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November 30, 2018

Via Hand-Delivery

Executive Director Earl Taylor
c/o Sharla Dillon
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. 18-00126

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, 2019 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 2018 annual filing which includes the following information in accordance with Service Schedule No. 317: (a) the monthly IMR filing for October 2018, (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 2018 annual filing.

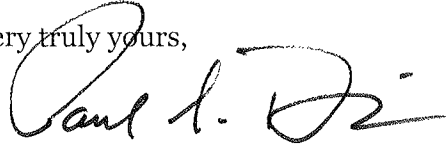
This material is also being filed today by way of email to the Tennessee Public Utility Commission docket manager, Sharla Dillon. Please file the original and four copies and stamp

waller

Executive Director Earl Taylor
November 30, 2018
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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 black ink, appearing to read "Paul S. Davidson". The signature is fluid and cursive, with a large initial "P" and "D".

Paul S. Davidson

PSD:cdg

Enclosures

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

**Before the
Tennessee Public Utility Commission**

Docket No. 18-_____

**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

2018 Annual Filing



November 30, 2018

TPUC Docket No. 18-_____
Integrity Management Rider
October 2018 Monthly Report

Cumulative Integrity Management Investment Amount

Actual Integrity Management Investment, by Integrity Project Type

		Current Vintage Year: Vintage Year 6			All Vintage Years
Line No.		October 2018 Capital Expenditure ¹	Prior Cumulative Capital Expenditure ²	Cumulative Capital Expenditure as of October 2018 ³	Cumulative Capital Expenditure as of October 2018 ⁶
<i>TN Direct</i>					
1	Corrosion Control	\$ 81,104.31	\$ 1,488,764.86	\$ 1,569,869.17	\$ 7,343,518.98
2	Casing Remediation	\$ 177.41	\$ 69,682.05	\$ 69,859.46	\$ 882,064.39
3	Distribution Integrity	\$ 1,114,180.83	\$ 13,929,696.14	\$ 15,043,876.97	\$ 69,112,344.76
4	Transmission Integrity	\$ 3,718,543.28	\$ 6,746,147.32	\$ 10,464,690.60	\$ 190,634,700.60
5	Total	\$ 4,914,005.83	\$ 22,234,290.37	\$ 27,148,296.20	\$ 267,972,628.73
<i>Joint Property: CO3-State</i>					
6	OASIS Project (Work & Asset Management System)	\$ -	\$ 2,549,657.25	\$ 2,549,657.25	\$ 133,880,060.70
7	TN % of CO-3 for Current Month ⁴	16.33%			
8	Total Allocated to TN	\$ -	\$ 415,941.89	\$ 415,941.89	\$ 23,535,435.31
9	Total Capital Expenditures [Line 5 + Line 8]	\$ 4,914,005.83	\$ 22,650,232.26	\$ 27,564,238.09	\$ 291,508,064.04
10	Less: Amount Included in the Attrition Period ⁵	\$ -	\$ -	\$ -	\$ 32,900,000.00
11	Total Integrity Management Investment	\$ 4,914,005.83	\$ 22,650,232.26	\$ 27,564,238.09	\$ 258,608,064.04

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 and 5, which captures amounts through 10/31/17, is \$231,043,825.95 (\$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 and \$38,244,253.18 for Vintage 5).

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 2018
1	CORR-Corrosion Control	F0214467	17	Nashville Bridge New Coating	72,037.33
2	CORR-Corrosion Control	F0214742	17	Dickerson Rd @ Shevel St	74.50
3	CORR-Corrosion Control	FP1734718	17	Nashville Galvanic Anode	24,724.46
4	CORR-Corrosion Control	FP1734720	17	Nashville HP Dist Remediation	(16,202.88)
5	CORR-Corrosion Control	FP1734721	17	Nashville Trans Remediation	470.90
6	CSNG-Casing & Remediation	FP1734395	17	Casing 2704 East RR Xing Wilson	177.41
7	DIMP-Distribution Integrity	F0215064	17	Elizabethan Rd Valve Replacement	22,796.78
8	DIMP-Distribution Integrity	F0215066	17	Maplewood Rd Valve	3.05
9	DIMP-Distribution Integrity	F0216582	17	Rural Hill Isolation Valve Removal	866.42
10	DIMP-Distribution Integrity	F0221329	17	10th Ave N Valve Replacement	947.38
11	DIMP-Distribution Integrity	F0221354	17	Davidson Drive @ Charlotte Pike Valve	3,507.82
12	DIMP-Distribution Integrity	F0222120	17	31st Ave @ West end Valve Replacement	750.02
13	DIMP-Distribution Integrity	F0222124	17	Harding Pl & Granny White Pk Valve	14.85
14	DIMP-Distribution Integrity	F0222670	17	Donelso Plaza Regulator Removal	13,706.68
15	DIMP-Distribution Integrity	F0223608	17	Old Hickory Blvd Replacement	1,068.50
16	DIMP-Distribution Integrity	F0225705	17	Old Harding Pike Insulator	14,081.49
17	DIMP-Distribution Integrity	F0225786	17	Woodcrest Leak Repair	2,142.72
18	DIMP-Distribution Integrity	FP1733758	17	Beekman Drive and Foxwood Drive	-6781.08
19	DIMP-Distribution Integrity	FP1733763	17	Harding Place	190,049.43
20	DIMP-Distribution Integrity	FP1733764	17	Sunnyside Drive	688,484.94
21	DIMP-Distribution Integrity	FP1733765	17	McGavock Pike	(3,587.75)
22	DIMP-Distribution Integrity	FP1733768	17	Raymond ST	(11,808.50)
23	DIMP-Distribution Integrity	FP1733788	17	Old Hickory Blvd @ Chickering	(1,792.46)
24	DIMP-Distribution Integrity	FP1734136	17	Jones St Renewal	(5,113.25)
25	DIMP-Distribution Integrity	FP1734420	17	Snyder Street @ Lovell Street	(9,068.25)
26	DIMP-Distribution Integrity	FP1734422	17	Lynwood Blvd/Tyne Blvd DIM	(49,440.00)
27	DIMP-Distribution Integrity	FP1734430	17	Keaton Ave	801.85
28	DIMP-Distribution Integrity	FP1734432	17	Visco Dt	258,118.85
29	DIMP-Distribution Integrity	FP1734688	17	Abbott Martin @ Walnut Dr.	3.00
30	DIMP-Distribution Integrity	FP1734690	17	Belmont Pit Regulator Replacement	1,280.99
31	DIMP-Distribution Integrity	FP1734693	17	Cliff Dr Main replacement	1,523.21
32	DIMP-Distribution Integrity	FP1734694	17	Forrest St.	13,475.39
33	DIMP-Distribution Integrity	FP1734696	17	West Tyne & Old Harding Place	191,416.48
34	DIMP-Distribution Integrity	FP1734726	17	Cowan St HP Distribution Pipeline	(571.21)
35	DIMP-Distribution Integrity	FP1734749	17	2nd Ave and Jefferson Leak Rd	(217,863.42)
36	DIMP-Distribution Integrity	FP1734799	17	Nashville Bridge Attachments	13,986.69
37	DIMP-Distribution Integrity	FP1734818	17	Bryan St #1852	1,180.21
38	TIMP-Transmission Integrity	FP1734120	17	Line 431 Replacement	3,630,862.96
39	TIMP-Transmission Integrity	FP1734394	17	Line 431 Ph II 20 & 12"Transmission	85,987.15
40	TIMP-Transmission Integrity	FP1734394	17	Line 431 Ph II Reg Station	1,693.17

Total (unallocated) **\$ 4,914,005.83**

subtotal: TN Direct (unallocated) \$ 4,914,005.83

subtotal: CO-3 (unallocated) \$ -

\$ 4,914,005.83

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 18-_____

IMR Monthly Report for Oct 2018
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-18</u>
1	Beginning Balance	<i>Prior Month's IMR Report</i>	\$ 1,315,169.39
2	IMR Revenue Recognition	<i>Prior Annual IMR Report</i>	1,120,647.66
3	(Collections from IM Adjustment)	<i>see Separate Schedule</i>	(1,066,339.02)
4	Ending Balance Before Interest	<i>sum Lines 1 thru 3</i>	1,369,478.03
5	Average Balance	<i>(Line 1 + Line 4) /2</i>	1,342,323.71
6	Accrued Interest	<i>Line 5 * Line 9</i>	5,547.82
7	Ending Balance After Interest	<i>Line 4 + Line 6</i>	\$ 1,375,025.85
8	Applicable Annual Interest Rate	<i>same as for ACA</i>	0.04960
9	Monthly Interest Rate	<i>Line 8 / 12</i>	0.004133
10	Actual GL #0253139 EOM Balance	<i>per GL</i>	\$ 1,375,025.85
11	Variance	<i>Line 7 - Line 10</i>	\$ -

Journal Entry: To Record Revenue

01 01 25351 3 17 6250 489	1,120,647.66
01 01 48010 3 17 6220 489	(668,399.09)
01 01 48110 3 17 6220 489	(349,642.07)
01 01 48120 3 17 6220 489	(15,117.53)
01 01 48300 3 17 6220 489	(313.78)
01 01 48900 3 17 6220 489	(87,175.19)

Journal Entry: To Record Interest

01 01 25351 3 17 6250 626	5,547.82
01 01 43101 3 17 6220 626	(5,547.82)

General Ledger Support

Integrity Management Deferred Account Adjustment Recorded for the Month

Calculation of the IM Adjustment Collections:

