



Waller Lansden Dortch & Davis, LLP
511 Union Street, Suite 2700
P.O. Box 198966
Nashville, TN 37219-8966

615.244.6380 main
615.244.6804 fax
wallerlaw.com

Paul S. Davidson
615.850.8942 direct
paul.davidson@wallerlaw.com

Electronically Filed in TPUC Docket Room on November 27, 2019 at 11:19 a.m.

November 27, 2019

VIA HAND DELIVERY

Executive Director Earl Taylor
c/o Ectory Lawless
Tennessee Public Utility Commission
502 Deaderick Street, Fourth Floor
Nashville, Tennessee 37243

Re: *Petition of Piedmont Natural Gas Company for Approval of an Integrity Management Rider to its Approved Rate Schedules and Service Regulations*
Docket No. 19- 00107

Dear Mr. Taylor:

Enclosed please find an original and five (5) copies of Piedmont Natural Gas Company Inc.'s ("Piedmont" or "Company") Integrity Management Rider ("IMR" or "Rider") mechanism annual filing and proposed annual rate adjustment for January 1, 2020 pursuant to this Rider.

Under Piedmont's IMR mechanism, Service Schedule No. 317 as approved by the Tennessee Regulatory Authority Order on May 13, 2014, Piedmont will adjust its rates effective January 1st of each year in order to recover the costs associated with the Company's prior year's integrity management capital investment not yet reflected in Piedmont's base rates.

Piedmont's IMR requires that Piedmont submit an annual filing no later than November 30th of each year.

Piedmont hereby submits its 2019 annual filing which includes the following information in accordance with Service Schedule No. 317: (a) the monthly IMR filing for October 2019, (b) a schedule of all journal entries made related to this Rider for the previous 12 months, (c) billing determinants for the prior 12 months as used in the computation of the Deferred Account Adjustment, (d) capitalization policy effective for the prior 12 months, (e) the computation calculating the IMRR and all supporting schedules, (f) a schedule of any proposed prior period adjustments, and (g) a statement of whether the Company is aware of any changing conditions that may affect whether the rider is still in the public interest, including the identification of those factors. This filing also includes the proposed Sixtieth Revised Sheet No. 1 reflecting the proposed billing rates for January 1, 2019.

Also included with this filing is the Direct Testimony of Pia K. Powers in support of Piedmont's 2019 annual filing.



Mr. Taylor
November 27, 2019
Page 2

This material is also being filed today by way of email to the Tennessee Public Utility Commission docket manager, Ectory Lawless. Please file the original and four copies and stamp the additional copies as "filed." Then please return the stamped copy to me by way of our courier.

Very truly yours,

A handwritten signature in blue ink that reads "Paul Davidson".

Paul S. Davidson

Enclosures

cc: Pia Powers (Piedmont)
Bruce Barkley (Piedmont)
David Foster (TPUC)
Wayne Irvin (TN CPAD)

**Before the
Tennessee Public Utility Commission**

Docket No. 19- 00107

**Petition of Piedmont Natural Gas Company, Inc.
for Approval of an Integrity Management Rider to its
Approved Rate Schedules and Service Regulations**

Integrity Management Rider

2019 Annual Filing



November 27, 2019

TPUC Docket No. 19- 00107
Integrity Management Rider
October 2019 Monthly Report

Cumulative Integrity Management Investment Amount
Actual Integrity Management Investment, by Integrity Project Type

		Current Vintage Year: Vintage Year 7		All Vintage Years	
Line No.		October 2019 Capital Expenditure ¹	Prior Cumulative Capital Expenditure ²	Cumulative Capital Expenditure as of October 2019 ³	Cumulative Capital Expenditure as of October 2019 ⁶
<i>TN Direct</i>					
1	Corrosion Control	\$ 5,123.34	\$ 516,986.84	\$ 522,110.18	\$ 7,865,629.16
2	Casing Remediation	\$ -	\$ (4,789.54)	\$ (4,789.54)	\$ 877,274.85
3	Distribution Integrity	\$ 1,581,397.50	\$ 14,080,621.58	\$ 15,662,019.08	\$ 84,774,363.84
4	Transmission Integrity	\$ 4,208,653.27	\$ 15,505,763.21	\$ 19,714,416.48	\$ 210,349,117.08
5	Total	\$ 5,795,174.11	\$ 30,098,582.09	\$ 35,893,756.20	\$ 303,866,384.93
<i>Joint Property: CO3-State</i>					
6	OASIS Project (Work & Asset Management System)	\$ -	\$ -	\$ -	\$ 133,880,060.70
7	TN % of CO-3 for Current Month ⁴	15.80%			
8	Total Allocated to TN	\$ -	\$ -	\$ -	\$ 23,535,435.31
9	Total Capital Expenditures [Line 5 + Line 8]	\$ 5,795,174.11	\$ 30,098,582.09	\$ 35,893,756.20	\$ 327,401,820.24
10	Less: Amount Included in the Attrition Period ⁵	\$ -	\$ -	\$ -	\$ 32,900,000.00
11	Total Integrity Management Investment	\$ 5,795,174.11	\$ 30,098,582.09	\$ 35,893,756.20	\$ 294,501,820.24

1/ Represents, for the current month, the actual Integrity Management Investment that is subject to this Rider

2/ Represents, as of the prior month, the cumulative Integrity Management Investment for the current Vintage Year that is subject to this Rider; this amount is shown in the prior month's report

3/ Represents, for the current Vintage Year through the current month, the cumulative Integrity Management Investment that is subject to this Rider

4/ Represents the TN% of Total Company Gas Plant Excluding Joint Property , which is updated annually

5/ Amount being recovered in existing base rates, per the Relevant Rate Order in Docket 11-00144

6/ Represents, for all Vintage Years through the current month, the cumulative Integrity Management Investment that is subject to this Rider. The cumulative Integrity Management Investment for Vintage Years 1, 2, 3, 4, 5 and 6, which captures amounts through 10/31/18, is \$258,608,064.04 (\$100,306,282.52 for Vintage Year 1, \$53,974,676.19 for Vintage Year 2, \$18,441,896.09 for Vintage Year 3, \$20,076,717.97 for Vintage Year 4, \$38,244,253.18 for Vintage Year 5 and \$27,564,238.09 for Vintage Year 6).

Detail of Current Month's Integrity Management Investment Amount
Actual Capital Investment for Current Month, by Capital Funding Project

Line No.	Capital Project Type	Funding Project Number	District	Funding Project Description	October 2019
1	TIMP-Transmission Integrity	FP1734120	17	Line 431 Replacement	2,392,530.02
2	TIMP-Transmission Integrity	FP1734394	17	Line 431 Ph II Land	1,319,518.27
3	TIMP-Transmission Integrity	F0228443	17	Line III Retrofit	15,437.60
4	TIMP-Transmission Integrity	FP1734142	17	Line 308 Replacement	17,205.43
5	TIMP-Transmission Integrity	F0229405	17	Line 203 Anomalies III Excavations	456,361.41
6	TIMP-Transmission Integrity	F0231014	17	III anomaly excavations on Line 307	1,035.14
7	TIMP-Transmission Integrity	F0231279	17	Level 1 dig repair on Line 308 imme	5,026.40
8	TIMP-Transmission Integrity	FP1733398	17	South Nashville 20"	1,539.00
9	DIMP-Distribution Integrity	F0222727	17	Brick Church Pike to West Trinity	7,435.96
10	DIMP-Distribution Integrity	F0225698	17	Centennial Blvd Main Replacement	1,084.93
11	DIMP-Distribution Integrity	FP1733763	17	Harding Place	49,618.52
12	DIMP-Distribution Integrity	FP1734694	17	Forrest St.	502,860.61
13	DIMP-Distribution Integrity	FP1734726	17	Cowan St HP Distribution Pipeline	4,625.72
14	DIMP-Distribution Integrity	F0224311	17	Hermitage Pressure Downgrade	324,687.50
15	DIMP-Distribution Integrity	F0224363	17	Maxon Ave Main Replacement	72,004.29
16	DIMP-Distribution Integrity	F0224339	17	Greenbrier Main Replacement	135,205.10
17	DIMP-Distribution Integrity	FP1734427	17	Grinstead Place	8,460.77
18	DIMP-Distribution Integrity	F0229053	17	Culvert Street Creek Bore	250.42
19	DIMP-Distribution Integrity	F0228466	17	Dr. Walter S Davis Valve Removal	48.19
20	DIMP-Distribution Integrity	F0226414	17	Line 304 Convert to Dist (Station)	197,877.78
21	DIMP-Distribution Integrity	F0216582	17	Rural Hill Isolation Valve Removal	227.60
22	DIMP-Distribution Integrity	F0224345	17	4934 Whites Creek Pk	435.62
23	DIMP-Distribution Integrity	FP1734401	17	Tallwood Dr. Across Briley Pkwy	156,007.53
24	DIMP-Distribution Integrity	FP1734428	17	Broadmoor Drive	103,679.44
25	DIMP-Distribution Integrity	F0229092	17	39th Ave North	20,500.24
26	DIMP-Distribution Integrity	FP1734695	17	Spence Lane	867.57
27	DIMP-Distribution Integrity	F0225786	17	Woodcrest Leak Repair	34,266.40
28	DIMP-Distribution Integrity	FP1734688	17	Abbott Martin @ Walnut Dr.	(13,870.91)
29	DIMP-Distribution Integrity	F0222670	17	Donelso Plaza Regulator Removal	(4,383.48)
30	DIMP-Distribution Integrity	F0223608	17	Old Hickory Blvd Replacement	(4,471.06)
31	DIMP-Distribution Integrity	F0224357	17	Patton Ave	7,075.78
32	DIMP-Distribution Integrity	FP1733612	17	Hobbs Rd	(2,022.66)
33	DIMP-Distribution Integrity	FP1734040	17	Metro Water building valve replace	(5,763.38)
34	DIMP-Distribution Integrity	FP1734418	17	Turner St. from 14th to 20th	(5,103.66)
35	DIMP-Distribution Integrity	FP1734614	17	Loretta Drive Replacement	(5,103.66)
36	DIMP-Distribution Integrity	FP1734647	17	Grassmere Park Road	(5,103.66)
37	CORR-Corrosion Control	F0228699	17	Nashville Anode Bed	3,408.10
38	CORR-Corrosion Control	F0228798	17	Hillsboro Rd. Rectifier&Ground Bed	1,715.24

39	Total (unallocated)	\$ 5,795,174.11
	<i>subtotal: TN Direct (unallocated)</i>	<i>\$ 5,795,174.11</i>
	<i>subtotal: CO-3 (unallocated)</i>	<i>\$ -</i>
		<u>\$ 5,795,174.11</u>

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19- _____

IMR Monthly Report for Oct 2019
Schedule 3

Schedule Detailing the Integrity Management Deferred Account Adjustment Recorded for the Month

Calculation of the IM Deferred Account Balance

Amount Due From (To) Customers per GL Account No. 0253139

<u>Line No.</u>			<u>Oct-19</u>
1	Beginning Balance	<i>Prior Month's IMR Report</i>	\$ (6,515,604.90)
2	IMR Revenue Recognition	<i>Prior Annual IMR Report</i>	1,239,927.01
3	(Collections from IM Adjustment)	<i>see Separate Schedule</i>	(943,638.65)
4	Ending Balance Before Interest	<i>sum Lines 1 thru 3</i>	(6,219,316.54)
5	Average Balance	<i>(Line 1 + Line 4) / 2</i>	(6,367,460.72)
6	Accrued Interest	<i>Line 5 * Line 9</i>	(28,761.82)
7	Ending Balance After Interest	<i>Line 4 + Line 6</i>	\$ (6,248,078.36)
8	Applicable Annual Interest Rate	<i>same as for ACA</i>	0.054200
9	Monthly Interest Rate	<i>Line 8 / 12</i>	0.004517
10	Actual GL #0253139 EOM Balance	<i>per GL</i>	\$ (6,248,078.36)
11	Variance	<i>Line 7 - Line 10</i>	\$ -

Journal Entry: To Record Revenue

47136 0253139 GA489 PTOP	1,239,927.01
47136 0480000 GA489 PTOP 0526 RESVAL	(739,542.07)
47136 0481200 GA489 PTOP 0526 COMSTD	(386,857.23)
47136 0481000 GA489 PTOP 0526 INDSLS	(16,726.61)
47136 0483011 GA489 PTOP 0526 GASRSL	(347.18)
47136 0489000 GA489 PTOP 0526 BOTHRV	(96,453.92)

Journal Entry: To Record Interest

47136 0253139 GA626 PTOP	(28,761.82)
47136 0431150 GA626 PTOP 0526	28,761.82

General Ledger Support

Integrity Management Deferred Account Adjustment Recorded for the Month

Calculation of the IM Adjustment Collections:

		Oct-19			
Line No.		IM Adjustment (\$ per therm)	x	Usage (therms)	= Collections (\$)
1	Residential (301)	0.14605		2,335,813	341,145.49
2	Small General Sales (302)	0.12759		2,141,128	273,186.52
3	Medium General Sales (352)	0.12759		770,946	98,365.00
4	Experimental Motor Vehicle Fuel (343/352)	0.12759		2,354	300.35
5	Firm Lg General Sales (303)	0.05667		511,653	28,995.38
6	Experimental Motor Vehicle Fuel (343/303)	0.05667		33,951	1,924.00
7	Firm Lg General Transportation (313)	0.05667		1,493,317	84,626.27
8	Experimental Motor Vehicle Fuel (343/313)	0.05667		152,336	8,632.88
9	Firm Resale (310)	0.05667		1,449	82.11
10	Interruptible Lg General Sales (304)	0.01417		31,419	445.21
11	Interruptible Lg General Transportation (314)	0.01417		7,476,037	105,935.44
12	Total				\$ 943,638.65

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	341,145.49
47136 0481200 GA489 PTOP 0526 COMSTD	273,186.52
47136 0481200 GA489 PTOP 0526 COMSTD	98,665.35
47136 0481000 GA489 PTOP 0526 INDSL	30,919.38
47136 0489000 GA489 PTOP 0526 BOTHRV	93,259.15
47136 0483011 GA489 PTOP 0526 GASRSL	82.11
47136 0481000 GA489 PTOP 0526 INDSL	445.21
47136 0489000 GA489 PTOP 0526 BOTHRV	105,935.44
47136 0253139 GA489 PTOP	(943,638.65)

TPUC Docket No. 19-_____
Integrity Management Rider
Proposed Billing Rates for January 2020

PIEDMONT NATURAL GAS COMPANY, INC.
Tennessee Service Territory
Billing Rates Effective: January 1, 2020

