

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Pennsylvania Public Utility Commission

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v.

Docket No.R-2018-3006818

Peoples Natural Gas Company LLC

**PREPARED DIRECT TESTIMONY OF
ERIC PETRICHEVICH
SENIOR FINANCIAL ANALYST
ON BEHALF OF
PEOPLES NATURAL GAS COMPANY LLC**

DATE SERVED: January 28, 2019
DATE ADMITTED: _____

Peoples Statement No. 8

**PREPARED DIRECT TESTIMONY OF
ERIC PETRICHEVICH**

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Eric Petrichevich and my business address is 375 North Shore Drive,
3 Pittsburgh, Pennsylvania 15212.

4

5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I am employed by PNG Companies LLC who provide services to Peoples Natural Gas
7 Company LLC (“Peoples” or “Company”). I am in the Finance and Treasury Department.
8 My job title is Senior Financial Analyst.

9

10 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND WORK
11 EXPERIENCE.**

12 A. I graduated from the University of Pittsburgh with a bachelor’s degree in Finance and
13 Accounting. I started as an intern for Peoples in 2012 and was brought on full-time as a
14 financial analyst in 2013 and have worked here since.

15 **Q. HAVE YOU TESTIFIED PREVIOUSLY IN ANY REGULATORY
16 PROCEEDING?**

17 A. I have not.

18 **Q. ARE YOU SPONSORING ANY FILING REQUIREMENTS OR OTHER
19 EXHIBITS?**

20 A. Yes, I am. Attached to this Direct Testimony as Appendix A is a complete list of the
21 exhibits for which I am the responsible witness.

22

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

2 A. I am responsible for developing the value of Cash Working Capital. I have also prepared
3 **Peoples Exhibit No. EJP-1**, which includes the lead-lag study in support of the
4 Company's cash working capital requirement pursuant to Section 53.53 III. A.15 of the
5 Commission's standard filing requirements.

6 **Q. HAS THE COMPANY PERFORMED A STUDY TO DETERMINE THE LEVEL**
7 **OF CASH WORKING CAPITAL THE COMPANY REQUIRES TO FINANCE**
8 **ITS DAY-TO-DAY OPERATIONS?**

9 A. Yes, the Company performed a lead-lag study by analyzing the Company's cash
10 transactions and invoices for the twelve months ended September 30, 2018.

11 **Q. PLEASE DEFINE WHAT YOU MEAN BY THE PHRASE "CASH WORKING**
12 **CAPITAL".**

13 A. Cash working capital is the amount of funds required to finance the day-to-day operations
14 of the Company.

15 **Q. HOW SHOULD THE RESULTS OF THE CASH WORKING CAPITAL**
16 **ANALYSIS BE TREATED FOR RATEMAKING PURPOSES?**

17 A. The cash working capital requirements should be included as part of the Company's rate
18 base for ratemaking purposes.

19 **Q. DID YOU PREPARE A SEPARATE STUDY FOR THE PEOPLES DIVISION AND**
20 **THE EQUITABLE DIVISION?**

1 A. No. The study to develop the lead/lag day was performed on a combined basis as the
2 Company finances its day-to-day operations on a combined basis. Therefore, it would be
3 inappropriate to segment the study. However, the results were applied to the divisional
4 operations to show the cash working capital claim by division.

5 **Q. WHAT IS A LEAD-LAG STUDY?**

6 A. A lead-lag study is an analysis of the differences between the revenue “lags” and the
7 expense “leads” of a utility. The revenue lag reflects the time between the date customers
8 receive service and the date that customers’ payments are available to the utility. This
9 revenue lag is offset by an expense lead time during which the utility receives goods and
10 services, but pays for them at a later date. The leads and lags are both measured in days.
11 The dollar-weighted lead and lag days are then divided by 365 to determine a daily cash
12 working capital factor (“CWC factor”) for each specified expense category in the study.
13 These CWC factors are then multiplied by the applicable annual test year cash expenses to
14 determine the amount of cash working capital required for operations. The resulting
15 amount of cash working capital is then included as part of the utility’s rate base.

16 **Q. WHAT ARE THE VARIOUS LEADS AND LAGS THAT SHOULD BE**
17 **CONSIDERED IN A CASH WORKING CAPITAL ANALYSIS?**

18 A. Two broad categories of leads and lags should be considered: 1) lag times associated with
19 the collection of revenues owed to the utility; and 2) lead times associated with the
20 payments for goods and services received by the utility.

1 **Q. WHAT WAS THE SOURCE OF INFORMATION YOU EMPLOYED TO**
2 **DETERMINE THE LEADS AND LAGS IN YOUR CASH WORKING CAPITAL**
3 **ANALYSIS?**

4 A. Data from the Company's Accounts Payable, Accounts Receivable, Payroll, and Tax
5 accounts were utilized. The information derived from these sources, together with
6 analyses of specific invoices, led to the determination of the appropriate number of lead-
7 lag days for the Company.

8 **Q. WHAT IS A REVENUE LAG AND HOW IS IT DETERMINED?**

9 A. The revenue lag measures the number of days from the date service was rendered by the
10 Company until the date payment was received from customers and such funds were
11 available to the Company. In this study, the revenue lag was divided into three distinct
12 components: 1) service lag; 2) billing lag; and 3) collections lag. Considered together,
13 these three components of retail revenue lag totaled a weighted average of 63.90 lag days.
14 An explanation of each component of the base revenue lag follows.

15 **Q. WHAT IS MEANT BY SERVICE LAG?**

16 A. The service lag refers to the period of time from when service is rendered to the time the
17 customer's meter is read. Using the mid-point methodology, the average service lag
18 associated with meter reading was 15.21 days (365 days in the year divided by 12 months
19 divided by 2). Twelve months was appropriate to use for purposes of determining the
20 service lag because the Company bills its customers monthly.

21
22 **Q. WHAT IS THE MID-POINT METHODOLOGY?**

1 A. For purposes of determining the service lead or lag, the Company's methodology
2 presumes that the service was provided (or received) evenly over a given period (i.e., a
3 month). Adding the one-half month to the derivation of the lead or lag is referred to as the
4 mid-point methodology.

5 **Q. WHAT IS MEANT BY BILLING LAG?**

6 A. Billing lag refers to the average number of days from the date on which the meter was read
7 until the date a customer is billed. Based upon the percentage weighted distribution of the
8 mailing of the bills, in accordance with the most recent management audit, the Company
9 determined the billing lag to be 1.0 day.

10 **Q. WHAT IS MEANT BY COLLECTIONS LAG?**

11 A. The collections lag refers to the average amount of time from the date when the Company
12 mailed a bill to the date that the Company received payment from its customers. As
13 shown on page 4 of Exhibit EJP-1, the Company calculated collections lag using the days
14 in accounts receivable methodology. First, average monthly accounts receivable is
15 calculated by adding the end of month accounts receivable balances for each month in the
16 preceding 13 months to the historic test year and dividing the total by 13. Then, A/R
17 Turnover is calculated by taking the trailing twelve months sales divided by the average
18 accounts receivable balance. Finally, we calculate the collection days lag by taking 365
19 divided by the A/R Turnover previously calculated. Based on this approach, the average
20 collection lag at the Company was determined to be 47.69 days.

21 **Q. PLEASE SUMMARIZE THE CALCULATION OF REVENUE LAG DAYS.**

1 A. The calculation of the overall revenue lag, by lag component is summarized in the
2 following table:

Revenue Lag Component	Lag Days
Service Lag	15.21
Billing Lag	1.0
Collections Lag	47.69
Total Lag Days	63.90

3 **Q. WHAT EXPENSE-RELATED LEADS WERE CONSIDERED IN THE LEAD LAG**
4 **ANALYSIS?**

5 A. Lead times associated with the following expense categories were considered in the study:
6 a) Gas Purchase Costs; b) Payroll; c) Pensions and Benefits, d) Taxes other than Income
7 Taxes, e) Other Operations and Maintenance Expenses; f) Federal Income taxes; g) State
8 Income Taxes; h) Interest on Long-term Debt; and i) Interest on Short-term Debt.

9 **Q. WHAT TYPES OF LEADS WERE ASSOCIATED WITH THE COMPANY'S**
10 **PURCHASES OF NATURAL GAS?**

11 A. Pipeline companies typically send out invoices around the 10th of the month following the
12 service month with payments due 10 days later. Payments to suppliers were made
13 electronically. The Company also purchases gas from local producers. The Company
14 reads the meters at the end of each month and cuts a check to the producer on the last day
15 of the following month. As shown on pages 5 through 10 of Exhibit EJP-1; the company
16 used payment data for the twelve months ended September 30, 2018, and determined that

1 the expense lead time associated with payments for natural gas and pipeline services,
2 including 15.21 days of service lead time, was 37.92 days.

3 **Q. PROVIDE AN EXPLANATION OF THE LEAD ASSOCIATED WITH THE**
4 **COMPANY’S PAYROLL EXPENSES.**

5 **A.** The Company’s payroll records were analyzed to measure the number of lead days
6 between the Company’s receipt of services from its employees and the payment for those
7 services. As shown on page 11 through 13 of Exhibit EJP-1, payroll lead days were
8 calculated by: a) calculating the unweighted (or nominal) lead time by pay day and pay-
9 cycle including a mid-point of the pay period as indicative of a service lead time and
10 weighting the resulting lead days by the amounts paid out by the Company to cover its
11 payroll obligations. The company’s pay-roll cycles are bi-weekly; resulting in a total
12 average payroll expense lag of 15.23 days.

13 **Q. WHAT TYPE OF LEADS ASSOCIATED WITH THE COMPANY’S EMPLOYEE**
14 **BENEFIT PROGRAMS WERE CONSIDERED IN THE ANALYSIS?**

15 **A.** As shown on pages 14 and 15 of Exhibit EJP-1, the estimated lead times associated
16 with the following major categories of the Company’s employee benefit programs were
17 considered: a) pensions; and b) employee benefits including group life, group health, and
18 other employee programs. Peoples is switching from being self-insured in 2018 to
19 purchasing medical insurance in 2019. Therefore, the medical benefits calculation is for
20 lead time of premium payments is based off of an estimated monthly premium amount.
21 These premiums will be paid in full before the next month of coverage begins. All of

1 these benefits and programs taken together, had a dollar-weighted lead time of 50.78
2 days.

3 **Q. DID THE COMPANY MAKE CONTRIBUTIONS TO THE DEFINED BENEFIT**
4 **PENSION FUND (“DB”) DURING THE HISTORIC TEST YEAR?**

5 **A.** Yes. The Company made quarterly contributions to the pension fund for its unionized
6 employees. The contributions were typically made around the 15th day of the month
7 following the end of a quarter (for the Equitable division DB plan). For Pension (both
8 divisions) and Post Retirement (Peoples Division only) costs are accrued monthly based on
9 a study provided by AON Hewitt in early January each year. This helps to appropriately
10 align the costs to the appropriate service period for both the pension and post retirement
11 benefits. In December of each year, any necessary funding contributions are calculated
12 and then paid into the plans before December 31.

13 **Q. HOW WAS THE EXPENSE LEAD TIME ASSOCIATED WITH THE**
14 **COMPANY’S OTHER BENEFIT PROGRAMS DETERMINED?**

15 **A.** The Company is billed monthly by each of its benefit providers. The bill may consist of
16 service costs and/or administrative fees. The invoices are typically paid within one week
17 following the receipt of the invoice. Funds for 401K accounts are sent the day following
18 pay day.

19 **Q. WHAT ARE OTHER OPERATIONS AND MAINTENANCE EXPENSES AND**
20 **WHAT LEAD TIMES WERE ASSOCIATED WITH SUCH EXPENSES?**

21 **A.** The Company engages in transactions with other vendors (not associated with pensions,
22 benefits, payroll, natural gas and pipeline services, or taxes) for a variety of purposes

1 including facility maintenance, maintenance of system reliability, and customer service.
2 As shown on pages 16 through 19 of Exhibit EJP-1, a random sample of invoices from
3 providers of such services were analyzed in order to estimate a lead time associated with
4 payment for services related to other operations and maintenance activities. The analysis
5 indicates that on average, invoices were paid by the Company 40.12 days after receipt.

6 **Q. WHAT ARE THE GENERAL TAXES CONSIDERED IN THE ANALYSIS OF**
7 **EXPENSE LEADS?**

8 A. As shown on page 20 through 22 of Exhibit EJP-1, the following general taxes and similar
9 assessments were considered in the study: a) property taxes; b) State & Federal Alternative
10 Fuel Taxes; c) U.S. DOT Fees; d) Federal Heavy Highway Taxes; e) OCA/PUC/OSBA
11 assessments; f) WV Gas Stored Tax; g) PURTA; and h) Sales and use taxes. Payroll-
12 related taxes were not considered in the analysis because the funds associated with those
13 taxes are forwarded to our payroll processor, at the same time as the payroll funds. The
14 payroll processor is then responsible for remitting the funds to the appropriate taxing
15 bodies. When dollar-weighted using twelve months ended September 30, 2018 actual
16 payments, the weighted expense lead time for all categories of these general taxes was
17 determined to be 32.16 days. This weighted lead time was then used in computing the
18 cash working capital requirement associated with taxes other than income taxes.

19 **Q. HOW DID YOUR STUDY ADDRESS INCOME TAXES?**

20 A. As shown on page 23 of Exhibit EJP-1, for Federal and State income taxes, the statutory
21 payment schedules relative to each tax were utilized to arrive at 37.00 and 54.90 lag days,
22 respectively.

1 **Q. PROVIDE A DESCRIPTION OF HOW LEAD TIMES ASSOCIATED WITH THE**
2 **COMPANY'S INTEREST EXPENSE ON LONG-TERM AND SHORT -TERM**
3 **DEBT WERE ADDRESSED BY THE STUDY.**

4 A. As shown on page 24 of Exhibit EJP-1, interest expense on long term debt was assigned
5 expense lag days based on the semi-annual payments of the Company's installment
6 promissory notes to arrive at an average of 90.38 days. Short term debt was assigned
7 expense lag days based on the monthly interest payments, on the company's working
8 capital balance, of the Company's Intercompany Demand Note to arrive at an average of
9 19.95 days.

10
11 **Q. HAVE YOU PREPARED AN EXHIBIT THAT SUMMARIZES THE RESULTS OF**
12 **YOUR ANALYSIS OF THE COMPANY'S CASH WORKING CAPITAL**
13 **REQUIREMENTS?**

14 A. Yes. The results of the cash working capital study are presented in Peoples Exhibit No.
15 EJP-1, pages 1 to 3. As shown on page 3, the total cash working capital claim is
16 \$35,196,645. This amount is included in rate base in Peoples Exhibit No. 2. Peoples
17 Exhibit No EJP-1 is attached following my testimony.

18
19 **Q. DOES THIS COMPLETE YOUR PREPARED DIRECT TESTIMONY?**

20 A. Yes, it does. I reserve the right to submit additional testimony as issues arise during the
21 course of the proceeding. Thank you.