		October 2018			
Line No.		IM Adjustment (\$ per therm)	x	Usage (therms)	= Collections (\$)
1	Residential (301)	0.16057		2,415,541	387,863.42
2	Small General Sales (302)	0.14027		2,179,791	305,759.28
3	Medium General Sales (352)	0.14027		700,096	98,202.47
4	Experimental Motor Vehicle Fuel (343/352)	0.14027		43	6.03
5	Firm Lg General Sales (303)	0.06230		632,017	39,374.66
6	Experimental Motor Vehicle Fuel (343/303)	0.06230		34,297	2,136.70
7	Firm Lg General Transportation (313)	0.06230		1,599,723	99,662.74
8	Experimental Motor Vehicle Fuel (343/313)	0.06230		146,174	9,106.64
9	Firm Resale (310)	0.06230		857	53.39
10	Interruptible Lg General Sales (304)	0.01557		36,189	563.46
11	Interruptible Lg General Transportation (314)	0.01557		7,939,000	123,610.23
12	Total				\$ 1,066,339.02

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	387,863.42
47136 0481200 GA489 PTOP 0526 COMSTD	305,759.28
47136 0481200 GA489 PTOP 0526 COMSTD	98,208.50
47136 0481000 GA489 PTOP 0526 INDSLS	41,511.36
47136 0489000 GA489 PTOP 0526 BOTHRV	108,769.38
47136 0483011 GA489 PTOP 0526 GASRSL	53.39
47136 0481000 GA489 PTOP 0526 INDSLS	563.46
47136 0489000 GA489 PTOP 0526 BOTHRV	123,610.23
47136 0253139 GA489 PTOP	(1,066,339.02)

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TPUC Docket No. 18-_____
Integrity Management Rider
Proposed Billing Rates for January 2019

PIEDMONT NATURAL GAS COMPANY, INC
Tennessee Service Territory
Billing Rates Effective: January 1, 2019

Rate Schedule	Description	Tariff Rate Approved In Docket No. 11-00144	-----Cumulative PGA-----		Current Refund	-----Current ACA-----		Current IPA	Current IM Adjustment	Total Adj. Factor (Sum Col.2 thru Col.7)	Proposed Billing Rate (Col.1+Col.8)
		<1>	Demand	Commodity	<4>	Demand	Commodity	<6>	<7>	<8>	<9>
Residential 301 301	Monthly Charge-Nov.-Mar.	\$17.45									\$17.45
	Monthly Charge-Apr.-Oct.	\$13.45									\$13.45
	Nov.- Mar. per TH	0.32000	0.07577	0.30997	0.00000	(0.01010)	0.00044	0.00395	0.14605	0.52608	0.84608
	Apr.- Oct. per TH	0.27000	0.07577	0.30997	0.00000	(0.01010)	0.00044	0.00395	0.14605	0.52608	0.79608
Small General 302 302	Monthly Charge	\$44.00									\$44.00
	Nov.- Mar. per TH	0.35400	0.07577	0.30997	0.00000	(0.01010)	0.00044	0.00395	0.12759	0.50762	0.86162
	Apr.- Oct. per TH	0.30000	0.07577	0.30997	0.00000	(0.01010)	0.00044	0.00395	0.12759	0.50762	0.80762
Medium General 352 352	Monthly Charge	\$225.00									\$225.00
	Nov.- Mar. per TH	0.35400	0.07577	0.30997	0.00000	(0.01010)	0.00044	0.00395	0.12759	0.50762	0.86162
	Apr.- Oct. per TH	0.30000	0.07577	0.30997	0.00000	(0.01010)	0.00044	0.00395	0.12759	0.50762	0.80762
Experimental Motor Vehicle Fuel 343 343	Monthly Charge		varies by customer per their corresponding rate schedule								
	Nov.- Mar. per TH		varies by customer per their corresponding rate schedule								
	Apr.- Oct. per TH		varies by customer per their corresponding rate schedule								
303 Firm General Sales	Monthly Charge	\$800.00									\$800.00
	Demand Charge per TH	0.80000	0.82829		0.00000	(0.17497)				0.65332	1.45332
	First 15,000 TH/TH	0.09682		0.30997	0.00000		0.00044	0.00395	0.05667	0.37103	0.46785
	Next 25,000 TH/TH	0.08953		0.30997	0.00000		0.00044	0.00395	0.05667	0.37103	0.46056
	Next 50,000 TH/TH	0.06450		0.30997	0.00000		0.00044	0.00395	0.05667	0.37103	0.43553
	Over 90,000 TH/TH	0.02764		0.30997	0.00000		0.00044	0.00395	0.05667	0.37103	0.39867
304 Interruptible General Sales	Monthly Charge	\$800.00									\$800.00
	First 15,000 TH/TH	0.09682		0.30997	0.00000		0.00044	0.00395	0.01417	0.32853	0.42535
	Next 25,000 TH/TH	0.08953		0.30997	0.00000		0.00044	0.00395	0.01417	0.32853	0.41806
	Next 50,000 TH/TH	0.06450		0.30997	0.00000		0.00044	0.00395	0.01417	0.32853	0.39303
	Over 90,000 TH/TH	0.02764		0.30997	0.00000		0.00044	0.00395	0.01417	0.32853	0.35617
313 Firm Transportation	Monthly Charge	\$800.00									\$800.00
	Demand Charge per TH	0.80000	0.82829		0.00000	(0.17497)				0.65332	1.45332
	First 15,000 TH/TH	0.09682			0.00000				0.05667	0.05667	0.15349
	Next 25,000 TH/TH	0.08953			0.00000				0.05667	0.05667	0.14620
	Next 50,000 TH/TH	0.06450			0.00000				0.05667	0.05667	0.12117
	Over 90,000 TH/TH	0.02764			0.00000				0.05667	0.05667	0.08431
314 Interruptible Transportation	Monthly Charge	\$800.00									\$800.00
	First 15,000 TH/TH	0.09682			0.00000				0.01417	0.01417	0.11099
	Next 25,000 TH/TH	0.08953			0.00000				0.01417	0.01417	0.10370
	Next 50,000 TH/TH	0.06450			0.00000				0.01417	0.01417	0.07867
	Over 90,000 TH/TH	0.02764			0.00000				0.01417	0.01417	0.04181
310 Resale Service	Demand Charge per TH	0.80000	0.82829		0.00000	(0.17497)		0.00395		0.65332	1.45332
	Commodity Charge	0.09000		0.30997	0.00000		0.00044		0.05667	0.37103	0.46103

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 6.46% 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. 18-_____
Integrity Management Rider
2018 Annual Report

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2017 thru October 2018)

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. 25351

Line No.			Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18
1	Beginning Balance	Prior Month's IMR Report	\$ 6,573,861.54	\$ 6,697,119.67	\$ 6,437,795.93	\$ 3,904,267.16	\$ 2,788,096.52	\$ 2,836,009.80	\$ 1,901,867.38	\$ 1,584,448.48	\$ 1,470,805.16	\$ 1,429,202.96	\$ 1,400,549.71	\$ 1,315,169.39
2	IMR Revenue Recognition	Prior Annual IMR Report	2,002,041.71	3,187,226.34	4,027,846.21	3,832,932.80	2,894,145.82	1,870,245.82	1,184,101.61	838,476.73	780,699.38	786,802.54	787,626.60	1,120,647.66 1/
3	(Collections from IM Adjustment)	see Separate Schedule	(1,902,020.12)	(3,469,548.38)	(6,579,658.39)	(4,960,934.66)	(2,856,175.22)	(2,813,196.13)	(1,508,001.70)	(957,799.88)	(827,957.14)	(820,974.34)	(878,303.09)	(1,066,339.02)
4	Ending Balance Before Interest	sum Lines 1 thru 3	6,673,883.13	6,414,797.63	3,885,983.75	2,776,265.30	2,826,067.12	1,893,059.49	1,577,967.29	1,465,125.33	1,423,547.40	1,395,031.16	1,309,873.22	1,369,478.03
5	Average Balance	(Line 1 + Line 4) / 2	6,623,872.34	6,555,958.65	5,161,889.84	3,340,266.23	2,807,081.82	2,364,534.65	1,739,917.34	1,524,786.91	1,447,176.28	1,412,117.06	1,355,211.47	1,342,323.71
6	Accrued Interest	Line 5 * Line 9	23,236.54	22,998.30	18,283.41	11,831.22	9,942.68	8,807.89	6,481.19	5,679.83	5,655.56	5,518.55	5,296.17	5,547.82
7	Ending Balance After Interest	Line 4 + Line 6	\$ 6,697,119.67	\$ 6,437,795.93	\$ 3,904,267.16	\$ 2,788,096.52	\$ 2,836,009.80	\$ 1,901,867.38	\$ 1,584,448.48	\$ 1,470,805.16	\$ 1,429,202.96	\$ 1,400,549.71	\$ 1,315,169.39	\$ 1,375,025.85
8	Applicable Annual Interest Rate	same as for ACA	0.042100	0.042100	0.042500	0.042500	0.042500	0.044700	0.044700	0.044700	0.04690	0.04690	0.04690	0.04960
9	Monthly Interest Rate	Line 8 / 12	0.003508	0.003508	0.003542	0.003542	0.003542	0.003725	0.003725	0.003725	0.003908	0.003908	0.003908	0.004133
10	Actual GL #25351 EOM Balance	per GL	\$ 6,697,119.67	\$ 6,437,795.93	\$ 3,845,304.42	\$ 2,672,815.48	\$ 2,677,953.68	\$ 1,715,841.89	\$ 1,584,448.48	\$ 1,470,805.16	\$ 1,429,202.96	\$ 1,400,549.71	\$ 1,315,169.39	\$ 1,375,025.85
11	Variance	Line 7 - Line 10	\$ -	\$ -	\$ 58,962.74	\$ 115,281.04	\$ 158,056.12	\$ 186,025.49	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - 2/