Rate Schedule	Description	Tariff Rate Approved In Docket Nos. 11-00144 18-00040 <1>	-----Cumulative PGA-----		-----Current ACA-----		Current IPA	Current IM Adjustment	Temporary Decrements Approved in Docket No.18-00040		Total Adj. Factor (Sum Col.2 thru Col.8)	Proposed Billing Rate (Col.1+Col.9)
			Demand	Commodity	Demand	Commodity			Deferred Base Revenue Refund	Unprotected Excess ADIT Refund		
			<2>	<3>	<4a>	<4b>	<5>	<6>	<7>	<8>	<9>	<10>
Residential 301 301	Monthly Charge-Nov.-Mar.	\$17.45										\$17.45
	Monthly Charge-Apr.-Oct.	\$13.45										\$13.45
	Nov.- Mar. per TH	0.29009	0.07577	0.30997	(0.01596)	0.01920	0.00822	0.11596	(0.01958)	(0.04211)	0.45147	0.74156
	Apr.- Oct. per TH	0.24009	0.07577	0.30997	(0.01596)	0.01920	0.00822	0.11596	(0.01958)	(0.04211)	0.45147	0.69156
Small General 302 302	Monthly Charge	\$44.00										\$44.00
	Nov.- Mar. per TH	0.32787	0.07577	0.30997	(0.01596)	0.01920	0.00822	0.10130	(0.01710)	(0.03678)	0.44462	0.77249
	Apr.- Oct. per TH	0.27387	0.07577	0.30997	(0.01596)	0.01920	0.00822	0.10130	(0.01710)	(0.03678)	0.44462	0.71849
Medium General 352 352	Monthly Charge	\$225.00										\$225.00
	Nov.- Mar. per TH	0.32787	0.07577	0.30997	(0.01596)	0.01920	0.00822	0.10130	(0.01710)	(0.03678)	0.44462	0.77249
	Apr.- Oct. per TH	0.27387	0.07577	0.30997	(0.01596)	0.01920	0.00822	0.10130	(0.01710)	(0.03678)	0.44462	0.71849
Experimental Motor Vehicle Fuel 343 343	Monthly Charge											
	Nov.- Mar. per TH											
	Apr.- Oct. per TH											
303 Firm General Sales	Monthly Charge	\$800.00										\$800.00
	Demand Charge per TH	0.80000	0.82829		(0.25217)						0.57612	1.37612
	First 15,000 TH/TH	0.09195		0.30997		0.01920	0.00822	0.04499	(0.00319)	(0.00685)	0.37234	0.46429
	Next 25,000 TH/TH	0.08466		0.30997		0.01920	0.00822	0.04499	(0.00319)	(0.00685)	0.37234	0.45700
	Next 50,000 TH/TH	0.05963		0.30997		0.01920	0.00822	0.04499	(0.00319)	(0.00685)	0.37234	0.43197
	Over 90,000 TH/TH	0.02277		0.30997		0.01920	0.00822	0.04499	(0.00319)	(0.00685)	0.37234	0.39511
304 Interruptible General Sales	Monthly Charge	\$800.00										\$800.00
	First 15,000 TH/TH	0.09195		0.30997		0.01920	0.00822	0.01125	(0.00319)	(0.00685)	0.33860	0.43055
	Next 25,000 TH/TH	0.08466		0.30997		0.01920	0.00822	0.01125	(0.00319)	(0.00685)	0.33860	0.42326
	Next 50,000 TH/TH	0.05963		0.30997		0.01920	0.00822	0.01125	(0.00319)	(0.00685)	0.33860	0.39823
	Over 90,000 TH/TH	0.02277		0.30997		0.01920	0.00822	0.01125	(0.00319)	(0.00685)	0.33860	0.36137
313 Firm Transportation	Monthly Charge	\$800.00										\$800.00
	Demand Charge per TH	0.80000	0.82829		(0.25217)						0.57612	1.37612
	First 15,000 TH/TH	0.09195						0.04499	(0.00319)	(0.00685)	0.03495	0.12690
	Next 25,000 TH/TH	0.08466						0.04499	(0.00319)	(0.00685)	0.03495	0.11961
	Next 50,000 TH/TH	0.05963						0.04499	(0.00319)	(0.00685)	0.03495	0.09458
	Over 90,000 TH/TH	0.02277						0.04499	(0.00319)	(0.00685)	0.03495	0.05772
314 Interruptible Transportation	Monthly Charge	\$800.00										\$800.00
	First 15,000 TH/TH	0.09195						0.01125	(0.00319)	(0.00685)	0.00121	0.09316
	Next 25,000 TH/TH	0.08466						0.01125	(0.00319)	(0.00685)	0.00121	0.08587
	Next 50,000 TH/TH	0.05963						0.01125	(0.00319)	(0.00685)	0.00121	0.06084
	Over 90,000 TH/TH	0.02277						0.01125	(0.00319)	(0.00685)	0.00121	0.02398
310 Resale Service	Demand Charge per TH	0.80000	0.82829		(0.25217)						0.57612	1.37612
	Commodity Charge	0.07518		0.30997		0.01920	0.00822	0.04499	(0.00970)	(0.02086)	0.35182	0.42700

NOTES:

1/ In accordance with the Tennessee Public Service Commission order in Docket U-7074 customers metered inside Davidson County are required to pay an additional 6.02% for collection of the Metro Franchise Fee. Customers served by the Ashland City, Fairview, Greenbrier, Hartsville, Mt. Juliet and White House systems are required to pay 5.0%. Customers served by the Franklin and Nolensville systems are required to pay 3%.

TPUC Docket No. 19-_____
Integrity Management Rider
2019 Annual Report

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2018 thru October 2019)

General Ledger Support: Integrity Management Deferred Account Adjustment

Calculation of the IM Deferred Account Balance By Month

Amount Due From (To) Customers per GL Account No. 0253139

No.			Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19
1	Beginning Balance	Prior Month's IMR Report	\$ 1,375,025.85	\$ 440,480.62	\$ (1,476,834.13)	\$ (2,533,874.91)	\$ (4,148,478.90)	\$ (5,640,811.30)	\$ (6,497,448.12)	\$ (6,612,543.04)	\$ (6,632,296.45)	\$ (6,622,095.54)	\$ (6,560,239.87)	\$ (6,515,604.90)
2	IMR Revenue Recognition	Prior Annual IMR Report	2,031,731.19	3,234,491.64	4,456,561.59	4,240,902.01	3,202,192.54	2,069,310.80	1,310,134.87	927,722.41	863,795.36	870,548.13	871,459.90	1,239,927.01 1/
3	(Collections from IM Adjustment)	see Separate Schedule	(2,970,020.43)	(5,149,669.18)	(5,504,963.90)	(5,841,113.21)	(4,673,440.27)	(2,898,444.09)	(1,395,524.46)	(917,464.94)	(823,291.45)	(778,554.20)	(796,930.14)	(943,638.65)
4	Ending Balance Before Interest	sum Lines 1 thru 3	436,736.61	(1,474,696.92)	(2,525,236.44)	(4,134,086.11)	(5,619,726.63)	(6,469,944.59)	(6,582,837.71)	(6,602,285.57)	(6,591,792.54)	(6,530,101.61)	(6,485,710.11)	(6,219,316.54)
5	Average Balance	(Line 1 + Line 4) / 2	905,881.23	(517,108.15)	(2,001,035.29)	(3,333,980.51)	(4,884,102.77)	(6,055,377.95)	(6,540,142.92)	(6,607,414.31)	(6,612,044.50)	(6,576,098.58)	(6,522,974.99)	(6,367,460.72)
6	Accrued Interest	Line 5 * Line 9	3,744.01	(2,137.21)	(8,638.47)	(14,392.79)	(21,084.67)	(27,503.53)	(29,705.33)	(30,010.88)	(30,303.00)	(30,138.26)	(29,894.79)	(28,761.82)
7	Ending Balance After Interest	Line 4 + Line 6	\$ 440,480.62	\$ (1,476,834.13)	\$ (2,533,874.91)	\$ (4,148,478.90)	\$ (5,640,811.30)	\$ (6,497,448.12)	\$ (6,612,543.04)	\$ (6,632,296.45)	\$ (6,622,095.54)	\$ (6,560,239.87)	\$ (6,515,604.90)	\$ (6,248,078.36)
8	Applicable Annual Interest Rate	same as for ACA	0.049600	0.049600	0.051800	0.051800	0.051800	0.054500	0.054500	0.054500	0.055000	0.055000	0.055000	0.054200
9	Monthly Interest Rate	Line 8 / 12	0.004133	0.004133	0.004317	0.004317	0.004317	0.004542	0.004542	0.004542	0.004583	0.004583	0.004583	0.004517
10	Actual GL #0253139 EOM Balance	per GL	\$ 440,480.62	\$ (1,476,834.13)	\$ (2,963,515.67)	\$ (4,988,824.23)	\$ (6,793,496.04)	\$ (7,854,885.41)	\$ (6,612,543.04)	\$ (6,632,296.45)	\$ (6,622,095.54)	\$ (6,560,239.87)	\$ (6,515,604.90)	\$ (6,248,078.36)
11	Variance	Line 7 - Line 10	\$ -	\$ -	\$ 429,640.76	\$ 840,345.33	\$ 1,152,684.74	\$ 1,357,437.29	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - 2/

Journal Entry: To Record Revenue

47136 0253139 GA489 PTOPTOP	2,031,731.19	3,234,491.64	4,456,561.59	3,832,932.80	2,894,145.82	1,870,245.82	1,310,134.87	927,722.41	863,795.36	870,548.13	871,459.90	1,239,927.01
47136 0480000 GA489 PTOPTOP 0526 RESVAL	(1,211,805.75)	(1,929,180.19)	(2,402,368.59)	(2,286,114.44)	(1,726,184.34)	(1,115,489.42)	(781,416.85)	(553,330.76)	(515,202.10)	(519,229.73)	(519,773.54)	(739,542.07)
47136 0481200 GA489 PTOPTOP 0526 COMSTD	(633,900.13)	(1,009,161.39)	(1,256,688.01)	(1,195,875.04)	(902,973.49)	(583,516.70)	(408,762.07)	(289,449.40)	(269,504.16)	(271,611.02)	(271,895.49)	(386,857.23)
47136 0481000 GA489 PTOPTOP 0526 INDSLS	(27,408.06)	(43,633.29)	(54,335.65)	(51,706.26)	(39,042.03)	(25,229.61)	(17,673.72)	(12,514.97)	(11,652.60)	(11,743.69)	(11,755.99)	(16,726.61)
47136 0483011 GA489 PTOPTOP 0526 GASRSL	(568.88)	(905.66)	(1,127.80)	(1,073.22)	(810.36)	(523.67)	(366.84)	(259.76)	(241.86)	(243.75)	(244.01)	(347.18)
47136 0489000 GA489 PTOPTOP 0526 BOTHRV	(158,048.37)	(251,611.11)	(313,326.16)	(298,163.84)	(225,135.60)	(145,486.42)	(101,915.39)	(72,167.52)	(67,194.64)	(67,719.94)	(67,790.87)	(96,453.92)

Journal Entry: To Record Interest

47136 0253139 GA626 PTOPTOP	3,744.01	(2,137.21)	(8,638.47)	(14,392.79)	(21,084.67)	(27,503.53)	(29,705.33)	(30,010.88)	(30,303.00)	(30,138.26)	(29,894.79)	(28,761.82)
47136 0431150 GA626 PTOPTOP 0526	(3,744.01)	2,137.21	8,638.47	14,392.79	21,084.67	27,503.53	29,705.33	30,010.88	30,303.00	30,138.26	29,894.79	28,761.82

1/ Pursuant to the TPUC's May 20, 2019 ruling in Docket No. 18-00126, this schedule reflects the approved monthly amortization of the annual Integrity Management Revenue Requirement from Piedmont's 2018 Annual Integrity Management Rider Report, which was filed by the Company on November 30, 2018.

2/ Pursuant to the TPUC's ruling, Piedmont recorded the approved IM Revenue Requirement to its general ledger for January 2019 thru April 2019. It was recorded as a true-up adjustment in May 2019.

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2018 thru October 2019)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		October 2019			
		IM Adjustment		Usage	Collections
		(\$ per therm)	x	(therms)	= (\$)
<u>Line No.</u>					
1	Residential (301)	0.14605		2,335,813	341,145.49
2	Small General Sales (302)	0.12759		2,141,128	273,186.52
3	Medium General Sales (352)	0.12759		770,946	98,365.00
4	Experimental Motor Vehicle Fuel (343/352)	0.12759		2,354	300.35
5	Firm Lg General Sales (303)	0.05667		511,653	28,995.38
6	Experimental Motor Vehicle Fuel (343/303)	0.05667		33,951	1,924.00
7	Firm Lg General Transportation (313)	0.05667		1,493,317	84,626.27
8	Experimental Motor Vehicle Fuel (343/313)	0.05667		152,336	8,632.88
9	Firm Resale (310)	0.05667		1,449	82.11
10	Interruptible Lg General Sales (304)	0.01417		31,419	445.21
11	Interruptible Lg General Transportation (314)	0.01417		7,476,037	105,935.44
12	Total				\$ 943,638.65

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	341,145.49
47136 0481200 GA489 PTOP 0526 COMSTD	273,186.52
47136 0481200 GA489 PTOP 0526 COMSTD	98,665.35
47136 0481000 GA489 PTOP 0526 INDSLS	30,919.38
47136 0489000 GA489 PTOP 0526 BOTHRV	93,259.15
47136 0483011 GA489 PTOP 0526 GASRSL	82.11
47136 0481000 GA489 PTOP 0526 INDSLS	445.21
47136 0489000 GA489 PTOP 0526 BOTHRV	105,935.44
47136 0253139 GA489 PTOP	(943,638.65)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2018 thru October 2019)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		September 2019			
Line No.		IM Adjustment (\$ per therm)	x	Usage (therms)	= Collections (\$)
1	Residential (301)	0.14605		1,957,164	285,843.80
2	Small General Sales (302)	0.12759		1,934,048	246,765.18
3	Medium General Sales (352)	0.12759		665,300	84,885.63
4	Experimental Motor Vehicle Fuel (343/352)	0.12759		3,210	409.56
5	Firm Lg General Sales (303)	0.05667		346,308	19,625.27
6	Experimental Motor Vehicle Fuel (343/303)	0.05667		32,800	1,858.78
7	Firm Lg General Transportation (313)	0.05667		1,045,418	59,243.84
8	Experimental Motor Vehicle Fuel (343/313)	0.05667		147,727	8,371.69
9	Firm Resale (310)	0.05667		762	43.18
10	Interruptible Lg General Sales (304)	0.01417		29,494	417.93
11	Interruptible Lg General Transportation (314)	0.01417		6,313,711	89,465.28
12	Total				\$ 796,930.14

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	285,843.80
47136 0481200 GA489 PTOP 0526 COMSTD	246,765.18
47136 0481200 GA489 PTOP 0526 COMSTD	85,295.19
47136 0481000 GA489 PTOP 0526 INDSLS	21,484.05
47136 0489000 GA489 PTOP 0526 BOTHRV	67,615.53
47136 0483011 GA489 PTOP 0526 GASRSL	43.18
47136 0481000 GA489 PTOP 0526 INDSLS	417.93
47136 0489000 GA489 PTOP 0526 BOTHRV	89,465.28
47136 0253139 GA489 PTOP	(796,930.14)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2018 thru October 2019)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		August 2019			
Line No.		IM Adjustment (\$ per therm)	x	Usage (therms)	= Collections (\$)
1	Residential (301)	0.14605		1,853,321	270,677.53
2	Small General Sales (302)	0.12759		1,856,635	236,888.06
3	Medium General Sales (352)	0.12759		624,281	79,652.01
4	Experimental Motor Vehicle Fuel (343/352)	0.12759		3,866	493.26
5	Firm Lg General Sales (303)	0.05667		362,265	20,529.56
6	Experimental Motor Vehicle Fuel (343/303)	0.05667		34,372	1,947.86
7	Firm Lg General Transportation (313)	0.05667		1,166,777	66,121.25
8	Experimental Motor Vehicle Fuel (343/313)	0.05667		152,663	8,651.41
9	Firm Resale (310)	0.05667		751	42.56
10	Interruptible Lg General Sales (304)	0.01417		2,845	40.31
11	Interruptible Lg General Transportation (314)	0.01417		6,599,181	93,510.39
12	Total				\$ 778,554.20