Appendix A

Filing Requirements Sponsored by
Eric Petrichevich

Exhibit

Filing Requirement

Exhibit 8, Schedule 17

53.53.III.A.15

Line No.	Description (A)	Revenue Lag (B)	Expense Lead (C)	Net Lag (D)	CWC Factor (E)	Adjusted Historic Test Year Expenses (F)	Historic Test Year Cash Working Capital Requirement (G)	Future Test Year Expenses	Future Test Year Cash Working Capital Requirement	Fully Projected Future Test Year Expenses	Fully Projected Future Test Year Cash Working Capital Requirement
1	Gas Purchase Costs	63.90	(37.92)	25.98	0.0712	275,058,804	19,579,865	272,881,849	19,424,900	270,963,553	19,288,347
2	Payroll	63.90	(15.23)	48.67	0.1333	67,975,239	9,063,968	71,695,157	9,559,990	74,635,995	9,952,128
3	Pensions and Benefits	63.90	(50.78)	13.12	0.0359	17,100,269	614,706	20,979,786	754,164	21,905,847	787,453
4	Taxes Other Than Income Taxes	63.90	(32.16)	31.74	0.0870	9,927,952	863,404	10,209,015	887,847	10,431,213	907,171
5	Other O&M Expenses	63.90	(40.12)	23.78	0.0652	85,655,270	5,581,129	91,588,846	5,967,750	95,485,788	6,221,667
	Income Taxes										
6	State	63.90	(37.00)	26.90	0.0737	3,769,634	277,826	838,957	61,832	4,510,741	332,447
7	Federal	63.90	(54.90)	9.00	0.0247	6,740,857	166,229	2,896,431	71,426	15,161,413	373,880
	Interest Expense										
8	Long Term Debt	63.90	(90.38)	(26.48)	(0.0726)	31,226,897	(2,265,742)	35,506,989	(2,576,294)	39,075,251	(2,835,198)
9	Short Term Debt	63.90	(19.95)	43.96	0.1204	818,404	98,557	969,062	116,700	1,177,078	141,750
10	Total					<u>\$ 498,273,327</u>	<u>\$ 33,979,943</u>	<u>\$ 507,566,092</u>	<u>\$ 34,268,314</u>	<u>\$ 533,346,879</u>	<u>\$ 35,169,645</u>

Line No.	Description (A)	Revenue Lag (B)	Expense Lead (C)	Net Lag (D)	CWC Factor (E)	Adjusted Historic Test Year Expenses (F)	Historic Test Year Cash Working Capital Requirement (G)	Future Test Year Expenses	Future Test Year Cash Working Capital Requirement	Fully Projected Future Test Year Expenses	Fully Projected Future Test Year Cash Working Capital Requirement
1	Gas Purchase Costs	63.90	(37.92)	25.98	0.0712	153,722,300	10,942,612	152,627,464	10,864,677	151,599,591	10,791,509
2	Payroll	63.90	(15.23)	48.67	0.1333	44,136,697	5,885,284	46,461,985	6,195,343	48,280,909	6,437,882
3	Pensions and Benefits	63.90	(50.78)	13.12	0.0359	11,220,700	403,352	13,560,223	487,451	14,147,509	508,563
4	Taxes Other Than Income Taxes	63.90	(32.16)	31.74	0.0870	6,552,802	569,877	6,728,492	585,157	6,865,923	597,109
5	Other O&M Expenses	63.90	(40.12)	23.78	0.0652	57,242,374	3,729,801	60,737,969	3,957,567	63,095,932	4,111,207
	Income Taxes										
6	State	63.90	(37.00)	26.90	0.0737	1,800,174	132,675	136,990	10,096	2,266,196	167,021
7	Federal	63.90	(54.90)	9.00	0.0247	785,204	19,363	773,679	19,079	7,768,995	191,583
	Interest Expense										
8	Long Term Debt	63.90	(90.38)	(26.48)	(0.0726)	16,213,395	(1,176,401)	18,551,597	(1,346,055)	20,456,122	(1,484,243)
9	Short Term Debt	63.90	(19.95)	43.96	0.1204	424,926	51,172	506,313	60,973	616,207	74,207
10	Total					<u>\$ 292,098,571</u>	<u>\$ 20,557,735</u>	<u>\$ 300,084,711</u>	<u>\$ 20,834,288</u>	<u>\$ 315,097,383</u>	<u>\$ 21,394,839</u>

Line No.	Description (A)	Revenue Lag (B)	Expense Lead (C)	Net Lag (D)	CWC Factor (E)	Adjusted Historic Test Year Expenses (F)	Historic Test Year Cash Working Capital Requirement (G)	Future Test Year Expenses	Future Test Year Cash Working Capital Requirement	Fully Projected Future Test Year Expenses	Fully Projected Future Test Year Cash Working Capital Requirement
1	Gas Purchase Costs	63.90	(37.92)	25.98	0.0712	121,336,504	8,637,252	120,254,385	8,560,223	119,363,963	8,496,838
2	Payroll	63.90	(15.23)	48.67	0.1333	23,838,542	3,178,684	25,233,172	3,364,647	26,355,086	3,514,245
3	Pensions and Benefits	63.90	(50.78)	13.12	0.0359	5,879,569	211,354	7,419,563	266,712	7,758,338	278,890
4	Taxes Other Than Income Taxes	63.90	(32.16)	31.74	0.0870	3,375,150	293,527	3,480,523	302,691	3,565,291	310,063
5	Other O&M Expenses	63.90	(40.12)	23.78	0.0652	28,412,896	1,851,329	30,850,878	2,010,183	32,389,856	2,110,459
	Income Taxes										
6	State	63.90	(37.00)	26.90	0.0737	3,029,202	223,255	985,862	72,659	4,069,466	299,924
7	Federal	63.90	(54.90)	9.00	0.0247	5,731,559	141,340	1,865,351	46,000	7,699,845	189,878
	Interest Expense										
8	Long Term Debt	63.90	(90.38)	(26.48)	(0.0726)	15,020,693	(1,089,862)	16,940,933	(1,229,190)	18,581,153	(1,348,200)
9	Short Term Debt	63.90	(19.95)	43.96	0.1204	393,667	47,408	462,354	55,679	559,727	67,405
10	Total					<u>\$ 207,017,781</u>	<u>\$ 13,494,286</u>	<u>\$ 207,493,021</u>	<u>\$ 13,449,603</u>	<u>\$ 220,342,723</u>	<u>\$ 13,919,504</u>

Calculation of Revenue Lag Time

Line No.	Description	[A] <u>Reference or</u> <u>Factor</u>	[B] <u>Accounts Receivable</u> <u>Balance End of Month</u>	[C] <u>Total Monthly</u> <u>Sales</u>	[D] <u>A/R Turnover</u> <u>[C] / [B]</u>	[E] <u>Days Lag</u> <u>365 / [D]</u>
1	Annual Number of Days					<u>365</u>
2	September, 2017		\$ 52,175			
3	October		\$ 51,302	\$ 39,993		
4	November		\$ 69,374	\$ 77,866		
5	December		\$ 92,303	\$ 118,934		
6	January		\$ 136,148	\$ 128,709		
7	February		\$ 140,580	\$ 89,002		
8	March		\$ 141,350	\$ 79,389		
9	April		\$ 141,342	\$ 63,989		
10	May		\$ 116,410	\$ 32,843		
11	June		\$ 99,395	\$ 31,093		
12	July		\$ 82,343	\$ 24,426		
13	August		\$ 70,476	\$ 26,257		
14	September, 2018		\$ 61,989	\$ 26,435		
15	Total	Sum Ln2 to Ln14	<u>\$ 1,255,187</u>			
16	Average A/R Balance		<u>\$ 96,552.88</u>	<u>\$ 738,937</u>		
17	Factor				<u>7.65</u>	<u>47.69</u>
18	Collection Days Lag					47.69
19	Billing Lag					1.00
20	Service Lag			365 / 12 * 0.5		<u>15.21</u>
21	Total Revenue Lag Days	Sum Ln18 to Ln20				<u>63.90</u>

Calculation of Purchased Gas Costs Lead Time

Weighted Expense Lead Time: 37.92 days

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
Line No.	Company	Period Start	Period End	Payment Amount	Payment Date	Service Lead Time	Payment Lead Time	Total Lead Time	Weighting Factor	Weighted Lead Time
1	Dominion Transmission, Inc.	10/1/2017	10/31/2017	\$ (912,582.91)	11/13/2017	15.00	13.00	28.00	0.311%	0.09
2	EQT Energy	10/1/2017	10/31/2017	\$ (3,062,397.80)	11/22/2017	15.00	22.00	37.00	1.045%	0.39
3	Equitrans	10/1/2017	10/31/2017	\$ (5,898,411.14)	11/21/2017	15.00	21.00	36.00	2.013%	0.72
4	Guttman Energy	10/1/2017	10/31/2017	\$ (998,563.63)	11/22/2017	15.00	22.00	37.00	0.341%	0.13
5	Macquarie (USG&E)	10/1/2017	10/31/2017	\$ 3,410.00	11/22/2017	15.00	22.00	37.00	-0.001%	(0.00)
6	National Fuel Gas Supply	10/1/2017	10/31/2017	\$ (117,345.37)	11/27/2017	15.00	27.00	42.00	0.040%	0.02
7	NJR	10/1/2017	10/31/2017	\$ 70,142.52	11/22/2017	15.00	22.00	37.00	-0.024%	(0.01)
8	Range Resources	10/1/2017	10/31/2017	\$ (152,871.75)	11/22/2017	15.00	22.00	37.00	0.052%	0.02
9	Sequent Energy Management	10/1/2017	10/31/2017	\$ 12,450.00	11/22/2017	15.00	22.00	37.00	-0.004%	(0.00)
10	South Jersey Energy	10/1/2017	10/31/2017	\$ 714.24	11/22/2017	15.00	22.00	37.00	0.000%	(0.00)
11	South Jersey Resources	10/1/2017	10/31/2017	\$ 142,628.80	11/27/2017	15.00	27.00	42.00	-0.049%	(0.02)
12	Supreme	10/1/2017	10/31/2017	\$ 2,777.60	11/22/2017	15.00	22.00	37.00	-0.001%	(0.00)
13	Tenaska Marketing Ventures	10/1/2017	10/31/2017	\$ (269,528.25)	11/27/2017	15.00	27.00	42.00	0.092%	0.04
14	Tennessee Gas Pipeline	10/1/2017	10/31/2017	\$ 1,485.12	11/20/2017	15.00	20.00	35.00	-0.001%	(0.00)
15	Texas Eastern Transmission, LP	10/1/2017	10/31/2017	\$ (207,596.72)	11/20/2017	15.00	20.00	35.00	0.071%	0.02
16	UGI Energy Services	10/1/2017	10/31/2017	\$ (12,609.45)	11/22/2017	15.00	22.00	37.00	0.004%	0.00
17	Xoom	10/1/2017	10/31/2017	\$ 8,858.30	11/22/2017	15.00	22.00	37.00	-0.003%	(0.00)
18	Dominion Transmission, Inc.	11/1/2017	11/30/2017	\$ (913,769.37)	12/15/2017	14.50	15.00	29.50	0.312%	0.09
19	EQT Energy	11/1/2017	11/30/2017	\$ (863,929.53)	12/22/2017	14.50	22.00	36.50	0.295%	0.11
20	EQT Energy	11/1/2017	11/30/2017	\$ (10,569,410.85)	12/22/2017	14.50	22.00	36.50	3.606%	1.32
21	Equitrans	11/1/2017	11/30/2017	\$ (10,807,345.05)	12/21/2017	14.50	21.00	35.50	3.688%	1.31
22	Guttman Energy	11/1/2017	11/30/2017	\$ (857,674.20)	12/26/2017	14.50	26.00	40.50	0.293%	0.12
23	National Fuel Gas Supply	11/1/2017	11/30/2017	\$ (120,949.03)	12/26/2017	14.50	26.00	40.50	0.041%	0.02
24	Range Resources	11/1/2017	11/30/2017	\$ (306,155.00)	12/26/2017	14.50	26.00	40.50	0.104%	0.04
25	Shell (Ambit)	11/1/2017	11/30/2017	\$ 29,550.68	12/22/2017	14.50	22.00	36.50	-0.010%	(0.00)
26	South Jersey Energy	11/1/2017	11/30/2017	\$ 1,689.60	12/22/2017	14.50	22.00	36.50	-0.001%	(0.00)
27	South Jersey Resources	11/1/2017	11/30/2017	\$ (141,347.55)	12/26/2017	14.50	26.00	40.50	0.048%	0.02
28	Supreme	11/1/2017	11/30/2017	\$ 6,336.00	12/22/2017	14.50	22.00	36.50	-0.002%	(0.00)
29	Tenaska Marketing Ventures	11/1/2017	11/30/2017	\$ (10,350.00)	12/22/2017	14.50	22.00	36.50	0.004%	0.00
30	Tennessee Gas Pipeline	11/1/2017	11/30/2017	\$ 611.37	12/20/2017	14.50	20.00	34.50	0.000%	(0.00)
31	Texas Eastern Transmission, LP	11/1/2017	11/30/2017	\$ (175,877.25)	12/22/2017	14.50	22.00	36.50	0.060%	0.02
32	Xoom	11/1/2017	11/30/2017	\$ 24,068.10	12/22/2017	14.50	22.00	36.50	-0.008%	(0.00)
33	BP Energy	12/1/2017	12/31/2017	\$ (34,255.00)	1/25/2018	15.00	25.00	40.00	0.012%	0.00
34	Dominion Transmission, Inc.	12/1/2017	12/31/2017	\$ (930,991.36)	1/16/2018	15.00	16.00	31.00	0.318%	0.10
35	EDF Trading North America	12/1/2017	12/31/2017	\$ (255,434.00)	1/25/2018	15.00	25.00	40.00	0.087%	0.03
36	EQT Energy	12/1/2017	12/31/2017	\$ (2,376,687.18)	1/25/2018	15.00	25.00	40.00	0.811%	0.32
37	EQT Energy	12/1/2017	12/31/2017	\$ (12,699,335.88)	1/25/2018	15.00	25.00	40.00	4.333%	1.73

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
Line No.	Company	Period Start	Period End	Payment Amount	Payment Date	Service Lead Time	Payment Lead Time	Total Lead Time	Weighting Factor	Weighted Lead Time
38	Equitrans	12/1/2017	12/31/2017	\$ (11,041,160.08)	1/21/2018	15.00	21.00	36.00	3.767%	1.36
39	Guttman Energy	12/1/2017	12/31/2017	\$ (1,049,149.43)	1/25/2018	15.00	25.00	40.00	0.358%	0.14
40	MidAtlantic	12/1/2017	12/31/2017	\$ 6,829.06	1/25/2018	15.00	25.00	40.00	-0.002%	(0.00)
41	National Fuel Gas Supply	12/1/2017	12/31/2017	\$ (124,560.15)	1/25/2018	15.00	25.00	40.00	0.043%	0.02
42	NJR	12/1/2017	12/31/2017	\$ 114,300.00	1/25/2018	15.00	25.00	40.00	-0.039%	(0.02)
43	PNG Agency	12/1/2017	12/31/2017	\$ 64,912.80	1/25/2018	15.00	25.00	40.00	-0.022%	(0.01)
44	Range Resources	12/1/2017	12/31/2017	\$ (2,416,059.45)	1/25/2018	15.00	25.00	40.00	0.824%	0.33
45	Shell (Ambit)	12/1/2017	12/31/2017	\$ 45,870.08	1/25/2018	15.00	25.00	40.00	-0.016%	(0.01)
46	South Jersey Energy	12/1/2017	12/31/2017	\$ 4,131.68	1/25/2018	15.00	25.00	40.00	-0.001%	(0.00)
47	South Jersey Resources	12/1/2017	12/31/2017	\$ (514,828.40)	1/25/2018	15.00	25.00	40.00	0.176%	0.07
48	Supreme	12/1/2017	12/31/2017	\$ 14,587.36	1/25/2018	15.00	25.00	40.00	-0.005%	(0.00)
49	Tenaska Marketing Ventures	12/1/2017	12/31/2017	\$ 42,525.00	1/25/2018	15.00	25.00	40.00	-0.015%	(0.01)
50	Tennessee Gas Pipeline	12/1/2017	12/31/2017	\$ 5,266.52	1/22/2018	15.00	22.00	37.00	-0.002%	(0.00)
51	Texas Eastern Transmission, LP	12/1/2017	12/31/2017	\$ (179,616.10)	1/22/2018	15.00	22.00	37.00	0.061%	0.02
52	Xoom	12/1/2017	12/31/2017	\$ 36,580.00	1/25/2018	15.00	25.00	40.00	-0.012%	(0.00)
53	BP Energy	1/1/2018	1/31/2018	\$ (847,300.00)	2/23/2018	15.00	23.00	38.00	0.289%	0.11
54	Dominion	1/1/2018	1/31/2018	\$ 834,975.00	2/23/2018	15.00	23.00	38.00	-0.285%	(0.11)
55	Dominion Transmission, Inc.	1/1/2018	1/31/2018	\$ (933,032.19)	2/15/2018	15.00	15.00	30.00	0.318%	0.10
56	EDF Trading North America	1/1/2018	1/31/2018	\$ (654,062.00)	2/26/2018	15.00	26.00	41.00	0.223%	0.09
57	EQT Energy	1/1/2018	1/31/2018	\$ (125,593.40)	2/23/2018	15.00	23.00	38.00	0.043%	0.02
58	EQT Energy	1/1/2018	1/31/2018	\$ (16,471,967.43)	2/23/2018	15.00	23.00	38.00	5.620%	2.14
59	EQT Energy	1/1/2018	1/31/2018	\$ (13,388,418.21)	2/23/2018	15.00	23.00	38.00	4.568%	1.74
60	Equitrans	1/1/2018	1/31/2018	\$ (11,130,848.43)	2/21/2018	15.00	21.00	36.00	3.798%	1.37
61	Guttman Energy	1/1/2018	1/31/2018	\$ (1,199,892.64)	2/23/2018	15.00	23.00	38.00	0.409%	0.16
62	IGS	1/1/2018	1/31/2018	\$ 9,977.75	2/23/2018	15.00	23.00	38.00	-0.003%	(0.00)
63	Macquarie (USG&E)	1/1/2018	1/31/2018	\$ 115,267.15	2/23/2018	15.00	23.00	38.00	-0.039%	(0.01)
64	MidAtlantic	1/1/2018	1/31/2018	\$ 13,475.58	2/23/2018	15.00	23.00	38.00	-0.005%	(0.00)
65	National Fuel Gas Supply	1/1/2018	1/31/2018	\$ (124,294.56)	2/26/2018	15.00	26.00	41.00	0.042%	0.02
66	PNG Agency	1/1/2018	1/31/2018	\$ 193,097.32	2/23/2018	15.00	23.00	38.00	-0.066%	(0.03)
67	Range Resources	1/1/2018	1/31/2018	\$ (32,750.00)	2/23/2018	15.00	23.00	38.00	0.011%	0.00
68	Shell (Ambit)	1/1/2018	1/31/2018	\$ 43,632.50	2/23/2018	15.00	23.00	38.00	-0.015%	(0.01)
69	South Jersey Energy	1/1/2018	1/31/2018	\$ 4,572.50	2/23/2018	15.00	23.00	38.00	-0.002%	(0.00)
70	South Jersey Resources	1/1/2018	1/31/2018	\$ (904,509.40)	2/23/2018	15.00	23.00	38.00	0.309%	0.12
71	Supreme	1/1/2018	1/31/2018	\$ 17,360.00	2/23/2018	15.00	23.00	38.00	-0.006%	(0.00)
72	Tennessee Gas Pipeline	1/1/2018	1/31/2018	\$ 3,557.88	2/22/2018	15.00	22.00	37.00	-0.001%	(0.00)
73	Texas Eastern Transmission, LP	1/1/2018	1/31/2018	\$ (181,685.74)	2/20/2018	15.00	20.00	35.00	0.062%	0.02
74	Xoom	1/1/2018	1/31/2018	\$ 40,535.29	2/23/2018	15.00	23.00	38.00	-0.014%	(0.01)
75	Dominion Retail	2/1/2018	2/28/2018	\$ 39,195.00	3/26/2018	13.50	26.00	39.50	-0.013%	(0.01)
76	Dominion Transmission, Inc.	2/1/2018	2/28/2018	\$ (928,845.21)	3/15/2018	13.50	15.00	28.50	0.317%	0.09
77	EDF Trading North America	2/1/2018	2/28/2018	\$ (142,625.00)	3/26/2018	13.50	26.00	39.50	0.049%	0.02