Journal Entry: To Record Revenue

01 01 25351 3 17 6250 489	2,002,041.71	3,187,226.34	4,027,846.21	3,832,932.80	2,894,145.82	1,870,245.82	1,184,101.61	838,476.73	780,699.38	786,802.54	787,626.60	1,120,647.66
01 01 48010 3 17 6220 489	(1,194,097.76)	(1,900,989.28)	(2,402,368.59)	(2,286,114.44)	(1,726,184.34)	(1,115,489.42)	(706,245.56)	(500,101.07)	(465,640.34)	(469,280.51)	(469,772.01)	(668,399.09)
01 01 48110 3 17 6220 489	(624,637.01)	(994,414.62)	(1,256,688.01)	(1,195,875.04)	(902,973.49)	(583,516.70)	(369,439.71)	(261,604.74)	(243,578.20)	(245,482.40)	(245,739.50)	(349,642.07)
01 01 48120 3 17 6220 489	(27,007.55)	(42,995.68)	(54,335.65)	(51,706.26)	(39,042.03)	(25,229.61)	(15,973.53)	(11,311.05)	(10,531.63)	(10,613.96)	(10,625.08)	(15,117.53)
01 01 48300 3 17 6220 489	(560.57)	(892.42)	(1,127.80)	(1,073.22)	(810.36)	(523.67)	(331.55)	(234.77)	(218.60)	(220.30)	(220.54)	(313.78)
01 01 48900 3 17 6220 489	(155,738.82)	(247,934.34)	(313,326.16)	(298,163.84)	(225,135.60)	(145,486.42)	(92,111.26)	(65,225.10)	(60,730.61)	(61,205.37)	(61,269.47)	(87,175.19)

Journal Entry: To Record Interest

01 01 25351 3 17 6250 626	23,236.54	22,998.30	18,283.41	11,831.22	9,942.68	8,807.89	6,481.19	5,679.83	5,655.56	5,518.55	5,296.17	5,547.82
01 01 43101 3 17 6220 626	(23,236.54)	(22,998.30)	(18,283.41)	(11,831.22)	(9,942.68)	(8,807.89)	(6,481.19)	(5,679.83)	(5,655.56)	(5,518.55)	(5,296.17)	(5,547.82)

^{1/} Pursuant to the TPUC's May 14, 2018 ruling in Docket No. 17-00138, this schedule reflects the approved monthly amortization of the annual Integrity Management Revenue Requirement from Piedmont's 2017 Annual Integrity Management Rider Report, which was filed by the Company on November 30, 2017. See Exhibit A of the Direct Testimony of Pia K. Powers in Docket No. 17-00138 for the approved monthly amortization.

^{2/} Pursuant to the TPUC's ruling, Piedmont recorded the approved IM Revenue Requirement to its general ledger for January 2018 thru April 2018. It was recorded as a true-up adjustment in May 2018.

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2017 thru October 2018)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		October - 2018			
Line No.		IM Adjustment (\$ per therm)	x Usage (therms)	= Collections (\$)	
1	Residential (301)	0.16057	2,415,541	387,863.42	
2	Small General (302)	0.14027	2,179,791	305,759.28	
3	Medium General (352)	0.14027	700,096	98,202.47	
4	Experimental Motor Vehicle Fuel (343/352)	0.14027	43	6.03	
5	Firm Lg General Sales (303)	0.06230	632,017	39,374.66	
6	Experimental Motor Vehicle Fuel (343/303)	0.06230	34,297	2,136.70	
7	Firm Lg General Transportation (313)	0.06230	1,599,723	99,662.74	
8	Experimental Motor Vehicle Fuel (343/313)	0.06230	146,174	9,106.64	
9	Firm Resale (310)	0.06230	857	53.39	
10	Interruptible Lg General Sales (304)	0.01557	36,189	563.46	
11	Interruptible Lg General Transportation (314)	0.01557	7,939,000	123,610.23	
12	Total			\$ 1,066,339.02	

Journal Entry: To Record Collections

01 01 48010 3 17 6220 489	387,863.42
01 01 48110 3 17 6220 489	305,759.28
01 01 48110 3 17 6220 489	98,208.50
01 01 48120 3 17 6220 489	41,511.36
01 01 48900 3 17 6220 489	108,769.38
01 01 48300 3 17 6220 489	53.39
01 01 48120 3 17 6220 489	563.46
01 01 48900 3 17 6220 489	123,610.23
01 01 25351 3 17 6250 489	(1,066,339.02)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2017 thru October 2018)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		September 2018			
Line No.		IM Adjustment (\$ per therm)	x	Usage (therms)	= Collections (\$)
1	Residential (301)	0.16057		1,950,336	313,165.45
2	Small General Sales (302)	0.14027		2,006,548	281,458.49
3	Medium General Sales (352)	0.14027		586,664	82,291.36
4	Experimental Motor Vehicle Fuel (343/352)	0.14027		32	4.49
5	Firm Lg General Sales (303)	0.06230		313,864	19,553.73
6	Experimental Motor Vehicle Fuel (343/303)	0.06230		34,507	2,149.79
7	Firm Lg General Transportation (313)	0.06230		1,149,609	71,620.64
8	Experimental Motor Vehicle Fuel (343/313)	0.06230		130,141	8,107.78
9	Firm Resale (310)	0.06230		349	21.74
10	Interruptible Lg General Sales (304)	0.01557		25,931	403.75
11	Interruptible Lg General Transportation (314)	0.01557		6,392,156	99,525.87
12	Total				\$ 878,303.09

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	313,165.45
47136 0481200 GA489 PTOP 0526 COMSTD	281,458.49
47136 0481200 GA489 PTOP 0526 COMSTD	82,295.85
47136 0481000 GA489 PTOP 0526 INDSLS	21,703.52
47136 0489000 GA489 PTOP 0526 BOTHRV	79,728.42
47136 0483011 GA489 PTOP 0526 GASRSL	21.74
47136 0481000 GA489 PTOP 0526 INDSLS	403.75
47136 0489000 GA489 PTOP 0526 BOTHRV	99,525.87
47136 0253139 GA489 PTOP	(878,303.09)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2017 thru October 2018)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		August 2018			
Line No.		IM Adjustment (\$ per therm)	x	Usage (therms)	= Collections (\$)
1	Residential (301)	0.16057		1,719,601	276,116.33
2	Small General Sales (302)	0.14027		1,833,630	257,203.28
3	Medium General Sales (352)	0.14027		540,639	75,835.43
4	Experimental Motor Vehicle Fuel (343/352)	0.14027		32	4.49
5	Firm Lg General Sales (303)	0.06230		312,321	19,457.60
6	Experimental Motor Vehicle Fuel (343/303)	0.06230		35,921	2,237.88
7	Firm Lg General Transportation (313)	0.06230		1,206,953	75,193.17
8	Experimental Motor Vehicle Fuel (343/313)	0.06230		146,932	9,153.86
9	Firm Resale (310)	0.06230		297	18.50
10	Interruptible Lg General Sales (304)	0.01557		8,988	139.94
11	Interruptible Lg General Transportation (314)	0.01557		6,783,164	105,613.86
12	Total				\$ 820,974.34

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	276,116.33
47136 0481200 GA489 PTOP 0526 COMSTD	257,203.28
47136 0481200 GA489 PTOP 0526 COMSTD	75,839.92
47136 0481000 GA489 PTOP 0526 INDSLS	21,695.48
47136 0489000 GA489 PTOP 0526 BOTHRV	84,347.03
47136 0483011 GA489 PTOP 0526 GASRSL	18.50
47136 0481000 GA489 PTOP 0526 INDSLS	139.94
47136 0489000 GA489 PTOP 0526 BOTHRV	105,613.86
47136 0253139 GA489 PTOP	(820,974.34)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2017 thru October 2018)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

<u>Line No.</u>		July 2018			
		IM Adjustment (\$ per therm)	x	Usage (therms)	= Collections (\$)
1	Residential (301)	0.16057		1,827,276	293,405.71
2	Small General Sales (302)	0.14027		1,821,263	255,468.56
3	Medium General Sales (352)	0.14027		558,641	78,360.57
4	Experimental Motor Vehicle Fuel (343/352)	0.14027		32	4.49
5	Firm Lg General Sales (303)	0.06230		284,094	17,699.06
6	Experimental Motor Vehicle Fuel (343/303)	0.06230		35,833	2,232.40
7	Firm Lg General Transportation (313)	0.06230		1,074,579	66,946.27
8	Experimental Motor Vehicle Fuel (343/313)	0.06230		139,783	8,708.48
9	Firm Resale (310)	0.06230		264	16.45
10	Interruptible Lg General Sales (304)	0.01557		5,241	81.60
11	Interruptible Lg General Transportation (314)	0.01557		6,745,893	105,033.55
12	Total				\$ 827,957.14

