Philadelphia Gas Works

Before The

Pennsylvania Public Utility Commission

Computation of Annual Purchased Gas Costs For Twelve Months Ending August 31, 2020

66 Pa.C.S. § 1307(f)

Information Submitted Pursuant To:

66 Pa.C.S. §§ 1307(f), 1317, 1318 and 52 Pa. Code § 53.61, et seq.

March 1, 2019

Philadelphia Gas Works 66 Pa.C.S. § 1307(f) – 2019

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Tab 1

PGW Gas Service Tariff Pa. P.U.C. No. 2

Supplement No. 119

PHILADELPHIA GAS WORKS GAS SERVICE TARIFF



Issued by: Craig White President and CEO

PHILADELPHIA GAS WORKS 800 West Montgomery Avenue Philadelphia, PA 19122

Canceling One Hundred and Fourteenth Revised Page No. 2

List of Changes Made by this Tariff Supplement

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Updated to reflect revised page numbers for each of the changes listed below on this page.

GAS COST RATE (GCR) - SECTION 1307(f), II. DEFINITIONS (Page No. 67)

In the definition of "GAC," the GAC value effective September 1, 2019, increases from (\$0.00904) per Ccf to \$0.00335 per Ccf.

GAS COST RATE (GCR) - SECTION 1307(f), II. DEFINITIONS (Page No. 67A)

In the definition of "IRC," the "IRC" value effective September 1, 2019, increases from \$0.00059 per Ccf to \$0.00083 per Ccf. In the definition of "SSC," the "SSC" value effective September 1, 2019, decreases from \$0.49742 per Ccf to \$0.49635 per Ccf.

GAS COST RATE (GCR) - SECTION 1307(f), III. COMPUTATION OF GCR (Page No. 68)

The Gas Cost Rate (GCR) effective September 1, 2019, increases from \$0.48779 per Ccf to \$0.49887 per Ccf.

PRICE TO COMPARE (Page No. 78)

The Prices to Compare effective September 1, 2019, are: a) \$0.52246 per Ccf for Residential; b) \$0.50679 per Ccf for Commercial Customers on Rate GS; c) \$0.50565 per Ccf for Industrial Customers on Rate GS; and d) \$0.50370 per Ccf for Municipal Customers on Rate MS, The Philadelphia Housing Authority on Rate PHA, Public Housing Customers on Rate GS & Natural Gas Vehicle Service on Rate NGVS.

RESTRUCTURING AND CONSUMER EDUCATION SURCHARGE (Page No. 79)

The Current Restructuring and Consumer Education Surcharge effective September 1, 2019, is (\$0.00002) per Ccf.

EFFICIENCY COST RECOVERY SURCHARGE (Page No. 80)

The Efficiency Cost Recovery Surcharges effective September 1, 2019, are: a) \$0.00297 per Ccf for Residential and Public Housing Customers on Rate GS; b) \$0.00679 per Ccf for Commercial Customers on Rate GS; c) \$(0.00032) per Ccf for Industrial Customers on Rate GS; d) \$0.00000 per Ccf for Municipal Customers on Rate MS; and e) \$0.00679 per Ccf for The Philadelphia Housing Authority on Rate PHA.

UNIVERSAL SERVICE AND ENERGY CONSERVATION SURCHARGE (Page No. 81)

The Universal Service and Energy Conservation Surcharge effective September 1, 2019, increases from \$0.16259 per Ccf to \$0.15383 per Ccf.

OTHER POST EMPLOYMENT BENEFIT ("OPEB") SURCHARGE (Page No. 82)

The Other Post Employment Benefit Surcharge effective September 1, 2019, increases from \$0.03094 per Ccf to \$0.03097 per Ccf.

GENERAL SERVICE - RATE GS (Page No. 83)

The Gas Cost Rate (GCR) effective September 1, 2019, increases from \$0.48779 per Ccf to \$0.49887 per Ccf.

MUNICIPAL SERVICE - RATE MS (Page No. 87)

The Gas Cost Rate (GCR) effective September 1, 2019, increases from \$0.48779 per Ccf to \$0.49887 per Ccf.

PHILADELPHIA HOUSING AUTHORITY SERVICE - RATE PHA (Page No. 90)

The Gas Cost Rate (GCR) effective September 1, 2019, increases from \$0.48779 per Ccf to \$0.49887 per Ccf.

DEVELOPMENTAL NATURAL GAS VEHICLE SVC - RATE NGVS FIRM SERVICE (Page No. 135)

The Gas Cost Rate (GCR) effective September 1, 2019, increases from \$0.48779 per Ccf to \$0.49887 per Ccf.

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(I)

GAS COST RATE (GCR) -- SECTION 1307(f)

I. PROVISION FOR ADJUSTMENT

The Gas Cost Rate shall be applied to each Mcf (1,000 cubic feet) for Firm Retail Sales Service Gas supplied under Rates Schedules GS, MS, PHA, and NGVS-Firm, except for Gas usage under the Special Provisions – Air Conditioning of those rates calculated in a manner set forth below, pursuant to 66 Pa.C.S. §1307(f). Such rates for Firm Sales Service Gas may be increased or decreased from time to time under the procedures set forth in Section II.B. below to reflect changes in the level of Gas costs incurred or projected to be incurred by PGW related to Sales Service.

II. DEFINITIONS

C - The current cost of Natural Gas and other raw materials determined as follows: (a) for all types of Gas, project the cost for each purchase (adjusted for net current Gas stored) for the computation year plus (b) the of (1) the projected book value of non-current Gas at the beginning of the computation year minus (2) the projected book value of non-current Gas at the end of the computation year. In addition to any cost authorized by the Commission, the cost of Natural Gas may include any item included in the definition of Natural Gas costs set forth in 66 Pa.C.S. § 1307(h) ("Definition"). The Factor "C" includes two components -- Commodity Costs and Demand Costs which are defined as follows: Commodity Costs - the actual cost of natural gas and purchased electric for firm customers that does not include the fixed costs associated with the transportation and storage of natural gas; and Demand Costs - the fixed costs associated with the transportation and storage of natural gas for firm customers.

Effective 9/1/08, 75% of off system sales margin and capacity release credits will be allocated to the Factor "C" and 25% to the Company. Effective 9/1/09, 75% of storage asset management fees will be allocated to the Factor "C" and 25% to the Company.

Computation Year - The 12-month forecast period as identified in the Company's annual 1307(f) filing and each quarterly GCR filing.

E - Experienced net over billing (or under billing) of the cost of Natural Gas and other raw materials applicable to the GCR reported in the most recent Section 1307(f) proceeding. Such over billings (or under billings) will be made with interest at the rate and method set forth by the Pennsylvania Public Utility Commission. Additionally, supplier refunds received prior to the end of the August billing period will be included in the Factor "E" includes two components -- Commodity Costs and Demand Costs which are defined above in the Factor "C" definition. Credit or recovery of the factor "E" is completed over the Company's Fiscal Year.

Firm Sales Service - The service provided to Customers who receive firm supply service from PGW. The term does not include the service provided to Customers who receive interruptible supply service from PGW.

GAC (Gas Adjustment Charge) - The "E" factor component of the GCR, representing the net overcollection or undercollection of Natural Gas and other raw materials costs. The currently effective GAC is \$0.00491 per Ccf for Commodity Costs and \$(0.00156) per Ccf for Demand Costs, for service on or after September 1, 2019. The total GAC is \$0.00335 per Ccf.

GCR - Gas Cost Rate determined to the nearest one-hundredth cent (\$0.0001) to be applied to each Mcf of Gas supplied under Rates GS, MS, PHA, and NGVS-Firm, except for Gas usage under the Special Provisions – Air Conditioning of those rates and is equal to the SSC plus the GAC minus the IRC.

(I) - Increase

PHILADELPHIA GAS WORKS

IRC - Interruptible Revenue Credit - The credit defined in Subsection VI below. The currently effective IRC is \$0.00083 per Ccf for service on or after September 1, 2019.

(I)

(D)

Natural Gas or Gas - The volumes of gas purchased or manufactured by the Company that is delivered to the Company's Customers, plus such portion of the Company-used and unaccounted-for gas as the Commission permits, including, but not limited to, natural gas, liquefied natural gas, synthetic gas, liquefied propane and naphtha.

S - Projected applicable Mcf of Gas to be billed to Customers during the computation year.

SSC - Sales Service Charge - The purchased Gas costs determined to the nearest $^{1}/_{100}$ of a cent (\$0.0001). The currently effective SSC is \$0.31536 per Ccf for Commodity Costs and \$0.18099 per Ccf for Demand Costs, for service on or after September 1, 2019. The total SSC is \$0.49635 per Ccf.

(D) - Decrease; (I) - Increase

PHILADELPHIA GAS WORKS

III. COMPUTATION OF GAS COST RATE

A. The GCR shall be computed to the nearest one-thousandth cent (\$0.00001) in accordance with the formula set forth below as the terms are defined in Section II:

SSC = C/S GAC=E/S GCR=SSC+GAC- IRC

B. Each Gas Cost Rate so computed shall be applied to Customers' bills for twelve monthly billing periods commencing with September.

The currently effective Gas Cost Rate is \$0.49887 per Ccf, for service on or after September 1, 2019.

(I)

IV. REPORTING REQUIREMENTS

- A. The Company's rates are subject to quarterly adjustments for recovery of the Gas Cost Rate under procedures set forth in Section 1307(f) of the Public Utility Code.
- B. The filing of the Company's annual Section 1307(f) filing, annual Gas Cost Rate, effective during the billing period of September through August, shall be submitted to the Commission by March 1 of each year, with a February 1 pre-filing date.
- C. The application of the Gas Cost Rate shall be subject to review and audit by the Commission at such intervals as the Commission shall determine.
- D. If it shall be determined, from audit by the Commission, or by final order entered after notice and hearing, that the application of this clause has resulted in the overcollection or undercollection of revenues, then the Company shall apply such over/undercollection as a credit or debit against future Gas Cost Rates.

V. PROVISION FOR INCLUSION OF SPECIFIC NON-GAS EXPENSES

The computation of the Gas Cost Rate may include such Non-Gas expenses as may be authorized by this tariff and annually authorized by the Commission.

VI. INTERRUPTIBLE REVENUE CREDIT (IRC)

- A. The GCR rate shall be credited with an Interruptible Revenue Credit (IRC) equal to the margin realized from interruptible sales under PGW's Interruptible Sales Tariff Rates: BPS, LBS; and CG (Total Margin Revenue).
- B. The IRC shall be set each year in the Company's 1307(f) proceeding to reflect the Total Margin Revenue. The rate per Mcf shall be calculated by dividing the Total Margin Revenue by total applicable firm sales. For the period September 1, 2003 through August 31, 2004 the IRC shall be initially set to reflect the Total Margin Revenue authorized by the Commission in its final order at M-00021612 (entered March 31, 2003).

(I) - Increase

MERCHANT FUNCTION CHARGE ("MFC")

The MFC is a volumetric charge, applied to firm sales service customers, which will be included in the Price to Compare. The MFC is based on Gas Cost Rate multiplied by a fixed uncollectible percentage established in the Company's last general base rate proceeding. The MFC will not be reconciled to reflect actual results. The MFC is intended to make the Company's Price to Compare more comparable to the gas supply services price offers of other Natural Gas Suppliers that presumably reflect anticipated uncollectible expenses. The following percentages will be applied to the quarterly Gas Cost Rate in order to calculate the quarterly MFC: 3.76% - GS Residential ("GS RES"); 0.62% - GS Commercial ("GS COM"); and 0.39% - GS Industrial ("GS IND"). The current MFC is set forth below in the Price to Compare table.

GAS PROCUREMENT CHARGE ("GPC")

The GPC is a volumetric charge, applied to firm sales service customers, which will be included in the Price to Compare. The GPC will remain in effect until reviewed and updated in the Company's next general base rate proceeding.

Current Gas Procurement Charge = \$0.00400/Ccf

PRICE TO COMPARE ("PTC")

The PTC is composed of the Sales Service Charge ("SSC"), Gas Adjustment Charge ("GAC"), the Merchant Function Charge and the Gas Procurement Charge. The PTC will change whenever any of the components of the PTC change. The current PTC is (per Ccf):

	GS RES	GS PH	GS COM	GS IND	MS	PHA	NGVS
SSC	\$0.49635	\$0.49635	\$0.49635	\$0.49635	\$0.49635	\$0.49635	\$0.49635
GAC	\$0.00335	\$0.00335	\$0.00335	\$0.00335	\$0.00335	\$0.00335	\$0.00335
MFC	\$0.01876	\$0.00000	\$0.00309	\$0.00195	\$0.00000	\$0.00000	\$0.00000
GPC	\$0.00400	\$0.00400	\$0.00400	\$0.00400	\$0.00400	\$0.00400	\$0.00400
PTC	\$0.52246	\$0.50370	\$0.50679	\$0.50565	\$0.50370	\$0.50370	\$0.50370

(C)

(C) - Change

RESTRUCTURING AND CONSUMER EDUCATION SURCHARGE

Non-Gas restructuring and consumer education costs, including the costs arising from implementation and administration of the Account Number Access Mechanism as specified in the Commission's Final Order entered on October 27, 2016, at Docket No. M-2015-2468991, will be recovered by a Restructuring and Consumer Education Surcharge applicable to all volumes of Gas delivered.

- 1. Computation of the Restructuring and Consumer Education Surcharge factors will be in accordance with the automatic adjustment procedures utilized under Section 1307 of the Public Utility Code and will be filed and approved in conjunction with the Company's annual Section 1307(f)-GCR filing.
- Restructuring and Consumer Education costs recovered through the Surcharge mechanism are the Commission approved costs which the Company has or will incur to meet the requirements of the Natural Choice and Competition Act and applicable Commission regulations, orders and other regulatory requirements, other than those costs pertaining to universal service and energy conservation programs.
- 3. Once the surcharge is in place, PGW shall file reconciliation statements quarterly and shall submit a claim for over/under recovery on an annual basis, at the same time it submits its projected Restructuring costs and Restructuring Surcharge claim for the next year; provided however, that if a project for which costs were included in the Restructuring Surcharge is cancelled or delayed beyond the year in which the cost was originally scheduled to be incurred, the Company will withdraw the projected costs of that project from the Restructuring Surcharge in its next quarterly update. No interest will be included in such surcharge computations. The basic component of the surcharge will be determined by dividing the restructuring and consumer education costs approved for annual recovery by the estimated applicable throughput in Mcf.
- 4. The Restructuring and Consumer Education Surcharge shall remain in effect until restructuring and consumer education costs have been collected or as otherwise directed by the Commission.
- 5. The Restructuring and Consumer Education Surcharge is effective on and after September 1, 2008.