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
Line No.	Company	Period Start	Period End	Payment Amount	Payment Date	Service Lead Time	Payment Lead Time	Total Lead Time	Weighting Factor	Weighted Lead Time
78	EQT Energy	2/1/2018	2/28/2018	\$ (71,680.00)	3/26/2018	13.50	26.00	39.50	0.024%	0.01
79	EQT Energy	2/1/2018	2/28/2018	\$ (6,461,273.09)	3/26/2018	13.50	26.00	39.50	2.205%	0.87
80	EQT Energy	2/1/2018	2/28/2018	\$ (3,323,675.96)	3/26/2018	13.50	26.00	39.50	1.134%	0.45
81	Equitrans	2/1/2018	2/28/2018	\$ (10,832,690.52)	3/21/2018	13.50	21.00	34.50	3.696%	1.28
82	Guttman Energy	2/1/2018	2/28/2018	\$ (1,463,347.84)	3/26/2018	13.50	26.00	39.50	0.499%	0.20
83	IGS	2/1/2018	2/28/2018	\$ 41,350.12	3/26/2018	13.50	26.00	39.50	-0.014%	(0.01)
84	Macquarie (USG&E)	2/1/2018	2/28/2018	\$ 40,460.00	3/26/2018	13.50	26.00	39.50	-0.014%	(0.01)
85	MidAtlantic	2/1/2018	2/28/2018	\$ 35,760.00	3/26/2018	13.50	26.00	39.50	-0.012%	(0.00)
86	National Fuel Gas Supply	2/1/2018	2/28/2018	\$ (121,952.68)	3/26/2018	13.50	26.00	39.50	0.042%	0.02
87	PNG Agency	2/1/2018	2/28/2018	\$ 276,925.95	3/26/2018	13.50	26.00	39.50	-0.094%	(0.04)
88	Range Resources	2/1/2018	2/28/2018	\$ (153,300.00)	3/26/2018	13.50	26.00	39.50	0.052%	0.02
89	Shell (Ambit)	2/1/2018	2/28/2018	\$ 46,912.32	3/26/2018	13.50	26.00	39.50	-0.016%	(0.01)
90	South Jersey Energy	2/1/2018	2/28/2018	\$ 5,416.32	3/26/2018	13.50	26.00	39.50	-0.002%	(0.00)
91	South Jersey Resources	2/1/2018	2/28/2018	\$ (544,954.40)	3/26/2018	13.50	26.00	39.50	0.186%	0.07
92	Supreme	2/1/2018	2/28/2018	\$ 23,936.64	3/26/2018	13.50	26.00	39.50	-0.008%	(0.00)
93	Tennessee Gas Pipeline	2/1/2018	2/28/2018	\$ 80,765.69	3/22/2018	13.50	22.00	35.50	-0.028%	(0.01)
94	Texas Eastern Transmission, LP	2/1/2018	2/28/2018	\$ (170,504.98)	3/20/2018	13.50	20.00	33.50	0.058%	0.02
95	UGI Energy Services	2/1/2018	2/28/2018	\$ 324,719.28	3/26/2018	13.50	26.00	39.50	-0.111%	(0.04)
96	Xoom	2/1/2018	2/28/2018	\$ 44,135.47	3/26/2018	13.50	26.00	39.50	-0.015%	(0.01)
97	Dominion Transmission, Inc.	3/1/2018	3/31/2018	\$ (928,690.57)	4/16/2018	15.00	16.00	31.00	0.317%	0.10
98	EQT Energy	3/1/2018	3/31/2018	\$ (9,520,080.68)	4/25/2018	15.00	25.00	40.00	3.248%	1.30
99	EQT Energy	3/1/2018	3/31/2018	\$ (2,072,101.42)	4/25/2018	15.00	25.00	40.00	0.707%	0.28
100	Equitrans	3/1/2018	3/31/2018	\$ (11,497,615.60)	4/21/2018	15.00	21.00	36.00	3.923%	1.41
101	Guttman Energy	3/1/2018	3/31/2018	\$ (445,280.00)	4/25/2018	15.00	25.00	40.00	0.152%	0.06
102	IGS	3/1/2018	3/31/2018	\$ 26,040.00	4/25/2018	15.00	25.00	40.00	-0.009%	(0.00)
103	National Fuel Gas Supply	3/1/2018	3/31/2018	\$ (125,755.51)	4/25/2018	15.00	25.00	40.00	0.043%	0.02
104	PNG Agency	3/1/2018	3/31/2018	\$ 255,393.81	4/25/2018	15.00	25.00	40.00	-0.087%	(0.03)
105	Shell (Ambit)	3/1/2018	3/31/2018	\$ 36,521.10	4/25/2018	15.00	25.00	40.00	-0.012%	(0.00)
106	South Jersey Energy	3/1/2018	3/31/2018	\$ 3,508.89	4/25/2018	15.00	25.00	40.00	-0.001%	(0.00)
107	South Jersey Resources	3/1/2018	3/31/2018	\$ (677,599.00)	4/25/2018	15.00	25.00	40.00	0.231%	0.09
108	Tennessee Gas Pipeline	3/1/2018	3/31/2018	\$ 17,042.18	4/23/2018	15.00	23.00	38.00	-0.006%	(0.00)
109	Texas Eastern Transmission, LP	3/1/2018	3/31/2018	\$ (177,027.54)	4/20/2018	15.00	20.00	35.00	0.060%	0.02
110	Xoom	3/1/2018	3/31/2018	\$ 22,329.30	4/25/2018	15.00	25.00	40.00	-0.008%	(0.00)
111	BP Energy	4/1/2018	4/30/2018	\$ (837,537.64)	5/25/2018	14.50	25.00	39.50	0.286%	0.11
112	Dominion Transmission, Inc.	4/1/2018	4/30/2018	\$ (919,862.06)	5/14/2018	14.50	14.00	28.50	0.314%	0.09
113	EQT Energy	4/1/2018	4/30/2018	\$ (1,396,385.00)	5/25/2018	14.50	25.00	39.50	0.476%	0.19
114	EQT Energy	4/1/2018	4/30/2018	\$ (11,083,632.00)	5/25/2018	14.50	25.00	39.50	3.782%	1.49
115	EQT Energy	4/1/2018	4/30/2018	\$ (670,776.96)	5/25/2018	14.50	25.00	39.50	0.229%	0.09
116	Equitrans	4/1/2018	4/30/2018	\$ (6,499,081.19)	5/21/2018	14.50	21.00	35.50	2.218%	0.79
117	Guttman Energy	4/1/2018	4/30/2018	\$ (1,212,084.60)	5/25/2018	14.50	25.00	39.50	0.414%	0.16

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
Line No.	Company	Period Start	Period End	Payment Amount	Payment Date	Service Lead Time	Payment Lead Time	Total Lead Time	Weighting Factor	Weighted Lead Time
118	National Fuel Gas Supply	4/1/2018	4/30/2018	\$ (119,850.76)	5/25/2018	14.50	25.00	39.50	0.041%	0.02
119	PNG Agency	4/1/2018	4/30/2018	\$ 16,831.50	5/25/2018	14.50	25.00	39.50	-0.006%	(0.00)
120	Sequent Energy Management	4/1/2018	4/30/2018	\$ (722,728.61)	5/25/2018	14.50	25.00	39.50	0.247%	0.10
121	South Jersey Energy	4/1/2018	4/30/2018	\$ 294.00	5/25/2018	14.50	25.00	39.50	0.000%	(0.00)
122	South Jersey Resources	4/1/2018	4/30/2018	\$ (252,775.50)	5/25/2018	14.50	25.00	39.50	0.086%	0.03
123	Tennessee Gas Pipeline	4/1/2018	4/30/2018	\$ 10,711.45	5/21/2018	14.50	21.00	35.50	-0.004%	(0.00)
124	Texas Eastern Transmission, LP	4/1/2018	4/30/2018	\$ (194,126.48)	5/21/2018	14.50	21.00	35.50	0.066%	0.02
125	Xoom	4/1/2018	4/30/2018	\$ 15,187.20	5/25/2018	14.50	25.00	39.50	-0.005%	(0.00)
126	Dominion Transmission, Inc.	5/1/2018	5/31/2018	\$ (912,130.21)	6/15/2018	15.00	15.00	30.00	0.311%	0.09
127	EQT Energy	5/1/2018	5/31/2018	\$ (8,630,400.00)	6/25/2018	15.00	25.00	40.00	2.945%	1.18
128	Equitrans	5/1/2018	5/31/2018	\$ (6,195,034.06)	6/21/2018	15.00	21.00	36.00	2.114%	0.76
129	Guttman Energy	5/1/2018	5/31/2018	\$ (1,019,590.00)	6/25/2018	15.00	25.00	40.00	0.348%	0.14
130	Macquarie (USG&E)	5/1/2018	5/31/2018	\$ 17,476.56	6/25/2018	15.00	25.00	40.00	-0.006%	(0.00)
131	National Fuel Gas Supply	5/1/2018	5/31/2018	\$ (122,014.14)	6/25/2018	15.00	25.00	40.00	0.042%	0.02
132	Range Resources	5/1/2018	5/31/2018	\$ (444,592.50)	6/25/2018	15.00	25.00	40.00	0.152%	0.06
133	Sequent Energy Management	5/1/2018	5/31/2018	\$ (20,995.00)	6/25/2018	15.00	25.00	40.00	0.007%	0.00
134	South Jersey Resources	5/1/2018	5/31/2018	\$ (343,653.00)	6/25/2018	15.00	25.00	40.00	0.117%	0.05
135	Tenaska	5/1/2018	5/31/2018	\$ (410,307.40)	6/25/2018	15.00	25.00	40.00	0.140%	0.06
136	Tennessee Gas Pipeline	5/1/2018	5/31/2018	\$ 6,738.61	6/22/2018	15.00	22.00	37.00	-0.002%	(0.00)
137	Texas Eastern Transmission, LP	5/1/2018	5/31/2018	\$ (156,876.53)	6/20/2018	15.00	20.00	35.00	0.054%	0.02
138	Xoom	5/1/2018	5/31/2018	\$ 13,592.88	6/25/2018	15.00	25.00	40.00	-0.005%	(0.00)
139	Dominion Transmission, Inc.	6/1/2018	6/30/2018	\$ (875,291.10)	7/16/2018	14.50	16.00	30.50	0.299%	0.09
140	EQT Energy	6/1/2018	6/30/2018	\$ (1,054,411.20)	7/25/2018	14.50	25.00	39.50	0.360%	0.14
141	EQT Energy	6/1/2018	6/30/2018	\$ (4,606,588.80)	7/25/2018	14.50	25.00	39.50	1.572%	0.62
142	Equitrans	6/1/2018	6/30/2018	\$ (6,166,213.58)	7/21/2018	14.50	21.00	35.50	2.104%	0.75
143	Guttman Energy	6/1/2018	6/30/2018	\$ (795,000.00)	7/25/2018	14.50	25.00	39.50	0.271%	0.11
144	National Fuel Gas Supply	6/1/2018	6/30/2018	\$ (120,734.14)	7/25/2018	14.50	25.00	39.50	0.041%	0.02
145	Range Resources	6/1/2018	6/30/2018	\$ (1,661,491.00)	7/25/2018	14.50	25.00	39.50	0.567%	0.22
146	Sequent Energy Management	6/1/2018	6/30/2018	\$ (1,780,995.00)	7/25/2018	14.50	25.00	39.50	0.608%	0.24
147	South Jersey Resources	6/1/2018	6/30/2018	\$ (126,026.00)	7/25/2018	14.50	25.00	39.50	0.043%	0.02
148	Tennessee Gas Pipeline	6/1/2018	6/30/2018	\$ 2,892.07	7/23/2018	14.50	23.00	37.50	-0.001%	(0.00)
149	Texas Eastern Transmission, LP	6/1/2018	6/30/2018	\$ (152,421.71)	7/20/2018	14.50	20.00	34.50	0.052%	0.02
150	UGI Energy Services	6/1/2018	6/30/2018	\$ (341,927.15)	7/25/2018	14.50	25.00	39.50	0.117%	0.05
151	Xoom	6/1/2018	6/30/2018	\$ 8,591.40	7/25/2018	14.50	25.00	39.50	-0.003%	(0.00)
152	Dominion Transmission, Inc.	7/1/2018	7/31/2018	\$ (923,467.24)	8/13/2018	15.00	13.00	28.00	0.315%	0.09
153	EQT Energy	7/1/2018	7/31/2018	\$ (6,165,900.00)	8/24/2018	15.00	24.00	39.00	2.104%	0.82
154	Equitrans	7/1/2018	7/31/2018	\$ (6,130,120.33)	8/21/2018	15.00	21.00	36.00	2.092%	0.75
155	Guttman Energy	7/1/2018	7/31/2018	\$ (858,700.00)	8/24/2018	15.00	24.00	39.00	0.293%	0.11
156	National Fuel Gas Supply	7/1/2018	7/31/2018	\$ (120,440.42)	8/27/2018	15.00	27.00	42.00	0.041%	0.02
157	Range Resources	7/1/2018	7/31/2018	\$ (841,042.21)	8/24/2018	15.00	24.00	39.00	0.287%	0.11