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	293,405.71
47136 0481200 GA489 PTOP 0526 COMSTD	255,468.56
47136 0481200 GA489 PTOP 0526 COMSTD	78,365.06
47136 0481000 GA489 PTOP 0526 INDSLS	19,931.46
47136 0489000 GA489 PTOP 0526 BOTHRV	75,654.75
47136 0483011 GA489 PTOP 0526 GASRSL	16.45
47136 0481000 GA489 PTOP 0526 INDSLS	81.60
47136 0489000 GA489 PTOP 0526 BOTHRV	105,033.55
47136 0253139 GA489 PTOP	(827,957.14)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2017 thru October 2018)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		June 2018			
		IM Adjustment		Usage	Collections
		(\$ per therm)	x	(therms)	= (\$)
<u>Line No.</u>					
1	Residential (301)	0.16057		2,290,562	367,795.54
2	Small General Sales (302)	0.14027		2,104,321	295,173.11
3	Medium General Sales (352)	0.14027		658,030	92,301.87
4	Experimental Motor Vehicle Fuel (343/352)	0.14027		-	-
5	Firm Lg General Sales (303)	0.06230		287,228	17,894.30
6	Experimental Motor Vehicle Fuel (343/303)	0.06230		33,652	2,096.52
7	Firm Lg General Transportation (313)	0.06230		1,153,627	71,870.96
8	Experimental Motor Vehicle Fuel (343/313)	0.06230		135,033	8,412.56
9	Firm Resale (310)	0.06230		274	17.07
10	Interruptible Lg General Sales (304)	0.01557		37,443	582.99
11	Interruptible Lg General Transportation (314)	0.01557		6,528,899	101,654.96
12	Total				\$ 957,799.88

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	367,795.54
47136 0481200 GA489 PTOP 0526 COMSTD	295,173.11
47136 0481200 GA489 PTOP 0526 COMSTD	92,301.87
47136 0481000 GA489 PTOP 0526 INDSLS	19,990.82
47136 0489000 GA489 PTOP 0526 BOTHRV	80,283.52
47136 0483011 GA489 PTOP 0526 GASRSL	17.07
47136 0481000 GA489 PTOP 0526 INDSLS	582.99
47136 0489000 GA489 PTOP 0526 BOTHRV	101,654.96
47136 0253139 GA489 PTOP	(957,799.88)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2017 thru October 2018)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		May 2018			
Line No.		IM Adjustment (\$ per therm)	x	Usage (therms)	= Collections (\$)
1	Residential (301)	0.13124		6,268,071	822,621.64
2	Small General Sales (302)	0.11465		3,315,230	380,091.12
3	Medium General Sales (352)	0.11465		1,076,675	123,440.79
4	Experimental Motor Vehicle Fuel (343/352)	0.11465		1,306	149.73
5	Firm Lg General Sales (303)	0.05092		316,655	16,124.07
6	Experimental Motor Vehicle Fuel (343/303)	0.05092		33,444	1,702.97
7	Firm Lg General Transportation (313)	0.05092		1,267,172	64,524.40
8	Experimental Motor Vehicle Fuel (343/313)	0.05092		142,995	7,281.31
9	Firm Resale (310)	0.05092		431	21.95
10	Interruptible Lg General Sales (304)	0.01273		20,600	262.24
11	Interruptible Lg General Transportation (314)	0.01273		7,209,857	91,781.48
12	Total				\$ 1,508,001.70

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	822,621.64
47136 0481200 GA489 PTOP 0526 COMSTD	380,091.12
47136 0481200 GA489 PTOP 0526 COMSTD	123,590.52
47136 0481000 GA489 PTOP 0526 INDSLS	17,827.04
47136 0489000 GA489 PTOP 0526 BOTHRV	71,805.71
47136 0483011 GA489 PTOP 0526 GASRSL	21.95
47136 0481000 GA489 PTOP 0526 INDSLS	262.24
47136 0489000 GA489 PTOP 0526 BOTHRV	91,781.48
47136 0253139 GA489 PTOP	(1,508,001.70)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2017 thru October 2018)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		April 2018		
Line No.		IM Adjustment (\$ per therm)	x Usage (therms)	= Collections (\$)
1	Residential (301)	0.13124	12,942,568	1,698,582.62
2	Small General Sales (302)	0.11465	5,716,112	655,352.24
3	Medium General Sales (352)	0.11465	1,901,353	217,990.12
4	Experimental Motor Vehicle Fuel (343/352)	0.11465	726	83.24
5	Firm Lg General Sales (303)	0.05092	598,061	30,453.27
6	Experimental Motor Vehicle Fuel (343/303)	0.05092	29,889	1,521.95
7	Firm Lg General Transportation (313)	0.05092	1,847,138	94,056.27
8	Experimental Motor Vehicle Fuel (343/313)	0.05092	125,971	6,414.44
9	Firm Resale (310)	0.05092	1,185	60.34
10	Interruptible Lg General Sales (304)	0.01273	16,468	209.64
11	Interruptible Lg General Transportation (314)	0.01273	8,520,974	108,472.00
12	Total			\$ 2,813,196.13

Journal Entry: To Record Collections

47136 0480000 GA489 PTOPTOP 0526 RESVAL	1,698,582.62
47136 0481200 GA489 PTOPTOP 0526 COMSTD	655,352.24
47136 0481200 GA489 PTOPTOP 0526 COMSTD	218,073.36
47136 0481000 GA489 PTOPTOP 0526 INDSLS	31,975.22
47136 0489000 GA489 PTOPTOP 0526 BOTHRV	100,470.71
47136 0483011 GA489 PTOPTOP 0526 GASRSL	60.34
47136 0481000 GA489 PTOPTOP 0526 INDSLS	209.64
47136 0489000 GA489 PTOPTOP 0526 BOTHRV	108,472.00
47136 0253139 GA489 PTOPTOP	(2,813,196.13)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2017 thru October 2018)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		March 2018			
Line No.		IM Adjustment (\$ per therm)	x	Usage (therms)	= Collections (\$)
1	Residential (301)	0.13124		13,053,596	1,713,153.94
2	Small General Sales (302)	0.11465		5,976,208	685,172.25
3	Medium General Sales (352)	0.11465		1,647,324	188,865.70
4	Experimental Motor Vehicle Fuel (343/352)	0.11465		501	57.44
5	Firm Lg General Sales (303)	0.05092		758,566	38,626.18
6	Experimental Motor Vehicle Fuel (343/303)	0.05092		31,342	1,595.93
7	Firm Lg General Transportation (313)	0.05092		2,122,432	108,074.24
8	Experimental Motor Vehicle Fuel (343/313)	0.05092		124,796	6,354.61
9	Firm Resale (310)	0.05092		1,707	86.92
10	Interruptible Lg General Sales (304)	0.01273		19,005	241.93
11	Interruptible Lg General Transportation (314)	0.01273		8,950,988	113,946.08
12	Total				\$ 2,856,175.22

Journal Entry: To Record Collections

47136 0480000 GA489 PTOP 0526 RESVAL	1,713,153.94
47136 0481200 GA489 PTOP 0526 COMSTD	685,172.25
47136 0481200 GA489 PTOP 0526 COMSTD	188,923.14
47136 0481000 GA489 PTOP 0526 INDSLS	40,222.11
47136 0489000 GA489 PTOP 0526 BOTHRV	114,428.85
47136 0483011 GA489 PTOP 0526 GASRSL	86.92
47136 0481000 GA489 PTOP 0526 INDSLS	241.93
47136 0489000 GA489 PTOP 0526 BOTHRV	113,946.08
47136 0253139 GA489 PTOP	(2,856,175.22)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2017 thru October 2018)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		February 2018			
Line No.		IM Adjustment (\$ per therm)	x	Usage (therms)	= Collections (\$)
1	Residential (301)	0.13124		24,618,181	3,230,890.07
2	Small General Sales (302)	0.11465		9,943,883	1,140,066.19
3	Medium General Sales (352)	0.11465		2,924,912	335,341.16
4	Experimental Motor Vehicle Fuel (343/352)	0.11465		955	109.49
5	Firm Lg General Sales (303)	0.05092		732,136	37,280.37
6	Experimental Motor Vehicle Fuel (343/303)	0.05092		28,242	1,438.08
7	Firm Lg General Transportation (313)	0.05092		2,020,858	102,902.09
8	Experimental Motor Vehicle Fuel (343/313)	0.05092		117,006	5,957.95
9	Firm Resale (310)	0.05092		1,743	88.75
10	Interruptible Lg General Sales (304)	0.01273		16,603	211.36
11	Interruptible Lg General Transportation (314)	0.01273		8,377,781	106,649.15
12	Total				\$ 4,960,934.66

Journal Entry: To Record Collections

01 01 48010 3 17 6220 489	3,230,890.07
01 01 48110 3 17 6220 489	1,140,066.19
01 01 48110 3 17 6220 489	335,450.65
01 01 48120 3 17 6220 489	38,718.45
01 01 48900 3 17 6220 489	108,860.04
01 01 48300 3 17 6220 489	88.75
01 01 48120 3 17 6220 489	211.36
01 01 48900 3 17 6220 489	106,649.15
01 01 25351 3 17 6250 489	(4,960,934.66)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2017 thru October 2018)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		January 2018			
Line No.		IM Adjustment (\$ per therm)	x Usage (therms)	= Collections (\$)	
1	Residential (301)	0.13124	31,969,737	4,195,708.28	
2	Small General Sales (302)	0.11465	13,600,104	1,559,251.92	
3	Medium General Sales (352)	0.11465	4,153,038	476,145.81	
4	Experimental Motor Vehicle Fuel (343/352)	0.11465	1,405	161.08	
5	Firm Lg General Sales (303)	0.05092	1,211,038	61,666.05	
6	Experimental Motor Vehicle Fuel (343/303)	0.05092	30,669	1,561.67	
7	Firm Lg General Transportation (313)	0.05092	2,787,484	141,938.69	
8	Experimental Motor Vehicle Fuel (343/313)	0.05092	126,560	6,444.44	
9	Firm Resale (310)	0.05092	3,506	178.53	
10	Interruptible Lg General Sales (304)	0.01273	32,497	413.69	
11	Interruptible Lg General Transportation (314)	0.01273	10,698,211	136,188.23	
12	Total			\$ 6,579,658.39	