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	270,677.53
47136 0481200 GA489 PTOP 0526 COMSTD	236,888.06
47136 0481200 GA489 PTOP 0526 COMSTD	80,145.27
47136 0481000 GA489 PTOP 0526 INDSLS	22,477.42
47136 0489000 GA489 PTOP 0526 BOTHRV	74,772.66
47136 0483011 GA489 PTOP 0526 GASRSL	42.56
47136 0481000 GA489 PTOP 0526 INDSLS	40.31
47136 0489000 GA489 PTOP 0526 BOTHRV	93,510.39
47136 0253139 GA489 PTOP	(778,554.20)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2018 thru October 2019)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		July 2019			
Line No.		IM Adjustment (\$ per therm)	x	Usage (therms)	= Collections (\$)
1	Residential (301)	0.14605		2,012,046	293,859.32
2	Small General Sales (302)	0.12759		1,982,692	252,971.67
3	Medium General Sales (352)	0.12759		684,020	87,274.11
4	Experimental Motor Vehicle Fuel (343/352)	0.12759		4,804	612.94
5	Firm Lg General Sales (303)	0.05667		337,253	19,112.13
6	Experimental Motor Vehicle Fuel (343/303)	0.05667		38,219	2,165.87
7	Firm Lg General Transportation (313)	0.05667		1,114,796	63,175.49
8	Experimental Motor Vehicle Fuel (343/313)	0.05667		151,495	8,585.22
9	Firm Resale (310)	0.05667		675	38.25
10	Interruptible Lg General Sales (304)	0.01417		9,547	135.28
11	Interruptible Lg General Transportation (314)	0.01417		6,729,793	95,361.17
12	Total				\$ 823,291.45

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	293,859.32
47136 0481200 GA489 PTOP 0526 COMSTD	252,971.67
47136 0481200 GA489 PTOP 0526 COMSTD	87,887.05
47136 0481000 GA489 PTOP 0526 INDSLS	21,278.00
47136 0489000 GA489 PTOP 0526 BOTHRV	71,760.71
47136 0483011 GA489 PTOP 0526 GASRSL	38.25
47136 0481000 GA489 PTOP 0526 INDSLS	135.28
47136 0489000 GA489 PTOP 0526 BOTHRV	95,361.17
47136 0253139 GA489 PTOP	(823,291.45)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2018 thru October 2019)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		June 2019			
		IM Adjustment		Usage	Collections
		(\$ per therm)	x	(therms)	=
					(\$)
Line No.					
1	Residential (301)	0.14605		2,502,052	365,424.69
2	Small General Sales (302)	0.12759		2,129,356	271,684.53
3	Medium General Sales (352)	0.12759		720,606	91,942.12
4	Experimental Motor Vehicle Fuel (343/352)	0.12759		4,213	537.54
5	Firm Lg General Sales (303)	0.05667		339,531	19,241.22
6	Experimental Motor Vehicle Fuel (343/303)	0.05667		33,996	1,926.55
7	Firm Lg General Transportation (313)	0.05667		1,177,264	66,715.55
8	Experimental Motor Vehicle Fuel (343/313)	0.05667		139,634	7,913.06
9	Firm Resale (310)	0.05667		500	28.34
10	Interruptible Lg General Sales (304)	0.01417		12,359	175.13
11	Interruptible Lg General Transportation (314)	0.01417		6,483,854	91,876.21
12	Total				\$ 917,464.94

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	365,424.69
47136 0481200 GA489 PTOP 0526 COMSTD	271,684.53
47136 0481200 GA489 PTOP 0526 COMSTD	92,479.66
47136 0481000 GA489 PTOP 0526 INDSLS	21,167.77
47136 0489000 GA489 PTOP 0526 BOTHRV	74,628.61
47136 0483011 GA489 PTOP 0526 GASRSL	28.34
47136 0481000 GA489 PTOP 0526 INDSLS	175.13
47136 0489000 GA489 PTOP 0526 BOTHRV	91,876.21
47136 0253139 GA489 PTOP	(917,464.94)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2018 thru October 2019)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		May 2019			
		IM Adjustment		Usage	Collections
		(\$ per therm)	x	(therms)	= (\$)
Line No.					
1	Residential (301)	0.16057		4,180,337	671,236.71
2	Small General Sales (302)	0.14027		2,719,260	381,430.60
3	Medium General Sales (352)	0.14027		842,963	118,242.42
4	Experimental Motor Vehicle Fuel (343/352)	0.14027		3,172	444.94
5	Firm Lg General Sales (303)	0.06230		386,654	24,088.54
6	Experimental Motor Vehicle Fuel (343/303)	0.06230		33,612	2,094.03
7	Firm Lg General Transportation (313)	0.06230		1,301,710	81,096.53
8	Experimental Motor Vehicle Fuel (343/313)	0.06230		148,148	9,229.62
9	Firm Resale (310)	0.06230		553	34.45
10	Interruptible Lg General Sales (304)	0.01557		9,094	141.59
11	Interruptible Lg General Transportation (314)	0.01557		6,903,342	107,485.03
12	Total				\$ 1,395,524.46

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	671,236.71
47136 0481200 GA489 PTOP 0526 COMSTD	381,430.60
47136 0481200 GA489 PTOP 0526 COMSTD	118,687.36
47136 0481000 GA489 PTOP 0526 INDSLS	26,182.57
47136 0489000 GA489 PTOP 0526 BOTHRV	90,326.15
47136 0483011 GA489 PTOP 0526 GASRSL	34.45
47136 0481000 GA489 PTOP 0526 INDSLS	141.59
47136 0489000 GA489 PTOP 0526 BOTHRV	107,485.03
47136 0253139 GA489 PTOP	(1,395,524.46)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2018 thru October 2019)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		April 2019			
		IM Adjustment		Usage	Collections
		(\$ per therm)	x	(therms)	=
					(\$)
Line No.					
1	Residential (301)	0.16057		10,706,784	1,719,188.31
2	Small General Sales (302)	0.14027		5,097,326	715,001.92
3	Medium General Sales (352)	0.14027		1,519,409	213,127.50
4	Experimental Motor Vehicle Fuel (343/352)	0.14027		736	103.24
5	Firm Lg General Sales (303)	0.06230		497,991	31,024.84
6	Experimental Motor Vehicle Fuel (343/303)	0.06230		30,983	1,930.24
7	Firm Lg General Transportation (313)	0.06230		1,519,316	94,653.39
8	Experimental Motor Vehicle Fuel (343/313)	0.06230		147,280	9,175.54
9	Firm Resale (310)	0.06230		977	60.87
10	Interruptible Lg General Sales (304)	0.01557		13,788	214.68
11	Interruptible Lg General Transportation (314)	0.01557		7,319,432	113,963.56
12	Total				\$ 2,898,444.09

Journal Entry: To Record Collections

47136 0480000 GA489 PTO5 0526 RESVAL	1,719,188.31
47136 0481200 GA489 PTO5 0526 COMSTD	715,001.92
47136 0481200 GA489 PTO5 0526 COMSTD	213,230.74
47136 0481000 GA489 PTO5 0526 INDSLS	32,955.08
47136 0489000 GA489 PTO5 0526 BOTHRV	103,828.93
47136 0483011 GA489 PTO5 0526 GASRSL	60.87
47136 0481000 GA489 PTO5 0526 INDSLS	214.68
47136 0489000 GA489 PTO5 0526 BOTHRV	113,963.56
47136 0253139 GA489 PTO5	(2,898,444.09)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2018 thru October 2019)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		March 2019			
Line No.		IM Adjustment (\$ per therm)	x	Usage (therms)	= Collections (\$)
1	Residential (301)	0.16057		18,029,455	2,894,989.59
2	Small General Sales (302)	0.14027		7,854,945	1,101,813.14
3	Medium General Sales (352)	0.14027		2,353,642	330,145.36
4	Experimental Motor Vehicle Fuel (343/352)	0.14027		277	38.85
5	Firm Lg General Sales (303)	0.06230		882,280	54,966.04
6	Experimental Motor Vehicle Fuel (343/303)	0.06230		31,421	1,957.53
7	Firm Lg General Transportation (313)	0.06230		2,147,258	133,774.17
8	Experimental Motor Vehicle Fuel (343/313)	0.06230		138,055	8,600.83
9	Firm Resale (310)	0.06230		2,641	164.53
10	Interruptible Lg General Sales (304)	0.01557		17,383	270.65
11	Interruptible Lg General Transportation (314)	0.01557		9,423,223	146,719.58
12	Total				\$ 4,673,440.27

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	2,894,989.59
47136 0481200 GA489 PTOP 0526 COMSTD	1,101,813.14
47136 0481200 GA489 PTOP 0526 COMSTD	330,184.21
47136 0481000 GA489 PTOP 0526 INDSLS	56,923.57
47136 0489000 GA489 PTOP 0526 BOTHRV	142,375.00
47136 0483011 GA489 PTOP 0526 GASRSL	164.53
47136 0481000 GA489 PTOP 0526 INDSLS	270.65
47136 0489000 GA489 PTOP 0526 BOTHRV	146,719.58
47136 0253139 GA489 PTOP	(4,673,440.27)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2018 thru October 2019)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		February 2019			
		IM Adjustment		Usage	Collections
		(\$ per therm)	x	(therms)	=
					(\$)
Line No.					
1	Residential (301)	0.16057		23,389,331	3,755,624.88
2	Small General Sales (302)	0.14027		9,672,283	1,356,731.14
3	Medium General Sales (352)	0.14027		2,887,034	404,964.26
4	Experimental Motor Vehicle Fuel (343/352)	0.14027		383	53.72
5	Firm Lg General Sales (303)	0.06230		846,713	52,750.22
6	Experimental Motor Vehicle Fuel (343/303)	0.06230		28,386	1,768.45
7	Firm Lg General Transportation (313)	0.06230		2,002,913	124,781.48
8	Experimental Motor Vehicle Fuel (343/313)	0.06230		131,397	8,186.03
9	Firm Resale (310)	0.06230		2,482	154.63
10	Interruptible Lg General Sales (304)	0.01557		16,843	262.25
11	Interruptible Lg General Transportation (314)	0.01557		8,724,223	135,836.15
12	Total				\$ 5,841,113.21

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	3,755,624.88
47136 0481200 GA489 PTOP 0526 COMSTD	1,356,731.14
47136 0481200 GA489 PTOP 0526 COMSTD	405,017.98
47136 0481000 GA489 PTOP 0526 INDSLS	54,518.67
47136 0489000 GA489 PTOP 0526 BOTHRV	132,967.51
47136 0483011 GA489 PTOP 0526 GASRSL	154.63
47136 0481000 GA489 PTOP 0526 INDSLS	262.25
47136 0489000 GA489 PTOP 0526 BOTHRV	135,836.15
47136 0253139 GA489 PTOP	(5,841,113.21)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2018 thru October 2019)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		January 2019			
Line No.		IM Adjustment (\$ per therm)	x	Usage (therms)	= Collections (\$)
1	Residential (301)	0.16057		21,062,323	3,381,977.20
2	Small General Sales (302)	0.14027		9,393,889	1,317,680.81
3	Medium General Sales (352)	0.14027		2,835,519	397,738.25
4	Experimental Motor Vehicle Fuel (343/352)	0.14027		192	26.93
5	Firm Lg General Sales (303)	0.06230		1,121,675	69,880.35
6	Experimental Motor Vehicle Fuel (343/303)	0.06230		31,059	1,934.98
7	Firm Lg General Transportation (313)	0.06230		2,628,388	163,748.57
8	Experimental Motor Vehicle Fuel (343/313)	0.06230		149,980	9,343.75
9	Firm Resale (310)	0.06230		4,033	251.26
10	Interruptible Lg General Sales (304)	0.01557		26,745	416.42
11	Interruptible Lg General Transportation (314)	0.01557		10,402,401	161,965.38
12	Total				\$ 5,504,963.90

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	3,381,977.20
47136 0481200 GA489 PTOP 0526 COMSTD	1,317,680.81
47136 0481200 GA489 PTOP 0526 COMSTD	397,765.18
47136 0481000 GA489 PTOP 0526 INDSLS	71,815.33
47136 0489000 GA489 PTOP 0526 BOTHRV	173,092.32
47136 0483011 GA489 PTOP 0526 GASRSL	251.26
47136 0481000 GA489 PTOP 0526 INDSLS	416.42
47136 0489000 GA489 PTOP 0526 BOTHRV	161,965.38
47136 0253139 GA489 PTOP	(5,504,963.90)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2018 thru October 2019)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		December 2018				
		IM Adjustment		Usage	Collections	
		(\$ per therm)	x	(therms)	=	(\$)
Line No.						
1	Residential (301)	0.16057		19,992,349		3,210,171.48
2	Small General Sales (302)	0.14027		8,557,208		1,200,319.57
3	Medium General Sales (352)	0.14027		2,627,974		368,625.91
4	Experimental Motor Vehicle Fuel (343/352)	0.14027		-		-
5	Firm Lg General Sales (303)	0.06230		1,017,504		63,390.50
6	Experimental Motor Vehicle Fuel (343/303)	0.06230		30,555		1,903.58
7	Firm Lg General Transportation (313)	0.06230		2,348,972		146,340.96
8	Experimental Motor Vehicle Fuel (343/313)	0.06230		130,456		8,127.41
9	Firm Resale (310)	0.06230		3,181		198.18
10	Interruptible Lg General Sales (304)	0.01557		27,269		424.58
11	Interruptible Lg General Transportation (314)	0.01557		9,644,638		150,167.01
12	Total					\$ 5,149,669.18

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	3,210,171.48
47136 0481200 GA489 PTOP 0526 COMSTD	1,200,319.57
47136 0481200 GA489 PTOP 0526 COMSTD	368,625.91
47136 0481000 GA489 PTOP 0526 INDSLS	65,294.08
47136 0489000 GA489 PTOP 0526 BOTHRV	154,468.37
47136 0483011 GA489 PTOP 0526 GASRSL	198.18
47136 0481000 GA489 PTOP 0526 INDSLS	424.58
47136 0489000 GA489 PTOP 0526 BOTHRV	150,167.01
47136 0253139 GA489 PTOP	(5,149,669.18)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2018 thru October 2019)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		November 2018			
		IM Adjustment		Usage	Collections
		(\$ per therm)	x	(therms)	=
					(\$)
Line No.					
1	Residential (301)	0.16057		10,307,018	1,654,997.88
2	Small General Sales (302)	0.14027		5,194,641	728,652.29
3	Medium General Sales (352)	0.14027		1,732,494	243,016.93
4	Experimental Motor Vehicle Fuel (343/352)	0.14027		11	1.54
5	Firm Lg General Sales (303)	0.06230		817,101	50,905.39
6	Experimental Motor Vehicle Fuel (343/303)	0.06230		30,759	1,916.29
7	Firm Lg General Transportation (313)	0.06230		2,191,121	136,506.84
8	Experimental Motor Vehicle Fuel (343/313)	0.06230		136,704	8,516.66
9	Firm Resale (310)	0.06230		2,826	176.06
10	Interruptible Lg General Sales (304)	0.01557		38,910	605.83
11	Interruptible Lg General Transportation (314)	0.01557		9,295,101	144,724.72
12	Total				\$ 2,970,020.43

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	1,654,997.88
47136 0481200 GA489 PTOP 0526 COMSTD	728,652.29
47136 0481200 GA489 PTOP 0526 COMSTD	243,018.47
47136 0481000 GA489 PTOP 0526 INDSLS	52,821.68
47136 0489000 GA489 PTOP 0526 BOTHRV	145,023.50
47136 0483011 GA489 PTOP 0526 GASRSL	176.06
47136 0481000 GA489 PTOP 0526 INDSLS	605.83
47136 0489000 GA489 PTOP 0526 BOTHRV	144,724.72
47136 0253139 GA489 PTOP	(2,970,020.43)

