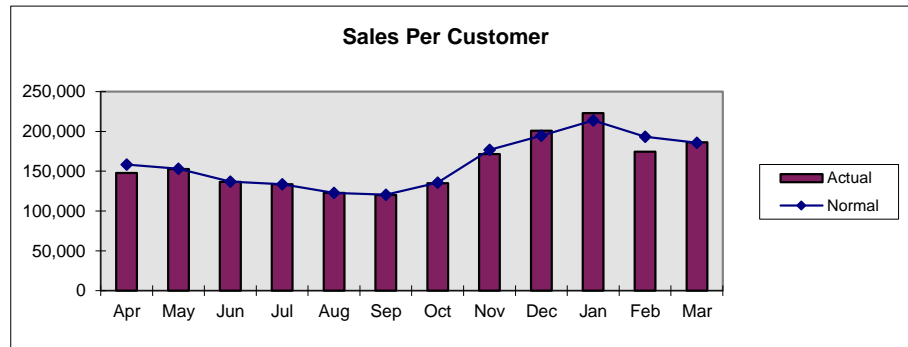
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,241,218	49	147,779.9592	76	182
May	7,334,501	48	152,802.1042	41	45
June	6,560,964	48	136,686.7500	0	1
July	6,424,316	48	133,839.9167	0	0
August	5,886,748	48	122,640.5833	0	0
September	5,772,541	48	120,261.2708	12	15
October	6,482,392	48	135,049.8333	163	168
November	8,232,936	48	171,519.5000	399	451
December	9,648,299	48	201,006.2292	758	695
January	10,698,211	48	222,879.3958	886	795
February	8,377,781	48	174,537.1042	429	617
March	8,950,988	48	186,478.9167	444	438
<b>TOTAL</b>	<b>91,610,895</b>	<b>577</b>	<b>1,905,481.5634</b>	<b>3,208</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	106.2200	10,606.8658	158,386.8250	7,760,954	519,736
May	3.8800	387.4472	153,189.5514	7,353,098	18,597
June	1.2600	125.8205	136,812.5705	6,567,003	6,039
July	0.0000	0.0000	133,839.9167	6,424,316	0
August	0.1000	9.9858	122,650.5691	5,887,227	479
September	2.8600	285.5925	120,546.8633	5,786,249	13,708
October	4.6600	465.3360	135,515.1693	6,504,728	22,336
November	52.1400	5,206.5711	176,726.0711	8,482,851	249,915
December	-63.2400	-6,314.9896	194,691.2396	9,345,179	-303,120
January	-90.6700	-9,054.0814	213,825.3144	10,263,615	-434,596
February	188.0400	18,777.2081	193,314.3123	9,279,087	901,306
March	-5.8600	-585.1651	185,893.7516	8,922,900	-28,088
<b>TOTAL</b>	<b>199.3900</b>	<b>19,910.5909</b>	<b>1,925,392.1543</b>	<b>92,577,207</b>	<b>966,312</b>

Regression Output:

Constant 132,094.88651131  
Std Err of Y Est 9,772.15780841  
R Squared 0.91830573  
  
X Coefficient 99.85752033  
Std Err of Coef. 9.41852547



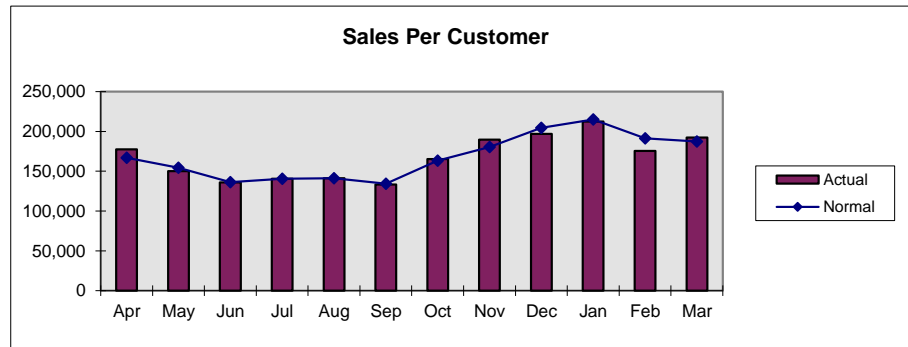
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	8,520,974	48	177,520.2917	295	182
May	7,209,857	48	150,205.3542	1	45
June	6,528,899	48	136,018.7292	0	1
July	6,745,893	48	140,539.4375	0	0
August	6,783,164	48	141,315.9167	0	0
September	6,392,156	48	133,169.9167	2	15
October	7,939,000	48	165,395.8333	190	168
November	9,295,101	49	189,695.9388	551	451
December	9,644,638	49	196,829.3469	613	695
January	10,402,401	49	212,293.8980	766	795
February	8,592,826	49	175,363.7959	443	617
March	9,423,223	49	192,310.6735	493	438
<b>TOTAL</b>	<b>97,478,132</b>	<b>581</b>	<b>2,010,659.1322</b>	<b>3,354</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-112.7800	-10,444.1158	167,076.1759	8,019,656	-501,318
May	43.8800	4,063.5556	154,268.9098	7,404,908	195,051
June	1.2600	116.6837	136,135.4129	6,534,500	5,601
July	0.0000	0.0000	140,539.4375	6,745,893	0
August	0.1000	9.2606	141,325.1773	6,783,609	445
September	12.8600	1,190.9144	134,360.8311	6,449,320	57,164
October	-22.3400	-2,068.8203	163,327.0130	7,839,697	-99,303
November	-99.8600	-9,247.6450	180,448.2938	8,841,966	-453,135
December	81.7600	7,571.4747	204,400.8216	10,015,640	371,002
January	29.3300	2,716.1369	215,010.0349	10,535,492	133,091
February	174.0400	16,117.1655	191,480.9614	9,382,567	789,741
March	-54.8600	-5,080.3706	187,230.3029	9,174,285	-248,938
<b>TOTAL</b>	<b>53.3900</b>	<b>4,944.2397</b>	<b>2,015,603.3719</b>	<b>97,727,533</b>	<b>249,401</b>

Regression Output:

Constant 141,671.52301310  
Std Err of Y Est 6,170.15698842  
R Squared 0.95254656  
  
X Coefficient 92.60609901  
Std Err of Coef. 6.53627494



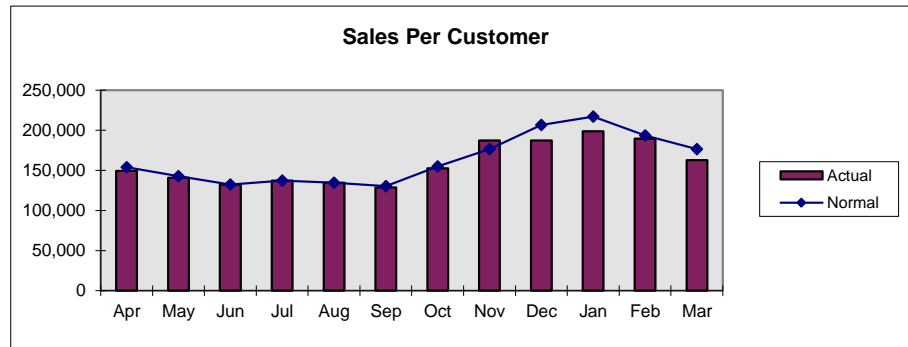
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,319,432	49	149,376.1633	137	182
May	6,903,342	49	140,884.5306	27	45
June	6,483,854	49	132,323.5510	0	1
July	6,729,793	49	137,342.7143	0	0
August	6,599,181	49	134,677.1633	0	0
September	6,313,711	49	128,851.2449	0	15
October	7,476,037	49	152,572.1837	143	168
November	9,173,575	49	187,215.8163	559	451
December	9,182,855	49	187,405.2041	503	695
January	9,733,151	49	198,635.7347	610	795
February	9,284,253	49	189,474.5510	576	617
March	7,975,224	49	162,759.6735	300	438
<b>TOTAL</b>	<b>93,174,408</b>	<b>588</b>	<b>1,901,518.5306</b>	<b>2,855</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	45.2200	4,504.9621	153,881.1254	7,540,175	220,743
May	17.8800	1,781.2632	142,665.7938	6,990,624	87,282
June	1.2600	125.5253	132,449.0763	6,490,005	6,151
July	0.0000	0.0000	137,342.7143	6,729,793	0
August	0.1000	9.9623	134,687.1256	6,599,669	488
September	14.8600	1,480.4011	130,331.6460	6,386,251	72,540
October	24.6600	2,456.7087	155,028.8924	7,596,416	120,379
November	-107.8600	-10,745.3608	176,470.4555	8,647,052	-526,523
December	191.7600	19,103.7492	206,508.9533	10,118,939	936,084
January	185.3300	18,463.1719	217,098.9066	10,637,846	904,695
February	41.0400	4,088.5371	193,563.0881	9,484,591	200,338
March	138.1400	13,761.9520	176,521.6255	8,649,560	674,336
<b>TOTAL</b>	<b>552.3900</b>	<b>55,030.8721</b>	<b>1,956,549.4027</b>	<b>95,870,921</b>	<b>2,696,513</b>

Regression Output:

Constant 134,757.85246257  
Std Err of Y Est 3,319.41525887  
R Squared 0.98481594  
  
X Coefficient 99.62322279  
Std Err of Coef. 3.91180292



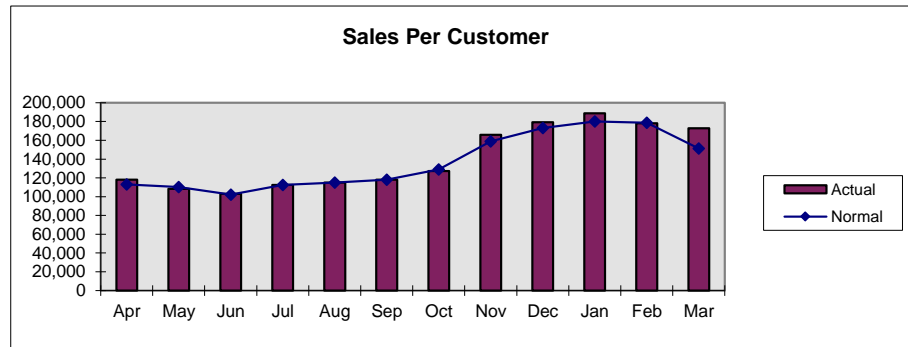
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	6,133,761	52	117,956.9423	357	302
May	5,637,203	52	108,407.7500	78	99
June	5,354,303	52	102,967.3654	22	14
July	5,854,986	52	112,595.8846	0	0
August	5,974,280	52	114,890.0000	0	0
September	6,138,654	52	118,051.0385	2	1
October	6,615,173	52	127,214.8654	39	60
November	8,620,108	52	165,771.3077	401	322
December	9,320,663	52	179,243.5192	640	570
January	9,626,687	51	188,758.5686	846	749
February	9,089,166	51	178,218.9412	774	780
March	8,811,328	51	172,771.1373	751	510
<b>TOTAL</b>	<b>87,176,312</b>	<b>621</b>	<b>1,686,847.3201</b>	<b>3,910</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-54.5900	-4,871.6639	113,085.2784	5,880,434	-253,327
May	21.0800	1,881.1994	110,288.9494	5,735,025	97,822
June	-8.2300	-734.4531	102,232.9123	5,316,111	-38,192
July	0.0600	5.3545	112,601.2391	5,855,264	278
August	0.1000	8.9241	114,898.9241	5,974,744	464
September	-0.7000	-62.4687	117,988.5698	6,135,406	-3,248
October	21.3100	1,901.7248	129,116.5902	6,714,063	98,890
November	-78.5600	-7,010.7696	158,760.5381	8,255,548	-364,560
December	-69.9500	-6,242.4050	173,001.1142	8,996,058	-324,605
January	-97.2200	-8,676.0059	180,082.5627	9,184,211	-442,476
February	5.5600	496.1797	178,715.1209	9,114,471	25,305
March	-241.4700	-21,549.0140	151,222.1233	7,712,328	-1,099,000
<b>TOTAL</b>	<b>-502.6100</b>	<b>-44,853.3977</b>	<b>1,641,993.9224</b>	<b>84,873,663</b>	<b>-2,302,649</b>

Regression Output:

Constant 111,492.93137661  
Std Err of Y Est 12,473.44840412  
R Squared 0.87028410  
  
X Coefficient 89.24095745  
Std Err of Coef. 10.89507694



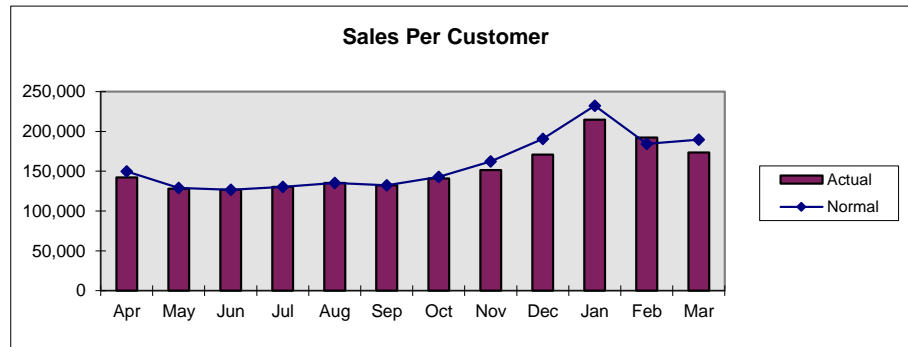
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,249,320	51	142,143.5294	221	302
May	6,533,624	51	128,110.2745	89	99
June	6,468,083	51	126,825.1569	15	14
July	6,646,775	51	130,328.9216	0	0
August	6,896,731	51	135,230.0196	0	0
September	6,754,020	51	132,431.7647	3	1
October	7,187,351	51	140,928.4510	40	60
November	7,724,143	51	151,453.7843	206	322
December	8,713,752	51	170,857.8824	362	570
January	10,737,494	50	214,749.8800	563	749
February	9,419,749	49	192,239.7755	861	780
March	8,505,392	49	173,579.4286	340	510
<b>TOTAL</b>	<b>92,836,434</b>	<b>607</b>	<b>1,838,878.8684</b>	<b>2,700</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	81.4100	7,697.2449	149,840.7743	7,641,879	392,559
May	10.0800	953.0553	129,063.3298	6,582,230	48,606
June	-1.2300	-116.2954	126,708.8615	6,462,152	-5,931
July	0.0600	5.6729	130,334.5945	6,647,064	289
August	0.1000	9.4549	135,239.4745	6,897,213	482
September	-1.7000	-160.7335	132,271.0312	6,745,823	-8,197
October	20.3100	1,920.2929	142,848.7439	7,285,286	97,935
November	116.4400	11,009.3010	162,463.0853	8,285,617	561,474
December	208.0500	19,670.9470	190,528.8294	9,716,970	1,003,218
January	185.7800	17,565.3378	232,315.2178	11,615,761	878,267
February	-81.4400	-7,700.0813	184,539.6942	9,042,445	-377,304
March	169.5300	16,028.9144	189,608.3430	9,290,809	785,417
<b>TOTAL</b>	<b>707.3900</b>	<b>66,883.1109</b>	<b>1,905,761.9793</b>	<b>96,213,249</b>	<b>3,376,815</b>

Regression Output:

Constant 131,966.35090207  
Std Err of Y Est 13,341.72225952  
R Squared 0.80040044  
  
X Coefficient 94.54913243  
Std Err of Coef. 14.93082075



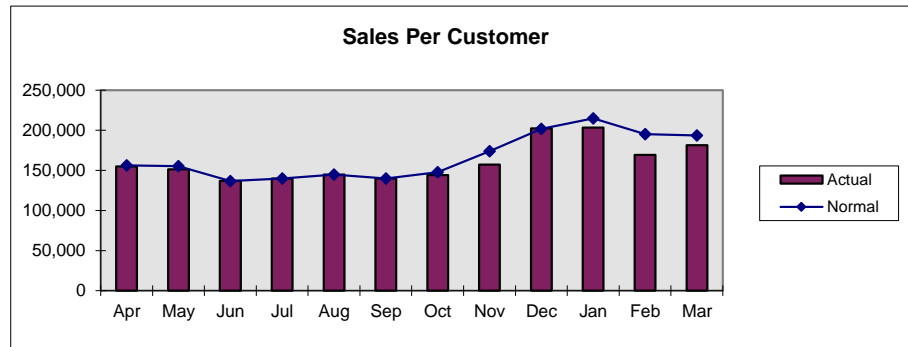
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,590,973	49	154,917.8163	287	302
May	7,409,978	49	151,224.0408	54	99
June	6,706,132	49	136,859.8367	15	14
July	6,848,461	49	139,764.5102	0	0
August	7,092,676	49	144,748.4898	0	0
September	6,847,602	49	139,746.9796	0	1
October	6,916,702	48	144,097.9583	19	60
November	7,864,588	50	157,291.7600	139	322
December	10,113,483	50	202,269.6600	576	570
January	9,970,739	49	203,484.4694	624	749
February	8,294,298	49	169,271.3878	497	780
March	8,889,124	49	181,410.6939	377	510
<b>TOTAL</b>	<b>94,544,756</b>	<b>589</b>	<b>1,925,087.6028</b>	<b>2,588</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	15.4100	1,409.0688	156,326.8851	7,660,017	69,044
May	45.0800	4,122.0520	155,346.0928	7,611,959	201,981
June	-1.2300	-112.4695	136,747.3672	6,700,621	-5,511
July	0.0600	5.4863	139,769.9965	6,848,730	269
August	0.1000	9.1439	144,757.6337	7,093,124	448
September	1.3000	118.8702	139,865.8498	6,853,427	5,825
October	41.3100	3,777.3285	147,875.2868	7,098,014	181,312
November	183.4400	16,773.4963	174,065.2563	8,703,263	838,675
December	-5.9500	-544.0597	201,725.6003	10,086,280	-27,203
January	124.7800	11,409.7082	214,894.1776	10,529,815	559,076
February	282.5600	25,836.8901	195,108.2779	9,560,306	1,266,008
March	132.5300	12,118.3573	193,529.0512	9,482,924	593,800
<b>TOTAL</b>	<b>819.3900</b>	<b>74,923.8724</b>	<b>2,000,011.4752</b>	<b>98,228,480</b>	<b>3,683,724</b>

Regression Output:

Constant 140,703.70936599  
Std Err of Y Est 8,213.59071813  
R Squared 0.89067076  
  
X Coefficient 91.43859754  
Std Err of Coef. 10.13069240



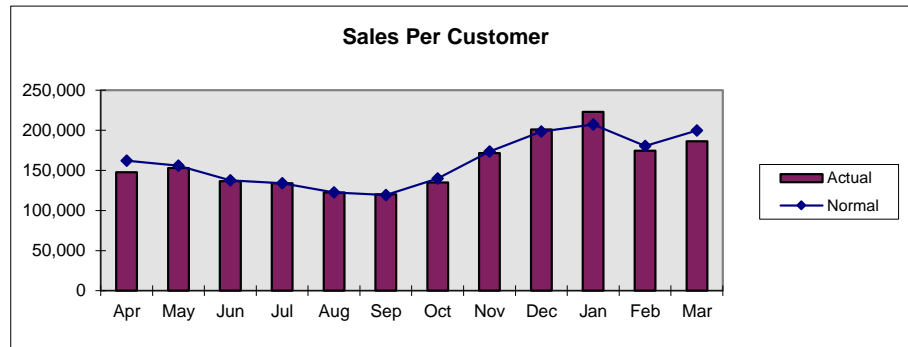
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,241,218	49	147,779.9592	150	302
May	7,334,501	48	152,802.1042	65	99
June	6,560,964	48	136,686.7500	3	14
July	6,424,316	48	133,839.9167	0	0
August	5,886,748	48	122,640.5833	0	0
September	5,772,541	48	120,261.2708	12	1
October	6,482,392	48	135,049.8333	9	60
November	8,232,936	48	171,519.5000	299	322
December	9,648,299	48	201,006.2292	596	570
January	10,698,211	48	222,879.3958	916	749
February	8,377,781	48	174,537.1042	715	780
March	8,950,988	48	186,478.9167	369	510
<b>TOTAL</b>	<b>91,610,895</b>	<b>577</b>	<b>1,905,481.5634</b>	<b>3,134</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	152.4100	14,226.3337	162,006.2929	7,938,308	697,090
May	34.0800	3,181.1131	155,983.2173	7,487,194	152,693
June	10.7700	1,005.2990	137,692.0490	6,609,218	48,254
July	0.0600	5.6006	133,845.5173	6,424,585	269
August	0.1000	9.3343	122,649.9176	5,887,196	448
September	-10.7000	-998.7650	119,262.5058	5,724,600	-47,941
October	51.3100	4,789.4048	139,839.2381	6,712,283	229,891
November	23.4400	2,187.9487	173,707.4487	8,337,958	105,022
December	-25.9500	-2,422.2384	198,583.9908	9,532,032	-116,267
January	-167.2200	-15,608.7365	207,270.6593	9,948,992	-749,219
February	64.5600	6,026.1932	180,563.2974	8,667,038	289,257
March	140.5300	13,117.4246	199,596.3413	9,580,624	629,636
<b>TOTAL</b>	<b>273.3900</b>	<b>25,518.9121</b>	<b>1,931,000.4755</b>	<b>92,850,028</b>	<b>1,239,133</b>

Regression Output:

Constant 134,412.17506275  
Std Err of Y Est 13,269.77343090  
R Squared 0.84936092  
  
X Coefficient 93.34252157  
Std Err of Coef. 12.43088973





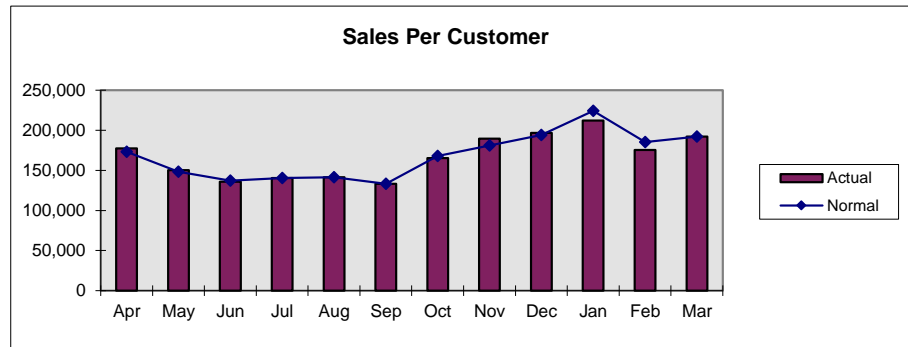
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	8,520,974	48	177,520.2917	350	302
May	7,209,857	48	150,205.3542	121	99
June	6,528,899	48	136,018.7292	0	14
July	6,745,893	48	140,539.4375	0	0
August	6,783,164	48	141,315.9167	0	0
September	6,392,156	48	133,169.9167	0	1
October	7,939,000	48	165,395.8333	31	60
November	9,295,101	49	189,695.9388	423	322
December	9,644,638	49	196,829.3469	601	570
January	10,402,401	49	212,293.8980	612	749
February	8,592,826	49	175,363.7959	666	780
March	9,423,223	49	192,310.6735	511	510
<b>TOTAL</b>	<b>97,478,132</b>	<b>581</b>	<b>2,010,659.1322</b>	<b>3,315</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-47.5900	-4,156.4914	173,363.8003	8,321,462	-199,512
May	-21.9200	-1,914.4840	148,290.8702	7,117,962	-91,895
June	13.7700	1,202.6662	137,221.3954	6,586,627	57,728
July	0.0600	5.2404	140,544.6779	6,746,145	252
August	0.1000	8.7340	141,324.6507	6,783,583	419
September	1.3000	113.5415	133,283.4582	6,397,606	5,450
October	29.3100	2,559.9236	167,955.7569	8,061,876	122,876
November	-100.5600	-8,782.8698	180,913.0690	8,864,740	-430,361
December	-30.9500	-2,703.1605	194,126.1864	9,512,183	-132,455
January	136.7800	11,946.3100	224,240.2080	10,987,770	585,369
February	113.5600	9,918.2846	185,282.0805	9,078,822	485,996
March	-1.4700	-128.3892	192,182.2843	9,416,932	-6,291
<b>TOTAL</b>	<b>92.3900</b>	<b>8,069.3054</b>	<b>2,018,728.4376</b>	<b>97,875,708</b>	<b>397,576</b>

Regression Output:

Constant 143,427.36411800  
Std Err of Y Est 12,657.95317293  
R Squared 0.80028890  
  
X Coefficient 87.33959663  
Std Err of Coef. 13.79713407



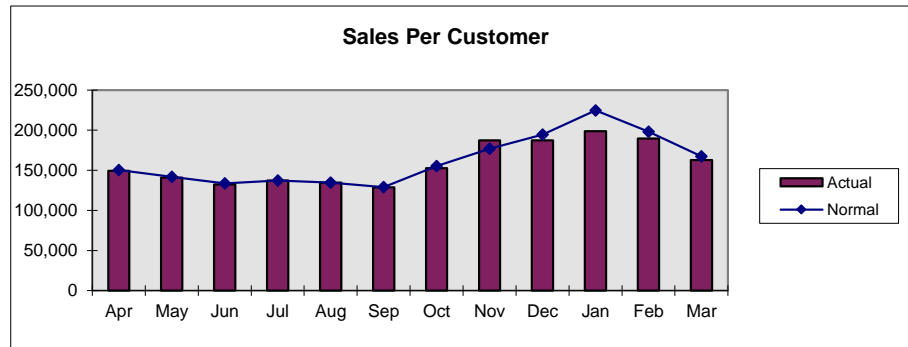
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,319,432	49	149,376.1633	291	302
May	6,903,342	49	140,884.5306	87	99
June	6,483,854	49	132,323.5510	0	14
July	6,729,793	49	137,342.7143	0	0
August	6,599,181	49	134,677.1633	0	0
September	6,313,711	49	128,851.2449	0	1
October	7,476,037	49	152,572.1837	30	60
November	9,173,575	49	187,215.8163	434	322
December	9,182,855	49	187,405.2041	491	570
January	9,733,151	49	198,635.7347	465	749
February	9,284,253	49	189,474.5510	687	780
March	7,975,224	49	162,759.6735	458	510
<b>TOTAL</b>	<b>93,174,408</b>	<b>588</b>	<b>1,901,518.5306</b>	<b>2,943</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	11.4100	1,049.9505	150,426.1138	7,370,880	51,448
May	12.0800	1,111.6040	141,996.1346	6,957,811	54,469
June	13.7700	1,267.1182	133,590.6692	6,545,943	62,089
July	0.0600	5.5212	137,348.2355	6,730,064	271
August	0.1000	9.2020	134,686.3653	6,599,632	451
September	1.3000	119.6263	128,970.8712	6,319,573	5,862
October	30.3100	2,789.1323	155,361.3160	7,612,704	136,667
November	-111.5600	-10,265.7736	176,950.0427	8,670,552	-503,023
December	79.0500	7,274.1969	194,679.4010	9,539,291	356,436
January	283.7800	26,113.4925	224,749.2272	11,012,712	1,279,561
February	92.5600	8,517.3898	197,991.9408	9,701,605	417,352
March	51.5300	4,741.8009	167,501.4744	8,207,572	232,348
<b>TOTAL</b>	<b>464.3900</b>	<b>42,733.2610</b>	<b>1,944,251.7916</b>	<b>95,268,339</b>	<b>2,093,931</b>

Regression Output:

Constant 135,891.92334883  
Std Err of Y Est 11,574.16620748  
R Squared 0.81539473  
  
X Coefficient 92.02020062  
Std Err of Coef. 13.84590247



SOURCE: Revenue Workpaper R-40-5.00 (Non-Print).

THERMS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	6,576,152	5,628,220	6,643,696	7,810,210	6,732,444	9,084,324	6,916,660	8,550,755	9,225,324	8,718,650	9,626,687	10,737,494	9,970,739	10,698,211	10,402,401	9,733,151
February	-	6,008,893	5,806,021	6,506,931	6,788,120	5,014,826	8,581,232	5,491,640	7,908,928	8,281,171	8,370,700	9,089,166	9,419,749	8,294,298	8,377,781	8,592,826	9,284,253
March	-	6,535,951	5,842,774	5,264,836	5,987,830	4,938,790	7,647,665	5,656,490	6,770,926	8,557,984	8,454,557	8,811,328	8,505,392	8,889,124	8,950,988	9,423,223	7,975,224
April	-	5,152,535	4,400,391	4,941,607	4,586,860	4,795,180	6,277,923	4,493,560	6,152,725	7,080,310	6,133,761	7,249,320	7,590,973	7,241,218	8,520,974	7,319,432	-
May	-	4,915,527	4,552,159	4,361,139	4,002,747	5,489,624	2,995,783	4,302,060	5,242,313	6,192,538	5,637,203	6,533,624	7,409,978	7,334,501	7,209,857	6,903,342	-
June	-	4,918,099	4,899,611	4,435,262	4,017,530	5,151,263	2,786,750	3,873,570	5,384,872	5,321,145	5,354,303	6,468,083	6,706,132	6,560,964	6,528,899	6,483,854	-
July	-	4,215,167	4,430,621	4,041,017	3,669,671	5,466,288	2,794,600	3,945,254	5,217,991	5,495,075	5,854,986	6,646,775	6,848,461	6,424,316	6,745,893	6,729,793	-
August	-	4,423,839	4,710,013	3,902,210	3,704,435	5,572,611	3,001,790	4,443,649	5,208,363	5,617,434	5,974,280	6,896,731	7,092,676	5,886,748	6,783,164	6,599,181	-
September	-	4,035,542	4,602,058	3,916,753	3,734,630	5,402,237	3,579,350	4,763,502	5,263,160	5,791,407	6,138,654	6,754,020	6,847,602	5,772,541	6,392,156	6,313,711	-
October	5,719,904	5,035,457	5,016,381	4,562,671	4,693,056	5,874,155	4,752,370	5,122,713	6,645,437	6,651,915	6,615,173	7,187,351	6,916,702	6,482,392	7,939,000	7,476,037	-
November	5,558,139	5,800,368	6,048,131	5,545,025	5,218,078	6,251,544	4,892,900	6,044,795	7,610,241	7,836,286	8,620,108	7,724,143	7,864,588	8,232,936	9,295,101	9,173,575	-
December	6,732,121	7,061,295	6,161,723	6,335,589	5,996,309	8,427,819	6,746,100	6,582,113	8,213,735	8,755,201	9,320,663	8,713,752	10,113,483	9,648,299	9,644,638	9,182,855	-
<b>Total</b>	<b>18,010,164</b>	<b>64,678,825</b>	<b>62,098,103</b>	<b>60,456,736</b>	<b>60,209,476</b>	<b>69,116,781</b>	<b>63,140,787</b>	<b>61,636,006</b>	<b>78,169,446</b>	<b>84,805,790</b>	<b>85,193,038</b>	<b>91,700,980</b>	<b>96,053,230</b>	<b>90,738,076</b>	<b>97,086,662</b>	<b>94,600,230</b>	<b>26,992,628</b>

BILLS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	55	54	54	55	53	55	53	54	51	51	51	50	49	48	49	49
February	-	55	54	54	55	54	55	53	54	51	51	51	49	49	48	49	49
March	-	55	54	54	55	53	55	53	52	51	52	51	49	49	48	49	49
April	-	55	55	54	55	54	55	52	52	51	52	51	49	49	48	49	-
May	-	55	54	54	55	54	54	52	53	51	52	51	49	48	48	49	-
June	-	55	54	54	55	54	53	53	52	51	52	51	49	48	48	49	-
July	-	56	53	54	55	54	54	53	52	51	52	51	49	48	48	49	-
August	-	55	54	55	55	54	54	53	52	51	52	51	49	48	48	49	-
September	-	55	54	54	55	54	54	53	52	51	52	51	49	48	48	49	-
October	55	55	54	55	55	54	54	53	52	51	52	51	48	48	48	49	-
November	55	55	54	55	54	54	54	53	51	51	52	51	50	48	49	49	-
December	55	54	54	55	54	55	54	53	51	51	52	51	50	48	49	49	-
<b>Total</b>	<b>165</b>	<b>660</b>	<b>648</b>	<b>652</b>	<b>658</b>	<b>647</b>	<b>651</b>	<b>634</b>	<b>627</b>	<b>612</b>	<b>622</b>	<b>612</b>	<b>590</b>	<b>580</b>	<b>578</b>	<b>588</b>	<b>147</b>

Usage/Bill	109,152.51	97,998.22	95,830.41	92,725.06	91,503.76	106,826.55	96,990.46	97,217.68	124,672.16	138,571.55	136,966.30	149,838.20	162,802.08	156,444.96	167,970.00	160,884.74	183,623.32
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**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Firm Service Revenue Forecast**

**FIRM Service Revenue Forecast consolidates Rate Schedules 303 and 313.**

Total Combined 303 and 313 Industrial Service (FIRM) Margin	Tariff Ratio	Billing Determinant	Rate	Margin
<b>Customer Charges:</b>				
Rate Schedule 303	36.94% A/	567	\$800.00000 E/	\$453,600
Rate Schedule 313	63.06% A/	968	800.00000 E/	774,400
<b>Total Customer Charge Margin</b>	<b>100.00%</b>	<b>1,535 B/</b>		<b>\$1,228,000</b>
<b>Commodity Charges:</b>				
<b>Rate Schedule 303:</b>				
Step 1 - 0 to 15,000 Therms per Month	26.55% A/	4,537,123	\$0.09195 E/	\$417,188
Step 2 - 15,001 to 40,000 Therms per Month	26.55% A/	2,391,048	0.08466 E/	202,426
Step 3 - 40,001 to 90,000 Therms per Month	26.55% A/	893,676	0.05963 E/	53,290
Step 4 - Over 90,000 Therms per Month	26.55% A/	164,261	0.02277 E/	3,740
<b>Total 303 Commodity Charge Margin</b>	<b>26.55%</b>	<b>7,986,108</b>		<b>\$676,645</b>
<b>Rate Schedule 313:</b>				
Step 1 - 0 to 15,000 Therms per Month	73.45% A/	12,549,108	\$0.09195 E/	\$1,153,890
Step 2 - 15,001 to 40,000 Therms per Month	73.45% A/	6,613,338	0.08466 E/	559,885
Step 3 - 40,001 to 90,000 Therms per Month	73.45% A/	2,471,794	0.05963 E/	147,393
Step 4 - Over 90,000 Therms per Month	73.45% A/	454,325	0.02277 E/	10,345
<b>Total 313 Commodity Charge Margin</b>	<b>73.45%</b>	<b>22,088,565</b>		<b>\$1,871,514</b>
<b>Total FIRM:</b>				
Step 1 - 0 to 15,000 Therms per Month	100.00%	17,086,230 C/	\$0.09195 E/	\$1,571,079
Step 2 - 15,001 to 40,000 Therms per Month	100.00%	9,004,386 C/	0.08466 E/	762,311
Step 3 - 40,001 to 90,000 Therms per Month	100.00%	3,365,470 C/	0.05963 E/	200,683
Step 4 - Over 90,000 Therms per Month	100.00%	618,586 C/	0.02277 E/	14,085
<b>Total FIRM Commodity Charge Margin</b>	<b>100.00%</b>	<b>30,074,672</b>		<b>\$2,548,158</b>
<b>Billing Demand:</b>				
Rate Schedule 303	32.00% A/	84,499	\$8.00000 E/	\$675,992
Rate Schedule 313	68.00% A/	179,520	8.00000 E/	1,436,160
<b>Total Billing Demand Margin</b>	<b>100.00%</b>	<b>264,019 D/</b>		<b>\$2,112,152</b>
<b>Minimum Margin Agreement Margin</b>				
CONTAINS CONFIDENTIAL PROPRIETARY DATA				F/
				F/
<b>Total Minimum Margin Agreement Margin</b>				<b>\$0</b>
<b>Total FIRM Margin</b>				<b>\$5,888,310</b>
<b>FIRM Gas Cost:</b>				
<b>Demand</b>				
Rate Schedule 303		84,499	\$8.28290 E/	\$699,897
Rate Schedule 313		179,520	8.28290 E/	1,486,946
<b>Total FIRM Demand</b>		<b>264,019</b>		<b>\$2,186,843</b>
<b>Commodity</b>				
Rate Schedule 303		7,986,108	\$0.19717 E/	\$1,574,621
<b>Total Firm Commodity</b>		<b>7,986,108</b>		<b>\$1,574,621</b>
<b>Total FIRM Gas Cost</b>				<b>3,761,464</b>
<b>FIRM Other Charges:</b>				
Integrity Management Rider Surcharge				0 G/
Docket 18-00040 Excess ADIT				0 H/
<b>Total FIRM Other Charges</b>				<b>0</b>
<b>Total FIRM Revenues</b>				<b>\$9,649,774</b>

Total Combined 303 and 313 Industrial Service (FIRM) Margin	Tariff Ratio	Billing Determinant	Rate	Margin
<b>Recap</b>		<b>Rate 303</b>	<b>Rate 313</b>	<b>Total</b>
Customer Charge Margin		\$453,600	\$774,400	\$1,228,000
Commodity Charge Margin		676,645	1,871,514	2,548,158
Billing Demand		675,992	1,436,160	2,112,152
Minimum Margin Agreements		\$0	0	0
<b>Total Margin</b>		<b>\$1,806,237</b>	<b>\$4,082,074</b>	<b>\$5,888,310</b>
Gas Cost - Demand		\$699,897	\$1,486,946	\$2,186,843
Gas Cost - Commodity		1,574,621	0	1,574,621
<b>Total Gas Cost</b>		<b>\$2,274,518</b>	<b>\$1,486,946</b>	<b>\$3,761,464</b>
Integrity Management Rider Surcharge		\$0	\$0	\$0
Docket 18-00040 Excess ADIT		0	0	0
<b>Total Other Charges</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total FIRM Revenues</b>		<b>\$4,080,754</b>	<b>\$5,569,020</b>	<b>\$9,649,774</b>

A/ WHN Revenue Workpaper R-42-1.01.

B/ WHN Revenue Workpaper R-42-1.04.

C/ WHN Revenue Workpaper R-42-1.02.

D/ WHN Revenue Workpaper R-42-1.03.

E/ WHN Revenue Workpaper R-110-1.00.

F/ Minimum Margin Agreement Contracts were never approved by the Commission. See WHN Workpaper R-60-2.00 for details.

G/ IMR Surcharge is excluded from the Consumer Advocate's case. See WHN Revenue Workpaper R-55-1.00 for details.

H/ Excess ADIT is excluded from the Consumer Advocate's case. See WHN Workpaper R-60-1.00 for details.