Journal Entry: To Record Collections

01 01 48010 3 17 6220 489	4,195,708.28
01 01 48110 3 17 6220 489	1,559,251.92
01 01 48110 3 17 6220 489	476,306.89
01 01 48120 3 17 6220 489	63,227.72
01 01 48900 3 17 6220 489	148,383.13
01 01 48300 3 17 6220 489	178.53
01 01 48120 3 17 6220 489	413.69
01 01 48900 3 17 6220 489	136,188.23
01 01 25351 3 17 6250 489	(6,579,658.39)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2017 thru October 2018)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		December 2017			
Line No.		IM Adjustment (\$ per therm)	x	Usage (therms)	= Collections (\$)
1	Residential (301)	0.13124		16,119,598	2,115,536.04
2	Small General Sales (302)	0.11465		6,830,906	783,163.37
3	Medium General Sales (352)	0.11465		2,313,325	265,222.71
4	Experimental Motor Vehicle Fuel (343/352)	0.11465		1,432	164.18
5	Firm Lg General Sales (303)	0.05092		1,013,265	51,595.45
6	Experimental Motor Vehicle Fuel (343/303)	0.05092		29,097	1,481.62
7	Firm Lg General Transportation (313)	0.05092		2,408,475	122,639.55
8	Experimental Motor Vehicle Fuel (343/313)	0.05092		122,696	6,247.68
9	Firm Resale (310)	0.05092		2,928	149.09
10	Interruptible Lg General Sales (304)	0.01273		41,307	525.84
11	Interruptible Lg General Transportation (314)	0.01273		9,648,299	122,822.85
12	Total				\$ 3,469,548.38

Journal Entry: To Record Collections

01 01 48010 3 17 6220 489	2,115,536.04
01 01 48110 3 17 6220 489	783,163.37
01 01 48110 3 17 6220 489	265,386.89
01 01 48120 3 17 6220 489	53,077.07
01 01 48900 3 17 6220 489	128,887.23
01 01 48300 3 17 6220 489	149.09
01 01 48120 3 17 6220 489	525.84
01 01 48900 3 17 6220 489	122,822.85
01 01 25351 3 17 6250 489	(3,469,548.38)

Schedule of Journal Entries Related to the Integrity Management Rider for the Previous Twelve Months (November 2017 thru October 2018)

General Ledger Support: Integrity Management Deferred Account Adjustment

Billing Determinants & Collections from the Integrity Management Adjustment By Month

		November 2017			
		IM Adjustment		Usage	Collections
		(\$ per therm)	x	(therms)	= (\$)
<u>Line No.</u>					
1	Residential (301)	0.13124		7,769,511	1,019,670.62
2	Small General Sales (302)	0.11465		4,067,386	466,325.80
3	Medium General Sales (352)	0.11465		1,509,261	173,036.77
4	Experimental Motor Vehicle Fuel (343/352)	0.11465		2,359	270.46
5	Firm Lg General Sales (303)	0.05092		650,515	33,124.22
6	Experimental Motor Vehicle Fuel (343/303)	0.05092		28,710	1,461.91
7	Firm Lg General Transportation (313)	0.05092		1,891,428	96,311.51
8	Experimental Motor Vehicle Fuel (343/313)	0.05092		126,009	6,416.38
9	Firm Resale (310)	0.05092		1,525	77.65
10	Interruptible Lg General Sales (304)	0.01273		40,811	519.52
11	Interruptible Lg General Transportation (314)	0.01273		8,232,936	104,805.28
12	Total				\$ 1,902,020.12

Journal Entry: To Record Collections

01 01 48010 3 17 6220 489	1,019,670.62
01 01 48110 3 17 6220 489	466,325.80
01 01 48110 3 17 6220 489	173,307.23
01 01 48120 3 17 6220 489	34,586.13
01 01 48900 3 17 6220 489	102,727.89
01 01 48300 3 17 6220 489	77.65

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 2019 -Dec 31 2019							
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]	\$ 15,435,431	\$ 8,074,499	\$ 1,280,077	\$ 1,089,296	\$ 25,879,303
3	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
4	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
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]	\$1.46050	\$1.27590	\$0.56670	\$0.14170	
7	Proposed Integrity Management Rate per therm	[= Line 6 / 10]	\$0.14605	\$0.12759	\$0.05667	\$0.01417	
As previously approved:							
Jan 1 2018 -Dec 31 2018							
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 of 2017 Revised Annual Report x Line 8]	\$ 13,950,563	\$ 7,297,742	\$ 1,156,936	\$ 984,507	\$ 23,389,748
10	Deferred Account Adjustment Due From (To) Customers	Actual Deferred Account Balance at Oct 31, 2017	\$ 3,920,909	\$ 2,051,084	\$ 325,165	\$ 276,703	\$ 6,573,862
11	Total Amount for Recovery in this Rider	[= Line 9 + Line 10]	\$ 17,871,472	\$ 9,348,827	\$ 1,482,101	\$ 1,261,210	\$ 29,963,610
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 11 / Line 12]	\$1.60570	\$1.40270	\$0.62300	\$0.15570	
14	Proposed Integrity Management Rate per therm	[= Line 13 / 10]	\$0.16057	\$0.14027	\$0.06230	\$0.01557	

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%

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Summary of IMRR Computation

Line No.	Vintage Year	Rate Period	Rate Period
		Jan 1 2018 - Dec 31 2018	Jan 1 2019 - Dec 31 2019
1	Vintage 1	\$ 11,053,279	\$ 10,598,010
2	Vintage 2	4,922,199	4,819,830
3	Vintage 3	1,723,556	1,686,918
4	Vintage 4	1,924,902	1,882,949
5	Vintage 5	3,765,812	3,666,757
6	Vintage 6	n/a	3,224,839
7	Total	<u>23,389,748</u>	<u>25,879,303</u>
8	Total IMRR, excluding IM Deferred Account Adjustment	<u>\$ 23,389,748</u>	<u>\$ 25,879,303</u>

Spread of Total IMRR, excluding IM Deferred Adjustment, by Month			
9	January	\$ 4,027,846	\$ 4,456,562
10	February	3,832,933	4,240,902
11	March	2,894,146	3,202,193
12	April	1,870,246	2,069,311
13	May	1,184,102	1,310,135
14	June	838,477	927,722
15	July	780,699	863,795
16	August	786,803	870,548
17	September	787,627	871,460
18	October	1,120,648	1,239,927
19	November	2,031,731	2,247,984
20	December	<u>3,234,492</u>	<u>3,578,764</u>
21	Total	<u>\$ 23,389,748</u>	<u>\$ 25,879,303</u>

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
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Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2019 - December 31, 2019

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>
Plant	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)
Net plant	99,331,807	97,877,366	96,422,925	94,968,484	93,514,043	92,059,602
ADIT	(4,057,566)	(6,977,762)	(9,549,872)	(24,529,845)	(25,236,572)	(25,647,749)
NOL benefit	-	-	-	24,529,845	21,449,590	18,707,682
Net investment	95,274,242	90,899,604	86,873,053	94,968,484	89,727,060	85,119,535
Pre-tax ROR%	11.446%	11.446%	11.446%	11.446%	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
Depreciation expense	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
Total, excluding uncollectibles	13,091,459	12,590,752	12,129,886	13,056,463	11,049,875	10,594,746
Uncollectibles gross-up factor	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
<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%

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

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		<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	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%
FIT rate		35.00%	35.00%	35.00%	35.00%	21.00%	21.00%
Composite income tax rate		39.23%	39.23%	39.23%	39.23%	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%	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.
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Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2019 - December 31, 2019

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

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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	57,425,347
Tax year 3	8.55%	8,576,187	23,120,598	4,288,094	61,713,441
Tax year 4	7.70%	7,723,584	30,844,182	3,861,792	65,575,233
Tax year 5	6.93%	6,951,225	37,795,407	3,475,613	69,050,845
Tax year 6	6.23%	6,249,081	44,044,489	3,124,541	72,175,386
Tax year 7	5.90%	5,918,071	49,962,560	2,959,035	75,134,421
Tax year 8	5.90%	5,918,071	55,880,630	2,959,035	78,093,457
Tax year 9	5.91%	5,928,101	61,808,732	2,964,051	81,057,507
Tax year 10	5.90%	5,918,071	67,726,802	2,959,035	84,016,543
Tax year 11	5.91%	5,928,101	73,654,904	2,964,051	86,980,593
Tax year 12	5.90%	5,918,071	79,572,974	2,959,035	89,939,629
Tax year 13	5.91%	5,928,101	85,501,076	2,964,051	92,903,679
Tax year 14	5.90%	5,918,071	91,419,146	2,959,035	95,862,715
Tax year 15	5.91%	5,928,101	97,347,248	2,964,051	98,826,765
Tax year 16	2.95%	2,959,035	100,306,283	1,479,518	100,306,283
Total	100.00%	100,306,283		100,306,283	

	<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	247,255					
Rider year BOY amount	247,255	1,701,696	3,156,137	4,610,578	6,065,019	7,519,461
Depreciation expense	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
Average accumulated depreciation	974,476	2,428,917	3,883,358	5,337,799	6,792,240	8,246,681

