



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

615.244.6380 main
615.244.6804 fax
wallerlaw.com

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

July 2, 2020

Via Email and U.S. Mail

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

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

Dear Mr. Taylor:

Enclosed please find for filing the original and four copies of the following documents:

1. Petition;
2. Direct testimony and exhibits of:
 - a. Sasha Weintraub
 - b. John Sullivan
 - c. Brian Weisker
 - d. Pia Powers
 - e. Kally Couzens
 - f. Quynh Bowman
 - g. Dylan D'Ascendis
 - h. Dane Watson
 - i. Paul Normand (Cash Working Capital)
 - j. Paul Normand (Cost of Service)
3. Redline of Revised Tariff included as Exhibit_(PKP-2) to the testimony of Pia K. Powers;
4. Minimum Filing Guidelines (some of which are being filed under seal); and
5. Proposed Procedural Schedule.

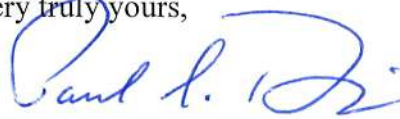
This material is also being filed today by way of email to the Tennessee Public Utility Commission docket manager, Ectory Lawless. Please file the original and provide a "filed" stamped copy of the same via our office courier.

A courtesy copy of this filing is being provided to the Consumer Advocate and Protection Division of the Office of the Attorney General and Reporter. Please be advised that Piedmont has

reached out to the Consumer Advocate's representatives and is working collaboratively with them on a proposed Protective Order for this proceeding which we hope to file with the Commission shortly.

Please do not hesitate to call me if you have any questions.

Very truly yours,



Paul S. Davidson

PSD:cdg
Enclosures

cc: David Foster
Michelle Mairs
Vance Broemel
Daniel Whitaker
Bruce Barkley
Pia Powers
James Jeffries
Melinda McGrath

**Before the
Tennessee Public Utility Commission**

Docket No. 20- 00086

General Rate Case

**Direct Testimony & Exhibits
of
Jack Sullivan**

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

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

2 A. My name is John L. Sullivan, III. My business address is 550 South
3 Tryon Street, Charlotte, North Carolina.

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

5 A. I am employed by Duke Energy as Director, Corporate Finance and
6 Assistant Treasurer. I am also the Assistant Treasurer for Piedmont
7 Natural Gas Company, Inc. ("Piedmont" or the "Company").

8 **Q. Please describe your educational and professional background.**

9 A. I received a Bachelor of Arts degree from the University of North
10 Carolina-Chapel Hill in 1995 and an MBA degree from Wake Forest
11 University in 2000. From 2000 to 2009, I worked in Bank of America's
12 Global Corporate & Investment Banking unit, providing corporate finance,
13 capital markets and strategic advisory services to energy and power
14 clients. In 2009, I joined Duke Energy as a General Manager in the
15 Treasury group. In 2010, I moved to Duke Energy's Corporate
16 Development group where I served as a Director responsible for managing
17 various strategic transactions for the Company's regulated and commercial
18 businesses. In January 2016, I returned to Duke Energy's Treasury
19 department and assumed my current role.

20 **Q. Have you previously testified before this Commission or any other**
21 **regulatory authority?**

22 A. I have not testified previously before the Tennessee Public Utility
23 Commission, but I have testified on behalf of Duke Energy utility

1 affiliates, including Piedmont, in proceedings before the state regulatory
2 commissions in North Carolina, South Carolina, Ohio, Indiana and
3 Kentucky.

4 **Q. Do you have any exhibits supporting your testimony?**

5 A. Yes, I have three exhibits. Exhibit_(JLS-1) shows the calculation of
6 Piedmont's Attrition Period capital structure in this proceeding, including
7 Piedmont's proposed cost of short-term and long-term debt and the Return
8 on Equity ("ROE") recommendation of the Company's expert witness,
9 Dylan D'Ascendis. Exhibit_(JLS-2) shows the derivation of the Attrition
10 Period embedded cost of long-term debt. Exhibit_(JLS-3) shows the
11 derivation of the Attrition Period embedded cost of short-term debt.

12 **Q. Were these exhibits prepared by you or under your direction and**
13 **supervision?**

14 A. Yes.

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

16 A. My testimony will address Piedmont's financial objectives, capital
17 structure, and cost of capital. I will also discuss the Company's current
18 credit ratings and forecasted capital needs. Throughout my testimony, I
19 will emphasize the importance of Piedmont's ongoing ability to maintain
20 financial stability and the benefits to customers resulting from such
21 stability and strong credit ratings.