Computation of the Integrity Management Adjustment

Line No.	Rider Rate Period	Reference	Residential (301)	Small/Medium General (302,352)	Large General - Firm (303,313,310)	Large General - Interruptible (304,314)	Total
Jan 1 2020 -Dec 31 2020							
1	Customer Class Apportionment Percent	[Schedule 4]	59.6439%	31.2006%	4.9463%	4.2091%	100.0000%
2	IMRR for Recovery, excluding Refund Adjustment	[= Total from Schedule 5 x Line 1]	\$ 16,632,864	\$ 8,700,893	\$ 1,379,382	\$ 1,173,800	\$ 27,886,939
3	Deferred Account Adjustment Due From (To) Customers	Actual Deferred Account Balance at Oct 31, 2019	\$ (3,726,599)	\$ (1,949,438)	\$ (309,051)	\$ (262,990)	\$ (6,248,078)
4	Total Amount for Recovery in this Rider	[= Line 2 + Line 3]	\$ 12,906,265	\$ 6,751,455	\$ 1,070,331	\$ 910,810	\$ 21,638,861
5	Throughput from Relevant Rate Case Order (Dekatherms)	[Schedule 4]	11,130,214	6,664,958	2,378,880	8,098,027	28,272,079
6	Rate per Dekatherm	[= Line 4 / Line 5]	\$1.15960	\$1.01300	\$0.44990	\$0.11250	
7	Proposed Integrity Management Rate per therm	[= Line 6 / 10]	\$0.11596	\$0.10130	\$0.04499	\$0.01125	
As previously approved:							
Jan 1 2019 -Dec 31 2019							
8	Customer Class Apportionment Percent	[Schedule 4]	59.6439%	31.2006%	4.9463%	4.2091%	100.0000%
9	IMRR for Recovery, excluding Refund Adjustment	[= Total from Schedule 5 x Line 1]	\$ 15,435,431	\$ 8,074,499	\$ 1,280,077	\$ 1,089,296	\$ 25,879,303
10	Deferred Account Adjustment Due From (To) Customers	Actual Deferred Account Balance at Oct 31, 2018	\$ 820,119	\$ 429,016	\$ 68,013	\$ 57,877	\$ 1,375,026
11	Total Amount for Recovery in this Rider	[= Line 2 + Line 3]	\$ 16,255,550	\$ 8,503,515	\$ 1,348,091	\$ 1,147,173	\$ 27,254,329
12	Throughput from Relevant Rate Case Order (Dekatherms)	[Schedule 4]	11,130,214	6,664,958	2,378,880	8,098,027	28,272,079
13	Rate per Dekatherm	[= Line 4 / Line 5]	\$1.46050	\$1.27590	\$0.56670	\$0.14170	
14	Proposed Integrity Management Rate per therm	[= Line 6 / 10]	\$0.14605	\$0.12759	\$0.05667	\$0.01417	

Allocators from the Relevant Rate Case Order (Docket 11-00144)

Margin	Annual Total	Allocation %
Residential (301)	\$ 62,049,925	59.64%
Small & Medium General Service (302, 352)	32,459,219	31.20%
Large General Service - Firm (303, 313, 310)	5,145,869	4.95%
Large General Service - Interruptible (304, 314)	4,378,934	4.21%
Total	\$ 104,033,947	100.00%

Throughput (DTs)	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Total</u>
Residential (301)	973,336	1,730,608	2,359,111	2,385,891	1,619,952	916,259	373,476	147,666	108,017	107,902	110,242	297,754	11,130,214
Small & Medium General Service (302, 352)	584,122	941,038	1,236,854	1,246,332	886,901	542,351	290,661	185,427	166,853	166,553	166,151	251,717	6,664,958
Large General Service - Firm (303, 313, 310)	215,868	357,459	373,276	272,366	238,238	161,907	152,836	108,789	110,733	112,060	121,273	154,075	2,378,880
Large General Service - Interruptible (304, 314)	682,506	880,548	899,370	728,423	753,173	640,120	614,296	571,617	558,058	564,523	554,369	651,023	8,098,027
Total	2,455,831	3,909,653	4,868,611	4,633,012	3,498,264	2,260,637	1,431,269	1,013,499	943,661	951,038	952,034	1,354,569	28,272,079
Throughput Apportionment	8.69%	13.83%	17.22%	16.39%	12.37%	8.00%	5.06%	3.58%	3.34%	3.36%	3.37%	4.79%	100.00%

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

2019 IMR Annual Report
Schedule 5

Summary of IMRR Computation

Line No.	Vintage Year	Rate Period Jan 1 2019 - Dec 31 2019	Rate Period Jan 1 2020 - Dec 31 2020
1	Vintage 1	\$ 10,598,010	\$ 8,765,184
2	Vintage 2	4,819,830	4,720,636
3	Vintage 3	1,686,918	1,651,941
4	Vintage 4	1,882,949	1,843,064
5	Vintage 5	3,666,757	3,574,259
6	Vintage 6	3,224,839	3,132,515
7	Vintage 7	n/a	4,199,339
8	Total	25,879,303	27,886,939
9	Total IMRR, excluding IM Deferred Account Adjustment	\$ 25,879,303	\$ 27,886,939

Spread of Total IMRR, excluding IM Deferred Adjustment, by Month

10	January	\$ 4,456,562	\$ 4,802,288
11	February	4,240,902	4,569,898
12	March	3,202,193	3,450,609
13	April	2,069,311	2,229,842
14	May	1,310,135	1,411,771
15	June	927,722	999,692
16	July	863,795	930,806
17	August	870,548	938,083
18	September	871,460	939,065
19	October	1,239,927	1,336,117
20	November	2,247,984	2,422,376
21	December	3,578,764	3,856,393
22	Total	\$ 25,879,303	\$ 27,886,939

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 1 - March 1, 2012 thru October 31, 2013

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>
Plant	100,306,283	100,306,283	100,306,283	100,306,283	100,306,283	100,306,283	100,306,283
Accumulated depreciation	(974,476)	(2,428,917)	(3,883,358)	(5,337,799)	(6,792,240)	(8,246,681)	(9,701,122)
Net plant	99,331,807	97,877,366	96,422,925	94,968,484	93,514,043	92,059,602	90,605,161
ADIT	(4,057,566)	(6,977,762)	(9,549,872)	(24,529,845)	(25,236,572)	(25,647,749)	(26,041,086)
NOL benefit	-	-	-	24,529,845	21,449,590	18,707,682	2,006,468
Net investment	95,274,242	90,899,604	86,873,053	94,968,484	89,727,060	85,119,535	66,570,543
Pre-tax ROR%	11.446%	11.446%	11.446%	11.446%	9.878%	9.878%	9.878%
Pre-tax rate of return	10,904,782	10,404,075	9,943,209	10,869,786	8,863,198	8,408,069	6,575,808
Depreciation expense	1,454,441	1,454,441	1,454,441	1,454,441	1,454,441	1,454,441	1,454,441
Property Tax expense	732,236	732,236	732,236	732,236	732,236	732,236	732,236
Total, excluding uncollectibles	13,091,459	12,590,752	12,129,886	13,056,463	11,049,875	10,594,746	8,762,485
Uncollectibles gross-up factor	1.000308	1.000308	1.000308	1.000308	1.000308	1.000308	1.000308
Total revenue requirement	13,095,492	12,594,631	12,133,623	13,060,485	11,053,279	10,598,010	8,765,184
<u>Assumptions and calculations:</u>							
Rider computed each year.							
Normal depreciation and AFUDC practices apply, AFUDC ends and depreciation begins when plant goes into service.							
Net of tax rate of return	6.96%	6.96%	6.96%	6.96%	7.30%	7.30%	7.30%

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 1 - March 1, 2012 thru October 31, 2013

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>
Plant amount	100,306,283						
Book depreciation rate	1.45%						
Property Tax Rate	0.73%						
Tax depreciation	MACRS 15 Years 1 - 3						
Tax depreciation	BONUS 50% Years 4 - 6						
Plant in service date for this Vintage	31-Oct-13						
Original Rider effective date for this Vintage	1-Jan-14						
Fiscal year end for this Vintage	31-Oct-13						
SIT rate	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%
FIT rate	35.00%	35.00%	35.00%	35.00%	21.00%	21.00%	21.00%
Composite income tax rate	39.23%	39.23%	39.23%	39.23%	26.14%	26.14%	26.14%
Uncollectibles rate	0.0308%	0.0308%	0.0308%	0.0308%	0.0308%	0.0308%	0.0308%
Revenue requirement gross-up factor	1.000308	1.000308	1.000308	1.000308	1.000308	1.000308	1.000308
<u>Capital structure assumptions (rate case):</u>							
LTD	41.42%						
STD	5.87%						
Common equity	52.71%						
<u>Capital cost rate assumptions (rate case):</u>							
LTD	6.05%						
STD	1.59%						
Common equity	10.20%						
<u>Overall and pre-tax RORs</u>							
	<u>Overall</u>	<u>Pre-tax RORs</u>					
LTD	2.506%	2.506%	2.506%	2.506%	2.506%	2.506%	2.506%
STD	0.093%	0.093%	0.093%	0.093%	0.093%	0.093%	0.093%
Common equity	5.376%	8.846%	8.846%	8.846%	8.846%	7.279%	7.279%
Total	7.976%	11.446%	11.446%	11.446%	11.446%	9.878%	9.878%

Piedmont Natural Gas Company, Inc.
 Integrity Management Rider
 State of Tennessee
 TPUC Docket No. 19- _____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 1 - March 1, 2012 thru October 31, 2013

2019 IMR Annual Report
 Schedule 6
 Page 3 of 4

Tax depreciation schedule

Rate	MACRS 15		BONUS 50%	
	Yearly	Cumulative	Yearly	Cumulative
Tax year 1	5.00%	5,015,314	52,660,799	
Tax year 2	9.50%	9,529,097	14,544,411	4,764,548
Tax year 3	8.55%	8,576,187	23,120,598	4,288,094
Tax year 4	7.70%	7,723,584	30,844,182	3,861,792
Tax year 5	6.93%	6,951,225	37,795,407	3,475,613
Tax year 6	6.23%	6,249,081	44,044,489	3,124,541
Tax year 7	5.90%	5,918,071	49,962,560	2,959,035
Tax year 8	5.90%	5,918,071	55,880,630	2,959,035
Tax year 9	5.91%	5,928,101	61,808,732	2,964,051
Tax year 10	5.90%	5,918,071	67,726,802	2,959,035
Tax year 11	5.91%	5,928,101	73,654,904	2,964,051
Tax year 12	5.90%	5,918,071	79,572,974	2,959,035
Tax year 13	5.91%	5,928,101	85,501,076	2,964,051
Tax year 14	5.90%	5,918,071	91,419,146	2,959,035
Tax year 15	5.91%	5,928,101	97,347,248	2,964,051
Tax year 16	2.95%	2,959,035	100,306,283	1,479,518
Total	100.00%	100,306,283	100,306,283	

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Accumulated depreciation							
Portion of year in service before rider	17%						
Pre-rider amount of depreciation	247,255						
Rider year BOY amount	247,255	1,701,696	3,156,137	4,610,578	6,065,019	7,519,461	8,973,902
Depreciation expense	1,454,441	1,454,441	1,454,441	1,454,441	1,454,441	1,454,441	1,454,441
Rider year EOY amount	1,701,696	3,156,137	4,610,578	6,065,019	7,519,461	8,973,902	10,428,343
Average accumulated depreciation	974,476	2,428,917	3,883,358	5,337,799	6,792,240	8,246,681	9,701,122

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 1 - March 1, 2012 thru October 31, 2013

2019 IMR Annual Report
Schedule 6
Page 4 of 4

MACRS 15							
Tax depreciation reserve	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
FY of completion tax depreciation	5,015,314						
Post FY tax depreciation to rider date	17%						
Tax year 2 tax depreciation	9,529,097						
Tax year 2 pre-rider tax depr	1,619,946						
Rider year BOY amount	6,635,261	16,002,363	24,433,607	32,025,890	38,857,751	45,050,561	50,968,632
Tax period A tax depreciation	7,909,150	7,118,235	6,410,575	5,769,517	5,186,738	4,911,999	4,911,999
Tax period B tax depreciation	1,457,952	1,313,009	1,181,708	1,062,344	1,006,072	1,006,072	1,007,777
Rider year EOY amount	16,002,363	24,433,607	32,025,890	38,857,751	45,050,561	50,968,632	56,888,407
Average tax depreciation reserve	11,318,812	20,217,985	28,229,749	35,441,821	41,954,156	48,009,596	53,928,520
Note - gap between fiscal year and rider year addressed by tax period A and tax period B.							
<u>Accumulated deferred taxes</u>							
Average tax depreciation reserve	11,318,812	20,217,985	28,229,749	35,441,821	41,954,156	48,009,596	53,928,520
Average book depreciation reserve	974,476	2,428,917	3,883,358	5,337,799	6,792,240	8,246,681	9,701,122
Difference	10,344,336	17,789,069	24,346,391	30,104,022	35,161,916	39,762,915	44,227,397
Tax difference balance	10,344,336	17,789,069	24,346,391	30,104,022	35,161,916	35,161,916	35,161,916
Composite tax rate w 35% FIT rate	39.23%	39.23%	39.23%	39.23%	39.23%	39.23%	39.23%
Incremental tax difference beginning Year 6	-	-	-	-	-	4,600,999	9,065,481
Composite tax rate w 21% FIT rate	0.00%	0.00%	0.00%	0.00%	0.00%	26.14%	26.14%
Average ADIT	4,057,566	6,977,762	9,549,872	11,808,303	13,792,262	14,994,733	16,161,525
Note - composite tax rate ignores excess deferred tax flowback							
BONUS 50%							
Tax depreciation reserve							
FY of completion tax depreciation	52,660,799						
Post FY tax depreciation to rider date	17%						
Tax year 2 tax depreciation	4,764,548						
Tax year 2 pre-rider tax depr	809,973						
Rider year BOY amount	53,470,772	58,154,323	62,369,945	66,166,087	69,582,017	72,678,422	75,637,457
Tax period A tax depreciation	3,954,575	3,559,118	3,205,287	2,884,759	2,593,369	2,455,999	2,455,999
Tax period B tax depreciation	728,976	656,505	590,854	531,172	503,036	503,036	503,889
Rider year EOY amount	58,154,323	62,369,945	66,166,087	69,582,017	72,678,422	75,637,457	78,597,345
Average tax depreciation reserve	55,812,547	60,262,134	64,268,016	67,874,052	71,130,220	74,157,940	77,117,401
Note - gap between fiscal year and rider year addressed by tax period A and tax period B.							
<u>Accumulated deferred taxes</u>							
Average tax depreciation reserve	55,812,547	60,262,134	64,268,016	67,874,052	71,130,220	74,157,940	77,117,401
Average book depreciation reserve	974,476	2,428,917	3,883,358	5,337,799	6,792,240	8,246,681	9,701,122
Difference	54,838,072	57,833,217	60,384,658	62,536,253	64,337,980	65,911,259	67,416,279
Tax difference balance	54,838,072	57,833,217	60,384,658	62,536,253	64,337,980	64,337,980	64,337,980
Composite tax rate w 35% FIT rate	39.23%	39.23%	39.23%	39.23%	39.23%	39.23%	39.23%
Incremental tax difference beginning Year 6	-	-	-	-	-	1,573,279	3,078,300
Composite tax rate w 21% FIT rate	0.00%	0.00%	0.00%	0.00%	0.00%	26.14%	26.14%
Average ADIT	21,510,234	22,685,080	23,685,882	24,529,845	25,236,572	25,647,749	26,041,086

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19- _____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 2 - November 1, 2013 thru October 31, 2014