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2019 - December 31, 2019

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

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MACRS 15						
<u>Tax depreciation reserve</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>
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
Tax period A tax depreciation	7,909,150	7,118,235	6,410,575	5,769,517	5,186,738	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
Rider year EOY amount	16,002,363	24,433,607	32,025,890	38,857,751	45,050,561	50,968,632
Average tax depreciation reserve	11,318,812	20,217,985	28,229,749	35,441,821	41,954,156	48,009,596
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
Average book depreciation reserve	974,476	2,428,917	3,883,358	5,337,799	6,792,240	8,246,681
Difference	10,344,336	17,789,069	24,346,391	30,104,022	35,161,916	39,762,915
Tax difference balance	10,344,336	17,789,069	24,346,391	30,104,022	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%
Incremental tax difference beginning Year 6	-	-	-	-	-	4,600,999
Composite tax rate w 21% FIT rate	0.00%	0.00%	0.00%	0.00%	0.00%	26.14%
Average ADIT	4,057,566	6,977,762	9,549,872	11,808,303	13,792,262	14,994,733
Note - composite tax rate ignores excess deferred tax flowback						
	-	-	-	-	-	-
BONUS 50%						
<u>Tax depreciation reserve</u>						
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
Tax period A tax depreciation	3,954,575	3,559,118	3,205,287	2,884,759	2,593,369	2,455,999
Tax period B tax depreciation	728,976	656,505	590,854	531,172	503,036	503,036
Rider year EOY amount	58,154,323	62,369,945	66,166,087	69,582,017	72,678,422	75,637,457
Average tax depreciation reserve	55,812,547	60,262,134	64,268,016	67,874,052	71,130,220	74,157,940
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
Average book depreciation reserve	974,476	2,428,917	3,883,358	5,337,799	6,792,240	8,246,681
Difference	54,838,072	57,833,217	60,384,658	62,536,253	64,337,980	65,911,259
Tax difference balance	54,838,072	57,833,217	60,384,658	62,536,253	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%
Incremental tax difference beginning Year 6	-	-	-	-	-	1,573,279
Composite tax rate w 21% FIT rate	0.00%	0.00%	0.00%	0.00%	0.00%	26.14%
Average ADIT	21,510,234	22,685,080	23,685,882	24,529,845	25,236,572	25,647,749

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Annual Revenue Requirement Computation
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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>
Plant	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)
Net plant	53,450,312	52,667,679	51,885,047	51,102,414	50,319,781
ADIT	(2,183,371)	(3,754,724)	(12,745,341)	(13,199,477)	(13,452,857)
NOL benefit			1,075,611	-	-
Net investment	51,266,941	48,912,955	40,215,316	37,902,937	36,866,924
Pre-tax ROR%	11.446%	11.446%	11.446%	9.878%	9.878%
Pre-tax rate of return	5,867,848	5,598,419	4,602,915	3,744,035	3,641,698
Depreciation expense	782,633	782,633	782,633	782,633	782,633
Property Tax expense	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
Uncollectibles gross-up factor	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
<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%

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	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</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%
FIT rate	35.00%	35.00%	35.00%	21.00%	21.00%
Composite income tax rate	39.23%	39.23%	39.23%	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%	8.846%	7.279%
Total	7.976%	11.446%	11.446%	11.446%	9.878%

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Annual Revenue Requirement Computation
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Vintage Year 2 - November 1, 2013 thru October 31, 2014

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Tax depreciation schedule

	Rate	MACRS 15		BONUS 50%	
		Yearly	Cumulative	Yearly	Cumulative
Tax year 1	5.00%	2,698,734		28,336,705	
Tax year 2	9.50%	5,127,594	7,826,328	2,563,797	30,900,502
Tax year 3	8.55%	4,614,835	12,441,163	2,307,417	33,207,920
Tax year 4	7.70%	4,156,050	16,597,213	2,078,025	35,285,945
Tax year 5	6.93%	3,740,445	20,337,658	1,870,223	37,156,167
Tax year 6	6.23%	3,362,622	23,700,280	1,681,311	38,837,478
Tax year 7	5.90%	3,184,506	26,884,786	1,592,253	40,429,731
Tax year 8	5.90%	3,184,506	30,069,292	1,592,253	42,021,984
Tax year 9	5.91%	3,189,903	33,259,195	1,594,952	43,616,936
Tax year 10	5.90%	3,184,506	36,443,701	1,592,253	45,209,189
Tax year 11	5.91%	3,189,903	39,633,605	1,594,952	46,804,140
Tax year 12	5.90%	3,184,506	42,818,111	1,592,253	48,396,393
Tax year 13	5.91%	3,189,903	46,008,014	1,594,952	49,991,345
Tax year 14	5.90%	3,184,506	49,192,520	1,592,253	51,583,598
Tax year 15	5.91%	3,189,903	52,382,423	1,594,952	53,178,550
Tax year 16	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>
Accumulated depreciation					
Portion of year in service before rider					
Pre-rider amount of depreciation	17%				
Rider year BOY amount	133,048				
Depreciation expense	133,048	915,680	1,698,313	2,480,946	3,263,579
Rider year EOY amount	782,633	782,633	782,633	782,633	782,633
Average accumulated depreciation	915,680	1,698,313	2,480,946	3,263,579	4,046,212
	524,364	1,306,997	2,089,630	2,872,262	3,654,895

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2019 - December 31, 2019

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

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MACRS 15					
<u>Tax depreciation reserve</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
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
Tax period A tax depreciation	4,255,903	3,830,313	3,449,522	3,104,569	2,790,977
Tax period B tax depreciation	784,522	706,529	635,876	571,646	541,366
Rider year EOY amount	8,610,850	13,147,691	17,233,089	20,909,304	24,241,646
Average tax depreciation reserve	6,090,637	10,879,271	15,190,390	19,071,196	22,575,475
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
Average book depreciation reserve	524,364	1,306,997	2,089,630	2,872,262	3,654,895
Difference	5,566,273	9,572,274	13,100,760	16,198,934	18,920,580
Tax difference balance	5,566,273	9,572,274	13,100,760	16,198,934	16,198,934
Composite tax rate w 35% FIT rate	39.23%	39.23%	39.23%	39.23%	39.23%
Incremental tax difference beginning Year 5	-	-	-	-	2,721,646
Composite tax rate w 21% FIT rate	0.00%	0.00%	0.00%	0.00%	26.14%
Average ADIT	2,183,371	3,754,724	5,138,773	6,354,032	7,065,334
Note - composite tax rate ignores excess deferred tax flowback					
BONUS 50%					
<u>Tax depreciation reserve</u>					
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
Tax period A tax depreciation	2,127,952	1,915,156	1,724,761	1,552,285	1,395,488
Tax period B tax depreciation	392,261	353,264	317,938	285,823	270,683
Rider year EOY amount	31,292,763	33,561,184	35,603,882	37,441,990	39,108,161
Average tax depreciation reserve	30,032,657	32,426,973	34,582,533	36,522,936	38,275,076
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
Average book depreciation reserve	524,364	1,306,997	2,089,630	2,872,262	3,654,895
Difference	29,508,293	31,119,977	32,492,903	33,650,674	34,620,180
Tax difference balance	29,508,293	31,119,977	32,492,903	33,650,674	33,650,674
Composite tax rate w 35% FIT rate	39.23%	39.23%	39.23%	39.23%	39.23%
Incremental tax difference beginning Year 5	-	-	-	-	969,507
Composite tax rate w 21% FIT rate	0.00%	0.00%	0.00%	0.00%	26.14%
Average ADIT	11,574,628	12,206,811	12,745,341	13,199,477	13,452,857

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
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Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2019 - December 31, 2019

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>
Plant	18,441,896	18,441,896	18,441,896	18,441,896
Accumulated depreciation	(179,163)	(446,571)	(713,978)	(981,386)
Net plant	18,262,733	17,995,326	17,727,918	17,460,511
ADIT	(746,007)	(4,170,784)	(4,354,788)	(4,458,173)
NOL benefit	-	-	-	-
Net investment	17,516,726	13,824,541	13,373,130	13,002,337
Pre-tax ROR%	11.446%	11.446%	9.878%	9.878%
Pre-tax rate of return	2,004,908	1,582,312	1,320,992	1,284,365
Depreciation expense	267,407	267,407	267,407	267,407
Property Tax expense	134,626	134,626	134,626	134,626
Total, excluding uncollectibles	2,406,941	1,984,346	1,723,025	1,686,398
Uncollectibles gross-up factor	1.000308	1.000308	1.000308	1.000308
Total revenue requirement	2,407,683	1,984,957	1,723,556	1,686,918
<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%

Piedmont Natural Gas Company, Inc.
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Vintage Year 3 - November 1, 2014 thru October 31, 2015

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	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</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%
FIT rate	35.00%	35.00%	21.00%	21.00%
Composite income tax rate	39.23%	39.23%	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%
STD	0.093%	0.093%	0.093%	0.093%
Common equity	5.376%	8.846%	8.846%	7.279%
Total	7.976%	11.446%	11.446%	9.878%

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

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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>
Accumulated depreciation				
Portion of year in service before rider				
Pre-rider amount of depreciation	45,459			
Rider year BOY amount	45,459	312,867	580,274	847,682
Depreciation expense	267,407	267,407	267,407	267,407
Rider year EOY amount	312,867	580,274	847,682	1,115,089
Average accumulated depreciation	179,163	446,571	713,978	981,386