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
Line No.	Company	Period Start	Period End	Payment Amount	Payment Date	Service Lead Time	Payment Lead Time	Total Lead Time	Weighting Factor	Weighted Lead Time
158	Sequent Energy Management	7/1/2018	7/31/2018	\$ (1,289,987.50)	8/27/2018	15.00	27.00	42.00	0.440%	0.18
159	Shell (Ambit)	7/1/2018	7/31/2018	\$ 393.70	8/24/2018	15.00	24.00	39.00	0.000%	(0.00)
160	South Jersey Energy	7/1/2018	7/31/2018	\$ 158.10	8/24/2018	15.00	24.00	39.00	0.000%	(0.00)
161	South Jersey Resources	7/1/2018	7/31/2018	\$ (96,499.00)	8/24/2018	15.00	24.00	39.00	0.033%	0.01
162	Tennessee Gas Pipeline	7/1/2018	7/31/2018	\$ 162.09	8/20/2018	15.00	20.00	35.00	0.000%	(0.00)
163	Texas Eastern Transmission, LP	7/1/2018	7/31/2018	\$ (156,021.30)	8/20/2018	15.00	20.00	35.00	0.053%	0.02
164	UGI Energy Services	7/1/2018	7/31/2018	\$ (1,539,769.14)	8/24/2018	15.00	24.00	39.00	0.525%	0.20
165	Xoom	7/1/2018	7/31/2018	\$ 12,621.96	8/24/2018	15.00	24.00	39.00	-0.004%	(0.00)
166	Dominion Transmission, Inc.	8/1/2018	8/31/2018	\$ (926,583.19)	9/17/2018	15.00	17.00	32.00	0.316%	0.10
167	EQT Energy	8/1/2018	8/31/2018	\$ (5,355,784.80)	9/25/2018	15.00	25.00	40.00	1.827%	0.73
168	Equitrans	8/1/2018	8/31/2018	\$ (6,132,576.61)	9/21/2018	15.00	21.00	36.00	2.093%	0.75
169	Guttman Energy	8/1/2018	8/31/2018	\$ (877,300.00)	9/25/2018	15.00	25.00	40.00	0.299%	0.12
170	IGS	8/1/2018	8/31/2018	\$ (2,212.60)	9/25/2018	15.00	25.00	40.00	0.001%	0.00
171	National Fuel Gas Supply	8/1/2018	8/31/2018	\$ (119,814.10)	9/25/2018	15.00	25.00	40.00	0.041%	0.02
172	PESCO	8/1/2018	8/31/2018	\$ (165,344.70)	9/25/2018	15.00	25.00	40.00	0.056%	0.02
173	Range Resources	8/1/2018	8/31/2018	\$ (1,702,767.00)	9/25/2018	15.00	25.00	40.00	0.581%	0.23
174	Sequent Energy Management	8/1/2018	8/31/2018	\$ (2,848,725.00)	9/25/2018	15.00	25.00	40.00	0.972%	0.39
175	South Jersey Energy	8/1/2018	8/31/2018	\$ 81.22	9/25/2018	15.00	25.00	40.00	0.000%	(0.00)
176	South Jersey Resources	8/1/2018	8/31/2018	\$ (95,608.50)	9/25/2018	15.00	25.00	40.00	0.033%	0.01
177	Tennessee Gas Pipeline	8/1/2018	8/31/2018	\$ 3,287.35	9/24/2018	15.00	24.00	39.00	-0.001%	(0.00)
178	Texas Eastern Transmission, LP	8/1/2018	8/31/2018	\$ (157,513.13)	9/20/2018	15.00	20.00	35.00	0.054%	0.02
179	UGI Energy Services	8/1/2018	8/31/2018	\$ (1,111,320.90)	9/25/2018	15.00	25.00	40.00	0.379%	0.15
180	Xoom	8/1/2018	8/31/2018	\$ 4,862.40	9/25/2018	15.00	25.00	40.00	-0.002%	(0.00)
181	BP Energy	9/1/2018	9/30/2018	\$ (2,295,590.00)	10/25/2018	14.50	25.00	39.50	0.783%	0.31
182	Dominion Transmission, Inc.	9/1/2018	9/30/2018	\$ (927,217.67)	10/15/2018	14.50	15.00	29.50	0.316%	0.09
183	EQT Energy	9/1/2018	9/30/2018	\$ (6,807,376.80)	10/25/2018	14.50	25.00	39.50	2.323%	0.92
184	Equitrans	9/1/2018	9/30/2018	\$ (6,181,356.89)	10/22/2018	14.50	22.00	36.50	2.109%	0.77
185	Guttman Energy	9/1/2018	9/30/2018	\$ (873,000.00)	10/25/2018	14.50	25.00	39.50	0.298%	0.12
186	National Fuel Gas Supply	9/1/2018	9/30/2018	\$ (119,488.16)	10/25/2018	14.50	25.00	39.50	0.041%	0.02
187	Range Resources	9/1/2018	9/30/2018	\$ (952,130.00)	10/25/2018	14.50	25.00	39.50	0.325%	0.13
188	Sequent Energy Management	9/1/2018	9/30/2018	\$ (16,380.00)	10/25/2018	14.50	25.00	39.50	0.006%	0.00
189	South Jersey Energy	9/1/2018	9/30/2018	\$ 972.00	10/25/2018	14.50	25.00	39.50	0.000%	(0.00)
190	South Jersey Resources	9/1/2018	9/30/2018	\$ (134,550.00)	10/25/2018	14.50	25.00	39.50	0.046%	0.02
191	Tennessee Gas Pipeline	9/1/2018	9/30/2018	\$ 1,216.41	10/25/2018	14.50	25.00	39.50	0.000%	(0.00)
192	Texas Eastern Transmission, LP	9/1/2018	9/30/2018	\$ (170,561.95)	10/22/2018	14.50	22.00	36.50	0.058%	0.02
193	UGI Energy Services	9/1/2018	9/30/2018	\$ (272,938.40)	10/25/2018	14.50	25.00	39.50	0.093%	0.04
194	Xoom	9/1/2018	9/30/2018	\$ 8,109.60	10/25/2018	14.50	25.00	39.50	-0.003%	(0.00)
195	Local Producer Gas Payments	10/1/2017	10/31/2017	\$ (806,343.59)	11/30/2017	15.00	30.00	45.00	0.275%	0.12
196	Local Producer Gas Payments	11/1/2017	11/30/2017	\$ (1,199,266.12)	12/30/2017	14.50	30.00	44.50	0.409%	0.18
197	Local Producer Gas Payments	12/1/2017	12/31/2017	\$ (1,673,572.03)	1/31/2018	15.00	31.00	46.00	0.571%	0.26

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
Line No.	Company	Period Start	Period End	Payment Amount	Payment Date	Service Lead Time	Payment Lead Time	Total Lead Time	Weighting Factor	Weighted Lead Time
198	Local Producer Gas Payments	1/1/2018	1/31/2018	\$ (1,492,700.19)	2/28/2018	15.00	28.00	43.00	0.509%	0.22
199	Local Producer Gas Payments	2/1/2018	2/28/2018	\$ (2,017,903.75)	3/30/2018	13.50	30.00	43.50	0.689%	0.30
200	Local Producer Gas Payments	3/1/2018	3/31/2018	\$ (1,517,893.46)	4/30/2018	15.00	30.00	45.00	0.518%	0.23
201	Local Producer Gas Payments	4/1/2018	4/30/2018	\$ (1,630,935.99)	5/31/2018	14.50	31.00	45.50	0.556%	0.25
202	Local Producer Gas Payments	5/1/2018	5/31/2018	\$ (1,685,134.72)	6/29/2018	15.00	29.00	44.00	0.575%	0.25
203	Local Producer Gas Payments	6/1/2018	6/30/2018	\$ (1,095,150.77)	7/31/2018	14.50	31.00	45.50	0.374%	0.17
204	Local Producer Gas Payments	7/1/2018	7/31/2018	\$ (1,096,125.05)	8/31/2018	15.00	31.00	46.00	0.374%	0.17
205	Local Producer Gas Payments	8/1/2018	8/31/2018	\$ (1,158,879.18)	9/28/2018	15.00	28.00	43.00	0.395%	0.17
206	Local Producer Gas Payments	9/1/2018	9/30/2018	\$ (1,172,946.69)	10/31/2018	14.50	31.00	45.50	0.400%	0.18
				<u>\$ (293,073,849.91)</u>						

Calculation of Payroll Lead Time

Weighted Expense Lead Time: 15.23 days

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
Line No.	Type	Pay Period End Date	Pay Date	Payroll Amt.	Pay Period Begin	Mid Point of Pay Period	Payment Lead Time	Total Lead Time	Weighting Factor	Weighted Lead Time
1	Union Payroll	10/14/2017	10/25/2017	\$ 1,976,592	10/01/2017	6.5	11.00	17.50	1.69%	0.29
2	Union Payroll	10/28/2017	11/08/2017	\$ 2,032,755	10/15/2017	6.5	11.00	17.50	1.73%	0.30
3	Union Payroll	11/11/2017	11/22/2017	\$ 2,218,955	10/29/2017	6.5	11.00	17.50	1.89%	0.33
4	Union Payroll	11/25/2017	12/06/2017	\$ 2,158,744	11/12/2017	6.5	11.00	17.50	1.84%	0.32
5	Union Payroll	12/09/2017	12/20/2017	\$ 2,049,522	11/26/2017	6.5	11.00	17.50	1.75%	0.31
6	Union Payroll	12/23/2017	01/03/2018	\$ 2,483,079	12/10/2017	6.5	11.00	17.50	2.12%	0.37
7	Union Payroll	01/06/2018	01/17/2018	\$ 2,887,478	12/24/2017	6.5	11.00	17.50	2.46%	0.43
8	Union Payroll	01/20/2018	01/31/2018	\$ 3,596,413	01/07/2018	6.5	11.00	17.50	3.07%	0.54
9	Union Payroll	02/03/2018	02/14/2018	\$ 2,800,874	01/21/2018	6.5	11.00	17.50	2.39%	0.42
10	Union Payroll	02/17/2018	02/28/2018	\$ 5,355,192	02/04/2018	6.5	11.00	17.50	4.57%	0.80
11	Union Payroll	03/03/2018	03/14/2018	\$ 2,763,954	02/18/2018	6.5	11.00	17.50	2.36%	0.41
12	Union Payroll	03/17/2018	03/28/2018	\$ 2,535,080	03/04/2018	6.5	11.00	17.50	2.16%	0.38
13	Union Payroll	03/31/2018	04/11/2018	\$ 2,503,812	03/18/2018	6.5	11.00	17.50	2.13%	0.37
14	Union Payroll	04/14/2018	04/25/2018	\$ 2,495,250	04/01/2018	6.5	11.00	17.50	2.13%	0.37
15	Union Payroll	04/28/2018	05/09/2018	\$ 2,486,524	04/15/2018	6.5	11.00	17.50	2.12%	0.37
16	Union Payroll	05/12/2018	05/23/2018	\$ 2,413,982	04/29/2018	6.5	11.00	17.50	2.06%	0.36
17	Union Payroll	05/26/2018	06/06/2018	\$ 2,409,059	05/13/2018	6.5	11.00	17.50	2.05%	0.36
18	Union Payroll	06/09/2018	06/20/2018	\$ 2,381,627	05/27/2018	6.5	11.00	17.50	2.03%	0.36
19	Union Payroll	06/23/2018	07/03/2018	\$ 2,365,144	06/10/2018	6.5	10.00	16.50	2.02%	0.33
20	Union Payroll	07/07/2018	07/18/2018	\$ 2,318,415	06/24/2018	6.5	11.00	17.50	1.98%	0.35
21	Union Payroll	07/21/2018	08/01/2018	\$ 2,357,892	07/08/2018	6.5	11.00	17.50	2.01%	0.35
22	Union Payroll	08/04/2018	08/15/2018	\$ 2,386,588	07/22/2018	6.5	11.00	17.50	2.03%	0.36
23	Union Payroll	08/18/2018	08/29/2018	\$ 2,369,329	08/05/2018	6.5	11.00	17.50	2.02%	0.35
24	Union Payroll	09/01/2018	09/12/2018	\$ 2,330,332	08/19/2018	6.5	11.00	17.50	1.99%	0.35
25	Union Payroll	09/15/2018	09/26/2018	\$ 2,523,174	09/02/2018	6.5	11.00	17.50	2.15%	0.38
26	Union Payroll	10/08/2017	10/18/2017	\$ 52,529	09/25/2017	6.5	10.00	16.50	0.04%	0.01
27	Union Payroll	10/22/2017	11/01/2017	\$ 55,263	10/09/2017	6.5	10.00	16.50	0.05%	0.01
28	Union Payroll	11/05/2017	11/15/2017	\$ 54,083	10/23/2017	6.5	10.00	16.50	0.05%	0.01
29	Union Payroll	11/19/2017	11/29/2017	\$ 54,262	11/06/2017	6.5	10.00	16.50	0.05%	0.01
30	Union Payroll	12/03/2017	12/13/2017	\$ 54,831	11/20/2017	6.5	10.00	16.50	0.05%	0.01
31	Union Payroll	12/17/2017	12/27/2017	\$ 57,710	12/04/2017	6.5	10.00	16.50	0.05%	0.01
32	Union Payroll	12/31/2017	01/10/2018	\$ 47,038	12/18/2017	6.5	10.00	16.50	0.04%	0.01
33	Union Payroll	01/14/2018	01/24/2018	\$ 47,256	01/01/2018	6.5	10.00	16.50	0.04%	0.01
34	Union Payroll	01/28/2018	02/07/2018	\$ 51,250	01/15/2018	6.5	10.00	16.50	0.04%	0.01
35	Union Payroll	02/11/2018	02/21/2018	\$ 92,517	01/29/2018	6.5	10.00	16.50	0.08%	0.01
36	Union Payroll	02/25/2018	03/07/2018	\$ 48,459	02/12/2018	6.5	10.00	16.50	0.04%	0.01
37	Union Payroll	03/11/2018	03/21/2018	\$ 48,532	02/26/2018	6.5	10.00	16.50	0.04%	0.01
38	Union Payroll	03/25/2018	04/04/2018	\$ 50,011	03/12/2018	6.5	10.00	16.50	0.04%	0.01
39	Union Payroll	04/08/2018	04/18/2018	\$ 46,976	03/26/2018	6.5	10.00	16.50	0.04%	0.01
40	Union Payroll	04/22/2018	05/02/2018	\$ 47,827	04/09/2018	6.5	10.00	16.50	0.04%	0.01
41	Union Payroll	05/06/2018	05/16/2018	\$ 48,660	04/23/2018	6.5	10.00	16.50	0.04%	0.01
42	Union Payroll	05/20/2018	05/30/2018	\$ 49,934	05/07/2018	6.5	10.00	16.50	0.04%	0.01
43	Union Payroll	06/03/2018	06/13/2018	\$ 47,766	05/21/2018	6.5	10.00	16.50	0.04%	0.01
44	Union Payroll	06/17/2018	06/27/2018	\$ 49,543	06/04/2018	6.5	10.00	16.50	0.04%	0.01