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>
Plant	53,974,676	53,974,676	53,974,676	53,974,676	53,974,676	53,974,676
Accumulated depreciation	(524,364)	(1,306,997)	(2,089,630)	(2,872,262)	(3,654,895)	(4,437,528)
Net plant	53,450,312	52,667,679	51,885,047	51,102,414	50,319,781	49,537,148
ADIT	(2,183,371)	(3,754,724)	(12,745,341)	(13,199,477)	(13,452,857)	(13,674,111)
NOL benefit			1,075,611	-	-	-
Net investment	51,266,941	48,912,955	40,215,316	37,902,937	36,866,924	35,863,037
Pre-tax ROR%	11.446%	11.446%	11.446%	9.878%	9.878%	9.878%
Pre-tax rate of return	5,867,848	5,598,419	4,602,915	3,744,035	3,641,698	3,542,534
Depreciation expense	782,633	782,633	782,633	782,633	782,633	782,633
Property Tax expense	394,015	394,015	394,015	394,015	394,015	394,015
Total, excluding uncollectibles	7,044,496	6,775,067	5,779,563	4,920,683	4,818,346	4,719,182
Uncollectibles gross-up factor	1.000308	1.000308	1.000308	1.000308	1.000308	1.000308
Total revenue requirement	7,046,667	6,777,154	5,781,344	4,922,199	4,819,830	4,720,636
<u>Assumptions and calculations:</u>						
Rider computed each year.						
Normal depreciation and AFUDC practices apply, AFUDC ends and depreciation begins when plant goes into service.						
Net of tax rate of return	6.96%	6.96%	6.96%	7.30%	7.30%	7.30%

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 2 - November 1, 2013 thru October 31, 2014

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>
Plant amount	53,974,676					
Book depreciation rate	1.45%					
Property Tax Rate	0.73%					
Tax depreciation	MACRS 15 Years 1 - 2					
Tax depreciation	BONUS 50% Years 3 - 5					
Plant in service date for this Vintage	31-Oct-14					
Original Rider effective date for this Vintage	1-Jan-15					
Fiscal year end for this Vintage	31-Oct-14					
SIT rate	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%
FIT rate	35.00%	35.00%	35.00%	21.00%	21.00%	21.00%
Composite income tax rate	39.23%	39.23%	39.23%	26.14%	26.14%	26.14%
Uncollectibles rate	0.0308%	0.0308%	0.0308%	0.0308%	0.0308%	0.0308%
Revenue requirement gross-up factor	1.000308	1.000308	1.000308	1.000308	1.000308	1.000308
<u>Capital structure assumptions (rate case):</u>						
LTD	41.42%					
STD	5.87%					
Common equity	52.71%					
<u>Capital cost rate assumptions (rate case):</u>						
LTD	6.05%					
STD	1.59%					
Common equity	10.20%					
<u>Overall and pre-tax RORs</u>						
	<u>Overall</u>	<u>Pre-tax RORs</u>				
LTD	2.506%	2.506%	2.506%	2.506%	2.506%	2.506%
STD	0.093%	0.093%	0.093%	0.093%	0.093%	0.093%
Common equity	5.376%	8.846%	8.846%	8.846%	7.279%	7.279%
Total	7.976%	11.446%	11.446%	11.446%	9.878%	9.878%

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 2 - November 1, 2013 thru October 31, 2014

Tax depreciation schedule

	Rate	MACRS 15		BONUS 50%	
		Yearly	Cumulative	Yearly	Cumulative
Tax year 1	5.00%	2,698,734		28,336,705	30,900,502
Tax year 2	9.50%	5,127,594	7,826,328	2,563,797	33,207,920
Tax year 3	8.55%	4,614,835	12,441,163	2,307,417	35,285,945
Tax year 4	7.70%	4,156,050	16,597,213	2,078,025	37,156,167
Tax year 5	6.93%	3,740,445	20,337,658	1,870,223	38,837,478
Tax year 6	6.23%	3,362,622	23,700,280	1,681,311	40,429,731
Tax year 7	5.90%	3,184,506	26,884,786	1,592,253	42,021,984
Tax year 8	5.90%	3,184,506	30,069,292	1,594,952	43,616,936
Tax year 9	5.91%	3,189,903	33,259,195	1,592,253	45,209,189
Tax year 10	5.91%	3,184,506	36,443,701	1,594,952	46,804,140
Tax year 11	5.90%	3,184,506	39,633,605	1,592,253	48,396,393
Tax year 12	5.91%	3,189,903	42,818,111	1,592,253	49,991,345
Tax year 13	5.90%	3,184,506	46,008,014	1,594,952	51,583,598
Tax year 14	5.91%	3,189,903	49,192,520	1,592,253	53,178,550
Tax year 15	2.95%	1,592,253	53,974,676	796,126	53,974,676
Total	100.00%	53,974,676		53,974,676	

		<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>
Accumulated depreciation							
Portion of year in service before rider	17%						
Pre-rider amount of depreciation	133,048						
Rider year BOY amount		133,048	915,680	1,698,313	2,480,946	3,263,579	4,046,212
Depreciation expense		782,633	782,633	782,633	782,633	782,633	782,633
Rider year EOY amount		915,680	1,698,313	2,480,946	3,263,579	4,046,212	4,828,844
Average accumulated depreciation		524,364	1,306,997	2,089,630	2,872,262	3,654,895	4,437,528

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 2 - November 1, 2013 thru October 31, 2014

MACRS 15		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Tax depreciation reserve							
FY of completion tax depreciation	2,698,734						
Post FY tax depreciation to rider date	17%						
Tax year 2 tax depreciation	5,127,594						
Tax year 2 pre-rider tax depr	871,691						
Rider year BOY amount		3,570,425	8,610,850	13,147,691	17,233,089	20,909,304	24,241,646
Tax period A tax depreciation		4,255,903	3,830,313	3,449,522	3,104,569	2,790,977	2,643,140
Tax period B tax depreciation		784,522	706,529	635,876	571,646	541,366	541,366
Rider year EOY amount		8,610,850	13,147,691	17,233,089	20,909,304	24,241,646	27,426,152
Average tax depreciation reserve		6,090,637	10,879,271	15,190,390	19,071,196	22,575,475	25,833,899
Note - gap between fiscal year and rider year addressed by tax period A and tax period B.							
<u>Accumulated deferred taxes</u>							
Average tax depreciation reserve		6,090,637	10,879,271	15,190,390	19,071,196	22,575,475	25,833,899
Average book depreciation reserve		524,364	1,306,997	2,089,630	2,872,262	3,654,895	4,437,528
Difference		5,566,273	9,572,274	13,100,760	16,198,934	18,920,580	21,396,371
Tax difference balance		5,566,273	9,572,274	13,100,760	16,198,934	16,198,934	16,198,934
Composite tax rate w 35% FIT rate		39.23%	39.23%	39.23%	39.23%	39.23%	39.23%
Incremental tax difference beginning Year 5		-	-	-	-	2,721,646.06	5,197,437.47
Composite tax rate w 21% FIT rate		0.00%	0.00%	0.00%	0.00%	26.14%	26.14%
Average ADIT		2,183,371	3,754,724	5,138,773	6,354,032	7,065,334	7,712,382
Note - composite tax rate ignores excess deferred tax flowback							
BONUS 50%							
Tax depreciation reserve							
FY of completion tax depreciation	28,336,705						
Post FY tax depreciation to rider date	17%						
Tax year 2 tax depreciation	2,563,797						
Tax year 2 pre-rider tax depr	435,846						
Rider year BOY amount		28,772,551	31,292,763	33,561,184	35,603,882	37,441,990	39,108,161
Tax period A tax depreciation		2,127,952	1,915,156	1,724,761	1,552,285	1,395,488	1,321,570
Tax period B tax depreciation		392,261	353,264	317,938	285,823	270,683	270,683
Rider year EOY amount		31,292,763	33,561,184	35,603,882	37,441,990	39,108,161	40,700,414
Average tax depreciation reserve		30,032,657	32,426,973	34,582,533	36,522,936	38,275,076	39,904,288
Note - gap between fiscal year and rider year addressed by tax period A and tax period B.							
<u>Accumulated deferred taxes</u>							
Average tax depreciation reserve		30,032,657	32,426,973	34,582,533	36,522,936	38,275,076	39,904,288
Average book depreciation reserve		524,364	1,306,997	2,089,630	2,872,262	3,654,895	4,437,528
Difference		29,508,293	31,119,977	32,492,903	33,650,674	34,620,180	35,466,760
Tax difference balance		29,508,293	31,119,977	32,492,903	33,650,674	33,650,674	33,650,674
Composite tax rate w 35% FIT rate		39.23%	39.23%	39.23%	39.23%	39.23%	39.23%
Incremental tax difference beginning Year 5		-	-	-	-	969,507	1,816,086
Composite tax rate w 21% FIT rate		0.00%	0.00%	0.00%	0.00%	26.14%	26.14%
Average ADIT		11,574,628	12,206,811	12,745,341	13,199,477	13,452,857	13,674,111

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 3 - November 1, 2014 thru October 31, 2015

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Plant	18,441,896	18,441,896	18,441,896	18,441,896	18,441,896
Accumulated depreciation	(179,163)	(446,571)	(713,978)	(981,386)	(1,248,793)
Net plant	18,262,733	17,995,326	17,727,918	17,460,511	17,193,103
ADIT	(746,007)	(4,170,784)	(4,354,788)	(4,458,173)	(4,544,748)
NOL benefit	-	-	-	-	-
Net investment	17,516,726	13,824,541	13,373,130	13,002,337	12,648,355
Pre-tax ROR%	11.446%	11.446%	9.878%	9.878%	9.878%
Pre-tax rate of return	2,004,908	1,582,312	1,320,992	1,284,365	1,249,399
Depreciation expense	267,407	267,407	267,407	267,407	267,407
Property Tax expense	134,626	134,626	134,626	134,626	134,626
Total, excluding uncollectibles	2,406,941	1,984,346	1,723,025	1,686,398	1,651,432
Uncollectibles gross-up factor	1.000308	1.000308	1.000308	1.000308	1.000308
Total revenue requirement	2,407,683	1,984,957	1,723,556	1,686,918	1,651,941
<u>Assumptions and calculations:</u>					
Rider computed each year.					
Normal depreciation and AFUDC practices apply, AFUDC ends and depreciation begins when plant goes into service.					
Net of tax rate of return	6.96%	6.96%	7.30%	7.30%	7.30%

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 3 - November 1, 2014 thru October 31, 2015

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Plant amount	18,441,896				
Book depreciation rate	1.45%				
Property Tax Rate	0.73%				
Tax depreciation	MACRS 15 Year 1				
Tax depreciation	BONUS 50% Years 2 - 4				
Plant in service date for this Vintage	31-Oct-15				
Original Rider effective date for this Vintage	1-Jan-16				
Fiscal year end for this Vintage	31-Oct-15				
SiT rate	6.50%	6.50%	6.50%	6.50%	6.50%
FIT rate	35.00%	35.00%	21.00%	21.00%	21.00%
Composite income tax rate	39.23%	39.23%	26.14%	26.14%	26.14%
Uncollectibles rate	0.0308%	0.0308%	0.0308%	0.0308%	0.0308%
Revenue requirement gross-up factor	1.000308	1.000308	1.000308	1.000308	1.000308
<u>Capital structure assumptions (rate case):</u>					
LTD	41.42%				
STD	5.87%				
Common equity	52.71%				
<u>Capital cost rate assumptions (rate case):</u>					
LTD	6.05%				
STD	1.59%				
Common equity	10.20%				
<u>Overall and pre-tax RORs</u>					
	<u>Overall</u>	<u>Pre-tax RORs</u>			
LTD	2.506%	2.506%	2.506%	2.506%	2.506%
STD	0.093%	0.093%	0.093%	0.093%	0.093%
Common equity	5.376%	8.846%	8.846%	7.279%	7.279%
Total	7.976%	11.446%	11.446%	9.878%	9.878%

Piedmont Natural Gas Company, Inc.
 Integrity Management Rider
 State of Tennessee
 TPUC Docket No. 19-_____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 3 - November 1, 2014 thru October 31, 2015

2019 IMR Annual Report
 Schedule 8
 Page 3 of 4

Tax depreciation schedule

	Rate	MACRS 15		BONUS 50%	
		Yearly	Cumulative	Yearly	Cumulative
Tax year 1	5.00%	922,095		9,681,995	
Tax year 2	9.50%	1,751,980	2,674,075	875,990	10,557,986
Tax year 3	8.55%	1,576,782	4,250,857	788,391	11,346,377
Tax year 4	7.70%	1,420,026	5,670,883	710,013	12,056,390
Tax year 5	6.93%	1,278,023	6,948,906	639,012	12,695,401
Tax year 6	6.23%	1,148,930	8,097,837	574,465	13,269,866
Tax year 7	5.90%	1,088,072	9,185,908	544,036	13,813,902
Tax year 8	5.90%	1,088,072	10,273,980	544,036	14,357,938
Tax year 9	5.91%	1,089,916	11,363,896	544,958	14,902,896
Tax year 10	5.90%	1,088,072	12,451,968	544,036	15,446,932
Tax year 11	5.91%	1,089,916	13,541,884	544,958	15,991,890
Tax year 12	5.90%	1,088,072	14,629,956	544,036	16,535,926
Tax year 13	5.91%	1,089,916	15,719,872	544,958	17,080,884
Tax year 14	5.90%	1,088,072	16,807,944	544,036	17,624,920
Tax year 15	5.91%	1,089,916	17,897,860	544,958	18,169,878
Tax year 16	2.95%	544,036	18,441,896	272,018	18,441,896
Total	100.00%	18,441,896		18,441,896	

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Accumulated depreciation					
Portion of year in service before rider					
Pre-rider amount of depreciation	17%				
	45,459				
Rider year BOY amount	45,459	312,867	580,274	847,682	1,115,089
Depreciation expense	267,407	267,407	267,407	267,407	267,407
Rider year EOY amount	312,867	580,274	847,682	1,115,089	1,382,497
Average accumulated depreciation	179,163	446,571	713,978	981,386	1,248,793

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 3 - November 1, 2014 thru October 31, 2015

MACRS 15

	Year 1	Year 2	Year 3	Year 4	Year 5
Tax depreciation reserve					
FY of completion tax depreciation	922,095				
Post FY tax depreciation to rider date	17%				
Tax year 2 tax depreciation	1,751,980				
Tax year 2 pre-rider tax depr	297,837				
Rider year BOY amount	1,219,931	2,942,128	4,492,261	5,888,147	7,144,225
Tax period A tax depreciation	1,454,144	1,308,729	1,178,622	1,060,759	953,612
Tax period B tax depreciation	268,053	241,404	217,264	195,318	184,972
Rider year EOY amount	2,942,128	4,492,261	5,888,147	7,144,225	8,282,809
Average tax depreciation reserve	2,081,030	3,717,195	5,190,204	6,516,186	7,713,517

Note - gap between fiscal year and rider year addressed by tax period A and tax period B.

Accumulated deferred taxes

Average tax depreciation reserve	2,081,030	3,717,195	5,190,204	6,516,186	7,713,517
Average book depreciation reserve	179,163	446,571	713,978	981,386	1,248,793
Difference	1,901,867	3,270,624	4,476,226	5,534,800	6,464,724
Tax difference balance	1,901,867	3,270,624	4,476,226	4,476,226	4,476,226
Composite tax rate w 35% FIT rate	39.23%	39.23%	39.23%	39.23%	39.23%
Incremental tax difference beginning Year 4	-	-	-	1,058,574.06	1,988,497.45
Composite tax rate w 21% FIT rate	0.00%	0.00%	0.00%	26.14%	26.14%
Average ADIT	746,007	1,282,902	1,755,800	2,032,458	2,275,494

Note - composite tax rate ignores excess deferred tax flowback

BONUS 50%

Tax depreciation reserve					
FY of completion tax depreciation	9,681,995				
Post FY tax depreciation to rider date	17%				
Tax year 2 tax depreciation	875,990				
Tax year 2 pre-rider tax depr	148,918				
Rider year BOY amount	9,830,914	10,692,012	11,467,079	12,165,022	12,793,060
Tax period A tax depreciation	727,072	654,365	589,311	530,380	476,806
Tax period B tax depreciation	134,026	120,702	108,632	97,659	92,486
Rider year EOY amount	10,692,012	11,467,079	12,165,022	12,793,060	13,362,352
Average tax depreciation reserve	10,261,463	11,079,545	11,816,050	12,479,041	13,077,706

Note - gap between fiscal year and rider year addressed by tax period A and tax period B.