22 **Q. Please provide an overview of your testimony.**

23 A. As is discussed in greater detail in my testimony, Piedmont faces

1 substantial capital needs over the next several years in order to continue its
2 compliance with federal pipeline safety and reliability regulations and to
3 construct new pipeline facilities in order to serve its growing Tennessee
4 markets. In order to meet these capital demands, the Company will
5 compete for capital in the open market and must appeal to debt and equity
6 investors to attract the capital it needs.

7 Investors have a variety of investment opportunities available to
8 them and require a return commensurate with the risk they incur.
9 Investors are less likely to invest in a company if they feel the expected
10 return doesn't fairly compensate for the perceived risk of the investment.
11 A company with lower credit quality weakens its attractiveness as an
12 investment opportunity relative to similarly situated companies with
13 higher credit quality. For this reason, it is critically important that a
14 company maintain strong investment-grade credit quality, in order to
15 assure its financial strength and flexibility and ensure access to capital on
16 reasonable terms.

17 The Company's proposed rate increase will allow it to recover
18 prudently incurred costs during the Attrition Period and preserve its
19 financial standing with both equity and debt investors as well as the credit
20 rating agencies, to the long-term benefit of customers.

21 **Q. What role does capital structure and financial stability play in**
22 **Piedmont's ability to provide safe, reliable, and economic natural gas**
23 **service to its customers?**

1 A. Financial stability and consistent access to capital are necessary for
2 Piedmont to provide safe, reliable, and economical service to its
3 customers. Piedmont strives at all times to maintain financial stability,
4 including investment grade credit ratings, to ensure reliable access to
5 capital on reasonable terms. Our ability to access needed capital on
6 reasonable terms is supported by the following specific objectives of the
7 Company: (a) maintaining a strong equity component in our capital
8 structure; (b) pursuing timely recovery of prudently incurred costs of
9 providing utility service; (c) maintaining sufficient cash-flows to satisfy
10 all financial obligations; and (d) maintaining an adequate rate of return on
11 common equity.

12 **Q. What is Piedmont's proposed capital structure in this proceeding?**

13 A. I recommend a capital structure consisting of 50.50% equity, 4.00% short-
14 term debt and 45.50% long-term debt. This is consistent with the projected
15 capital structure of the Company as of the end of the Attrition Period, as
16 shown on my Exhibit_(JLS-1).

17 **Q. Why are you recommending this capital structure for ratemaking in**
18 **this proceeding?**

19 A. This capital structure represents an appropriate amount of risk due to
20 leverage while minimizing the weighted average cost of capital. Approval
21 of the proposed capital structure will help Piedmont maintain its credit
22 quality and is consistent with Duke Energy's target credit ratings for
23 Piedmont.

1 **Q. Does the Company's actual financial capital structure vary over time?**

2 A. Yes, it does. It is not unusual for the Company's actual capital structure to
3 vary over time. The specific debt/equity ratio varies depending on a
4 variety of factors, including, but not limited to, the timing and size of
5 capital investments and payments of large invoices, debt issuances,
6 seasonality of earnings, changes to inventory balances, equity infusions
7 received from parent, and dividend payments made to the parent company.
8 Achieving an approved regulatory capital structure as recommended above
9 is consistent with the Company's financial objectives and overall plan to
10 finance operations at favorable rates for customers. Piedmont plans to
11 manage its capital structure within a reasonable range of the recommended
12 capital structure.

13 **Q. What changes in the Company's capital structure will occur from the**
14 **end of the Test Period through the end of the Attrition Period?**

15 A. As reflected on Exhibit_(JLS-1), Piedmont plans to finance its capital
16 needs consistent with the proposed capital structure through the end of the
17 Attrition Period, December 31, 2021. Shortly after the end of the Test
18 Period, on May 21, 2020, Piedmont issued \$400 million of senior
19 unsecured notes. Piedmont is also planning another long-term debt
20 offering of \$300 million in 2021. Short-term debt will fluctuate based on
21 the factors listed in the previous question and is expected to decline by
22 approximately \$230 million through the end of the Attrition Period.
23 Equity will increase due to a planned \$300 million equity infusion from