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	
Line No.	Type	Pay Period End Date	Pay Date	Payroll Amt.	Pay Period Begin	Mid Point of Pay Period	Payment Lead Time	Total Lead Time	Weighting Factor	Weighted Lead Time
45	Union Payroll	07/01/2018	07/11/2018	\$ 48,959	06/18/2018	6.5	10.00	16.50	0.04%	0.01
46	Union Payroll	07/15/2018	07/25/2018	\$ 46,227	07/02/2018	6.5	10.00	16.50	0.04%	0.01
47	Union Payroll	07/29/2018	08/08/2018	\$ 46,710	07/16/2018	6.5	10.00	16.50	0.04%	0.01
48	Union Payroll	08/12/2018	08/22/2018	\$ 49,153	07/30/2018	6.5	10.00	16.50	0.04%	0.01
49	Union Payroll	08/26/2018	09/05/2018	\$ 44,113	08/13/2018	6.5	10.00	16.50	0.04%	0.01
50	Union Payroll	09/09/2018	09/19/2018	\$ 44,535	08/27/2018	6.5	10.00	16.50	0.04%	0.01
51	Salaried Payroll	10/07/2017	10/13/2017	\$ 1,482,870	09/24/2017	6.5	6.00	12.50	1.26%	0.16
52	Salaried Payroll	10/21/2017	10/27/2017	\$ 1,733,588	10/08/2017	6.5	6.00	12.50	1.48%	0.18
53	Salaried Payroll	11/04/2017	11/09/2017	\$ 1,480,312	10/22/2017	6.5	5.00	11.50	1.26%	0.15
54	Salaried Payroll	11/18/2017	11/24/2017	\$ 1,481,380	11/05/2017	6.5	6.00	12.50	1.26%	0.16
55	Salaried Payroll	12/02/2017	12/08/2017	\$ 1,489,521	11/19/2017	6.5	6.00	12.50	1.27%	0.16
56	Salaried Payroll	12/16/2017	12/22/2017	\$ 1,561,593	12/03/2017	6.5	6.00	12.50	1.33%	0.17
57	Salaried Payroll	12/30/2017	01/05/2018	\$ 633,521	12/17/2017	6.5	6.00	12.50	0.54%	0.07
58	Salaried Payroll	01/13/2018	01/19/2018	\$ 722,641	12/31/2017	6.5	6.00	12.50	0.62%	0.08
59	Salaried Payroll	01/27/2018	02/02/2018	\$ 523,418	01/14/2018	6.5	6.00	12.50	0.45%	0.06
60	Salaried Payroll	02/10/2018	02/16/2018	\$ 2,251,691	01/28/2018	6.5	6.00	12.50	1.92%	0.24
61	Salaried Payroll	02/24/2018	03/02/2018	\$ 523,187	02/11/2018	6.5	6.00	12.50	0.45%	0.06
62	Salaried Payroll	03/10/2018	03/16/2018	\$ 531,369	02/25/2018	6.5	6.00	12.50	0.45%	0.06
63	Salaried Payroll	03/24/2018	03/29/2018	\$ 510,293	03/11/2018	6.5	5.00	11.50	0.44%	0.05
64	Salaried Payroll	04/07/2018	04/13/2018	\$ 567,762	03/25/2018	6.5	6.00	12.50	0.48%	0.06
65	Salaried Payroll	04/21/2018	04/27/2018	\$ 499,906	04/08/2018	6.5	6.00	12.50	0.43%	0.05
66	Salaried Payroll	05/05/2018	05/11/2018	\$ 500,688	04/22/2018	6.5	6.00	12.50	0.43%	0.05
67	Salaried Payroll	05/19/2018	05/25/2018	\$ 488,902	05/06/2018	6.5	6.00	12.50	0.42%	0.05
68	Salaried Payroll	06/02/2018	06/08/2018	\$ 483,080	05/20/2018	6.5	6.00	12.50	0.41%	0.05
69	Salaried Payroll	06/16/2018	06/22/2018	\$ 479,692	06/03/2018	6.5	6.00	12.50	0.41%	0.05
70	Salaried Payroll	06/30/2018	07/06/2018	\$ 481,375	06/17/2018	6.5	6.00	12.50	0.41%	0.05
71	Salaried Payroll	07/14/2018	07/20/2018	\$ 479,123	07/01/2018	6.5	6.00	12.50	0.41%	0.05
72	Salaried Payroll	07/28/2018	08/03/2018	\$ 475,464	07/15/2018	6.5	6.00	12.50	0.41%	0.05
73	Salaried Payroll	08/11/2018	08/17/2018	\$ 481,711	07/29/2018	6.5	6.00	12.50	0.41%	0.05
74	Salaried Payroll	08/25/2018	08/31/2018	\$ 483,230	08/12/2018	6.5	6.00	12.50	0.41%	0.05
75	Salaried Payroll	09/08/2018	09/14/2018	\$ 484,945	08/26/2018	6.5	6.00	12.50	0.41%	0.05
76	Salaried Payroll	09/22/2018	09/28/2018	\$ 488,585	09/09/2018	6.5	6.00	12.50	0.42%	0.05
77	Salaried Payroll	10/07/2017	10/13/2017	\$ 202,512	09/24/2017	6.5	6.00	12.50	0.17%	0.02
78	Salaried Payroll	10/21/2017	10/27/2017	\$ 199,566	10/08/2017	6.5	6.00	12.50	0.17%	0.02
79	Salaried Payroll	11/04/2017	11/09/2017	\$ 199,440	10/22/2017	6.5	5.00	11.50	0.17%	0.02
80	Salaried Payroll	11/18/2017	11/24/2017	\$ 201,521	11/05/2017	6.5	6.00	12.50	0.17%	0.02
81	Salaried Payroll	12/02/2017	12/08/2017	\$ 197,254	11/19/2017	6.5	6.00	12.50	0.17%	0.02
82	Salaried Payroll	12/16/2017	12/22/2017	\$ 200,680	12/03/2017	6.5	6.00	12.50	0.17%	0.02
83	Salaried Payroll	12/30/2017	01/05/2018	\$ 1,120,049	12/17/2017	6.5	6.00	12.50	0.96%	0.12
84	Salaried Payroll	01/13/2018	01/19/2018	\$ 1,055,396	12/31/2017	6.5	6.00	12.50	0.90%	0.11
85	Salaried Payroll	01/27/2018	02/02/2018	\$ 1,063,161	01/14/2018	6.5	6.00	12.50	0.91%	0.11
86	Salaried Payroll	02/10/2018	02/16/2018	\$ 8,214,310	01/28/2018	6.5	6.00	12.50	7.00%	0.88
87	Salaried Payroll	02/24/2018	03/02/2018	\$ 1,049,942	02/11/2018	6.5	6.00	12.50	0.90%	0.11
88	Salaried Payroll	03/10/2018	03/16/2018	\$ 1,069,047	02/25/2018	6.5	6.00	12.50	0.91%	0.11
89	Salaried Payroll	03/24/2018	03/29/2018	\$ 1,043,230	03/11/2018	6.5	5.00	11.50	0.89%	0.10
90	Salaried Payroll	03/24/2018	03/30/2018	\$ 489,822	03/12/2018	6.0	6.00	12.00	0.42%	0.05
91	Salaried Payroll	04/07/2018	04/13/2018	\$ 1,098,496	03/25/2018	6.5	6.00	12.50	0.94%	0.12

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
Line No.	Type	Pay Period End Date	Pay Date	Payroll Amt.	Pay Period Begin	Mid Point of Pay Period	Payment Lead Time	Total Lead Time	Weighting Factor	Weighted Lead Time
92	Salaried Payroll	04/21/2018	04/27/2018	\$ 1,073,427	04/08/2018	6.5	6.00	12.50	0.92%	0.11
93	Salaried Payroll	05/05/2018	05/11/2018	\$ 1,059,221	04/22/2018	6.5	6.00	12.50	0.90%	0.11
94	Salaried Payroll	05/19/2018	05/25/2018	\$ 1,135,963	05/06/2018	6.5	6.00	12.50	0.97%	0.12
95	Salaried Payroll	06/02/2018	06/08/2018	\$ 1,083,815	05/20/2018	6.5	6.00	12.50	0.92%	0.12
96	Salaried Payroll	06/16/2018	06/22/2018	\$ 1,068,874	06/03/2018	6.5	6.00	12.50	0.91%	0.11
97	Salaried Payroll	06/30/2018	07/06/2018	\$ 1,070,224	06/17/2018	6.5	6.00	12.50	0.91%	0.11
98	Salaried Payroll	07/14/2018	07/20/2018	\$ 1,083,583	07/01/2018	6.5	6.00	12.50	0.92%	0.12
99	Salaried Payroll	07/28/2018	08/03/2018	\$ 1,103,784	07/15/2018	6.5	6.00	12.50	0.94%	0.12
100	Salaried Payroll	08/11/2018	08/17/2018	\$ 1,077,458	07/29/2018	6.5	6.00	12.50	0.92%	0.11
101	Salaried Payroll	08/25/2018	08/31/2018	\$ 1,069,701	08/12/2018	6.5	6.00	12.50	0.91%	0.11
102	Salaried Payroll	09/08/2018	09/14/2018	\$ 1,161,461	08/26/2018	6.5	6.00	12.50	0.99%	0.12
103	Salaried Payroll	09/22/2018	09/28/2018	\$ 1,084,654	09/09/2018	6.5	6.00	12.50	0.92%	0.12
				<u>\$ 117,280,350</u>						

Calculation of Pension & Benefits Lead Time

Weighted Expense Lead Time:

50.78 days

	(A)	(B)	(C)	(D)	(E)	(F)	(H)	(I)	(J)
Line No.	PENSIONS & BENEFITS	End of Period	Paid Date	Amount	Service Lead	Payment Lead	Total	Weighting Factor	Weighted Lead
1	Benefits - Medical - Salary & Union	10/31/2017	9/29/2017	\$ 1,100,000	15.21	(32.00)	(16.79)	5.39%	(0.91)
2	Benefits - Medical - Salary & Union	11/30/2017	10/31/2017	\$ 1,100,000	15.21	(30.00)	(14.79)	5.39%	(0.80)
3	Benefits - Medical - Salary & Union	12/31/2017	11/30/2017	\$ 1,100,000	15.21	(31.00)	(15.79)	5.39%	(0.85)
4	Benefits - Medical - Salary & Union	1/31/2018	12/29/2017	\$ 1,100,000	15.21	(33.00)	(17.79)	5.39%	(0.96)
5	Benefits - Medical - Salary & Union	2/28/2018	1/31/2018	\$ 1,100,000	15.21	(28.00)	(12.79)	5.39%	(0.69)
6	Benefits - Medical - Salary & Union	3/31/2018	2/28/2018	\$ 1,100,000	15.21	(31.00)	(15.79)	5.39%	(0.85)
7	Benefits - Medical - Salary & Union	4/30/2018	3/30/2018	\$ 1,100,000	15.21	(31.00)	(15.79)	5.39%	(0.85)
8	Benefits - Medical - Salary & Union	5/31/2018	4/30/2018	\$ 1,100,000	15.21	(31.00)	(15.79)	5.39%	(0.85)
9	Benefits - Medical - Salary & Union	6/30/2018	5/31/2018	\$ 1,100,000	15.21	(30.00)	(14.79)	5.39%	(0.80)
10	Benefits - Medical - Salary & Union	7/31/2018	6/29/2018	\$ 1,100,000	15.21	(32.00)	(16.79)	5.39%	(0.91)
11	Benefits - Medical - Salary & Union	8/31/2018	7/31/2018	\$ 1,100,000	15.21	(31.00)	(15.79)	5.39%	(0.85)
12	Benefits - Medical - Salary & Union	9/30/2018	8/31/2018	\$ 1,100,000	15.21	(30.00)	(14.79)	5.39%	(0.80)
13	Benefits - Dental, Life, LTD, IDI, Voluntary Benefits	10/31/2017	11/24/2017	\$ 114,484	15.21	24.00	39.21	0.56%	0.22
14	Benefits - Dental, Life, LTD, IDI, Voluntary Benefits	11/30/2017	12/22/2017	\$ 101,300	15.21	22.00	37.21	0.50%	0.18
15	Benefits - Dental, Life, LTD, IDI, Voluntary Benefits	12/31/2017	1/26/2018	\$ 53,819	15.21	26.00	41.21	0.26%	0.11
16	Benefits - Dental, Life, LTD, IDI, Voluntary Benefits	1/31/2018	2/23/2018	\$ 154,596	15.21	23.00	38.21	0.76%	0.29
17	Benefits - Dental, Life, LTD, IDI, Voluntary Benefits	2/28/2018	3/23/2018	\$ 142,854	15.21	23.00	38.21	0.70%	0.27
18	Benefits - Dental, Life, LTD, IDI, Voluntary Benefits	3/31/2018	4/27/2018	\$ 140,803	15.21	27.00	42.21	0.69%	0.29
19	Benefits - Dental, Life, LTD, IDI, Voluntary Benefits	4/30/2018	5/25/2018	\$ 144,656	15.21	25.00	40.21	0.71%	0.28
20	Benefits - Dental, Life, LTD, IDI, Voluntary Benefits	5/31/2018	6/22/2018	\$ 149,411	15.21	22.00	37.21	0.73%	0.27
21	Benefits - Dental, Life, LTD, IDI, Voluntary Benefits	6/30/2018	7/27/2018	\$ (83,822)	15.21	27.00	42.21	-0.41%	(0.17)
22	Benefits - Dental, Life, LTD, IDI, Voluntary Benefits	7/31/2018	8/31/2018	\$ 174,684	15.21	31.00	46.21	0.86%	0.40
23	Benefits - Dental, Life, LTD, IDI, Voluntary Benefits	8/31/2018	9/21/2018	\$ 92,068	15.21	21.00	36.21	0.45%	0.16
24	Benefits - Dental, Life, LTD, IDI, Voluntary Benefits	9/30/2018	10/26/2018	\$ 129,374	15.21	26.00	41.21	0.63%	0.26
25	OPEB - Peoples Union Retiree	12/29/2017	12/15/2017	\$ 1,802,431	182.50	(14.00)	168.50	8.83%	14.88
26	OPEB - Peoples Non-Union Retiree	12/29/2017	12/15/2017	\$ 172,816	182.50	(14.00)	168.50	0.85%	1.43
27	Peoples - Pension Contrib.	3/31/2018	4/10/2018	\$ 212,000	45.63	10.00	55.63	1.04%	0.58
28	Peoples - Pension Contrib.	12/31/2017	9/12/2018	\$ 1,359,000	182.50	255.00	437.50	6.66%	29.13
29	EGC - Pension Contrib.	12/31/2017	9/12/2018	\$ 433,000	182.50	255.00	437.50	2.12%	9.28
30	EGC - Pension Contrib.	12/31/2017	1/5/2018	\$ 173,000	45.63	5.00	50.63	0.85%	0.43
31	EGC - Pension Contrib.	3/31/2018	4/10/2018	\$ 265,000	45.63	10.00	55.63	1.30%	0.72
32	EGC - Pension Contrib.	6/30/2018	7/12/2018	\$ 265,000	45.63	12.00	57.63	1.30%	0.75
33	EGC - Pension Contrib.	9/30/2018	10/12/2018	\$ 265,000	45.63	12.00	57.63	1.30%	0.75
34	ChardSnyder - Claims & Employer Contributions	10/31/2017		\$ 66,233	7.02	1.00	8.02	0.32%	0.03
35	ChardSnyder - Claims & Employer Contributions	11/30/2017		\$ 74,233	7.02	1.00	8.02	0.36%	0.03
36	ChardSnyder - Claims & Employer Contributions	12/31/2017		\$ 67,958	7.02	1.00	8.02	0.33%	0.03
37	ChardSnyder - Claims & Employer Contributions	1/31/2018		\$ 62,605	7.02	1.00	8.02	0.31%	0.02
38	ChardSnyder - Claims & Employer Contributions	2/28/2018		\$ 62,605	7.02	1.00	8.02	0.31%	0.02
39	ChardSnyder - Claims & Employer Contributions	3/31/2018		\$ 119,105	7.02	1.00	8.02	0.58%	0.05

(A)	(B)	(C)	(D)	(E)	(F)	(H)	(I)	(J)	
Line No.	PENSIONS & BENEFITS	End of Period	Paid Date	Amount	Service Lead	Payment Lead	Total	Weighting Factor	Weighted Lead
40	ChardSnyder - Claims & Employer Contributions	4/30/2018		\$ 72,644	7.02	1.00	8.02	0.36%	0.03
41	ChardSnyder - Claims & Employer Contributions	5/31/2018		\$ 155,137	7.02	1.00	8.02	0.76%	0.06
42	ChardSnyder - Claims & Employer Contributions	6/30/2018		\$ 13,413	7.02	1.00	8.02	0.07%	0.01
43	ChardSnyder - Claims & Employer Contributions	7/31/2018		\$ 85,727	7.02	1.00	8.02	0.42%	0.03
44	ChardSnyder - Claims & Employer Contributions	8/31/2018		\$ 84,395	7.02	1.00	8.02	0.41%	0.03
45	ChardSnyder - Claims & Employer Contributions	9/30/2018		\$ 83,366	7.02	1.00	8.02	0.41%	0.03
				<u>\$ 20,408,896.96</u>					

Calculation of Other O&M Lead Time

Weighted Expense Lead Time:

40.12 days

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
<u>Line No.</u>	<u>Name</u>	<u>Inv Amount</u>	<u>Invoice Date</u>	<u>Paid Date</u>	<u>Service Lead</u>	<u>Payment Lead</u>	<u>Total</u>	<u>Weighting Factor</u>	<u>Weighted Lead/Lag</u>
1	Selection Item 1	\$ (67,694.45)	5/31/2018	6/28/2018	15.21	28.00	43.21	9.30%	4.02
2	Selection Item 2	\$ (321.32)	8/20/2018	9/13/2018	15.21	24.00	39.21	0.04%	0.02
3	Selection Item 3	\$ (25,462.23)	8/11/2018	9/6/2018	15.21	26.00	41.21	3.50%	1.44
4	Selection Item 4	\$ (31,468.50)	4/7/2018	5/3/2018	15.21	26.00	41.21	4.32%	1.78
5	Selection Item 5	\$ (1,250.00)	4/1/2018	4/26/2018	15.21	25.00	40.21	0.17%	0.07
6	Selection Item 6	\$ (3,870.00)	1/8/2018	2/1/2018	15.21	24.00	39.21	0.53%	0.21
7	Selection Item 7	\$ (146.30)	11/28/2017	1/4/2018	15.21	37.00	52.21	0.02%	0.01
8	Selection Item 8	\$ (3,867.48)	11/14/2017	1/4/2018	15.21	51.00	66.21	0.53%	0.35
9	Selection Item 9	\$ (180.00)	10/24/2017	11/22/2017	15.21	29.00	44.21	0.02%	0.01
10	Selection Item 10	\$ (225.32)	3/7/2018	4/5/2018	15.21	29.00	44.21	0.03%	0.01
11	Selection Item 11	\$ (786.50)	6/23/2018	8/9/2018	15.21	47.00	62.21	0.11%	0.07
12	Selection Item 12	\$ (18,527.45)	1/24/2018	2/22/2018	15.21	29.00	44.21	2.55%	1.13
13	Selection Item 13	\$ (33.12)	5/22/2018	6/21/2018	15.21	30.00	45.21	0.00%	0.00
14	Selection Item 14	\$ (538.42)	6/28/2018	7/26/2018	15.21	28.00	43.21	0.07%	0.03
15	Selection Item 15	\$ (3,536.49)	7/18/2017	10/5/2017	15.21	79.00	94.21	0.49%	0.46
16	Selection Item 16	\$ (1,825.34)	8/21/2018	9/20/2018	15.21	30.00	45.21	0.25%	0.11
17	Selection Item 17	\$ (13,266.04)	10/3/2017	11/2/2017	15.21	30.00	45.21	1.82%	0.82
18	Selection Item 18	\$ (46.98)	10/6/2017	11/2/2017	15.21	27.00	42.21	0.01%	0.00
19	Selection Item 19	\$ (12,808.75)	4/19/2018	5/17/2018	15.21	28.00	43.21	1.76%	0.76
20	Selection Item 20	\$ (13,786.68)	6/20/2018	7/12/2018	15.21	22.00	37.21	1.89%	0.70
21	Selection Item 21	\$ (2,366.42)	2/15/2018	3/15/2018	15.21	28.00	43.21	0.33%	0.14
22	Selection Item 22	\$ (3,002.00)	4/22/2018	5/17/2018	15.21	25.00	40.21	0.41%	0.17
23	Selection Item 23	\$ (7,914.52)	5/13/2018	6/7/2018	15.21	25.00	40.21	1.09%	0.44
24	Selection Item 24	\$ (10,090.13)	5/18/2018	6/13/2018	15.21	26.00	41.21	1.39%	0.57
25	Selection Item 25	\$ (19,363.35)	8/6/2018	8/30/2018	15.21	24.00	39.21	2.66%	1.04
26	Selection Item 26	\$ (95.00)	4/12/2018	5/10/2018	0.50	28.00	28.50	0.01%	0.00
27	Selection Item 27	\$ (1.00)	3/7/2018	3/8/2018	0.50	1.00	1.50	0.00%	0.00
28	Selection Item 28	\$ (5.95)	5/11/2018	5/17/2018	0.50	6.00	6.50	0.00%	0.00
29	Selection Item 29	\$ (7.66)	2/7/2018	2/8/2018	0.50	1.00	1.50	0.00%	0.00
30	Selection Item 30	\$ (9.00)	5/8/2018	5/10/2018	0.50	2.00	2.50	0.00%	0.00
31	Selection Item 31	\$ (9.05)	1/4/2018	1/4/2018	0.50	-	0.50	0.00%	0.00
32	Selection Item 32	\$ (19.67)	11/17/2017	11/22/2017	0.50	5.00	5.50	0.00%	0.00
33	Selection Item 33	\$ (27.84)	5/7/2018	5/10/2018	0.50	3.00	3.50	0.00%	0.00
34	Selection Item 34	\$ (27.96)	10/12/2017	10/12/2017	0.50	-	0.50	0.00%	0.00
35	Selection Item 35	\$ (27.96)	8/16/2018	8/16/2018	0.50	-	0.50	0.00%	0.00
36	Selection Item 36	\$ (27.96)	7/10/2018	7/12/2018	0.50	2.00	2.50	0.00%	0.00
37	Selection Item 37	\$ (29.54)	10/24/2017	10/26/2017	0.50	2.00	2.50	0.00%	0.00
38	Selection Item 38	\$ (32.08)	10/18/2017	10/19/2017	0.50	1.00	1.50	0.00%	0.00
39	Selection Item 39	\$ (37.50)	6/14/2018	6/14/2018	0.50	-	0.50	0.01%	0.00
40	Selection Item 40	\$ (44.64)	10/12/2017	10/12/2017	0.50	-	0.50	0.01%	0.00
41	Selection Item 41	\$ (44.72)	11/17/2017	11/22/2017	0.50	5.00	5.50	0.01%	0.00
42	Selection Item 42	\$ (47.06)	3/12/2018	3/15/2018	0.50	3.00	3.50	0.01%	0.00
43	Selection Item 43	\$ (52.27)	9/29/2017	10/5/2017	0.50	6.00	6.50	0.01%	0.00
44	Selection Item 44	\$ (85.93)	11/9/2017	11/9/2017	0.50	-	0.50	0.01%	0.00
45	Selection Item 45	\$ (85.93)	6/29/2018	7/5/2018	0.50	6.00	6.50	0.01%	0.00
46	Selection Item 46	\$ (95.78)	6/4/2018	6/7/2018	0.50	3.00	3.50	0.01%	0.00
47	Selection Item 47	\$ (108.04)	5/18/2018	5/24/2018	0.50	6.00	6.50	0.01%	0.00

48	Selection Item 48	\$	(114.25)	1/16/2018	1/18/2018	0.50	2.00	2.50	0.02%	0.00
49	Selection Item 49	\$	(132.80)	1/18/2018	1/18/2018	0.50	-	0.50	0.02%	0.00
50	Selection Item 50	\$	(150.00)	8/9/2018	8/9/2018	0.50	-	0.50	0.02%	0.00
51	Selection Item 51	\$	(160.83)	6/4/2018	6/7/2018	0.50	3.00	3.50	0.02%	0.00
52	Selection Item 52	\$	(170.46)	8/24/2018	8/30/2018	0.50	6.00	6.50	0.02%	0.00
53	Selection Item 53	\$	(173.36)	8/7/2018	8/9/2018	0.50	2.00	2.50	0.02%	0.00
54	Selection Item 54	\$	(176.37)	2/12/2018	2/15/2018	0.50	3.00	3.50	0.02%	0.00
55	Selection Item 55	\$	(186.48)	10/26/2017	10/26/2017	0.50	-	0.50	0.03%	0.00
56	Selection Item 56	\$	(206.14)	11/29/2017	11/30/2017	0.50	1.00	1.50	0.03%	0.00
57	Selection Item 57	\$	(206.14)	7/5/2018	7/5/2018	0.50	-	0.50	0.03%	0.00
58	Selection Item 58	\$	(223.32)	8/24/2018	8/30/2018	0.50	6.00	6.50	0.03%	0.00
59	Selection Item 59	\$	(228.69)	9/25/2018	9/27/2018	0.50	2.00	2.50	0.03%	0.00
60	Selection Item 60	\$	(235.56)	8/2/2018	8/2/2018	0.50	-	0.50	0.03%	0.00
61	Selection Item 61	\$	(241.79)	2/20/2018	2/22/2018	0.50	2.00	2.50	0.03%	0.00
62	Selection Item 62	\$	(255.70)	1/10/2018	1/11/2018	0.50	1.00	1.50	0.04%	0.00
63	Selection Item 63	\$	(260.04)	2/23/2018	3/1/2018	0.50	6.00	6.50	0.04%	0.00
64	Selection Item 64	\$	(295.12)	7/17/2018	7/19/2018	0.50	2.00	2.50	0.04%	0.00
65	Selection Item 65	\$	(308.70)	8/10/2018	8/16/2018	0.50	6.00	6.50	0.04%	0.00
66	Selection Item 66	\$	(310.00)	6/14/2018	6/14/2018	0.50	-	0.50	0.04%	0.00
67	Selection Item 67	\$	(325.05)	3/16/2018	3/22/2018	0.50	6.00	6.50	0.04%	0.00
68	Selection Item 68	\$	(373.28)	10/6/2017	10/12/2017	0.50	6.00	6.50	0.05%	0.00
69	Selection Item 69	\$	(389.28)	6/27/2018	6/28/2018	0.50	1.00	1.50	0.05%	0.00
70	Selection Item 70	\$	(394.94)	2/21/2018	2/22/2018	0.50	1.00	1.50	0.05%	0.00
71	Selection Item 71	\$	(469.44)	7/16/2018	7/19/2018	0.50	3.00	3.50	0.06%	0.00
72	Selection Item 72	\$	(476.69)	5/31/2018	5/31/2018	0.50	-	0.50	0.07%	0.00
73	Selection Item 73	\$	(480.14)	12/7/2017	12/7/2017	0.50	-	0.50	0.07%	0.00
74	Selection Item 74	\$	(543.99)	3/22/2018	3/22/2018	0.50	-	0.50	0.07%	0.00
75	Selection Item 75	\$	(1,321.21)	7/11/2018	7/12/2018	0.50	1.00	1.50	0.18%	0.00
76	Selection Item 76	\$	(1,377.36)	8/14/2018	8/16/2018	0.50	2.00	2.50	0.19%	0.00
77	Selection Item 77	\$	(1,523.74)	1/22/2018	1/25/2018	0.50	3.00	3.50	0.21%	0.01
78	Selection Item 78	\$	(1,549.35)	7/13/2018	7/19/2018	0.50	6.00	6.50	0.21%	0.01
79	Selection Item 79	\$	(1,588.65)	1/12/2018	1/18/2018	0.50	6.00	6.50	0.22%	0.01
80	Selection Item 80	\$	(2,398.00)	5/22/2018	5/24/2018	0.50	2.00	2.50	0.33%	0.01
81	Selection Item 81	\$	(2,628.11)	8/30/2018	8/30/2018	0.50	-	0.50	0.36%	0.00
82	Selection Item 82	\$	(2,706.88)	2/28/2018	3/1/2018	0.50	1.00	1.50	0.37%	0.01
83	Selection Item 83	\$	(4,821.57)	3/15/2018	3/15/2018	0.50	-	0.50	0.66%	0.00
84	Selection Item 84	\$	(10,376.40)	12/15/2017	12/21/2017	15.21	6.00	21.21	1.43%	0.30
85	Selection Item 85	\$	(9.49)	4/27/2018	5/10/2018	15.21	13.00	28.21	0.00%	0.00
86	Selection Item 86	\$	(10.10)	10/25/2017	11/2/2017	15.21	8.00	23.21	0.00%	0.00
87	Selection Item 87	\$	(11.87)	11/21/2017	12/27/2017	15.21	36.00	51.21	0.00%	0.00
88	Selection Item 88	\$	(29.73)	2/6/2018	2/22/2018	15.21	16.00	31.21	0.00%	0.00
89	Selection Item 89	\$	(31.86)	6/5/2018	6/7/2018	15.21	2.00	17.21	0.00%	0.00
90	Selection Item 90	\$	(32.84)	6/6/2018	6/21/2018	15.21	15.00	30.21	0.00%	0.00
91	Selection Item 91	\$	(34.50)	10/4/2017	10/12/2017	15.21	8.00	23.21	0.00%	0.00
92	Selection Item 92	\$	(59.71)	5/24/2018	6/7/2018	15.21	14.00	29.21	0.01%	0.00
93	Selection Item 93	\$	(105.35)	3/7/2018	4/19/2018	15.21	43.00	58.21	0.01%	0.01
94	Selection Item 94	\$	(183.93)	3/17/2018	4/12/2018	15.21	26.00	41.21	0.03%	0.01
95	Selection Item 95	\$	(661.00)	7/28/2018	9/20/2018	15.21	54.00	69.21	0.09%	0.06
96	Selection Item 96	\$	(22.79)	5/16/2018	5/17/2018	15.21	1.00	16.21	0.00%	0.00
97	Selection Item 97	\$	(22.79)	7/17/2018	7/12/2018	15.21	(5.00)	10.21	0.00%	0.00
98	Selection Item 98	\$	(56.35)	5/16/2018	5/17/2018	15.21	1.00	16.21	0.01%	0.00
99	Selection Item 99	\$	(1,457.70)	1/31/2018	3/1/2018	15.21	29.00	44.21	0.20%	0.09
100	Selection Item 100	\$	(4,358.05)	2/27/2018	3/28/2018	15.21	29.00	44.21	0.60%	0.26

101	Selection Item 101	\$	(160.10)	6/11/2018	7/5/2018	15.21	24.00	39.21	0.02%	0.01
102	Selection Item 102	\$	1,312.00	9/18/2018	9/27/2018	15.21	9.00	24.21	-0.18%	(0.04)
103	Selection Item 103	\$	81.14	2/12/2018	5/8/2018	15.21	85.00	100.21	-0.01%	(0.01)
104	Selection Item 104	\$	(15.97)	5/3/2018	5/10/2018	15.21	7.00	22.21	0.00%	0.00
105	Selection Item 105	\$	(18.67)	10/8/2017	10/12/2017	15.21	4.00	19.21	0.00%	0.00
106	Selection Item 106	\$	(22.85)	7/9/2018	7/19/2018	15.21	10.00	25.21	0.00%	0.00
107	Selection Item 107	\$	(23.85)	4/9/2018	4/12/2018	15.21	3.00	18.21	0.00%	0.00
108	Selection Item 108	\$	(45.32)	11/21/2017	11/30/2017	15.21	9.00	24.21	0.01%	0.00
109	Selection Item 109	\$	(52.44)	3/8/2018	3/15/2018	15.21	7.00	22.21	0.01%	0.00
110	Selection Item 110	\$	(81.84)	10/1/2017	10/12/2017	15.21	11.00	26.21	0.01%	0.00
111	Selection Item 111	\$	(8,004.00)	7/31/2017	10/26/2017	15.21	87.00	102.21	1.10%	1.12
112	Selection Item 112	\$	(6,255.88)	5/25/2018	7/19/2018	15.21	55.00	70.21	0.86%	0.60
113	Selection Item 113	\$	(37.57)	1/12/2018	1/25/2018	15.21	13.00	28.21	0.01%	0.00
114	Selection Item 114	\$	(46.53)	5/11/2018	5/31/2018	15.21	20.00	35.21	0.01%	0.00
115	Selection Item 115	\$	(63.63)	2/11/2018	3/1/2018	15.21	18.00	33.21	0.01%	0.00
116	Selection Item 116	\$	(25.00)	10/23/2017	11/22/2017	15.21	30.00	45.21	0.00%	0.00
117	Selection Item 117	\$	(25.35)	8/3/2018	8/9/2018	15.21	6.00	21.21	0.00%	0.00
118	Selection Item 118	\$	(27.30)	6/22/2018	6/28/2018	15.21	6.00	21.21	0.00%	0.00
119	Selection Item 119	\$	(73.12)	5/23/2018	5/31/2018	15.21	8.00	23.21	0.01%	0.00
120	Selection Item 120	\$	(35,925.50)	8/29/2018	9/13/2018	15.21	15.00	30.21	4.94%	1.49
121	Selection Item 121	\$	(140.00)	6/29/2018	7/26/2018	15.21	27.00	42.21	0.02%	0.01
122	Selection Item 122	\$	(161.12)	3/1/2018	3/29/2018	15.21	28.00	43.21	0.02%	0.01
123	Selection Item 123	\$	(691.50)	4/18/2018	5/17/2018	15.21	29.00	44.21	0.10%	0.04
124	Selection Item 124	\$	(126.40)	8/23/2018	9/20/2018	15.21	28.00	43.21	0.02%	0.01
125	Selection Item 125	\$	(3,945.16)	7/27/2018	8/23/2018	15.21	27.00	42.21	0.54%	0.23
126	Selection Item 126	\$	(30,769.00)	5/17/2018	6/7/2018	15.21	21.00	36.21	4.23%	1.53
127	Selection Item 127	\$	(265.00)	7/19/2018	8/2/2018	15.21	14.00	29.21	0.04%	0.01
128	Selection Item 128	\$	(16.91)	7/30/2018	8/2/2018	15.21	3.00	18.21	0.00%	0.00
129	Selection Item 129	\$	(22.21)	11/29/2017	12/7/2017	15.21	8.00	23.21	0.00%	0.00
130	Selection Item 130	\$	(27.72)	9/12/2018	9/20/2018	15.21	8.00	23.21	0.00%	0.00
131	Selection Item 131	\$	(32.72)	10/19/2017	10/26/2017	15.21	7.00	22.21	0.00%	0.00
132	Selection Item 132	\$	(42.37)	11/29/2017	12/7/2017	15.21	8.00	23.21	0.01%	0.00
133	Selection Item 133	\$	(47.52)	4/30/2018	5/3/2018	15.21	3.00	18.21	0.01%	0.00
134	Selection Item 134	\$	(49.11)	3/5/2018	7/5/2018	15.21	122.00	137.21	0.01%	0.01
135	Selection Item 135	\$	(53.38)	12/18/2017	12/28/2017	15.21	10.00	25.21	0.01%	0.00
136	Selection Item 136	\$	(4,040.00)	7/4/2018	8/2/2018	15.21	29.00	44.21	0.56%	0.25
137	Selection Item 137	\$	(3,434.16)	6/11/2018	7/5/2018	15.21	24.00	39.21	0.47%	0.18
138	Selection Item 138	\$	(540.00)	5/18/2018	6/14/2018	15.21	27.00	42.21	0.07%	0.03
139	Selection Item 139	\$	(425.00)	12/1/2017	12/28/2017	15.21	27.00	42.21	0.06%	0.02
140	Selection Item 140	\$	(12,656.01)	9/15/2017	10/5/2017	15.21	20.00	35.21	1.74%	0.61
141	Selection Item 141	\$	(394.76)	3/8/2018	4/5/2018	15.21	28.00	43.21	0.05%	0.02
142	Selection Item 142	\$	(575.00)	12/11/2017	1/4/2018	15.21	24.00	39.21	0.08%	0.03
143	Selection Item 143	\$	(162.23)	1/5/2018	2/1/2018	15.21	27.00	42.21	0.02%	0.01
144	Selection Item 144	\$	(240.51)	12/15/2017	1/11/2018	15.21	27.00	42.21	0.03%	0.01
145	Selection Item 145	\$	(302.30)	12/15/2017	3/8/2018	15.21	83.00	98.21	0.04%	0.04
146	Selection Item 146	\$	(1,221.50)	11/3/2017	12/7/2017	15.21	34.00	49.21	0.17%	0.08
147	Selection Item 147	\$	(1,614.54)	12/1/2017	12/28/2017	15.21	27.00	42.21	0.22%	0.09
148	Selection Item 148	\$	(1,620.38)	12/1/2017	1/11/2018	15.21	41.00	56.21	0.22%	0.13
149	Selection Item 149	\$	(1,862.21)	10/6/2017	11/2/2017	15.21	27.00	42.21	0.26%	0.11
150	Selection Item 150	\$	(44.20)	5/25/2018	6/21/2018	15.21	27.00	42.21	0.01%	0.00
151	Selection Item 151	\$	(221.00)	7/23/2018	8/16/2018	15.21	24.00	39.21	0.03%	0.01
152	Selection Item 152	\$	(375.84)	5/22/2018	6/21/2018	15.21	30.00	45.21	0.05%	0.02
153	Selection Item 153	\$	(10,844.75)	8/28/2018	9/21/2018	15.21	24.00	39.21	1.49%	0.58