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2019 - December 31, 2019

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

MACRS 15				
<u>Tax depreciation reserve</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>
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
Tax period A tax depreciation	1,454,144	1,308,729	1,178,622	1,060,759
Tax period B tax depreciation	268,053	241,404	217,264	195,318
Rider year EOY amount	2,942,128	4,492,261	5,888,147	7,144,225
Average tax depreciation reserve	2,081,030	3,717,195	5,190,204	6,516,186
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	2,081,030	3,717,195	5,190,204	6,516,186
Average book depreciation reserve	179,163	446,571	713,978	981,386
Difference	1,901,867	3,270,624	4,476,226	5,534,800
Tax difference balance	1,901,867	3,270,624	4,476,226	4,476,226
Composite tax rate w 35% FIT rate	39.23%	39.23%	39.23%	39.23%
Incremental tax difference beginning Year 4	-	-	-	1,058,574
Composite tax rate w 21% FIT rate	0.00%	0.00%	0.00%	26.14%
Average ADIT	746,007	1,282,902	1,755,800	2,032,458
Note - composite tax rate ignores excess deferred tax flowback				
BONUS 50%				
<u>Tax depreciation reserve</u>				
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
Tax period A tax depreciation	727,072	654,365	589,311	530,380
Tax period B tax depreciation	134,026	120,702	108,632	97,659
Rider year EOY amount	10,692,012	11,467,079	12,165,022	12,793,060
Average tax depreciation reserve	10,261,463	11,079,545	11,816,050	12,479,041
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	10,261,463	11,079,545	11,816,050	12,479,041
Average book depreciation reserve	179,163	446,571	713,978	981,386
Difference	10,082,300	10,632,975	11,102,072	11,497,655
Tax difference balance	10,082,300	10,632,975	11,102,072	11,102,072
Composite tax rate w 35% FIT rate	39.23%	39.23%	39.23%	39.23%
Incremental tax difference beginning Year 4	-	-	-	395,583
Composite tax rate w 21% FIT rate	0.00%	0.00%	0.00%	26.14%
Average ADIT	3,954,782	4,170,784	4,354,788	4,458,173

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Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2019 - December 31, 2019

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

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
Plant	20,076,718	20,076,718	20,076,718
Accumulated depreciation	(195,045)	(486,158)	(777,270)
Net plant	19,881,673	19,590,560	19,299,448
ADIT	(4,305,362)	(4,540,513)	(4,673,979)
NOL benefit	-	-	-
Net investment	15,576,310	15,050,048	14,625,469
Pre-tax ROR%	11.446%	9.878%	9.878%
Pre-tax rate of return	1,782,814	1,486,637	1,444,697
Depreciation expense	291,112	291,112	291,112
Property Tax expense	146,560	146,560	146,560
Total, excluding uncollectibles	2,220,487	1,924,309	1,882,370
Uncollectibles gross-up factor	1.000308	1.000308	1.000308
Total revenue requirement	2,221,171	1,924,902	1,882,949
<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%

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

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		<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</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%
FIT rate		35.00%	21.00%	21.00%
Composite income tax rate		39.23%	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%	8.846%	7.279%	7.279%
Total	7.976%	11.446%	9.878%	9.878%

Piedmont Natural Gas Company, Inc.
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Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2019 - December 31, 2019

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

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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

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
17%			
49,489			
	49,489	340,602	631,714
	291,112	291,112	291,112
	340,602	631,714	922,826
	195,045	486,158	777,270

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

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BONUS 50%	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
<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
Tax period A tax depreciation	791,525	712,372	641,552
Tax period B tax depreciation	145,908	131,402	118,262
Rider year EOY amount	11,639,829	12,483,603	13,243,416
Average tax depreciation reserve	11,171,113	12,061,716	12,863,510
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
Average book depreciation reserve	195,045	486,158	777,270
Difference	10,976,067	11,575,558	12,086,239
Tax difference balance	10,976,067	11,575,558	11,575,558
Composite tax rate w 35% FIT rate	39.23%	39.23%	39.23%
Incremental tax difference beginning Year 3	-	-	510,681.44
Composite tax rate w 21% FIT rate	0.00%	0.00%	26.14%
Average ADIT	4,305,362	4,540,513	4,673,979

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

	<u>Year 1</u>	<u>Year 2</u>
Plant	38,244,253	38,244,253
Accumulated depreciation	(371,543)	(926,085)
Net plant	37,872,710	37,318,168
ADIT	(8,201,309)	(8,649,248)
NOL benefit	-	-
Net investment	29,671,401	28,668,920
Pre-tax ROR%	9.878%	9.878%
Pre-tax rate of return	2,930,927	2,831,903
Depreciation expense	554,542	554,542
Property Tax expense	279,183	279,183
Total, excluding uncollectibles	3,764,652	3,665,628
Uncollectibles gross-up factor	1.000308	1.000308
Total revenue requirement	3,765,812	3,666,757

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% 7.30%

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

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		<u>Year 1</u>	<u>Year 2</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%
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%

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

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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

	<u>Year 1</u>	<u>Year 2</u>
17%		
94,272		
	94,272	648,814
	554,542	554,542
	648,814	1,203,355
	371,543	926,085

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 18-_____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2019 - December 31, 2019

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

2018 IMR Annual Report
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BONUS 50%		<u>Year 1</u>	<u>Year 2</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
Tax period A tax depreciation		1,507,780	1,357,002
Tax period B tax depreciation		277,940	250,309
Rider year EOY amount		22,172,775	23,780,085
Average tax depreciation reserve		21,279,915	22,976,430
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
Average book depreciation reserve		371,543	926,085
Difference		20,908,372	22,050,346
Tax difference balance		20,908,372	20,908,372
Composite tax rate w 35% FIT rate		39.23%	39.23%
Incremental tax difference beginning Year 2		-	1,141,973
Composite tax rate w 21% FIT rate		0.00%	26.14%
Average ADIT		8,201,309	8,649,248

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 18-_____

Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2019 - December 31, 2019

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

Plant	27,564,238
Accumulated depreciation	(267,787)
Net plant	27,296,452
ADIT	(742,922)
NOL benefit	-
Net investment	26,553,530
Pre-tax ROR%	9.878%
Pre-tax rate of return	2,622,946
Depreciation expense	399,681
Property Tax expense	201,219
Total, excluding uncollectibles	3,223,846
Uncollectibles gross-up factor	1.000308
Total revenue requirement	3,224,839

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%

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Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2019 - December 31, 2019

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

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		<u>Year 1</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%
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.
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Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2019 - December 31, 2019

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

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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%	1,378,212	
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

<u>Year 1</u>	
17%	
67,946	
	67,946
	399,681
	467,627
	267,787

Piedmont Natural Gas Company, Inc.
 Integrity Management Rider
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Annual Revenue Requirement Computation
Rider Rate Period: January 1, 2019 - December 31, 2019

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

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MACRS 15

Tax depreciation reserve

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
Tax period A tax depreciation	2,173,440
Tax period B tax depreciation	400,646
Rider year EOY amount	4,397,461
Average tax depreciation reserve	3,110,418

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
Average book depreciation reserve	267,787
Difference	2,842,631
Composite tax rate	26.14%
Average ADIT	742,922

Note - composite tax rate ignores excess deferred tax flowback

Year 1

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
State of Tennessee
TPUC Docket No. 18-_____

2018 IMR Annual Report
Schedule 12

Tennessee Allocated NOL Carryforward As of November 30, 2018

<u>Line No.</u>			<u>Line Computation</u>
1	2013	Taxable Income	(20,072,959)
2		Allocated NOL	(1,394,788)
3	2014	Taxable Income	(70,327,409)
4		Allocated NOL	(48,689,253)
5	2015	Taxable Income	35,741,137
6		Allocated NOL	-
7	2016	Taxable Income	(7,598,842)
8		Allocated NOL	(3,366,479)
9	TN Allocated NOL Carryforward		<u>(53,450,521)</u> Line 9 = Lines 2 + 4 + 6 + 8
10	Federal Tax Rate		0.35
11	TN Tax Benefit of NOL Carryforward		<u><u>(18,707,682)</u></u> Line 11 = Line 9 x Line 10

Piedmont Natural Gas Company, Inc.
Integrity Management Rider
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2018 IMR Annual Report
Schedule 13

Schedule of Prior Period Adjustments

None

Piedmont Natural Gas Company, Inc.
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TPUC Docket No. 18-_____

2018 IMR Annual Report
Schedule 14

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.
GUIDELINES FOR SYSTEM INTEGRITY PROJECTS

Purpose is to ensure a safe and reliable steel infrastructure that meets regulations set by the US Department of Transportation.

OPERATIONS & MAINTENANCE (O&M) EXPENSE:

O&M is basically defined as any work done on an asset that deals with a component that is less than a retirement unit. Subsequent to the initial installation of an asset, all work is considered “maintenance” (with a few exceptions discussed in “Capital Expenditure” section herein). Per accounting guidance, work that, in substance, represents maintenance, including major maintenance, should be expensed as incurred, including the following types of activities:

- Work performed on retirement units at regular intervals (months or years, number of hours in operation, miles driven, number of starts, etc.) per manufacturer specifications or other available guidance.
- Work undertaken to maintain original operating performance through the estimated service life.

All routine maintenance should be expensed as incurred. Piedmont further defines O&M System Integrity as follows:

- Cathodic Protection (CP) technicians monitor and maintain the CP system
 - o CP readings at testing stations and casings
 - o Troubleshoot interference issues
 - o AC Mitigation results
- Rectifier monitoring and troubleshooting
- Transmission Integrity Management Program (TIMP) support
 - o Annual High Consequence Areas (HCA) field verification
 - o Associated Engineering
 - o Bell hole examinations in support of the following work:
 - External Corrosion Direct Assessment (ECDA)
 - Internal Corrosion Direct Assessment (ICDA)
 - Confirmatory Direct Assessment (CDA)
 - Inline Inspection (ILI)
 - Pig runs including equipment and labor
 - Labor & equipment for chemical cleaning, foam pigs
 - Survey Above Ground Marker (AGM) locations
 - Inspection support
 - Contractor support – during tool run only
 - Engineering support interpreting data
 - Engineering, survey, digs, assessment
 - Mowing for Close Interval Pipe-To-Soil Survey (CIS)

- CIS for those transmission lines being pigged
- Pipe-to-soil
- Soil resistivity
- Depth of cover
- Ultrasonic thickness (UT)
- External pit depth measurements
- TCAT
- Soil pH
- Coating inspections
- Defect analysis and remediation determining defect classification and repair method

CAPITAL EXPENDITURE:

Capital Expenditures are expenditures on assets that last longer than a year and either add a new retirement unit or substantially increase an existing asset's capacity, efficiency, life span, or economy. Generally Duke uses a threshold of \$1,000 to establish any new units of property. As such, generally speaking, amounts under \$1,000 would likely be expensed – but capitalization of amounts less than \$1,000 is not prohibited based on assessment of attributes of the item or equipment. A threshold of \$150,000 is used for capitalization of software development costs.