Current Restructuring and Consumer Education Surcharge = (\$0.00002)/Ccf

(C)

(C) - Change

(I)

(I)

(I)

(NC)

EFFICIENCY COST RECOVERY SURCHARGE

The cost of the energy efficiency programs (i.e. the demand side management programs) for the firm customer rate classes listed below will be recovered by an Efficiency Cost Recovery Surcharge applicable to all volumes of Gas delivered.

- 1) The Surcharge will recover the program costs and the administrative costs of the energy efficiency program.
- 2) Computation of the Efficiency Cost Recovery Surcharge factors will be in accordance with the automatic adjustment procedures utilized under Section 1307(f) of the Public Utility Code and will be filed and approved in conjunction with the Company's annual Section 1307(f)-GCR filing.
- 3) Once the surcharge is in place, it will be automatically adjusted effective March 1, June 1, September 1, and December 1 of each year in accordance with Section 1307(f) quarterly adjustment procedures. No interest will be included in such surcharge computations. The basic component of the surcharge will be determined by dividing the total energy efficiency program costs approved for annual recovery plus (or minus) any over (or under) recovery from the prior period by the estimated applicable throughput in Mcfs. The costs related to customers other than low income residential customers are tracked and will be recovered separately from each of the following firm customer rate classes if the customer class is served by the energy efficiency program:
 - a) Residential and Public Housing Customers on Rate GS;
 - b) Commercial Customers on Rate GS;
 - c) Industrial Customers on Rate GS;
 - d) Municipal Customers on Rate MS; and
 - e) The Philadelphia Housing Authority on Rate PHA.

The surcharge shall be a cents per Ccf charge calculated to the nearest one-thousandth of a cent (0.00001) which shall be added to the distribution rates for billing purposes for all customers in each of the above rate classes. The rate shall be calculated separately for each rate class as follows:

- a) \$0.00297 per Ccf for Residential and Public Housing Customers on Rate GS;
- b) \$0.00679 per Ccf for Commercial Customers on Rate GS;
- c) (\$0.00032) per Ccf for Industrial Customers on Rate GS:
- d) \$0.00000 per Ccf for Municipal Customers on Rate MS; and
- e) \$0.00679 per Ccf for The Philadelphia Housing Authority on Rate PHA.

The Enhanced Low Income Retrofit Program costs shall be recovered through the Universal Services Surcharge beginning on September 1, 2010.

(I) - Increase; (NC) - No Change

UNIVERSAL SERVICE AND ENERGY CONSERVATION SURCHARGE

Universal service and energy conservation program and related costs will be recovered by a Universal Service and Energy Conservation Surcharge applicable to all volumes of Gas delivered.

- The Surcharge will recover: 1) the discounts provided to Customers pursuant to the Customer Responsibility Program (CRP); 2) the discounts provided to Customers pursuant to the Senior Citizen Discount; 3) the costs of the Conservation Works Program (CWP) and the Enhanced Low Income Retrofit Program (ELIRP); and, 4) for Customers entering the CRP program on or after September 1, 2003, past due arrearages forgiven pursuant to paragraph A (6) of the CRP/CAP Program Design Stipulation approved by the Commission by its order at M-00021612 (entered March 31, 2003).
- Computation of the Universal Service and Energy Conservation Surcharge factors will be in accordance with the automatic adjustment procedures utilized under Section 1307(f) of the Public Utility Code and will be filed and approved in conjunction with the Company's annual Section 1307(f)-GCR filing.
- 3. Once the surcharge is in place it will be automatically adjusted effective March 1, June 1, September 1, and December 1 of each year in accordance with Section 1307(f) quarterly adjustment procedures. No interest will be included in such surcharge computations. The basic component of the surcharge will be determined by dividing the total universal service and energy conservation program costs approved for annual recovery by the estimated applicable throughput in Mcfs.
- 4. The Universal Service and Energy Conservation Surcharge shall take effect upon the effective date of this Tariff.

Current Universal Service and Energ	y Conservation Surcharge = \$ 0.15383/Ccf.	(D)
Current Offiversal Service and Energ	y Conservation Surcharge - \$ 0.13303/Col.	(0)

(D) - Decrease

OTHER POST EMPLOYMENT BENEFIT ("OPEB") SURCHARGE

The amounts necessary to fund PGW's Other Post Employment Benefit obligations will be recovered by an Other Post Employment Benefit Surcharge applicable to all volumes of Gas delivered.

- 1. Computation of the Other Post Employment Benefit Rider Surcharge factors will be in accordance with the automatic adjustment procedures utilized under Section 1307(f) of the Public Utility Code and will be filed and approved in conjunction with the Company's annual Section 1307(f)-GCR filing.
- 2. Once the surcharge is in place it will be automatically adjusted effective September 1 of each year to account for over (under) recoveries in accordance with Section 1307(f) adjustment procedures. No interest will be included in such surcharge computations. The basic component of the surcharge will be determined plus (or minus) any over (or under) recovery from the prior period by dividing the total OPEB funding amounts approved for annual recovery by the estimated applicable throughput in Mcfs.
- 3. The Other Post Employment Benefit Rider Surcharge shall take effect upon the effective date of this Tariff.

Current Other Post Employment Benefit Rider Surcharge = \$0.03097/Ccf

(I)

(I) - Increase

GENERAL SERVICE - RATE GS

Rate: Applicable to all Retail Sales Service or Transportation Service rendered pursuant to this Rate Schedule on or after September 1, 2019.

AVAILABILITY

Available for any purpose where the Company's distribution mains adjacent to the proposed Gas Service location are, or can economically be made, suitable to supply the quantities of Gas or Transportation Services required.

RATES

CUSTOMER CHARGE (per Meter (except parallel meters)):

\$ 13.75	per month for Residential and Public Housing Authority Customers.
\$ 23.40	per month for Commercial Customers
\$ 70.00	per month for Industrial Customers

Surcharge: Distribution System Improvement Charge.

Plus,

GCR (not applicable to GS Customers who transport gas through a qualified NGS):

\$0.49887	per Ccf for Residential and Public Housing	(1)
\$0.49887	per Ccf for Commercial Customers	(I)
\$0.49887	per Ccf for Industrial Customers	(I)

Plus,

DISTRIBUTION CHARGE (consisting of items (A) and (B), below):

(A) Delivery Charge:

\$0.66967	per Ccf for Residential
\$0.57105	per Ccf for Public Housing
\$0.48651	per Ccf for Commercial and Municipal Customers
\$0.47698	per Ccf for Industrial Customers

(B) Surcharges:

Universal Service and Energy Conservation Surcharge; Restructuring and Consumer Education Surcharge; Efficiency Cost Recovery Surcharge; Other Post Employment Benefit Surcharge; and Distribution System Improvement Charge.

(I) - Increase

Note: The Commodity Charge includes the Sales Service Charge, the Merchant Function Charge and the Gas Procurement Charge.

MUNICIPAL SERVICE - RATE MS

Rate: Applicable to all Retail Sales Service or Transportation Service rendered pursuant to this Rate Schedule on or after September 1, 2019.

AVAILABILITY

Available to properties owned or occupied by the City of Philadelphia or the Board of Education, or any of their respective agencies or instrumentalities, for any type of Gas Service, unless purchased for resale to others, and where the Company's distribution mains adjacent to the proposed Gas Service locations are, or can economically be made, suitable to supply the quantities of Gas required; provided, however, that the rate shall not be available to Commercial Tenants of any such property.

RATES

CUSTOMER CHARGE (per Meter (except parallel meters):

Surcharge: Distribution System Improvement Charge.

Plus,

GCR (not applicable to MS Customers who transport Gas through a qualified NGS):

\$0.49887 per Ccf

\$ 23.40 per month

(I)

Plus.

DISTRIBUTION CHARGE (consisting of items (A) and (B), below):

(A) Delivery Charge:

\$0.42723 per Ccf

(B) Surcharges:

Universal Service and Energy Conservation Surcharge; and The Restructuring and Consumer Education Surcharge; the Efficiency Cost Recovery Surcharge; Other Post Employment Benefit Surcharge; and Distribution System Improvement Charge.

(I) - Increase

Note: The Commodity Charge includes the Sales Service Charge, the Merchant Function Charge and the Gas Procurement Charge.

PHILADELPHIA HOUSING AUTHORITY SERVICE - RATE PHA

Rate: Applicable to all Retail Sales Service or Transportation Services rendered pursuant to this Rate Schedule on or after September 1, 2019.

AVAILABILITY

Available for all Gas usage in multiple dwelling Residential buildings containing 10 or more dwelling units, owned and operated by the Philadelphia Housing Authority, where cooking shall be performed exclusively with Gas and where Gas Service shall be supplied through one or more single point metering arrangements at locations where the Company's distribution mains adjacent to the proposed Gas Service locations are, or can economically be made, suitable to supply the quantities of Gas required.

This rate is also available for all Gas usage in single and multiple dwelling Residential buildings, containing less than 10 dwelling units, provided, and only so long as, Gas is used exclusively for cooking, water heating and space heating for all such Residential buildings owned and operated by the Philadelphia Housing Authority, except (a) buildings operated by the Philadelphia Housing Authority, prior to the original effective date of this rate (January 1, 1969), and (b) buildings for which, in the judgment of the Company, such Gas Service cannot be provided economically.

RATES

CUSTOMER CHARGE (per Meter (except parallel meters);

\$23.40 per month

Surcharge: Distribution System Improvement Charge.

Plus.

GCR (not applicable to PHA customers who transport gas through a qualified NGS):

\$0.49887 per Ccf

Plus

DISTRIBUTION CHARGE (consisting of item (A) and (B), below):

(A) Delivery Charge:

\$0.50163 per Ccf

(B) Surcharges:

Universal Service and Energy Conservation Surcharge; and The Restructuring and Consumer Education Surcharge; the Efficiency Cost Recovery Surcharge; Other Post Employment Benefit Surcharge; and Distribution System Improvement Charge.

(I) - Increase

Note: The Commodity Charge includes the Sales Service Charge, the Merchant Function Charge and the Gas Procurement Charge.

DEVELOPMENTAL NATURAL GAS VEHICLE SERVICE - RATE NGVS FIRM SERVICE

Rate: Applicable to all Retail Sales Service rendered pursuant to this Rate Schedule on or after September 1, 2019.

AVAILABILITY

This service is available to provide uncompressed Natural Gas to any Customer for the exclusive purpose of compressing such Gas for use as fuel for motor vehicles. The compression of the Natural Gas to the pressure required for use as a motor vehicle fuel will be conducted by the Customer, at the Customer's designated premises. Service shall only be available where the Company's distribution system is, or can economically be made available to supply the service. Each Customer will be required to execute a service agreement which will specify terms and conditions of service.

CHARACTER OF SERVICE

Service under this rate schedule is firm and shall only be interrupted in the case of operating emergencies experienced by the Company.

MONTHLY RATE

CUSTOMER CHARGE:

\$35.00 per month

Surcharge: Distribution System Improvement Charge.

Plus.

GCR (not applicable to NGVS customers who transport gas through a qualified NGS):

\$0.49887 per Ccf (I)

Plus

DISTRIBUTION CHARGE (consisting of item (A) and (B), below):

- (A) <u>Delivery Charge (Updated in Supplement No. 65 Issued: July 10, 2013; Effective: October 1, 2013)</u>: \$0.12833 per Ccf
- (B) Surcharges:

Universal Service and Energy Conversation Surcharge; The Restructuring and Consumer Education Surcharge; Other Post Employment Benefit Surcharge; and Distribution System Improvement Charge.

(I) - Increase

Note: The Commodity Charge includes the Sales Service Charge, the Merchant Function Charge and the Gas Procurement Charge.

PGW Gas Supplier Tariff Pa. P.U.C. No. 1

Supplement No. 81

PHILADELPHIA GAS WORKS

GAS SUPPLIER TARIFF



Issued by: Craig White President and CEO PHILADELPHIA GAS WORKS 800 West Montgomery Avenue Philadelphia, PA 19122

List of Changes Made by this Tariff

9.14. LOAD BALANCING CHARGE, 9.14.A. (Page No. 39)

The load balancing charge effective September 1, 2019, is \$59.0498 per design day Mcf.

Effective: September 1, 2019

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(I)

9.14. LOAD BALANCING CHARGE.

<u>9.14.A.</u>Suppliers for all gas delivered under Firm Transportation Rates, of this Suppliers Tariff shall be charged at \$59.0498 per design day Mcf that is fulfilled by PGW storage and peaking assets, for recovery of those costs for Balancing Service, calculated in the manner set forth in the Commission's Order at M-00021612 (entered March 31, 2003) and as set forth below. Such rate for Balancing Service shall be increased or decreased, from time to time, in accordance with applicable law and procedures.

9.14.B.Computation of Balancing Service Costs per Dth.

9.14.B.1.Formula. Balancing Service Costs, per design day Mcf, that is fulfilled by PGW storage and peaking assets, shall be computed to the nearest one-hundredth cent (\$0.0001) in accordance with the formula set forth below:

BSC =
$$(C / S_1) - (E / S_2)$$

Projected Balancing Service Costs, so computed, shall be charged to Suppliers of Firm Transportation Rates per Customer per design day Mcf that is fulfilled by PGW storage and peaking assets, for an enrollment month. The amount of those costs, per Mcf, will vary, if appropriate, based upon annual filings by the Company pursuant to Section 1307(f) of the Public Utility Code and such supplemental filings as may be required or be appropriate under Section 1307(f) or the PUC's regulations adopted pursuant thereto.

- 9.14.B.2. Definitions. In computing the Balancing Service Costs, per Dth, pursuant to the formula above, the following definitions shall apply:
- "BSC" Balancing Service Costs determined to the nearest one-hundredth cent (\$0.0001) to be charged to each design day Mcf that is fulfilled by PGW storage and peaking assets, under Rate Schedule Firm.
- "C" Cost in dollars: for all types of storage and related services, the fixed and variable costs for the projected period when rates will be in effect.
- "E" the net overcollection or undercollection of Balancing Service Costs.

The net overcollection or undercollection shall be determined for the most recent period permitted under law, which shall begin with the month following the last month which was included in the previous overcollection or undercollection calculation reflected in rates. The annual filing date shall be the date specified by the PUC for the Company's Section 1307(f) Tariff filing.

Each overcollection or undercollection statement shall also provide for refund or recovery of amounts necessary to adjust for overrecovery or underrecovery of "E" factor amounts under the previous Balancing Service Costs Rate. Interest shall be computed monthly at the rate as provided for in Section 1307(f) of the Public Utility Code from the month that the overcollection or undercollection occurs to the effective month such overcollection is refunded or undercollection is recouped. Such over billings (or under billings) will be made with interest at the statutory rate.