1 Duke Energy Corporation in 2021 and from earnings achieved over the
2 proforma period.

3 **Q. What cost rates did you attribute to each component of the**
4 **Company's capital structure?**

5 A. I utilized a cost rate of 4.14% for long-term debt, 0.40% for short-term
6 debt, and 10.30% for common equity.

7 **Q. How were these cost rates determined?**

8 A. For the Company's cost of common equity, I utilized the cost calculated
9 and recommended by Piedmont's ROE Witness Dylan D'Ascendis in his
10 direct testimony. For long-term debt, I used Piedmont's proforma
11 weighted average cost of long-term debt as of December 31, 2021, which
12 includes the projected cost of the planned \$300 million debt issuance in
13 2021 and reflected in Exhibit_(JLS-1). For short-term debt, I used
14 Piedmont's projected weighted average cost of short-term debt over the 12
15 months ending December 31, 2021. The derivation of each debt rate is
16 further described in Exhibits JLS-2 and JLS-3.

17 **Q. Please explain credit quality and credit ratings, and how they are**
18 **determined.**

19 A. Credit quality (or creditworthiness) is a term used to describe a company's
20 overall financial health and its willingness and ability to repay all financial
21 obligations in full and on time. An assessment of Piedmont's
22 creditworthiness is performed by two major credit rating agencies,
23 Standard & Poor's ("S&P") and Moody's Investors Service ("Moody's").

1 Many qualitative and quantitative factors go into this assessment.
2 Qualitative aspects may include an assessment of the regulatory climate in
3 which Piedmont operates, Piedmont's record for delivering on its
4 commitments, the strength of its management team, its operating
5 performance, and the strength of its service area. Quantitative measures
6 are primarily based on operating cash flow and focus on the level at which
7 Piedmont maintains debt leverage in relation to its generation of cash and
8 its ability to meet its fixed obligations (interest and principal payments in
9 particular) on the basis of internally-generated cash. The percentage of
10 debt to total capital is another example of a quantitative measure.
11 Creditors and credit rating agencies view both qualitative and quantitative
12 factors in the aggregate when assessing the credit quality of a company.

13 **Q. What is the role of regulation in the determination of the financial**
14 **strength of a utility company?**

15 A. Investors, investment analysts, and credit rating agencies regard
16 constructive regulation as one of the most important factors in assessing a
17 utility company's financial strength. These stakeholders want to be
18 confident the Company operates in a stable regulatory environment that
19 allows the Company to recover prudently-incurred costs and earn a
20 reasonable return on investments necessary to meet the demand,
21 reliability, and service requirements of its customers and service area.
22 Important considerations include the allowed rate of return, the cash
23 quality of earnings, the timely recovery of capital investments, the stability

1 of earnings, and the strength of its capital structure. Positive consideration
2 is also given for utilities operating in states where the regulatory process is
3 streamlined, the time lag in capital investment recovery is minimized
4 through alternative cost recovery mechanisms, and outcomes are equitably
5 balanced between customers and investors.

6 **Q. How are Piedmont's outstanding securities currently rated by the**
7 **credit rating agencies?**

8 A. As of the date of this testimony, Piedmont's senior unsecured credit
9 ratings and outlooks are as follows:

Rating Agency	S&P	Moody's
Senior Unsecured Rating	A-	A3
Rating Outlook	Stable	Stable

10 Obligations carrying a credit rating in the "A" category are considered
11 strong, investment-grade securities subject to low credit risk for the
12 investor. "A" rated debt is presumed to be somewhat susceptible to
13 changes in circumstances and economic conditions; however, the debt
14 issuer's capacity to meet its financial commitments is considered strong.
15 By contrast, ratings in the "BBB" (one level weaker than the "A"
16 category) category are considered adequate and have less assurance of
17 access to the capital markets in challenging market conditions.

18 S&P may also modify its ratings with the use of a plus or minus
19 sign to further indicate the relative standing within a major rating

1 category. An “A+” credit rating is at the higher end of the “A” credit
2 rating category and an “A-” is at the lower end of the category. Moody’s
3 credit rating assignments use the numbers “1”, “2” and “3”, with the
4 numbers “1” and “3” analogous to a “+” and “-”, respectively. For
5 example, Moody’s credit ratings of “A2” and “A3” would be analogous to
6 “A” and “A-” credit ratings at S&P.