	Actual Determinants			Percentage Calculation		
	303-LFGS	313-LFTS	Total	303-LFGS	313-LFTS	Total
<b>Bills:</b>						
For the 12 Months Ended March 31, 2015	504	925	1,429 A/	35.27%	64.73%	100.00%
For the 12 Months Ended March 31, 2016	523	942	1,465 A/	35.70%	64.30%	100.00%
For the 12 Months Ended March 31, 2017	550	971	1,521 A/	36.16%	63.84%	100.00%
For the 12 Months Ended March 31, 2018	546	943	1,489 A/	36.67%	63.33%	100.00%
For the 12 Months Ended March 31, 2019	568	945	1,513 A/	37.54%	62.46%	100.00%
For the 12 Months Ended March 31, 2020	619	916	1,535 A/	40.33%	59.67%	100.00%
<b>Average</b>	<b>552</b>	<b>940</b>	<b>1,492</b>	<b>36.94%</b>	<b>63.06%</b>	<b>100.00%</b>
<b>Usage:</b>						
For the 12 Months Ended March 31, 2015	6,792,587	20,010,067	26,802,654 A/	25.34%	74.66%	100.00%
For the 12 Months Ended March 31, 2016	7,118,417	18,776,726	25,895,143 A/	27.49%	72.51%	100.00%
For the 12 Months Ended March 31, 2017	6,956,883	18,322,487	25,279,370 A/	27.52%	72.48%	100.00%
For the 12 Months Ended March 31, 2018	7,258,267	21,142,706	28,400,973 A/	25.56%	74.44%	100.00%
For the 12 Months Ended March 31, 2019	7,819,236	22,402,471	30,221,707 A/	25.87%	74.13%	100.00%
For the 12 Months Ended March 31, 2020	7,857,186	20,668,853	28,526,039 A/	27.54%	72.46%	100.00%
<b>Average</b>	<b>7,300,429</b>	<b>20,220,552</b>	<b>27,520,981</b>	<b>26.55%</b>	<b>73.45%</b>	<b>100.00%</b>
<b>Billing Demand:</b>						
For the 12 Months Ended March 31, 2015	71,418	163,077	234,495 B/	30.46%	69.54%	100.00%
For the 12 Months Ended March 31, 2016	78,995	167,351	246,346 B/	32.07%	67.93%	100.00%
For the 12 Months Ended March 31, 2017	76,192	161,254	237,446 B/	32.09%	67.91%	100.00%
For the 12 Months Ended March 31, 2018	72,696	157,846	230,541 B/	31.53%	68.47%	100.00%
For the 12 Months Ended March 31, 2019	82,338	173,567	255,905 B/	32.18%	67.82%	100.00%
For the 12 Months Ended March 31, 2020	81,089	159,462	240,551 B/	33.71%	66.29%	100.00%
<b>Average</b>	<b>77,121</b>	<b>163,760</b>	<b>240,881</b>	<b>32.00%</b>	<b>68.00%</b>	<b>100.00%</b>

A/ WHN Revenue Workpapers R-25-3.00 and R-35-3.00.

B/ WHN Revenue Workpapers R-25-1.03 and R-35-1.03.



	Step 1	Step 2	Step 3	Step 4	Total	
Attrition Period Combined FIRM 303-313 Industrial Service (FIRM) Usage	17,086,230	9,004,386	3,365,470	618,586	30,074,672	A/
Step Percentage	56.81%	29.94%	11.19%	2.06%	100.00%	

**Summary:**

For the 12 Months Ended March 31, 2015	56.74%	31.75%	10.06%	1.45%	100.00%
For the 12 Months Ended March 31, 2016	58.28%	29.88%	10.51%	1.33%	100.00%
For the 12 Months Ended March 31, 2017	59.63%	27.45%	11.25%	1.67%	100.00%
For the 12 Months Ended March 31, 2018	54.90%	30.49%	12.42%	2.20%	100.00%
For the 12 Months Ended March 31, 2019	54.68%	30.39%	12.03%	2.90%	100.00%
For the 12 Months Ended March 31, 2020	56.64%	29.68%	10.88%	2.80%	100.00%
<b>Average</b>	<b>56.81%</b>	<b>29.94%</b>	<b>11.19%</b>	<b>2.06%</b>	<b>100.00%</b>

For the 12 Months Ended March 31, 2015	Step 1	Step 2	Step 3	Step 4	Total	B/
April-14	1,208,479	529,389	152,682	0	1,890,550	
May	1,022,844	425,495	119,886	35,167	1,603,392	
June	888,707	366,394	103,876	11,178	1,370,155	
July	900,550	383,441	112,671	8,721	1,405,383	
August	877,169	375,767	124,357	8,439	1,385,732	
September	924,383	403,029	109,673	21,859	1,458,944	
October	1,098,423	494,619	173,964	18,074	1,785,080	
November	1,603,727	833,055	309,222	29,095	2,775,099	
December	1,660,688	997,608	332,261	74,492	3,065,049	
January-15	1,715,285	1,400,078	420,846	83,219	3,619,428	
February	1,700,296	1,435,953	411,796	85,167	3,633,212	
March	1,608,514	864,387	325,148	12,581	2,810,630	
<b>Total</b>	<b>15,209,065</b>	<b>8,509,215</b>	<b>2,696,382</b>	<b>387,992</b>	<b>26,802,654</b>	
<b>Step Percentage</b>	<b>56.74%</b>	<b>31.75%</b>	<b>10.06%</b>	<b>1.45%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2016	Step 1	Step 2	Step 3	Step 4	Total	B/
April-15	1,164,864	566,391	157,583	10,794	1,899,632	
May	1,007,106	448,695	128,748	0	1,584,549	
June	939,619	398,297	150,596	12,421	1,500,933	
July	927,043	382,944	149,717	11,763	1,471,467	
August	941,800	425,956	159,835	12,000	1,539,591	
September	1,013,181	434,334	144,008	46,239	1,637,762	
October	1,142,448	536,920	185,356	25,971	1,890,695	
November	1,417,427	614,733	257,052	25,225	2,314,437	
December	1,563,196	743,747	241,736	23,378	2,572,057	
January-16	1,802,474	1,438,592	510,746	93,176	3,844,988	
February	1,751,987	1,046,825	376,042	49,644	3,224,498	
March	1,421,143	700,842	259,051	33,498	2,414,534	
<b>Total</b>	<b>15,092,288</b>	<b>7,738,276</b>	<b>2,720,470</b>	<b>344,109</b>	<b>25,895,143</b>	
<b>Step Percentage</b>	<b>58.28%</b>	<b>29.88%</b>	<b>10.51%</b>	<b>1.33%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2017	Step 1	Step 2	Step 3	Step 4	Total	B/
April-16	1,192,267	517,222	228,007	39,034	1,976,530	
May	1,067,583	452,143	183,974	33,813	1,737,513	
June	940,338	335,923	176,986	49,751	1,502,998	
July	922,014	313,222	175,299	18,422	1,428,957	
August	961,338	349,791	180,011	39,122	1,530,262	
September	980,850	346,769	180,684	29,067	1,537,370	
October	1,093,263	428,885	200,343	26,168	1,748,659	
November	1,398,335	634,886	220,945	31,209	2,285,375	
December	1,757,911	1,111,673	401,009	56,570	3,327,163	
January-17	1,690,552	991,662	371,300	33,345	3,086,859	
February	1,535,089	691,985	259,476	24,007	2,510,557	
March	1,534,277	764,436	267,142	41,272	2,607,127	
<b>Total</b>	<b>15,073,817</b>	<b>6,938,597</b>	<b>2,845,176</b>	<b>421,780</b>	<b>25,279,370</b>	
<b>Step Percentage</b>	<b>59.63%</b>	<b>27.45%</b>	<b>11.25%</b>	<b>1.67%</b>	<b>100.00%</b>	

A/ WHN Revenue Workpaper R-42-1.04.

B/ WHN Revenue Workpaper R-42-5.00 (Non-Print).

For the 12 Months Ended March 31, 2018	Step 1	Step 2	Step 3	Step 4	Total	B/
April-17	1,121,537	419,064	187,342	19,038	1,746,981	
May	1,080,126	450,746	179,056	28,292	1,738,220	
June	978,827	383,102	187,214	29,017	1,578,160	
July	941,034	344,398	179,400	26,710	1,491,542	
August	974,375	441,559	210,369	74,336	1,700,639	
September	997,814	445,255	196,102	28,160	1,667,331	
October	1,209,395	620,715	237,290	49,376	2,116,776	
November	1,519,445	834,808	294,308	48,101	2,696,662	
December	1,743,865	1,302,756	459,186	67,726	3,573,533	
January-18	1,793,806	1,558,416	669,923	133,606	4,155,751	
February	1,595,885	893,758	354,272	54,327	2,898,242	
March	1,635,779	964,058	372,237	65,062	3,037,136	
<b>Total</b>	<b>15,591,888</b>	<b>8,658,635</b>	<b>3,526,699</b>	<b>623,751</b>	<b>28,400,973</b>	
<b>Step Percentage</b>	<b>54.90%</b>	<b>30.49%</b>	<b>12.42%</b>	<b>2.20%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2019	Step 1	Step 2	Step 3	Step 4	Total	B/
April-18	1,485,271	760,285	293,484	62,019	2,601,059	
May	1,036,473	444,598	216,180	63,015	1,760,266	
June	961,615	374,610	211,755	61,560	1,609,540	
July	950,887	349,482	190,143	43,777	1,534,289	
August	977,294	417,597	222,993	84,243	1,702,127	
September	995,483	403,819	195,565	33,254	1,628,121	
October	1,321,701	693,652	285,033	111,825	2,412,211	
November	1,733,446	1,070,398	357,820	14,021	3,175,685	
December	1,773,610	1,242,024	435,274	76,579	3,527,487	
January-19	1,820,850	1,433,733	525,292	151,227	3,931,102	
February	1,731,276	978,082	337,561	93,887	3,140,806	
March	1,736,508	1,016,840	363,313	82,353	3,199,014	
<b>Total</b>	<b>16,524,414</b>	<b>9,185,120</b>	<b>3,634,413</b>	<b>877,760</b>	<b>30,221,707</b>	
<b>Step Percentage</b>	<b>54.68%</b>	<b>30.39%</b>	<b>12.03%</b>	<b>2.90%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2020	Step 1	Step 2	Step 3	Step 4	Total	B/
April-19	1,292,620	631,638	222,381	48,931	2,195,570	
May	1,098,947	492,023	214,115	65,039	1,870,124	
June	981,758	443,233	216,541	48,893	1,690,425	
July	960,460	438,159	189,280	53,864	1,641,763	
August	986,691	449,383	208,108	71,895	1,716,077	
September	970,632	390,806	161,546	49,269	1,572,253	
October	1,252,363	615,517	244,832	78,545	2,191,257	
November	1,767,888	979,048	303,923	63,170	3,114,029	
December	1,738,944	1,024,005	333,941	78,156	3,175,046	
January-20	1,816,177	1,182,728	368,121	93,226	3,460,252	
February	1,795,153	1,124,997	386,700	83,282	3,390,132	
March	1,496,611	695,726	253,614	63,160	2,509,111	
<b>Total</b>	<b>16,158,244</b>	<b>8,467,263</b>	<b>3,103,102</b>	<b>797,430</b>	<b>28,526,039</b>	
<b>Step Percentage</b>	<b>56.64%</b>	<b>29.68%</b>	<b>10.88%</b>	<b>2.80%</b>	<b>100.00%</b>	

A/ WHN Revenue Workpaper R-42-1.04.

B/ WHN Revenue Workpaper R-42-5.00 (Non-Print).

Attrition Period Combined Firm 303-313 Industrial Service (FIRM) Usage	Amount
Average Billing Demand Percentage	30,074,672 A/
Attrition Period Combined Firm 303-313 Industrial Service (FIRM) Billing Demand	0.88%
	<b>264,019</b>

**Billing Demand Summary:**

For the 12 Months Ended March 31, 2015  
 For the 12 Months Ended March 31, 2016  
 For the 12 Months Ended March 31, 2017  
 For the 12 Months Ended March 31, 2018  
 For the 12 Months Ended March 31, 2019  
 For the 12 Months Ended March 31, 2020  
**Average**

Demand	Usage	Percentage
234,495	26,802,654	0.87%
246,346	25,895,143	0.95%
237,446	25,279,370	0.94%
230,541	28,400,973	0.81%
255,905	30,221,707	0.85%
240,551	28,526,039	0.84%
<b>240,881</b>	<b>27,520,981</b>	<b>0.88%</b>

**Billing Demand - For the 12 Months Ended March**

	2015	2016	2017	2018	2019	2020	B/
April	16,406	20,298	20,821	19,330	19,706	21,623	
May	16,406	20,315	21,024	19,246	19,706	21,623	
June	20,278	20,208	19,738	18,990	21,587	19,769	
July	20,329	20,208	19,755	18,990	21,293	19,783	
August	20,147	20,208	19,703	18,990	21,525	19,783	
September	20,147	20,565	19,703	18,990	21,675	19,783	
October	20,147	20,565	19,703	18,925	21,675	19,833	
November	20,147	20,757	19,585	18,925	21,811	20,144	
December	20,147	20,757	19,423	18,805	21,799	19,770	
January	20,048	20,821	19,423	18,865	21,799	19,480	
February	20,098	20,821	19,240	20,780	21,706	19,480	
March	20,198	20,821	19,330	19,706	21,623	19,480	
<b>Total</b>	<b>234,495</b>	<b>246,346</b>	<b>237,446</b>	<b>230,541</b>	<b>255,905</b>	<b>240,551</b>	

**Usage - For the 12 Months Ended March**

	2015	2016	2017	2018	2019	2020	B/
April	1,890,550	1,899,632	1,976,530	1,746,981	2,601,059	2,195,570	
May	1,603,392	1,584,549	1,737,513	1,738,220	1,760,266	1,870,124	
June	1,370,155	1,500,933	1,502,998	1,578,160	1,609,540	1,690,425	
July	1,405,383	1,471,467	1,428,957	1,491,542	1,534,289	1,641,763	
August	1,385,732	1,539,591	1,530,262	1,700,639	1,702,127	1,716,077	
September	1,458,944	1,637,762	1,537,370	1,667,331	1,628,121	1,572,253	
October	1,785,080	1,890,695	1,748,659	2,116,776	2,412,211	2,191,257	
November	2,775,099	2,314,437	2,285,375	2,696,662	3,175,685	3,114,029	
December	3,065,049	2,572,057	3,327,163	3,573,533	3,527,487	3,175,046	
January	3,619,428	3,844,988	3,086,859	4,155,751	3,931,102	3,460,252	
February	3,633,212	3,224,498	2,510,557	2,898,242	3,140,806	3,390,132	
March	2,810,630	2,414,534	2,607,127	3,037,136	3,199,014	2,509,111	
<b>Total</b>	<b>26,802,654</b>	<b>25,895,143</b>	<b>25,279,370</b>	<b>28,400,973</b>	<b>30,221,707</b>	<b>28,526,039</b>	

A/ WHN Revenue Workpaper R-42-1.04.

B/ WHN Revenue Workpaper R-42-4.00.

Attrition Period Monthly Growth in FIRM Bills

		0	A/
	Growth	Total	
Test Period Number of FIRM Bills - 12 Months Ended March, 2020		1,535	A/
April-20	0	1,535	
May-20	0	1,535	
June-20	0	1,535	
July-20	0	1,535	
August-20	0	1,535	
September-20	0	1,535	
October-20	0	1,535	
November-20	0	1,535	
December-20	0	1,535	
January-21	0	1,535	
February-21	0	1,535	
March-21	0	1,535	
April-21	0	1,535	
May-21	0	1,535	
June-21	0	1,535	
July-21	0	1,535	
August-21	0	1,535	
September-21	0	1,535	
October-21	0	1,535	
November-21	0	1,535	
December-21	0	1,535	

Attrition Period FIRM Bills

1,535

Normalized Usage per Bill (Therms)

19,592.6202 B/

**Total FIRM Sales Volume - Therms**

**30,074,672**

A/ WHN Revenue Workpaper R-42-1.05.

B/ WHN Revenue Workpaper R-42-2.00.

**Historic Bill Counts:**

**For the 12 Months Ended March**

<b>MONTH</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
April	127	120	124	127	123	127
May	128	119	124	125	124	126
June	118	121	128	125	126	128
July	118	121	128	124	124	128
August	117	121	127	124	124	128
September	117	122	127	124	127	130
October	117	122	127	123	127	129
November	117	124	127	124	128	130
December	117	123	128	123	128	128
January	116	124	126	122	128	127
February	117	124	127	124	128	127
March	120	124	128	124	126	127
<b>Total</b>	<b>1,429</b>	<b>1,465</b>	<b>1,521</b>	<b>1,489</b>	<b>1,513</b>	<b>1,535</b>

**Source:** WHN Revenue Workpaper R-42-4.00.

**Annual Bill Growth Calculation:**

<b>Year</b>	<b>Bills</b>	<b>Growth</b>
2015	1,429	-
2016	1,465	36
2017	1,521	56
2018	1,489	-32
2019	1,513	24
2020	1,535	22

Five-Year Average 21

Four-Year Average 18

Three-Year Average 5

Two-Year Average 23

One-Year Average 22

Manual Input 0

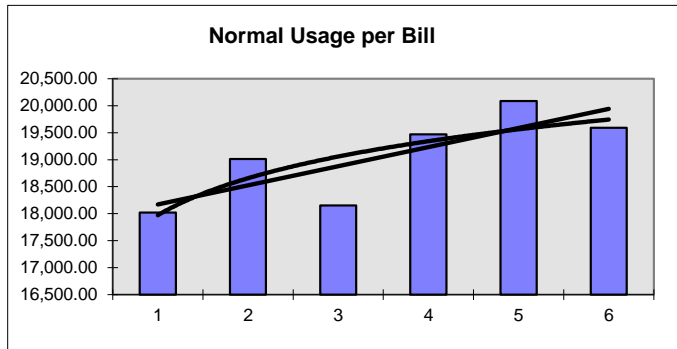
*Zero growth (0) was chosen as the most representative of the Attrition Year.*

Annual Bill Growth Forecast	0
Test Period Bills	1,535
<b>Annual Percentage Growth</b>	<b>0.00%</b>

Annual Bill Growth Forecast	0
Months per Year	12
<b>Monthly Bill Growth</b>	<b>0</b>

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2015	1	18,019.8348	18,170.7209	18,173.5062	-
2016	2	19,014.3631	18,524.8636	18,515.6874	5.52%
2017	3	18,154.3018	18,879.0063	18,864.3114	-4.52%
2018	4	19,468.7891	19,233.1489	19,219.4995	7.24%
2019	5	20,086.5565	19,587.2916	19,581.3753	3.17%
2020	6	19,592.6202	19,941.4343	19,950.0646	-2.46%
Forecast	7.25		20,384.1127	20,420.7036	20,032.0097

Regression Statistics		
	Linear	Logarithmic
Constant	17,816.578180	9.789067
X Coefficient	354.142691	0.018654
R Squared	0.643856	0.642239

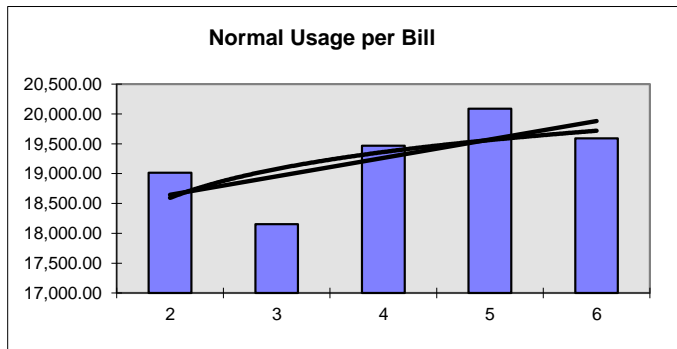


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - FIRM Conservation and Growth-5 Year Analysis  
Calendar Data

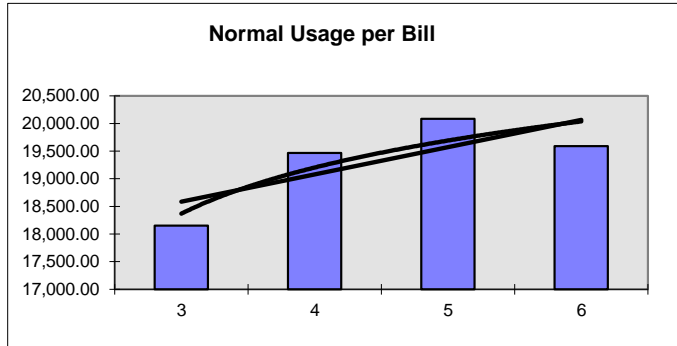
Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2016	2	19,014.3631	18,645.5724	18,641.9000	-
2017	3	18,154.3018	18,954.4493	18,944.5771	-4.52%
2018	4	19,468.7891	19,263.3261	19,252.1686	7.24%
2019	5	20,086.5565	19,572.2030	19,564.7543	3.17%
2020	6	19,592.6202	19,881.0799	19,882.4152	-2.46%
Forecast	7.25		20,267.1760	20,286.7542	19,802.9450

Regression Statistics		
	Linear	Logarithmic
Constant	18,027.818610	9.800955
X Coefficient	308.876885	0.016106
R Squared	0.449965	0.444595



Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2017	3	18,154.3018	18,585.6585	18,573.4810	-
2018	4	19,468.7891	19,078.9308	19,062.6754	7.24%
2019	5	20,086.5565	19,572.2030	19,564.7543	3.17%
2020	6	19,592.6202	20,065.4753	20,080.0571	-2.46%
Forecast	7.25		20,682.0656	20,743.3133	20,244.1490

Regression Statistics		
	Linear	Logarithmic
Constant	17,105.841707	9.751498
X Coefficient	493.272265	0.025997
R Squared	0.595550	0.599015

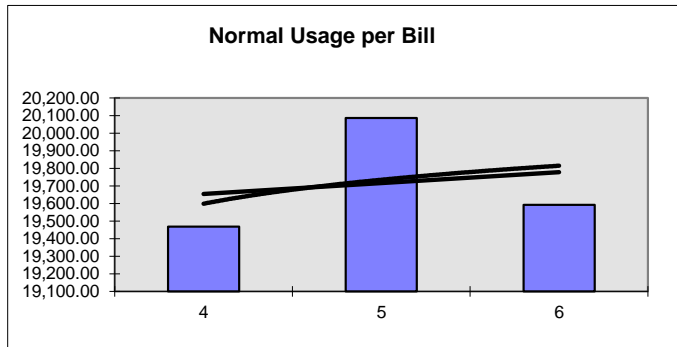


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - FIRM Conservation and Growth-3 Year Analysis  
Calendar Data

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2018	4	19,468.7891	19,654.0731	19,651.7936	-
2019	5	20,086.5565	19,715.9886	19,714.1921	3.17%
2020	6	19,592.6202	19,777.9041	19,776.7887	-2.46%
Forecast	7.25		19,855.2986	19,855.3140	19,680.1007

Regression Statistics		
	Linear	Logarithmic
Constant	19,406.410921	9.873243
X Coefficient	61.915538	0.003170
R Squared	0.035886	0.036860



Trend	From The 12 Months Ended		Calendar Data	
	Month	Year	Time Series Forecast	Adjusted Forecast
Linear Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Logarithmic Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Year To Year Change	March	2015	20,032.0097	20,032.0097
	March	2016	19,802.9450	19,802.9450
	March	2017	20,244.1490	
	March	2018	19,680.1007	
<b>Average</b>			<b>19,939.8011</b>	<b>19,917.4774</b>
One Standard Deviation			216.3931	
<b>Upper</b> End of Range			20,156.1942	
<b>Lower</b> End of Range			19,723.4080	
Number in Range			2.0000	
Weighted Average Forecast at Midpoint				<b>19,917.4774</b>
Test Period Amount				<b>19,592.6202</b>
Compound Growth Factor				<b>1.01658059</b>
Annualized Growth Rate				<b>1.01324262</b>
Test Period Sales				28,526,039
Weather Adjustment				1,548,633
Normal Sales				<b>30,074,672</b>
Usage Adjustment				498,656
Adjusted Sales				<b>30,573,328</b>

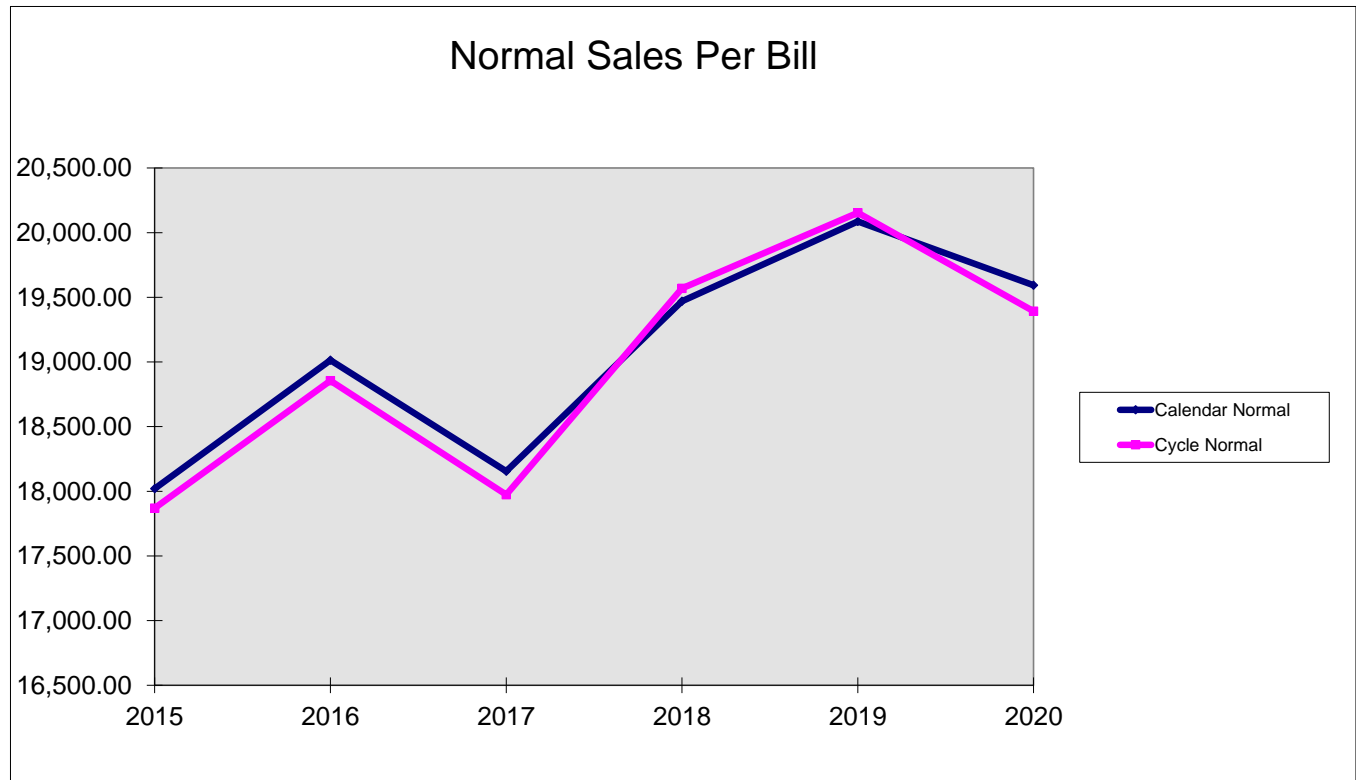


CALENDAR DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	26,802,654	1,429	217,036.0978	25,750,344	-1,052,310	98.70%	18,019.8348
2016	25,895,143	1,465	227,362.9486	27,856,042	1,960,899	99.62%	19,014.3631
2017	25,279,370	1,521	217,816.9705	27,612,693	2,333,323	98.21%	18,154.3018
2018	28,400,973	1,489	234,052.4931	28,989,027	588,054	98.78%	19,468.7891
2019	30,221,707	1,513	240,268.5640	30,390,960	169,253	98.37%	20,086.5565
2020	28,526,039	1,535	235,309.8864	30,074,672	1,548,633	97.91%	19,592.6202

CYCLE DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	26,802,654	1,429	215,438.9915	25,535,468	-1,267,186	89.44%	17,869.4668
2016	25,895,143	1,465	225,452.7556	27,623,357	1,728,214	80.67%	18,855.5338
2017	25,279,370	1,521	215,645.5886	27,338,319	2,058,949	90.28%	17,973.9112
2018	28,400,973	1,489	235,215.9272	29,137,393	736,420	87.03%	19,568.4305
2019	30,221,707	1,513	241,105.5257	30,492,489	270,782	87.54%	20,153.6609
2020	28,526,039	1,535	232,906.9319	29,766,706	1,240,667	86.71%	19,391.9909



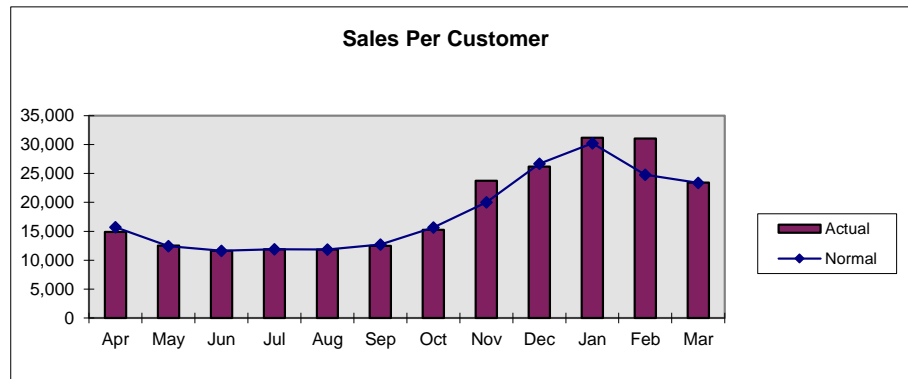
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,890,550	127	14,886.2205	144	182
May	1,603,392	128	12,526.5000	50	45
June	1,370,155	118	11,611.4831	0	1
July	1,405,383	118	11,910.0254	0	0
August	1,385,732	117	11,843.8632	0	0
September	1,458,944	117	12,469.6068	3	15
October	1,785,080	117	15,257.0940	150	168
November	2,775,099	117	23,718.7949	621	451
December	3,065,049	117	26,197.0000	671	695
January	3,619,428	116	31,201.9655	840	795
February	3,633,212	117	31,053.0940	905	617
March	2,810,630	120	23,421.9167	441	438
<b>TOTAL</b>	<b>26,802,654</b>	<b>1,429</b>	<b>226,097.5641</b>	<b>3,825</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	38	829.3126	15,715.5331	1,995,873	105,323
May	-5	-111.0958	12,415.4042	1,589,172	-14,220
June	1	27.3400	11,638.8231	1,373,381	3,226
July	0	0.0000	11,910.0254	1,405,383	0
August	0	2.1698	11,846.0330	1,385,986	254
September	12	257.3429	12,726.9497	1,489,053	30,109
October	18	383.1936	15,640.2876	1,829,914	44,834
November	-170	-3,685.6892	20,033.1057	2,343,873	-431,226
December	24	515.5538	26,712.5538	3,125,369	60,320
January	-45	-969.2672	30,232.6983	3,506,993	-112,435
February	-288	-6,248.2694	24,804.8246	2,902,164	-731,048
March	-3	-62.0574	23,359.8593	2,803,183	-7,447
<b>TOTAL</b>	<b>-418</b>	<b>-9,061.4663</b>	<b>217,036.0978</b>	<b>25,750,344</b>	<b>-1,052,310</b>

Regression Output:

Constant 11,925.10068643  
Std Err of Y Est 926.74996919  
R Squared 0.98696780  
  
X Coefficient 21.69839370  
Std Err of Coef. 0.78846950



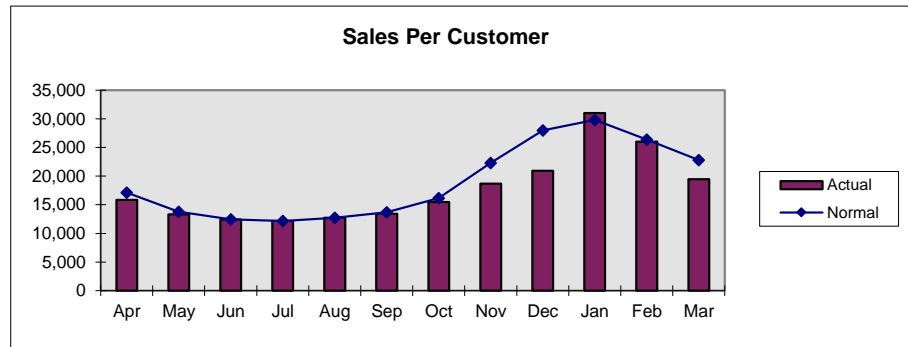
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,899,632	120	15,830.2667	123	182
May	1,584,549	119	13,315.5378	24	45
June	1,500,933	121	12,404.4050	0	1
July	1,471,467	121	12,160.8843	0	0
August	1,539,591	121	12,723.8926	0	0
September	1,637,762	122	13,424.2787	3	15
October	1,890,695	122	15,497.5000	137	168
November	2,314,437	124	18,664.8145	283	451
December	2,572,057	123	20,911.0325	370	695
January	3,844,988	124	31,007.9677	850	795
February	3,224,498	124	26,004.0161	600	617
March	2,414,534	124	19,472.0484	285	438
<b>TOTAL</b>	<b>25,895,143</b>	<b>1,465</b>	<b>211,416.6443</b>	<b>2,675</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	59	1,289.3952	17,119.6619	2,054,359	154,727
May	21	454.6196	13,770.1574	1,638,649	54,100
June	1	27.4339	12,431.8389	1,504,253	3,320
July	0	0.0000	12,160.8843	1,471,467	0
August	0	2.1773	12,726.0699	1,539,854	263
September	12	258.2274	13,682.5061	1,669,266	31,504
October	31	667.5592	16,165.0592	1,972,137	81,442
November	168	3,660.9069	22,325.7214	2,768,389	453,952
December	325	7,070.9892	27,982.0217	3,441,789	869,732
January	-55	-1,190.3282	29,817.6395	3,697,387	-147,601
February	17	371.0114	26,375.0275	3,270,503	46,005
March	153	3,334.3124	22,806.3608	2,827,989	413,455
<b>TOTAL</b>	<b>732</b>	<b>15,946.30</b>	<b>227,362.9486</b>	<b>27,856,042</b>	<b>1,960,899</b>

Regression Output:

Constant 12,764.49618711  
Std Err of Y Est 386.23348456  
R Squared 0.99617201  
  
X Coefficient 21.77296824  
Std Err of Coef. 0.42681123



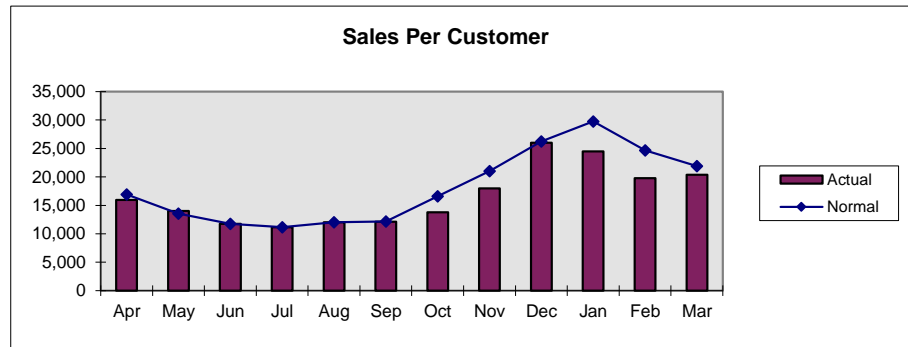
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,976,530	124	15,939.7581	136	182
May	1,737,513	124	14,012.2016	67	45
June	1,502,998	128	11,742.1719	0	1
July	1,428,957	128	11,163.7266	0	0
August	1,530,262	127	12,049.3071	0	0
September	1,537,370	127	12,105.2756	13	15
October	1,748,659	127	13,768.9685	33	168
November	2,285,375	127	17,995.0787	308	451
December	3,327,163	128	25,993.4609	683	695
January	3,086,859	126	24,498.8810	546	795
February	2,510,557	127	19,768.1654	385	617
March	2,607,127	128	20,368.1797	365	438
<b>TOTAL</b>	<b>25,279,370</b>	<b>1,521</b>	<b>199,405.1750</b>	<b>2,536</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	46.2200	976.5928	16,916.3509	2,097,628	121,098
May	-22.1200	-467.3785	13,544.8231	1,679,558	-57,955
June	1.2600	26.6228	11,768.7947	1,506,406	3,408
July	0.0000	0.0000	11,163.7266	1,428,957	0
August	0.1000	2.1129	12,051.4200	1,530,530	268
September	1.8600	39.3004	12,144.5760	1,542,361	4,991
October	134.6600	2,845.2615	16,614.2300	2,110,007	361,348
November	143.1400	3,024.4373	21,019.5160	2,669,479	384,104
December	11.7600	248.4797	26,241.9406	3,358,968	31,805
January	249.3300	5,268.1497	29,767.0307	3,750,646	663,787
February	232.0400	4,902.8254	24,670.9908	3,133,216	622,659
March	73.1400	1,545.3915	21,913.5712	2,804,937	197,810
<b>TOTAL</b>	<b>871.3900</b>	<b>18,411.7955</b>	<b>217,816.9705</b>	<b>27,612,693</b>	<b>2,333,323</b>

Regression Output:

Constant 12,151.78832461  
Std Err of Y Est 714.63283057  
R Squared 0.98214453  
  
X Coefficient 21.12922519  
Std Err of Coef. 0.90091014



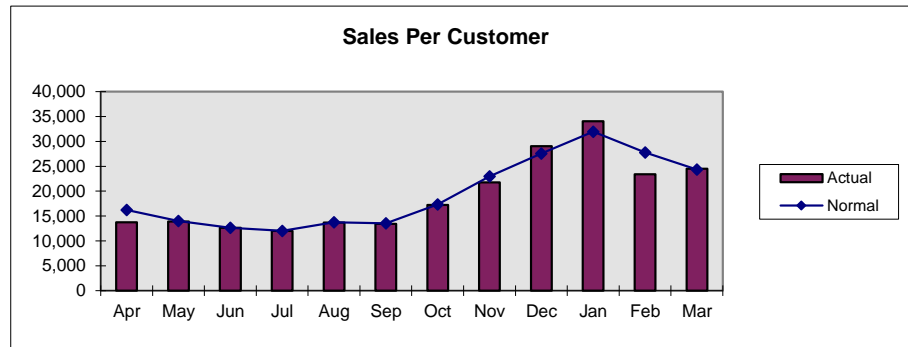
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,746,981	127	13,755.7559	76	182
May	1,738,220	125	13,905.7600	41	45
June	1,578,160	125	12,625.2800	0	1
July	1,491,542	124	12,028.5645	0	0
August	1,700,639	124	13,714.8306	0	0
September	1,667,331	124	13,446.2177	12	15
October	2,116,776	123	17,209.5610	163	168
November	2,696,662	124	21,747.2742	399	451
December	3,573,533	123	29,053.1138	758	695
January	4,155,751	122	34,063.5328	886	795
February	2,898,242	124	23,372.9194	429	617
March	3,037,136	124	24,493.0323	444	438
<b>TOTAL</b>	<b>28,400,973</b>	<b>1,489</b>	<b>229,415.8422</b>	<b>3,208</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	106.2200	2,470.0590	16,225.8149	2,060,678	313,697
May	3.8800	90.2262	13,995.9862	1,749,498	11,278
June	1.2600	29.3003	12,654.5803	1,581,823	3,663
July	0.0000	0.0000	12,028.5645	1,491,542	0
August	0.1000	2.3254	13,717.1560	1,700,927	288
September	2.8600	66.5070	13,512.7247	1,675,578	8,247
October	4.6600	108.3645	17,317.9255	2,130,105	13,329
November	52.1400	1,212.4729	22,959.7471	2,847,009	150,347
December	-63.2400	-1,470.5943	27,582.5195	3,392,650	-180,883
January	-90.6700	-2,108.4565	31,955.0763	3,898,519	-257,232
February	188.0400	4,372.7159	27,745.6353	3,440,459	542,217
March	-5.8600	-136.2695	24,356.7628	3,020,239	-16,897
<b>TOTAL</b>	<b>199.3900</b>	<b>4,636.6509</b>	<b>234,052.4931</b>	<b>28,989,027</b>	<b>588,054</b>

Regression Output:

Constant 12,901.36951583  
Std Err of Y Est 848.51221234  
R Squared 0.98778311  
  
X Coefficient 23.25417955  
Std Err of Coef. 0.81780647



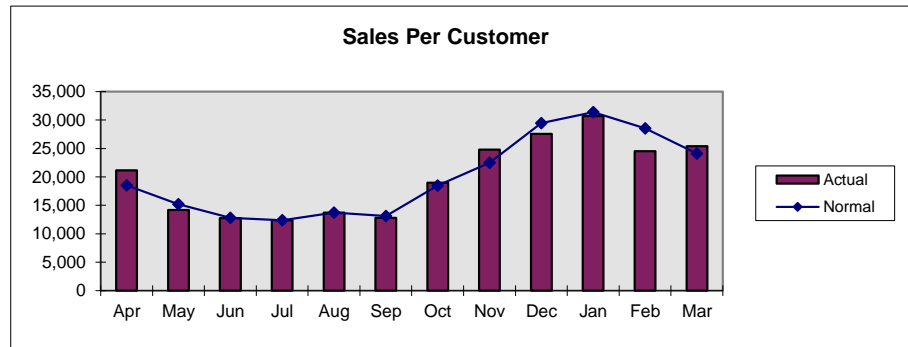
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	2,601,059	123	21,146.8211	295	182
May	1,760,266	124	14,195.6935	1	45
June	1,609,540	126	12,774.1270	0	1
July	1,534,289	124	12,373.2984	0	0
August	1,702,127	124	13,726.8306	0	0
September	1,628,121	127	12,819.8504	2	15
October	2,412,211	127	18,993.7874	190	168
November	3,175,685	128	24,810.0391	551	451
December	3,527,487	128	27,558.4922	613	695
January	3,931,102	128	30,711.7344	766	795
February	3,140,806	128	24,537.5469	443	617
March	3,199,014	126	25,389.0000	493	438
<b>TOTAL</b>	<b>30,221,707</b>	<b>1,513</b>	<b>239,037.2210</b>	<b>3,354</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-112.7800	-2,601.0650	18,545.7561	2,281,128	-319,931
May	43.8800	1,012.0122	15,207.7057	1,885,756	125,490
June	1.2600	29.0596	12,803.1866	1,613,202	3,662
July	0.0000	0.0000	12,373.2984	1,534,289	0
August	0.1000	2.3063	13,729.1369	1,702,413	286
September	12.8600	296.5924	13,116.4428	1,665,788	37,667
October	-22.3400	-515.2314	18,478.5560	2,346,777	-65,434
November	-99.8600	-2,303.0888	22,506.9503	2,880,890	-294,795
December	81.7600	1,885.6453	29,444.1375	3,768,850	241,363
January	29.3300	676.4430	31,388.1774	4,017,687	86,585
February	174.0400	4,013.9152	28,551.4621	3,654,587	513,781
March	-54.8600	-1,265.2458	24,123.7542	3,039,593	-159,421
<b>TOTAL</b>	<b>53.3900</b>	<b>1,231.3430</b>	<b>240,268.5640</b>	<b>30,390,960</b>	<b>169,253</b>

Regression Output:

Constant 13,473.61067117  
Std Err of Y Est 887.44911972  
R Squared 0.98365593  
  
X Coefficient 23.06317619  
Std Err of Coef. 0.94010759



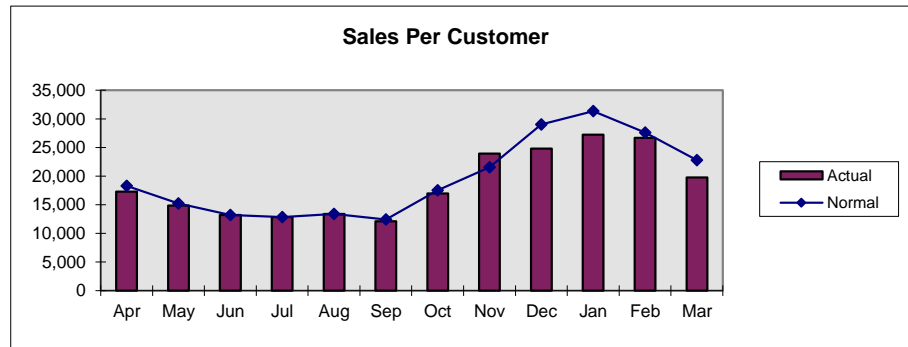
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	2,195,570	127	17,287.9528	137	182
May	1,870,124	126	14,842.2540	27	45
June	1,690,425	128	13,206.4453	0	1
July	1,641,763	128	12,826.2734	0	0
August	1,716,077	128	13,406.8516	0	0
September	1,572,253	130	12,094.2538	0	15
October	2,191,257	129	16,986.4884	143	168
November	3,114,029	130	23,954.0692	559	451
December	3,175,046	128	24,805.0469	503	695
January	3,460,252	127	27,246.0787	610	795
February	3,390,132	127	26,693.9528	576	617
March	2,509,111	127	19,756.7795	300	438
<b>TOTAL</b>	<b>28,526,039</b>	<b>1,535</b>	<b>223,106.4464</b>	<b>2,855</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	45.2200	999.0035	18,286.9563	2,322,443	126,873
May	17.8800	395.0063	15,237.2603	1,919,895	49,771
June	1.2600	27.8360	13,234.2813	1,693,988	3,563
July	0.0000	0.0000	12,826.2734	1,641,763	0
August	0.1000	2.2092	13,409.0608	1,716,360	283
September	14.8600	328.2882	12,422.5420	1,614,930	42,677
October	24.6600	544.7905	17,531.2789	2,261,535	70,278
November	-107.8600	-2,382.8510	21,571.2182	2,804,258	-309,771
December	191.7600	4,236.3759	29,041.4228	3,717,302	542,256
January	185.3300	4,094.3238	31,340.4025	3,980,231	519,979
February	41.0400	906.6587	27,600.6115	3,505,278	115,146
March	138.1400	3,051.7989	22,808.5784	2,896,689	387,578
<b>TOTAL</b>	<b>552.3900</b>	<b>12,203.4400</b>	<b>235,309.8864</b>	<b>30,074,672</b>	<b>1,548,633</b>

Regression Output:

Constant 13,336.13156149  
Std Err of Y Est 866.34524555  
R Squared 0.97908960  
  
X Coefficient 22.09207273  
Std Err of Coef. 1.02095447



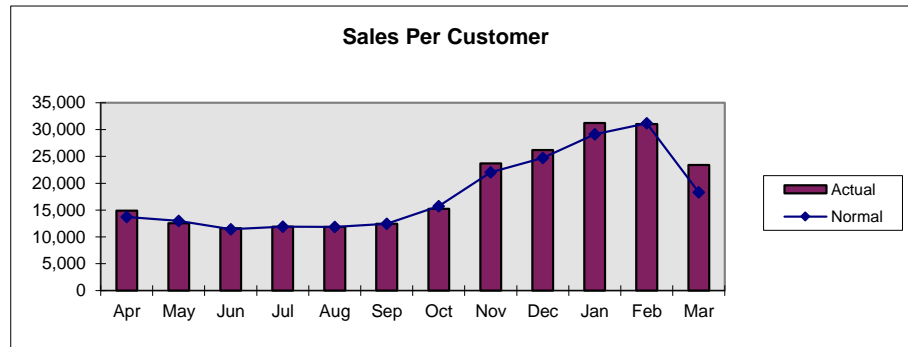
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,890,550	127	14,886.2205	357	302
May	1,603,392	128	12,526.5000	78	99
June	1,370,155	118	11,611.4831	22	14
July	1,405,383	118	11,910.0254	0	0
August	1,385,732	117	11,843.8632	0	0
September	1,458,944	117	12,469.6068	2	1
October	1,785,080	117	15,257.0940	39	60
November	2,775,099	117	23,718.7949	401	322
December	3,065,049	117	26,197.0000	640	570
January	3,619,428	116	31,201.9655	846	749
February	3,633,212	117	31,053.0940	774	780
March	2,810,630	120	23,421.9167	751	510
<b>TOTAL</b>	<b>26,802,654</b>	<b>1,429</b>	<b>226,097.5641</b>	<b>3,910</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-54.5900	-1,157.6600	13,728.5605	1,743,527	-147,023
May	21.0800	447.0319	12,973.5319	1,660,612	57,220
June	-8.2300	-174.5291	11,436.9540	1,349,561	-20,594
July	0.0600	1.2724	11,911.2978	1,405,533	150
August	0.1000	2.1206	11,845.9838	1,385,980	248
September	-0.7000	-14.8445	12,454.7623	1,457,207	-1,737
October	21.3100	451.9094	15,709.0034	1,837,953	52,873
November	-78.5600	-1,665.9785	22,052.8164	2,580,180	-194,919
December	-69.9500	-1,483.3910	24,713.6090	2,891,492	-173,557
January	-97.2200	-2,061.6908	29,140.2747	3,380,272	-239,156
February	5.5600	117.9078	31,171.0018	3,647,007	13,795
March	-241.4700	-5,120.7208	18,301.1959	2,196,144	-614,486
<b>TOTAL</b>	<b>-502.6100</b>	<b>-10,658.5726</b>	<b>215,438.9915</b>	<b>25,535,468</b>	<b>-1,267,186</b>

Regression Output:

Constant 11,931.69631247  
Std Err of Y Est 2,637.83617412  
R Squared 0.89441844  
  
X Coefficient 21.20644715  
Std Err of Coef. 2.30404834





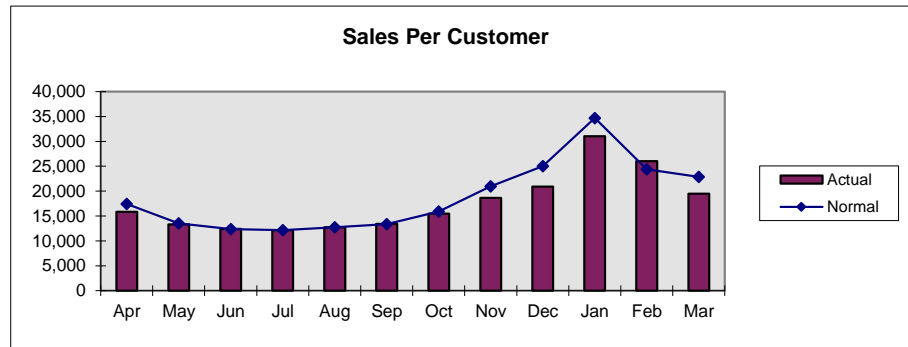
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,899,632	120	15,830.2667	221	302
May	1,584,549	119	13,315.5378	89	99
June	1,500,933	121	12,404.4050	15	14
July	1,471,467	121	12,160.8843	0	0
August	1,539,591	121	12,723.8926	0	0
September	1,637,762	122	13,424.2787	3	1
October	1,890,695	122	15,497.5000	40	60
November	2,314,437	124	18,664.8145	206	322
December	2,572,057	123	20,911.0325	362	570
January	3,844,988	124	31,007.9677	563	749
February	3,224,498	124	26,004.0161	861	780
March	2,414,534	124	19,472.0484	340	510
<b>TOTAL</b>	<b>25,895,143</b>	<b>1,465</b>	<b>211,416.6443</b>	<b>2,700</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	81.4100	1,615.3463	17,445.6130	2,093,474	193,842
May	10.0800	200.0085	13,515.5463	1,608,350	23,801
June	-1.2300	-24.4058	12,379.9992	1,497,980	-2,953
July	0.0600	1.1905	12,162.0748	1,471,611	144
August	0.1000	1.9842	12,725.8768	1,539,831	240
September	-1.7000	-33.7316	13,390.5471	1,633,647	-4,115
October	20.3100	402.9933	15,900.4933	1,939,860	49,165
November	116.4400	2,310.4155	20,975.2300	2,600,929	286,492
December	208.0500	4,128.1513	25,039.1838	3,079,820	507,763
January	185.7800	3,686.2675	34,694.2352	4,302,085	457,097
February	-81.4400	-1,615.9416	24,388.0745	3,024,121	-200,377
March	169.5300	3,363.8332	22,835.8816	2,831,649	417,115
<b>TOTAL</b>	<b>707.3900</b>	<b>14,036.1113</b>	<b>225,452.7556</b>	<b>27,623,357</b>	<b>1,728,214</b>

Regression Output:

Constant 13,153.57857886  
Std Err of Y Est 2,744.72731489  
R Squared 0.80668334  
  
X Coefficient 19.84211161  
Std Err of Coef. 3.07164478



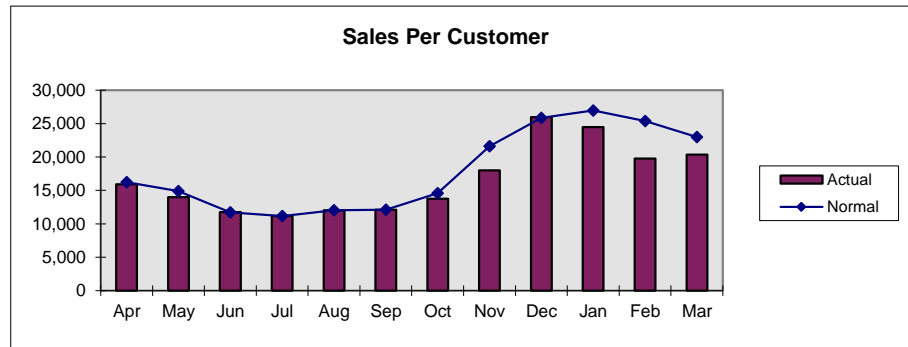
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,976,530	124	15,939.7581	287	302
May	1,737,513	124	14,012.2016	54	99
June	1,502,998	128	11,742.1719	15	14
July	1,428,957	128	11,163.7266	0	0
August	1,530,262	127	12,049.3071	0	0
September	1,537,370	127	12,105.2756	0	1
October	1,748,659	127	13,768.9685	19	60
November	2,285,375	127	17,995.0787	139	322
December	3,327,163	128	25,993.4609	576	570
January	3,086,859	126	24,498.8810	624	749
February	2,510,557	127	19,768.1654	497	780
March	2,607,127	128	20,368.1797	377	510
<b>TOTAL</b>	<b>25,279,370</b>	<b>1,521</b>	<b>199,405.1750</b>	<b>2,588</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	15.4100	305.4282	16,245.1863	2,014,403	37,873
May	45.0800	893.4913	14,905.6929	1,848,306	110,793
June	-1.2300	-24.3788	11,717.7931	1,499,878	-3,120
July	0.0600	1.1892	11,164.9158	1,429,109	152
August	0.1000	1.9820	12,051.2891	1,530,514	252
September	1.3000	25.7662	12,131.0418	1,540,642	3,272
October	41.3100	818.7694	14,587.7379	1,852,643	103,984
November	183.4400	3,635.8041	21,630.8828	2,747,122	461,747
December	-5.9500	-117.9298	25,875.5311	3,312,068	-15,095
January	124.7800	2,473.1554	26,972.0364	3,398,477	311,618
February	282.5600	5,600.3750	25,368.5404	3,221,805	711,248
March	132.5300	2,626.7614	22,994.9411	2,943,352	336,225
<b>TOTAL</b>	<b>819.3900</b>	<b>16,240.4136</b>	<b>215,645.5886</b>	<b>27,338,319</b>	<b>2,058,949</b>

Regression Output:

Constant 12,342.55722470  
Std Err of Y Est 1,667.10663656  
R Squared 0.90283004  
  
X Coefficient 19.82012684  
Std Err of Coef. 2.05621940



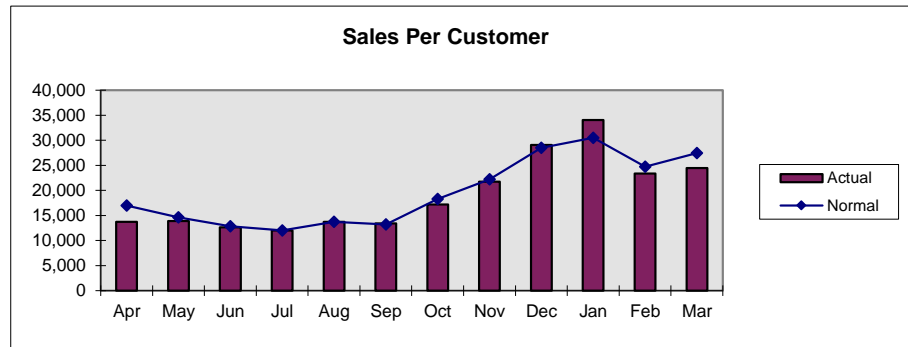
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,746,981	127	13,755.7559	150	302
May	1,738,220	125	13,905.7600	65	99
June	1,578,160	125	12,625.2800	3	14
July	1,491,542	124	12,028.5645	0	0
August	1,700,639	124	13,714.8306	0	0
September	1,667,331	124	13,446.2177	12	1
October	2,116,776	123	17,209.5610	9	60
November	2,696,662	124	21,747.2742	299	322
December	3,573,533	123	29,053.1138	596	570
January	4,155,751	122	34,063.5328	916	749
February	2,898,242	124	23,372.9194	715	780
March	3,037,136	124	24,493.0323	369	510
<b>TOTAL</b>	<b>28,400,973</b>	<b>1,489</b>	<b>229,415.8422</b>	<b>3,134</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	152.4100	3,233.4429	16,989.1988	2,157,628	410,647
May	34.0800	723.0217	14,628.7817	1,828,598	90,378
June	10.7700	228.4901	12,853.7701	1,606,721	28,561
July	0.0600	1.2729	12,029.8374	1,491,700	158
August	0.1000	2.1215	13,716.9521	1,700,902	263
September	-10.7000	-227.0050	13,219.2127	1,639,182	-28,149
October	51.3100	1,088.5635	18,298.1245	2,250,669	133,893
November	23.4400	497.2896	22,244.5638	2,758,326	61,664
December	-25.9500	-550.5403	28,502.5735	3,505,817	-67,716
January	-167.2200	-3,547.6434	30,515.8894	3,722,939	-432,812
February	64.5600	1,369.6678	24,742.5872	3,068,081	169,839
March	140.5300	2,981.4037	27,474.4360	3,406,830	369,694
<b>TOTAL</b>	<b>273.3900</b>	<b>5,800.0850</b>	<b>235,215.9272</b>	<b>29,137,393</b>	<b>736,420</b>

Regression Output:

Constant 13,577.22498845  
Std Err of Y Est 2,764.66587240  
R Squared 0.87030306  
  
X Coefficient 21.21542512  
Std Err of Coef. 2.58989023



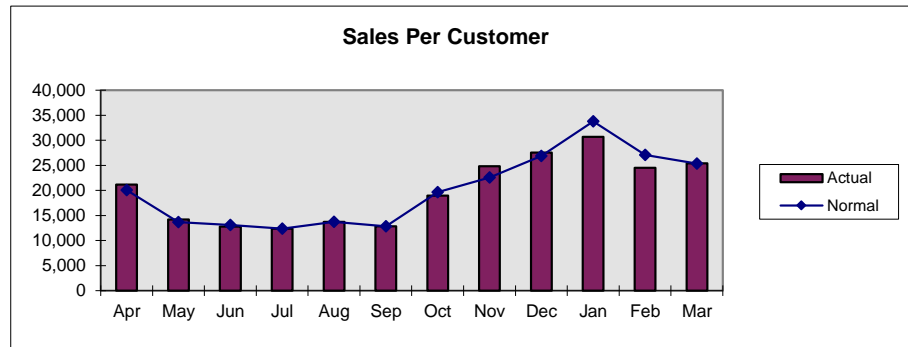
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	2,601,059	123	21,146.8211	350	302
May	1,760,266	124	14,195.6935	121	99
June	1,609,540	126	12,774.1270	0	14
July	1,534,289	124	12,373.2984	0	0
August	1,702,127	124	13,726.8306	0	0
September	1,628,121	127	12,819.8504	0	1
October	2,412,211	127	18,993.7874	31	60
November	3,175,685	128	24,810.0391	423	322
December	3,527,487	128	27,558.4922	601	570
January	3,931,102	128	30,711.7344	612	749
February	3,140,806	128	24,537.5469	666	780
March	3,199,014	126	25,389.0000	511	510
<b>TOTAL</b>	<b>30,221,707</b>	<b>1,513</b>	<b>239,037.2210</b>	<b>3,315</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-47.5900	-1,065.3817	20,081.4394	2,470,017	-131,042
May	-21.9200	-490.7158	13,704.9777	1,699,417	-60,849
June	13.7700	308.2645	13,082.3915	1,648,381	38,841
July	0.0600	1.3432	12,374.6416	1,534,456	167
August	0.1000	2.2387	13,729.0693	1,702,405	278
September	1.3000	29.1027	12,848.9531	1,631,817	3,696
October	29.3100	656.1533	19,649.9407	2,495,542	83,331
November	-100.5600	-2,251.2036	22,558.8355	2,887,531	-288,154
December	-30.9500	-692.8675	26,865.6247	3,438,800	-88,687
January	136.7800	3,062.0489	33,773.7833	4,323,044	391,942
February	113.5600	2,542.2304	27,079.7773	3,466,211	325,405
March	-1.4700	-32.9084	25,356.0916	3,194,868	-4,146
<b>TOTAL</b>	<b>92.3900</b>	<b>2,068.3047</b>	<b>241,105.5257</b>	<b>30,492,489</b>	<b>270,782</b>

Regression Output:

Constant 13,735.45054616  
Std Err of Y Est 2,450.41955408  
R Squared 0.87538966  
  
X Coefficient 22.38667102  
Std Err of Coef. 2.67095056



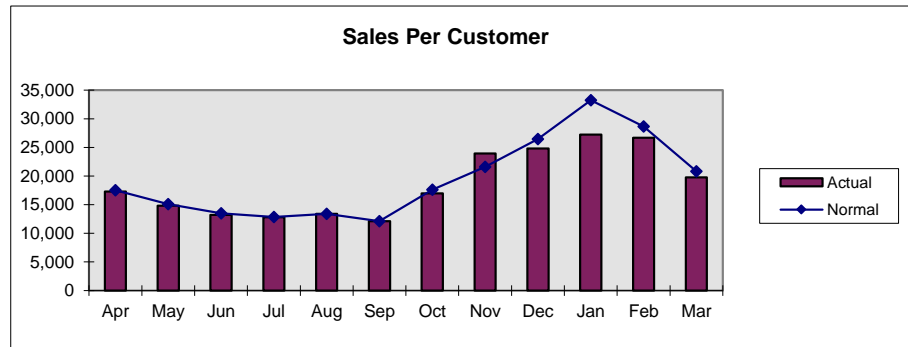
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	2,195,570	127	17,287.9528	291	302
May	1,870,124	126	14,842.2540	87	99
June	1,690,425	128	13,206.4453	0	14
July	1,641,763	128	12,826.2734	0	0
August	1,716,077	128	13,406.8516	0	0
September	1,572,253	130	12,094.2538	0	1
October	2,191,257	129	16,986.4884	30	60
November	3,114,029	130	23,954.0692	434	322
December	3,175,046	128	24,805.0469	491	570
January	3,460,252	127	27,246.0787	465	749
February	3,390,132	127	26,693.9528	687	780
March	2,509,111	127	19,756.7795	458	510
<b>TOTAL</b>	<b>28,526,039</b>	<b>1,535</b>	<b>223,106.4464</b>	<b>2,943</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	11.4100	240.7966	17,528.7494	2,226,151	30,581
May	12.0800	254.9363	15,097.1903	1,902,246	32,122
June	13.7700	290.6021	13,497.0474	1,727,622	37,197
July	0.0600	1.2662	12,827.5396	1,641,925	162
August	0.1000	2.1104	13,408.9620	1,716,347	270
September	1.3000	27.4352	12,121.6890	1,575,820	3,567
October	30.3100	639.6622	17,626.1506	2,273,773	82,516
November	-111.5600	-2,354.3620	21,599.7072	2,807,962	-306,067
December	79.0500	1,668.2710	26,473.3179	3,388,585	213,539
January	283.7800	5,988.8925	33,234.9712	4,220,841	760,589
February	92.5600	1,953.3860	28,647.3388	3,638,212	248,080
March	51.5300	1,087.4890	20,844.2685	2,647,222	138,111
<b>TOTAL</b>	<b>464.3900</b>	<b>9,800.4855</b>	<b>232,906.9319</b>	<b>29,766,706</b>	<b>1,240,667</b>

Regression Output:

Constant 13,416.44839410  
Std Err of Y Est 2,184.46916010  
R Squared 0.86705497  
  
X Coefficient 21.10399784  
Std Err of Coef. 2.61322901



SOURCE: Revenue Workpaper R-42-5.00 (Non-Print).

THERMS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
January	-	3,313,032	2,965,422	3,245,372	3,373,981	3,299,522	3,560,941	5,221,240	2,899,841	3,221,202	4,236,759	3,619,428	3,844,988	3,086,859	4,155,751	3,931,102	3,460,252	
February	-	2,863,564	2,999,028	3,307,243	2,847,256	2,393,018	3,271,916	3,968,190	2,692,671	2,825,440	3,481,045	3,633,212	3,224,498	2,510,557	2,898,242	3,140,806	3,390,132	
March	-	2,830,886	2,621,465	1,999,543	2,352,220	2,131,369	2,393,934	3,631,360	1,865,849	2,998,186	3,046,251	2,810,630	2,414,534	2,607,127	3,037,136	3,199,014	2,509,111	
April	-	1,843,646	1,675,611	1,852,660	1,809,990	1,714,944	1,528,182	2,691,990	1,644,454	1,956,249	1,890,550	1,899,632	1,976,530	1,746,981	2,601,059	2,195,570	-	
May	-	1,620,645	1,608,248	1,407,715	1,433,606	1,346,151	3,046,599	2,627,960	1,634,961	1,588,008	1,603,392	1,584,549	1,737,513	1,738,220	1,760,266	1,870,124	-	
June	-	1,354,936	1,392,010	1,254,965	1,114,581	1,130,175	1,084,560	2,266,314	1,257,355	1,346,393	1,370,155	1,500,933	1,502,998	1,578,160	1,609,540	1,690,425	-	
July	-	1,228,775	1,274,418	1,197,211	1,088,349	1,176,384	2,043,760	2,163,540	1,213,328	1,327,440	1,405,383	1,471,467	1,428,957	1,491,542	1,534,289	1,641,763	-	
August	-	1,306,924	1,391,584	1,193,023	1,173,259	1,180,301	2,133,960	2,290,562	1,283,198	1,366,248	1,385,732	1,539,591	1,530,262	1,700,639	1,702,127	1,716,077	-	
September	-	1,355,978	1,453,198	1,195,639	1,153,815	1,215,540	2,213,600	2,430,644	1,337,143	1,410,894	1,458,944	1,637,762	1,537,370	1,667,331	1,628,121	1,572,253	-	
October	1,593,208	1,857,126	2,008,182	1,543,877	1,668,631	1,730,630	2,657,250	2,984,804	1,909,358	1,976,823	1,785,080	1,890,695	1,748,659	2,116,776	2,412,211	2,191,257	-	
November	2,159,926	2,328,753	2,465,083	2,239,465	2,335,895	1,949,702	3,413,960	3,448,760	2,567,563	2,848,017	2,775,099	2,314,437	2,285,375	2,696,662	3,175,685	3,114,029	-	
December	3,370,969	3,526,888	2,912,042	2,677,800	2,902,862	3,047,922	5,012,550	4,192,582	2,689,728	3,358,796	3,065,049	2,572,057	3,327,163	3,573,533	3,527,487	3,175,046	-	
Total		7,124,103	25,431,153	24,766,291	23,114,513	23,254,445	22,315,658	32,361,212	37,917,946	22,995,449	26,223,696	27,503,439	26,474,393	26,558,847	26,514,387	30,041,914	29,437,466	9,359,495

BILLS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	143	140	131	128	120	124	127	128	129	129	116	124	126	122	128	127
February	-	145	139	131	127	120	123	128	128	129	129	117	124	127	124	128	127
March	-	145	139	131	128	121	123	127	128	129	126	120	124	128	124	126	127
April	-	143	139	132	127	121	123	127	127	129	127	120	124	127	123	127	-
May	-	143	139	131	126	121	124	127	127	129	128	119	124	125	124	126	-
June	-	143	133	130	119	122	123	129	128	128	118	121	128	125	126	128	-
July	-	143	133	129	119	122	125	130	128	128	118	121	128	124	124	128	-
August	-	142	131	129	119	123	124	129	128	128	117	121	127	124	124	128	-
September	-	140	130	128	120	122	124	129	127	128	117	122	127	124	127	130	-
October	143	140	129	128	120	123	124	130	127	129	117	122	127	123	127	129	-
November	143	141	129	128	121	121	125	129	130	129	117	124	127	124	128	130	-
December	143	140	129	128	121	125	126	129	129	130	117	123	128	123	128	128	-
Total	429	1,708	1,610	1,556	1,475	1,461	1,488	1,541	1,535	1,545	1,460	1,446	1,512	1,500	1,501	1,536	381

Usage/Bill	16,606.30	14,889.43	15,382.79	14,855.09	15,765.73	15,274.24	21,748.13	24,606.06	14,980.75	16,973.27	18,837.97	18,308.71	17,565.38	17,676.26	20,014.60	19,165.02	24,565.60
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DEMAND	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	19,689	18,973	17,953	18,527	17,392	17,624	23,799	18,371	16,277	16,445	20,048	20,821	19,423	18,865	21,799	19,480
February	-	19,864	18,973	18,002	18,237	17,392	17,487	23,799	18,371	16,277	16,445	20,098	20,821	19,240	20,780	21,706	19,480
March	-	19,472	18,923	17,773	17,939	17,536	17,165	23,686	18,291	16,277	16,406	20,198	20,821	19,330	19,706	21,623	19,480
April	-	19,675	18,973	18,165	18,387	17,536	27,372	23,636	18,291	16,277	16,406	20,298	20,821	19,330	19,706	21,623	-
May	-	19,725	18,973	18,002	18,088	17,536	27,372	23,636	18,291	16,277	16,406	20,315	21,024	19,246	19,706	21,623	-
June	-	19,586	18,357	18,560	17,501	17,445	18,202	23,526	16,275	16,450	20,278	20,208	19,738	18,990	21,587	19,769	-
July	-	19,586	18,238	18,393	17,501	17,445	23,431	24,310	16,275	16,450	20,329	20,208	19,755	18,990	21,293	19,783	-
August	-	19,529	18,238	18,313	17,564	17,445	23,327	23,868	16,275	16,395	20,147	20,208	19,703	18,990	21,525	19,783	-
September	-	19,177	17,953	18,313	17,564	17,445	23,327	23,868	16,117	16,395	20,147	20,565	19,703	18,990	21,675	19,783	-
October	19,684	19,177	17,953	18,313	17,564	17,445	23,327	23,868	16,117	16,445	20,147	20,565	19,703	18,925	21,675	19,833	-
November	19,689	18,973	17,953	18,313	17,614	17,343	23,427	23,868	16,277	16,445	20,147	20,757	19,585	18,925	21,811	20,144	-
December	19,689	18,973	17,953	18,171	17,614	17,624	23,592	23,868	16,277	16,445	20,147	20,757	19,423	18,805	21,799	19,770	-
Total	59,062	233,426	221,460	218,272	214,097	209,582	265,652	285,729	205,226	196,411	223,448	244,227	241,917	229,182	250,129	247,240	58,439

This workpaper is too voluminous to print and is only being provided in electronic format.

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Interruptible Service Revenue Forecast**

**INTERRUPTIBLE Service Revenue Forecast consolidates Rate Schedules 304 and 314.**



Total Combined 304 and 314 Industrial Service (FIRM) Margin	Tariff Ratio	Billing Determinant	Rate	Margin
<b>Customer Charges:</b>				
Rate Schedule 304	3.91% A/	24	\$800.00000 D/	\$19,200
Rate Schedule 314	96.09% A/	588	800.00000 D/	470,400
<b>Total Customer Charge Margin</b>	<b>100.00%</b>	<b>612 B/</b>		<b>\$489,600</b>
<b>Commodity Charges:</b>				
<b>Rate Schedule 304:</b>				
Step 1 - 0 to 15,000 Therms per Month	0.26% A/	23,182	\$0.09195 D/	\$2,132
Step 2 - 15,001 to 40,000 Therms per Month	0.26% A/	29,226	0.08466 D/	2,474
Step 3 - 40,001 to 90,000 Therms per Month	0.26% A/	31,308	0.05963 D/	1,867
Step 4 - Over 90,000 Therms per Month	0.26% A/	168,196	0.02277 D/	3,830
<b>Total 304 Commodity Charge Margin</b>	<b>0.26%</b>	<b>251,912</b>		<b>\$10,303</b>
<b>Rate Schedule 314:</b>				
Step 1 - 0 to 15,000 Therms per Month	99.74% A/	8,824,296	\$0.09195 D/	\$811,394
Step 2 - 15,001 to 40,000 Therms per Month	99.74% A/	11,124,836	0.08466 D/	941,829
Step 3 - 40,001 to 90,000 Therms per Month	99.74% A/	11,917,507	0.05963 D/	710,641
Step 4 - Over 90,000 Therms per Month	99.74% A/	64,023,651	0.02277 D/	1,457,819
<b>Total 314 Commodity Charge Margin</b>	<b>99.74%</b>	<b>95,890,290</b>		<b>\$3,921,682</b>
<b>Total INTER:</b>				
Step 1 - 0 to 15,000 Therms per Month	100.00%	8,847,479 C/	\$0.09195 D/	\$813,526
Step 2 - 15,001 to 40,000 Therms per Month	100.00%	11,154,062 C/	0.08466 D/	944,303
Step 3 - 40,001 to 90,000 Therms per Month	100.00%	11,948,816 C/	0.05963 D/	712,508
Step 4 - Over 90,000 Therms per Month	100.00%	64,191,847 C/	0.02277 D/	1,461,648
<b>Total INTER Commodity Charge Margin</b>	<b>100.00%</b>	<b>96,142,203</b>		<b>\$3,931,985</b>
<b>Total INTER Margin</b>				<b>\$4,421,585</b>

<b>INTER Gas Cost:</b>				
<b>Commodity</b>				
Rate Schedule 304		251,912	\$0.19717 E/	\$49,669
<b>Total INTER Commodity</b>		<b>251,912</b>		<b>\$49,669</b>
<b>Total INTER Gas Cost</b>				<b>49,669</b>

<b>INTER Other Charges:</b>				
Integrity Management Rider Surcharge				0 G/
Docket 18-00040 Excess ADIT				0 H/
<b>Total INTER Other Charges</b>				<b>0</b>
<b>Total INTER Revenues</b>				<b>\$4,471,254</b>

<b>Recap</b>	<b>Rate 304</b>	<b>Rate 314</b>	<b>Total</b>
Customer Charge Margin	\$19,200	\$470,400	\$489,600
Commodity Charge Margin	10,303	3,921,682	3,931,985
<b>Total Margin</b>	<b>\$29,503</b>	<b>\$4,392,082</b>	<b>\$4,421,585</b>
Gas Cost - Commodity	\$49,669	\$0	\$49,669
<b>Total Gas Cost</b>	<b>\$49,669</b>	<b>\$0</b>	<b>\$49,669</b>
Integrity Management Rider Surcharge	\$0	\$0	\$0
Docket 18-00040 Excess ADIT	0	0	0
<b>Total Other Charges</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total INTER Revenues</b>	<b>\$79,172</b>	<b>\$4,392,082</b>	<b>\$4,471,254</b>

A/ WHN Revenue Workpaper R-43-1.01.

B/ WHN Revenue Workpaper R-43-1.04.

C/ WHN Revenue Workpaper R-43-1.02.

D/ WHN Revenue Workpaper R-110-1.00.

E/ IMR Surcharge is excluded from the Consumer Advocate's case. See WHN Revenue Workpaper R-55-1.00 for details.

F/ Excess ADIT is excluded from the Consumer Advocate's case. See WHN Workpaper R-60-1.00 for details.