- "S₁" projected Mcf of storage gas/LNG to be delivered to Customers to meet design day needs during the projected period when rates will be in effect.
- "S₂" forecasted Mcf of load balancing volumes during the projected period when rates will be in effect.

(I) - Increase

Tab 2

Philadelphia Gas Works

Pennsylvania Public Utilities Commission 52 Pa. Code § 53.61. et seq.

Item 53.64(a) A Section 1307(f) gas utility may only voluntarily file a tariff reflecting an increase or decrease in natural gas costs once a year in accordance with the schedule established by the Commission, as published in the Pennsylvania Bulletin prior to the first day of September of each preceding year. If no new tariff is filed at that time, gas utilities under 66 Pa.C.S. § 1307(f) shall nevertheless file for the reconciliation of amounts collected and expended during prior periods as set forth in subsection (i). The tariff may reflect either an annual levelized rate, or a seasonal levelized rate pursuant to which a levelized 6-month "summer" rate period and a levelized 6-month "winter" rate period would apply. Upon good cause shown, the tariff may reflect other summer/winter rate periods as may be justified by operational considerations.

Response: Please see the attached worksheets.

1307(f) GCR FILING PA Code 53.64(a)

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Philadelphia Gas Works

Levelized Gas Cost Rate

September 1, 2019

Formula: GCR = SSC + GAC - IRC

GCR = SSC + GAC - IRC where:		<u>Demand</u>		Commodity		<u>Total</u>	
S = Firm Sales (Mcf)						43,661,275	Schedule 2
Net Natural Gas Expense	\$	79,748,400	\$	138,300,948		218,049,347	
Purchased Electric & Misc Expe	nses \$ _	<u> </u>	\$	657,891	\$_	657,891	
C = Total Applicable GCR Expense	\$	79,748,400	\$	138,958,838	\$	218,707,238	
SSC = C/S	\$	1.8265	\$	3.1827	\$	5.0092	
Adjustment For:							
E-Factor Volumes (Mcf)						43,661,275	Schedule 2
Interest	\$	(371,950)	\$	713,512	\$	341,563	Schedule 5(a) 5(c)
E-Factor Reconciliation	\$	(284,128)	\$	1,352,887	\$_	1,068,759	Schedule 4(e),4(c)
	\$	(656,078)	\$	2,066,399	\$	1,410,321	
E = E-Factor	\$	(0.0150)	\$	0.0473	\$	0.0323	
Interruptible Revenue Credit					\$	362,905	Schedule 10(a)
IRC = Interruptible Revenue Credit / S					\$	0.0083	
Net Applicable GCR Expenses = C +	E - Interru	uptible Revenue	Cre	edit	\$	219,754,655	
GCR = SSC + GAC - IRC					\$	5.0332	
SSC in effect 9/01/19	\$	1.8099	\$	3.1536	\$	4.9635	
GAC in effect 9/01/19	\$	(0.0156)		0.0491	\$	0.0335	
IRC in effect 9/01/19					\$	(0.0083)	Schedule 7
GCR in effect 9/01/19					\$	4.9887	
Recovery Test on:							
Firm Sales (Mcf)						43,661,275	
= GCR Projected Recover					\$	217,764,831	
= Load Balancing Revenu					\$	1,990,468	
= LNG Sales Demand Rev					\$	<u>0</u>	0.1
= Total Projected Recover Compared To	гу				\$	219,755,299	Schedule 7
Compared 10 Net Applicable GCR Expe	nses				\$	219,754,655	
= Net Over/(Under) Recov					\$ <u>_</u>	644	
Degree Days					_	3,956	
209.00 24,0						3,330	

Philadelphia Gas Works

Price To Compare (\$ / MCF)

September 1, 2019

					MFC	GPC		
	GCR	GCA	SSC	MFC	Charge	Charge	GAC	Price to Compare
	1	2	3 = (1 - 2)	4	5 = (1*4)	6	7	8 = (3+5+6+7)
Residential GS	\$4.9887	\$0.0252	\$4.9635	3.76%	\$0.1876	\$0.0400	\$0.0335	\$5.2246
Commercial GS	\$4.9887	\$0.0252	\$4.9635	0.62%	\$0.0309	\$0.0400	\$0.0335	\$5.0679
Industrial GS	\$4.9887	\$0.0252	\$4.9635	0.39%	\$0.0195	\$0.0400	\$0.0335	\$5.0565
Phila. Housing Authority (PHA)	\$4.9887	\$0.0252	\$4.9635	0%	\$0.0000	\$0.0400	\$0.0335	\$5.0370
Municipal (MS)	\$4.9887	\$0.0252	\$4.9635	0%	\$0.0000	\$0.0400	\$0.0335	\$5.0370
NGV Firm	\$4.9887	\$0.0252	\$4.9635	0%	\$0.0000	\$0.0400	\$0.0335	\$5.0370
Phila. Housing Authority (GS)	\$4.9887	\$0.0252	\$4.9635	0%	\$0.0000	\$0.0400	\$0.0335	\$5.0370

SALES & VOLUMES

SEPTEMBER 2019 THROUGH AUGUST 2020

				OLI I LIVIL	JEN 2013 ITINOOC	III AUGUUI	2020			
MONTH		TOTAL VOLUMES	FIRM TRANSPORT VOLUMES	BILLED SALES	INTERRUPTIBLE SALES	LNG SALES	AIR CONDITIONING SALES	GCR FIRM SALES	SENIOR CITIZEN DISCOUNT SALES	APPLICABLE VOLUMES
	•	1	2	3 = (1 - 2)	4	4A	4B	5 = (3 - 4 - 4A - 4B)	6	7 = (5 - 6 + 2)
SEPTEMBER	2019	1,085,933	173,360	912,573	42,427	-	627	869,519	2,739	1,040,140
OCTOBER		1,545,500	259,964	1,285,536	43,841	-	331	1,241,364	4,138	1,497,189
NOVEMBER		3,342,965	475,320	2,867,645	42,427	-	-	2,825,218	11,088	3,289,450
DECEMBER		6,116,905	817,508	5,299,397	43,841	-	-	5,255,556	21,325	6,051,739
JANUARY	2020	11,132,580	1,318,169	9,814,412	43,841	-	-	9,770,571	40,775	11,047,964
FEBRUARY		9,389,395	1,116,256	8,273,140	41,013	-	-	8,232,127	33,720	9,314,663
MARCH		7,446,084	891,837	6,554,247	43,841	-	-	6,510,406	26,022	7,376,221
APRIL		4,789,009	558,712	4,230,297	42,427	-	-	4,187,870	16,318	4,730,265
MAY		2,106,199	277,762	1,828,437	43,841	-	-	1,784,596	6,165	2,056,193
JUNE		1,354,321	210,301	1,144,021	42,427	-	121	1,101,473	3,116	1,308,658
JULY		1,221,819	193,738	1,028,081	43,841	-	712	983,528	2,682	1,174,584
AUGUST		1,122,098	177,830	944,268	43,841		1,379	899,048	2,424	1,074,454
TOTAL		50,652,810	6,470,756	44,182,054	517,609	-	3,170	43,661,275	170,512	49,961,519

PROJECTED APPLICABLE FUEL EXPENSE SUMMARY <u>SEPTEMBER 2019 - AUGUST 2020</u>

	SEPTEMBER 2019	OCTOBER 2019	NOVEMBER 2019	DECEMBER 2019	JANUARY 2020	FEBRUARY 2020	MARCH 2020	APRIL 2020	MAY 2020	JUNE 2020	JULY 2020	AUGUST 2020	TOTAL
NATURAL GAS BILLED DEMAND CHARGE DEMAND CHARGE CREDIT FOR LNG SALES	\$5,481,695 \$0	\$5,421,051 \$0	\$6,011,917 \$0	\$6,434,396 \$0	\$6,433,157 \$0	\$6,488,720 \$0	\$7,264,955 \$0	\$7,245,143 \$0	\$7,243,563 \$0	\$7,242,707 \$0	\$7,241,167 \$0	\$7,239,929 \$0	\$79,748,400 \$0
COMMODITY CHARGE	\$8,860,245	\$13,006,662	\$13,169,038	\$16,317,337	\$15,090,109	\$14,592,007	\$9,769,372	\$11,392,289	\$10,341,032	\$8,259,529	\$7,928,350	\$7,910,643	\$136,636,613
TOTAL NATURAL GAS BILLED	\$14,341,940	\$18,427,713	\$19,180,955	\$22,751,733	\$21,523,266	\$21,080,727	\$17,034,326	\$18,637,432	\$17,584,595	\$15,502,236	\$15,169,517	\$15,150,572	\$216,385,012
INTERRUPTIBLE AND FIRM A/C CREDIT	\$130,110	\$136,966	\$133,445	\$143,583	\$145,030	\$134,390	\$138,351	\$119,245	\$119,263	\$115,827	\$122,572	\$124,493	\$1,563,275
SENDOUT VOLUME IN MCF	44,466	45,622	43,821	45,281	45,281	42,360	45,281	43,821	45,281	43,945	46,015	46,701	537,876
DKT CONVERSION FACTOR PRICE \$/DKT	1.036 \$2.8244	1.036 \$2.8978	1.036 \$2.9394	1.036 \$3.0607	1.036 \$3.0916	1.036 \$3.0623	1.036 \$2.9492	1.036 \$2.6266	1.036 \$2.5423	1.036 \$2.5441	1.036 \$2.5712	1.036 \$2.5731	
GAS USED FOR UTILITY	\$29,376	\$29,911	\$70,879	\$119,158	\$151,016	\$123,466	\$94,691	\$62,675	\$26,598	\$26,289	\$22,351	\$28,660	\$785,071
NATURAL GAS													
TO STORAGE	(\$6,001,226)	(\$6,057,388)	\$0	\$0	\$0	\$0	\$0	(\$3,152,134)	(\$6,271,561)	(\$5,933,600)	(\$5,525,883)	(\$5,507,944)	(\$38,449,737)
FROM STORAGE PGW	\$0	\$0	\$236,836	\$7,919,840	\$13,813,562	\$10,304,455	\$9,534,866	\$529,666	\$0	\$0	\$0	\$0	\$42,339,226
FT FROM STORAGE	\$0	\$0	\$30,558	\$660,385	\$1,016,039	\$678,791	\$244,532	\$13,147	\$0	\$0	\$0	\$0	\$2,643,451
NET NATURAL GAS STORAGE	(\$6,001,226)	(\$6,057,388)	\$236,836	\$7,919,840	\$13,813,562	\$10,304,455	\$9,534,866	(\$2,622,468)	(\$6,271,561)	(\$5,933,600)	(\$5,525,883)	(\$5,507,944)	\$3,889,489
LNG													
TO STORAGE	(\$8,898)	(\$467,732)	(\$1,008,574)	(\$1,052,328)	(\$1,085,434)	(\$1,006,596)	(\$1,123,134)	(\$648,106)	(\$296,163)	(\$15,776)	\$0	\$0	(\$6,712,741)
FROM LNG PGW	\$265,864	\$280,977	\$265,117	\$1,194,059	\$1,903,678	\$1,260,771	\$305,595	\$268,219	\$275,570	\$266,132	\$274,976	\$274,976	\$6,835,933
FT FROM LNG	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NET LNG STORAGE	\$256,966	(\$186,755)	(\$743,457)	\$141,731	\$818,244	\$254,175	(\$817,539)	(\$379,888)	(\$20,594)	\$250,356	\$274,976	\$274,976	\$123,192
LNG SALES FROM LNG TANK	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SENDOUT VOLUMES (MCF)	0	0	0	0	0	0	0	0	0	0	0	0	0
@ AVG LNG COMMODITY RATE	\$3.2026	\$3.2026	\$3.2016	\$3.2044	\$3.2207	\$3.2439	\$3.2575	\$3.2580	\$3.2312	\$3.2178	\$3.2171	\$3.2171	
NET NATURAL GAS EXPENSE	\$8,438,194	\$12,016,694	\$18,470,010	\$30,550,563	\$35,859,025	\$31,381,501	\$25,518,613	\$15,453,157	\$11,146,579	\$9,676,874	\$9,773,687	\$9,764,451	\$218,049,347
APPLICABLE GCR EXPENSE													_
NET NATURAL GAS EXPENSE	\$8,438,194	\$12,016,694	\$18,470,010	\$30,550,563	\$35,859,025	\$31,381,501	\$25,518,613	\$15,453,157	\$11,146,579	\$9,676,874	\$9,773,687	\$9,764,451	\$218,049,347
PURCHASED ELECTRIC & MISC	\$31,659	\$31,955	\$44,299	\$54,208	\$202,062	\$59,751	\$54,182	\$44,878	\$38,548	\$29,790	\$34,451	\$32,108	\$657,891
TOTAL APPLICABLE EXPENSES	\$8,469,853	\$12,048,649	\$18,514,309	\$30,604,771	\$36,061,087	\$31,441,252	\$25,572,795	\$15,498,034	\$11,185,127	\$9,706,664	\$9,808,138	\$9,796,559	\$218,707,238
TOTAL GCR FIRM SALES	869,519	1,241,364	2,825,218	5,255,556	9,770,571	8,232,127	6,510,406	4,187,870	1,784,596	1,101,473	983,528	899,048	43,661,275