New Addition - Consists of retirement unit installations that did not currently exist in the system. Replacements are the installation of retirement units where one existed before the new one was installed. In conjunction with a replacement, a retirement is required of the original retirement unit no longer useful.

Substantial Addition - Adding a new minor item of property with a cost material enough to warrant capitalization. The new minor item being added to the property unit must cost at least 25% of the current price for that unit, or, using an appropriate and reasonable functional metric, there must be at least a 25% addition.

Substantial Betterment - Improvement to a unit of property through replacement of a minor item of property that makes the unit more useful, efficient, durable or that increases capacity. The betterment must improve the unit of property (not the minor item) by at least 25% when compared to the expected baseline performance of the unit of property as installed. Capitalize only the portion that adds at least 25% betterment. (Subtract the current cost of the original minor item from the betterment.)

Life Extending Refurbishment - Certain "life extending" refurbishments where, upon completion, the retirement unit will operate beyond that life expected per the manufacturer's specifications at original installation. May be capitalized if the original components have been refurbished, repaired, rebuilt, re-generated, or substantially replaced such that the unit of property has been returned to its original operating

capability (i.e., the expected life of the retirement unit is equal to or greater than the expected life of the asset when purchased new). Materiality threshold has been established at \$250,000 (total of material plus labor) of expenditure per property unit.

Support of life extension may include:

- Cost of the work being performed is 50% or more of the original cost of the retirement unit trended to current day cost, and at least one of the following two criteria:
 - Vendor/manufacturer warranty or Duke Equipment Owner certification that “life extension” has been performed to original equipment specifications or third party documentation provides support that “life extending” work has been completed.

Piedmont further defines Capital Expenditures for System Integrity projects into the following subgroups:

- Remediation of CIS findings
- Regulator station upgrade projects Distribution Integrity Management Program (DIMP)
- Linear anode installations
- AC mitigation projects
- Conventional ground bed installation
- TIMP remediation
 - Labor, equipment & material for cutouts of ≥ 1 ft
 - Survey
 - X-ray

DEFINITIONS:

Retirement Unit – A Retirement Unit is the smallest distinct component of property that is identified and costed individually in the plant records. The Retirement Unit may be at a more summarized level than the Property Unit.

Minor Items of property - The associated parts or items of which retirement units are composed.

Property Unit (Unit of Property) - A unit of property is the level at which utilities set items to be capitalized.

**Before the
Tennessee Public Utility Commission**

Docket No. 18-00126

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

**Direct Testimony of
Pia K. Powers**

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



November 30, 2018

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 Director – Gas Rates & Regulatory Affairs for Piedmont Natural Gas
6 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 – Federal Regulatory in 2005, and
15 promoted to Manager of Regulatory Affairs in 2006. In 2013, I was promoted
16 to my current position as a Director.

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

19 A. Yes. I have presented testimony before the Tennessee Public Utility
20 Commission (“TPUC” or “Commission”) and its predecessor the Tennessee
21 Regulatory Authority (“TRA”), as well as the Public Service Commission of
22 South Carolina and the North Carolina Utilities Commission on a number of
23 occasions.

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

2 A. The purpose of my testimony in this proceeding is to support Piedmont's 2018
3 annual filing with the Commission under its previously approved Integrity
4 Management Rider ("IMR") mechanism set forth in Service Schedule 317 of its
5 Tennessee Tariffs. This annual filing ("2018 IMR Annual Report") was made
6 by Piedmont today - November 30, 2018.

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

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

19 **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 billing period beginning each January, then
14 refreshed for the next twelve-month period based upon an updated calculation
15 of the IMRR (and the updated integrity management deferred account balance).
16 At the time of Piedmont’s next general rate case, the Company’s net integrity
17 management capital investment will be included in the calculation of base rates
18 and the IMR 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 five 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. Lastly,
11 Piedmont filed its fifth IMR Annual Report on November 30, 2017 and it was
12 approved by the TPUC in Docket No. 17-00138.³

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

15 A. Yes. In addition to the five previously filed IMR annual reports and consistent
16 with its tariff, Piedmont files ongoing monthly reports with the TPUC
17 regarding its actual integrity management investments and actual monthly
18 integrity management deferred account activity and balance. The Company's

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 filed IMR annual reports simply aggregate the data provided in its monthly
2 reports and, using that aggregated monthly data, show the exact computation of
3 the IMRR and proposed rate adjustments. The Consumer Advocate also
4 receives copies of these monthly and annual reports.

5 **Q. Is that statement true with respect to the Company's 2018 IMR Annual**
6 **Report filed today?**

7 A. Yes.

8 **Q. Are the proposed rate adjustments shown in Piedmont's 2018 IMR Annual**
9 **Report calculated in a manner consistent with Piedmont's Service**
10 **Schedule 317?**

11 A. Yes. The proposed rates were calculated utilizing the methodology set forth in
12 our approved tariff to calculate the updated IMR rates (i.e., the updated
13 Integrity Management Adjustment, by rate schedule).

14 **Q. Please briefly summarize what is reflected in the 2018 IMR Annual Report**
15 **filing with the Commission.**

16 A. The 2018 IMR Annual Report reflects updated customer IMR rates based upon
17 a total of \$258.6 million in integrity management capital investment by the
18 Company. Of this amount, \$27.6 million is integrity management capital
19 investment by the Company during the most recent annual investment period,
20 which is the twelve-months ended October 31, 2018. None of this integrity
21 management capital investment is reflected in Piedmont's current base rates.

1 The updated customer rates shown in the 2018 IMR Annual Report were
2 calculated in accordance with the procedures set forth in Piedmont's Service
3 Schedule 317. Specifically, in following the methodology shown in the
4 Company's IMR tariff, the \$258.6 million of integrity management capital
5 investment yields an IMRR of \$25.9 million for the annual rate period
6 beginning January 1, 2019. The actual balance in the integrity management
7 deferred account as of October 31, 2018 reflects a cumulative under-collection
8 of \$1.4 million. Since this deferred account balance is an amount due the
9 Company, the \$1.4 million is combined with the IMRR of \$25.9 million for the
10 purposes of computing the proposed IMR rates. Therefore, the proposed IMR
11 rates in the 2018 IMR Annual Report are calculated upon an allocation of \$27.3
12 million across the various customer classes.

13 **Q. Do the IMRR and proposed rates shown in the Company's 2018 IMR**
14 **Annual Report incorporate the cost of service impact from federal tax**
15 **changes enacted through the Tax Cuts and Job Act of 2017?**

16 A. Yes. The IMRR and proposed IMR billing rates shown in the Company's 2018
17 IMR Annual Report reflect the federal income tax rate of 21% which took
18 effect January 1, 2018 (as do also the current IMRR and IMR billing rates in
19 effect pursuant to the Commission's ruling in Docket No. 17-00138).

20 **Q. In Docket No. 17-00138, the Commission ordered that a separate docket be**
21 **opened to address the proposals made by the Consumer Advocate as well**

1 as any other potential issues relative to the IMR tariff. Does the
2 Company's 2018 IMR Annual Report address such proposals made by the
3 Consumer Advocate in Docket No. 17-00138?

4 A. No. Any changes to the IMRR calculation or IMR tariff resulting from that
5 separate docket, once concluded, would be incorporated into a future IMR
6 annual report filing.

7 Q. What is the impact to customer rates and bills from the proposed rate
8 adjustments shown in the Company's 2018 IMR Annual Report?

9 A. The current IMR rates, as approved by the Commission in Docket No. 17-
10 00138, were calculated upon an allocation of \$30.0 million across the various
11 customer classes.⁴ As stated earlier in my testimony, the proposed IMR rates in
12 the Company's 2018 IMR Annual Report are calculated upon an allocation of
13 \$27.3 million across the various customer classes. Thus, the Company is
14 proposing a decrease to billing rates for all customer classes effective January
15 1, 2019. For residential customers, the current approved IMR rate is \$0.16057
16 per therm. The proposed IMR rate for residential customers in the 2018 annual
17 filing is \$0.14605 per therm - a decrease of \$0.01452 per therm. This proposed
18 rate decrease would lower a residential customer's bill by approximately \$10

4 As approved by the TPUC, the IMRR effective January 1, 2018 was \$23.4 million. This revenue requirement, when combined with the approved integrity management deferred account balance at October 31, 2017 of \$6.6 million, yielded a total approved annual IMR amount for recovery of \$30.0 million.

1 per year (\$0.89 per month), on average, for our typical residential customer
2 who uses approximately 735 therms of natural gas per year.

3 **Q. What are you asking the Commission to do in this proceeding?**

4 A. I am requesting that the Commission accept and approve the 2018 IMR Annual
5 Report which includes the amortization of the IMRR and the proposed billing
6 rates effective January 1, 2019.

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

8 A. Yes.
9