	Actual Determinants			Percentage Calculation		
	304-LIGS	314-LITS	Total	304-LIGS	314-LITS	Total
<b>Bills:</b>						
For the 12 Months Ended March 31, 2015	24	621	645	3.72%	96.28%	100.00%
For the 12 Months Ended March 31, 2016	24	607	631	3.80%	96.20%	100.00%
For the 12 Months Ended March 31, 2017	24	589	613	3.92%	96.08%	100.00%
For the 12 Months Ended March 31, 2018	24	577	601	3.99%	96.01%	100.00%
For the 12 Months Ended March 31, 2019	25	581	606	4.13%	95.87%	100.00%
For the 12 Months Ended March 31, 2020	24	588	612	3.92%	96.08%	100.00%
<b>Average</b>	<b>24</b>	<b>594</b>	<b>618</b>	<b>3.91%</b>	<b>96.09%</b>	<b>100.00%</b>
<b>Usage:</b>						
For the 12 Months Ended March 31, 2015	280,165	87,176,312	87,456,477	0.32%	99.68%	100.00%
For the 12 Months Ended March 31, 2016	173,340	92,836,434	93,009,774	0.19%	99.81%	100.00%
For the 12 Months Ended March 31, 2017	199,090	94,544,756	94,743,846	0.21%	99.79%	100.00%
For the 12 Months Ended March 31, 2018	274,816	91,610,895	91,885,711	0.30%	99.70%	100.00%
For the 12 Months Ended March 31, 2019	278,010	97,478,132	97,756,142	0.28%	99.72%	100.00%
For the 12 Months Ended March 31, 2020	253,936	93,174,408	93,428,344	0.27%	99.73%	100.00%
<b>Average</b>	<b>243,226</b>	<b>92,803,490</b>	<b>93,046,716</b>	<b>0.26%</b>	<b>99.74%</b>	<b>100.00%</b>

**SOURCE:** WHN Revenue Workpapers R-30-3.00 and R-40-3.00.

Attrition Period Combined Interruptible 304-314 Industrial Service (INTER) Usage

Step Percentage

**Summary:**

For the 12 Months Ended March 31, 2015  
 For the 12 Months Ended March 31, 2016  
 For the 12 Months Ended March 31, 2017  
 For the 12 Months Ended March 31, 2018  
 For the 12 Months Ended March 31, 2019  
 For the 12 Months Ended March 31, 2020  
**Average**

Step 1	Step 2	Step 3	Step 4	Total	
8,847,479	11,154,062	11,948,816	64,191,847	96,142,203	A/
9.20%	11.60%	12.43%	66.77%	100.00%	
10.16%	12.14%	13.03%	64.68%	100.00%	
9.35%	11.49%	12.49%	66.68%	100.00%	
8.90%	11.34%	12.25%	67.51%	100.00%	
9.13%	11.71%	12.51%	66.65%	100.00%	
8.63%	11.15%	11.91%	68.31%	100.00%	
9.06%	11.78%	12.38%	66.79%	100.00%	
<b>9.20%</b>	<b>11.60%</b>	<b>12.43%</b>	<b>66.77%</b>	<b>100.00%</b>	

**For the 12 Months Ended March 31, 2015**

April-14
May
June
July
August
September
October
November
December
January-15
February
March
<b>Total</b>
<b>Step Percentage</b>

Step 1	Step 2	Step 3	Step 4	Total	B/
731,871	858,049	901,318	3,664,091	6,155,329	
715,210	821,666	843,450	3,262,306	5,642,632	
718,008	777,421	802,091	3,079,075	5,376,595	
718,134	807,347	818,876	3,531,325	5,875,682	
714,008	800,072	821,433	3,657,243	5,992,756	
722,204	840,125	831,841	3,754,688	6,148,858	
764,778	912,003	966,751	3,992,364	6,635,896	
785,399	1,004,631	1,049,394	5,812,371	8,651,795	
770,986	988,139	1,080,233	6,515,628	9,354,986	
748,164	941,709	1,120,943	6,847,486	9,658,302	
738,518	922,025	1,080,874	6,385,612	9,127,029	
754,124	942,656	1,077,577	6,062,260	8,836,617	
<b>8,881,404</b>	<b>10,615,843</b>	<b>11,394,781</b>	<b>56,564,449</b>	<b>87,456,477</b>	
<b>10.16%</b>	<b>12.14%</b>	<b>13.03%</b>	<b>64.68%</b>	<b>100.00%</b>	

**For the 12 Months Ended March 31, 2016**

April-15
May
June
July
August
September
October
November
December
January-16
February
March
<b>Total</b>
<b>Step Percentage</b>

Step 1	Step 2	Step 3	Step 4	Total	B/
731,883	865,957	969,079	4,696,038	7,262,957	
721,288	857,192	863,133	4,095,545	6,537,158	
713,328	861,795	888,189	4,009,903	6,473,215	
703,170	826,322	945,971	4,171,953	6,647,416	
720,301	856,735	923,267	4,414,277	6,914,580	
723,017	851,560	890,961	4,304,627	6,770,165	
741,361	929,000	983,881	4,555,480	7,209,722	
757,039	927,988	962,550	5,091,037	7,738,614	
748,234	939,186	960,505	6,085,549	8,733,474	
725,293	938,138	1,125,159	7,977,292	10,765,882	
694,045	909,767	1,090,185	6,745,138	9,439,135	
714,659	921,076	1,012,775	5,868,946	8,517,456	
<b>8,693,618</b>	<b>10,684,716</b>	<b>11,615,655</b>	<b>62,015,785</b>	<b>93,009,774</b>	
<b>9.35%</b>	<b>11.49%</b>	<b>12.49%</b>	<b>66.68%</b>	<b>100.00%</b>	

**For the 12 Months Ended March 31, 2017**

April-16
May
June
July
August
September
October
November
December
January-17
February
March
<b>Total</b>
<b>Step Percentage</b>

Step 1	Step 2	Step 3	Step 4	Total	B/
706,475	900,361	960,997	5,031,025	7,598,858	
718,216	910,176	896,104	4,920,924	7,445,420	
681,694	830,838	894,535	4,312,379	6,719,446	
655,968	809,931	825,919	4,556,664	6,848,482	
687,516	863,045	915,215	4,639,753	7,105,529	
696,647	891,672	934,496	4,346,172	6,868,987	
710,858	910,292	964,104	4,353,212	6,938,466	
710,210	942,795	1,039,267	5,187,913	7,880,185	
739,860	943,472	1,050,893	7,400,744	10,134,969	
697,860	933,981	1,093,973	7,263,380	9,989,194	
694,890	859,188	982,156	5,771,629	8,307,863	
731,663	952,166	1,047,216	6,175,402	8,906,447	
<b>8,431,857</b>	<b>10,747,917</b>	<b>11,604,875</b>	<b>63,959,197</b>	<b>94,743,846</b>	
<b>8.90%</b>	<b>11.34%</b>	<b>12.25%</b>	<b>67.51%</b>	<b>100.00%</b>	

A/ WHN Revenue Workpaper R-43-1.04.

B/ WHN Revenue Workpaper R-43-5.00 (Non-Print).

For the 12 Months Ended March 31, 2018	Step 1	Step 2	Step 3	Step 4	Total	B/
April-17	711,937	893,256	906,606	4,749,958	7,261,757	
May	695,209	882,577	939,806	4,829,892	7,347,484	
June	673,888	838,802	905,966	4,177,487	6,596,143	
July	671,181	824,798	808,484	4,124,118	6,428,581	
August	684,525	828,741	885,979	3,496,911	5,896,156	
September	686,408	844,762	855,200	3,397,454	5,783,824	
October	714,810	896,213	988,442	3,913,863	6,513,328	
November	727,586	966,159	997,844	5,582,158	8,273,747	
December	733,487	975,410	1,080,770	6,899,939	9,689,606	
January-18	697,716	974,513	1,162,830	7,895,649	10,730,708	
February	689,145	876,944	969,898	5,858,397	8,394,384	
March	704,523	954,996	994,550	6,315,924	8,969,993	
<b>Total</b>	<b>8,390,415</b>	<b>10,757,171</b>	<b>11,496,375</b>	<b>61,241,750</b>	<b>91,885,711</b>	
<b>Step Percentage</b>	<b>9.13%</b>	<b>11.71%</b>	<b>12.51%</b>	<b>66.65%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2019	Step 1	Step 2	Step 3	Step 4	Total	B/
April-18	705,306	960,370	1,051,099	5,820,667	8,537,442	
May	694,939	855,409	874,854	4,805,255	7,230,457	
June	673,346	804,909	856,222	4,231,865	6,566,342	
July	662,729	804,046	869,931	4,414,428	6,751,134	
August	681,928	817,139	867,530	4,425,555	6,792,152	
September	692,537	837,531	819,503	4,068,516	6,418,087	
October	715,738	945,269	1,012,869	5,301,313	7,975,189	
November	741,339	999,189	1,039,494	6,553,989	9,334,011	
December	741,061	995,608	1,047,437	6,887,801	9,671,907	
January-19	720,000	987,173	1,120,814	7,601,159	10,429,146	
February	681,388	896,835	959,163	6,072,283	8,609,669	
March	722,650	1,000,747	1,123,858	6,593,351	9,440,606	
<b>Total</b>	<b>8,432,961</b>	<b>10,904,225</b>	<b>11,642,774</b>	<b>66,776,182</b>	<b>97,756,142</b>	
<b>Step Percentage</b>	<b>8.63%</b>	<b>11.15%</b>	<b>11.91%</b>	<b>68.31%</b>	<b>100.00%</b>	

For the 12 Months Ended March 31, 2020	Step 1	Step 2	Step 3	Step 4	Total	B/
April-19	717,871	949,740	1,001,196	4,664,413	7,333,220	
May	704,202	886,673	864,640	4,456,921	6,912,436	
June	675,123	826,943	789,708	4,204,439	6,496,213	
July	683,865	839,906	857,615	4,357,954	6,739,340	
August	676,996	849,919	857,669	4,217,442	6,602,026	
September	690,074	837,653	787,743	4,027,735	6,343,205	
October	737,342	956,408	981,580	4,832,126	7,507,456	
November	719,081	1,012,671	1,111,593	6,364,755	9,208,100	
December	711,142	983,452	1,081,957	6,440,328	9,216,879	
January-20	712,724	948,593	1,130,940	6,969,616	9,761,873	
February	709,714	937,719	1,071,544	6,594,380	9,313,357	
March	721,996	974,117	1,031,745	5,266,381	7,994,239	
<b>Total</b>	<b>8,460,130</b>	<b>11,003,794</b>	<b>11,567,930</b>	<b>62,396,490</b>	<b>93,428,344</b>	
<b>Step Percentage</b>	<b>9.06%</b>	<b>11.78%</b>	<b>12.38%</b>	<b>66.79%</b>	<b>100.00%</b>	

A/ WHN Revenue Workpaper R-43-1.04.

B/ WHN Revenue Workpaper R-43-5.00 (Non-Print).

**Attrition Period Monthly Growth in INTER Bills**

		<u><u>0</u></u>	<u>A/</u>
	<u>Growth</u>	<u>Total</u>	
Test Period Number of INTER Bills - 12 Months Ended March, 2020		612	<u>A/</u>
April-20	0	612	
May-20	0	612	
June-20	0	612	
July-20	0	612	
August-20	0	612	
September-20	0	612	
October-20	0	612	
November-20	0	612	
December-20	0	612	
January-21	0	612	
February-21	0	612	
March-21	0	612	
April-21	0	612	
May-21	0	612	
June-21	0	612	
July-21	0	612	
August-21	0	612	
September-21	0	612	
October-21	0	612	
November-21	0	612	
December-21	0	612	

Attrition Period INTER Bills

612

Normalized Usage per Bill (Therms)

157,095.1029 B/

**Total INTER Sales Volume - Therms**

96,142,203

A/ WHN Revenue Workpaper R-43-1.05.

B/ WHN Revenue Workpaper R-43-2.00.

Historic Bill Counts:

For the 12 Months Ended March

MONTH	2015	2016	2017	2018	2019	2020
April	54	53	51	51	50	51
May	54	53	51	50	50	51
June	54	53	51	50	50	51
July	54	53	51	50	50	51
August	54	53	51	50	50	51
September	54	53	51	50	50	51
October	54	53	50	50	50	51
November	54	53	52	50	51	51
December	54	53	52	50	51	51
January	53	52	51	50	51	51
February	53	51	51	50	51	51
March	53	51	51	50	52	51
<b>Total</b>	<b>645</b>	<b>631</b>	<b>613</b>	<b>601</b>	<b>606</b>	<b>612</b>

Source: WHN Revenue Workpaper R-43-4.00.

Annual Bill Growth Calculation:

Year	Bills	Growth
2015	645	-
2016	631	-14
2017	613	-18
2018	601	-12
2019	606	5
2020	612	6

Five-Year Average -7

Four-Year Average -5

Three-Year Average 0

Two-Year Average 6

One-Year Average 6

Manual Input 0

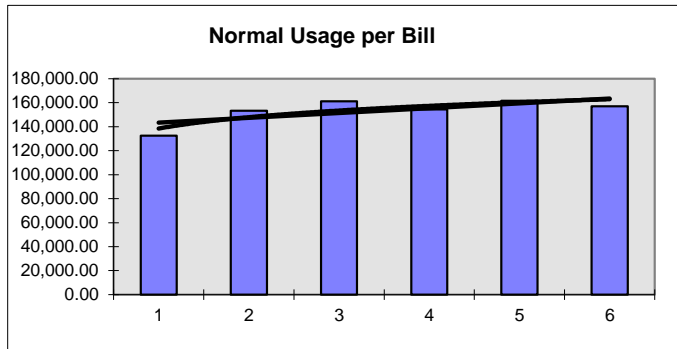
Zero growth (0) was chosen as the most representative of the Attrition Year.

Annual Bill Growth Forecast	0
Test Period Bills	612
<b>Annual Percentage Growth</b>	<b>0.00%</b>

Annual Bill Growth Forecast	0
Months per Year	12
<b>Monthly Bill Growth</b>	<b>0</b>

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2015	1	132,617.3736	143,389.6223	142,925.1666	-
2016	2	153,420.0095	147,405.3710	146,909.2910	15.69%
2017	3	161,224.0228	151,421.1198	151,004.4751	5.09%
2018	4	154,502.8785	155,436.8685	155,213.8150	-4.17%
2019	5	161,714.5776	159,452.6173	159,540.4927	4.67%
2020	6	157,095.1029	163,468.3661	163,987.7791	-2.86%
Forecast	7.25		168,488.0520	169,721.6239	164,360.4424

Regression Statistics		
	Linear	Logarithmic
Constant	139,373.873538	11.842582
X Coefficient	4,015.748752	0.027494
R Squared	0.488987	0.489072

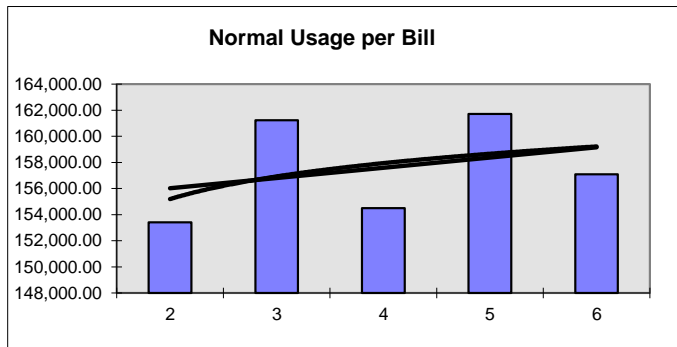


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - INTER Conservation and Growth-5 Year Analysis  
Calendar Data

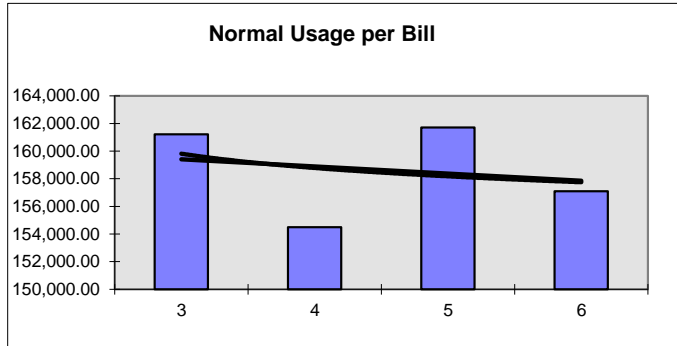
Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2016	2	153,420.0095	156,023.1700	155,975.3217	-
2017	3	161,224.0228	156,807.2441	156,763.1423	5.09%
2018	4	154,502.8785	157,591.3183	157,554.9421	-4.17%
2019	5	161,714.5776	158,375.3924	158,350.7412	4.67%
2020	6	157,095.1029	159,159.4666	159,150.5598	-2.86%
Forecast	7.25		160,139.5593	160,156.0165	158,435.9674

Regression Statistics		
	Linear	Logarithmic
Constant	154,455.021643	11.947377
X Coefficient	784.074158	0.005038
R Squared	0.107136	0.110005



Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2017	3	161,224.0228	159,410.4046	159,374.1366	-
2018	4	154,502.8785	158,892.8985	158,861.6148	-4.17%
2019	5	161,714.5776	158,375.3924	158,350.7412	4.67%
2020	6	157,095.1029	157,857.8864	157,841.5104	-2.86%
Forecast	7.25		157,211.0038	157,207.2742	155,553.3563

Regression Statistics		
	Linear	Logarithmic
Constant	160,962.922770	11.988673
X Coefficient	-517.506067	-0.003221
R Squared	0.037580	0.036445

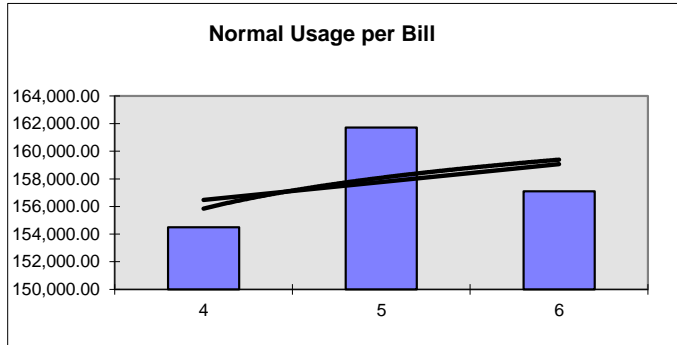


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - INTER Conservation and Growth-3 Year Analysis  
Calendar Data

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2018	4	154,502.8785	156,474.7408	156,435.9012	-
2019	5	161,714.5776	157,770.8530	157,742.7705	4.67%
2020	6	157,095.1029	159,066.9652	159,060.5575	-2.86%
Forecast	7.25		160,687.1055	160,723.2832	158,875.3483

Regression Statistics		
	Linear	Logarithmic
Constant	151,290.291998	11.927124
X Coefficient	1,296.112203	0.008319
R Squared	0.125886	0.129853





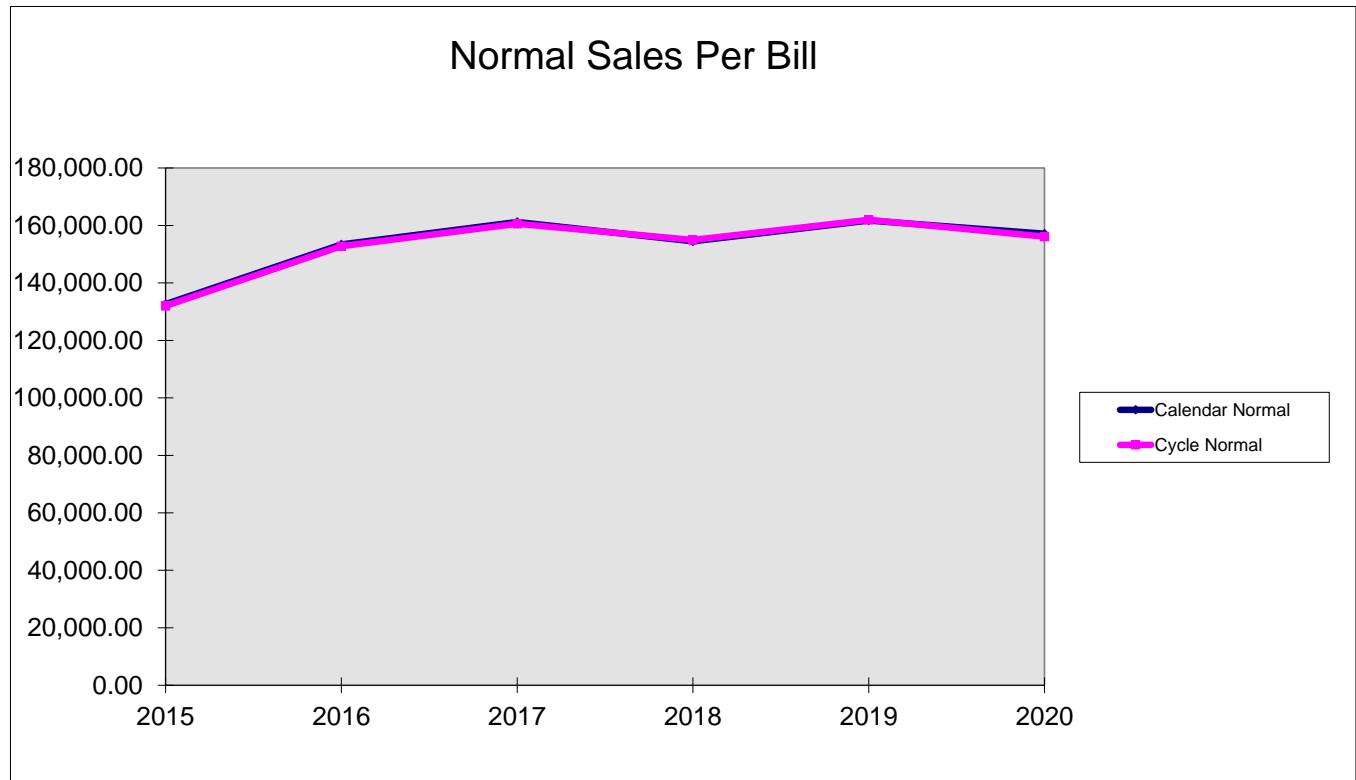
Trend	From The 12 Months Ended		Calendar Data	
	Month	Year	Time Series Forecast	Adjusted Forecast
Linear Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Logarithmic Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Year To Year Change	March	2015	164,360.4424	
	March	2016	158,435.9674	158,435.9674
	March	2017	155,553.3563	
	March	2018	158,875.3483	158,875.3483
<b>Average</b>			<b>159,306.2786</b>	<b>158,655.6579</b>
One Standard Deviation			3,184.8132	
<b>Upper</b> End of Range			162,491.0918	
<b>Lower</b> End of Range			156,121.4654	
Number in Range			2.0000	
Weighted Average Forecast at Midpoint				<b>158,655.6579</b>
Test Period Amount				<b>157,095.1029</b>
Compound Growth Factor				<b>1.00993382</b>
Annualized Growth Rate				<b>1.00793920</b>
Test Period Sales				93,428,344
Weather Adjustment				2,713,859
Normal Sales				<b>96,142,203</b>
Usage Adjustment				955,060
Adjusted Sales				<b>97,097,263</b>

## CALENDAR DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	87,456,477	645	1,593,155.6753	85,538,206	-1,918,271	91.99%	132,617.3736
2016	93,009,774	631	1,844,290.6771	96,808,026	3,798,252	96.17%	153,420.0095
2017	94,743,846	613	1,933,740.9754	98,830,326	4,086,480	92.81%	161,224.0228
2018	91,885,711	601	1,854,072.2105	92,856,230	970,519	91.93%	154,502.8785
2019	97,756,142	606	1,937,665.4979	97,999,034	242,892	95.58%	161,714.5776
2020	93,428,344	612	1,885,141.2752	96,142,203	2,713,859	98.54%	157,095.1029

## CYCLE DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	87,456,477	645	1,585,887.0562	85,145,450	-2,311,027	86.99%	132,008.4496
2016	93,009,774	631	1,836,436.9718	96,387,019	3,377,245	79.84%	152,752.8035
2017	94,743,846	613	1,925,744.7657	98,432,641	3,688,795	88.85%	160,575.2708
2018	91,885,711	601	1,859,448.8122	93,128,532	1,242,821	84.80%	154,955.9601
2019	97,756,142	606	1,940,622.6287	98,149,844	393,702	79.70%	161,963.4389
2020	93,428,344	612	1,873,210.1134	95,533,715	2,105,371	81.43%	156,100.8415



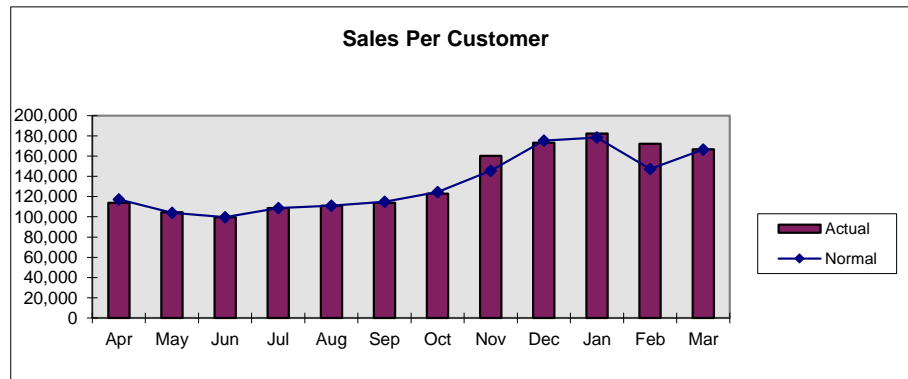
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	6,155,329	54	113,987.5741	144	182
May	5,642,632	54	104,493.1852	50	45
June	5,376,595	54	99,566.5741	0	1
July	5,875,682	54	108,808.9259	0	0
August	5,992,756	54	110,976.9630	0	0
September	6,148,858	54	113,867.7407	3	15
October	6,635,896	54	122,886.9630	150	168
November	8,651,795	54	160,218.4259	621	451
December	9,354,986	54	173,240.4815	671	695
January	9,658,302	53	182,232.1132	840	795
February	9,127,029	53	172,208.0943	905	617
March	8,836,617	53	166,728.6226	441	438
<b>TOTAL</b>	<b>87,456,477</b>	<b>645</b>	<b>1,629,215.6635</b>	<b>3,825</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	38	3,300.2388	117,287.8129	6,333,542	178,213
May	-5	-442.1042	104,051.0810	5,618,758	-23,874
June	1	108.7991	99,675.3732	5,382,470	5,875
July	0	0.0000	108,808.9259	5,875,682	0
August	0	8.6348	110,985.5978	5,993,222	466
September	12	1,024.0930	114,891.8337	6,204,159	55,301
October	18	1,524.9141	124,411.8771	6,718,241	82,345
November	-170	-14,667.1526	145,551.2733	7,859,769	-792,026
December	24	2,051.6398	175,292.1213	9,465,775	110,789
January	-45	-3,857.1865	178,374.9267	9,453,871	-204,431
February	-288	-24,864.9079	147,343.1864	7,809,189	-1,317,840
March	-3	-246.9566	166,481.6660	8,823,528	-13,089
<b>TOTAL</b>	<b>-418</b>	<b>-36,059.9882</b>	<b>1,593,155.6753</b>	<b>85,538,206</b>	<b>-1,918,271</b>

Regression Output:

Constant 108,244.39444705  
Std Err of Y Est 9,469.34933135  
R Squared 0.91991974  
  
X Coefficient 86.34847847  
Std Err of Coef. 8.05642658



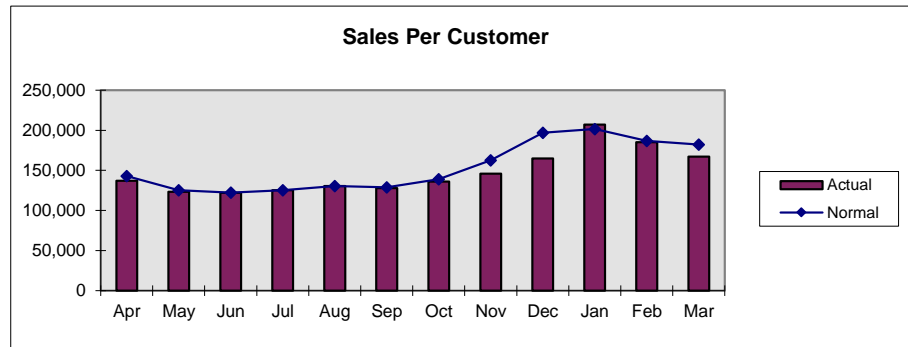
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,262,957	53	137,036.9245	123	182
May	6,537,158	53	123,342.6038	24	45
June	6,473,215	53	122,136.1321	0	1
July	6,647,416	53	125,422.9434	0	0
August	6,914,580	53	130,463.7736	0	0
September	6,770,165	53	127,738.9623	3	15
October	7,209,722	53	136,032.4906	137	168
November	7,738,614	53	146,011.5849	283	451
December	8,733,474	53	164,782.5283	370	695
January	10,765,882	52	207,036.1923	850	795
February	9,439,135	51	185,081.0784	600	617
March	8,517,456	51	167,008.9412	285	438
<b>TOTAL</b>	<b>93,009,774</b>	<b>631</b>	<b>1,772,094.1553</b>	<b>2,675</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	59	5,837.7067	142,874.6312	7,572,355	309,398
May	21	2,058.2796	125,400.8834	6,646,247	109,089
June	1	124.2065	122,260.3386	6,479,798	6,583
July	0	0.0000	125,422.9434	6,647,416	0
August	0	9.8577	130,473.6313	6,915,102	522
September	12	1,169.1186	128,908.0809	6,832,128	61,963
October	31	3,022.3588	139,054.8494	7,369,907	160,185
November	168	16,574.6708	162,586.2557	8,617,072	878,458
December	325	32,013.7391	196,796.2674	10,430,202	1,696,728
January	-55	-5,389.1831	201,647.0092	10,485,644	-280,238
February	17	1,679.7454	186,760.8238	9,524,802	85,667
March	153	15,096.0217	182,104.9629	9,287,353	769,897
<b>TOTAL</b>	<b>732</b>	<b>72,196.52</b>	<b>1,844,290.6771</b>	<b>96,808,026</b>	<b>3,798,252</b>

Regression Output:

Constant 125,700.14414607  
Std Err of Y Est 5,626.33952740  
R Squared 0.96174096  
  
X Coefficient 98.57660769  
Std Err of Coef. 6.21744352



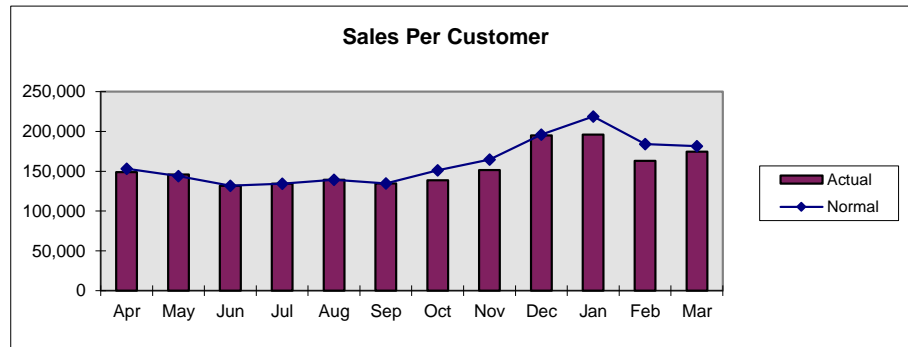
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,598,858	51	148,997.2157	136	182
May	7,445,420	51	145,988.6275	67	45
June	6,719,446	51	131,753.8431	0	1
July	6,848,482	51	134,283.9608	0	0
August	7,105,529	51	139,324.0980	0	0
September	6,868,987	51	134,686.0196	13	15
October	6,938,466	50	138,769.3200	33	168
November	7,880,185	52	151,542.0192	308	451
December	10,134,969	52	194,903.2500	683	695
January	9,989,194	51	195,866.5490	546	795
February	8,307,863	51	162,899.2745	385	617
March	8,906,447	51	174,636.2157	365	438
<b>TOTAL</b>	<b>94,743,846</b>	<b>613</b>	<b>1,853,650.3932</b>	<b>2,536</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	46.2200	4,248.1400	153,245.3557	7,815,513	216,655
May	-22.1200	-2,033.0778	143,955.5497	7,341,733	-103,687
June	1.2600	115.8082	131,869.6513	6,725,352	5,906
July	0.0000	0.0000	134,283.9608	6,848,482	0
August	0.1000	9.1911	139,333.2891	7,105,998	469
September	1.8600	170.9550	134,856.9746	6,877,706	8,719
October	134.6600	12,376.7748	151,146.0948	7,557,305	618,839
November	143.1400	13,156.1826	164,698.2018	8,564,306	684,121
December	11.7600	1,080.8768	195,984.1268	10,191,175	56,206
January	249.3300	22,916.2429	218,782.7919	11,157,922	1,168,728
February	232.0400	21,327.0966	184,226.3711	9,395,545	1,087,682
March	73.1400	6,722.3920	181,358.6077	9,249,289	342,842
<b>TOTAL</b>	<b>871.3900</b>	<b>80,090.5822</b>	<b>1,933,740.9754</b>	<b>98,830,326</b>	<b>4,086,480</b>

Regression Output:

Constant 135,046.94598667  
Std Err of Y Est 6,419.23647732  
R Squared 0.92805514  
  
X Coefficient 91.91129389  
Std Err of Coef. 8.09248467



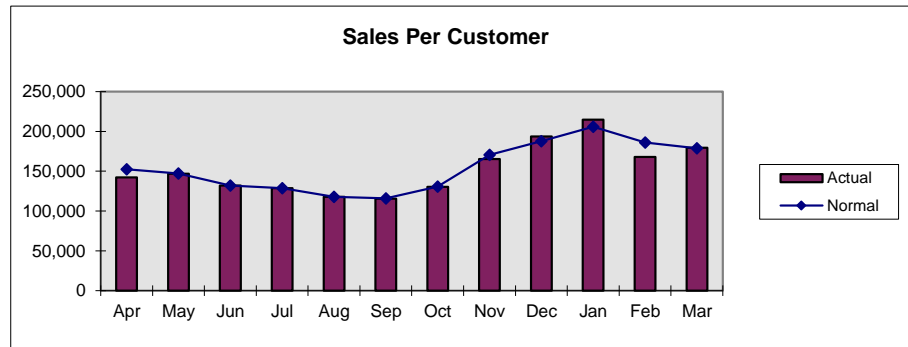
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,261,757	51	142,387.3922	76	182
May	7,347,484	50	146,949.6800	41	45
June	6,596,143	50	131,922.8600	0	1
July	6,428,581	50	128,571.6200	0	0
August	5,896,156	50	117,923.1200	0	0
September	5,783,824	50	115,676.4800	12	15
October	6,513,328	50	130,266.5600	163	168
November	8,273,747	50	165,474.9400	399	451
December	9,689,606	50	193,792.1200	758	695
January	10,730,708	50	214,614.1600	886	795
February	8,394,384	50	167,887.6800	429	617
March	8,969,993	50	179,399.8600	444	438
<b>TOTAL</b>	<b>91,885,711</b>	<b>601</b>	<b>1,834,866.4722</b>	<b>3,208</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	106.2200	10,231.3734	152,618.7656	7,783,557	521,800
May	3.8800	373.7312	147,323.4112	7,366,171	18,687
June	1.2600	121.3663	132,044.2263	6,602,211	6,068
July	0.0000	0.0000	128,571.6200	6,428,581	0
August	0.1000	9.6322	117,932.7522	5,896,638	482
September	2.8600	275.4823	115,951.9623	5,797,598	13,774
October	4.6600	448.8627	130,715.4227	6,535,771	22,443
November	52.1400	5,022.2539	170,497.1939	8,524,860	251,113
December	-63.2400	-6,091.4334	187,700.6866	9,385,034	-304,572
January	-90.6700	-8,733.5589	205,880.6011	10,294,030	-436,678
February	188.0400	18,112.4783	186,000.1583	9,300,008	905,624
March	-5.8600	-564.4497	178,835.4103	8,941,771	-28,222
<b>TOTAL</b>	<b>199.3900</b>	<b>19,205.7383</b>	<b>1,854,072.2105</b>	<b>92,856,230</b>	<b>970,519</b>

Regression Output:

Constant 127,155.33087000  
Std Err of Y Est 9,365.19764049  
R Squared 0.91927484  
  
X Coefficient 96.32247560  
Std Err of Coef. 9.02629228



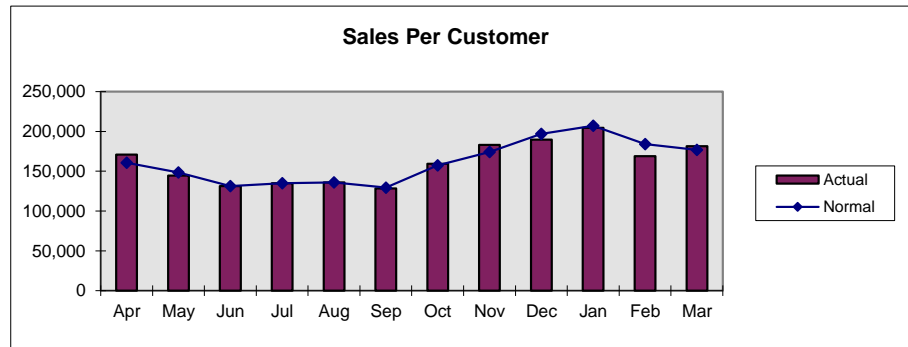
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	8,537,442	50	170,748.8400	295	182
May	7,230,457	50	144,609.1400	1	45
June	6,566,342	50	131,326.8400	0	1
July	6,751,134	50	135,022.6800	0	0
August	6,792,152	50	135,843.0400	0	0
September	6,418,087	50	128,361.7400	2	15
October	7,975,189	50	159,503.7800	190	168
November	9,334,011	51	183,019.8235	551	451
December	9,671,907	51	189,645.2353	613	695
January	10,429,146	51	204,493.0588	766	795
February	8,609,669	51	168,817.0392	443	617
March	9,440,606	52	181,550.1154	493	438
<b>TOTAL</b>	<b>97,756,142</b>	<b>606</b>	<b>1,932,941.3322</b>	<b>3,354</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-112.7800	-9,979.2358	160,769.6042	8,038,480	-498,962
May	43.8800	3,882.6819	148,491.8219	7,424,591	194,134
June	1.2600	111.4900	131,438.3300	6,571,917	5,575
July	0.0000	0.0000	135,022.6800	6,751,134	0
August	0.1000	8.8484	135,851.8884	6,792,594	442
September	12.8600	1,137.9054	129,499.6454	6,474,982	56,895
October	-22.3400	-1,976.7346	157,527.0454	7,876,352	-98,837
November	-99.8600	-8,836.0213	174,183.8022	8,883,374	-450,637
December	81.7600	7,234.4593	196,879.6946	10,040,864	368,957
January	29.3300	2,595.2384	207,088.2972	10,561,503	132,357
February	174.0400	15,399.7712	184,216.8104	9,395,057	785,388
March	-54.8600	-4,854.2372	176,695.8782	9,188,186	-252,420
<b>TOTAL</b>	<b>53.3900</b>	<b>4,724.1657</b>	<b>1,937,665.4979</b>	<b>97,999,034</b>	<b>242,892</b>

Regression Output:

Constant 136,347.14099543  
Std Err of Y Est 5,682.41005552  
R Squared 0.95576616  
  