ACTUAL / ESTIMATED DATA - FISCAL YEAR 2019 PHILADELPHIA GAS WORKS

<u>Rate</u>	7/1/2018	Split <u>Month</u> 9/1/2018	10/1/2018	Split <u>Month</u> 12/1/2018	<u>1/1/2019</u>	Split <u>Month</u> 3/1/2019	<u>4/1/2019</u>				
SSC in Effect GAC in Effect IRC in Effect Total Effective	\$ 3.6317 \$ (0.0091 \$ (0.0016 \$ 3.6210	\$ (0.1493) \$ (0.0017)	\$ (0.2894) \$ (0.0017)	\$ (0.2571) \$ \$ (0.0055)	(0.2247) (0.0092)	\$ (0.1576) \$ \$ (0.0076) \$	(0.0904) (0.0059)				
Percentage of Total C-Factor E-Factor IRC-Factor Total	100.3% -0.3% <u>0.0%</u> 100%	104.0% -4.0% 0.0%	107.5% -7.5% <u>0.0%</u> 100%	106.3% -6.2% <u>-0.1%</u> 100%	105.2% -5.0% <u>-0.2%</u> 100%	103.5% -3.4% -0.2% 100%	102.0% -1.9% -0.1% 100%				
C-Factor Demand Charge in Effect Commodity in Effect Percentage of Total Demand Charge in Effect	\$ 0.8835 \$ 2.7482 \$ 3.6317 24.3%	\$ 2.8822 \$ 3.8930 26.0%	\$ 3.0162 \$ 4.1544 27.4%	31.2%	3.0841 4.7062 34.5%	30.5%	3.6442 4.9742 26.7%				
Commodity in Effect Fiscal Year 2018 E-Factor	75.7% 100% C-Factor Over/(Under) \$ 10,484,734	E-Factor Over/(Under)	72.6% 100% Interest Over/(Under) \$ 571,436	68.8% 100% FY 2018 Final E-Factor \$ 11,435,982	65.5% 100%	69.5% 100%	73.3% 100%				
Actual Fiscal Year 2018-2019 GCR Firm Sales Migration Rider Sales	Sep-2018 <u>Actual</u> 928,526	Oct-2018 <u>Actual</u> 1,244,665	Nov-2018 <u>Actual</u> 3,698,101	Dec-2018 <u>Actual</u> 6,381,553	Jan-2019 <u>Estimated</u> 8,561,581	Feb-2019 <u>Estimated</u> 8,603,288	Mar-2019 Estimated 6,217,990	Apr-2019 May-2019 <u>Estimated</u> <u>Estimated</u> 4,296,652 1,901,994		ul-2019 Aug-2019 stimated Estimated 985,689 900,920	FY2019 <u>Total</u> 44,823,178
GCR Revenue Billed Migration Rider Revenue Billed Load Balancing Billed LNG Sales Demand Charge Credit Total Revenue Billed	\$ 3,506,061 \$ - \$ 118,414 \$ 854 \$ 3,625,329	\$ - \$ 111,261 \$ - \$ 4,917,473		\$ 26,740,061 \$ - 8 \$ 132,144 \$ - 8 \$ 26,872,205	- 3 133,937 3 -	\$ 38,476,486 \$ \$ - \$ \$ 136,212 \$ \$ 1,737 \$ \$ 38,614,435 \$	- 3 138,481 3 -	\$ 20,958,638 \$ 9,277,736 \$ - \$ - \$ - \$ 140,748 \$ 143,011 \$ - \$ 21,099,386 \$ 9,420,747	\$ - \$ \$ 145,283 \$ \$ - \$	- \$ - 147,547 \$ 149,815 - \$ - 1,955,637 \$ 4,544,411	\$ 199,987,216 \$ - \$ 1,610,055 \$ 2,591 \$ 201,599,862
Natural Gas Refunds Demand Charges Supply Charges Net Cost of Fuel	\$ 4,826,933 \$ 1,979,402 \$ 6,806,335	\$ 7,004,586	\$ 3,967,485 \$ 18,822,006	\$ 3,966,548 \$ 27,771,597 \$ 31,738,145	31,732,919	\$ 4,925,925 \$ \$ 23,960,571 \$ \$ 28,886,496 \$	18,103,473	\$ 5,699,488 \$ 5,689,809 \$ 8,764,691 \$ 3,994,934 \$ 14,464,179 \$ 9,684,743	\$ 2,214,634 \$ 2	7,082,231 \$ 7,077,937 2,307,510 \$ 2,255,418	\$ 2,848 \$ 65,940,600 \$ 148,911,740 \$ 214,852,339

FISCAL YEAR 2019 PHILADELPHIA GAS WORKS C-FACTOR RECONCILIATION

	NET COST OF FUEL 1	TOTAL GCR REVENUE BILLED 2	C FACTOR % of GCR 3	C FACTOR REVENUE BILLED 4 = (2*3)	LOAD BALANCING REVENUE 5	LNG SALES GCR BILLED REVENUE 6	TOTAL C FACTOR REVENUE BILLED 7 = (4 + 5 + 6)	NATURAL GAS REFUNDS 8	OVER/ (UNDER) RECOVERY 9 = (7 + 8 - 1)	CUMULATIVE OVER/(UNDER) 10
MONTH	(\$)	(\$)		(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
SEPTEMBER 2018	6,806,335	3,506,061	104.0%	3,647,441	118,414	854	3,766,708	0	(3,039,627)	(3,039,627)
OCTOBER	11,894,412	4,806,212	107.5%	5,168,361	111,261	0	5,279,622	2,638	(6,612,152)	(9,651,779)
NOVEMBER	22,789,491	14,283,132	107.5%	15,359,367	113,201	0	15,472,568	210	(7,316,713)	(16,968,492)
DECEMBER	31,738,145	26,740,061	106.3%	28,424,226	132,144	0	28,556,371	0	(3,181,774)	(20,150,266)
JANUARY 2019	36,656,980	38,289,958	105.2%	40,292,511	133,937	0	40,426,449	0	3,769,469	(16,380,797)
FEBRUARY	28,886,496	38,476,486	105.2%	40,488,795	136,212	1,737	40,626,745	0	11,740,249	(4,640,549)
MARCH	23,901,201	29,069,725	103.5%	30,096,315	138,481	0	30,234,796	0	6,333,595	1,693,046
APRIL	14,464,179	20,958,638	102.0%	21,372,406	140,748	0	21,513,154	0	7,048,975	8,742,021
MAY	9,684,743	9,277,736	102.0%	9,460,898	143,011	0	9,603,909	0	(80,834)	8,661,187
JUNE	9,307,261	5,376,521	102.0%	5,482,665	145,283	0	5,627,948	0	(3,679,313)	4,981,874
JULY	9,389,741	4,808,090	102.0%	4,903,012	147,547	0	5,050,559	0	(4,339,182)	642,692
AUGUST	9,333,355	4,394,596	102.0%	4,481,355	<u>149,815</u>	<u>0</u>	4,631,170	<u>0</u>	(4,702,185)	(4,059,494)
Total	214,852,339	199,987,216		209,177,352	1,610,055	2,591	210,789,998	2,848	(4,059,494)	

FISCAL YEAR 2019 PHILADELPHIA GAS WORKS E-FACTOR RECONCILIATION

		GCR SALES 1	TOTAL E-FACTOR GCR SALES VOLUMES 1 2		OTAL GCR VENUE ILLED 3	E- FACTOR % of GCR 4	E-FACTOR GCR REVENUE BILLED 5=(3 * 4)	OVER/(UNDER) PROJECTED RECOVERY 6	
		(MCF)	(MCF)		(\$)		(\$)		(\$)
PRIOR YEAR E-FACTOR	R							\$	11,435,982
MONTH									
SEPTEMBER 2018	Actual	928,526	928,526	\$	3,506,061	-4.0% \$	(139,834)	\$	11,296,148
OCTOBER	Actual	1,244,665	1,244,665	\$	4,806,212	-7.5% \$	(360,034)	\$	10,936,115
NOVEMBER	Actual	3,698,101	3,698,101	\$	14,283,132	-7.5% \$	(1,069,950)	\$	9,866,165
DECEMBER	Actual	6,381,553	6,381,553	\$	26,740,061	-6.2% \$	(1,649,199)	\$	8,216,965
JANUARY 2019	Estimated	8,561,581	8,561,581	\$	38,289,958	-5.0% \$	(1,923,787)	\$	6,293,178
FEBRUARY	Estimated	8,603,288	8,603,288	\$	38,476,486	-5.0% \$	(1,933,159)	\$	4,360,019
MARCH	Estimated	6,217,990	6,217,990	\$	29,069,725	-1.9% \$	(538,737)	\$	3,821,283
APRIL	Estimated	4,296,652	4,296,652	\$	20,958,638	-1.9% \$	(388,417)	\$	3,432,865
MAY	Estimated	1,901,994	1,901,994	\$	9,277,736	-1.9% \$	(171,940)	\$	3,260,925
JUNE	Estimated	1,102,220	1,102,220	\$	5,376,521	-1.9% \$	(99,641)	\$	3,161,284
JULY	Estimated	985,689	985,689	\$	4,808,090	-1.9% \$	(89,106)	\$	3,072,178
AUGUST	Estimated	900,920	900,920	\$	4,394,596	-1.9% <u>\$</u>	(81,443)	\$	2,990,735
TOTAL		44,823,178	44,823,178	\$	199,987,216	\$	(8,445,247)		

FISCAL YEAR 2019 PHILADELPHIA GAS WORKS IRC FACTOR REVENUE BILLED

BILLED % of GCR BILLED MONTH 1 2 3 = (1 * 2)
\$ \$
SEPTEMBER 2018 3,506,061 -0.04% (1,546)
OCTOBER 4,806,212 -0.04% (2,115)
NOVEMBER 14,283,132 -0.04% (6,285)
DECEMBER 26,740,061 -0.13% (34,966)
JANUARY 2019 38,289,958 -0.21% (78,767)
FEBRUARY 38,476,486 -0.21% (79,150)
MARCH 29,069,725 -0.16% (46,946)
APRIL 20,958,638 -0.12% (25,350)
MAY 9,277,736 -0.12% (11,222)
JUNE 5,376,521 -0.12% (6,503)
JULY 4,808,090 -0.12% (5,816)
AUGUST 4,394,596 -0.12% (5,315)
TOTALS 199,987,216 (303,981)

FISCAL YEAR 2019 PHILADELPHIA GAS WORKS RECONCILIATION OF DEMAND CHARGES

	LESS LOAD BALANCING CHARGE	DEMAND REVENUE	MONTHLY DEMAND	CUMULATIVE DEMAND
	REVENUE	BILLED	OVER/(UNDER)	OVER/(UNDER)
MONTH	1	2	3 = (2 - 1)	4
WONTH	•			
	\$	\$	\$	\$
SEPTEMBER 2018	4,707,666	938,578	(3,769,087)	(3,769,087)
OCTOBER	4,778,565	1,416,618	(3,361,947)	(7,131,035)
NOVEMBER	3,854,284	4,209,001	354,716	(6,776,318)
DECEMBER	3,834,404	8,807,347	4,972,943	(1,803,375)
JANUARY 2019	4,790,124	13,887,740	9,097,616	7,294,241
FEBRUARY	4,787,975	13,955,394	9,167,419	16,461,660
MARCH	5,659,247	9,178,064	3,518,817	19,980,476
APRIL	5,558,740	5,714,547	155,807	20,136,283
MAY	5,546,798	2,529,652	(3,017,146)	17,119,137
JUNE	6,947,344	1,465,953	(5,481,391)	11,637,746
JULY	6,934,685	1,310,966	(5,623,719)	6,014,027
AUGUST	<u>6,928,122</u>	1,198,223	(5,729,899)	284,128
TOTALS	64,327,954	64,612,082	284,128	

FISCAL YEAR 2019 PHILADELPHIA GAS WORKS INTEREST CALCULATION

	NET COST OF FUEL ⁽¹⁾ 1	TOTAL C FACTOR REVENUE BILLED (1) 2	OVER/ (UNDER) RECOVERY 3 = (2-1)	INTEREST RATE 4	TIME FACTOR 5	INTEREST EXPENSE 6 =(3*4*5)	INTEREST NATURAL GAS REFUNDS ⁽²⁾ 7	TOTAL INTEREST 8 = (6+7)
MONTH	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
SEPTEMBER 18	6,806,335	3,766,708	(3,039,627)	5.50%	18/12	(250,769)	-	(250,769)
OCTOBER	11,894,412	5,279,622	(6,614,790)	5.50%	17/12	(515,402)	224	(515,178)
NOVEMBER	22,789,491	15,472,568	(7,316,923)	5.50%	16/12	(536,574)	17	(536,557)
DECEMBER	31,738,145	28,556,371	(3,181,774)	5.50%	15/12	(218,747)	-	(218,747)
JANUARY 19	36,656,980	40,426,449	3,769,469	5.50%	14/12	241,874	-	241,874
FEBRUARY	28,886,496	40,626,745	11,740,249	5.50%	13/12	699,523	-	699,523
MARCH	23,901,201	30,234,796	6,333,595	5.50%	12/12	348,348	-	348,348
APRIL	14,464,179	21,513,154	7,048,975	5.50%	11/12	355,386	-	355,386
MAY	9,684,743	9,603,909	(80,834)	5.50%	10/12	(3,705)	-	(3,705)
JUNE	9,307,261	5,627,948	(3,679,313)	5.50%	9/12	(151,772)	-	(151,772)
JULY	9,389,741	5,050,559	(4,339,182)	5.50%	8/12	(159,103)	-	(159,103)
AUGUST	9,333,355	4,631,170	(4,702,185)	5.50%	7/12	(150,862)	-	(150,862)
Total	214,852,339	210,789,998	(4,062,342)	·	<u> </u>	(341,804)	241	(341,563)

⁽¹⁾ See Schedule 4(b)

⁽²⁾ See Schedule 5(c)

FISCAL YEAR 2019 PHILADELPHIA GAS WORKS INTEREST ON NATURAL GAS REFUNDS

<u>MONTH</u>	NATURAL GAS REFUNDS ⁽¹⁾ 1	INTEREST RATE 2	TIME FACTOR 3	INTEREST ON REFUNDS 4=(1*2*3)
-	(\$)		<u> </u>	(\$)
	(Ψ)			(Ψ)
SEPTEMBER 18	0	6.00%	18/12	0
OCTOBER	2,638	6.00%	17/12	224
NOVEMBER	210	6.00%	16/12	17
DECEMBER	0	6.00%	15/12	0
JANUARY 19	0	6.00%	14/12	0
FEBRUARY	0	6.00%	13/12	0
MARCH	0	6.00%	12/12	0
APRIL	0	6.00%	11/12	0
MAY	0	6.00%	10/12	0
JUNE	0	6.00%	9/12	0
JULY	0	6.00%	8/12	0
AUGUST	0	6.00%	7/12	0
TOTAL	2,848		·	241