154	Selection Item 154	\$	(469.78)	3/17/2018	4/12/2018	15.21	26.00	41.21	0.06%	0.03
155	Selection Item 155	\$	(142.33)	5/12/2018	6/7/2018	15.21	26.00	41.21	0.02%	0.01
156	Selection Item 156	\$	(205.59)	2/10/2018	3/8/2018	15.21	26.00	41.21	0.03%	0.01
157	Selection Item 157	\$	(205.59)	5/12/2018	6/7/2018	15.21	26.00	41.21	0.03%	0.01
158	Selection Item 158	\$	(415.00)	9/20/2017	2/22/2018	15.21	155.00	170.21	0.06%	0.10
159	Selection Item 159	\$	(318.55)	8/24/2018	9/20/2018	15.21	27.00	42.21	0.04%	0.02
160	Selection Item 160	\$	(28,662.45)	5/31/2018	6/28/2018	15.21	28.00	43.21	3.94%	1.70
161	Selection Item 161	\$	(8,808.96)	7/16/2018	8/9/2018	15.21	24.00	39.21	1.21%	0.47
162	Selection Item 162	\$	(285.00)	3/26/2018	4/19/2018	15.21	24.00	39.21	0.04%	0.02
163	Selection Item 163	\$	(300.00)	4/9/2018	5/3/2018	15.21	24.00	39.21	0.04%	0.02
164	Selection Item 164	\$	(570.00)	2/5/2018	3/1/2018	15.21	24.00	39.21	0.08%	0.03
165	Selection Item 165	\$	(3,915.00)	3/26/2018	4/25/2018	15.21	30.00	45.21	0.54%	0.24
166	Selection Item 166	\$	(150.25)	6/26/2018	7/26/2018	15.21	30.00	45.21	0.02%	0.01
167	Selection Item 167	\$	(313.00)	8/21/2018	9/20/2018	15.21	30.00	45.21	0.04%	0.02
168	Selection Item 168	\$	(23,584.00)	9/14/2017	11/2/2017	15.21	49.00	64.21	3.24%	2.08
169	Selection Item 169	\$	(1,645.00)	10/17/2017	10/19/2017	15.21	2.00	17.21	0.23%	0.04
170	Selection Item 170	\$	(5,043.32)	6/22/2018	7/19/2018	15.21	27.00	42.21	0.69%	0.29
171	Selection Item 171	\$	(5,269.00)	7/23/2018	8/16/2018	15.21	24.00	39.21	0.72%	0.28
172	Selection Item 172	\$	(169.06)	6/27/2018	7/26/2018	15.21	29.00	44.21	0.02%	0.01
173	Selection Item 173	\$	(89.47)	9/5/2017	10/5/2017	15.21	30.00	45.21	0.01%	0.01
174	Selection Item 174	\$	(240.00)	1/26/2018	2/8/2018	15.21	13.00	28.21	0.03%	0.01
175	Selection Item 175	\$	(15.40)	9/30/2017	10/12/2017	15.21	12.00	27.21	0.00%	0.00
176	Selection Item 176	\$	(3,777.34)	11/6/2017	12/7/2017	15.21	31.00	46.21	0.52%	0.24
177	Selection Item 177	\$	(608.00)	11/25/2017	1/4/2018	15.21	40.00	55.21	0.08%	0.05
178	Selection Item 178	\$	(2,544.00)	4/21/2018	6/7/2018	15.21	47.00	62.21	0.35%	0.22
179	Selection Item 179	\$	(31,596.22)	10/20/2017	10/30/2017	15.21	10.00	25.21	4.34%	1.09
180	Selection Item 180	\$	(12,342.37)	9/30/2017	10/25/2017	15.21	25.00	40.21	1.70%	0.68
181	Selection Item 181	\$	(37,151.30)	9/24/2017	10/26/2017	15.21	32.00	47.21	5.10%	2.41
182	Selection Item 182	\$	(7,342.79)	12/7/2017	2/1/2018	15.21	56.00	71.21	1.01%	0.72
183	Selection Item 183	\$	(6,172.00)	8/10/2017	1/4/2018	15.21	147.00	162.21	0.85%	1.38
184	Selection Item 184	\$	(2.48)	11/27/2017	1/4/2018	15.21	38.00	53.21	0.00%	0.00
185	Selection Item 185	\$	(1,020.00)	11/1/2017	11/30/2017	15.21	29.00	44.21	0.14%	0.06
186	Selection Item 186	\$	(350.18)	11/17/2017	1/4/2018	15.21	48.00	63.21	0.05%	0.03
187	Selection Item 187	\$	(365.78)	11/17/2017	12/28/2017	15.21	41.00	56.21	0.05%	0.03
188	Selection Item 188	\$	(1,194.20)	9/26/2017	10/26/2017	15.21	30.00	45.21	0.16%	0.07
189	Selection Item 189	\$	(3,864.16)	11/17/2017	12/21/2017	15.21	34.00	49.21	0.53%	0.26
190	Selection Item 190	\$	(13,625.85)	12/27/2017	2/15/2018	15.21	50.00	65.21	1.87%	1.22
191	Selection Item 191	\$	(150.00)	1/3/2018	1/4/2018	15.21	1.00	16.21	0.02%	0.00
192	Selection Item 192	\$	(3,700.00)	1/29/2018	2/1/2018	15.21	3.00	18.21	0.51%	0.09
193	Selection Item 193	\$	(9,558.70)	12/19/2017	12/21/2017	15.21	2.00	17.21	1.31%	0.23
194	Selection Item 194	\$	(67,893.33)	12/31/2017	1/11/2018	15.21	11.00	26.21	9.33%	2.44
195	Selection Item 195	\$	(600.00)	11/27/2017	12/21/2017	15.21	24.00	39.21	0.08%	0.03
196	Selection Item 196	\$	(2,480.00)	2/28/2018	3/29/2018	15.21	29.00	44.21	0.34%	0.15
197	Selection Item 197	\$	(200.00)	1/22/2018	1/25/2018	15.21	3.00	18.21	0.03%	0.01
198	Selection Item 198	\$	(25,859.24)	1/11/2018	1/18/2018	15.21	7.00	22.21	3.55%	0.79

Calculation of Taxes Other than Income Lead Time

Weighted Expense Lead Time:

32.16 days

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
Line No.	Type of Tax	Begin of Period	Payment Date	Amount	MidPoint Method	End of Period	Service Lead Time	Payment Lead Time	Total	Weighting Factor	Weighted Lead
1	PA Local Property Taxes	10/1/2017	10/15/2017	3,912.81	4/1/2018	9/30/2018	182.00	(168.00)	14.00	0.02%	0.00
2	PA Local Property Taxes	10/1/2017	3/20/2018	4.21	4/1/2018	9/30/2018	182.00	(12.00)	170.00	0.00%	0.00
3	PA Local Property Taxes	10/1/2017	3/30/2018	1.27	4/1/2018	9/30/2018	182.00	(2.00)	180.00	0.00%	0.00
4	PA Local Property Taxes	10/1/2017	3/31/2018	9,657.33	4/1/2018	9/30/2018	182.00	(1.00)	181.00	0.04%	0.07
5	PA Local Property Taxes	10/1/2017	4/17/2018	12,844.37	4/1/2018	9/30/2018	182.00	16.00	198.00	0.05%	0.10
6	PA Local Property Taxes	10/1/2017	4/30/2018	287.60	4/1/2018	9/30/2018	182.00	29.00	211.00	0.00%	0.00
7	PA Local Property Taxes	10/1/2017	5/3/2018	50.21	4/1/2018	9/30/2018	182.00	32.00	214.00	0.00%	0.00
8	PA Local Property Taxes	10/1/2017	5/10/2018	5.40	4/1/2018	9/30/2018	182.00	39.00	221.00	0.00%	0.00
9	PA Local Property Taxes	10/1/2017	5/31/2018	4,317.58	4/1/2018	9/30/2018	182.00	60.00	242.00	0.02%	0.04
10	PA Local Property Taxes	10/1/2017	6/10/2018	140.77	4/1/2018	9/30/2018	182.00	70.00	252.00	0.00%	0.00
11	PA Local Property Taxes	10/1/2017	6/30/2018	1,584.66	4/1/2018	9/30/2018	182.00	90.00	272.00	0.01%	0.02
12	PA Local Property Taxes	10/1/2017	8/1/2018	852.01	4/1/2018	9/30/2018	182.00	122.00	304.00	0.00%	0.01
13	PA Local Property Taxes	10/1/2017	8/31/2018	894.44	4/1/2018	9/30/2018	182.00	152.00	334.00	0.00%	0.01
14	PA Local Property Taxes	10/1/2017	9/10/2018	12.20	4/1/2018	9/30/2018	182.00	162.00	344.00	0.00%	0.00
15	PA Local Property Taxes	10/1/2017	9/14/2018	34,204.28	4/1/2018	9/30/2018	182.00	166.00	348.00	0.14%	0.48
16	PA Local Property Taxes	10/1/2017	9/15/2018	614.75	4/1/2018	9/30/2018	182.00	167.00	349.00	0.00%	0.01
17	PA Local Property Taxes	10/1/2017	9/18/2018	3.38	4/1/2018	9/30/2018	182.00	170.00	352.00	0.00%	0.00
18	PA Local Property Taxes	10/1/2017	9/29/2018	166.00	4/1/2018	9/30/2018	182.00	181.00	363.00	0.00%	0.00
19	PA Local Property Taxes	10/1/2017	9/30/2018	17,738.61	4/1/2018	9/30/2018	182.00	182.00	364.00	0.07%	0.26
20	PA and Local Sales Tax	10/1/2017	10/18/2017	72,949.00	10/16/2017	10/31/2017	15.00	2.00	17.00	0.29%	0.05
21	PA and Local Sales Tax	10/1/2017	11/17/2017	170,047.86	10/16/2017	10/31/2017	15.00	32.00	47.00	0.69%	0.32
22	PA and Local Sales Tax	11/1/2017	11/17/2017	192,845.00	11/15/2017	11/30/2017	14.50	1.50	16.00	0.78%	0.12
23	PA and Local Sales Tax	11/1/2017	12/20/2017	398,191.88	11/15/2017	11/30/2017	14.50	34.50	49.00	1.61%	0.79
24	PA and Local Sales Tax	12/1/2017	12/20/2017	388,528.00	12/16/2017	12/31/2017	15.00	4.00	19.00	1.57%	0.30
25	PA and Local Sales Tax	12/1/2017	1/22/2018	573,928.33	12/16/2017	12/31/2017	15.00	37.00	52.00	2.31%	1.20
26	PA and Local Sales Tax	1/1/2018	1/22/2018	523,308.00	1/16/2018	1/31/2018	15.00	6.00	21.00	2.11%	0.44
27	PA and Local Sales Tax	1/1/2018	2/21/2018	1,141,167.09	1/16/2018	1/31/2018	15.00	36.00	51.00	4.60%	2.35
28	PA and Local Sales Tax	2/1/2018	2/21/2018	473,461.00	2/14/2018	2/28/2018	13.50	6.50	20.00	1.91%	0.38
29	PA and Local Sales Tax	2/1/2018	3/20/2018	655,138.03	2/14/2018	2/28/2018	13.50	33.50	47.00	2.64%	1.24
30	PA and Local Sales Tax	3/1/2018	3/20/2018	460,413.00	3/16/2018	3/31/2018	15.00	4.00	19.00	1.86%	0.35
31	PA and Local Sales Tax	3/1/2018	4/19/2018	511,594.20	3/16/2018	3/31/2018	15.00	34.00	49.00	2.06%	1.01
32	PA and Local Sales Tax	4/1/2018	4/19/2018	254,197.00	4/15/2018	4/30/2018	14.50	3.50	18.00	1.03%	0.18
33	PA and Local Sales Tax	4/1/2018	5/18/2018	650,989.31	4/15/2018	4/30/2018	14.50	32.50	47.00	2.63%	1.23
34	PA and Local Sales Tax	5/1/2018	5/18/2018	165,335.00	5/16/2018	5/31/2018	15.00	2.00	17.00	0.67%	0.11
35	PA and Local Sales Tax	5/1/2018	6/18/2018	276,145.51	5/16/2018	5/31/2018	15.00	33.00	48.00	1.11%	0.53
36	PA and Local Sales Tax	6/1/2018	6/18/2018	120,250.00	6/15/2018	6/30/2018	14.50	2.50	17.00	0.49%	0.08
37	PA and Local Sales Tax	6/1/2018	7/23/2018	103,041.92	6/15/2018	6/30/2018	14.50	37.50	52.00	0.42%	0.22
38	PA and Local Sales Tax	7/1/2018	7/23/2018	94,037.00	7/16/2018	7/31/2018	15.00	7.00	22.00	0.38%	0.08
39	PA and Local Sales Tax	7/1/2018	8/24/2018	90,677.95	7/16/2018	7/31/2018	15.00	39.00	54.00	0.37%	0.20
40	PA and Local Sales Tax	8/1/2018	8/24/2018	100,883.00	8/16/2018	8/31/2018	15.00	8.00	23.00	0.41%	0.09
41	PA and Local Sales Tax	8/1/2018	9/19/2018	111,113.12	8/16/2018	8/31/2018	15.00	34.00	49.00	0.45%	0.22
42	PA and Local Sales Tax	9/1/2018	9/19/2018	101,848.00	9/15/2018	9/30/2018	14.50	3.50	18.00	0.41%	0.07
43	PA and Local Sales Tax	9/1/2018	10/12/2018	72,265.10	9/15/2018	9/30/2018	14.50	26.50	41.00	0.29%	0.12
44	PA and Local Use Tax	10/1/2017	10/18/2017	40,533.00	10/16/2017	10/31/2017	15.00	2.00	17.00	0.16%	0.03
45	PA and Local Use Tax	10/1/2017	11/17/2017	58,464.72	10/16/2017	10/31/2017	15.00	32.00	47.00	0.24%	0.11
46	PA and Local Use Tax	11/1/2017	11/17/2017	39,660.00	11/15/2017	11/30/2017	14.50	1.50	16.00	0.16%	0.03
47	PA and Local Use Tax	11/1/2017	12/20/2017	28,300.62	11/15/2017	11/30/2017	14.50	34.50	49.00	0.11%	0.06