X Coefficient 88.48409073  
Std Err of Coef. 6.01958662



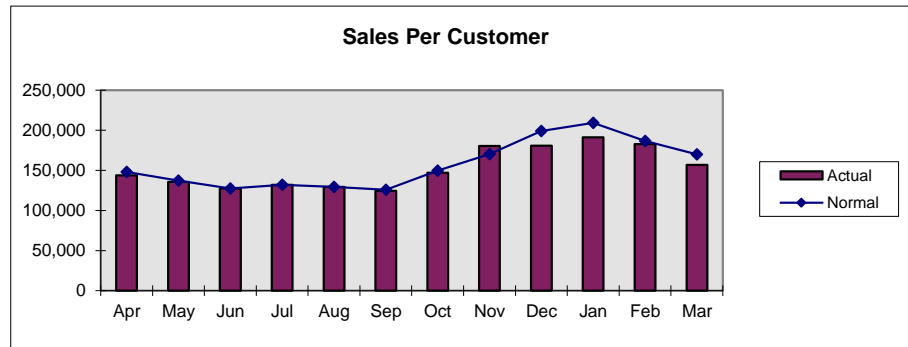
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,333,220	51	143,788.6275	137	182
May	6,912,436	51	135,537.9608	27	45
June	6,496,213	51	127,376.7255	0	1
July	6,739,340	51	132,143.9216	0	0
August	6,602,026	51	129,451.4902	0	0
September	6,343,205	51	124,376.5686	0	15
October	7,507,456	51	147,205.0196	143	168
November	9,208,100	51	180,550.9804	559	451
December	9,216,879	51	180,723.1176	503	695
January	9,761,873	51	191,409.2745	610	795
February	9,313,357	51	182,614.8431	576	617
March	7,994,239	51	156,749.7843	300	438
<b>TOTAL</b>	<b>93,428,344</b>	<b>612</b>	<b>1,831,928.3137</b>	<b>2,855</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	45.2200	4,356.1435	148,144.7710	7,555,383	222,163
May	17.8800	1,722.4203	137,260.3811	7,000,279	87,843
June	1.2600	121.3786	127,498.1041	6,502,403	6,190
July	0.0000	0.0000	132,143.9216	6,739,340	0
August	0.1000	9.6332	129,461.1234	6,602,517	491
September	14.8600	1,431.4970	125,808.0656	6,416,211	73,006
October	24.6600	2,375.5528	149,580.5724	7,628,609	121,153
November	-107.8600	-10,390.3946	170,160.5858	8,678,190	-529,910
December	191.7600	18,472.6688	199,195.7864	10,158,985	942,106
January	185.3300	17,853.2526	209,262.5271	10,672,389	910,516
February	41.0400	3,953.4748	186,568.3179	9,514,984	201,627
March	138.1400	13,307.3345	170,057.1188	8,672,913	678,674
<b>TOTAL</b>	<b>552.3900</b>	<b>53,212.9615</b>	<b>1,885,141.2752</b>	<b>96,142,203</b>	<b>2,713,859</b>

Regression Output:

Constant 129,741.64926017  
Std Err of Y Est 3,150.25722748  
R Squared 0.98536553  
  
X Coefficient 96.33223209  
Std Err of Coef. 3.71245670





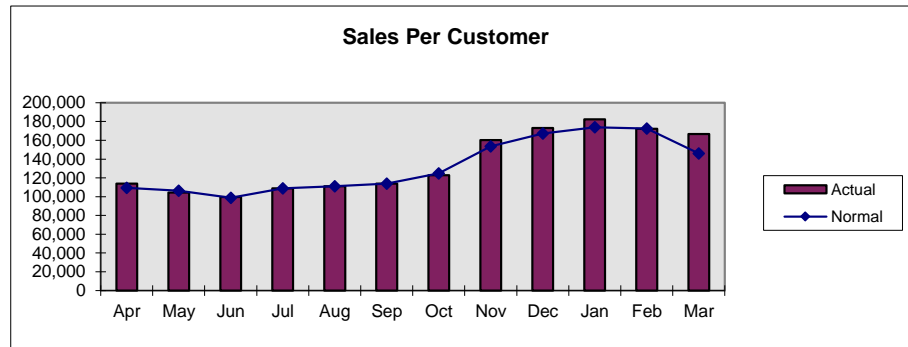
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	6,155,329	54	113,987.5741	357	302
May	5,642,632	54	104,493.1852	78	99
June	5,376,595	54	99,566.5741	22	14
July	5,875,682	54	108,808.9259	0	0
August	5,992,756	54	110,976.9630	0	0
September	6,148,858	54	113,867.7407	2	1
October	6,635,896	54	122,886.9630	39	60
November	8,651,795	54	160,218.4259	401	322
December	9,354,986	54	173,240.4815	640	570
January	9,658,302	53	182,232.1132	846	749
February	9,127,029	53	172,208.0943	774	780
March	8,836,617	53	166,728.6226	751	510
<b>TOTAL</b>	<b>87,456,477</b>	<b>645</b>	<b>1,629,215.6635</b>	<b>3,910</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-54.5900	-4,706.0518	109,281.5223	5,901,202	-254,127
May	21.0800	1,817.2480	106,310.4332	5,740,763	98,131
June	-8.2300	-709.4854	98,857.0887	5,338,283	-38,312
July	0.0600	5.1724	108,814.0983	5,875,961	279
August	0.1000	8.6207	110,985.5837	5,993,222	466
September	-0.7000	-60.3450	113,807.3957	6,145,599	-3,259
October	21.3100	1,837.0757	124,724.0387	6,735,098	99,202
November	-78.5600	-6,772.4386	153,445.9873	8,286,083	-365,712
December	-69.9500	-6,030.1945	167,210.2870	9,029,355	-325,631
January	-97.2200	-8,381.0652	173,851.0480	9,214,106	-444,196
February	5.5600	479.3121	172,687.4064	9,152,433	25,404
March	-241.4700	-20,816.4557	145,912.1669	7,733,345	-1,103,272
<b>TOTAL</b>	<b>-502.6100</b>	<b>-43,328.6073</b>	<b>1,585,887.0562</b>	<b>85,145,450</b>	<b>-2,311,027</b>

Regression Output:

Constant 107,678.78841918  
Std Err of Y Est 12,068.24465234  
R Squared 0.86993112  
  
X Coefficient 86.20721291  
Std Err of Coef. 10.54114707



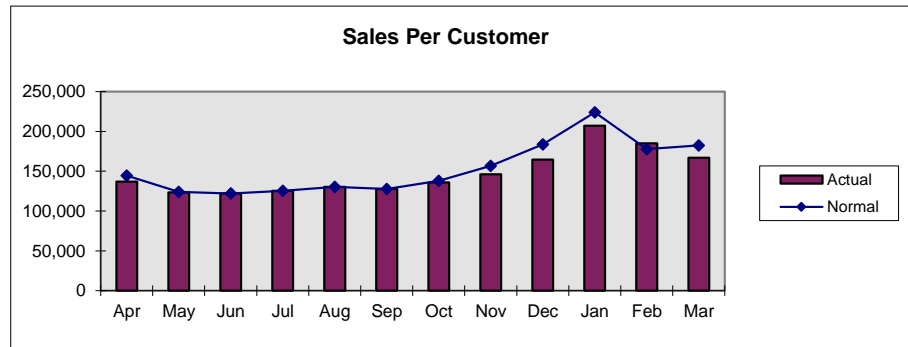
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,262,957	53	137,036.9245	221	302
May	6,537,158	53	123,342.6038	89	99
June	6,473,215	53	122,136.1321	15	14
July	6,647,416	53	125,422.9434	0	0
August	6,914,580	53	130,463.7736	0	0
September	6,770,165	53	127,738.9623	3	1
October	7,209,722	53	136,032.4906	40	60
November	7,738,614	53	146,011.5849	206	322
December	8,733,474	53	164,782.5283	362	570
January	10,765,882	52	207,036.1923	563	749
February	9,439,135	51	185,081.0784	861	780
March	8,517,456	51	167,008.9412	340	510
<b>TOTAL</b>	<b>93,009,774</b>	<b>631</b>	<b>1,772,094.1553</b>	<b>2,700</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	81.4100	7,404.8950	144,441.8195	7,655,416	392,459
May	10.0800	916.8572	124,259.4610	6,585,751	48,593
June	-1.2300	-111.8784	122,024.2537	6,467,285	-5,930
July	0.0600	5.4575	125,428.4009	6,647,705	289
August	0.1000	9.0958	130,472.8694	6,915,062	482
September	-1.7000	-154.6287	127,584.3336	6,761,970	-8,195
October	20.3100	1,847.3580	137,879.8486	7,307,632	97,910
November	116.4400	10,591.1556	156,602.7405	8,299,945	561,331
December	208.0500	18,923.8228	183,706.3511	9,736,437	1,002,963
January	185.7800	16,898.1869	223,934.3792	11,644,588	878,706
February	-81.4400	-7,407.6238	177,673.4546	9,061,346	-377,789
March	169.5300	15,420.1186	182,429.0598	9,303,882	786,426
<b>TOTAL</b>	<b>707.3900</b>	<b>64,342.8165</b>	<b>1,836,436.9718</b>	<b>96,387,019</b>	<b>3,377,245</b>

Regression Output:

Constant 127,208.95118959  
Std Err of Y Est 12,915.26629990  
R Squared 0.79840074  
  
X Coefficient 90.95805224  
Std Err of Coef. 14.45357071



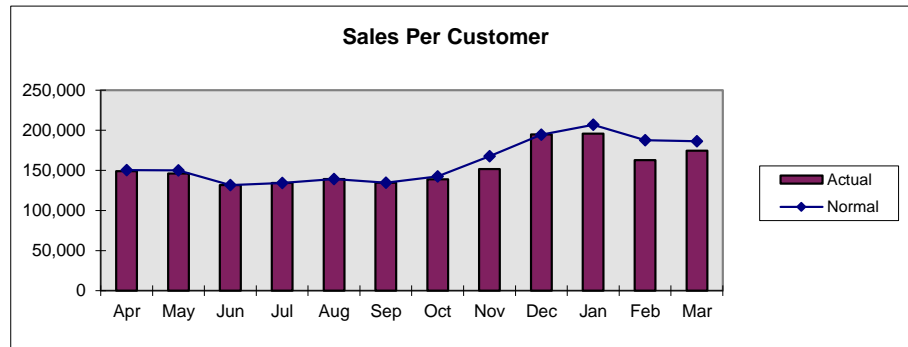
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,598,858	51	148,997.2157	287	302
May	7,445,420	51	145,988.6275	54	99
June	6,719,446	51	131,753.8431	15	14
July	6,848,482	51	134,283.9608	0	0
August	7,105,529	51	139,324.0980	0	0
September	6,868,987	51	134,686.0196	0	1
October	6,938,466	50	138,769.3200	19	60
November	7,880,185	52	151,542.0192	139	322
December	10,134,969	52	194,903.2500	576	570
January	9,989,194	51	195,866.5490	624	749
February	8,307,863	51	162,899.2745	497	780
March	8,906,447	51	174,636.2157	377	510
<b>TOTAL</b>	<b>94,743,846</b>	<b>613</b>	<b>1,853,650.3932</b>	<b>2,588</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	15.4100	1,355.8553	150,353.0710	7,668,007	69,149
May	45.0800	3,966.3827	149,955.0102	7,647,706	202,286
June	-1.2300	-108.2221	131,645.6210	6,713,927	-5,519
July	0.0600	5.2791	134,289.2399	6,848,751	269
August	0.1000	8.7985	139,332.8965	7,105,978	449
September	1.3000	114.3810	134,800.4006	6,874,820	5,833
October	41.3100	3,634.6777	142,403.9977	7,120,200	181,734
November	183.4400	16,140.0453	167,682.0645	8,719,467	839,282
December	-5.9500	-523.5132	194,379.7368	10,107,746	-27,223
January	124.7800	10,978.8206	206,845.3696	10,549,114	559,920
February	282.5600	24,861.1600	187,760.4345	9,575,782	1,267,919
March	132.5300	11,660.7076	186,296.9233	9,501,143	594,696
<b>TOTAL</b>	<b>819.3900</b>	<b>72,094.3725</b>	<b>1,925,744.7657</b>	<b>98,432,641</b>	<b>3,688,795</b>

Regression Output:

Constant 135,495.34405829  
Std Err of Y Est 7,992.47243219  
R Squared 0.88846907  
  
X Coefficient 87.98541903  
Std Err of Coef. 9.85796377



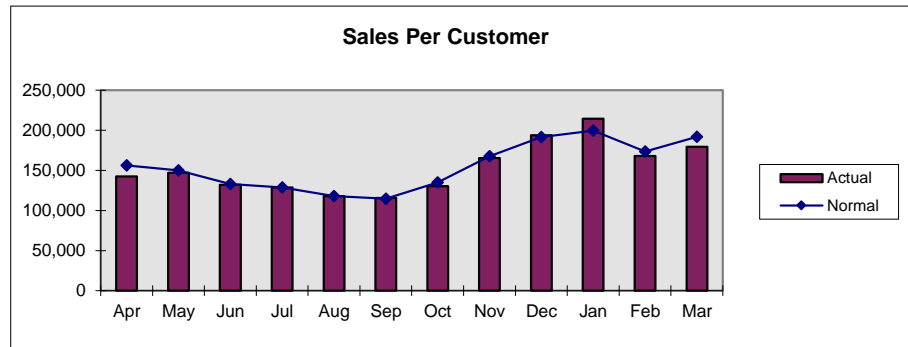
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,261,757	51	142,387.3922	150	302
May	7,347,484	50	146,949.6800	65	99
June	6,596,143	50	131,922.8600	3	14
July	6,428,581	50	128,571.6200	0	0
August	5,896,156	50	117,923.1200	0	0
September	5,783,824	50	115,676.4800	12	1
October	6,513,328	50	130,266.5600	9	60
November	8,273,747	50	165,474.9400	299	322
December	9,689,606	50	193,792.1200	596	570
January	10,730,708	50	214,614.1600	916	749
February	8,394,384	50	167,887.6800	715	780
March	8,969,993	50	179,399.8600	369	510
<b>TOTAL</b>	<b>91,885,711</b>	<b>601</b>	<b>1,834,866.4722</b>	<b>3,134</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	152.4100	13,704.2117	156,091.6039	7,960,672	698,915
May	34.0800	3,064.3628	150,014.0428	7,500,702	153,218
June	10.7700	968.4034	132,891.2634	6,644,563	48,420
July	0.0600	5.3950	128,577.0150	6,428,851	270
August	0.1000	8.9917	117,932.1117	5,896,606	450
September	-10.7000	-962.1092	114,714.3708	5,735,719	-48,105
October	51.3100	4,613.6284	134,880.1884	6,744,009	230,681
November	23.4400	2,107.6486	167,582.5886	8,379,129	105,382
December	-25.9500	-2,333.3396	191,458.7804	9,572,939	-116,667
January	-167.2200	-15,035.8788	199,578.2812	9,978,914	-751,794
February	64.5600	5,805.0253	173,692.7053	8,684,635	290,251
March	140.5300	12,636.0007	192,035.8607	9,601,793	631,800
<b>TOTAL</b>	<b>273.3900</b>	<b>24,582.3400</b>	<b>1,859,448.8122</b>	<b>93,128,532</b>	<b>1,242,821</b>

Regression Output:

Constant 129,422.28171191  
Std Err of Y Est 12,852.33175451  
R Squared 0.84796666  
  
X Coefficient 89.91674908  
Std Err of Coef. 12.03983773



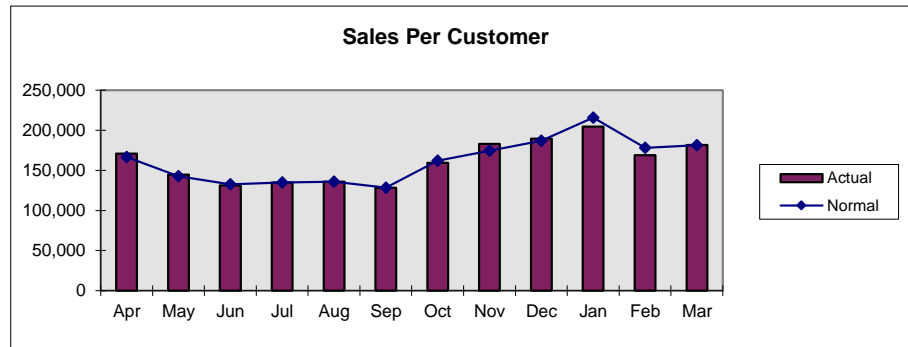
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	8,537,442	50	170,748.8400	350	302
May	7,230,457	50	144,609.1400	121	99
June	6,566,342	50	131,326.8400	0	14
July	6,751,134	50	135,022.6800	0	0
August	6,792,152	50	135,843.0400	0	0
September	6,418,087	50	128,361.7400	0	1
October	7,975,189	50	159,503.7800	31	60
November	9,334,011	51	183,019.8235	423	322
December	9,671,907	51	189,645.2353	601	570
January	10,429,146	51	204,493.0588	612	749
February	8,609,669	51	168,817.0392	666	780
March	9,440,606	52	181,550.1154	511	510
<b>TOTAL</b>	<b>97,756,142</b>	<b>606</b>	<b>1,932,941.3322</b>	<b>3,315</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-47.5900	-3,956.6284	166,792.2116	8,339,611	-197,831
May	-21.9200	-1,822.4269	142,786.7131	7,139,336	-91,121
June	13.7700	1,144.8366	132,471.6766	6,623,584	57,242
July	0.0600	4.9884	135,027.6684	6,751,383	249
August	0.1000	8.3140	135,851.3540	6,792,568	416
September	1.3000	108.0819	128,469.8219	6,423,491	5,404
October	29.3100	2,436.8308	161,940.6108	8,097,031	121,842
November	-100.5600	-8,360.5496	174,659.2739	8,907,623	-426,388
December	-30.9500	-2,573.1803	187,072.0550	9,540,675	-131,232
January	136.7800	11,371.8772	215,864.9360	11,009,112	579,966
February	113.5600	9,441.3685	178,258.4077	9,091,179	481,510
March	-1.4700	-122.2157	181,427.8997	9,434,251	-6,355
<b>TOTAL</b>	<b>92.3900</b>	<b>7,681.2965</b>	<b>1,940,622.6287</b>	<b>98,149,844</b>	<b>393,702</b>

Regression Output:

Constant 138,111.04351501  
Std Err of Y Est 12,173.18809085  
R Squared 0.79699902  
  
X Coefficient 83.13991254  
Std Err of Coef. 13.26874147



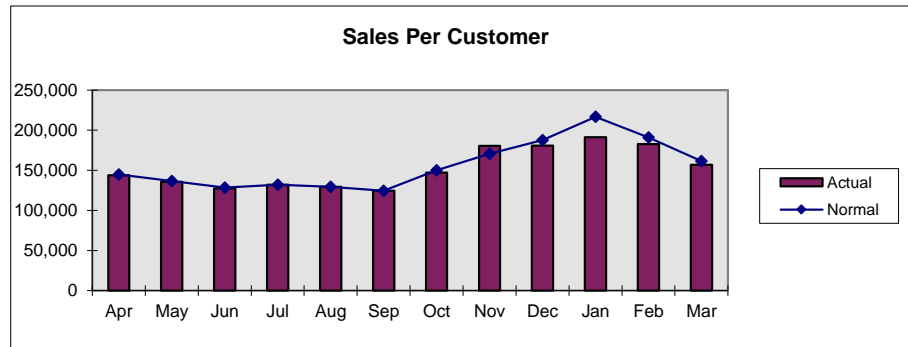
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,333,220	51	143,788.6275	291	302
May	6,912,436	51	135,537.9608	87	99
June	6,496,213	51	127,376.7255	0	14
July	6,739,340	51	132,143.9216	0	0
August	6,602,026	51	129,451.4902	0	0
September	6,343,205	51	124,376.5686	0	1
October	7,507,456	51	147,205.0196	30	60
November	9,208,100	51	180,550.9804	434	322
December	9,216,879	51	180,723.1176	491	570
January	9,761,873	51	191,409.2745	465	749
February	9,313,357	51	182,614.8431	687	780
March	7,994,239	51	156,749.7843	458	510
<b>TOTAL</b>	<b>93,428,344</b>	<b>612</b>	<b>1,831,928.3137</b>	<b>2,943</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	11.4100	1,014.2883	144,802.9158	7,384,949	51,729
May	12.0800	1,073.8477	136,611.8085	6,967,202	54,766
June	13.7700	1,224.0797	128,600.8052	6,558,641	62,428
July	0.0600	5.3337	132,149.2553	6,739,612	272
August	0.1000	8.8895	129,460.3797	6,602,479	453
September	1.3000	115.5631	124,492.1317	6,349,099	5,894
October	30.3100	2,694.3977	149,899.4173	7,644,870	137,414
November	-111.5600	-9,917.0903	170,633.8901	8,702,328	-505,772
December	79.0500	7,027.1243	187,750.2419	9,575,262	358,383
January	283.7800	25,226.5318	216,635.8063	11,048,426	1,286,553
February	92.5600	8,228.0914	190,842.9345	9,732,990	419,633
March	51.5300	4,580.7428	161,330.5271	8,227,857	233,618
<b>TOTAL</b>	<b>464.3900</b>	<b>41,281.7997</b>	<b>1,873,210.1134</b>	<b>95,533,715</b>	<b>2,105,371</b>

Regression Output:

Constant 130,859.27295093  
Std Err of Y Est 11,222.45631679  
R Squared 0.81427912  
  
X Coefficient 88.89467833  
Std Err of Coef. 13.42516021



SOURCE: Revenue Workpaper R-43-5.00 (Non-Print).

THERMS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	6,576,152	5,628,220	6,643,696	7,810,210	6,732,444	9,084,324	6,916,660	8,575,375	9,258,953	8,757,446	9,658,302	10,765,882	9,989,194	10,730,708	10,429,146	9,761,873
February	-	6,008,893	5,806,021	6,506,931	6,788,120	5,014,826	8,581,232	5,491,640	7,929,827	8,308,127	8,402,309	9,127,029	9,439,135	8,307,863	8,394,384	8,609,669	9,313,357
March	-	6,535,951	5,842,774	5,264,836	5,987,830	4,938,790	7,647,665	5,664,510	6,779,688	8,585,734	8,487,970	8,836,617	8,517,456	8,906,447	8,969,993	9,440,606	7,994,239
April	-	5,152,535	4,400,391	4,941,607	4,586,860	4,795,180	6,277,923	4,500,360	6,163,531	7,100,433	6,155,329	7,262,957	7,598,858	7,261,757	8,537,442	7,333,220	-
May	-	4,915,527	4,552,159	4,361,139	4,002,747	5,489,624	2,995,783	4,306,520	5,243,827	6,206,953	5,642,632	6,537,158	7,445,420	7,347,484	7,230,457	6,912,436	-
June	-	4,918,099	4,899,611	4,435,262	4,017,530	5,151,263	2,786,750	3,873,570	5,384,872	5,321,145	5,376,595	6,473,215	6,719,446	6,596,143	6,566,342	6,496,213	-
July	-	4,215,167	4,430,621	4,041,017	3,669,671	5,466,288	2,794,600	3,945,254	5,221,636	5,495,075	5,875,682	6,647,416	6,848,482	6,428,581	6,751,134	6,739,340	-
August	-	4,423,839	4,710,013	3,902,210	3,704,435	5,572,611	3,001,790	4,443,649	5,214,451	5,620,100	5,992,756	6,914,580	7,105,529	5,896,156	6,792,152	6,602,026	-
September	-	4,035,542	4,602,058	3,916,753	3,734,630	5,402,237	3,579,350	4,763,502	5,265,909	5,812,503	6,148,858	6,770,165	6,868,987	5,783,824	6,418,087	6,343,205	-
October	5,719,904	5,035,457	5,016,381	4,562,671	4,693,056	5,874,155	4,752,370	5,122,713	6,663,120	6,683,057	6,635,896	7,209,722	6,938,466	6,513,328	7,975,189	7,507,456	-
November	5,558,139	5,800,368	6,048,131	5,545,025	5,218,078	6,251,544	4,892,900	6,059,368	7,634,995	7,867,915	8,651,795	7,738,614	7,880,185	8,273,747	9,334,011	9,208,100	-
December	6,732,121	7,061,295	6,161,723	6,335,589	5,996,309	8,427,819	6,746,100	6,602,424	8,241,076	8,796,307	9,354,986	8,733,474	10,134,969	9,689,606	9,671,907	9,216,879	-
<b>Total</b>	<b>18,010,164</b>	<b>64,678,825</b>	<b>62,098,103</b>	<b>60,456,736</b>	<b>60,209,476</b>	<b>69,116,781</b>	<b>63,140,787</b>	<b>61,690,170</b>	<b>78,318,307</b>	<b>85,056,302</b>	<b>85,482,254</b>	<b>91,909,249</b>	<b>96,262,815</b>	<b>90,994,130</b>	<b>97,371,806</b>	<b>94,838,296</b>	<b>27,069,469</b>

BILLS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	55	55	55	56	54	56	54	56	53	53	53	52	51	50	51	51
February	-	55	55	55	56	55	56	54	56	53	53	53	51	51	50	51	51
March	-	55	55	55	56	54	56	55	53	53	54	53	51	51	50	52	51
April	-	56	56	55	56	55	56	54	53	53	54	53	51	51	50	51	-
May	-	56	55	55	56	55	55	54	54	53	54	53	51	50	50	51	-
June	-	56	55	55	56	55	54	55	53	53	54	53	51	50	50	51	-
July	-	57	54	55	56	55	55	55	54	53	54	53	51	50	50	51	-
August	-	56	55	56	56	55	55	55	54	53	54	53	51	50	50	51	-
September	-	56	55	55	56	55	55	55	54	54	54	53	51	50	50	51	-
October	55	56	55	56	56	55	55	55	54	53	54	53	50	50	50	51	-
November	55	56	55	56	55	55	55	55	53	53	54	53	52	50	51	51	-
December	55	55	55	56	55	56	55	55	53	53	54	53	52	50	51	51	-
<b>Total</b>	<b>165</b>	<b>669</b>	<b>660</b>	<b>664</b>	<b>670</b>	<b>659</b>	<b>663</b>	<b>656</b>	<b>647</b>	<b>637</b>	<b>646</b>	<b>636</b>	<b>614</b>	<b>604</b>	<b>602</b>	<b>613</b>	<b>153</b>

Usage/Bill	109,152.51	96,679.86	94,088.03	91,049.30	89,864.89	104,881.31	95,234.97	94,039.89	121,048.39	133,526.38	132,325.47	144,511.40	156,779.83	150,652.53	161,747.19	154,711.74	176,924.63
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This workpaper is too voluminous to print and is only being provided in electronic format.



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Rate 310-Sale for Resale Forecast**

	Billing Determinant	Rate	Margin
<b>Total Sale for Resale Margin</b>			
<b>Customer Charges:</b>			
Annual	36 A/	\$0.00000 C/	\$0
<b>Total Customer Charge Margin</b>	<b>36</b>		<b>\$0</b>
<b>Commodity Charges:</b>			
All Usage	35,976 A/	\$0.07518 C/	\$2,705
<b>Total Commodity Charge Margin</b>	<b>35,976</b>		<b>\$2,705</b>
<b>Billing Demand:</b>			
Billing Demand (Dkt)	1,800 B/	8.00000 C/	\$14,400
<b>Total Billing Demand Margin</b>	<b>1,800</b>		<b>\$14,400</b>
<b>Total Sale for Resale Margin</b>			<b>\$17,105</b>
<hr/>			
<b>Sale for Resale Gas Cost:</b>			
Demand	1,800	8.2829 C/	\$14,909
Commodity	35,976	0.19717 C/	7,093
<b>Total Sale for Resale Gas Cost</b>			<b>\$22,002</b>
<hr/>			
<b>Sale for Resale Other Charges:</b>			
Integrity Management Rider Surcharge			0 D/
Docket 18-00040 Excess ADIT			0 E/
<b>Total Sale for Resale Other Charges</b>			<b>0</b>
<b>Total Sale for Resale Revenues</b>			<b>\$39,107</b>

A/ WHN Revenue Workpaper R-45-1.04.

B/ WHN Revenue Workpaper R-45-1.03.

C/ WHN Revenue Workpaper R-110-1.00.

D/ IMR Surcharge is excluded from the Consumer Advocate's case. See WHN Revenue Workpaper R-55-1.00 for details.

E/ Excess ADIT is excluded from the Consumer Advocate's case. See WHN Workpaper R-60-1.00 for details.

SOURCE: Couzens Workpaper - Sales &amp; Transportation Pro Forma Revenue, A-Summary Pro Forma Revs

	Billing Determinant	Rate	Margin
<b>Total Sale for Resale Margin</b>			
<b>Customer Charges:</b>			
Annual	24	\$0.00	\$0
<b>Total Customer Charge Margin</b>	<b>24</b>		<b>\$0</b>
<b>Commodity Charges:</b>			
All Usage	31,050	\$0.07518	\$2,334
<b>Total Commodity Charge Margin</b>	<b>31,050</b>		<b>\$2,334</b>
<b>Billing Demand:</b>			
Billing Demand (Dkt)	1,800	8.00000	\$14,400
<b>Total Billing Demand Margin</b>	<b>1,800</b>		<b>\$14,400</b>
<b>Total Sale for Resale Margin</b>			<b>\$16,734</b>
<b>Gas Cost:</b>			
Demand	1,800	\$8.28290	\$14,909
Commodity	31,050	0.19717	6,122
<b>Total Gas Cost</b>			<b>\$21,031</b>
<b>Other Charges:</b>			
Integrity Management Rider Surcharge			\$10,039
Docket 18-00040 Excess ADIT	31,050	-\$0.02086	-648
<b>Total Other Charges</b>			<b>\$9,391</b>
<b>Total Revenues</b>			<b>\$47,156</b>

	Amount
Attrition Period Sale for Resale Usage	35,976 A/
Average Billing Demand Percentage	10.82%
<b>Attrition Period Sale for Resale Billing Demand</b>	<b>3,891</b>
Manual Adjustment	-2,091
<b>Net Attrition Year Billing Demand</b>	<b>1,800</b>

Test Period Billing Demand was accepted as valid for the Attrition Year

## Billing Demand Summary:

For the 12 Months Ended March 31, 2015  
 For the 12 Months Ended March 31, 2016  
 For the 12 Months Ended March 31, 2017  
 For the 12 Months Ended March 31, 2018  
 For the 12 Months Ended March 31, 2019  
 For the 12 Months Ended March 31, 2020  
**Average**

Demand	Usage	Percentage
1,650	15,698	10.51%
600	21	2857.14%
800	99	808.08%
1,800	12,444	14.46%
1,800	18,820	9.56%
1,800	31,050	5.80%
<b>1,408</b>	<b>13,022</b>	<b>10.82% B/</b>

## Billing Demand - For the 12 Months Ended March

	2015	2016	2017	2018	2019	2020
April	200	50	50	150	150	150
May	200	50	50	150	150	150
June	200	50	50	150	150	150
July	200	50	50	150	150	150
August	200	50	50	150	150	150
September	200	50	50	150	150	150
October	200	50	50	150	150	150
November	50	50	50	150	150	150
December	50	50	50	150	150	150
January	50	50	50	150	150	150
February	50	50	150	150	150	150
March	50	50	150	150	150	150
<b>Total</b>	<b>1,650</b>	<b>600</b>	<b>800</b>	<b>1,800</b>	<b>1,800</b>	<b>1,800 B/</b>

## Usage - For the 12 Months Ended March

	2015	2016	2017	2018	2019	2020
April	7,462	0	0	22	1,185	988
May	4,109	0	0	11	431	542
June	2,825	0	0	44	274	500
July	1,302	0	0	121	264	675
August	0	0	0	121	297	751
September	0	0	0	165	349	762
October	0	21	0	551	857	1,449
November	0	0	0	1,525	2,826	4,918
December	0	0	0	2,928	3,181	5,103
January	0	0	0	3,506	4,033	6,129
February	0	0	0	1,743	2,493	5,895
March	0	0	99	1,707	2,630	3,338
<b>Total</b>	<b>15,698</b>	<b>21</b>	<b>99</b>	<b>12,444</b>	<b>18,820</b>	<b>31,050</b>

A/ WHN Revenue Workpaper R-45-1.04.

B/ WHN Revenue Workpaper R-45-4.00.

**Attrition Period Monthly Growth in Sale for Resale Bills**

		<u>0</u>	<b>A/</b>
	<u>Growth</u>	<u>Total</u>	
Test Period Number of Sale for Resale Bills - 12 Months Ended March, 2020		36	<b>A/</b>
April-20	0	36	
May-20	0	36	
June-20	0	36	
July-20	0	36	
August-20	0	36	
September-20	0	36	
October-20	0	36	
November-20	0	36	
December-20	0	36	
January-21	0	36	
February-21	0	36	
March-21	0	36	
April-21	0	36	
May-21	0	36	
June-21	0	36	
July-21	0	36	
August-21	0	36	
September-21	0	36	
October-21	0	36	
November-21	0	36	
December-21	0	36	

Attrition Period Sale for Resale Bills	36	
Normalized Usage per Bill (Therms)	999.3333	<b>B/</b>
<b>Total Sale for Resale Sales Volume - Therms</b>	<u><u>35,976</u></u>	

A/ WHN Revenue Workpaper R-45-1.05.

B/ WHN Revenue Workpaper R-45-2.00.