7 The ratings outlook assesses the potential direction of a long-term
8 credit rating over an intermediate term (typically six months to two years).
9 Piedmont’s “Stable” outlook at S&P and Moody’s is an indication the
10 credit ratings are not likely to change at this time, however a change in
11 outlook or rating could occur if the Company experiences a change in its
12 business or financial risk.

13 **Q. Do Piedmont’s customers benefit from the Company’s strong credit**
14 **ratings?**

15 A. Yes. To ensure reliable and cost-effective service, compliance with
16 federal pipeline safety regulations and to fulfill its obligations to serve
17 customers, the Company must continuously plan and execute significant
18 capital projects. This is the nature of regulated, capital-intensive
19 industries like natural gas utilities. The Company must be able to operate
20 and maintain its business without interruption and refinance maturing debt
21 on time, regardless of financial market conditions. The financial markets
22 can experience periods of volatility, and Piedmont must be able to finance
23 its needs throughout such periods. Strong investment-grade credit ratings

1 provide Piedmont with greater access to the capital markets on reasonable
2 terms during such periods of volatility. Any factors that negatively impact
3 Piedmont's credit ratings, including an inadequate allowed ROE or an
4 inadequate equity percentage of the capital structure, have the potential to
5 reduce the Company's access to the capital markets and to increase the
6 cost of such access.

7 Approval of the Company's request in this case will support its
8 financial objectives by allowing timely recovery of its investments in plant
9 and equipment, providing sufficient cash flows to fund necessary capital
10 expenditures and service debt.

11 **Q. What strengths and weaknesses have the credit rating agencies**
12 **identified with respect to Piedmont?**

13 A. The rating agencies believe Piedmont operates in generally constructive
14 regulatory environments that support long-term credit quality, and they
15 also view the Company's customer growth profile and system integrity
16 investments as credit supportive. However, the rating agencies have
17 identified a number of challenges Piedmont faces in maintaining its credit
18 ratings. In its August 2019 credit opinion, Moody's indicated that
19 Piedmont's credit metrics were expected to be below historical levels as a
20 result of the impact of federal tax reform, the utility's robust capital
21 expenditure program and the associated leverage to fund these
22 investments. However, in this same report, Moody's stated that it expects
23 a modest improvement to Piedmont's credit metrics on account of the

1 Company's relatively constructive regulatory environments, numerous
2 rate adjustment mechanisms and planned rate case activity.¹

3 **Q. What role do equity investors play in the financing of Piedmont, and**
4 **how will the outcome of this case impact these investors?**

5 A. Equity investors provide the foundation of a company's capitalization by
6 providing significant amounts of capital, for which an appropriate
7 economic return is required. Piedmont compensates equity investors for
8 the risk of their investment by targeting fair and adequate returns, stable
9 cash flows, and earnings growth - all necessary to preserve access to
10 equity capital. Returns to equity investors are realized only after all
11 operating expenses and fixed payment obligations (including principal and
12 interest) of the business have been paid. Because equity investors are the
13 last to receive surplus earnings and cash flows, their investment involves
14 significantly more risk. For this reason, equity investors require a higher
15 return for their investment. Equity investors expect utilities like Piedmont
16 to recover their prudently incurred costs and earn a fair and reasonable
17 return for their investors. The Company's proposal in this proceeding
18 supports this investor expectation.

19 **Q. What effect does capital structure and return on equity have on credit**
20 **quality?**

21 A. Capital structure and return on equity are important components of credit
22 quality. As mentioned in the previous answer, the greater the equity

¹ See Moody's Investors Service, Credit Opinion, "Piedmont Natural Gas Company, Inc. – Update to

1 component of capitalization, the safer the returns are to debt investors,
2 which translates into higher credit quality and lower borrowing costs. In
3 addition, the allowed return on equity is a key component in the
4 generation of earnings and cash flows. An adequate return on equity helps
5 ensure equity investors receive fair compensation for their investment
6 while also helping to protect the interests of debt investors. A strong
7 capital structure and an adequate return on equity provide balance sheet
8 protection and cash flow generation to support high credit quality. High
9 credit quality creates financial flexibility by improving access to the
10 capital markets on reasonable terms, and ultimately lower debt financing
11 costs.