Accumulated deferred taxes

Average tax depreciation reserve	10,261,463	11,079,545	11,816,050	12,479,041	13,077,706
Average book depreciation reserve	179,163	446,571	713,978	981,386	1,248,793
Difference	10,082,300	10,632,975	11,102,072	11,497,655	11,828,913
Tax difference balance	10,082,300	10,632,975	11,102,072	11,102,072	11,102,072
Composite tax rate w 35% FIT rate	39.23%	39.23%	39.23%	39.23%	39.23%
Incremental tax difference beginning Year 4	-	-	-	395,583.28	726,841.23
Composite tax rate w 21% FIT rate	0.00%	0.00%	0.00%	26.14%	26.14%
Average ADIT	3,954,782	4,170,784	4,354,788	4,458,173	4,544,748

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 4 - November 1, 2015 thru October 31, 2016

	Year 1	Year 2	Year 3	Year 4
Plant	20,076,718	20,076,718	20,076,718	20,076,718
Accumulated depreciation	(195,045)	(486,158)	(777,270)	(1,068,383)
Net plant	19,881,673	19,590,560	19,299,448	19,008,335
ADIT	(4,305,362)	(4,540,513)	(4,673,979)	(4,786,530)
NOL benefit	-	-	-	-
Net investment	15,576,310	15,050,048	14,625,469	14,221,806
Pre-tax ROR%	11.446%	9.878%	9.878%	9.878%
Pre-tax rate of return	1,782,814	1,486,637	1,444,697	1,404,823
Depreciation expense	291,112	291,112	291,112	291,112
Property Tax expense	146,560	146,560	146,560	146,560
Total, excluding uncollectibles	2,220,487	1,924,309	1,882,370	1,842,496
Uncollectibles gross-up factor	1.000308	1.000308	1.000308	1.000308
Total revenue requirement	2,221,171	1,924,902	1,882,949	1,843,064
<u>Assumptions and calculations:</u>				
Rider computed each year.				
Normal depreciation and AFUDC practices apply, AFUDC ends and depreciation begins when plant goes into service.				
Net of tax rate of return	6.96%	7.30%	7.30%	7.30%

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 4 - November 1, 2015 thru October 31, 2016

		<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>
Plant amount	20,076,718				
Book depreciation rate	1.45%				
Property Tax Rate	0.73%				
Tax depreciation	BONUS 50%				
Plant in service date for this Vintage	31-Oct-16				
Original Rider effective date for this Vintage	1-Jan-17				
Fiscal year end for this Vintage	31-Oct-16				
SIT rate		6.50%	6.50%	6.50%	6.50%
FIT rate		35.00%	21.00%	21.00%	21.00%
Composite income tax rate		39.23%	26.14%	26.14%	26.14%
Uncollectibles rate		0.0308%	0.0308%	0.0308%	0.0308%
Revenue requirement gross-up factor		1.000308	1.000308	1.000308	1.000308
<u>Capital structure assumptions (rate case):</u>					
LTD	41.42%				
STD	5.87%				
Common equity	52.71%				
<u>Capital cost rate assumptions (rate case):</u>					
LTD	6.05%				
STD	1.59%				
Common equity	10.20%				
<u>Overall and pre-tax RORs</u>					
	<u>Overall</u>	<u>Pre-tax RORs</u>			
LTD	2.506%	2.506%	2.506%	2.506%	2.506%
STD	0.093%	0.093%	0.093%	0.093%	0.093%
Common equity	5.376%	8.846%	7.279%	7.279%	7.279%
Total	7.976%	11.446%	9.878%	9.878%	9.878%

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 4 - November 1, 2015 thru October 31, 2016

2019 IMR Annual Report
Schedule 9
Page 3 of 4

MACRS 15 tax depreciation schedule

Tax year 1
Tax year 2
Tax year 3
Tax year 4
Tax year 5
Tax year 6
Tax year 7
Tax year 8
Tax year 9
Tax year 10
Tax year 11
Tax year 12
Tax year 13
Tax year 14
Tax year 15
Tax year 16
Total

Rate	MACRS 15		BONUS 50%	
	Yearly	Cumulative	Yearly	Cumulative
5.00%	1,003,836		10,540,277	
9.50%	1,907,288	2,911,124	953,644	11,493,921
8.55%	1,716,559	4,627,683	858,280	12,352,201
7.70%	1,545,907	6,173,591	772,954	13,125,154
6.93%	1,391,317	7,564,907	695,658	13,820,813
6.23%	1,250,780	8,815,687	625,390	14,446,202
5.90%	1,184,526	10,000,213	592,263	15,038,466
5.90%	1,184,526	11,184,740	592,263	15,630,729
5.91%	1,186,534	12,371,274	593,267	16,223,996
5.90%	1,184,526	13,555,800	592,263	16,816,259
5.91%	1,186,534	14,742,334	593,267	17,409,526
5.90%	1,184,526	15,926,860	592,263	18,001,789
5.91%	1,186,534	17,113,394	593,267	18,595,056
5.90%	1,184,526	18,297,921	592,263	19,187,319
5.91%	1,186,534	19,484,455	593,267	19,780,586
2.95%	592,263	20,076,718	296,132	20,076,718
100.00%	20,076,718		20,076,718	

Accumulated depreciation
Portion of year in service before rider
Pre-rider amount of depreciation
Rider year BOY amount
Depreciation expense
Rider year EOY amount
Average accumulated depreciation

	Year 1	Year 2	Year 3	Year 4
17%				
49,489				
	49,489	340,602	631,714	922,826
	291,112	291,112	291,112	291,112
	340,602	631,714	922,826	1,213,939
	195,045	486,158	777,270	1,068,383

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 4 - November 1, 2015 thru October 31, 2016

2019 IMR Annual Report
Schedule 9
Page 4 of 4

BONUS 50%	Year 1	Year 2	Year 3	Year 4
<u>Tax depreciation reserve</u>				
FY of completion tax depreciation	10,540,277			
Post FY tax depreciation to rider date	17%			
Tax year 2 tax depreciation	953,644			
Tax year 2 pre-rider tax depr	162,119			
Rider year BOY amount	10,702,396	11,639,829	12,483,603	13,243,416
Tax period A tax depreciation	791,525	712,372	641,552	577,396
Tax period B tax depreciation	145,908	131,402	118,262	106,316
Rider year EOY amount	11,639,829	12,483,603	13,243,416	13,927,129
Average tax depreciation reserve	11,171,113	12,061,716	12,863,510	13,585,273
Note - gap between fiscal year and rider year addressed by tax period A and tax period B.				
<u>Accumulated deferred taxes</u>				
Average tax depreciation reserve	11,171,113	12,061,716	12,863,510	13,585,273
Average book depreciation reserve	195,045	486,158	777,270	1,068,383
Difference	10,976,067	11,575,558	12,086,239	12,516,890
Tax difference balance	10,976,067	11,575,558	11,575,558	11,575,558
Composite tax rate w 35% FIT rate	39.23%	39.23%	39.23%	39.23%
Incremental tax difference beginning Year 3	-	-	510,681	941,332
Composite tax rate w 21% FIT rate	0.00%	0.00%	26.14%	26.14%
Average ADIT	4,305,362	4,540,513	4,673,979	4,786,530

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 5 - November 1, 2016 thru October 31, 2017

	Year 1	Year 2	Year 3
Plant	38,244,253	38,244,253	38,244,253
Accumulated depreciation	(371,543)	(926,085)	(1,480,626)
Net plant	37,872,710	37,318,168	36,763,627
ADIT	(8,201,309)	(8,649,248)	(9,030,829)
NOL benefit	-	-	-
Net investment	29,671,401	28,668,920	27,732,798
Pre-tax ROR%	9.878%	9.878%	9.878%
Pre-tax rate of return	2,930,927	2,831,903	2,739,433
Depreciation expense	554,542	554,542	554,542
Property Tax expense	279,183	279,183	279,183
Total, excluding uncollectibles	3,764,652	3,665,628	3,573,158
Uncollectibles gross-up factor	1.000308	1.000308	1.000308
Total revenue requirement	3,765,812	3,666,757	3,574,259
<u>Assumptions and calculations:</u>			
Rider computed each year.			
Normal depreciation and AFUDC practices apply, AFUDC ends and depreciation begins when plant goes into service.			
Net of tax rate of return	7.30%	7.30%	7.30%

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 5 - November 1, 2016 thru October 31, 2017

		<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
Plant amount	38,244,253			
Book depreciation rate	1.45%			
Property Tax Rate	0.73%			
Tax depreciation	BONUS 50%			
Plant in service date for this Vintage	31-Oct-17			
Original Rider effective date for this Vintage	1-Jan-18			
Fiscal year end for this Vintage	31-Oct-17			
SIT rate		6.50%	6.50%	6.50%
FIT rate		21.00%	21.00%	21.00%
Composite income tax rate		26.14%	26.14%	26.14%
Uncollectibles rate		0.0308%	0.0308%	0.0308%
Revenue requirement gross-up factor		1.000308	1.000308	1.000308
<u>Capital structure assumptions (rate case):</u>				
LTD	41.42%			
STD	5.87%			
Common equity	52.71%			
<u>Capital cost rate assumptions (rate case):</u>				
LTD	6.05%			
STD	1.59%			
Common equity	10.20%			
<u>Overall and pre-tax RORs</u>				
	<u>Overall</u>	<u>Pre-tax RORs</u>		
LTD	2.506%	2.506%	2.506%	2.506%
STD	0.093%	0.093%	0.093%	0.093%
Common equity	5.376%	7.279%	7.279%	7.279%
Total	7.976%	9.878%	9.878%	9.878%

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 5 - November 1, 2016 thru October 31, 2017

2019 IMR Annual Report
Schedule 10
Page 3 of 4

MACRS 15 tax depreciation schedule

Tax year 1
Tax year 2
Tax year 3
Tax year 4
Tax year 5
Tax year 6
Tax year 7
Tax year 8
Tax year 9
Tax year 10
Tax year 11
Tax year 12
Tax year 13
Tax year 14
Tax year 15
Tax year 16
Total

Rate	MACRS 15		BONUS 50%	
	Yearly	Cumulative	Yearly	Cumulative
5.00%	1,912,213		20,078,233	
9.50%	3,633,204	5,545,417	1,816,602	21,894,835
8.55%	3,269,884	8,815,300	1,634,942	23,529,777
7.70%	2,944,807	11,760,108	1,472,404	25,002,180
6.93%	2,650,327	14,410,435	1,325,163	26,327,344
6.23%	2,382,617	16,793,051	1,191,308	27,518,652
5.90%	2,256,411	19,049,462	1,128,205	28,646,858
5.90%	2,256,411	21,305,873	1,128,205	29,775,063
5.91%	2,260,235	23,566,109	1,130,118	30,905,181
5.90%	2,256,411	25,822,520	1,128,205	32,033,386
5.91%	2,260,235	28,082,755	1,130,118	33,163,504
5.90%	2,256,411	30,339,166	1,128,205	34,291,709
5.91%	2,260,235	32,599,401	1,130,118	35,421,827
5.90%	2,256,411	34,855,812	1,128,205	36,550,033
5.91%	2,260,235	37,116,048	1,130,118	37,680,150
2.95%	1,128,205	38,244,253	564,103	38,244,253
100.00%	38,244,253		38,244,253	

Accumulated depreciation
Portion of year in service before rider
Pre-rider amount of depreciation
Rider year BOY amount
Depreciation expense
Rider year EOY amount
Average accumulated depreciation

	Year 1	Year 2	Year 3
17%			
94,272			
	94,272	648,814	1,203,355
	554,542	554,542	554,542
	648,814	1,203,355	1,757,897
	371,543	926,085	1,480,626

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 5 - November 1, 2016 thru October 31, 2017

BONUS 50%	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
<u>Tax depreciation reserve</u>			
FY of completion tax depreciation	20,078,233		
Post FY tax depreciation to rider date	17%		
Tax year 2 tax depreciation	1,816,602		
Tax year 2 pre-rider tax depr	308,822		
Rider year BOY amount	20,387,055	22,172,775	23,780,085
Tax period A tax depreciation	1,507,780	1,357,002	1,222,095
Tax period B tax depreciation	277,940	250,309	225,278
Rider year EOY amount	22,172,775	23,780,085	25,227,458
Average tax depreciation reserve	21,279,915	22,976,430	24,503,772
Note - gap between fiscal year and rider year addressed by tax period A and tax period B.			
<u>Accumulated deferred taxes</u>			
Average tax depreciation reserve	21,279,915	22,976,430	24,503,772
Average book depreciation reserve	371,543	926,085	1,480,626
Difference	20,908,372	22,050,346	23,023,145
Tax difference balance	20,908,372	20,908,372	20,908,372
Composite tax rate w 35% FIT rate	39.23%	39.23%	39.23%
Incremental tax difference beginning Year 2	-	1,141,973.39	2,114,773.34
Composite tax rate w 21% FIT rate	0.00%	26.14%	26.14%
Average ADIT	8,201,309	8,649,248	9,030,829

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 6 - November 1, 2017 thru October 31, 2018

	<u>Year 1</u>	<u>Year 2</u>
Plant	27,564,238	27,564,238
Accumulated depreciation	(267,787)	(667,468)
Net plant	27,296,452	26,896,770
ADIT	(742,922)	(1,277,596)
NOL benefit	-	-
Net investment	26,553,530	25,619,174
Pre-tax ROR%	9.878%	9.878%
Pre-tax rate of return	2,622,946	2,530,650
Depreciation expense	399,681	399,681
Property Tax expense	201,219	201,219
Total, excluding uncollectibles	3,223,846	3,131,551
Uncollectibles gross-up factor	1.000308	1.000308
Total revenue requirement	3,224,839	3,132,515
<u>Assumptions and calculations:</u>		
Rider computed each year.		
Normal depreciation and AFUDC practices apply, AFUDC ends and depreciation begins when plant goes into service.		
Net of tax rate of return	7.30%	7.30%

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 6 - November 1, 2017 thru October 31, 2018

2019 IMR Annual Report
Schedule 11
Page 2 of 4

		<u>Year 1</u>	<u>Year 2</u>
Plant amount	27,564,238		
Book depreciation rate	1.45%		
Property Tax Rate	0.73%		
Tax depreciation	MACRS 15		
Plant in service date for this Vintage	31-Oct-18		
Original Rider effective date for this Vintage	1-Jan-19		
Fiscal year end for this Vintage	31-Oct-18		
SIT rate		6.50%	6.50%
FIT rate		21.00%	21.00%
Composite income tax rate		26.14%	26.14%
Uncollectibles rate		0.0308%	0.0308%
Revenue requirement gross-up factor		1.000308	1.000308
<u>Capital structure assumptions (rate case):</u>			
LTD	41.42%		
STD	5.87%		
Common equity	52.71%		
<u>Capital cost rate assumptions (rate case):</u>			
LTD	6.05%		
STD	1.59%		
Common equity	10.20%		
<u>Overall and pre-tax RORs</u>			
	<u>Overall</u>	<u>Pre-tax RORs</u>	
LTD	2.506%	2.506%	2.506%
STD	0.093%	0.093%	0.093%
Common equity	5.376%	7.279%	7.279%
Total	7.976%	9.878%	9.878%

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 6 - November 1, 2017 thru October 31, 2018

2019 IMR Annual Report
Schedule 11
Page 3 of 4

MACRS 15 tax depreciation schedule

Tax year 1
Tax year 2
Tax year 3
Tax year 4
Tax year 5
Tax year 6
Tax year 7
Tax year 8
Tax year 9
Tax year 10
Tax year 11
Tax year 12
Tax year 13
Tax year 14
Tax year 15
Tax year 16
Total

MACRS 15		
Rate	Yearly	Cumulative
5.00%	1,378,212	
9.50%	2,618,603	3,996,815
8.55%	2,356,742	6,353,557
7.70%	2,122,446	8,476,003
6.93%	1,910,202	10,386,205
6.23%	1,717,252	12,103,457
5.90%	1,626,290	13,729,747
5.90%	1,626,290	15,356,037
5.91%	1,629,046	16,985,084
5.90%	1,626,290	18,611,374
5.91%	1,629,046	20,240,420
5.90%	1,626,290	21,866,710
5.91%	1,629,046	23,495,757
5.90%	1,626,290	25,122,047
5.91%	1,629,046	26,751,093
2.95%	813,145	27,564,238
100.00%	27,564,238	

Accumulated depreciation
Portion of year in service before rider
Pre-rider amount of depreciation
Rider year BOY amount
Depreciation expense
Rider year EOY amount
Average accumulated depreciation

	Year 1	Year 2
17%		
67,946		
	67,946	467,627
	399,681	399,681
	467,627	867,309
	267,787	667,468

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 6 - November 1, 2017 thru October 31, 2018

2019 IMR Annual Report
Schedule 11
Page 4 of 4

MACRS 15

Tax depreciation reserve

	<u>Year 1</u>	<u>Year 2</u>
FY of completion tax depreciation	1,378,212	
Post FY tax depreciation to rider date	17%	
Tax year 2 tax depreciation	2,618,603	
Tax year 2 pre-rider tax depr	445,162	
Rider year BOY amount	1,823,374	4,397,461
Tax period A tax depreciation	2,173,440	1,956,096
Tax period B tax depreciation	400,646	360,816
Rider year EOY amount	4,397,461	6,714,373
Average tax depreciation reserve	3,110,418	5,555,917

Note - gap between fiscal year and rider year addressed by tax period A and tax period B.