**Historic Bill Counts:**

**For the 12 Months Ended March**

<b>MONTH</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
April	3	2	2	3	3	3
May	3	2	2	3	3	3
June	3	2	2	3	3	3
July	3	2	2	3	3	3
August	3	2	2	3	3	3
September	3	2	2	3	3	3
October	3	2	2	3	3	3
November	2	2	2	3	3	3
December	2	2	2	3	3	3
January	2	2	2	3	3	3
February	2	2	3	3	3	3
March	2	2	3	3	3	3
<b>Total</b>	<b>31</b>	<b>24</b>	<b>26</b>	<b>36</b>	<b>36</b>	<b>36</b>

**Source:** WHN Revenue Workpaper R-45-4.00.

**Annual Bill Growth Calculation:**

<b>Year</b>	<b>Bills</b>	<b>Growth</b>
2015	31	-
2016	24	-7
2017	26	2
2018	36	10
2019	36	0
2020	36	0

Five-Year Average 1

Four-Year Average 3

Three-Year Average 3

Two-Year Average 0

One-Year Average 0

Manual Input 0

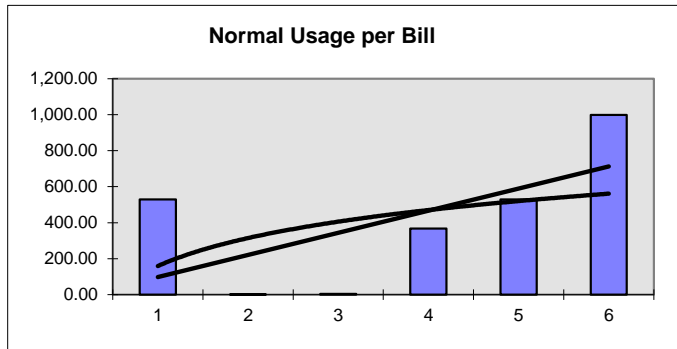
*Zero growth (0) was chosen as the most representative of the Attrition Year.*

Annual Bill Growth Forecast	0
Test Period Bills	36
<b>Annual Percentage Growth</b>	<b>0.00%</b>

Annual Bill Growth Forecast	0
Months per Year	12
<b>Monthly Bill Growth</b>	<b>0</b>

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2015	1	528.7097	97.7263	12.4199	-
2016	2	0.8333	220.6657	26.8305	-99.84%
2017	3	4.4615	343.6051	57.9616	435.38%
2018	4	367.3056	466.5445	125.2136	8132.71%
2019	5	529.8056	589.4839	270.4974	44.24%
2020	6	999.3333	712.4233	584.3520	88.62%
Forecast	7.25		866.0976	1,530.4314	37,572.1652

Regression Statistics		
	Linear	Logarithmic
Constant	-25.213064	1.749057
X Coefficient	122.939399	0.770241
R Squared	0.372890	0.230816

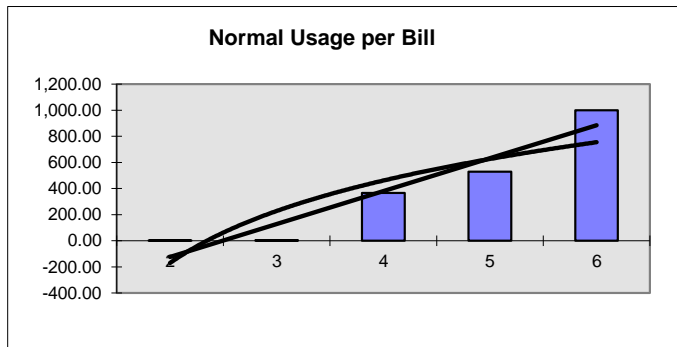


PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086

WHN Revenue Workpapers - Sale for Resale Conservation and Growth-5 Year Analysis  
Calendar Data

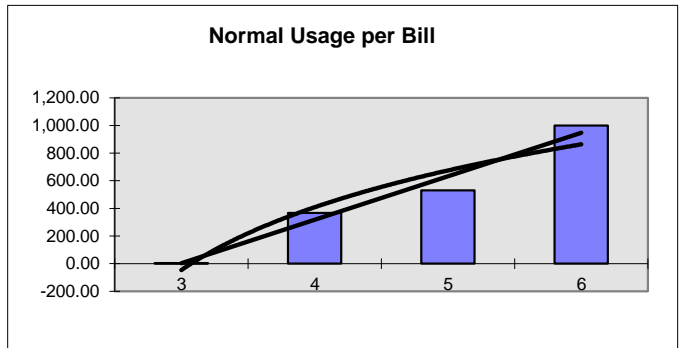
Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2016	2	0.8333	-124.1209	1.3346	-
2017	3	4.4615	128.1135	8.8836	435.38%
2018	4	367.3056	380.3479	59.1332	8132.71%
2019	5	529.8056	632.5823	393.6163	44.24%
2020	6	999.3333	884.8167	2,620.0801	88.62%
Forecast	7.25		1,200.1097	28,013.4414	49,658.5847

Regression Statistics		
	Linear	Logarithmic
Constant	-628.589744	-3.502542
X Coefficient	252.234402	1.895584
R Squared	0.920763	0.876793



Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2017	3	4.4615	3.1592	14.2272	-
2018	4	367.3056	317.8707	74.8336	8132.71%
2019	5	529.8056	632.5823	393.6163	44.24%
2020	6	999.3333	947.2938	2,070.3782	88.62%
Forecast	7.25		<b>1,340.6832</b>	<b>16,491.8913</b>	<b>65,956.0176</b>

Regression Statistics		
	Linear	Logarithmic
Constant	-940.975427	-2.325174
X Coefficient	314.711538	1.660110
R Squared	0.969239	0.754045

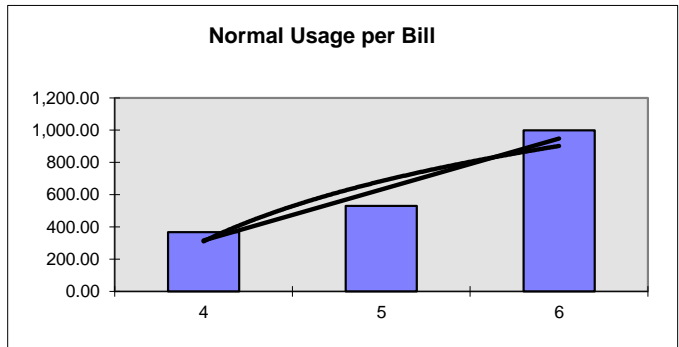


**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Sale for Resale Conservation and Growth-3 Year Analysis**  
Calendar Data

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
2018	4	367.3056	316.1343	351.2449	-
2019	5	529.8056	632.1481	579.3639	44.24%
2020	6	999.3333	948.1620	955.6369	88.62%
Forecast	7.25		<b>1,343.1794</b>	<b>1,786.3629</b>	<b>1,889.1046</b>

Regression Statistics		
	Linear	Logarithmic
Constant	-947.921296	3.859695
X Coefficient	316.013889	0.500447
R Squared	0.927075	0.976615





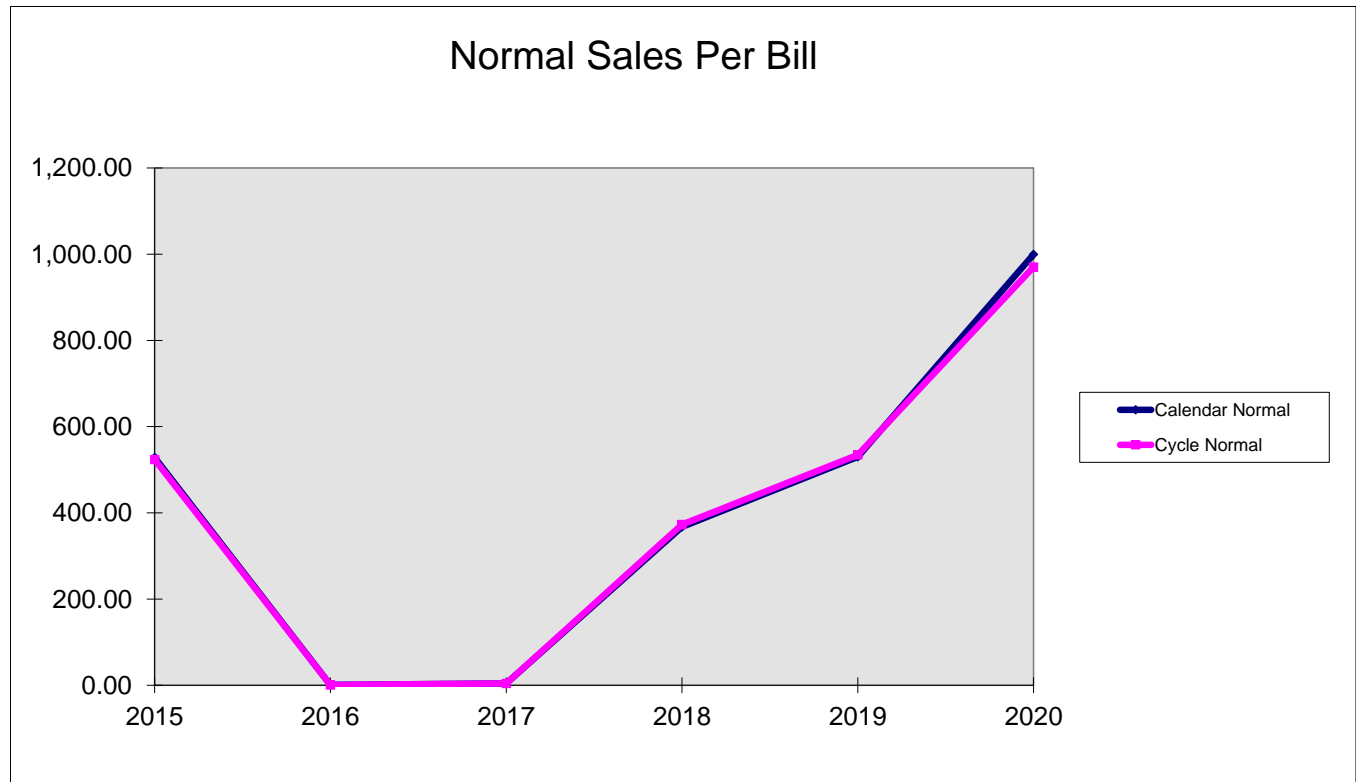
Trend	From The 12 Months Ended		Calendar Data	
	Month	Year	Time Series Forecast	Adjusted Forecast
Linear Least Squares	March	2015		
	March	2016	1,200.1097	1,200.1097
	March	2017	1,340.6832	1,340.6832
	March	2018	1,343.1794	1,343.1794
Logarithmic Least Squares	March	2015		
	March	2016	28,013.4414	28,013.4414
	March	2017		
	March	2018	1,786.3629	1,786.3629
Year To Year Change	March	2015	37,572.1652	37,572.1652
	March	2016	49,658.5847	
	March	2017	65,956.0176	
	March	2018	1,889.1046	1,889.1046
<b>Average</b>			<b>20,973.2943</b>	<b>10,449.2924</b>
One Standard Deviation			23,724.0660	
<b>Upper</b> End of Range			44,697.3603	
<b>Lower</b> End of Range			-2,750.7717	
Number in Range			7.0000	
Weighted Average Forecast at Midpoint				<b>10,449.2924</b>
Test Period Amount				<b>999.3333</b>
Compound Growth Factor				<b>10.45626319</b>
Annualized Growth Rate				<b>6.53884744</b>
Test Period Sales				31,050
Weather Adjustment				4,926
Normal Sales				<b>35,976</b>
Usage Adjustment				340,199
Adjusted Sales				<b>376,175</b>

CALENDAR DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	15,698	31	5,607.8781	16,390	692	16.27%	528.7097
2016	21	24	9.6931	20	-1	0.98%	0.8333
2017	99	26	40.0227	116	17	4.09%	4.4615
2018	12,444	36	4,407.7460	13,223	779	99.04%	367.3056
2019	18,820	36	6,358.2251	19,073	253	98.12%	529.8056
2020	31,050	36	11,992.0618	35,976	4,926	97.79%	999.3333

CYCLE DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
2015	15,698	31	5,497.0417	16,238	540	5.29%	523.8065
2016	21	24	8.7791	17	-4	4.68%	0.7083
2017	99	26	39.6364	116	17	4.32%	4.4615
2018	12,444	36	4,471.8724	13,414	970	86.70%	372.6111
2019	18,820	36	6,415.0835	19,245	425	86.29%	534.5833
2020	31,050	36	11,641.8862	34,926	3,876	83.11%	970.1667



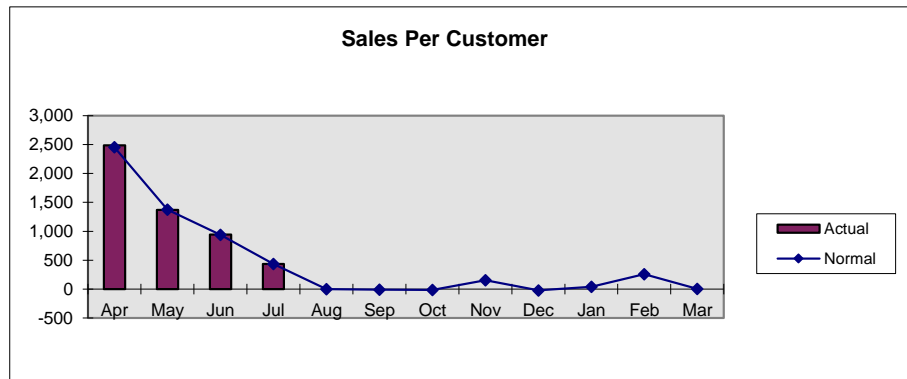
**For the 12 Months Ended March 31, 2015**

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,462	3	2,487.3333	144	182
May	4,109	3	1,369.6667	50	45
June	2,825	3	941.6667	0	1
July	1,302	3	434.0000	0	0
August	0	3	0.0000	0	0
September	0	3	0.0000	3	15
October	0	3	0.0000	150	168
November	0	2	0.0000	621	451
December	0	2	0.0000	671	695
January	0	2	0.0000	840	795
February	0	2	0.0000	905	617
March	0	2	0.0000	441	438
<b>TOTAL</b>	<b>15,698</b>	<b>31</b>	<b>5,232.6667</b>	<b>3,825</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	38	-34.3396	2,452.9937	7,359	-103
May	-5	4.6002	1,374.2669	4,123	14
June	1	-1.1321	940.5346	2,822	-3
July	0	0.0000	434.0000	1,302	0
August	0	-0.0898	-0.0898	0	0
September	12	-10.6559	-10.6559	-32	-32
October	18	-15.8670	-15.8670	-48	-48
November	-170	152.6146	152.6146	305	305
December	24	-21.3477	-21.3477	-43	-43
January	-45	40.1348	40.1348	80	80
February	-288	258.7243	258.7243	517	517
March	-3	2.5696	2.5696	5	5
<b>TOTAL</b>	<b>-418</b>	<b>375.2114</b>	<b>5,607.8781</b>	<b>16,390</b>	<b>692</b>

**Regression Output:**

Constant 722.44380445  
Std Err of Y Est 757.68992672  
R Squared 0.16266107  
  
X Coefficient -0.89847294  
Std Err of Coef. 0.64463492



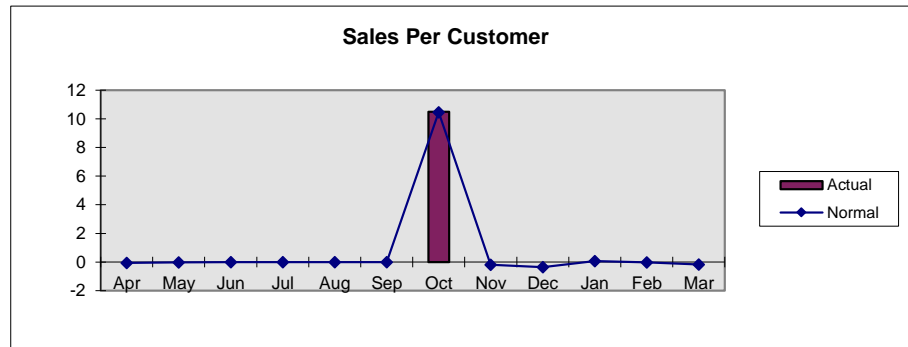
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	0	2	0.0000	123	182
May	0	2	0.0000	24	45
June	0	2	0.0000	0	1
July	0	2	0.0000	0	0
August	0	2	0.0000	0	0
September	0	2	0.0000	3	15
October	21	2	10.5000	137	168
November	0	2	0.0000	283	451
December	0	2	0.0000	370	695
January	0	2	0.0000	850	795
February	0	2	0.0000	600	617
March	0	2	0.0000	285	438
<b>TOTAL</b>	<b>21</b>	<b>24</b>	<b>10.5000</b>	<b>2,675</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	59	-0.0652	-0.0652	0	0
May	21	-0.0230	-0.0230	0	0
June	1	-0.0014	-0.0014	0	0
July	0	0.0000	0.0000	0	0
August	0	-0.0001	-0.0001	0	0
September	12	-0.0131	-0.0131	0	0
October	31	-0.0338	10.4662	21	0
November	168	-0.1852	-0.1852	0	0
December	325	-0.3578	-0.3578	-1	-1
January	-55	0.0602	0.0602	0	0
February	17	-0.0188	-0.0188	0	0
March	153	-0.1687	-0.1687	0	0
<b>TOTAL</b>	<b>732</b>	<b>-0.81</b>	<b>9.6931</b>	<b>20</b>	<b>-1</b>

Regression Output:

Constant 1.12057326  
Std Err of Y Est 3.16336349  
R Squared 0.00983366  
  
X Coefficient -0.00110164  
Std Err of Coef. 0.00349571



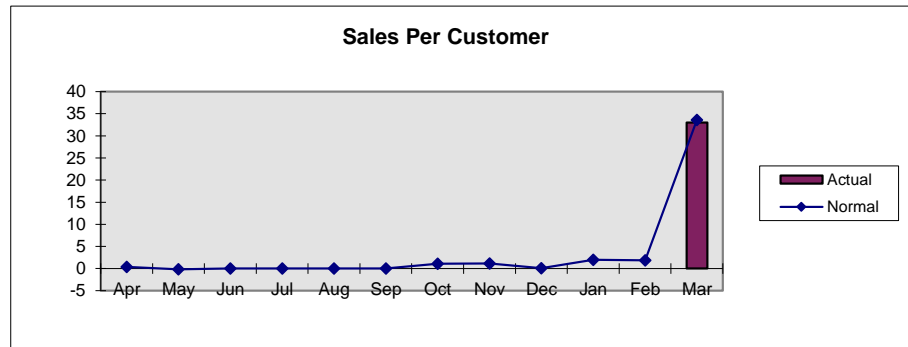
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	0	2	0.0000	136	182
May	0	2	0.0000	67	45
June	0	2	0.0000	0	1
July	0	2	0.0000	0	0
August	0	2	0.0000	0	0
September	0	2	0.0000	13	15
October	0	2	0.0000	33	168
November	0	2	0.0000	308	451
December	0	2	0.0000	683	695
January	0	2	0.0000	546	795
February	0	3	0.0000	385	617
March	99	3	33.0000	365	438
<b>TOTAL</b>	<b>99</b>	<b>26</b>	<b>33.0000</b>	<b>2,536</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	46.2200	0.3725	0.3725	1	1
May	-22.1200	-0.1783	-0.1783	0	0
June	1.2600	0.0102	0.0102	0	0
July	0.0000	0.0000	0.0000	0	0
August	0.1000	0.0008	0.0008	0	0
September	1.8600	0.0150	0.0150	0	0
October	134.6600	1.0852	1.0852	2	2
November	143.1400	1.1536	1.1536	2	2
December	11.7600	0.0948	0.0948	0	0
January	249.3300	2.0094	2.0094	4	4
February	232.0400	1.8701	1.8701	6	6
March	73.1400	0.5894	33.5894	101	2
<b>TOTAL</b>	<b>871.3900</b>	<b>7.0227</b>	<b>40.0227</b>	<b>116</b>	<b>17</b>

Regression Output:

Constant 1.04682750  
Std Err of Y Est 9.78458951  
R Squared 0.04093973  
  
X Coefficient 0.00805918  
Std Err of Coef. 0.01233506



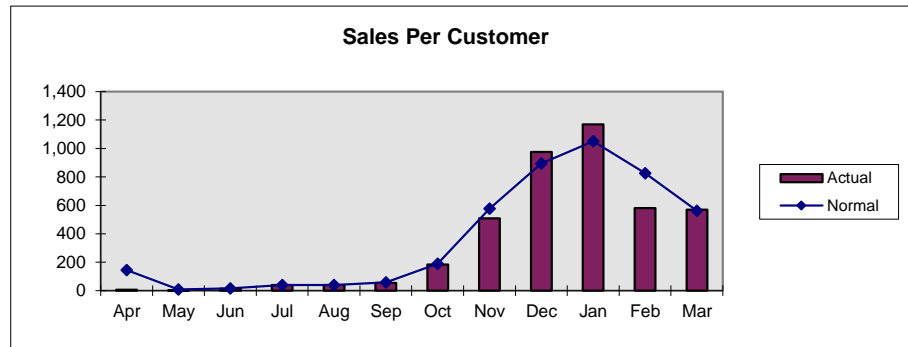
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	22	3	7.3333	76	182
May	11	3	3.6667	41	45
June	44	3	14.6667	0	1
July	121	3	40.3333	0	0
August	121	3	40.3333	0	0
September	165	3	55.0000	12	15
October	551	3	183.6667	163	168
November	1,525	3	508.3333	399	451
December	2,928	3	976.0000	758	695
January	3,506	3	1,168.6667	886	795
February	1,743	3	581.0000	429	617
March	1,707	3	569.0000	444	438
<b>TOTAL</b>	<b>12,444</b>	<b>36</b>	<b>4,148.0000</b>	<b>3,208</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	106.2200	138.3731	145.7064	437	415
May	3.8800	5.0545	8.7212	26	15
June	1.2600	1.6414	16.3081	49	5
July	0.0000	0.0000	40.3333	121	0
August	0.1000	0.1303	40.4636	121	0
September	2.8600	3.7257	58.7257	176	11
October	4.6600	6.0706	189.7373	569	18
November	52.1400	67.9229	576.2562	1,729	204
December	-63.2400	-82.3829	893.6171	2,681	-247
January	-90.6700	-118.1161	1,050.5506	3,152	-354
February	188.0400	244.9603	825.9603	2,478	735
March	-5.8600	-7.6338	561.3662	1,684	-23
<b>TOTAL</b>	<b>199.3900</b>	<b>259.7460</b>	<b>4,407.7460</b>	<b>13,223</b>	<b>779</b>

Regression Output:

Constant -2.58928852  
Std Err of Y Est 42.05773409  
R Squared 0.99041039  
  
X Coefficient 1.30270307  
Std Err of Coef. 0.04053576



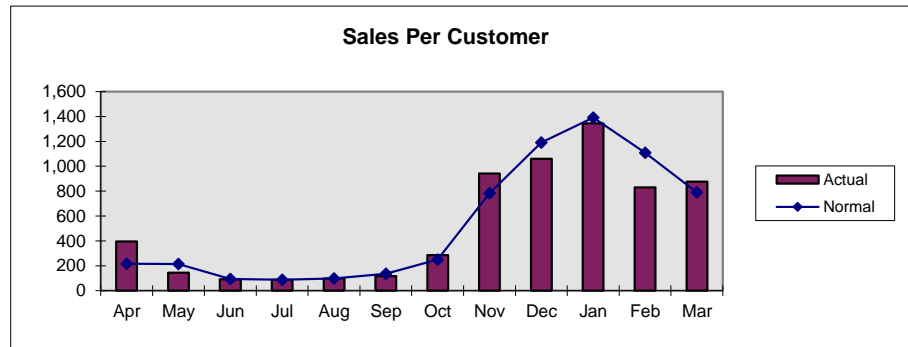
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,185	3	395.0000	295	182
May	431	3	143.6667	1	45
June	274	3	91.3333	0	1
July	264	3	88.0000	0	0
August	297	3	99.0000	0	0
September	349	3	116.3333	2	15
October	857	3	285.6667	190	168
November	2,826	3	942.0000	551	451
December	3,181	3	1,060.3333	613	695
January	4,033	3	1,344.3333	766	795
February	2,493	3	831.0000	443	617
March	2,630	3	876.6667	493	438
<b>TOTAL</b>	<b>18,820</b>	<b>36</b>	<b>6,273.3333</b>	<b>3,354</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-112.7800	-179.3240	215.6760	647	-538
May	43.8800	69.7707	213.4374	640	209
June	1.2600	2.0034	93.3367	280	6
July	0.0000	0.0000	88.0000	264	0
August	0.1000	0.1590	99.1590	297	0
September	12.8600	20.4478	136.7811	410	61
October	-22.3400	-35.5214	250.1453	750	-107
November	-99.8600	-158.7808	783.2192	2,350	-476
December	81.7600	130.0012	1,190.3345	3,571	390
January	29.3300	46.6357	1,390.9690	4,173	140
February	174.0400	276.7295	1,107.7295	3,323	830
March	-54.8600	-87.2293	789.4374	2,368	-262
<b>TOTAL</b>	<b>53.3900</b>	<b>84.8918</b>	<b>6,358.2251</b>	<b>19,073</b>	<b>253</b>

Regression Output:

Constant 78.36331276  
Std Err of Y Est 65.74661203  
R Squared 0.98117442  
  
X Coefficient 1.59003386  
Std Err of Coef. 0.06964781



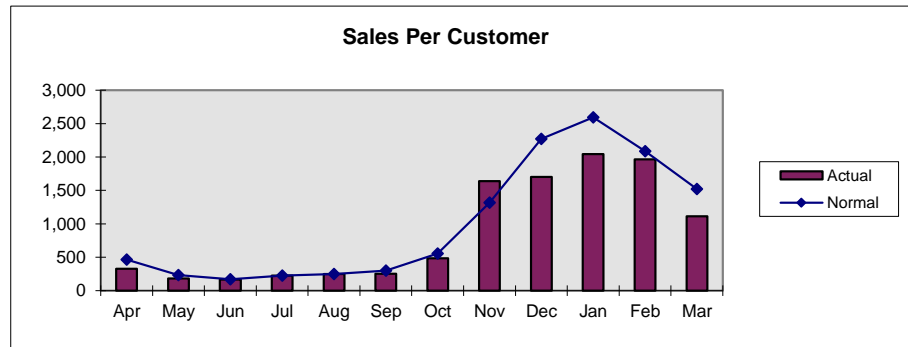
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	988	3	329.3333	137	182
May	542	3	180.6667	27	45
June	500	3	166.6667	0	1
July	675	3	225.0000	0	0
August	751	3	250.3333	0	0
September	762	3	254.0000	0	15
October	1,449	3	483.0000	143	168
November	4,918	3	1,639.3333	559	451
December	5,103	3	1,701.0000	503	695
January	6,129	3	2,043.0000	610	795
February	5,895	3	1,965.0000	576	617
March	3,338	3	1,112.6667	300	438
<b>TOTAL</b>	<b>31,050</b>	<b>36</b>	<b>10,350.0000</b>	<b>2,855</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	45.2200	134.4232	463.7565	1,391	403
May	17.8800	53.1510	233.8177	701	159
June	1.2600	3.7455	170.4122	511	11
July	0.0000	0.0000	225.0000	675	0
August	0.1000	0.2973	250.6306	752	1
September	14.8600	44.1736	298.1736	895	133
October	24.6600	73.3055	556.3055	1,669	220
November	-107.8600	-320.6299	1,318.7034	3,956	-962
December	191.7600	570.0352	2,271.0352	6,813	1,710
January	185.3300	550.9211	2,593.9211	7,782	1,653
February	41.0400	121.9975	2,086.9975	6,261	366
March	138.1400	410.6418	1,523.3085	4,570	1,232
<b>TOTAL</b>	<b>552.3900</b>	<b>1,642.0618</b>	<b>11,992.0618</b>	<b>35,976</b>	<b>4,926</b>

Regression Output:

Constant 155.25721377  
Std Err of Y Est 120.03954749  
R Squared 0.97785545  
  
X Coefficient 2.97264919  
Std Err of Coef. 0.14146198





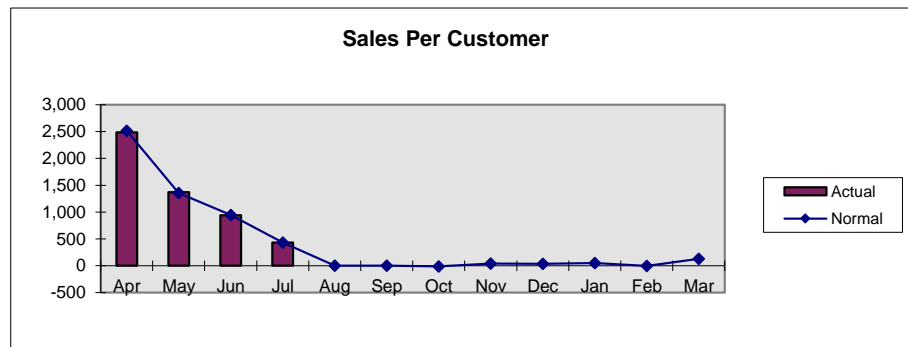
For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	7,462	3	2,487.3333	357	302
May	4,109	3	1,369.6667	78	99
June	2,825	3	941.6667	22	14
July	1,302	3	434.0000	0	0
August	0	3	0.0000	0	0
September	0	3	0.0000	2	1
October	0	3	0.0000	39	60
November	0	2	0.0000	401	322
December	0	2	0.0000	640	570
January	0	2	0.0000	846	749
February	0	2	0.0000	774	780
March	0	2	0.0000	751	510
<b>TOTAL</b>	<b>15,698</b>	<b>31</b>	<b>5,232.6667</b>	<b>3,910</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-54.5900	28.7146	2,516.0479	7,548	86
May	21.0800	-11.0882	1,358.5785	4,076	-33
June	-8.2300	4.3290	945.9957	2,838	13
July	0.0600	-0.0316	433.9684	1,302	0
August	0.1000	-0.0526	-0.0526	0	0
September	-0.7000	0.3682	0.3682	1	1
October	21.3100	-11.2092	-11.2092	-34	-34
November	-78.5600	41.3229	41.3229	83	83
December	-69.9500	36.7940	36.7940	74	74
January	-97.2200	51.1382	51.1382	102	102
February	5.5600	-2.9246	-2.9246	-6	-6
March	-241.4700	127.0143	127.0143	254	254
<b>TOTAL</b>	<b>-502.6100</b>	<b>264.3750</b>	<b>5,497.0417</b>	<b>16,238</b>	<b>540</b>

Regression Output:

Constant 607.44533143  
Std Err of Y Est 805.82377956  
R Squared 0.05289438  
  
X Coefficient -0.52600443  
Std Err of Coef. 0.70385605



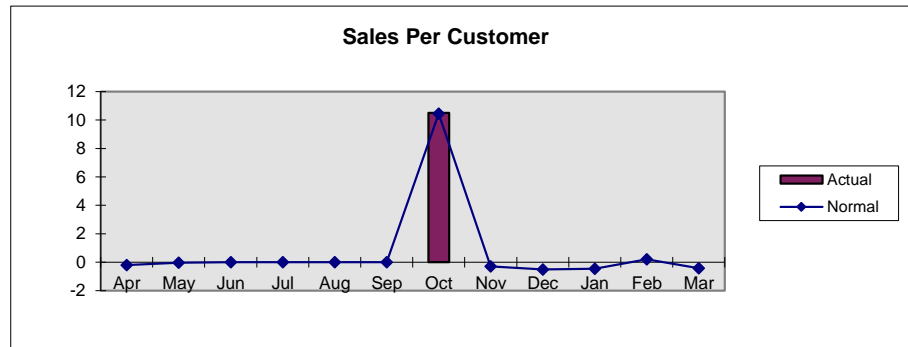
For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	0	2	0.0000	221	302
May	0	2	0.0000	89	99
June	0	2	0.0000	15	14
July	0	2	0.0000	0	0
August	0	2	0.0000	0	0
September	0	2	0.0000	3	1
October	21	2	10.5000	40	60
November	0	2	0.0000	206	322
December	0	2	0.0000	362	570
January	0	2	0.0000	563	749
February	0	2	0.0000	861	780
March	0	2	0.0000	340	510
<b>TOTAL</b>	<b>21</b>	<b>24</b>	<b>10.5000</b>	<b>2,700</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	81.4100	-0.1981	-0.1981	0	0
May	10.0800	-0.0245	-0.0245	0	0
June	-1.2300	0.0030	0.0030	0	0
July	0.0600	-0.0001	-0.0001	0	0
August	0.1000	-0.0002	-0.0002	0	0
September	-1.7000	0.0041	0.0041	0	0
October	20.3100	-0.0494	10.4506	21	0
November	116.4400	-0.2833	-0.2833	-1	-1
December	208.0500	-0.5061	-0.5061	-1	-1
January	185.7800	-0.4520	-0.4520	-1	-1
February	-81.4400	0.1981	0.1981	0	0
March	169.5300	-0.4124	-0.4124	-1	-1
<b>TOTAL</b>	<b>707.3900</b>	<b>-1.7209</b>	<b>8.7791</b>	<b>17</b>	<b>-4</b>

Regression Output:

Constant 1.42237772  
Std Err of Y Est 3.10381710  
R Squared 0.04676012  
  
X Coefficient -0.00243279  
Std Err of Coef. 0.00347350



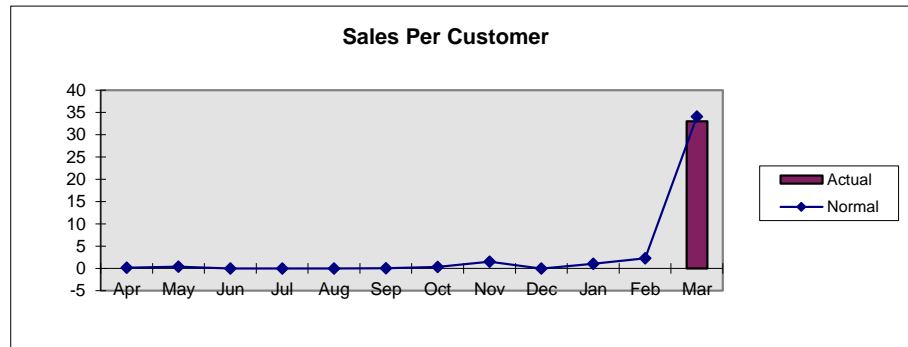
For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	0	2	0.0000	287	302
May	0	2	0.0000	54	99
June	0	2	0.0000	15	14
July	0	2	0.0000	0	0
August	0	2	0.0000	0	0
September	0	2	0.0000	0	1
October	0	2	0.0000	19	60
November	0	2	0.0000	139	322
December	0	2	0.0000	576	570
January	0	2	0.0000	624	749
February	0	3	0.0000	497	780
March	99	3	33.0000	377	510
<b>TOTAL</b>	<b>99</b>	<b>26</b>	<b>33.0000</b>	<b>2,588</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	15.4100	0.1248	0.1248	0	0
May	45.0800	0.3651	0.3651	1	1
June	-1.2300	-0.0100	-0.0100	0	0
July	0.0600	0.0005	0.0005	0	0
August	0.1000	0.0008	0.0008	0	0
September	1.3000	0.0105	0.0105	0	0
October	41.3100	0.3346	0.3346	1	1
November	183.4400	1.4857	1.4857	3	3
December	-5.9500	-0.0482	-0.0482	0	0
January	124.7800	1.0106	1.0106	2	2
February	282.5600	2.2886	2.2886	7	7
March	132.5300	1.0734	34.0734	102	3
<b>TOTAL</b>	<b>819.3900</b>	<b>6.6364</b>	<b>39.6364</b>	<b>116</b>	<b>17</b>

Regression Output:

Constant 1.00324010  
Std Err of Y Est 9.77307044  
R Squared 0.04319654  
  
X Coefficient 0.00809935  
Std Err of Coef. 0.01205416



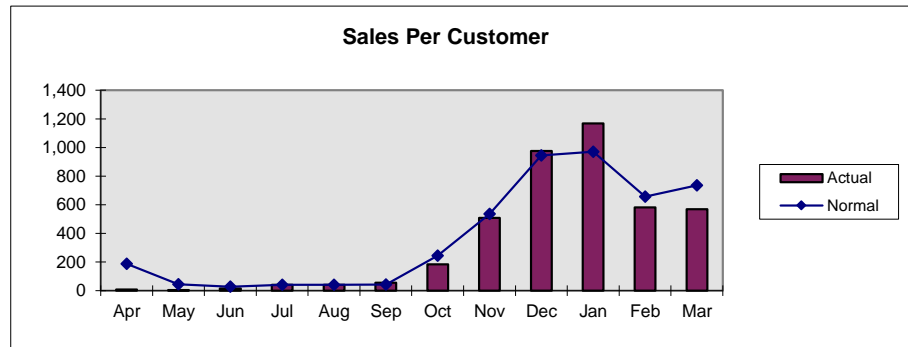
For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	22	3	7.3333	150	302
May	11	3	3.6667	65	99
June	44	3	14.6667	3	14
July	121	3	40.3333	0	0
August	121	3	40.3333	0	0
September	165	3	55.0000	12	1
October	551	3	183.6667	9	60
November	1,525	3	508.3333	299	322
December	2,928	3	976.0000	596	570
January	3,506	3	1,168.6667	916	749
February	1,743	3	581.0000	715	780
March	1,707	3	569.0000	369	510
<b>TOTAL</b>	<b>12,444</b>	<b>36</b>	<b>4,148.0000</b>	<b>3,134</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	152.4100	180.5530	187.8863	564	542
May	34.0800	40.3730	44.0397	132	121
June	10.7700	12.7587	27.4254	82	38
July	0.0600	0.0711	40.4044	121	0
August	0.1000	0.1185	40.4518	121	0
September	-10.7000	-12.6758	42.3242	127	-38
October	51.3100	60.7846	244.4513	733	182
November	23.4400	27.7683	536.1016	1,608	83
December	-25.9500	-30.7418	945.2582	2,836	-92
January	-167.2200	-198.0978	970.5689	2,912	-594
February	64.5600	76.4812	657.4812	1,972	229
March	140.5300	166.4794	735.4794	2,206	499
<b>TOTAL</b>	<b>273.3900</b>	<b>323.8724</b>	<b>4,471.8724</b>	<b>13,414</b>	<b>970</b>

Regression Output:

Constant 36.27466032  
Std Err of Y Est 156.63408988  
R Squared 0.86699077  
  
X Coefficient 1.18465350  
Std Err of Coef. 0.14673205



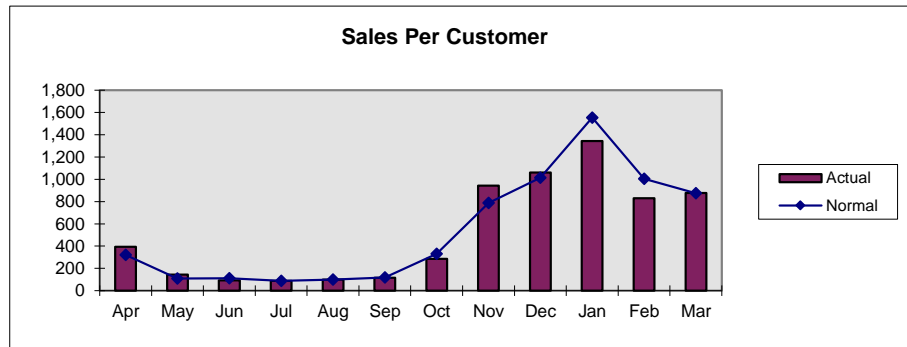
For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	1,185	3	395.0000	350	302
May	431	3	143.6667	121	99
June	274	3	91.3333	0	14
July	264	3	88.0000	0	0
August	297	3	99.0000	0	0
September	349	3	116.3333	0	1
October	857	3	285.6667	31	60
November	2,826	3	942.0000	423	322
December	3,181	3	1,060.3333	601	570
January	4,033	3	1,344.3333	612	749
February	2,493	3	831.0000	666	780
March	2,630	3	876.6667	511	510
<b>TOTAL</b>	<b>18,820</b>	<b>36</b>	<b>6,273.3333</b>	<b>3,315</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	-47.5900	-73.0154	321.9846	966	-219
May	-21.9200	-33.6310	110.0357	330	-101
June	13.7700	21.1268	112.4601	337	63
July	0.0600	0.0921	88.0921	264	0
August	0.1000	0.1534	99.1534	297	0
September	1.3000	1.9945	118.3278	355	6
October	29.3100	44.9691	330.6358	992	135
November	-100.5600	-154.2851	787.7149	2,363	-463
December	-30.9500	-47.4853	1,012.8480	3,039	-142
January	136.7800	209.8560	1,554.1893	4,663	630
February	113.5600	174.2305	1,005.2305	3,016	523
March	-1.4700	-2.2554	874.4113	2,623	-7
<b>TOTAL</b>	<b>92.3900</b>	<b>141.7502</b>	<b>6,415.0835</b>	<b>19,245</b>	<b>425</b>

Regression Output:

Constant 98.93860947  
Std Err of Y Est 177.44168681  
R Squared 0.86287616  
  
X Coefficient 1.53425943  
Std Err of Coef. 0.19341095



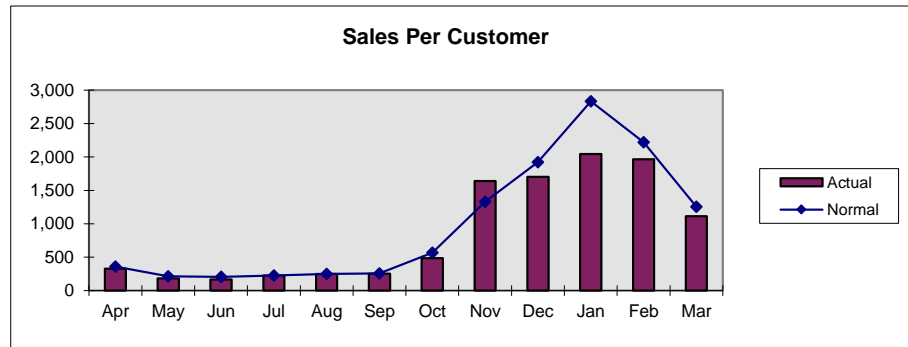
For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
April	988	3	329.3333	291	302
May	542	3	180.6667	87	99
June	500	3	166.6667	0	14
July	675	3	225.0000	0	0
August	751	3	250.3333	0	0
September	762	3	254.0000	0	1
October	1,449	3	483.0000	30	60
November	4,918	3	1,639.3333	434	322
December	5,103	3	1,701.0000	491	570
January	6,129	3	2,043.0000	465	749
February	5,895	3	1,965.0000	687	780
March	3,338	3	1,112.6667	458	510
<b>TOTAL</b>	<b>31,050</b>	<b>36</b>	<b>10,350.0000</b>	<b>2,943</b>	<b>3,407</b>

MONTH	WEATHER DEVIATION	PER CUST ADJUSTMENT	NORMAL SALE/CUST	NORMAL SALES	WEATHER ADJUSTMENT
April	11.4100	31.7415	361.0748	1,083	95
May	12.0800	33.6053	214.2720	643	101
June	13.7700	38.3068	204.9735	615	115
July	0.0600	0.1669	225.1669	676	1
August	0.1000	0.2782	250.6115	752	1
September	1.3000	3.6165	257.6165	773	11
October	30.3100	84.3194	567.3194	1,702	253
November	-111.5600	-310.3487	1,328.9846	3,987	-931
December	79.0500	219.9091	1,920.9091	5,763	660
January	283.7800	789.4473	2,832.4473	8,497	2,368
February	92.5600	257.4926	2,222.4926	6,667	772
March	51.5300	143.3513	1,256.0180	3,768	430
<b>TOTAL</b>	<b>464.3900</b>	<b>1,291.8862</b>	<b>11,641.8862</b>	<b>34,926</b>	<b>3,876</b>

Regression Output:

Constant 180.23923070  
Std Err of Y Est 331.54612148  
R Squared 0.83107030  
  
X Coefficient 2.78189916  
Std Err of Coef. 0.39662082



SOURCE: Revenue Workpaper R-45-5.00 (Non-Print).