12 **Q. Do you believe Piedmont's capital structure has an adequate equity**
13 **component to enable the Company to achieve its financial strength**
14 **and credit quality objectives?**

15 A. Yes. Piedmont' requested equity component of 50.50% enables it to
16 maintain current credit ratings and financial strength and flexibility. Like
17 many utilities, Piedmont is in a period of significant capital investment
18 necessary to provide cost-effective, safe, and reliable service to its
19 customers in a period of rising costs, growing customer load and evolving
20 state and federal pipeline safety and integrity requirements. The
21 magnitude of its capital requirements dictates the need for a strong equity
22 component of the Company's capital structure in order to assure access to

1 capital funding at reasonable terms.

2 **Q. What are Piedmont's capital requirements over the next several**
3 **years?**

4 A. Piedmont faces substantial capital needs over the next several years in
5 order to comply with pipeline safety and integrity regulations, refurbish,
6 replace and upgrade aging infrastructure, construct additional on-system
7 storage assets, and satisfy its debt maturities. Piedmont's overall capital
8 requirements for the next two years (2020-2021) are projected to be
9 approximately \$1.8 billion. This amount consists of approximately \$1.6
10 billion in projected capital expenditures and approximately \$160 million
11 in debt retirements.

12 **Q. How will Piedmont's capital requirements be funded?**

13 A. Piedmont's capital requirements are expected to be funded from internal
14 cash generation, the issuance of debt, and equity contributions from its
15 parent. It is important to remember that Duke Energy also has dividend
16 expectations from its shareholders. Duke Energy's corporate dividend
17 policy targets a 70 percent payout ratio, based on adjusted diluted earnings
18 per share. Piedmont and other Duke Energy utility subsidiaries are
19 expected to support this dividend policy over time.

20 **Q. Do you anticipate Piedmont will be able to access sufficient debt and**
21 **equity to support its ongoing operations without any problems?**

22 A. Yes, I do. For example, on May 21, 2020, Piedmont closed a \$400 million
23 30-year debt issuance at a fixed rate of 3.35%. This represents the lowest

1 coupon of any Piedmont long-term debt obligation and is a testament to
2 the Company's ability to raise capital on favorable terms for its customers.
3 However, Piedmont's ability to access the capital markets on favorable
4 terms depends largely on its ability to maintain healthy credit ratings.
5 That, in turn, depends on the regulatory treatment Piedmont receives from
6 the state public service commissions that regulate the Company.

7 **Q. Can you explain how this proceeding will impact Piedmont's future**
8 **capital offerings?**

9 **A.** Yes. Piedmont believes that its investors and creditors correctly assess its
10 regulatory environment as constructive. This favorable assessment creates
11 the potential that a ruling by the Commission that is deemed less
12 supportive of credit quality by investors and creditors could result in
13 reconsideration of these views and higher capital costs for the Company
14 and its customers. This vulnerability is especially acute considering
15 Piedmont's significant and ongoing capital expenditures required to meet
16 federal safety requirements and the needs of its growing customer base in
17 Tennessee.

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

19 **A.** Yes.

Exhibit_(JLS-1)

Capitalization Analysis for Attrition Period

	ACTUAL BALANCES		PROPOSED CAPTIAL STRUCTURE & COST RATES				
	Actual Balance as of March 31, 2020	Percentage of Total Capital	Projected Balance at December 31, 2021	Projected Ratios at December 31, 2021	Proposed Capital Structure	Embedded Cost	Overall Cost Rate
Long-Term Debt ⁽¹⁾	\$ 2,379,650,861	43.84%	\$ 2,913,035,471	45.46%	45.50%	4.14%	1.88%
Short-Term Debt	485,898,000	8.95%	254,250,270	3.97%	4.00%	0.40%	0.02%
Common Equity ⁽²⁾	2,561,387,492	47.20%	3,239,907,129	50.57%	50.50%	10.30%	5.20%
Total	<u>\$ 5,426,936,353</u>	<u>100.00%</u>	<u>\$ 6,407,192,870</u>	<u>100.00%</u>	<u>100.00%</u>		<u>7.10%</u>

(1) Long-term debt balance is adjusted for unamortized loss on reacquired debt and credit facility fees. See Exhibit__(JLS-2) for the projected long-term debt balance at 12/31/21 and embedded cost rate

(2) Common Equity has been adjusted to remove the impact of goodwill

Exhibit_(JLS-2)