FISCAL YEAR 2019 PHILADELPHIA GAS WORKS DEMAND AND COMMODITY INTEREST CALCULATION

MONTH	OVER/(UNDER) RECOVERY (1) 1 (\$)	DEMAND CHARGE OVER/(UNDER) RECOVERY (2) 2 (\$)	COMMODITY CHARGE OVER/(UNDER) RECOVERY 3=(1-2) (\$)	INTEREST RATE 4	TIME FACTOR 5	DEMAND INTEREST EXPENSE 6=(2*4*5) (\$)	COMMODITY INTEREST EXPENSE 7=(3*4*5) (\$)	TOTAL INTEREST EXPENSE 8=(6+7) (\$)	INTEREST ON REFUNDS (3) 9 (\$)	TOTAL INTEREST 10=(8+9) (\$)
SEPTEMBER 18	(3,039,627)	(3,769,087)	729,461	5.50%	18/12	(310,950)	60,181	(250,769)	0	(250,769)
OCTOBER	(6,614,790)	(3,769,087)	(3,252,843)	5.50%	17/12	(261,952)	(253,451)	(515,402)	224	(515,178)
NOVEMBER	*	• • • •	* * * *	5.50%	16/12	, , ,			224 17	, ,
	(7,316,923)	354,716	(7,671,639)			26,013	(562,587)	(536,574)	***	(536,557)
DECEMBER	(3,181,774)	4,972,943	(8,154,718)	5.50%	15/12	341,890	(560,637)	(218,747)	0	(218,747)
JANUARY 19	3,769,469	9,097,616	(5,328,147)	5.50%	14/12	583,764	(341,889)	241,874	0	241,874
FEBRUARY	11,740,249	9,167,419	2,572,830	5.50%	13/12	546,225	153,298	699,523	0	699,523
MARCH	6,333,595	3,518,817	2,814,778	5.50%	12/12	193,535	154,813	348,348	0	348,348
APRIL	7,048,975	155,807	6,893,168	5.50%	11/12	7,855	347,531	355,386	0	355,386
MAY	(80,834)	(3,017,146)	2,936,312	5.50%	10/12	(138,286)	134,581	(3,705)	0	(3,705)
JUNE	(3,679,313)	(5,481,391)	1,802,078	5.50%	9/12	(226,107)	74,336	(151,772)	0	(151,772)
JULY	(4,339,182)	(5,623,719)	1,284,536	5.50%	8/12	(206,203)	47,100	(159,103)	0	(159,103)
AUGUST	(4,702,185)	(5,729,899)	1,027,713	5.50%	7/12	(183,834)	32,972	(150,862)	0	(150,862)
TOTAL FY 2019	(4,062,342)	284,128	(4,346,470)			371,950	(713,753)	(341,804)		(341,563)

FISCAL YEAR 2020 PHILADELPHIA GAS WORKS LOAD BALANCING REVENUE

<u>Month</u>		Load Balancing Revenue Billed (\$)
September 2019	Estimated	150,878
October	Estimated	151,506
November	Estimated	152,146
December	Estimated	167,704
January 2020	Estimated	168,406
February	Estimated	169,097
March	Estimated	169,782
April	Estimated	170,490
Мау	Estimated	171,174
June	Estimated	171,882
July	Estimated	172,567
<u>August</u>	Estimated	<u>173,273</u>
Total		1,988,905

CALCULATION OF RECOVERED CHARGES 1307F Filing September 1, 2019

	<u>50%</u>	50% September 11.5 Months		11.5 Months	То		
					(MCF)		(\$)
S - Firm Sales (Mcf)		434,759		43,226,516	43,661,275		
C-Factor (\$	4.9742	\$	4.9635			
Projected Recovery		2,162,580		214,554,810		\$	216,717,390
S - Firm Sales (Mcf)		434,759		43,226,516	43,661,275		
IRC-Factor	\$	(0.0059)	\$	(0.0083)			
Projected Recovery		(2,565)		(358,780)		\$	(361,345)
E-Factor Volumes (Mcf)		434,759		43,226,516	43,661,275		
E-Factor	\$	(0.0904)	\$	0.0335			
Projected Recovery		(39,302)		1,448,088		\$	1,408,786
GCR (\$ / Mcf)	\$	4.8779	\$	4.9887			
GCR Projected Recovery						\$	217,764,831
Load Balancing Revenue						\$	1,990,468
LNG Sales Demand Revenue						\$	
TOTAL PROJECTED RECOVERY						\$	219,755,299

Change In Rates 1307F Filing

Rates Effective September 1, 2019

Current Rates

	12/01/18 <u>Distribution Charge</u> (1)	12/01/18 <u>GCR</u> (2)	12/01/18 <u>MFC</u> (3)	12/01/18 <u>GPC</u> (4)	12/01/18 Commodity <u>Rate</u> (5)=(1)+(2)+(3)+(4)
Residential GS	\$8.1545	\$4.4723	\$0.1682	\$0.0400	\$12.8350
Commercial GS	\$6.3339	\$4.4723	\$0.0277	\$0.0400	\$10.8739
Industrial GS	\$6.1259	\$4.4723	\$0.0174	\$0.0400	\$10.6556
Phila.Housing Authority (PHA)	\$6.4851	\$4.4723	\$0.0000	\$0.0400	\$10.9974
Municipal (MS)	\$5.7000	\$4.4723	\$0.0000	\$0.0400	\$10.2123
Phila.Housing Authority (GS)	\$7.1683	\$4.4723	\$0.0000	\$0.0400	\$11.6806

September 1, 2019 - Distribution Charge

	Delivery	very —————— Surcharges ————				- Total	
	Delivery Employm	Other Post Employment Benefit	ent Cost Service &		Restructuring & Consumer Education	Total Surcharges	Distribution Charge / Mcf
	(6)	(7)	(8)	(9)	(10)	(11)=(7)+(8)+(9)+(10)	(12)=(11)+(6)
Residential GS	\$6.6967	\$0.3097	\$0.0297	\$1.5383	(\$0.0002)	\$1.8775	\$8.5742
Commercial GS	\$4.8651	\$0.3097	\$0.0679	\$1.5383	(\$0.0002)	\$1.9157	\$6.7808
Industrial GS	\$4.7698	\$0.3097	(\$0.0032)	\$1.5383	(\$0.0002)	\$1.8446	\$6.6144
Phila.Housing Authority (PHA)	\$5.0163	\$0.3097	\$0.0679	\$1.5383	(\$0.0002)	\$1.9157	\$6.9320
Municipal (MS)	\$4.2723	\$0.3097	\$0.0000	\$1.5383	(\$0.0002)	\$1.8478	\$6.1201
Phila.Housing Authority (GS)	\$5.7105	\$0.3097	\$0.0297	\$1.5383	(\$0.0002)	\$1.8775	\$7.5880

Proposed Rates

	09/01/19 <u>Distribution Charge</u> (12)	09/01/19 GCR (13)	09/01/19 <u>MFC</u> (14)	09/01/19 <u>GPC</u> (15)	09/01/19 Commodity <u>Rate</u> (16)=(12)+(13)+(14)+(15)	<u>Difference</u> (17)=(16)-(5)
Residential GS	\$8.5742	\$4.9887	\$0.1876	\$0.0400	\$13.7905	\$0.9555
Commercial GS	\$6.7808	\$4.9887	\$0.0309	\$0.0400	\$11.8404	\$0.9665
Industrial GS	\$6.6144	\$4.9887	\$0.0195	\$0.0400	\$11.6626	\$1.0070
Phila.Housing Authority (PHA)	\$6.9320	\$4.9887	\$0.0000	\$0.0400	\$11.9607	\$0.9633
Municipal (MS)	\$6.1201	\$4.9887	\$0.0000	\$0.0400	\$11.1488	\$0.9365
Phila.Housing Authority (GS)	\$7.5880	\$4.9887	\$0.0000	\$0.0400	\$12.6167	\$0.9361

PHILADELPHIA GAS WORKS SEPTEMBER 1, 2019 - 1307F FILING UNIVERSAL SERVICE & ENERGY CONSERVATION SURCHARGE

		Expenses in ne Surcharge	
Enhanced Low Income Retrofit Program (ELIRP)		\$	8,447,463
Customer Responsibility Program (CRP)		\$	63,887,746
Conservation Incentive Credit		\$	487,300
Senior Citizen Discount *		\$	2,477,443
August 2020 Under Collection		\$	1,551,323
Total \$ to be Recovered		\$	76,851,276
Total Applicable Volumes	Mcf		49,959,903
Universal Service & Energy Conservation Surcharge	_	\$	1.5383

^{*} This is the Senior Citizen Discount based on the Distribution Charge without the Universal Services Surcharge plus the GCR. This is used to calculate the Universal Services Surcharge. The total senior citizen discount is \$2,755,607.

STATEMENT OF RECONCILIATION UNIVERSAL SERVICES & ENERGY CONSERVATION SURCHARGE SEPTEMBER 2018 THROUGH AUGUST 2019

Month FY 18 Reconciliation FY 17 Conservation Incentive Credit Total	USC Applicable <u>Volumes</u>	USC <u>Charge</u>	USC Revenue <u>Billed</u>	USC Expenses	Monthly Over/(Under) <u>Recovery</u>	Cumulative Over/(Under) <u>Recovery</u> (\$3,768,681) (\$337,100) (\$4,105,781)							
September 2018 Actual October * Actual November Actual December Actual January 2019 Estimated February Estimated March Estimated April Estimated June Estimated June Estimated July Estimated August Estimated	1,511,556 4,238,857 7,140,155 9,743,534 9,701,402 7,055,941 4,849,034 2,184,243 1,308,612 1,176,139	\$ 1.4438 \$ 1.4438 \$ 1.2811 \$ 1.1183 \$ 1.1183 \$ 1.3721 \$ 1.6259 \$ 1.6259 \$ 1.6259 \$ 1.6259	\$ 1,695,106 \$ 2,182,385 \$ 6,120,062 \$ 9,146,896 \$ 10,896,194 \$ 10,849,077 \$ 7,884,044 3,551,361 \$ 2,127,671 \$ 1,912,284 \$ 1,749,054	\$ 9,136,000 \$ 15,636,230 \$ 16,373,371 \$ 11,613,858 \$ 7,749,523 \$ 1,828,804 \$ (297,627) \$ (550,338)	\$ 1,061,085 \$ 1,396,083 \$ 10,896 \$ (4,740,036) \$ (5,524,294) \$ (1,932,401) \$ 134,520 \$ 1,722,557	(\$533,696) \$527,389 \$1,923,472 \$1,934,369 (\$2,805,668) (\$8,329,962) (\$10,262,363) (\$10,127,842) (\$8,405,285) (\$5,979,987) (\$3,517,365) (\$1,551,323)							
USC Expenses	<u>Sep-18</u>	* <u>Oct-18</u>	<u>Nov-18</u>	<u>Dec-18</u>	<u>Jan-19</u>	<u>Feb-19</u>	<u>Mar-19</u>	<u>Apr-19</u>	<u>May-19</u>	<u>Jun-19</u>	<u>Jul-19</u>	<u>Aug-19</u>	FY2019 Total
ELIRP Expense ELIRP Labor Conservation Incentive Credit CRP Discount CRP Forgiveness Senior Citizen Discount Bad Debt Expense Offset* Total	\$ 16,281 \$ - \$ (1,871,956) \$ (109,542) \$ 83,684 \$ -	\$ 711,525 \$ 110,598 \$ -	\$ 862,430 \$ 274,251 \$ -	\$ 14,951 \$ - \$ 7,808,615 \$ 663,925 \$ 443,922 \$ -	\$ 20,510 \$ - \$ 13,262,665 \$ 889,170 \$ 579,912 \$ -	\$ 20,510 \$ - \$ 13,971,737 \$ 914,100	\$ 939,030 \$ 431,156 \$ -	\$ 883,973 \$ 20,510 \$ - \$ 5,576,838 \$ 955,650 \$ 312,552 \$ - \$ 7,749,523	\$ - \$ (183,823) \$ 963,960 \$ 144,184 \$ -	\$ 20,510 \$ - \$ (2,259,283) \$ 972,270 \$ 84,903	\$ 980,580 \$ 77,425 \$ -	\$ 20,510 \$ 487,300 \$ (2,670,416) \$ 988,890 \$ 72,755 \$ -	\$ 8,516,416 \$ 229,543 \$ 1,273,500
ODD Destisionation					•								
CRP Participation Rate Case Participation Rate Actual Participation Rate* CRP Under(Over) Participation	60,000 48,110 11,890	60,000 49,465 10,535	60,000 50,609 9,391	60,000 51,885 8,115									

^{*}Bad Debt Expense Offset Applicable When Actual CRP Participation Exceeds 60,000

^{*}Revised

\$

0.0083

INTERRUPTIBLE REVENUE CREDIT September 1, 2019

Fiscal Year 2018 Reconciliation (8/31/18)						\$	18,323	
<u>MONTH</u>			IRC <u>CREDIT</u>		<u>MARGIN</u>			
September-18 October	Actual Actual		(1,546)	\$ \$	483 332			
November	Actual		(2,115) (6,285)	э \$	532			
December	Actual		(34,966)	\$	547			
January-19	Estimated		(78,767)	\$	32,973			
February	Estimated		(79,150)	\$	29,780			
March	Estimated	-	(46,946)	\$	32,973			
April	Estimated	-	(25,350)	\$	31,905			
May	Estimated		(11,222)	\$	32,973			
June	Estimated		(6,503)	\$	31,908			
July	Estimated		(5,816)	\$	32,973			
August	Estimated	\$	(5,315)	\$	32,969			
Act/Est IRC Credit September 2018 to August 2 Act/Est Margin September 2018 to August 2019 FY 2018 Reconciliation Plus Act/Est Margin Sep	•	\$ 8 to	(303,981) D August 2019	\$	260,347	\$	260,347 278,670	
FY 2018 Reconciliation Plus Act/Est Margin Sep Act/Est IRC Credit September 2018 to August 2 Reconciliation as of August 31, 2019 Margin - September 2019 through August 2020 August 31, 2019 Interruptible Revenue Credit	\$ \$ \$ \$	278,670 (303,981) (25,311) 388,216 362,905	Schedule 5(b)					
GCR Firm Sales							43,661,275	Schedule 2

September 1, 2019 IRC/Mcf

INTERRUPTIBLE REVENUE MARGIN 1307F

<u>MONTH</u>		<u>MARGIN</u>
September-19	Estimated	\$ 31,821
October	Estimated	\$ 32,882
November	Estimated	\$ 31,818
December	Estimated	\$ 32,881
January-20	Estimated	\$ 32,883
February	Estimated	\$ 30,761
March	Estimated	\$ 32,883
April	Estimated	\$ 31,821
May	Estimated	\$ 32,883
June	Estimated	\$ 31,819
July	Estimated	\$ 32,883
August	Estimated	\$ 32,880
Total		\$ 388,216

INTERRUPTIBLE REVENUE CREDIT FINALIZED RECONCILIATION FY 2018

Fiscal Year 2017 Reconciliation (8/31/17)

\$ 108,827

<u>MONTH</u>			IRC CREDIT	<u>!</u>	MARGIN		
September-17	Actual	\$	(2,766)	\$	880		
October	Actual	\$	(2,718)	\$	13,263		
November	Actual	\$	(6,882)		990		
December	Actual	\$	(16,438)	\$ \$ \$	1,566		
January-18	Actual	\$	(31,887)	\$	1,848		
February	Actual	\$	(22,023)	\$	1,899		
March	Actual	\$	(14,126)	\$ \$ \$ \$ \$ \$	508		
April	Actual	\$	(8,747)	\$	611		
May	Actual	\$	(3,522)	\$	454		
June	Actual	•	(1,785)	\$	258		
July	Actual	\$	(1,488)		498		
August	Actual	\$	(1,366)	\$	471		
Actual IRC Credit September 2017 to August 2018 Actual Margin September 2017 to August 2018		\$	(113,748)	\$	23,244	\$	23,244
FY 2017 Reconciliation Plus Actual Margin Septem	ber 201	7 to	August 2018			\$	132,071
FY 2017 Reconciliation Plus Actual Margin Septem Actual IRC Credit September 2017 to August 2018 Reconciliation as of August 31, 2018	ber 201	7 to	August 2018			\$ \$ \$	132,071 (113,748) 18,323