THERMS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	34,031	31,244	70,167	58,692	74,551	86,427	17,640	16,473	22,922	43,638	0	0	0	3,506	4,033	6,129
February	-	22,125	35,428	53,551	51,681	45,709	72,461	12,380	13,760	19,713	29,798	0	0	0	1,743	2,493	5,895
March	-	19,553	17,828	12,501	7,416	28,164	33,709	7,860	4,964	19,621	22,487	0	0	99	1,707	2,630	3,338
April	-	4,985	3,998	9,229	3,789	12,990	9,123	2,680	3,549	6,320	7,462	0	0	22	1,185	988	-
May	-	3,657	3,381	3,050	2,934	3,932	6,448	2,140	2,032	3,350	4,109	0	0	11	431	542	-
June	-	2,939	2,805	2,356	2,889	2,211	3,330	1,208	1,583	2,081	2,825	0	0	44	274	500	-
July	-	2,851	2,720	2,514	2,937	2,616	3,050	1,099	1,438	1,991	1,302	0	0	121	264	675	-
August	-	2,706	2,699	2,588	3,195	2,895	3,380	1,210	1,692	2,241	0	0	0	121	297	751	-
September	-	7,534	4,626	2,500	3,195	3,236	3,560	1,486	1,898	2,629	0	0	0	165	349	762	-
October	35,448	68,708	16,818	7,962	7,919	11,645	6,020	4,117	5,575	6,012	0	21	0	551	857	1,449	-
November	84,254	47,678	21,688	22,206	34,446	20,103	20,030	8,177	12,549	19,870	0	0	0	1,525	2,826	4,918	-
December	46,996	46,791	52,844	35,224	58,581	67,840	21,050	14,326	16,745	27,630	0	0	0	2,928	3,181	5,103	-
<b>Total</b>	<b>166,698</b>	<b>263,558</b>	<b>196,079</b>	<b>223,848</b>	<b>237,674</b>	<b>275,892</b>	<b>268,588</b>	<b>74,323</b>	<b>82,258</b>	<b>134,380</b>	<b>111,621</b>	<b>21</b>	<b>0</b>	<b>5,587</b>	<b>16,620</b>	<b>24,844</b>	<b>15,362</b>

BILLS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	3	3	2	3	3	3	2	3	3	3	2	2	2	3	3	3
February	-	3	3	2	3	3	3	2	3	3	3	2	2	3	3	3	3
March	-	3	3	2	3	3	3	2	3	3	3	2	2	3	3	3	3
April	-	3	3	2	3	3	3	2	3	3	3	2	2	3	3	3	-
May	-	3	3	2	3	3	3	2	3	3	3	2	2	3	3	3	-
June	-	3	3	2	3	3	3	3	3	3	3	2	2	3	3	3	-
July	-	3	3	2	3	3	3	3	3	3	3	2	2	3	3	3	-
August	-	3	3	2	3	3	3	3	3	3	3	2	2	3	3	3	-
September	-	3	3	2	3	3	3	3	3	3	3	2	2	3	3	3	-
October	3	3	3	3	3	3	3	3	3	3	3	2	2	3	3	3	-
November	3	3	2	3	3	3	3	3	3	3	3	2	2	3	3	3	-
December	3	3	2	3	3	3	3	3	3	3	2	2	2	3	3	3	-
<b>Total</b>	<b>9</b>	<b>36</b>	<b>34</b>	<b>27</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>31</b>	<b>36</b>	<b>36</b>	<b>34</b>	<b>24</b>	<b>24</b>	<b>35</b>	<b>36</b>	<b>36</b>	<b>9</b>

Usage/Bill	18,522.00	7,321.06	5,767.03	8,290.67	6,602.06	7,663.67	7,460.78	2,397.52	2,284.94	3,732.78	3,282.97	0.88	0.00	159.63	461.67	690.11	1,706.89
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DEMAND	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	1,300	1,300	1,300	1,300	1,300	1,400	1,400	200	200	200	50	50	50	150	150	150
February	-	1,300	1,300	1,300	1,300	1,300	1,400	1,400	200	200	200	50	50	150	150	150	150
March	-	1,300	1,300	1,300	1,300	1,300	1,400	1,400	200	200	200	50	50	150	150	150	150
April	-	1,300	1,300	1,300	1,300	1,300	1,400	1,400	200	200	200	50	50	150	150	150	-
May	-	1,300	1,300	1,300	1,300	1,250	1,400	1,400	200	200	200	50	50	150	150	150	-
June	-	1,300	1,300	1,300	1,300	1,250	1,400	200	200	200	200	50	50	150	150	150	-
July	-	1,300	1,300	1,300	1,300	1,250	1,400	200	200	200	200	50	50	150	150	150	-
August	-	1,300	1,300	1,300	1,300	1,400	1,400	200	200	200	200	50	50	150	150	150	-
September	-	1,300	1,300	1,300	1,300	1,400	1,400	200	200	200	200	50	50	150	150	150	-
October	1,300	1,300	1,300	1,300	1,300	1,400	1,400	200	200	200	200	50	50	150	150	150	-
November	1,300	1,300	1,300	1,300	1,300	1,400	1,400	200	200	200	50	50	50	150	150	150	-
December	1,300	1,300	1,300	1,300	1,300	1,400	1,400	200	200	200	50	50	50	150	150	150	-
<b>Total</b>	<b>3,900</b>	<b>15,600</b>	<b>15,600</b>	<b>15,600</b>	<b>15,600</b>	<b>15,950</b>	<b>16,800</b>	<b>8,400</b>	<b>2,400</b>	<b>2,400</b>	<b>2,100</b>	<b>600</b>	<b>600</b>	<b>1,700</b>	<b>1,800</b>	<b>1,800</b>	<b>450</b>

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**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Rate 373-Special Contract Forecast**

	Billing Determinant	Rate	Margin
<b>Total Special Contract Margin</b>			
<b>Customer Charges:</b>			
Annual			
<b>Total Customer Charge Margin</b>			
<b>Commodity Charges:</b>			
All Usage			
<b>Total Commodity Charge Margin</b>			
<b>Total Special Contract Margin</b>			<b>\$266,705</b>
<hr/>			
<b>Special Contract Other Charges:</b>			
Integrity Management Rider Surcharge			0 D/
Docket 18-00040 Excess ADIT			0 E/
<b>Total Special Contract Other Charges</b>			<b>0</b>
<b>Total Special Contract Revenues</b>			<b>\$266,705</b>

A/ WHN Revenue Workpaper R-50-1.04.

B/ WHN Revenue Workpaper R-50-1.13.

C/

D/ IMR Surcharge is excluded from the Consumer Advocate's case. See WHN Revenue Workpaper R-55-1.00 for details.

E/ Excess ADIT is excluded from the Consumer Advocate's case. See WHN Workpaper R-60-1.00 for details.

SOURCE: Couzens Workpaper - Sales & Transportation Pro Forma Revenue, A-Summary Pro Forma Revs

	Billing Determinant	Rate	Margin
Total Special Contract Margin			
Customer Charges:			
Annual			
Total Customer Charge Margin			
Commodity Charges:			
All Usage			
Total Commodity Charge Margin			
Total Special Contract Margin			\$259,159
Other Charges:			
Integrity Management Rider Surcharge			\$0
Docket 18-00040 Excess ADIT			0
Total Other Charges			\$0
Total Revenues			\$259,159

**Attrition Period Monthly Growth in Special Contract Bills**

**0 A/**

Test Period Number of Special Contract Bills - 12 Months Ended March, 2020

April-20  
 May-20  
 June-20  
 July-20  
 August-20  
 September-20  
 October-20  
 November-20  
 December-20  
 January-21  
 February-21  
 March-21  
 April-21  
 May-21  
 June-21  
 July-21  
 August-21  
 September-21  
 October-21  
 November-21  
 December-21

**Growth Total**

**A/**

**CONTAINS  
 CONFIDENTIAL  
 PROPRIETARY DATA**

Attrition Period Special Contract Bills

Normalized Usage per Bill (Therms)

**Total Special Contract Sales Volume - Therms**

**B/**

A/ WHN Revenue Workpaper R-50-1.05.

B/ WHN Revenue Workpaper R-50-2.00.

**Historic Bill Counts:**

**For the 12 Months Ended March**

<b>MONTH</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
April	1	1	1	1	1	1
May	1	1	1	1	1	1
June	1	1	1	1	1	1
July	1	1	1	1	1	1
August	1	1	1	1	1	1
September	1	1	1	1	1	1
October	1	1	1	1	1	1
November	1	1	1	1	1	1
December	1	1	1	1	1	1
January	1	1	1	1	1	1
February	1	1	1	1	1	1
March	1	1	1	1	1	1
<b>Total</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>

**Source:** WHN Revenue Workpaper R-50-4.00.

**Annual Bill Growth Calculation:**

<b>Year</b>	<b>Bills</b>	<b>Growth</b>
2015	12	-
2016	12	0
2017	12	0
2018	12	0
2019	12	0
2020	12	0

Five-Year Average 0

Four-Year Average 0

Three-Year Average 0

Two-Year Average 0

One-Year Average 0

Manual Input 0

*Zero growth (0) was chosen as the most representative of the Attrition Year.*

Annual Bill Growth Forecast 0  
 Test Period Bills 12  
**Annual Percentage Growth** 0.00%

Annual Bill Growth Forecast 0  
 Months per Year 12  
**Monthly Bill Growth** 0

Year	X	Normal Sale Per Bill	Regression		Year to Year Change

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
CONTAINS CONFIDENTIAL PROPRIETARY DATA					

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
CONTAINS CONFIDENTIAL PROPRIETARY DATA					

Year	X	Normal Sale Per Bill	Regression		Year to Year Change
			Linear	Logarithmic	
CONTAINS CONFIDENTIAL PROPRIETARY DATA					

Trend	From The 12 Months Ended		Calendar Data	
	Month	Year	Time Series Forecast	Adjusted Forecast
Linear Least Squares	March	2015	CONTAINS CONFIDENTIAL PROPRIETARY DATA	
	March	2016		
	March	2017		
	March	2018		
Logarithmic Least Squares	March	2015		
	March	2016		
	March	2017		
	March	2018		
Year To Year Change	March	2015		
	March	2016		
	March	2017		
	March	2018		
<b>Average</b>				
One Standard Deviation				
<b>Upper</b> End of Range				
<b>Lower</b> End of Range				
Number in Range				
Weighted Average Forecast at Midpoint				
Test Period Amount				
Compound Growth Factor				
Annualized Growth Rate				
Test Period Sales				
Weather Adjustment				
Normal Sales				
Usage Adjustment				
Adjusted Sales				



## CALENDAR DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
CONTAINS CONFIDENTIAL PROPRIETARY DATA							

### CYCLE DATA

12 Months Ended March	Actual Sales	Bills	Normal Sales Per Customer	Normal Sales	Weather Adjustment	R <sup>2</sup>	Normal Sales Per Bill
CONTAINS CONFIDENTIAL PROPRIETARY DATA							

**For the 12 Months Ended March 31, 2015**

<b>MONTH</b>	<b>SALES</b>	<b>CUSTOMERS</b>	<b>SALES PER CUSTOMER</b>	<b>ACTUAL WEATHER</b>	<b>NORMAL WEATHER</b>
<b>CONTAINS CONFIDENTIAL PROPRIETARY DATA</b>					

For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
CONTAINS CONFIDENTIAL PROPRIETARY DATA					

For the 12 Months Ended March 31, 2017

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
CONTAINS CONFIDENTIAL PROPRIETARY DATA					

For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
CONTAINS CONFIDENTIAL PROPRIETARY DATA					

For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
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**CONTAINS CONFIDENTIAL PROPRIETARY DATA**

For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
CONTAINS CONFIDENTIAL PROPRIETARY DATA					

For the 12 Months Ended March 31, 2015

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
CONTAINS CONFIDENTIAL PROPRIETARY DATA					



For the 12 Months Ended March 31, 2016

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
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**CONTAINS CONFIDENTIAL PROPRIETARY DATA**

For the 12 Months Ended March 31, 2017

<b>MONTH</b>	<b>SALES</b>	<b>CUSTOMERS</b>	<b>SALES PER CUSTOMER</b>	<b>ACTUAL WEATHER</b>	<b>NORMAL WEATHER</b>
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**CONTAINS CONFIDENTIAL PROPRIETARY DATA**

For the 12 Months Ended March 31, 2018

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
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**CONTAINS CONFIDENTIAL PROPRIETARY DATA**

For the 12 Months Ended March 31, 2019

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
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**CONTAINS CONFIDENTIAL PROPRIETARY DATA**

For the 12 Months Ended March 31, 2020

MONTH	SALES	CUSTOMERS	SALES PER CUSTOMER	ACTUAL WEATHER	NORMAL WEATHER
CONTAINS CONFIDENTIAL PROPRIETARY DATA					

**SOURCE:** Revenue Workpaper R-50-5.00 (Non-Print).

[illegible][illegible]

Usage/Bill CONTAINS CONFIDENTIAL PROPRIETARY DATA

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**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Other Revenue Forecast**



	Test Period	Pro Forma Adjustments	Attrition Period
<b>Other Revenues:</b>			
Forfeited Discounts	1,472,734	274,459	1,747,193 A/
Reconnection Revenue	232,032	13,174	245,206 B/
Bad Check Charges	18,181	-347	17,834 C/
1.5% Non-Utility Late Payment Fee	107	12,860	12,967 D/
Rental Income	43,314	-14,012	29,303 E/
Cost of Gas Cash-Outs	379,728	-379,728	0 F/
CNG Volume Rebate	-4,826	4,826	0 G/
<b>Total Other Revenues</b>	<b>2,141,270</b>	<b>-88,768</b>	<b>2,052,502</b>
<b>Recap:</b>			
Forfeited Discounts	1,472,734	274,459	1,747,193
Other Revenues	668,536	-363,227	305,309
<b>Totter Other Revenues</b>	<b>2,141,270</b>	<b>-88,768</b>	<b>2,052,502</b>

A/ WHN Revenue Workpaper R-65-2.00.

B/ WHN Revenue Workpaper R-65-3.00.

C/ WHN Revenue Workpaper R-65-4.00.

D/ WHN Revenue Workpaper R-65-5.00.

E/ WHN Revenue Workpaper R-65-6.00.

F/ WHN Revenue Workpaper R-65-7.00.

G/ WHN Revenue Workpaper R-65-8.00.

**SOURCE:** Couzens Workpaper - 2-Other Revenues Pro Forma-Confidential, A-Summary Other Revenue Pro Forma

	Test Period	Pro Forma Adjustments	Attrition Period
<b>Other Revenues:</b>			
Forfeited Discounts	1,472,734	-655,752	816,982
Miscellaneous Service Revenues	250,320	10,508	260,828
Rent from Gas Properties	43,314	-847	42,467
CNG Volume Rebate	-4,826	4,826	0
Cost of Gas Cash-Outs	379,728	-379,728	0
<b>Tother Other Revenues</b>	<b>2,141,270</b>	<b>-1,020,993</b>	<b>1,120,277</b>
<b>Recap:</b>			
Forfeited Discounts	1,472,734	-655,752	816,982
Other Revenues	668,536	-365,241	303,295
<b>Tother Other Revenues</b>	<b>2,141,270</b>	<b>-1,020,993</b>	<b>1,120,277</b>

	Forfeited Discounts	Residential Revenue	Ratio
For the 12 Months Ended March 31, 2015	2,686,294	147,678,693	1.82% A/
For the 12 Months Ended March 31, 2016	2,026,423	103,906,383	1.95% A/
For the 12 Months Ended March 31, 2017	1,751,118	113,445,787	1.54% A/
For the 12 Months Ended March 31, 2018	2,361,697	130,686,952	1.81% A/
For the 12 Months Ended March 31, 2019	2,299,850	130,538,957	1.76% A/
For the 12 Months Ended March 31, 2020	1,472,734	119,625,716	1.23% A/
<b>Average</b>	<b>2,099,686</b>	<b>124,313,748</b>	<b>1.69%</b>

Attrition Period Residential Revenue	103,661,308 B/
Average Forfeited Discount Ratio	1.69%
<b>Attrition Period Forfeited Discounts</b>	<b>1,747,193</b>

Attrition Period Forfeited Discounts	1,747,193
Attrition Period Total Sales & Transportation Revenue	178,253,226 B/
Attrition Period Forfeited Discount Ratio (for Revenue Conversion Factor)	<b>0.9802%</b>

A/ WHN Revenue Workpaper R-65-2.01.

B/ WHN Revenue Workpaper R-1-1.00.

SOURCE: WHN Revenue Workpaper R-65-9.00 (Non-Print).

## Forfeited Discounts

Monthly	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	422,826	272,238	326,073	339,607	203,112	272,015	215,771	196,760	273,499	326,462	216,020	225,936	283,021	412,188	211,703
February	-	476,461	438,014	491,073	390,006	368,131	398,372	301,470	274,184	467,388	521,732	364,951	350,260	468,959	345,470	247,454
March	-	341,182	406,113	448,212	322,596	321,603	349,389	223,512	307,830	483,908	520,639	402,322	303,400	417,483	346,110	126,352
April	-	239,902	271,679	356,799	197,088	249,045	168,658	177,566	225,220	328,244	289,434	209,086	275,935	221,716	229,802	-
May	-	140,614	179,068	214,506	112,689	6,250	131,750	106,753	145,219	176,926	135,806	125,227	186,477	231,685	128,354	-
June	-	73,690	108,633	120,696	73,476	7,718	69,707	59,612	99,101	114,065	91,912	82,049	107,284	87,336	68,069	-
July	-	56,800	85,111	71,454	52,567	56,920	47,260	61,548	70,676	74,544	78,133	62,867	86,181	70,480	57,460	-
August	-	52,710	80,727	70,331	44,777	51,639	54,137	54,118	50,935	79,395	66,184	55,230	105,695	63,354	61,534	-
September	-	55,667	90,501	70,187	30,156	53,404	52,107	58,143	66,974	88,735	69,828	57,095	67,000	63,154	55,912	-
October	-	71,199	99,245	73,486	53,106	62,431	61,745	72,143	67,569	73,208	76,323	60,974	103,249	92,248	56,389	-
November	-	82,975	96,764	83,981	63,041	85,340	69,294	99,291	75,432	89,983	93,027	78,354	108,381	104,572	68,670	-
December	207,534	173,631	176,234	181,334	111,868	131,883	157,978	192,377	179,132	292,361	142,483	140,640	152,032	261,537	161,036	-
<b>Total</b>	<b>207,534</b>	<b>2,187,657</b>	<b>2,304,326</b>	<b>2,508,133</b>	<b>1,790,979</b>	<b>1,597,478</b>	<b>1,832,412</b>	<b>1,622,304</b>	<b>1,759,032</b>	<b>2,542,255</b>	<b>2,411,963</b>	<b>1,854,815</b>	<b>2,071,830</b>	<b>2,365,545</b>	<b>1,990,993</b>	<b>585,509</b>

## Residential Revenue

Monthly	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	33,573,917	25,952,702	33,331,512	27,142,791	25,735,028	25,956,485	19,847,073	18,407,408	25,684,581	30,248,211	19,875,737	21,834,085	27,460,129	24,235,499	21,858,004
February	-	10,176,334	26,390,799	26,504,136	19,496,540	20,632,671	18,566,300	12,411,322	16,244,723	23,164,117	29,186,054	17,392,916	15,258,109	20,361,779	18,880,854	19,514,712
March	-	13,858,400	11,278,038	17,734,967	9,752,626	13,429,185	11,886,969	9,217,868	13,772,405	15,145,358	9,868,617	10,088,314	13,658,164	12,911,152	15,040,622	9,570,002
April	-	5,913,991	7,842,164	8,877,044	6,352,495	4,402,165	5,000,209	3,925,210	6,031,070	9,303,074	6,039,848	6,358,808	6,404,209	9,864,683	7,621,653	-
May	-	3,513,216	4,237,842	4,891,668	3,576,240	3,433,390	3,912,984	3,623,542	4,908,940	4,787,250	4,328,733	4,393,414	4,927,700	4,748,779	5,664,535	-
June	-	3,247,617	4,066,283	4,727,934	2,847,320	3,248,643	2,997,540	3,044,901	3,421,644	3,991,983	3,664,077	3,604,865	4,040,172	3,813,092	3,671,530	-
July	-	3,153,898	2,215,579	4,104,892	3,213,832	3,089,509	2,701,486	3,045,173	3,236,055	3,996,306	3,619,048	3,881,435	3,799,475	3,932,700	3,883,954	-
August	-	2,957,332	3,604,724	4,033,478	2,649,242	2,882,211	2,395,755	2,875,184	3,615,831	4,075,363	2,964,719	4,077,935	3,706,026	3,322,647	3,453,467	-
September	-	3,298,777	3,425,496	4,703,720	3,341,187	2,894,010	2,967,065	3,150,083	3,457,062	4,184,002	3,937,757	3,583,972	4,196,818	4,165,550	4,133,431	-
October	-	6,993,312	5,136,002	5,945,583	5,555,472	4,528,763	5,021,962	5,256,368	5,215,619	5,966,732	5,075,231	5,282,864	6,390,671	6,216,865	5,744,724	-
November	-	16,901,303	16,215,529	18,112,575	10,826,657	10,915,404	10,919,801	11,555,835	14,063,489	18,383,437	10,497,355	9,907,826	13,161,757	15,324,747	14,919,186	-
December	37,421,857	19,710,623	22,887,784	29,261,030	19,896,500	24,090,125	17,314,045	16,114,501	20,002,940	23,687,663	16,422,649	21,604,311	23,327,065	20,992,920	19,590,518	-
<b>Total</b>	<b>37,421,857</b>	<b>123,298,720</b>	<b>133,252,941</b>	<b>162,228,540</b>	<b>114,650,903</b>	<b>119,281,104</b>	<b>109,640,601</b>	<b>94,067,061</b>	<b>112,377,186</b>	<b>142,369,866</b>	<b>125,852,299</b>	<b>110,052,396</b>	<b>120,704,250</b>	<b>133,115,042</b>	<b>126,839,973</b>	<b>50,942,718</b>

	Forfeited Discounts	Residential Revenue
For the 12 Months Ended March 31, 2015	2,686,294	147,678,693
For the 12 Months Ended March 31, 2016	2,026,423	103,906,383
For the 12 Months Ended March 31, 2017	1,751,118	113,445,787
For the 12 Months Ended March 31, 2018	2,361,697	130,686,952
For the 12 Months Ended March 31, 2019	2,299,850	130,538,957
For the 12 Months Ended March 31, 2020	1,472,734	119,625,716

## WHN Revenue Workpapers - Reconnection Revenue Summary

SOURCE: WHN Revenue Workpaper R-65-3.01.

## Reconnection Revenue

## For the 12 Months Ended

	2015	2016	2017	2018	2019	2020	Average
April	\$15,125	\$22,275	\$20,570	\$11,220	\$11,535	\$20,760	\$16,914
May	13,750	22,495	18,450	10,120	11,385	16,665	15,478
June	11,220	6,961	11,250	13,970	12,760	14,105	11,711
July	7,272	8,034	9,593	8,525	9,680	10,615	8,953
August	9,160	9,825	11,910	11,175	16,325	8,450	11,141
September	24,935	18,129	12,727	16,865	13,545	11,979	16,363
October	57,111	53,941	33,521	53,940	71,425	62,796	55,455
November	53,394	53,582	67,546	56,268	46,724	41,985	53,250
December	20,146	21,426	26,170	21,171	11,845	9,660	18,403
January	9,330	13,080	11,751	12,410	11,645	15,425	12,273
February	3,600	6,909	11,000	9,845	14,215	15,240	10,135
March	19,660	20,025	19,555	12,705	14,481	4,353	15,130
<b>Total</b>	<b>\$244,701</b>	<b>\$256,681</b>	<b>\$254,043</b>	<b>\$238,214</b>	<b>\$245,564</b>	<b>\$232,032</b>	<b>\$245,206</b>

## Reconnection Determinants

## For the 12 Months Ended

	2015	2016	2017	2018	2019	2020	Average
April	275	405	374	204	210	377	308
May	250	409	335	184	207	303	281
June	204	127	205	254	232	256	213
July	132	146	174	155	176	193	163
August	167	179	217	203	297	154	203
September	293	213	150	198	159	141	192
October	672	635	394	635	840	739	653
November	628	630	795	662	550	494	627
December	237	252	308	249	139	114	217
January	110	154	138	146	137	181	144
February	65	126	200	179	258	277	184
March	357	364	356	231	263	79	275
<b>Total</b>	<b>3,390</b>	<b>3,640</b>	<b>3,646</b>	<b>3,300</b>	<b>3,468</b>	<b>3,308</b>	<b>3,459</b>
Summer	1,450	1,756	1,861	1,410	1,643	1,639	1,627
Winter	1,940	1,884	1,785	1,890	1,825	1,669	1,832
<b>Total</b>	<b>3,390</b>	<b>3,640</b>	<b>3,646</b>	<b>3,300</b>	<b>3,468</b>	<b>3,308</b>	<b>3,459</b>

SOURCE: WHN Revenue Workpaper R-65-9.00 (Non-Print) and R-65-3.02.

## Reconnection Revenue

Monthly	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	9,755	30,015	17,129	20,900	14,295	9,805	21,919	10,174	8,525	9,330	13,080	11,751	12,410	11,645	15,425
February	-	7,940	29,155	8,235	41,715	6,960	16,744	26,015	10,346	5,805	3,600	6,909	11,000	9,845	14,215	15,240
March	-	23,645	43,885	12,080	47,964	14,543	21,865	26,450	6,130	12,210	19,660	20,025	19,555	12,705	14,481	4,353
April	-	27,545	37,900	13,975	44,610	11,790	15,310	14,355	11,165	15,125	22,275	20,570	11,220	11,535	20,760	-
May	-	25,440	26,150	12,375	29,575	3,135	14,665	14,725	8,825	13,750	22,495	18,450	10,120	11,385	16,665	-
June	-	23,060	24,970	13,500	20,450	1,375	14,028	8,470	7,425	11,220	6,961	11,250	13,970	12,760	14,105	-
July	-	22,085	20,430	13,230	8,820	-248	11,220	3,630	6,503	7,272	8,034	9,593	8,525	9,680	10,615	-
August	-	25,945	12,995	14,695	8,245	14,660	11,250	8,170	6,220	9,160	9,825	11,910	11,175	16,325	8,450	-
September	-	31,025	22,560	23,480	15,145	20,694	22,820	15,055	6,565	24,935	18,129	12,727	16,865	13,545	11,979	-
October	-	89,900	44,135	72,685	64,677	40,024	55,365	59,430	48,695	57,111	53,941	33,521	53,940	71,425	62,796	-
November	-	58,105	71,205	54,370	42,272	59,349	45,025	42,090	31,590	53,394	53,582	67,546	56,268	46,724	41,985	-
December	-	31,590	32,010	26,710	31,965	31,135	27,205	23,885	16,260	12,640	20,146	21,426	26,170	21,171	11,845	9,660
<b>Total</b>	<b>31,590</b>	<b>376,455</b>	<b>390,110</b>	<b>287,718</b>	<b>375,508</b>	<b>213,782</b>	<b>261,982</b>	<b>256,569</b>	<b>166,278</b>	<b>238,652</b>	<b>249,257</b>	<b>251,751</b>	<b>245,560</b>	<b>240,183</b>	<b>237,356</b>	<b>35,018</b>

## Reconnection Tariff Rate

Monthly	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
February	-	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
March	-	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
April	-	55	55	55	55	55	55	55	55	55	55	55	55	55	55	-
May	-	55	55	55	55	55	55	55	55	55	55	55	55	55	55	-
June	-	55	55	55	55	55	55	55	55	55	55	55	55	55	55	-
July	-	55	55	55	55	55	55	55	55	55	55	55	55	55	55	-
August	-	55	55	55	55	55	55	55	55	55	55	55	55	55	55	-
September	-	85	85	85	85	85	85	85	85	85	85	85	85	85	85	-
October	-	85	85	85	85	85	85	85	85	85	85	85	85	85	85	-
November	-	85	85	85	85	85	85	85	85	85	85	85	85	85	85	-
December	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	-

## Reconnection Determinants

Monthly	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	115	353	202	246	168	115	258	120	100	110	154	138	146	137	181
February	-	144	530	150	758	127	304	473	188	106	65	126	200	179	258	277
March	-	430	798	220	872	264	398	481	111	222	357	364	356	231	263	79
April	-	501	689	254	811	214	278	261	203	275	405	374	204	210	377	-
May	-	463	475	225	538	57	267	268	160	250	409	335	184	207	303	-
June	-	419	454	245	372	25	255	154	135	204	127	205	254	232	256	-
July	-	402	371	241	160	-5	204	66	118	132	146	174	155	176	193	-
August	-	472	236	267	150	267	205	149	113	167	179	217	203	297	154	-
September	-	365	265	276	178	243	268	177	77	293	213	150	198	159	141	-
October	-	1,058	519	855	761	471	651	699	573	672	635	394	635	840	739	-
November	-	684	838	640	497	698	530	495	372	628	630	795	662	550	494	-
December	-	372	377	314	376	366	320	281	191	237	252	308	249	139	114	-
<b>Total</b>	<b>372</b>	<b>5,430</b>	<b>5,842</b>	<b>3,951</b>	<b>5,709</b>	<b>2,849</b>	<b>3,756</b>	<b>3,672</b>	<b>2,319</b>	<b>3,286</b>	<b>3,528</b>	<b>3,596</b>	<b>3,438</b>	<b>3,366</b>	<b>3,429</b>	<b>537</b>

Source: Company tariff contained in Powers Attachment PKP-1.

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Piedmont Natural Gas Company, Inc.  
Tennessee Service Regulations

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protection before restoring gas Service. The deposit amount will not exceed two consecutive billing periods or ninety (90) days, whichever is less.

9. Interest on Customer Deposits: All Customer deposits will accrue simple interest on the principal at the rate approved by the Commission.

10. Reconnection Charge: The Company will charge \$55 during the months of February through August and \$85 for the months of September through January for turning on a meter for an existing residential or non-residential Customer or member of the same family, household or business at same address. This charge applies only to those Customers who have previously elected to have the meter turned off without discontinuing Service (seasonal turn-off) or whose Service has been previously terminated for non-payment. The Company will not be liable for damages for shutting off gas or for delay in restoring Service. At the Company's option, special discounts may be offered to the approved reconnect fee to encourage Customers to have their Service reinstated during non-peak turn-on periods. Such special discounts will be made upon a 1-day notice to the Commission and will be available on a nondiscriminatory basis within the classifications stated herein. Notification will include the time period during which the promotion will be conducted as well as the terms and conditions of the promotion.

11. The Customer agrees to notify the Company in advance of any planned change in physical premise or environment around meter or Service to determine impact on safety cases, meter reading, and meter maintenance.
12. In the event the Company is unable, wholly or in part, by reason of force majeure to carry out its obligations to provide Service, the obligations of the Company so far as they are affected by such force majeure, shall be suspended during the continuance of any inability so caused but for no longer period, and such cause shall as far as possible be remedied with all reasonable dispatch. The term "force majeure" as employed above shall mean acts of God; extreme weather conditions; strikes, lockouts, or other industrial disturbances; acts of the public enemy; war; blockades; insurrections; riots; epidemics; landslides; lightning; earthquakes; fires; storms; floods; washouts; arrests and restraints of governments and people; civil disturbances; explosions; breakage of or accidents to machinery, lines of pipe, or the Company's peak shaving plants; freezing of wells or lines of reduction in gas pressure by its suppliers; inability to obtain rights-of-way, permits, materials, equipment, or supplies for use in the Company's peak shaving plants; and any other causes whether of the kind herein enumerated or otherwise, not within control of the Company, and which by the exercise of due diligence the Company is unable to prevent or overcome. It is understood and agreed that the settlement of strikes or lockouts shall be entirely within the discretion of the Company, and the above requirement that any force majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes or lockouts when such course is inadvisable in the discretion of the Company.
13. When the Company in its discretion determines that it is necessary to interrupt or curtail Service to maintain the integrity of its distribution system or to provide for its or the public's safety, the Company shall have the right to interrupt or curtail Service to any Customer.

Effective: January 1, 2021

## WHN Revenue Workpapers - Bad Check Revenue Summary

SOURCE: WHN Revenue Workpaper R-65-4.01.

## Bad Check Revenue

## For the 12 Months Ended

	2015	2016	2017	2018	2019	2020	Average
April	\$2,340	\$2,140	\$1,665	\$1,300	\$1,980	\$2,580	\$2,001
May	2,180	1,600	1,360	1,865	1,600	2,118	1,787
June	1,340	1,260	1,300	1,680	1,180	1,540	1,383
July	1,120	1,340	1,179	920	1,000	1,460	1,170
August	1,280	1,445	1,100	1,300	1,125	1,439	1,281
September	720	1,200	1,220	832	1,125	854	992
October	1,040	920	885	1,360	1,220	1,065	1,082
November	1,140	1,080	1,240	1,200	1,145	940	1,124
December	1,400	1,325	1,360	1,240	1,480	1,345	1,358
January	2,000	1,505	1,920	1,900	2,220	2,040	1,931
February	1,320	1,880	1,760	1,700	2,340	1,980	1,830
March	1,480	1,600	2,300	2,565	2,600	820	1,894
<b>Total</b>	<b>\$17,360</b>	<b>\$17,295</b>	<b>\$17,289</b>	<b>\$17,862</b>	<b>\$19,015</b>	<b>\$18,181</b>	<b>\$17,834</b>

## Bad Check Determinants

## For the 12 Months Ended

	2015	2016	2017	2018	2019	2020	Average
April	117	107	83	65	99	129	100
May	109	80	68	93	80	106	89
June	67	63	65	84	59	77	69
July	56	67	59	46	50	73	59
August	64	72	55	65	56	72	64
September	36	60	61	42	56	43	50
October	52	46	44	68	61	53	54
November	57	54	62	60	57	47	56
December	70	66	68	62	74	67	68
January	100	75	96	95	111	102	97
February	66	94	88	85	117	99	92
March	74	80	115	128	130	41	95
<b>Total</b>	<b>868</b>	<b>864</b>	<b>864</b>	<b>893</b>	<b>950</b>	<b>909</b>	<b>891</b>



SOURCE: WHN Revenue Workpaper R-65-9.00 (Non-Print) and R-65-4.02.

## Bad Check Revenue

Monthly	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	4,500	3,600	5,600	7,465	4,865	4,675	2,580	2,120	1,945	2,000	1,505	1,920	1,900	2,220	2,040
February	-	4,205	2,603	5,165	5,320	4,240	5,820	3,620	2,220	1,515	1,320	1,880	1,760	1,700	2,340	1,980
March	-	5,765	5,240	4,755	5,280	4,995	4,935	2,960	1,859	2,180	1,480	1,600	2,300	2,565	2,600	820
April	-	4,400	3,641	5,380	6,240	4,348	4,760	2,790	1,860	2,340	2,140	1,665	1,300	1,980	2,580	-
May	-	3,680	7,895	3,880	4,460	3,410	3,560	2,240	1,780	2,180	1,600	1,360	1,865	1,600	2,118	-
June	-	3,540	4,095	5,080	3,659	2,800	3,920	1,400	1,440	1,340	1,260	1,300	1,680	1,180	1,540	-
July	-	3,220	2,995	4,415	3,500	3,040	2,975	1,620	1,685	1,120	1,340	1,179	920	1,000	1,460	-
August	-	2,300	3,510	3,780	3,620	4,320	3,179	1,020	1,160	1,280	1,445	1,100	1,300	1,125	1,439	-
September	-	3,111	2,480	4,600	3,340	3,519	2,684	1,400	680	720	1,200	1,220	832	1,125	854	-
October	-	2,170	3,979	6,065	4,144	5,057	2,947	1,705	1,535	1,040	920	885	1,360	1,220	1,065	-
November	-	3,358	4,770	4,610	3,585	2,285	2,660	1,345	1,525	1,140	1,080	1,240	1,200	1,145	940	-
December	-	3,504	2,803	3,915	4,435	4,520	6,319	3,365	1,660	1,760	1,400	1,325	1,360	1,240	1,480	1,345
Total	-	3,504	43,052	48,723	57,765	55,133	49,198	45,481	24,340	19,624	18,200	17,110	16,294	17,677	18,020	20,501

## Bad Check Tariff Rate

Monthly	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
February	-	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
March	-	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
April	-	20	20	20	20	20	20	20	20	20	20	20	20	20	20	-
May	-	20	20	20	20	20	20	20	20	20	20	20	20	20	20	-
June	-	20	20	20	20	20	20	20	20	20	20	20	20	20	20	-
July	-	20	20	20	20	20	20	20	20	20	20	20	20	20	20	-
August	-	20	20	20	20	20	20	20	20	20	20	20	20	20	20	-
September	-	20	20	20	20	20	20	20	20	20	20	20	20	20	20	-
October	-	20	20	20	20	20	20	20	20	20	20	20	20	20	20	-
November	-	20	20	20	20	20	20	20	20	20	20	20	20	20	20	-
December	-	20	20	20	20	20	20	20	20	20	20	20	20	20	20	-

## Bad Check Determinants

Monthly	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	225	180	280	373	243	234	129	106	97	100	75	96	95	111	102
February	-	210	130	258	266	212	291	181	111	76	66	94	88	85	117	99
March	-	288	262	238	264	250	247	148	93	109	74	80	115	128	130	41
April	-	220	182	269	312	217	238	140	93	117	107	83	65	99	129	-
May	-	184	395	194	223	171	178	112	89	109	80	68	93	80	106	-
June	-	177	205	254	183	140	196	70	72	67	63	65	84	59	77	-
July	-	161	150	221	175	152	149	81	84	56	67	59	46	50	73	-
August	-	115	176	189	181	216	159	51	58	64	72	55	65	56	72	-
September	-	156	124	230	167	176	134	70	34	36	60	61	42	56	43	-
October	-	109	199	303	207	253	147	85	77	52	46	44	68	61	53	-
November	-	168	239	231	179	114	133	67	76	57	54	62	60	57	47	-
December	-	175	140	196	222	226	316	168	83	88	70	66	62	74	67	-
Total	-	175	2,153	2,438	2,889	2,756	2,460	1,217	981	910	855	814	884	900	1,025	242

Source: Company tariff contained in Powers Attachment PKP-1.