Embedded Cost of Long-Term Debt for Attrition Period

				(1)	(2)	(3)	(4)	(5)	(6)
					Less Unamortized			Cost	
Line	Debt Issue	Coupon	Maturity	Principal	Debt Discount			Debt Discount	
No.	Type	Rate	Date	Amount	and Expense	Total	Interest	and Expense	Total
								Amortization	
	<u>Long-term Debt</u>								
1	Debentures	3.47%	7/16/2027	100,000,000	302,075	99,697,925	3,470,000	54,503	3,524,503
2	Debentures	3.57%	7/16/2027	200,000,000	618,478	199,381,522	7,140,000	111,590	7,251,590
3	Debentures	6.87%	10/6/2023	45,000,000	25,475	44,974,525	3,091,500	14,425	3,105,925
4	Debentures	8.45%	9/19/2024	40,000,000	35,041	39,964,959	3,380,000	12,893	3,392,893
5	Debentures	7.40%	10/31/2025	55,000,000	64,905	54,935,095	4,070,000	17,278	4,087,278
6	Debentures	7.50%	10/9/2026	40,000,000	54,899	39,945,101	3,000,000	11,502	3,011,502
7	Debentures	7.95%	9/14/2029	60,000,000	151,581	59,848,419	4,770,000	19,677	4,789,677
8	Debentures	6.00%	12/19/2033	100,000,000	475,216	99,524,784	6,000,000	39,710	6,039,710
9	Debentures	4.65%	8/1/2043	300,000,000	2,351,223	297,648,777	13,950,000	104,137	14,054,137
10	Debentures	3.60%	9/1/2025	150,000,000	522,194	149,477,806	5,400,000	132,632	5,532,632
11	Debentures	4.10%	9/18/2034	250,000,000	1,780,478	248,219,522	10,250,000	118,288	10,368,288
12	Debentures	3.64%	11/1/2046	300,000,000	2,935,822	297,064,178	10,920,000	106,125	11,026,125
13	Debentures	3.50%	6/1/2029	600,000,000	3,578,344	596,421,656	21,000,000	331,567	21,331,567
14	Debentures	3.35%	6/1/2050	400,000,000	6,067,263	393,932,737	13,400,000	213,511	13,613,511
15	Future Debentures*	3.00%	TBD	300,000,000	3,541,836	296,458,164	9,000,000	182,412	9,182,412
									-
	<u>Unamortized Loss on Recquired Debt</u>								-
16	6.25% due 2035				3,435,199	(3,435,199)	-	238,284	238,284
17	Credit Facility Fees				1,024,500	(1,024,500)			
18	Total			<u>\$ 2,940,000,000</u>	<u>\$ 26,964,529</u>	<u>\$ 2,913,035,471</u>	<u>\$ 118,841,500</u>	<u>\$ 1,708,534</u>	<u>\$ 120,550,034</u>

Embedded Cost = 4.14% (= Column 6 Line 18 / Column 3 Line 18)

*A long term debt issuance of \$300 million is forecasted for Q2 2021, tenor TBD. Coupon rate assumes a blended average rate of indicative credit spreads for Piedmont's senior unsecured notes with 10-year and 30-year tenors as of May 14, 2020 plus a blended average of the forward 10-year and 30-year UST rates.

Exhibit_(JLS-3)

Embedded Cost of Short-Term Debt for Attrition Period

Projected InterCompany Money Pool Borrowings by Piedmont

Line No.	Month-End	(1) Projected Monthly Balance	(2) Projected Cost Rate	(3) Accrued Interest
1	Jan 2021	\$ 576,621,011	0.43%	\$ 206,714
2	Feb 2021	499,101,443	0.43%	179,078
3	Mar 2021	479,587,147	0.39%	156,148
4	Apr 2021	411,055,494	0.38%	129,455
5	May 2021	-	0.39%	-
6	Jun 2021	92,291,180	0.39%	30,011
7	Jul 2021	90,993,852	0.39%	29,512
8	Aug 2021	124,595,118	0.39%	40,191
9	Sep 2021	162,678,713	0.39%	52,337
10	Oct 2021	206,469,649	0.39%	66,383
11	Nov 2021	246,020,613	0.38%	78,634
12	Dec 2021	254,250,270	0.39%	82,775
13	Average Bal. / Total Int.	<u>\$ 261,972,041</u>		<u>\$ 1,051,239</u>
14	Embedded Cost =	0.40%	(= Column 3 Line 13 / Column 1 Line 13)	