OTHER POST EMPLOYMENT BENEFIT (OPEB) SURCHARGE FISCAL YEAR 2020

FY 2018 Over/(Und	der) Recovery	,		<u>\$566,295</u>							
<u>Month</u>		OPEB Volumes	OPEB Surcharge	Revenue <u>Billed</u>							
September 2018 October November December January 2019 February March April May June July August Total	Actual Actual Actual Actual Estimated	1,101,710 1,516,973 4,258,268 7,172,664 9,785,051 9,743,192 7,085,143 4,868,852 2,192,109 1,312,289 1,179,316 1,078,621 51,294,189	\$0.3440 \$0.3094 \$0.3094 \$0.3094 \$0.3094 \$0.3094 \$0.3094 \$0.3094 \$0.3094 \$0.3094 \$0.3094	\$378,933 \$469,351 \$1,317,508 \$2,219,222 \$3,027,495 \$3,014,544 \$2,192,143 \$1,506,423 \$678,239 \$406,022 \$364,880 \$333,725 \$15,908,486							
Total 51,294,189 \$15,908,486 FY 2019 Act/Est OPEB & FY 2018 Reconciliation \$16,474,782 FY 2019 Permitted Recovery \$16,000,000 Over/(Under) Recovery \$474,782 FY 2019 Under Recovery \$16,000,000 FY 2020 Permitted Recovery \$16,000,000 FY 2020 Recovery \$15,525,218											
FY 2020 Volumes				50,130,415							

FY 2020 OPEB Surcharge / Mcf

\$0.3097

OTHER POST EMPLOYMENT BENEFIT (OPEB) SURCHARGE FISCAL YEAR 2019

FY 2017 Over/(Under) Recovery

(\$2,134,847)

<u>Month</u>		OPEB Volumes	OPEB Surcharge	Revenue <u>Billed</u>							
September 2017	Actual	1,164,741	\$0.3755	\$437,302							
October	Actual	1,232,940	\$0.3785	\$466,668							
November	Actual	3,049,396	\$0.3785	\$1,154,196							
December	Actual	6,352,946	\$0.3785	\$2,404,590							
January 2018	Actual	11,234,414	\$0.3785	\$4,252,226							
February	Actual	7,773,775	\$0.3785	\$2,942,374							
March	Actual	6,769,418	\$0.3785	\$2,562,225							
April	Actual	5,974,099	\$0.3785	\$2,261,196							
May	Actual	2,459,499	\$0.3785	\$930,920							
June	Actual	1,296,164	\$0.3785	\$490,598							
July	Actual	1,090,327	\$0.3785	\$412,689							
<u>August</u>	Actual	1,020,232	\$0.3785	\$386,158							
Total		49,417,951		\$18,701,142							
FY 2018 Act/Est OPEB & FY 2017 Reconciliation \$16,566,295 FY 2018 Permitted Recovery \$16,000,000 Over/(Under) Recovery \$566,295											

EFFICIENCY COST RECOVERY (ECR) SURCHARGE 1307F FILING-FISCAL YEAR 2020

	Residential	Commercial		
Program	& PHA GS	& PHA	<u>Industrial</u>	Total
Residential Heating Equipment Rebate (RHER)				
Program Expense	\$815,884	\$77,310	\$850	\$894,044
Labor Expense	\$19,262	\$1,825	\$20	\$21,107
Commercial & Industrial Retrofit Incentive (CIRI)				
Program Expense	\$185,476	\$302,926	\$0	\$488,402
Labor Expense	\$4,379	\$7,152	\$0	\$11,530
Commercial & Industrial Equipment Rebate (CIER)				
Program Expense	\$5,152	\$383,296	\$33,722	\$422,170
Labor Expense	\$122	\$9,049	\$796	\$9,967
High-Efficiency Construction Incentive (HECI)				
Program Expense	\$145,166	\$178,041	\$0	\$323,207
Labor Expense	\$3,348	\$4,106	\$0	\$7,454
Comprehensive Residential Retrofit Incentive (CRRI)				
Program Expense	\$0	\$0	\$0	\$0
Labor Expense	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Total Expense	\$1,178,788	\$963,705	\$35,388	\$2,177,881
Prior Period Reconciliation (8/31/19)	\$ (85,720)	\$ (192,199)	\$ (38,412)	\$ (316,331)
Total	\$1,093,068	\$771,506	-\$3,024	\$1,861,550
Volumes - Mcf (GCR Firm & Firm Transportation)	36,861,042	11,354,882	947,004	
Efficiency Cost Recovery Surcharge / Mcf	\$0.0297	\$0.0679	(\$0.0032)	

EFFICIENCY COST RECOVERY (ECR) SURCHARGE STATEMENT OF RECONCILIATION FISCAL YEAR 2019

								<u></u>	<u> </u>			/ 1 3								
RESIDENTIAL & PHA GS FY 2018 Over-Collection	\$ 402,656		Actual Sep-18		Actual Oct-18		Actual Nov-18	Actual Dec-18		Estimated Jan-19		stimated Feb-19	Estimated <u>Mar-19</u>	Estimated Apr-19		stimated <u>Vlay-19</u>	Estimated Jun-19	Estimated Jul-19		stimated Aug-19
Volume Billed	ş 402,030		692.388		935,081		3,022,500	5,368,83	2	7,344,799	7	,480,988	5,343,114	3,704,702	1	568,235	830,926	733,679		669,647
ECR Surcharge		\$	0.0189	\$	0.0198	\$	0.0198	\$ 0.025			\$	0.0301	\$ 0.0260	\$ 0.0219	\$	0.0219	\$ 0.0219	\$ 0.0219		0.0219
Revenue Billed		\$	13,052	\$	18,515	\$	59,846	\$ 133,95			\$	225,178	\$ 138,921	\$ 81,133	\$	34,344	\$ 18,197	\$ 16,068		14,665
	_		,	•	,					,		,					. ,			
RHER	Expense	\$	406	\$	14,240	\$	13,304	\$ 36,42		,	\$	108,831	\$ 108,831	\$ 108,831		108,831	\$ 108,831	\$ 108,831		108,831
RHER	Labor	\$	1,451	\$	1,153	\$	(1,465)	\$ 1,33	- '	,	\$	2,263	\$ 2,263	\$ 2,263	\$	2,263	\$ 2,263	\$ 2,263		2,263
HECI	Expense	\$	82	\$	1,656	\$	(1,738)	\$ 6,91		,	\$ \$	22,647	\$ 22,647	\$ 22,647	\$	22,647	\$ 22,647	\$ 22,647 \$ 484		22,647
HECI	Labor	\$	292	\$	232	\$	(524)	\$ 26	8 9		\$	484	\$ 484 \$ -	\$ 484	\$ \$	484	\$ 484			484
CRRI	Expense	\$ \$	-	\$ \$	-	\$	-	\$ - \$ -	9		\$	-	\$ - \$ -	\$ - \$ -	\$	-	\$ - \$ -	\$ - \$ -	\$ \$	-
CRRI CIRI	Labor	\$ \$	60	\$	116	\$ \$	(122)	\$ 9.88		•	\$	- 16.127	\$ - \$ 16,127	\$ - \$ 16,127	\$	- 16.127	\$ 16,127	\$ - \$ 16,127		- 16.127
CIRI	Expense Labor	\$	216	\$	171	\$	(387)	\$ 19		- ,	\$	357	\$ 10,127	\$ 16,127	\$	357	\$ 10,127	\$ 10,127		357
CIER	Expense	Ф \$	1	\$	49	\$	(50)	\$ 19			\$	245	\$ 245	\$ 245	э \$	245	\$ 245	\$ 245		245
CIER	Labor	\$	3	\$	2	\$	(6)		3 9		\$	245 5	\$ 245	\$ 245	\$	243 5	\$ 245	\$ 245		5
	Labor	\$	2,511	\$	17,621	\$	9,013	\$ 55,06			\$	150,960	\$ 150,960	\$ 150,960	_	150,960	\$ 150,960	\$ 150,960		150,960
Total			,	Ф	,					,		,							-	,
Monthly Over/(Under)		\$	10,540	\$	894	\$	50,833	\$ 78,89			\$	74,218	\$ (12,039)	\$ (69,827)		116,616)	\$(132,763)			(136,295)
Cumulative Over/(Under)		\$	413,196	\$	414,090	\$	464,923	\$ 543,81	5 \$	613,934	\$	688,152	\$ 676,113	\$ 606,286	\$	489,670	\$ 356,907	\$ 222,015	\$	85,720
COMMERCIAL & PHA																				
FY 2018 Over-Collection	\$ 355,727																			
Volume Billed		_	363,598	_	520,737		1,059,369	1,515,55		2,061,649		,912,629	1,484,625	996,686		546,528	427,012	394,792		362,313
ECR Surcharge		\$	0.0503	\$	0.0529	\$	0.0529	\$ 0.047			\$	0.0411	\$ 0.0408	\$ 0.0405	\$	0.0405	\$ 0.0405	\$ 0.0405		0.0405
Revenue Billed		\$	18,289	\$	27,547	\$	56,041	\$ 71,23	1 \$	84,734	\$	78,609	\$ 60,573	\$ 40,366	\$	22,134	\$ 17,294	\$ 15,989	\$	14,674
RHER	Expense	\$	22	\$	764	\$	(786)	\$ 1,95	5 9	6.028	\$	6.028	\$ 6,028	\$ 6,028	\$	6.028	\$ 6,028	\$ 6,028	3 \$	6,028
RHER	Labor	\$	78	\$	62	\$	(140)	\$ 7			\$	129	\$ 129	\$ 129	\$	129	\$ 129	\$ 129		129
CRRI	Expense	\$	-	\$	-	\$	-	\$ -	9		\$	-	\$ -	\$ -	\$	-	\$ -	\$ -	\$	-
CRRI	Labor	\$	-	\$	-	\$	-	\$ -	9	-	\$	-	\$ -	\$ -	\$	-	\$ -	\$ -	\$	-
CIRI	Expense	\$	99	\$	189	\$	(199)	\$ 16,13	9 \$	26,340	\$	26,340	\$ 26,340	\$ 26,340	\$	26,340	\$ 26,340	\$ 26,340	\$	26,340
CIRI	Labor	\$	352	\$	280	\$	(632)	\$ 32	4 9	584	\$	584	\$ 584	\$ 584	\$	584	\$ 584	\$ 584	1 \$	584
CIER	Expense	\$	139	\$	7,836	\$	24,635	\$ 6,95	9 \$	35,206	\$	35,206	\$ 35,206	\$ 35,206	\$	35,206	\$ 35,206	\$ 35,206	\$	35,206
CIER	Labor	\$	499	\$	396	\$	433	\$ 45	8 \$	660	\$	660	\$ 660	\$ 660	\$	660	\$ 660	\$ 660	\$	660
HECI	Expense	\$	25	\$	513	\$	16,530	\$ 2,13	9 9	4,876	\$	4,876	\$ 4,876	\$ 4,876	\$	4,876	\$ 4,876	\$ 4,876	\$	4,876
HECI	Labor	\$	90	\$	72	\$	537	\$ 8	3	62	\$	62	\$ 62	\$ 62	\$	62	\$ 62	\$ 62	\$	62
Total		\$	1,304	\$	10,112	\$	40,378	\$ 28,12	8 \$	73,886	\$	73,886	\$ 73,886	\$ 73,886	\$	73,886	\$ 73,886	\$ 73,886	\$	73,886
Monthly Over/(Under)		\$	16,985	\$	17,435	\$	15,662	\$ 43,10	3 \$	10,848	\$	4,723	\$ (13,313)	\$ (33,520)	\$	(51,751)	\$ (56,592)	\$ (57,897	7) \$	(59,212)
Cumulative Over/(Under)		\$	372,712	\$	390,147	\$	405,809	\$ 448,91	3 \$	459,761	\$	464,484	\$ 451,171	\$ 417,651	\$	365,899	\$ 309,308	\$ 251,411	\$	192,199
INDUSTRIAL																				
FY 2018 Over-Collection	\$ 77,349																			
Volume Billed			30,295		43,023		89,550	119,89	4	174,062		150,620	121,257	75,807		43,840	36,593	34,137	7	31,329
ECR Surcharge		\$	0.0531	\$	0.0566	\$	0.0566	\$ (0.007	5) 9	(0.0716)	\$	(0.0716)	\$ (0.0546)	\$ (0.0376)	\$	(0.0376)	\$ (0.0376)	\$ (0.0376	<u>s) \$</u>	(0.0376)
Revenue Billed		\$	1,609	\$	2,435	\$	5,069	\$ (89	9) \$	(12,463)	\$	(10,784)	\$ (6,621)	\$ (2,850)	\$	(1,648)	\$ (1,376)	\$ (1,284	1) \$	(1,178)
	_	•	•	•		•	(4-7)				•	400			•	400				400
RHER	Expense	\$ \$	0 2	\$ \$	17 1	\$ \$	` '	\$ 4	3 9		\$ \$	132 3	\$ 132 \$ 3	\$ 132 \$ 3	\$ \$	132 3	\$ 132 \$ 3	\$ 132 \$ 3		132 3
RHER CIRI	Labor Expense	\$	2	ъ \$	1	Ф \$	(3)	\$ \$ -	2 ع 9		\$	3	\$ -	\$ 3 \$ -	\$	3	\$ -	\$ -	\$ \$	-
CIRI	Expense Labor	\$ \$	-	ъ \$	-	\$	-	\$ -	9		\$	-	\$ - \$ -	\$ -	\$	-	\$ -	\$ -	\$	-
CIER	Expense	Ф \$	3	\$	- 187	\$	(190)	\$ 16			\$	936	\$ 936	\$ 936	\$	936	\$ 936	\$ 936		936
CIER	Labor	\$	12	\$	9	\$	(21)	\$ 10			\$	20	\$ 20	\$ 20	\$	20	\$ 20	\$ 20		20
Total	_000.	\$	17	\$	214	\$	(232)	\$ 22			\$	1.091	\$ 1.091	\$ 1,091	\$	1.091	\$ 1.091	\$ 1.091		1.091
		-		•		•	, ,	•		, , , , ,		,	* ,		•	,	, , , , ,	, , , , ,		,
Monthly Over/(Under)		\$	1,591	\$	2,221	\$	5,300	\$ (1,12	,	, ,	\$	(11,875)	\$ (7,711)	, ,		(2,739)	\$ (2,466)	\$ (2,374	, .	(2,269)
Cumulative Over/(Under)		\$	78,940	\$	81,161	\$	86,461	\$ 85,34	1 \$	71,788	\$	59,913	\$ 52,201	\$ 48,260	\$	45,521	\$ 43,055	\$ 40,681	\$	38,412