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
Line No.	Type of Tax	Begin of Period	Payment Date	Amount	MidPoint Method	End of Period	Service Lead Time	Payment Lead Time	Total	Weighting Factor	Weighted Lead
48	PA and Local Use Tax	12/1/2017	12/20/2017	75,777.00	12/16/2017	12/31/2017	15.00	4.00	19.00	0.31%	0.06
49	PA and Local Use Tax	12/1/2017	1/22/2018	8,796.72	12/16/2017	12/31/2017	15.00	37.00	52.00	0.04%	0.02
50	PA and Local Use Tax	1/1/2018	1/22/2018	33,018.00	1/16/2018	1/31/2018	15.00	6.00	21.00	0.13%	0.03
51	PA and Local Use Tax	1/1/2018	2/21/2018	24,078.34	1/16/2018	1/31/2018	15.00	36.00	51.00	0.10%	0.05
52	PA and Local Use Tax	2/1/2018	2/21/2018	31,776.00	2/14/2018	2/28/2018	13.50	6.50	20.00	0.13%	0.03
53	PA and Local Use Tax	2/1/2018	3/20/2018	41,092.63	2/14/2018	2/28/2018	13.50	33.50	47.00	0.17%	0.08
54	PA and Local Use Tax	3/1/2018	3/20/2018	42,800.00	3/16/2018	3/31/2018	15.00	4.00	19.00	0.17%	0.03
55	PA and Local Use Tax	3/1/2018	4/19/2018	33,772.83	3/16/2018	3/31/2018	15.00	34.00	49.00	0.14%	0.07
56	PA and Local Use Tax	4/1/2018	4/19/2018	30,973.00	4/15/2018	4/30/2018	14.50	3.50	18.00	0.12%	0.02
57	PA and Local Use Tax	4/1/2018	5/18/2018	53,066.85	4/15/2018	4/30/2018	14.50	32.50	47.00	0.21%	0.10
58	PA and Local Use Tax	5/1/2018	5/18/2018	51,475.00	5/16/2018	5/31/2018	15.00	2.00	17.00	0.21%	0.04
59	PA and Local Use Tax	5/1/2018	6/18/2018	51,954.97	5/16/2018	5/31/2018	15.00	33.00	48.00	0.21%	0.10
60	PA and Local Use Tax	6/1/2018	6/18/2018	63,359.00	6/15/2018	6/30/2018	14.50	2.50	17.00	0.26%	0.04
61	PA and Local Use Tax	6/1/2018	7/23/2018	38,252.70	6/15/2018	6/30/2018	14.50	37.50	52.00	0.15%	0.08
62	PA and Local Use Tax	7/1/2018	7/23/2018	61,041.00	7/16/2018	7/31/2018	15.00	7.00	22.00	0.25%	0.05
63	PA and Local Use Tax	7/1/2018	8/24/2018	24,717.53	7/16/2018	7/31/2018	15.00	39.00	54.00	0.10%	0.05
64	PA and Local Use Tax	8/1/2018	8/24/2018	63,694.00	8/16/2018	8/31/2018	15.00	8.00	23.00	0.26%	0.06
65	PA and Local Use Tax	8/1/2018	9/19/2018	62,749.89	8/16/2018	8/31/2018	15.00	34.00	49.00	0.25%	0.12
66	PA and Local Use Tax	9/1/2018	9/19/2018	41,695.00	9/15/2018	9/30/2018	14.50	3.50	18.00	0.17%	0.03
67	PA and Local Use Tax	9/1/2018	10/12/2018	65,826.21	9/15/2018	9/30/2018	14.50	26.50	41.00	0.27%	0.11
68	PA Excise Alternative Fuel Tax	10/1/2017	11/8/2017	1,082.57	10/16/2017	10/31/2017	15.00	23.00	38.00	0.00%	0.00
69	PA Excise Alternative Fuel Tax	11/1/2017	12/18/2017	695.45	11/15/2017	11/30/2017	14.50	32.50	47.00	0.00%	0.00
70	PA Excise Alternative Fuel Tax	12/1/2017	1/22/2018	655.45	12/16/2017	12/31/2017	15.00	37.00	52.00	0.00%	0.00
71	PA Excise Alternative Fuel Tax	1/1/2018	2/20/2018	873.11	1/16/2018	1/31/2018	15.00	35.00	50.00	0.00%	0.00
72	PA Excise Alternative Fuel Tax	2/1/2018	3/21/2018	746.59	2/14/2018	2/28/2018	13.50	34.50	48.00	0.00%	0.00
73	PA Excise Alternative Fuel Tax	3/1/2018	4/17/2018	794.86	3/16/2018	3/31/2018	15.00	32.00	47.00	0.00%	0.00
74	PA Excise Alternative Fuel Tax	4/1/2018	5/11/2018	878.28	4/15/2018	4/30/2018	14.50	25.50	40.00	0.00%	0.00
75	PA Excise Alternative Fuel Tax	5/1/2018	6/13/2018	309.20	5/16/2018	5/31/2018	15.00	28.00	43.00	0.00%	0.00
76	PA Excise Alternative Fuel Tax	6/1/2018	7/16/2018	231.77	6/15/2018	6/30/2018	14.50	30.50	45.00	0.00%	0.00
77	PA Excise Alternative Fuel Tax	7/1/2018	8/8/2018	1,276.96	7/16/2018	7/31/2018	15.00	23.00	38.00	0.01%	0.00
78	PA Excise Alternative Fuel Tax	8/1/2018	9/19/2018	1,963.64	8/16/2018	8/31/2018	15.00	34.00	49.00	0.01%	0.00
79	PA Excise Alternative Fuel Tax	9/1/2018	10/5/2018	1,942.41	9/15/2018	9/30/2018	14.50	19.50	34.00	0.01%	0.00
80	U.S DOT Pipeline Safety User Fee	1/1/2018	4/3/2018	23,694.85	7/2/2018	12/31/2018	182.00	(90.00)	92.00	0.10%	0.09
81	U.S DOT Pipeline Safety User Fee	1/1/2018	6/1/2018	28,405.30	7/2/2018	12/31/2018	182.00	(31.00)	151.00	0.11%	0.17
82	U.S DOT Underground Natural Gas Storage Fee	1/1/2018	6/4/2018	30,769.00	7/2/2018	12/31/2018	182.00	(28.00)	154.00	0.12%	0.19
83	Federal Excise - Alternative Fuels Tax	7/1/2017	10/10/2017	969.53	8/15/2017	9/30/2017	45.50	55.50	101.00	0.00%	0.00
84	Federal Excise - Alternative Fuels Tax	7/1/2016	12/31/2017	(94.15)	8/15/2016	9/30/2016	45.50	502.50	548.00	0.00%	(0.00)
85	Federal Excise - Alternative Fuels Tax	4/1/2016	12/31/2017	(368.88)	5/16/2016	6/30/2016	45.00	594.00	639.00	0.00%	(0.01)
86	Federal Excise - Alternative Fuels Tax	10/1/2017	1/31/2018	787.46	11/15/2017	12/31/2017	45.50	76.50	122.00	0.00%	0.00
87	Federal Excise - Alternative Fuels Tax	1/1/2018	5/2/2018	789.64	2/14/2018	3/31/2018	44.50	76.50	121.00	0.00%	0.00
88	Federal Excise - Alternative Fuels Tax	4/1/2018	7/16/2018	464.09	5/16/2018	6/30/2018	45.00	61.00	106.00	0.00%	0.00
89	Federal Excise - Alternative Fuels Tax	7/1/2018	10/5/2018	1,694.76	8/15/2018	9/30/2018	45.50	50.50	96.00	0.01%	0.01
90	Federal Heavy Highway Tax	7/1/2016	12/31/2017	(53.50)	12/30/2016	6/30/2017	182.00	366.00	548.00	0.00%	(0.00)
91	Federal Heavy Highway Tax	7/1/2017	8/29/2017	14,602.00	12/30/2017	6/30/2018	182.00	(123.00)	59.00	0.06%	0.03
92	Federal Heavy Highway Tax	7/1/2017	11/30/2017	158.00	12/30/2017	6/30/2018	182.00	(30.00)	152.00	0.00%	0.00
93	Federal Heavy Highway Tax	7/1/2016	9/4/2018	(8,233.00)	12/30/2016	6/30/2017	182.00	613.00	795.00	-0.03%	(0.26)
94	Federal Heavy Highway Tax	7/1/2017	9/4/2018	14,812.00	12/30/2017	6/30/2018	182.00	248.00	430.00	0.06%	0.26
95	PA Gross Premiums Tax	9/1/2017	2/28/2018	4,308.00	3/2/2018	8/31/2018	182.00	(2.00)	180.00	0.02%	0.03
96	FED Gross Premiums Tax	9/1/2017	4/30/2018	2,873.00	3/2/2018	8/31/2018	182.00	59.00	241.00	0.01%	0.03
97	PURTA	1/1/2018	5/1/2018	549,000.00	7/2/2018	12/31/2018	182.00	(62.00)	120.00	2.21%	2.66

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
Line No.	Type of Tax	Begin of Period	Payment Date	Amount	MidPoint Method	End of Period	Service Lead Time	Payment Lead Time	Total	Weighting Factor	Weighted Lead
98	PURTA	1/1/2017	9/15/2018	61,000.00	7/2/2017	12/31/2017	182.00	440.00	622.00	0.25%	1.53
99	PA PUC Assessment	7/1/2018	9/25/2018	2,658,871.00	12/30/2018	6/30/2019	182.00	(96.00)	86.00	10.72%	9.22
100	WV Gas Stored	1/1/2018	9/1/2019	72,000.00	7/2/2018	12/31/2018	182.00	426.00	608.00	0.29%	1.77
101	WV Gas Stored	1/1/2018	3/1/2020	72,000.00	7/2/2018	12/31/2018	182.00	608.00	790.00	0.29%	2.29
				12,396,420.58							

Calculation of Income Tax Lead Time - State & Federal

Line No.	Period Covered		Mid-Point of Period	Date Paid	(Lead) / Lag Days (D-C)	Amount of Expense	Dollar Weighted Days (E*F)
	From	To					
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Federal Income Tax						
1	1/1/2017	12/31/2017	7/2/2017	12/15/2017	166.00	25.0%	41.50
2	1/1/2018	12/31/2018	7/2/2018	4/17/2018	(76.00)	25.0%	(19.00)
3	1/1/2018	12/31/2018	7/2/2018	6/15/2018	(17.00)	25.0%	(4.25)
4	1/1/2018	12/31/2018	7/2/2018	9/15/2018	75.00	25.0%	18.75
						100%	37.00
	State Income Tax						
5	1/1/2017	12/31/2017	7/2/2017	12/15/2017	166.00	22.5%	37.35
6	1/1/2017	12/31/2017	7/2/2017	4/16/2018	288.00	10.0%	28.80
7	1/1/2018	12/31/2018	7/2/2018	3/15/2018	(109.00)	22.5%	(24.53)
8	1/1/2018	12/31/2018	7/2/2018	6/15/2018	(17.00)	22.5%	(3.83)
9	1/1/2018	12/31/2018	7/2/2018	9/16/2018	76.00	22.5%	17.10
						100.0%	54.90

Calculation of Interest Expense Lead Time - Both Short Term and Long Term

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Line No.	Date of Issuance	Date of Maturity	Payment Date	Start of Period	End of Period	Mid Point of Half	Payment Lead Time	Principal	Interest	Payment	Nominal Net Lead	Weighting Factor	Weighted Lead
1	2/26/2010	2/26/2020	2/26/2018	8/27/2017	2/26/2018	11/26/2017	91.75	\$ 171,045,000	5.530%	\$ 4,729,394	91.75	13.43%	12.33
2	12/19/2013	12/19/2023	6/19/2018	12/20/2017	6/19/2018	3/21/2018	89.75	\$ 144,746,400	4.100%	\$ 2,967,301	89.75	8.43%	7.56
3	12/19/2013	12/19/2025	6/19/2018	12/20/2017	6/19/2018	3/21/2018	89.75	\$ 110,007,200	4.250%	\$ 2,337,653	89.75	6.64%	5.96
4	12/18/2017	12/18/2022	6/18/2018	12/19/2017	6/18/2018	3/20/2018	89.75	\$ 89,455,500	2.900%	\$ 1,297,105	89.75	3.68%	3.31
5	12/18/2017	12/18/2027	6/18/2018	12/19/2017	6/18/2018	3/20/2018	89.75	\$ 178,911,000	3.380%	\$ 3,023,596	89.75	8.59%	7.71
6	12/18/2017	12/18/1932	6/18/2018	12/19/2017	6/18/2018	3/20/2018	89.75	\$ 178,911,000	3.630%	\$ 3,247,235	89.75	9.22%	8.28
7	2/26/2010	2/26/2018	8/27/2018	2/27/2018	8/27/2018	5/29/2018	89.75	\$ 171,045,000	5.530%	\$ 4,729,394	89.75	13.43%	12.06
8	12/19/2013	2/26/2019	12/19/2018	6/20/2018	12/19/2018	9/19/2018	90.75	\$ 144,746,400	4.100%	\$ 2,967,301	90.75	8.43%	7.65
9	12/19/2013	2/26/2020	12/19/2018	6/20/2018	12/19/2018	9/19/2018	90.75	\$ 110,007,200	4.250%	\$ 2,337,653	90.75	6.64%	6.03
10	12/18/2017	12/19/2017	12/18/2018	6/19/2018	12/18/2018	9/18/2018	90.75	\$ 89,455,500	2.900%	\$ 1,297,105	90.75	3.68%	3.34
11	12/18/2017	12/19/2023	12/18/2018	6/19/2018	12/18/2018	9/18/2018	90.75	\$ 178,911,000	3.380%	\$ 3,023,596	90.75	8.59%	7.79
12	12/18/2017	12/19/2025	12/18/2018	6/19/2018	12/18/2018	9/18/2018	90.75	\$ 178,911,000	3.630%	\$ 3,247,235	90.75	9.22%	8.37

13	Historic Test Year - Long Term Debt Outstanding							\$ 873,076,100		\$ 35,204,568		LT DEBT
									4.03%		Weighted Expense Lead Time:	90.38

ST Debt from previous month; est invoice on 25th of the month, int "paid" by month end

	(A)	(B)	(C)	(D)	(E)	(F)	(H)	(I)	(J)	
	ST Debt	End of Period	Posting Date	Paid Date	Amount	Service Lead	Payment Lead	Total	Weighting Factor	Weighted Lead
14	Working Capital Interest	9/30/2017	10/25/2017	10/31/2017	\$ 263,678	15.21	6.00	21.21	2.66%	0.56
15	Working Capital Interest	10/31/2017	11/27/2017	11/30/2017	\$ 452,623	15.21	3.00	18.21	4.57%	0.83
16	Working Capital Interest	11/30/2017	12/26/2017	12/31/2017	\$ 566,037	15.21	5.00	20.21	5.72%	1.16
17	Working Capital Interest	12/31/2017	1/25/2018	1/31/2018	\$ 1,593,395	15.21	6.00	21.21	16.09%	3.41
18	Working Capital Interest	1/31/2018	2/26/2018	2/28/2018	\$ 1,796,154	15.21	2.00	17.21	18.14%	3.12
19	Working Capital Interest	2/28/2018	3/26/2018	3/31/2018	\$ 1,641,912	15.21	5.00	20.21	16.58%	3.35
20	Working Capital Interest	3/31/2018	4/25/2018	4/30/2018	\$ 1,657,582	15.21	5.00	20.21	16.74%	3.38
21	Working Capital Interest	4/30/2018	5/25/2018	5/31/2018	\$ 1,087,548	15.21	6.00	21.21	10.98%	2.33
22	Working Capital Interest	5/31/2018	6/25/2018	6/30/2018	\$ 220,617	15.21	5.00	20.21	2.23%	0.45
23	Working Capital Interest	6/30/2018	7/25/2018	7/31/2018	\$ 388,177	15.21	6.00	21.21	3.92%	0.83
24	Working Capital Interest	7/31/2018	8/24/2018	8/31/2018	\$ 179,478	15.21	7.00	22.21	1.81%	0.40
25	Working Capital Interest	8/31/2018	9/25/2018	9/30/2018	\$ 53,727	15.21	5.00	20.21	0.54%	0.11

26	Historic Test Year - Short Term Debt Interest Amount				\$ 9,900,926						ST DEBT	
											Weighted Expense Lead Time:	19.95