Accumulated deferred taxes

Average tax depreciation reserve	3,110,418	5,555,917
Average book depreciation reserve	267,787	667,468
Difference	2,842,631	4,888,449
Composite tax rate	26.14%	26.14%
Average ADIT	742,922	1,277,596

Note - composite tax rate ignores excess deferred tax flowback

Vintage Year 7 - November 1, 2018 thru October 31, 2019

Plant	35,893,756
Accumulated depreciation	(348,708)
Net plant	35,545,048
ADIT	(967,422)
NOL benefit	-
Net investment	34,577,626
Pre-tax ROR%	9.878%
Pre-tax rate of return	3,415,562
Depreciation expense	520,459
Property Tax expense	262,024
Total, excluding uncollectibles	4,198,046
Uncollectibles gross-up factor	1.000308
Total revenue requirement	4,199,339
Assumptions and calculations:	
Rider computed each year.	
Normal depreciation and AFUDC practices apply, AFUDC ends and depreciation begins when plant goes into service.	
Net of tax rate of return	7.30%

Piedmont Natural Gas Company, Inc.
 Integrity Management Rider
 State of Tennessee
 TPUC Docket No. 19-_____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 7 - November 1, 2018 thru October 31, 2019

2019 IMR Annual Report
 Schedule 12
 Page 2 of 4

		<u>Year 1</u>
Plant amount	35,893,756	
Book depreciation rate	1.45%	
Property Tax Rate	0.73%	
Tax depreciation	MACRS 15	
Plant in service date for this Vintage	31-Oct-19	
Original Rider effective date for this Vintage	1-Jan-20	
Fiscal year end for this Vintage	31-Oct-19	
SIT rate		6.50%
FIT rate		21.00%
Composite income tax rate		26.14%
Uncollectibles rate		0.0308%
Revenue requirement gross-up factor		1.000308
<u>Capital structure assumptions (rate case):</u>		
LTD	41.42%	
STD	5.87%	
Common equity	52.71%	
<u>Capital cost rate assumptions (rate case):</u>		
LTD	6.05%	
STD	1.59%	
Common equity	10.20%	
<u>Overall and pre-tax RORs</u>		
	<u>Overall</u>	<u>Pre-tax RORs</u>
LTD	2.506%	2.506%
STD	0.093%	0.093%
Common equity	5.376%	7.279%
Total	7.976%	9.878%

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 7 - November 1, 2018 thru October 31, 2019

2019 IMR Annual Report
Schedule 12
Page 3 of 4

MACRS 15 tax depreciation schedule

Tax year 1
Tax year 2
Tax year 3
Tax year 4
Tax year 5
Tax year 6
Tax year 7
Tax year 8
Tax year 9
Tax year 10
Tax year 11
Tax year 12
Tax year 13
Tax year 14
Tax year 15
Tax year 16
Total

Rate	MACRS 15	
	Yearly	Cumulative
5.00%	1,794,688	
9.50%	3,409,907	5,204,595
8.55%	3,068,916	8,273,511
7.70%	2,763,819	11,037,330
6.93%	2,487,437	13,524,767
6.23%	2,236,181	15,760,948
5.90%	2,117,732	17,878,680
5.90%	2,117,732	19,996,412
5.91%	2,121,321	22,117,733
5.90%	2,117,732	24,235,464
5.91%	2,121,321	26,356,785
5.90%	2,117,732	28,474,517
5.91%	2,121,321	30,595,838
5.90%	2,117,732	32,713,569
5.91%	2,121,321	34,834,890
2.95%	1,058,866	35,893,756
100.00%	35,893,756	

Accumulated depreciation
Portion of year in service before rider
Pre-rider amount of depreciation
Rider year BOY amount
Depreciation expense
Rider year EOY amount
Average accumulated depreciation

Year 1	
17%	
88,478	88,478
	520,459
	608,938
	348,708

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2020 - December 31, 2020

Vintage Year 7 - November 1, 2018 thru October 31, 2019

MACRS 15

Tax depreciation reserve

FY of completion tax depreciation
Post FY tax depreciation to rider date
Tax year 2 tax depreciation
Tax year 2 pre-rider tax depr
Rider year BOY amount
Tax period A tax depreciation
Tax period B tax depreciation
Rider year EOY amount
Average tax depreciation reserve

1,794,688
17%
3,409,907
579,684

Year 1

2,374,372
2,830,223
521,716
5,726,310
4,050,341

Note - gap between fiscal year and rider year addressed by tax period A and tax period B.

Accumulated deferred taxes

Average tax depreciation reserve
Average book depreciation reserve
Difference
Composite tax rate
Average ADIT

4,050,341
348,708
3,701,633
26.14%
967,422

Note - composite tax rate ignores excess deferred tax flowback

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

2019 IMR Annual Report
Schedule 13

Tennessee Allocated NOL Carryforward As of November 30, 2019

<u>Line No.</u>			<u>Line Computation</u>
1	2013	Taxable Income	(20,072,959)
2		Allocated NOL	-
3	2014	Taxable Income	(70,327,409)
4		Allocated NOL	-
5	2015	Taxable Income	35,741,137
6		Allocated NOL	-
7	2016	Taxable Income	(7,598,842)
8		Allocated NOL	(5,732,766)
9	TN Allocated NOL Carryforward		<u>(5,732,766)</u> Line 9 = Lines 2 + 4 + 6 + 8
10	Federal Tax Rate for NOL Carryforward		0.35
11	TN Tax Benefit of NOL Carryforward		<u><u>(2,006,468)</u></u> Line 11 = Line 9 x Line 10
12	Deferred Taxes - @21%		(1,203,881)
13	Excesss Deferred Taxes - @14%		<u>(802,587)</u>
14	TN Tax Benefit of NOL Carryforward - @35%		<u>(2,006,468)</u>

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

2019 IMR Annual Report
Schedule 14

Schedule of Prior Period Adjustments

None

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

2019 IMR Annual Report
Schedule 15

Statement of Public Interest

Piedmont is not aware of any changes in the market conditions or other factors that affect whether this Rider is still in the public interest.

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

2019 IMR Annual Report
Schedule 16

See attached CONFIDENTIAL Duke Energy Regulated Electric & Gas Capitalization Guidelines dated 1/1/2019.

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

2019 IMR Annual Report
Schedule 17

Pipeline Safety Metrics - Tennessee Service Territory

Response Time to Emergency Calls on Natural Gas Leaks / Odor

Average emergency response time for the period 11/1/2018 thru 10/31/2019 = 34 minutes

Age of Natural Gas Leaks

Average age of leaks for the period 11/1/2018 thru 10/31/2019 = 110.72 days

Number of Natural Gas Leaks by Grade

Number of leaks for the period 11/1/2018 thru 10/31/2019 by PHMSA category: Grade 1 = 400; Grade 2 = 379; Grade 3 = 2169

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 19-_____

2019 IMR Annual Report
Schedule 18

Projected Integrity Management Rider Investment by Category

Capital Project Cost Information as reported to the Tennessee Public Utility Commission, Chief of Utilities Division by letter dated March 29, 2019

IMR Project Categories	Projected FY2019
Transmission Integrity	\$ 26,200,896
Distribution Integrity	9,046,807
Casing and Remediation	1,401,539
Corrosion Control	1,245,622
Total	\$ 37,894,863

Projected Integrity Management Rider Investment by Project

Capital Project Cost Information as reported to the Tennessee Public Utility Commission, Chief of Utilities Division by letter dated March 29, 2011

Project Category	Funding Project Number	Project Name	Projected FY2019	Description	Driver of Work/Necessity	Location (Area of Nashville)
Individual IMR Projects Over \$100,000						
Transmission Integrity	FP1734394	Line 431 Ph II & Rcls Dist Line 310	13,554,307	Installation of approximately 4.5 miles of 20" transmission pipe adjacent to existing line 310 from Holts Holder going south.	Integrity Management Identified Risk	Bordeaux
Transmission Integrity	FP1734120	Line 311 Replacement (431)	10,694,972	Construct and install approximately 2.5 -3 miles of 16" high pressure, large diameter distribution pipeline from County Hospital Station to near the Bordeaux Station to replace line 311. Construct a new regulator station at the new terminus of line 311.	Integrity Management Identified Risk	Bordeaux
Transmission Integrity	FP1734142	Line 308 Replacement	1,658,264	Install ~4.0 miles of 12" steel pipeline (design pressure: 1000 psig) from the tie-in at Line 310 to Lyndale Station to replace existing Line 308. Install launcher at Tucker Rd Junction and receiver at Lyndale Station. Convert existing line 308 to distribution main.	Integrity Management Identified Risk	Nashville
Distribution Integrity	FP1734695	Spence Lane	1,456,412	Install 5000' of 12" due to Operational history	Integrity Management Identified Risk	Downtown
Distribution Integrity	FP1734694	Forrest St	1,261,977	Renewing 4" steel main on Forrest St. with 6" steel due to corrosion issues. Approximately 5000 ft from S. Main St. to Veterans Dr.	Integrity Management Identified Risk	Ashland City, TN
Distribution Integrity	F0224311	Hermitage Pressure Reduction	1,043,871	Install 6800 linear feet of 6" plastic main (75 psig MAOP) along Andrew Jackson Pkwy and Weber Rd, 2200 linear feet of 4" plastic main (75 psig MAOP) along Tulip Grove Rd and Leesa Ann Ln and 200 linear feet of 2" plastic main (75 psig MAOP) along Racoon Trail. Install 3 new regulator stations. Separate/disconnect system mains at 5 locations and retire/remov regulator stations. Reduce pressure of separated distribution main.	Integrity Management Identified Risk	Hermitage
Distribution Integrity	F0222865	Post Place Retirement and Pressure	901,146	Cut and cap 4" HPS on Sloan Road from 8". Cut and cap 4" HPS just north of Wilsona ave. Retire 6,864' of 4" 1950 Era steel pipe. All services and side roads will be tied over to the existing 6" main once pressue is lowered from 390 # to 125#. Remove a cross over valve that seperates pressure.	Integrity Management Identified Risk	West Nashville
Corrosion Control	F0224380	2019 Nashville Bridge New Coating	740,678	Install new hangers and rollers, and apply new coating systems on 17 bridges.	Integrity Management Identified Risk	Nashville
Distribution Integrity	FP1734726	Cowan St HP Distribution Pipeline	693,283	Installation of approximately 2,200 feet 16" pipeline along Cowan St north of the Jefferson St intersection due to the proposed new major development River North, which impacted the routing of the future DIMP replacement of 12", 175# Distribution Main. This will be the first phase of the development.	Integrity Management Identified Risk	Downtown

Projected Integrity Management Rider Investment by Project

Capital Project Cost Information as reported to the Tennessee Public Utility Commission, Chief of Utilities Division by letter dated March 29, 2011

Project Category	Funding Project Number	Project Name	Projected FY2019	Description	Driver of Work/Necessity	Location (Area of Nashville)
Distribution Integrity	F0224345	4934 Whites Creek PI	586,894	Install ~150 linear feet of 10" steel main (75 psig MAOP) under the Earthman Fork of Whites Creek. Install in a new easement adjacent to the existing to ensure adequate distance is maintained from transmission lines during HDD. Retire replaced 10" crossing.	Integrity Management Identified Risk	Whites Creek, TN
Distribution Integrity	F0222727	Brick Church Pk. to West Trinity La	534,079	Install 1050' of 2" steel on Brick Church Pike and also retire 1050' of 2" 1950 era pipe. Install 500' of 2" steel on Artic and retire 500' of 2" 1950 era pipe. Retire post regulator at Pages Branch that comes of 12" 175# line. Retire post regulator on Baptist World Center. Install 1250' of 2" steel on Brick Church Pk and also retire 1250' of 2" 1950 era pipe. Install 1300' of 2" steel on Fern ave and retire 1300' of 2" steel. Install 200' of steel on Weakley and tie in on low side of regulator Baptist World Center and 12" easement.	Integrity Management Identified Risk	Downtown
Distribution Integrity	FP1734707	Brick Church Pk. West Trinity Lane	476,643	Install 1800' of 12" due to Operational history	Integrity Management Identified Risk	Bellshire
Distribution Integrity	F0224337	Van Buren Main Replacement	457,420	Install 2700 linear feet of 2" plastic main (75 psig MAOP) Taylor St, 5th Ave N, and Van Buren St. in accordance with PNG design standards. Retire replaced 4" steel section accordance with PNG abandonment procedures. Disconnect the 14" 175 psig system from the 60 psig system at the existing valve location.	Integrity Management Identified Risk	Downtown
Corrosion Control	FP1734718	Nashville Galvanic Anode	436,645	Install galvanic anode beds in new locations where old ones have depleted.	Integrity Management Identified Risk	Nashville
Distribution Integrity	F0224351	39th Ave N. Main Replacement	314,028	Replace 1,700 feet of 4" 75# MAOP steel main, installed in 1951, with 6" MDPE along 39th Avenue N, south of John L Driver Avenue. Build new 39th and Centennial Regulator Station, replace inlet piping to regulator station and retire old station.	Integrity Management Identified Risk	Downtown
Transmission Integrity	F0226414	Line 304 Convert Distribution	293,353	Reduce maximum operating pressure in Line 304 to 75 psig. Line 304 will no longer be a transmission line. Line 304 will become a 75 psig distribution line.	Integrity Management Identified Risk	Nashville
Distribution Integrity	F0224339	Greenbrier Main Replacement	230,176	Install 2000 linear feet of 2" plastic main (75 psig MAOP) along Main St, Broad St and College St. Retire replaced 2" steel section with leak clamps and corrosion.	Integrity Management Identified Risk	Greenbrier, TN
Distribution Integrity	FP1734427	Grinstead Place	201,285	Install 2400'-2" MDPE to replace 19 farm taps and 1 district regulator station along Grinstead Place and Joyce Lane.	Integrity Management Identified Risk	East Nashville
Casing and Remediation	FP1734397	Casing #2760 Trinity Lane Station	197,511	Trinity Lane Station @ South Side Fence	Integrity Management Identified Risk	Nashville
Casing and Remediation	FP1734396	Casing #2757 Nesbitt Lane @ RR Xin	197,511	Nesbitt Lane @ RR Xing West of Gallatin Rd	Integrity Management Identified Risk	Madison