Piedmont Natural Gas Company, Inc.  
Tennessee Rate Schedule No. 301

Exhibit\_(PKP-1)  
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Third Revised Page 1 of 2

## **RATE SCHEDULE NO. 301**

### **Residential Service**

#### **AVAILABILITY**

Gas Service under this Rate Schedule is available in the area served by the Company in the State of Tennessee, upon application to and consent by the Company to such Service, as provided in the Company's Service Regulations, to any full requirements single private residences, including the separate private units of apartment houses and other multiple dwellings, actually used for residential purposes, which are separately metered where the Company's distribution mains are suitable for supplying the desired Service.

#### **CHARACTER OF SERVICE**

The nature of Service provided by Company to Customer under this Rate Schedule is firm sales Service. This Rate Schedule applies to all residential Customers.

<b><u>BASE MARGIN RATE</u></b>	<b>Winter</b>	<b>Summer</b>
	<b><u>(November-March)</u></b>	<b><u>(April-October)</u></b>
Monthly Charge (\$)	Please Refer to Tariff Sheet No. 1	
Commodity Charge (\$ per therm)	Please Refer to Tariff Sheet No. 1	

#### **MONTHLY CHARGE**

A charge will be billed monthly to all Customers for the availability of gas Service. This charge will be in addition to the Commodity Charge for gas delivered. The Monthly Charge will be billed from the date of initial Service until Service is terminated at the Customer's request.

#### **COMMODITY CHARGE**

The rate per therm shall be billed on the quantity of gas delivered by Company to Customer's premises.

#### **SERVICE AGREEMENTS**

All Customers served pursuant to this Rate Schedule shall be subject to the Company's standard contracts and/or Service applications and subject to the Company's Service Regulations.

#### **PAYMENT TERMS**

All bills for Service are due upon presentation and the net rates are applicable if payment is made on or before the last date of payment stated on the bill. Payments made after that date shall be for the gross amount which is greater by five percent (5%) than the net billing.

#### **RETURNED CHECK CHARGE**

In the event a Customer's check for payment is returned to the Company marked NSF (Non Sufficient Funds) the Customer will be assessed a charge of \$20.00.

EFFECTIVE: January 1, 2021

## WHN Revenue Workpapers - 1.5% Non-Utility Late Payment Revenue Summary

SOURCE: WHN Revenue Workpaper R-65-5.01.

## 1.5% Non-Utility Late Payment Revenues

For the 12 Months Ended

	2015	2016	2017	2018	2019	2020	Average
April	-\$828	\$1,785	\$864	\$2,114	\$1,842	\$936	\$1,119
May	884	1,563	2,235	2,364	1,702	953	1,617
June	-525	1,352	-11	1,121	1,713	-9,553	-984
July	855	-11	-1,291	816	-2,368	815	-197
August	694	2,588	1,561	1,095	1,627	827	1,399
September	951	1,622	2,101	1,657	1,546	840	1,453
October	1,027	891	2,266	1,971	1,007	850	1,335
November	1,231	741	1,917	2,164	1,022	862	1,323
December	1,079	1,566	1,802	2,336	1,045	877	1,451
January	918	2,916	-566	2,552	1,056	886	1,294
February	1,514	71	2,014	2,302	1,065	900	1,311
March	1,554	3,287	2,190	2,223	917	914	1,847
<b>Total</b>	<b>\$9,353</b>	<b>\$18,371</b>	<b>\$15,084</b>	<b>\$22,714</b>	<b>\$12,172</b>	<b>\$107</b>	<b>\$12,967</b>

**NOTE:** This represents non-utility revenue, but the Company has opted to include these amounts as Other Revenues.

SOURCE: WHN Revenue Workpaper R-65-9.00 (Non-Print).

## 1.5% Non-Utility Late Payment Revenue

Monthly	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	0	0	0	0	0	0	297	298	1,519	918	2,916	-566	2,552	1,056	886
February	-	0	0	0	0	0	341	313	345	988	1,514	71	2,014	2,302	1,065	900
March	-	0	0	0	0	0	302	400	478	684	1,554	3,287	2,190	2,223	917	914
April	-	0	0	0	0	0	442	446	408	-828	1,785	864	2,114	1,842	936	-
May	-	0	0	0	0	0	452	406	424	884	1,563	2,235	2,364	1,702	953	-
June	-	0	0	0	0	0	629	135	822	-525	1,352	-11	1,121	1,713	-9,553	-
July	-	0	0	0	0	0	-444	285	392	855	-11	-1,291	816	-2,368	815	-
August	-	0	0	0	0	0	340	220	499	694	2,588	1,561	1,095	1,627	827	-
September	-	0	0	0	0	0	149	328	471	951	1,622	2,101	1,657	1,546	840	-
October	-	0	0	0	0	0	191	285	596	1,027	891	2,266	1,971	1,007	850	-
November	-	0	0	0	0	0	294	257	544	1,231	741	1,917	2,164	1,022	862	-
December	0	0	0	0	0	0	119	161	1,174	1,079	1,566	1,802	2,336	1,045	877	-
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,814</b>	<b>3,534</b>	<b>6,451</b>	<b>8,559</b>	<b>16,083</b>	<b>17,720</b>	<b>19,276</b>	<b>16,212</b>	<b>444</b>	<b>2,701</b>

NOTE: This represents non-utility revenue, but the Company has opted to include these amounts as Other Revenues.

## WHN Revenue Workpapers - Rental Income from Utility Property Revenue Summary

SOURCE: WHN Revenue Workpaper R-65-6.01.

## Rental Income from Utility Property Revenues

## For the 12 Months Ended

	2015	2016	2017	2018	2019	2020	Average
April	\$2,313	\$2,383	\$0	\$5,307	\$0	\$0	\$1,667
May	2,313	0	5,036	2,654	0	0	1,667
June	2,313	2,383	2,654	2,654	0	22,086	5,348
July	2,313	2,383	2,654	2,654	0	0	1,667
August	2,313	2,383	2,654	2,654	7,961	0	2,994
September	2,313	2,383	2,654	0	0	0	1,225
October	2,313	0	2,654	2,654	0	0	1,270
November	2,313	4,765	2,654	7,961	0	0	2,949
December	2,313	2,383	2,654	2,654	9,816	15,921	5,957
January	2,313	2,383	2,654	0	0	0	1,225
February	2,313	2,383	0	2,654	0	5,307	2,109
March	2,313	2,383	2,654	0	0	0	1,225
<b>Total</b>	<b>\$27,758</b>	<b>\$26,208</b>	<b>\$28,918</b>	<b>\$31,842</b>	<b>\$17,777</b>	<b>\$43,314</b>	<b>\$29,303</b>

SOURCE: WHN Revenue Workpaper R-65-9.00 (Non-Print).

Rental Income from Utility Property Revenue

Monthly	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	4,533	4,533	4,533	200	-700	0	2,117	2,180	2,246	2,313	2,383	2,654	0	0	0
February	-	4,533	4,533	4,533	200	0	0	2,117	2,180	2,246	2,313	2,383	0	2,654	0	5,307
March	-	4,533	4,533	4,533	200	0	0	2,117	2,180	2,246	2,313	2,383	2,654	0	0	0
April	-	4,533	4,533	4,533	200	0	2,117	2,180	2,246	2,313	2,383	0	5,307	0	0	-
May	-	4,533	4,533	4,533	200	0	0	2,180	2,246	2,313	0	5,036	2,654	0	0	-
June	-	4,533	4,533	4,533	200	0	0	2,180	2,246	2,313	2,383	2,654	2,654	0	22,086	-
July	-	4,533	4,533	4,533	200	0	0	2,180	2,246	2,313	2,383	2,654	2,654	0	0	-
August	-	4,533	4,533	200	200	0	0	2,180	2,246	2,313	2,383	2,654	2,654	7,961	0	-
September	-	4,533	4,533	4,533	200	0	2,117	2,180	2,246	2,313	2,383	2,654	0	0	0	-
October	-	4,533	4,533	-32,300	200	0	2,117	2,180	2,246	2,313	0	2,654	2,654	0	0	-
November	-	4,533	4,533	200	200	0	2,117	2,180	2,246	2,313	4,765	2,654	7,961	0	0	-
December	4,533	4,533	4,533	200	200	0	2,117	2,180	2,246	2,313	2,383	2,654	2,654	9,816	15,921	-
<b>Total</b>	<b>4,533</b>	<b>54,400</b>	<b>54,400</b>	<b>4,567</b>	<b>2,400</b>	<b>-700</b>	<b>10,584</b>	<b>25,974</b>	<b>26,753</b>	<b>27,556</b>	<b>26,000</b>	<b>30,758</b>	<b>34,496</b>	<b>20,430</b>	<b>38,007</b>	<b>5,307</b>

## WHN Revenue Workpapers - Cash-Out/Secondary Marketing Revenue Summary

SOURCE: WHN Revenue Workpaper R-65-7.01.

## Cash-Out/Secondary Marketing Revenues

For the 12 Months Ended

	2015	2016	2017	2018	2019	2020	Average
April	\$732,212	\$63,488	\$114,820	\$42,749	\$60,457	\$1,611	\$0
May	63,741	241,445	18,340	7,031	4,802	107,638	0
June	61,621	20,687	24,287	7,846	136,489	5,091	0
July	24,125	18,322	37,424	30,264	7,072	5,235	0
August	7,795	27,316	19,218	48,904	2,618	4,975	0
September	27,762	49,729	34,965	527	98,492	144,996	0
October	59,162	12,941	20,576	118,594	43,268	41,913	0
November	198,712	93,818	13,551	86,775	42,193	4,485	0
December	1,470,818	242,589	30,277	34,626	5,101	26,575	0
January	-7,645	-3,472	60,957	169,683	19,356	17,473	0
February	41,031	63,999	2,824	14,103	32,700	18,333	0
March	15,709	77,831	293,755	16,097	3,614	1,404	0
<b>Total</b>	<b>\$2,695,043</b>	<b>\$908,692</b>	<b>\$670,994</b>	<b>\$577,201</b>	<b>\$456,161</b>	<b>\$379,728</b>	<b>\$0</b>

Assumed to be a non-regulated revenue. Data request issued.

SOURCE: WHN Revenue Workpaper R-65-9.00 (Non-Print).

Cash-Out/Secondary Marketing Revenue

Monthly	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	0	0	0	0	0	0	343,010	13,163	87,990	-7,645	-3,472	60,957	169,683	19,356	17,473
February	-	0	0	0	0	0	0	87,293	40,994	568,564	41,031	63,999	2,824	14,103	32,700	18,333
March	-	0	0	0	0	0	0	712	701,186	6,614	15,709	77,831	293,755	16,097	3,614	1,404
April	-	0	0	0	0	0	0	8,396	2,996,496	732,212	63,488	114,820	42,749	60,457	1,611	-
May	-	0	0	0	0	0	49,082	55,126	337,235	63,741	241,445	18,340	7,031	4,802	107,638	-
June	-	0	0	0	0	0	21,951	477	992,405	61,621	20,687	24,287	7,846	136,489	5,091	-
July	-	0	0	0	0	0	263,388	131,678	84,851	24,125	18,322	37,424	30,264	7,072	5,235	-
August	-	0	0	0	0	0	16,506	52,426	1,364,912	7,795	27,316	19,218	48,904	2,618	4,975	-
September	-	0	0	0	0	0	29,249	164,599	1,064,827	27,762	49,729	34,965	527	98,492	144,996	-
October	-	0	0	0	0	0	82,198	46,230	1,617,800	59,162	12,941	20,576	118,594	43,268	41,913	-
November	-	0	0	0	0	0	352,484	36,446	109,717	198,712	93,818	13,551	86,775	42,193	4,485	-
December	0	0	0	0	0	0	1,059,712	46,850	783,946	1,470,818	242,589	30,277	34,626	5,101	26,575	-
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,874,571</b>	<b>973,242</b>	<b>10,107,532</b>	<b>3,309,117</b>	<b>819,430</b>	<b>451,814</b>	<b>734,854</b>	<b>600,375</b>	<b>398,187</b>	<b>37,210</b>



SOURCE: WHN Revenue Workpaper R-65-8.01.

## CNG Volume Rebates Revenues

## For the 12 Months Ended

	2015	2016	2017	2018	2019	2020	Average
April	\$0	\$0	\$0	\$0	\$0	\$0	\$0
May	0	0	0	-5,044	0	-2,320	0
June	0	0	0	0	-1,624	0	0
July	0	0	0	0	0	0	0
August	0	-78	-1,787	0	0	0	0
September	0	0	-1,591	-5,221	0	0	0
October	0	0	0	0	-1,618	-626	0
November	0	-13	0	0	0	0	0
December	0	0	-1,801	-2,006	0	0	0
January	0	0	0	0	0	0	0
February	0	0	-2,208	0	0	-1,880	0
March	0	-1,542	0	0	-1,246	0	0
<b>Total</b>	<b>\$0</b>	<b>-\$1,633</b>	<b>-\$7,388</b>	<b>-\$12,271</b>	<b>-\$4,489</b>	<b>-\$4,826</b>	<b>\$0</b>

This is a non-regulated activity. Therefore the amount is excluded from Other Revenue.

SOURCE: WHN Revenue Workpaper R-65-9.00 (Non-Print).

CNG Volume Rebates Revenue

Monthly	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
February	-	0	0	0	0	0	0	0	0	0	0	0	-2,208	0	0	-1,880
March	-	0	0	0	0	0	0	0	0	0	0	-1,542	0	0	-1,246	0
April	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
May	-	0	0	0	0	0	0	0	0	0	0	0	-5,044	0	-2,320	-
June	-	0	0	0	0	0	0	0	0	0	0	0	0	-1,624	0	-
July	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
August	-	0	0	0	0	0	0	0	0	0	-78	-1,787	0	0	0	-
September	-	0	0	0	0	0	0	0	0	0	0	-1,591	-5,221	0	0	-
October	-	0	0	0	0	0	0	0	0	0	0	0	0	-1,618	-626	-
November	-	0	0	0	0	0	0	0	0	0	-13	0	0	0	0	-
December	0	0	0	0	0	0	0	0	0	0	0	-1,801	-2,006	0	0	-
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-91</b>	<b>-6,721</b>	<b>-14,479</b>	<b>-3,243</b>	<b>-4,192</b>	<b>-1,880</b>



**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Recalculation of Company Revenue Requirement - Billing Rates**

SOURCE: Couzens Workpaper - Sales &amp; Transportation Pro Forma Revenue, June 2020 Billing Rates

Rate Schedule	Base Rates	Cumulative PGA Demand	Commodity	Cumulative ACA Demand	Commodity	Current IPA	Current IM	Docket 18-00040		Total Adjustment	Current Rates	Clean Base, PGA & Excess ADIT
								Deferred Base	Excess ADIT			
<b>301 - Residential Service</b>												
Bills - Winter	17.45000										17.45000	17.45000
Bills - Summer	13.45000										13.45000	13.45000
Therms - Winter	0.29009	0.07577	0.19717	-0.01181	-0.01044	0.00822	0.11730	-0.01958	-0.04211	0.31452	0.60461	0.52092
Therms - Summer	0.24009	0.07577	0.19717	-0.01181	-0.01044	0.00822	0.11730	-0.01958	-0.04211	0.31452	0.55461	0.47092
<b>302 - Small General Service</b>												
Bills - Annual	44.00000										44.00000	44.00000
DTs - Winter	0.32787	0.07577	0.19717	-0.01181	-0.01044	0.00822	0.10247	-0.01710	-0.03678	0.30750	0.63537	0.56403
DTs - Summer	0.27387	0.07577	0.19717	-0.01181	-0.01044	0.00822	0.10247	-0.01710	-0.03678	0.30750	0.58137	0.51003
<b>352 - Medium General Service</b>												
Bills - Annual	225.00000										225.00000	225.00000
DTs - Winter	0.32787	0.07577	0.19717	-0.01181	-0.01044	0.00822	0.10247	-0.01710	-0.03678	0.30750	0.63537	0.56403
DTs - Summer	0.27387	0.07577	0.19717	-0.01181	-0.01044	0.00822	0.10247	-0.01710	-0.03678	0.30750	0.58137	0.51003
<b>303 - Large General Sales Service</b>												
Bills - Annual	800.00000										800.00000	800.00000
DTs - Demand	0.80000	0.82829		-0.18957						0.63872	1.43872	1.62829
DTs - First 1500/Month	0.09195		0.19717		-0.01044	0.00822	0.04551	-0.00319	-0.00685	0.23042	0.32237	0.28227
DTs - Next 2500/Month	0.08466		0.19717		-0.01044	0.00822	0.04551	-0.00319	-0.00685	0.23042	0.31508	0.27498
DTs - Next 5000/Month	0.05963		0.19717		-0.01044	0.00822	0.04551	-0.00319	-0.00685	0.23042	0.29005	0.24995
DTs - Over 9000/Month	0.02277		0.19717		-0.01044	0.00822	0.04551	-0.00319	-0.00685	0.23042	0.25319	0.21309
<b>304 - Interruptible General Sales Service</b>												
Bills - Annual	800.00000										800.00000	800.00000
DTs - First 1500/Month	0.09195		0.19717		-0.01044	0.00822	0.01138	-0.00319	-0.00685	0.19629	0.28824	0.28227
DTs - Next 2500/Month	0.08466		0.19717		-0.01044	0.00822	0.01138	-0.00319	-0.00685	0.19629	0.28095	0.27498
DTs - Next 5000/Month	0.05963		0.19717		-0.01044	0.00822	0.01138	-0.00319	-0.00685	0.19629	0.25592	0.24995
DTs - Over 9000/Month	0.02277		0.19717		-0.01044	0.00822	0.01138	-0.00319	-0.00685	0.19629	0.21906	0.21309
<b>313 - Firm Transportation Service</b>												
Bills - Annual	800.00000										800.00000	800.00000
DTs - Demand	0.80000	0.82829		-0.18957						0.63872	1.43872	1.62829
DTs - First 1500/Month	0.09195						0.04551	-0.00319	-0.00685	0.03547	0.12742	0.08510
DTs - Next 2500/Month	0.08466						0.04551	-0.00319	-0.00685	0.03547	0.12013	0.07781
DTs - Next 5000/Month	0.05963						0.04551	-0.00319	-0.00685	0.03547	0.09510	0.05278
DTs - Over 9000/Month	0.02277						0.04551	-0.00319	-0.00685	0.03547	0.05824	0.01592
<b>314 - Interruptible Transportation Service</b>												
Bills - Annual	800.00000										800.00000	800.00000
DTs - First 1500/Month	0.09195						0.01138	-0.00319	-0.00685	0.00134	0.09329	0.08510
DTs - Next 2500/Month	0.08466						0.01138	-0.00319	-0.00685	0.00134	0.08600	0.07781
DTs - Next 5000/Month	0.05963						0.01138	-0.00319	-0.00685	0.00134	0.06097	0.05278
DTs - Over 9000/Month	0.02277						0.01138	-0.00319	-0.00685	0.00134	0.02411	0.01592
<b>310 - Resale Service</b>												
DTs - Demand	0.80000	0.82829		-0.18957						0.63872	1.43872	1.62829
DTs - Annual	0.07518		0.19717		-0.01044	0.00822	0.04551	-0.00970	-0.02086	0.20990	0.28508	0.25149

RE: Treatment of IMR within Piedmont's rate case

David N. Dittmore <David.Dittmore@ag.tn.gov>

Mon 9/7/2020 6:35 PM

To: Hal Novak <halnovak@WHNConsulting.com>; Daniel P. Whitaker <Daniel.Whitaker@ag.tn.gov>; Alex Bradley <Alex.Bradley@ag.tn.gov>; Karen H. Stachowski <Karen.Stachowski@ag.tn.gov>; James P. Urban <James.Urban@ag.tn.gov>; Vance Broemel <Vance.Broemel@ag.tn.gov>

I agree with you that the IMR surcharge should terminate with the implementation of new base rates.

What if we recommended a separate IMR true-up be filed within say 60 days of the termination of the IMR and that such reconciliation rate be incorporated as a surcharge (credit) for some defined period.

---

From: Hal Novak <halnovak@WHNConsulting.com>

Sent: Monday, September 7, 2020 5:28 PM

To: Daniel P. Whitaker <Daniel.Whitaker@ag.tn.gov>; David N. Dittmore <David.Dittmore@ag.tn.gov>; Alex Bradley <Alex.Bradley@ag.tn.gov>; Karen H. Stachowski <Karen.Stachowski@ag.tn.gov>; James P. Urban <James.Urban@ag.tn.gov>; Vance Broemel <Vance.Broemel@ag.tn.gov>

Subject: Treatment of IMR within Piedmont's rate case

All -

As all of you know, Piedmont has a surcharge in their billing rates for an Integrity Management Rider (IMR). This IMR, which has been in place since 2013, allows Piedmont to recover costs associated with infrastructure replacement. For example, right now the Company is surcharging residential customers \$0.1173/therm which was approved in Docket 19-00107.

In the current rate case, Piedmont is proposing to end the IMR - a good thing. However, the timing of ending the IMR and setting new base rates in the rate case is somewhat tricky.

Piedmont is proposing to forecast its 2020 IMR costs within this rate case and then forego its next IMR filing that would typically take place around December 1st, 2020 (at least this was their proposal when they thought new rates would go into effect on January 1, 2020). The problem with this methodology is that the 2020 IMR costs aren't known at this point and there is no method in place for a true-up to actual costs.

On the other hand, we don't want to implement new rates based on the Company's total rate base (that would include IMR plant) without ending the IMR surcharge.

My preference would be for the current IMR surcharge to end simultaneously with the implementation of new base rates - hopefully in April 1, 2021. Piedmont would then need to file a final true-up of IMR costs and revenues through March 31, 2021. However, there is no specific procedure in place for actually ending the IMR.

Any thoughts on how to proceed with this?

**Hal Novak, CPA**

**WHN CONSULTING**

[www.whnconsulting.com](http://www.whnconsulting.com)



billing rates for Excess ADIT.

In the current rate case, Piedmont is proposing to remove this refund from the billing rate. Instead, Piedmont includes in revenues (as an offset) the \$0.04211/therm rate for residential customers at the forecasted residential volumes.

At this point, I'm trying to reconcile the Company's proposed rate case treatment of this refund with the Commission Order in 18-00040. It seems to me that the best way to treat this item would be to leave it out of the rate case entirely - and then let it true up at some point. However, the Commission Order appears to mention that this refund would somehow fit in with Piedmont's next rate case.

Do you have any idea of how we intended to treat excess ADIT from 18-00040 within this rate case?

**Hal Novak, CPA**

**WHN CONSULTING**

[www.whnconsulting.com](http://www.whnconsulting.com)

Phone: 713-298-1760



**PIEDMONT NATURAL GAS COMPANY, INC.**  
**Docket No. 20-00086**  
**Consumer Advocate's First Discovery Request**  
**Date Issued: August 17, 2020**  
**Date Due: September 8, 2020**

- 1-23. Refer to the "Minimum Margin Agreements" tab of the "1\_Sales and Transportation Pro Forma Revenue -CONFIDENTIAL" spreadsheet included with the Company's filing. Provide the following information relating to Minimum Margin Agreements:
- a. Provide a copy of the customer contracts establishing the monthly amount of Minimum Margin Agreement.
  - b. Cite and provide a copy of the Commission Order permitting the Company's establishment of a Minimum Margin Agreement with its customers.
  - c. Cite and provide a copy of the Company's tariff permitting the Company's establishment of a Minimum Margin Agreement with its customers.

**RESPONSE:**

- a. See CONFIDENTIAL attachment.
- b. Piedmont is not aware of, or in possession of, any Commission order that is responsive to this request.
- c. The Company's Service Schedules and Service Regulations limit the Company's obligation to provide service to a new customer by requiring the Company to determine that service will be economically feasible (See Process for Obtaining Consent to New or Changed Service). Evaluating economic feasibility requires certain assumptions about projected customer usage. In cases where the costs of the facilities necessary to serve a new customer would render service economically infeasible, the Company has the choice of declining service, accepting a contribution in aid of construction in the amount of the negative net present value revealed by the feasibility analysis, or attempting to negotiate a special contract

**PIEDMONT NATURAL GAS COMPANY, INC.**  
**Docket No. 20-00086**  
**Consumer Advocate's First Discovery Request**  
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with the customer (which would ultimately require TPUC approval if agreed to by the parties). Minimum margin agreements are intended to address situations where economic feasibility is marginal. The service provided to a customer signing such an agreement is based entirely upon the Company's tariffs (including billing rates) and is indistinguishable from service provided to other customers served under the same Service Schedule. Customers asked to execute a minimum margin agreement essentially provide a guarantee to the Company that if it does not use the amount of gas its feasibility analysis is based upon, which is provided by the customer, it will keep Piedmont whole with respect to the margin loss incurred as a result of its under-usage. Piedmont utilizes such agreements in all three states in which it operates (NC, SC and TN), and because the agreements constitute an economic guaranty rather than establishing the terms or rates for utility service, Piedmont does not file them for Commission approval in any state in which it operates. The agreements ultimately preserve the assumptions upon which service is extended, allow the extension of service to customers who might otherwise be denied gas service, and protect other customers from subsidizing service to a customer where that service might ultimately be determined to be infeasible.

**Name and Title of Preparer:** Nisha Prasad, Power Generation & Municipal Account Manager

**Name and Title of Responsible Person:** Ron Mays, VP - Gas Sales & Delivery

**WHN Consulting**

**PIEDMONT NATURAL GAS - 2020 RATE CASE - DOCKET 20-00086**

**WHN Revenue Workpapers - Normal Weather Calculation Workpapers**

Nashville, Tennessee  
Heating Degree Day Deficiency  
January Data

2020	Period Ending
30	Years for Normal

Nashville, Tennessee  
Heating Degree Day Deficiency  
February Data

2020	Period Ending
30	Years for Normal

R-75-2.02 (Non-Print)

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11/29/2020 12:34

Nashville, Tennessee  
Heating Degree Day Deficiency  
March Data

2020	Period Ending
30	Years for Normal

R-75-2.03 (Non-Print)

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11/29/2020 12:34

Nashville, Tennessee  
Heating Degree Day Deficiency  
April Data

2019	Period Ending
30	Years for Normal

Nashville, Tennessee  
Heating Degree Day Deficiency  
May Data

2019	Period Ending
30	Years for Normal



Nashville, Tennessee  
Heating Degree Day Deficiency  
June Data

2019	Period Ending
30	Years for Normal

R-75-2.06 (Non-Print)

11/29/2020 12:34

Nashville, Tennessee  
Heating Degree Day Deficiency  
July Data

2019	Period Ending
30	Years for Normal

Nashville, Tennessee  
Heating Degree Day Deficiency  
August Data

2019	Period Ending
30	Years for Normal

R-75-2.08 (Non-Print)

11/29/2020 12:34

Nashville, Tennessee  
Heating Degree Day Deficiency  
September Data

2019	Period Ending
30	Years for Normal

R-75-2.09 (Non-Print)

11/29/2020 12:34

Nashville, Tennessee  
Heating Degree Day Deficiency  
October Data

2019	Period Ending
30	Years for Normal

R-75-2.10 (Non-Print)

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11/29/2020 12:34

Nashville, Tennessee  
Heating Degree Day Deficiency  
November Data

2019	Period Ending
30	Years for Normal

R-75-2.11 (Non-Print)

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11/29/2020 12:34

Nashville, Tennessee  
Heating Degree Day Deficiency  
December Data

2019	Period Ending
30	Years for Normal

R-75-2.12 (Non-Print)

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11/29/2020 12:34

Nashville, Tennessee  
Heating Degree Day Deficiency  
Calendar Data

R-75-1.02

11/29/2020 12:34

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
January		791	768	717	974	814	886	851	622	686	796
February		586	544	713	585	683	702	538	527	531	523
March		402	456	552	437	355	626	357	505	595	364
April	245	80	217	252	134	175	292	319	209	125	248
May	65	9	85	32	90	42	32	107	19	10	14
June	1	0	2	4	0	0	0	4	5	0	0
July	0	0	0	0	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0	0	0	0	0
September	21	42	26	27	21	31	25	0	0	18	32
October	195	166	181	227	144	184	160	227	111	185	123
November	323	535	461	528	316	624	572	576	375	322	518
December	654	628	731	759	605	783	634	785	671	654	1,051
Total	1,504	3,239	3,471	3,811	3,306	3,691	3,929	3,764	3,044	3,126	3,669

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
January	912	704	991	814	664	578	714	861	918	984	941
February	565	677	748	698	554	677	774	636	583	849	589
March	602	477	393	365	531	439	255	453	399	495	426
April	124	171	147	201	179	97	269	224	229	119	135
May	17	89	24	39	75	69	17	46	41	40	96
June	7	0	8	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0	0	0
August	0	0	0	3	0	0	0	0	0	0	0
September	47	2	26	4	2	15	0	0	11	7	32
October	218	161	150	63	196	222	102	202	253	141	207
November	315	554	341	346	419	407	451	552	406	416	387
December	617	752	761	767	845	568	571	747	791	941	650
Total	3,424	3,587	3,589	3,300	3,465	3,072	3,153	3,721	3,631	3,992	3,463

	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
January	663	709	1,003	840	850	546	886	766	610	795
February	554	624	714	905	600	385	429	443	576	617
March	174	616	542	441	285	365	444	493	300	438
April	153	212	144	123	136	76	295	137		182
May	6	72	50	24	67	41	1	27		45
June	7	0	0	0	0	0	0	0		1
July	0	0	0	0	0	0	0	0		0
August	0	0	0	0	0	0	0	0		0
September	22	2	3	3	13	12	2	0		15
October	218	177	150	137	33	163	190	143		168
November	514	555	621	283	308	399	551	559		451
December	545	734	671	370	683	758	613	503		695
Total	2,856	3,701	3,898	3,126	2,975	2,745	3,411	3,071	1,486	3,407

NOTE: AVERAGE IS FOR THE 30 YEAR PERIOD ENDED: March, 2020.



Nashville, Tennessee  
Heating Degree Day Deficiency  
Cycle Data

R-75-1.03  
11/29/2020 12:34

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
January		746	718	676	910	692	908	783	622	938	673
February		724	722	703	886	930	926	785	737	464	873
March		544	426	753	459	463	576	345	531	630	350
April	440	176	397	340	312	195	498	379	247	289	333
May	97	56	131	115	89	115	101	211	132	88	113
June	8	0	33	27	20	4	0	31	5	0	1
July	0	0	2	0	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0	0	0	0	0
September	0	0	0	0	0	0	5	0	0	0	0
October	60	142	100	101	62	70	98	26	31	60	147
November	327	424	329	401	183	457	381	495	287	255	175
December	428	448	626	583	511	624	549	680	377	466	786
Total	1,360	3,260	3,484	3,699	3,432	3,550	4,042	3,735	2,969	3,190	3,451

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
January	1,080	854	729	744	640	694	445	682	749	1,020	949
February	746	657	971	869	768	682	998	833	802	862	881
March	549	562	609	504	592	459	445	580	548	646	381
April	356	337	252	332	268	344	304	342	325	263	278
May	90	82	47	60	177	83	47	110	80	103	113
June	22	54	26	0	11	14	17	13	20	10	32
July	0	0	0	0	0	0	0	0	0	0	0
August	0	0	0	3	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0	0	0	0	16
October	98	36	88	42	32	84	18	15	82	69	58
November	320	349	232	174	262	352	282	370	349	274	327
December	351	761	566	511	752	549	484	762	613	715	543
Total	3,612	3,692	3,520	3,239	3,502	3,261	3,040	3,707	3,568	3,962	3,578

	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
January	685	682	817	846	563	624	916	612	465	749
February	650	705	1,013	774	861	497	715	666	687	780
March	369	623	536	751	340	377	369	511	458	510
April	105	413	357	221	287	150	350	291		302
May	73	165	78	89	54	65	121	87		99
June	7	3	22	15	15	3	0	0		14
July	0	0	0	0	0	0	0	0		0
August	0	0	0	0	0	0	0	0		0
September	0	1	2	3	0	12	0	0		1
October	109	13	39	40	19	9	31	30		60
November	369	397	401	206	139	299	423	434		322
December	463	687	640	362	576	596	601	491		570
Total	2,830	3,689	3,905	3,307	2,854	2,632	3,526	3,122	1,610	3,407

NOTE: AVERAGE IS FOR THE 30 YEAR PERIOD ENDED: March, 2020.

Nashville, Tennessee  
Heating Degree Day Deficiency  
Cycle Data

**R-75-1.04 (Non-Print)**

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11/29/2020 12:34

NASHVILLE CALENDAR HEATING DDD  
 NORMAL DAILY WEATHER  
 For the 30 Year Period Ended March 2020

R-75-1.01  
 11/29/2020 12:34

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	25.07	22.93	17.43	9.93	2.77	0.47	0.00	0.00	0.00	1.80	9.53	19.53
2	24.00	23.40	18.07	7.93	2.40	0.20	0.00	0.00	0.00	2.07	10.57	19.13
3	24.30	24.33	21.77	7.73	3.30	0.13	0.00	0.00	0.00	2.53	11.63	18.73
4	25.00	24.77	19.20	9.90	4.00	0.13	0.00	0.00	0.00	2.27	11.40	18.37
5	25.97	25.07	17.97	10.90	3.57	0.07	0.00	0.00	0.07	2.10	11.27	21.77
6	26.57	23.60	17.27	9.83	2.37	0.10	0.00	0.00	0.27	2.53	12.50	23.10
7	27.10	22.90	16.57	8.00	1.70	0.10	0.00	0.00	0.10	3.67	13.33	23.17
8	26.60	23.60	15.73	7.90	0.87	0.00	0.00	0.00	0.10	3.07	14.57	22.63
9	24.57	24.60	15.63	7.90	0.77	0.00	0.00	0.00	0.00	3.00	13.57	21.30
10	23.57	24.40	15.67	6.60	1.40	0.00	0.00	0.00	0.00	3.87	14.20	23.53
11	22.77	23.33	16.90	4.93	1.43	0.00	0.00	0.00	0.07	4.27	13.70	23.47
12	21.70	24.80	15.17	6.03	1.40	0.00	0.00	0.00	0.10	3.90	16.63	22.87
13	23.97	25.43	14.80	7.00	2.10	0.00	0.00	0.00	0.33	3.40	16.40	21.10
14	25.97	23.00	15.23	4.97	2.00	0.00	0.00	0.00	0.13	3.90	15.73	20.57
15	27.30	22.53	13.77	5.90	2.23	0.00	0.00	0.00	0.13	4.37	16.50	21.17
16	27.83	22.60	13.67	5.97	2.00	0.00	0.00	0.00	0.23	6.17	16.00	20.27
17	27.20	23.17	12.40	5.90	1.50	0.00	0.00	0.00	0.17	6.53	15.90	21.10
18	29.40	21.33	11.13	4.20	1.77	0.00	0.00	0.00	0.10	6.30	15.70	23.50
19	28.90	20.40	12.00	4.37	1.23	0.00	0.00	0.00	0.43	8.07	14.53	24.10
20	26.23	17.03	12.43	4.27	0.83	0.00	0.00	0.00	0.43	7.13	15.17	24.13
21	26.27	15.63	13.80	5.07	1.30	0.03	0.00	0.00	0.60	5.90	14.97	21.87
22	25.80	18.67	13.67	4.37	1.17	0.03	0.00	0.00	0.80	6.30	16.67	21.60
23	26.13	17.70	11.67	4.70	0.30	0.00	0.00	0.00	1.13	7.10	17.00	22.97
24	26.97	18.63	11.33	4.40	0.33	0.00	0.00	0.00	0.93	7.87	17.67	25.77
25	27.37	19.33	11.60	3.43	0.53	0.00	0.00	0.00	0.87	7.87	17.47	28.17
26	25.20	21.03	11.13	4.63	0.20	0.00	0.00	0.00	1.23	7.37	17.70	25.93
27	24.47	19.73	10.50	5.10	0.37	0.00	0.00	0.00	1.37	8.67	18.20	23.27
28	24.53	18.87	9.40	4.30	0.47	0.00	0.00	0.00	1.10	9.70	18.63	22.60
29	24.03	4.23	11.13	3.53	0.23	0.00	0.00	0.00	1.90	10.03	17.17	22.37
30	25.67		10.67	2.53	0.17	0.00	0.00	0.00	2.27	8.30	16.83	23.30
31	24.87		10.43		0.17		0.00	0.00		7.60		23.37
Calendar Total	795	617	438	182	45	1	0	0	15	168	451	695
Cycle Total	749	780	510	302	99	14	0	0	1	60	322	570

NON-LEAP YEAR TOTAL	3,407
LEAP YEAR TOTAL	3,420

Note: Degree Days for February 29 must be multiplied by 4 to arrive at the true DDD for this day.  
 NOTE: AVERAGE IS FOR THE 30 YEAR PERIOD ENDED: March, 2020.

Nashville, Tennessee  
 Calendar Heating Degree Day Deficiency  
 For the 12 Months Ended: **March**

R-75-1.00

11/29/2020 12:34

Month	2015	2016	2017	2018	2019	2020	30 Yr Average
April	144	123	136	76	295	137	182
May	50	24	67	41	1	27	45
June	0	0	0	0	0	0	1
July	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0
September	3	3	13	12	2	0	15
October	150	137	33	163	190	143	168
November	621	283	308	399	551	559	451
December	671	370	683	758	613	503	695
January	840	850	546	886	766	610	795
February	905	600	385	429	443	576	617
March	441	285	365	444	493	300	438
<b>Total</b>	<b>3,825</b>	<b>2,675</b>	<b>2,536</b>	<b>3,208</b>	<b>3,354</b>	<b>2,855</b>	<b>3,407</b>
<b>% of Average</b>	<b>112.26%</b>	<b>78.51%</b>	<b>74.43%</b>	<b>94.15%</b>	<b>98.43%</b>	<b>83.79%</b>	<b>100.00%</b>

Nashville, Tennessee  
 Cycle Heating Degree Day Deficiency  
 For the 12 Months Ended: **March**

Month	2015	2016	2017	2018	2019	2020	30 Yr Average
April	357	221	287	150	350	291	302
May	78	89	54	65	121	87	99
June	22	15	15	3	0	0	14
July	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0
September	2	3	0	12	0	0	1
October	39	40	19	9	31	30	60
November	401	206	139	299	423	434	322
December	640	362	576	596	601	491	570
January	846	563	624	916	612	465	749
February	774	861	497	715	666	687	780
March	751	340	377	369	511	458	510
<b>Total</b>	<b>3,910</b>	<b>2,700</b>	<b>2,588</b>	<b>3,134</b>	<b>3,315</b>	<b>2,943</b>	<b>3,407</b>
<b>% of Average</b>	<b>114.75%</b>	<b>79.24%</b>	<b>75.95%</b>	<b>91.98%</b>	<b>97.29%</b>	<b>86.37%</b>	<b>100.00%</b>