PHILADELPHIA GAS WORKS LOAD BALANCING CHARGE RECONCILIATION CALENDAR YEAR 2018

			<u>2018</u>
Actual Storage and Peaking Cost Prior Year Carryover		\$ \$	15,136,731 35,788
•		\$	15,172,519
Design Day Requirements	Annual Mcf		676,643
Fulfilled from FT Capacity	Annual Mcf		296,713
Fulfilled from Storage and Peaking Assets	Annual Mcf		379,930
Annual Load Balancing Cost per Excess Mcf BTU Conversion	Annual \$ / Mcf	\$	39.9351 1.036
	Annual \$ / Dth	\$	38.5474
Monthly Charge /Dth		\$	3.2123
Over/(Under) Recovery		\$	(81,643)
Interest		\$ <u>\$</u> \$	(5,041)
Carryover		\$	(86,683)

LOAD BALANCING CHARGE

2018 EXPENSE

	<u>Jan-18</u>	Feb-18	<u>Mar-18</u>	Apr-18	<u>May-18</u>	<u>Jun-18</u>	<u>Jul-18</u>	<u>Aug-18</u>	Sep-18	Oct-18	<u>Nov-18</u>	Dec-18	<u>Total</u>
Transco	\$ 398,166	\$ 347,641	\$ 376,272	\$ 350,398	\$ 366,939	\$ 360,309	\$ 372,980	\$ 371,960	\$ 360,436	\$ 358,471	\$ 354,274	\$ 366,988	\$ 4,384,834
Tetco	\$ 676,050	\$ 660,405	\$ 636,261	\$ 639,585	\$ 607,160	\$ 612,425	\$ 611,123	\$ 612,294	\$ 610,390	\$ 618,625	\$ 618,955	\$ 643,836	\$ 7,547,109
Dominion	\$ 139,165	\$ 130,170	\$ 135,222	\$ 122,213	\$ 137,287	\$ 127,405	\$ 135,554	\$ 136,076	\$ 135,570	\$ 129,098	\$ 132,101	\$ 133,517	\$ 1,593,379
WSS	\$ 376,939	\$ 109,281	\$ 191,575	\$ 146,167	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 62,164	\$ 139,288	\$ 1,025,414
Purchased Electric	\$ 92,304	\$ 67,554	\$ 57,744	\$ 48,149	\$ 39,847	\$ 33,290	\$ 32,374	\$ 30,410	\$ 64,883	\$ 1,285	\$ 61,349	\$ 56,807	\$ 585,996
Total	\$ 1,682,624	\$ 1,315,051	\$ 1,397,074	\$ 1,306,512	\$ 1,151,233	\$ 1,133,429	\$ 1,152,031	\$ 1,150,741	\$ 1,171,280	\$ 1,107,479	\$ 1,228,842	\$ 1,340,436	\$ 15,136,731

2018 INTEREST CALCULATION

MONTH	LOAD BALANCING VOLUME (1)	RATE (2)	LOAD BALANCING CHARGE (3)=(1)*(2)	CHARGES BILLED (4)	UNDER RECOVERY (5)=(4)-(3)	TIME FACTOR (6)	INTEREST RATE (7)	INTEREST EXPENSE (8)=(5)*(6)*(7)
	(DTH)	(\$)	(\$)	(\$)	(\$)	, ,	, ,	(\$)
Jan-18	35,831	3.2123	115,101	109,440	(5,661)	18/12	5.00%	(425)
Feb-18	36,173	3.2123	116,200	110,484	(5,715)	17/12	5.00%	(405)
Mar-18	35,646	3.2123	114,507	108,365	(6,142)	34/12	5.25%	(914)
Apr-18	35,334	3.2123	113,503	107,415	(6,088)	15/12	5.50%	(419)
May-18	35,803	3.2123	115,011	108,842	(6,169)	14/12	5.50%	(396)
Jun-18	36,210	3.2123	116,318	108,034	(8,285)	13/12	5.50%	(494)
Jul-18	37,606	3.2123	120,800	112,196	(8,604)	12/12	5.50%	(473)
Aug-18	39,690	3.2123	127,495	118,414	(9,081)	11/12	5.50%	(458)
Sep-18	37,113	3.2123	119,218	111,261	(7,957)	10/12	5.50%	(365)
Oct-18	37,760	3.2123	121,296	113,201	(8,096)	9/12	5.50%	(334)
Nov-18	44,079	3.2123	141,595	132,144	(9,451)	8/12	5.50%	(347)
Dec-18	43,292	3.2123	139,067	138,673	(394)	7/12	5.75%	(13)
Total	454.538		1.460.111	1.378.468	(81.643)			(5.041)

PHILADELPHIA GAS WORKS LOAD BALANCING CHARGE SEPTEMBER 1, 2019

Storage and Peaking Asset Cost	\$ 22,355,135
Design Day Requirements (Mcf)	676,643
Fulfilled from FT Capacity (Mcf)	<u>296,713</u>
Fulfilled from Storage and Peaking Assets (Excess Mcf)	379,930
Annual Storage and Peaking Cost per Excess Mcf	\$ 58.8402
Per Mcf Over / (Under) Adjustment	\$ (0.2096)
Load Balancing Charge	\$ 59.0498

Over / (Under) Recovery	\$	(81,643)
Interest	\$_	(5,041)
Total Over/(Under) Recovery	\$	(86,684)
Forecasted SSPC Volumes		413,630
Per Mcf Over / (Under) Adjustment	\$	(0.2096)

Natural Gas Prices March 1, 2019 1307f GCR Filing

Basis Differentials

Prices Used For Gas Cost Inputs

	NYMEX	TRANSCO				TETCO				TR	RANS	CO]	ГЕТС	0						
	Futures																						
	1/16/19 Close	Sta 30	Sta 45	Sta 65	Sta. 85	ELA	WLA	ETX	STX	Average ELA/ETX		M-2	Sta 30	Sta 45	Sta 65	Sta 85	ELA	WLA	ETX	CTV	ELA/ETX	. M 1	M-2
Jan-19	2.790	5ta 50	Sta 43	Sta 03	Sta. 65	ELA	WLA	EIA	SIA	ELA/EIA	IVI-1	N1-2	3.56	3.64	3.61	3.64	3.50	3.55	3.47	3.54	3.49	-	3.31
Feb-19	3.384	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.21)	3.27	3.24	3.36	3.37	3.32	3.30	3.24	3.25	3.49	 	3.17
Mar-19	3.147	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.21)	3.04	3.01	3.13	3.14	3.09	3.07	3.01	3.02	3.05	1	2.94
Apr-19	2.833	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.21)	2.72	2.69	2.81	2.82	2.77	2.75	2.69	2.70	2.73		2.62
May-19	2.797	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.21)	2.69	2.66	2.78	2.79	2.74	2.72	2.66	2.67	2.70	1	2.59
Jun-19	2.835	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.21)	2.73	2.70	2.82	2.83	2.78	2.76	2.70	2.71	2.74		2.63
Jul-19	2.872	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.21)	2.76	2.73	2.85	2.86	2.81	2.79	2.73	2.74	2.77	2.77	2.66
Aug-19	2.868	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.21)	2.76	2.73	2.85	2.86	2.81	2.79	2.73	2.74	2.77	2.77	2.66
Sep-19	2.840	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.14)	2.73	2.70	2.82	2.83	2.78	2.76	2.70	2.71	2.74	1	2.70
Oct-19	2.866	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.14)	2.76	2.73	2.85	2.86	2.81	2.79	2.73	2.74	2.77	2.77	2.73
Nov-19	2.914	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.14)	2.80	2.77	2.89	2.90	2.85	2.83	2.77	2.78	2.81	2.81	2.77
Dec-19	3.063	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.14)	2.95	2.92	3.04	3.05	3.00	2.98	2.92	2.93	2.96		2.92
Jan-20	3.157	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.14)	3.05	3.02	3.14	3.15	3.10	3.08	3.02	3.03	3.06	1	3.02
Feb-20	3.083	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.14)	2.97	2.94	3.06	3.07	3.02	3.00	2.94	2.95	2.98	2.98	2.94
Mar-20	2.895	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.14)	2.79	2.76	2.88	2.89	2.84	2.82	2.76	2.77	2.80		2.76
Apr-20	2.567	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.14)	2.46	2.43	2.55	2.56	2.51	2.49	2.43	2.44	2.47	2.47	2.43
May-20	2.516	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.14)	2.41	2.38	2.50	2.51	2.46	2.44	2.38	2.39	2.42	2.42	2.38
Jun-20	2.539	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.14)	2.43	2.40	2.52	2.53	2.48	2.46	2.40	2.41	2.44	1	2.40
Jul-20	2.568	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.14)	2.46	2.43	2.55	2.56	2.51	2.49	2.43	2.44	2.47	2.47	2.43
Aug-20	2.570	(0.11)	(0.14)	(0.02)	(0.01)	(0.06)	(0.08)	(0.14)	(0.13)	(0.10)	(0.10)	(0.14)	2.46	2.43	2.55	2.56	2.51	2.49	2.43	2.44	2.47	2.47	2.43

Philadelphia Gas Works Calculation of UFG and Retainage Percentages Twelve Months Ending August 31,2018

		LIEC	DETAINAGE
		<u>UFG</u>	RETAINAGE
		Total Distribution System (MCF)	Firm Sales Sales Only (MCF)
A. Gas Received For Delivery To Customers			
From Interstate Pipelines directly into the Distribu	tion System	77,487,876	77,487,874
Less gas delivered for Interruptible Customers se	ndout		26,360,787
From Interstate Pipelines directly into the Distribu	tion System for Firm Customers Only		51,127,087
B. Gas Delivered			
To Customers		75,872,302	
To Customers - Delivered to Firm Customers Onl	y		49,946,637
C. Adjustment			
Adjustment for PUC UFG Report and Retainag - Company use - Unbilled Sales	е	263,681	263,681 (521,488)
Adjustment for PUC UFG Report Only - Maintenance and Construction - Gate station bleeds - Correction for 6" w.c Third party damage		579.12 7,743 599,306	
Total Adjustments		871,309	(257,807)
D. Distribution UFG and Retainage Rate			
Total Distribution System Unaccounted for Gas		744,265	
Unaccounted For and Accounted For Volumes Ap	pplicable to Retainage % Calculation		1,438,257
E. Percent UFG and Retainage			
UFG Percentage		0.96%	
Retainage Percentage			2.8%

Philadelphia Gas Works Restructuring & Consumer Education Surcharge FISCAL YEAR 2020

FY 2017 Over/(Und	er) Recover	у		<u>(\$283,927)</u>	Schedule 17(b)
<u>Month</u>		R&CE Volumes	R&CE <u>Surcharge</u>	Revenue <u>Billed</u>	
September 2017	Actual	1,164,741	\$0.0044	\$5,067	
October	Actual	1,232,940	\$0.0077	\$9,494	
November	Actual	3,049,396	\$0.0077	\$23,480	
December	Actual	6,352,946	\$0.0077	\$48,918	
January 2018	Actual	11,234,414	\$0.0077	\$86,505	
February	Actual	7,773,775	\$0.0077	\$59,858	
March	Actual	6,769,418	\$0.0077	\$52,125	
April	Actual	5,974,099	\$0.0077	\$46,001	
May	Actual	2,459,499	\$0.0077	\$18,938	
June	Actual	1,296,164	\$0.0077	\$9,980	
July	Actual	1,090,327	\$0.0077	\$8,396	
<u>August</u>	Actual	1,020,232	\$0.0077	<u>\$7,856</u>	
Total		49,417,951		\$376,616	
FY 2018 Act/Est R8 FY 2018 Permitted	Recovery	ry		\$92,689 <u>\$24,046</u>	Schedule 17(c)
Over/(Under) Red	covery			\$68,643	_
FY 2018 Over Reco	-			\$68,643	
FY 2020 Permitted	Recovery			<u>\$57,024</u>	Schedule 17(c)
FY 2020 Credit				(\$11,619)	
FY 2020 Volumes				50,130,415	_
FY 2020 R&CE Sur	charge / Mc	f		(\$0.0002)	

Philadelphia Gas Works Restructuring & Consumer Education Surcharge <u>Fiscal Year 2017</u>

FY 2016 Over/(Under) Recovery

(\$259,274)

<u>Month</u>		R&CE Volumes	R&CE Surcharge	Revenue <u>Billed</u>
September 2016	Actual	1,075,710	\$0.0036	\$3,819
October	Actual	1,407,836	\$0.0010	\$1,408
November	Actual	2,962,180	\$0.0010	\$2,962
December	Actual	6,080,124	\$0.0010	\$6,080
January 2017	Actual	8,870,728	\$0.0010	\$8,871
February	Actual	7,218,545	\$0.0010	\$7,219
March	Actual	6,392,437	\$0.0010	\$6,392
April	Actual	4,759,423	\$0.0010	\$4,759
May	Actual	2,003,390	\$0.0010	\$2,003
June	Actual	1,477,939	\$0.0010	\$1,478
July	Actual	1,118,641	\$0.0010	\$1,119
<u>August</u>	Actual	<u>1,053,661</u>	\$0.0010	<u>\$1,054</u>
Total		44,420,614		\$47,164

 FY 2017 Act/Est R&CE & FY 2016 Recovery
 (\$212,110)

 FY 2017 Permitted Recovery
 \$71,817

 Over/(Under) Recovery
 (\$283,927)

Philadelphia Gas Works Restructuring & Consumer Education Surcharge Expense

Fiscal Year	FY 2018														
Month	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	FY18	FY20	
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Total	Est	
Capital															
POR Build (90%)	\$ -	\$ -	\$ 6,043	\$ 9,914	\$ 5,728	\$ 2,361	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,046	\$ 57,024	
Access. Mech. (100%)															
Operating															
Mailers (50%)															
Access Mech. (100%)															
Totals	\$ -	\$ -	\$ 6,043	\$ 9,914	\$ 5.728	\$ 2.361	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,046	\$ 57.024	

Tab 3

Philadelphia Gas Works

Item 53.64(c) Thirty days prior to the filing of a tariff reflecting an increase or decrease in natural gas costs, each Section 1307(f) gas utility seeking recovery of purchased gas costs under that section shall provide notice to the public, under § 53.68 (relating to notice requirements), and shall file the following supporting information with the Commission, with a copy to the Consumer Advocate, Small Business Advocate and to intervenors upon request:

(1) A complete list in schedule format of each spot and each long term source of gas supply, production, transportation and storage, used in the past 12 months, which 12-month period shall end 2 months prior to the date of the tariff filing, separately setting forth on a monthly basis the quantity and price of gas delivered, produced, transported or stored, maximum daily quantity levels, maximum annual quantity levels, a detailed description of warrantee or penalty provisions, including liquidated damages, take or pay provisions or minimum bill or take provisions of the purchases, balancing provisions and copies of Federal tariffs and contract provisions relating to the purchases—including demand and commodity components. With regard to each contemplated future source of supply, production, transportation or storage, during each of the next 20 months for each source, provide the name of the source, the maximum daily quantity, the maximum annual quantity, the minimum take levels, a detailed description of warrantee or penalty provisions, including liquidated damages, take or pay provisions or minimum bill or take provisions of the purchases, balancing provisions and contractual or tariffed terms of the purchases, copies of applicable Federal tariffs, the expiration date of each contract, the date when each contract was most recently negotiated and the details of the negotiation—such as meeting held, offers made, and changes in contractual obligation—and whether current proceedings, negotiations or renegotiations are pending before the Federal Energy Regulatory Commission, and the like, to modify the price, quantity or another condition of purchase, and if so, the details of the proceedings, negotiations or renegotiations. Gas supply sources which individually represent less than 3% of the total system supply may be shown collectively, such as other local gas purchases.