Projected Integrity Management Rider Investment by Project

Capital Project Cost Information as reported to the Tennessee Public Utility Commission, Chief of Utilities Division by letter dated March 29, 2011

Project Category	Funding Project Number	Project Name	Projected FY2019	Description	Driver of Work/Necessity	Location (Area of Nashville)
Distribution Integrity	F0224363	Maxon Ave & Deal Ave Main Repl	177,669	Install 5,400 linear feet of 2" plastic main (75 psig MAOP) along various streets south of Robertson Road in West Nashville. Retire 2" poorly coated steel piping.	Integrity Management Identified Risk	West Nashville
Casing and Remediation	FP1734401	Casing #2778 Tallwood Dr. Across B	169,356	109' Casing Tallwood Dr. across Briley Parkway.	Integrity Management Identified Risk	Nashville
Distribution Integrity	F0225698	Centennial Blvd Main Replacement	155,899	Install 800 feet of 8" MDPE to replace 800 feet of 6" High Pressure Distribution (175 psig MAOP) main from 44th Avenue N to Stauffer Regulator Station. Remove 6" valve in vault that has corrosion problems. Install new valve at 44th Avenue N. Retire Stauffer Regulator Station. Build new regulator station at proposed location.	Integrity Management Identified Risk	Downtown
Distribution Integrity	F0224357	Patton Ave	154,451	Install 700' linear feet of 4" plastic main (75 psig MAOP) and install 2000' linear feet of 2" plastic main (75 psig MAOP) along various streets in West Nashville. Retire replaced 2" and 4 steel piping.	Integrity Management Identified Risk	West Nashville
Distribution Integrity	FP1734428	Broadmoor Drive	129,547	Lay 3200'-2" MDPE along Broadmoor Drive from Joyce Lane to Graycroft Ave. Retire 3 district regulator stations and 19 farm tap meters.	Integrity Management Identified Risk	East Nashville
Distribution Integrity	FP1734426	James Ave Station at 63rd Ave N	109,797	Relocate existing James Ave Regulator station out of flood area.	Integrity Management Identified Risk	West Nashville

Sub-total of Individual IMR Projects Over \$100,000

36,827,172

Remaining IMR expenditures by category:

Casing and Remediation	837,160
Distribution Integrity	162,232
Corrosion Control	68,298
Grand Total	<u>\$ 37,894,863</u>

**Before the
Tennessee Public Utility Commission**

Docket No. 19-_____

**Petition of Piedmont Natural Gas Company, Inc.
for Approval of an Integrity Management Rider to its
Approved Rate Schedules and Service Regulations**

**Rebuttal Testimony of
Pia K. Powers**

**On Behalf of
Piedmont Natural Gas Company, Inc.**



November 26, 2019

1 **Q. Please state your name and business address.**

2 A. My name is Pia K. Powers. My business address is 4720 Piedmont Row Drive,
3 Charlotte, North Carolina.

4 **Q. By whom and in what capacity are you employed?**

5 A. I am the Managing Director – Gas Rates & Regulatory for Piedmont Natural
6 Gas Company, Inc., (“Piedmont” or the “Company”).

7 **Q. Please briefly describe your educational and professional background.**

8 A. I have a Bachelor of Arts degree in economics from Fairfield University and a
9 Master of Science degree in environmental and resource economics from the
10 University College London. From 1999 through 2003, I was employed as an
11 Economist with the Energy Information Administration, the statistical agency
12 of the U.S. Department of Energy, where I focused on international energy
13 forecasting and environmental issues. I was hired by Piedmont as a Regulatory
14 Analyst in 2003, promoted to Supervisor of Federal Regulatory in 2005,
15 promoted to Manager of Regulatory Affairs in 2006, promoted to Director of
16 Regulatory Affairs in 2013, and then promoted to my current position as
17 Managing Director of Gas Rates & Regulatory in 2019.

18 **Q. Have you previously testified before the Tennessee Public Utility
19 Commission or any other regulatory authority?**

20 A. Yes. I have presented testimony before the Tennessee Public Utility
21 Commission (“TPUC” or “Commission”) and its predecessor the Tennessee
22 Regulatory Authority (“TRA”), as well as the Public Service Commission of

1 South Carolina and the North Carolina Utilities Commission on a number of
2 occasions.

3 **Q. What is the purpose of your testimony in this proceeding?**

4 A. The purpose of my testimony in this proceeding is to support Piedmont's 2019
5 annual filing with the Commission under its approved Integrity Management
6 Rider ("IMR") mechanism set forth in Service Schedule 317 of its Tennessee
7 Tariffs. This annual filing ("2019 IMR Annual Report") was made
8 contemporaneous with the filing of my direct testimony herein.

9 **Q. Could you please explain the purpose of the IMR mechanism?**

10 A. Yes. The IMR mechanism is designed to provide a reasonable and effective
11 means for Piedmont to begin recovering the costs associated with its integrity
12 management capital investment since its most recent rate case. These costs are
13 being incurred by the Company as a result of compliance with regulations for
14 pipeline integrity and safety, namely transmission integrity management
15 planning ("TIMP") and distribution integrity management planning ("DIMP")
16 standards under Subparts O & P of Part 192 of the United States Department of
17 Transportation regulations. The costs eligible for recovery through the IMR
18 mechanism are costs that are not already included in the Company's current
19 base rates, and therefore, absent the IMR mechanism, would not otherwise be
20 eligible for recovery until the Company's next general rate case.

21 **Q. When and how was the IMR mechanism approved by the Commission?**

1 A. The IMR mechanism was initially approved by the TRA in Docket No. 13-
2 00118 at the Conference held on December 18, 2013, with the written Order
3 issued on May 13, 2014.

4 **Q. Is the IMR mechanism still in the public interest?**

5 A. Yes. This mechanism continues to create a partial and interim bridge between
6 rate cases to recover the costs of new capital invested by the Company to
7 comply with mandatory federal pipeline safety and reliability regulations. In
8 approving the IMR mechanism, the TRA stated on page 9 of its May 13, 2014
9 Order that the IMR mechanism was in the public interest because: 1) “it should
10 eliminate the need for rate case filings in order to recover the costs associated
11 with federal safety requirements”; 2) “it will also eliminate the recovery of the
12 associated rate case legal expenses from ratepayers, thereby lessening the
13 financial burden to ratepayers”; and 3) “the IMR mechanism will allow
14 Piedmont to recover the funds necessary to repair and replace necessary plant in
15 a timely manner which will result in a safe and reliable service to customers.” I
16 do not believe any circumstances to this effect have changed since that TRA
17 ruling. Indeed, having the IMR mechanism in place since January 1, 2014 has
18 enabled Piedmont to avoid general rate cases that would otherwise have been
19 necessary to place these critical system integrity management investments into
20 rate base for recovery.

1 **Q. Can you provide a general description of the IMR mechanism and how it**
2 **works?**

3 A. Yes. Under this mechanism, as is set forth in Service Schedule 317, the
4 Company calculates an annual integrity management revenue requirement
5 (“IMRR”) based upon its actual amount of integrity management capital
6 investment through the applicable period and then allocates that IMRR (plus
7 the balance in the Company’s integrity management deferred account) across
8 Piedmont’s customer classes using allocation factors and throughput levels
9 established in Piedmont’s most recent rate case.¹ This calculation, which is
10 performed once each year and reflected in Piedmont’s annual IMR report filing,
11 results in a volumetric (i.e., per therm) customer surcharge referred to in the
12 tariff as the “Integrity Management Adjustment.” This customer surcharge is
13 effective for a twelve-month period beginning each January, then refreshed for
14 the next twelve-month period based upon an updated calculation of the IMRR
15 (and the updated integrity management deferred account balance). At the time
16 of Piedmont’s next general rate case, the Company’s net integrity management
17 capital investment will be included in the calculation of base rates and the IMR
18 mechanism will be reset to zero.²

1 Pursuant to the IMR mechanism, Piedmont tracks the under-collection or over-collection of its annual integrity management revenue requirement by month through its integrity management deferred account. Therefore, the actual balance in the integrity management deferred account is incorporated into the calculation of the IMR customer surcharge.

2 In the Company’s next general rate case application, the net integrity management capital investment will be included in rate base. Any remaining balance in the Company’s integrity management deferred

1 **Q. Has Piedmont made any previous annual report filings under this IMR**
2 **mechanism?**

3 A. Yes. Consistent with the approved IMR tariff, Piedmont has filed IMR annual
4 reports on six prior occasions. Piedmont filed its first IMR Annual Report on
5 December 2, 2013, and it was approved by the TRA in Docket No. 13-00118.
6 Piedmont filed its second IMR Annual Report on December 1, 2014, and it was
7 approved by the TRA in Docket No. 14-00147. Piedmont filed its third IMR
8 Annual Report on November 30, 2015 and it was approved by the TRA in
9 Docket No. 15-00116. Piedmont filed its fourth annual report on November
10 30, 2016 and it was approved by the TPUC in Docket No. 16-00140. Piedmont
11 filed its fifth IMR Annual Report on November 30, 2017 and it was approved
12 by the TPUC in Docket No. 17-00138.³ Lastly, Piedmont filed its sixth IMR
13 Annual Report on November 30, 2018 and it was approved by the TPUC in
14 Docket No. 18-00126.

15 **Q. Does Piedmont provide any additional information to the Commission**
16 **about its Integrity Management investments other than the annual report?**

17 A. Yes. In addition to the six previously filed IMR annual reports and consistent
18 with its tariff, Piedmont files ongoing monthly reports with the TPUC

account at that time shall be included in the proposed cost of service, amortized for refund or recovery as applicable.

3 The IMRR calculation and proposed rates shown in the 2017 IMR Annual Report filed on November 30, 2017 were amended for the subsequent reduction in the federal corporate income tax rate. Those changes to the IMRR calculation and proposed rates were included in the direct testimony of Pia K. Powers that was filed with the Commission on January 17, 2018 in Docket No. 17-00138.

1 regarding its actual integrity management investments and actual monthly
2 integrity management deferred account activity and balance. The Company's
3 filed IMR annual reports simply aggregate the data provided in its monthly
4 reports and, using that aggregated monthly data, show the exact computation of
5 the IMRR and proposed rate adjustments. The Consumer Advocate also
6 receives copies of these monthly and annual reports.

7 **Q. Is that statement true with respect to the Company's 2019 IMR Annual**
8 **Report filed today?**

9 A. Yes.

10 **Q. Are the proposed rate adjustments shown in Piedmont's 2019 IMR Annual**
11 **Report calculated in a manner consistent with Piedmont's Service**
12 **Schedule 317?**

13 A. Yes. The proposed rates were calculated utilizing the methodology set forth in
14 our approved tariff.

15 **Q. Please briefly summarize what is reflected in the 2019 IMR Annual Report**
16 **filing with the Commission.**

17 A. The 2019 IMR Annual Report reflects updated customer IMR rates based upon
18 approximately \$294.5 million in integrity management capital investment by
19 the Company. Of this amount, approximately \$35.9 million is integrity
20 management capital investment by the Company during the most recent annual
21 investment period, which is the twelve-months ended October 31, 2019. None

1 of this integrity management capital investment is reflected in Piedmont's
2 current base rates. The updated customer rates shown in the 2019 IMR Annual
3 Report were calculated in accordance with the procedures set forth in
4 Piedmont's Service Schedule 317. Specifically, in following the methodology
5 shown in the Company's IMR tariff, the \$294.5 million of integrity
6 management capital investment yields an IMRR of approximately \$27.9 million
7 for the annual rate period beginning January 1, 2020. The actual balance in the
8 integrity management deferred account as of October 31, 2019 reflects a
9 cumulative over-collection of approximately \$6.3 million. Since this deferred
10 account balance is an amount due to customers, the \$6.3 million is netted
11 against the IMRR of \$27.9 million for the purposes of computing the proposed
12 IMR rates. Therefore, the proposed IMR rates in the 2019 IMR Annual Report
13 are calculated upon an allocation of \$21.6 million across the various customer
14 classes.

15 **Q. Proposals made by the Consumer Advocate to modify Piedmont's IMR**
16 **tariff were examined in Docket No. 19-00007. Does the Company's 2019**
17 **IMR Annual Report incorporate any new information resulting from the**
18 **Commission's September 9, 2019 ruling in Docket No. 19-00007?**

19 **A.** Yes. The Company's 2019 IMR Annual Report includes additional
20 information on pipeline safety metrics as well as budgeted capital expenditures
21 for IMR-eligible projects. Specifically, Schedule 17 of the 2019 IMR Annual

1 Report shows the Company's average response time to emergency calls on
2 natural gas leaks, the average age of natural gas leaks and the number of gas
3 leaks by grade for the twelve-month period ended October 31, 2019. Schedules
4 18 and 19 of the 2019 IMR Annual Report show the Company's budgeted IMR
5 capital expenditures for fiscal year 2019; this information is consistent with that
6 included in the Company's report provided to the Commission on March 29,
7 2019 pursuant to TPUC Rule 1220-04-01-.01.

8 **Q. When will the Company provide Commission its budgeted IMR capital**
9 **expenditures for fiscal year 2020?**

10 A. Piedmont is in the process of developing and finalizing its capital expenditures
11 budget for fiscal year 2020 (January 1, 2020 through December 31, 2020).
12 Pursuant to TPUC Rule 1220-04-01-.01, Piedmont will provide the TPUC its
13 capital expenditures budget no later than ninety days after the beginning of the
14 fiscal year. When the Company submits the fiscal year 2020 capital
15 expenditure budget report to the Commission, we will simultaneously provide a
16 copy to the Consumer Advocate.

17 **Q. What is the impact to customer rates and bills from the proposed rate**
18 **adjustments shown in the Company's 2019 IMR Annual Report?**

19 A. The current IMR rates, as approved by the Commission in Docket No. 18-
20 00126, were calculated upon an allocation of \$27.3 million across the various

1 customer classes.⁴ As stated earlier in my testimony, the proposed IMR rates in
2 the Company's 2019 IMR Annual Report are calculated upon an allocation of
3 \$21.6 million across the various customer classes. Thus, the Company is
4 proposing a decrease to billing rates for all customer classes effective January
5 1, 2020. For residential customers, the current approved IMR rate is \$0.14605
6 per therm. The proposed IMR rate for residential customers in the 2019 annual
7 filing is \$0.11596 per therm, reflecting a decrease of \$0.03009 per therm. This
8 proposed rate decrease would lower a residential customer's bill by
9 approximately \$22 per year (or \$1.84 per month), on average, for our typical
10 residential customer who uses approximately 735 therms of natural gas per
11 year.

12 **Q. Does the Company plan to provide notice to customers of the components**
13 **of its rates including the IMR?**

14 A. Yes. Consistent with the Commission's September 9, 2019 ruling in Docket
15 No. 19-00007, Piedmont will be providing an annual bill insert to customers
16 about its rate components.

17 **Q. In summary, what are you asking the Commission to do in this**
18 **proceeding?**

4 As approved by the TPUC, the IMRR effective January 1, 2019 was \$25.9 million. This revenue requirement, when combined with the approved integrity management deferred account balance at October 31, 2018 of \$1.4 million, yielded a total approved annual IMR amount for recovery of \$27.3 million.

1 A. I am requesting that the Commission accept and approve the 2019 IMR Annual
2 Report which includes the amortization of the updated IMRR and the proposed
3 billing rates effective January 1, 2020.

4 **Q. Does this conclude your pre-filed direct testimony?**

5 A. Yes.
6