Response:

The attached schedules described herein below, contain details of the requested information. Information concerning PGW's Transportation and Storage contracts are addressed in section 53.64(c)(3) in February 1, 2019 Prefiling.

Schedule 1 – Twelve (12) month actual purchased gas costs expressed in terms of volumes and dollars for the period January 1, 2018 to December 31, 2018. This schedule reflects finalized numbers through the month of December.

Schedule 2 – Actual capacity release credits by pipeline by month for the period January 1, 2018 through December 31, 2018. This schedule reflects finalized numbers through the month of December.

Schedule 3 - Twenty (20) month forecast for the period January 1, 2019 through August 31, 2020.

Schedule 4 – Twenty (20) month forecast of capacity release credits by pipeline by month for the period January 1, 2019 through August 31, 2020.

1307F 53.64 C1-Schedule 1

Storage Withdrawal

\$

123,847 \$

80,359 \$

82,318 \$

57,105 \$

- \$

\$

- \$

- \$

\$

2,893 \$

44,928 \$

57,946

Philadelphia Gas Works

Summary Of Total Purchased Page 1 of 11 Actual Jan-18 Feb-18 Mar-18 Apr-18 May-18 June-18 July-18 Aug-18 Sep-18 Oct-18 Nov-18 Dec-18 \$ 2.497.012 \$ Williams 2.476.597 \$ 2.192.974 \$ 2.369.312 \$ 2 545 594 \$ 2,602,128 \$ 2.577.374 \$ 2.555.900 \$ 2.455.429 \$ 2.570.448 \$ 2.105.559 \$ 2.254.318 Texas Eastern \$ 2,071,553 \$ 2,079,709 \$ 1,995,091 \$ 2,435,515 \$ 2,313,545 \$ 2,136,587 \$ 2,334,530 \$ 2,350,080 \$ 2,301,125 \$ 2,270,036 \$ 1,486,071 \$ 1,531,985 130.170 \$ 135.222 \$ 122.213 \$ 137.287 \$ 127.405 \$ 135.554 \$ 135.570 \$ 129.098 \$ 132.101 \$ 133,517 Dominion \$ 139.165 \$ 136.076 \$ 385.635 \$ 51.680 \$ 45.772 \$ 124.437 \$ 27.272 \$ 14.213 \$ 15.812 \$ 21.930 \$ 23.138 \$ 378 \$ 35.204 \$ 168.497 \$ Snot Purchases -Transco Spot Purchases -Transco Spot Purchases -Tetco Transco Supply2 \$ 385,500 \$ 396,800 \$ 396,000 \$ 438,650 \$ 407,650 \$ 390,000 \$ 410,750 \$ 961,500 \$ 1,238,450 Transco Supply3 Transco Supply6 \$ 387,000 \$ 395,250 \$ 397,500 \$ 440,200 \$ 423,150 \$ 375,000 \$ 412,300 \$ 950,250 \$ 1,462,425 852,000 \$ 917,600 \$ 859,320 \$ Transco Supply7 774.000 \$ 799,800 \$ 850.175 \$ 834,750 \$ 950,250 \$ 1,465,525 Transco Supply8 \$ 3,613,900 \$ 2,640,300 \$ 2,470,876 \$ 685,915 \$ 644,879 \$ 454,480 \$ 450,642 \$ 524,195 \$ 458,266 \$ 1,504,245 Transco Supply10 Transco Supply12 384,375 \$ 394.875 \$ 423.375 \$ 428.188 \$ 396.375 \$ \$ 429.350 \$ 965.167 \$ 611,604 \$ 395.638 \$ 856.180 \$ 945.000 \$ 2.925.625 Transco Supply14 Transco Supply17 Transco Supply20 Transco Supply21 2,932,500 \$ 942,278 Transco Supply22 1,344,375 \$ 1,741,673 \$ 1,443,041 \$ Transco Supply23 Transco Supply24 Transco Supply25 Transco Supply26 Transco Supply27 Transco Supply28 860,715 \$ Transco Supply29 \$ 889.840 \$ 871.100 \$ 385.125 \$ 396.413 \$ 395.625 \$ 424,125 \$ 428.963 \$ 397,125 \$ 410.363 \$ 508.500 \$ 525.450 3,018,735 \$ Transco Supply30 \$ 2,344,192 \$ 1,199,100 \$ 1,589,232 \$ 85,035 431,313 \$ 3,877,276 Transco Supply31 Transco Supply32 \$ 842,425 \$ 1,040,900 \$ 844,750 Transco Supply33 472,640 \$ \$ Transco Supply34 400,560 601,396 387,586 Transco Supply35 \$ Transco Supply36 901,813 \$ 728,194 \$ 751,348 \$ 788,534 \$ 2,004,814 \$ 1,888,000 \$ 2,100,900 Tetco Supply1 \$ 662,250 \$ 699.825 653,250 \$ 715,325 \$ 740,125 \$ 734,250 733,925 Tetco Supply2 \$ 1,329,661 \$ 1,686,900 Tetco Supply3 Tetco Supply4 1,055,550 \$ Tetco Supply5 1,268,400 \$ 981,150 \$ 1,025,600 Tetco Supply7 Tetco Supply13 Tetco Supply14 Tetco Supply16 \$ 662,250 \$ 699,825 \$ 653,250 \$ 715,325 \$ 740,125 \$ 734,250 \$ 733,925 \$ 831,750 \$ 1,327,575 Tetco Supply17 Tetco Supply18 Tetco Supply19 Tetco Supply20 Tetco Supply21 Tetco Supply22 Tetco Supply23 2,216,675 \$ 1,557,200 \$ 1,538,876 \$ 724,650 \$ 772,425 \$ 847,089 \$ 2,228,500 \$ 2,261,175 \$ 794,819 \$ 894,033 \$ 964,700 \$ 644,910 \$ Tetco Supply24 1,060,200 \$ 1,272,600 \$ 985,800 418,875 \$ Tetco Supply25 \$ 666,888 1,871,163 \$ 913,818 \$ 1,268,474 \$ 1,172,787 \$ 692,231 \$ 681,167 \$ 590,427 \$ 614.242 \$ 572,894 \$ 877,604 \$ 1,246,203 \$ 1,992,525 Tetco Supply26 \$ Tetco Supply27 1,330,293 \$ 978,890 \$ 326,850 \$ 357,895 \$ 370,295 \$ 367,195 \$ 1,663,500 \$ 2,655,150 Tetco Supply28 \$ 1,318,202 \$ 331,350 \$ 350,145 \$ 367,350 \$ Tetco Supply29 Tetco Supply30 Tetco Supply31 179.600 \$ 64.185 Tetco Supply32 \$ 21,172,298 \$ **TOTAL COSTS** \$ 24,585,568 \$ 18,940,710 \$ 18,427,822 \$ 13,381,204 \$ 12,387,347 \$ 11,846,727 \$ 11,989,676 \$ 12,114,867 \$ 11,608,965 \$ 15,418,981 \$ 29,901,176 Storage Injection 31.360 31.636 8.320 \$ 10.716 \$ 58,653 \$ 65,986 \$ 66,748 \$ 63,123 50.759 14.696 \$ \$ \$ 66,518 \$ \$ \$ \$ 30.356

Philadelphia Gas Works <u>Volumes Purchased</u>

1307F 53.64 C1-Schedule	1				VOI	umes Purchased	<u>.</u>					Actual
/olume	Jan-18	Feb-18	Mar-18	Apr-18	May-18	June-18	July-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
pot Purchases -Transco	25,646	18,055	17,470	47,874	11,999	5,479	5,948	7,689	9,446	136	8,637	42,719
pot Dem-Transco pot Purchases -Tetco												
oot for Resale												
m Contracts												
ansco Supply2 - Dem												
ommodity ansco Supply3 - Dem				150,000	155,000	150,000	155,000	155,000	150,000	155,000	300,000	310,000
commodity												
ansco Supply6 - Dem												
Commodity ransco Supply7 - Dem				150,000	155,000	150,000	155,000	155,000	150,000	155,000	300,000	310,000
Commodity				300,000	310,000	300,000	310,000	310,000	300,000	310,000	300,000	310,000
ransco Supply8 - Dem	620,000	560,000	620,000	600,000	620,000	600,000	620,000	620,000	600,000	620,000		
Commodity ansco Supply8 - Dem	620,000	400,000	469,382	251,008	231,480	154,320	159,464	176,957	154,320	467,449		
Commodity	465,000	420,000	465,000									
ansco Supply10 - Dem												
Commodity ansco Supply14 - Dem												
Commodity	155,000	140,000	155,000	150,000	155,000	150,000	150,000	155,000	150,000	155,000	300,000	620,000
ansco Supply14 - Dem commodity		214,326	71,442							140,770		
ansco Supply22 - Dem	775,000	700,000	775,000	750,000	775,000					140,770		
Commodity	775,000	500,000	655,618	532,056	339,504							
ansco Supply23 - Dem Commodity												
ansco Supply23 - Dem												
Commodity												
ransco Supply25 - Dem Commodity												
ransco Supply25 - Dem												
Commodity ransco Supply26 - Dem												
Commodity												
ransco Supply29 - Dem												
Commodity ransco Supply29 - Dem	155,000	140,000	155,000	150,000	155,000	150,000	150,000	155,000	150,000	155,000	150,000	155,000
Commodity	155,000	140,000	155,000									
ransco Supply30 - Dem	154 694	140,000	155 000									
Commodity ransco Supply30 - Dem	154,684	140,000	155,000									
Commodity	448,177	280,000	412,350	30,978							30,900	
ransco Supply30 - Dem Commodity	155,000									133,900	600,000 750,000	620,000 930,000
ransco Supply31 - Dem	155,000									133,900	730,000	930,000
Commodity												
ransco Supply32 - Dem Commodity												
ransco Supply33 - Dem												
Commodity	310,000	280,000	310,000								150,000	155,000
ansco Supply34 - Dem Commodity	107,471										150,000 110,000	155,000 155,000
ransco Supply35 - Dem											,	,
Commodity	107,471					750,000	775,000	775,000	750,000	775,000		
ransco Supply36 - Dem Commodity						308,640	259,246	255,130	267,480	624,456	440,000	520,000
etco Supply1 - Dem												
Commodity etco Supply3 - Dem				300,000	310,000	300,000	310,000	310,000	300,000	310,000	450,000	465,000
Commodity											329,978	465,000
etco Supply5 - Dem	405.000	400.000	405.000									070 000
Commodity etco Supply16 - Dem	465,000	420,000	465,000									278,229
Commodity				300,000	310,000	300,000	310,000	310,000	300,000	310,000	300,000	310,000
etco Supply19 - Dem												
Commodity etco Supply24 - Dem												
Commodity	155,000	140,000	155,000									
etco Supply24 - Dem Commodity	155,000	140,000	155,000	150,000	150,000	150,000	155,000	155,000	150,000	155,000	150,000	155,000
etco Supply24 - Dem	465,000	420,000	465,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	600,000	620,000
Commodity	465,000	300,000	364,754	188,562	256,023	275,000	155,000	155,000	123,519	172,050	450,000	400,000
etco Supply25 - Dem Commodity	465,000	420,000	465,000								150,000	155,000
etco Supply26 - Dem											100,000	100,000
Commodity	539,530	385,123	530,738	342,222	157,877	152,790	98,810	94,736	91,680	183,335		
etco Supply26- Dem Commodity	16,094			150,000	155,000	150,000	155,000	155,000	150,000	155,000	449,082	465,000
etco Supply28- Dem												
Commodity	465,031	420,028	465,031	150,000	155,000	150,000	155,000	155,000	150,000	155,000	600,000	620,000
etco Supply28- Dem Commodity	80,470	24,588										
etco Supply29- Dem	30, 0	_ 1,000										
etco Supply30- Dem												
Commodity etco Supply30- Dem Commodity etco Supply31- Dem Commodity												

Philadelphia Gas Works Cost Of Fuels Purchased

Page 3 of 11				Cost Of	Fuels Pur	cnasea						Actual
Rate - \$	Jan-18	Feb-18	Mar-18	Apr-18	May-18	June-18	July-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Spot Purchases -Transco Spot Dem-Transco Spot Purchases -Tetco Spot for Resale	\$15.0369	\$ 2.8623	\$ 2.6200	\$ 2.5993	\$ 2.2728	\$ 2.5940	\$ 2.6583	\$ 2.8521	\$ 2.4495	\$ 2.7800	\$ 4.0760	\$ 3.9443
Firm Contracts Transco Supply2 - Dem Commodity				\$ 2.5700	\$ 2.5600	\$ 2.6400	\$ 2.8300	\$ 2.6300	\$ 2.6000	\$ 2.6500	\$ 3.2050	\$ 3.9950
Transco Supply3 - Dem Commodity				\$ 2.3700	φ 2.3000	φ 2.0400	φ 2.0300	\$ 2.0300	\$ 2.0000	φ 2.0300	φ 3.2030	ş 3.5500
Transco Supply6 - Dem Commodity				\$ 2.5800	\$ 2.5500	\$ 2.6500	\$ 2.8400	\$ 2.7300	\$ 2.5000	\$ 2.6600	\$ 3.1675	\$ 4.7175
Transco Supply7 - Dem Commodity Transco Supply8 - Dem	\$ 0.0100	\$ 0.0100	\$ 0.0100	\$ 2.5800 \$ 0.0100	\$ 2.5800 \$ 0.0100	\$ 2.8400 \$ 0.0100	\$ 2.9600	\$ 2.7425 \$ 0.0100	\$ 2.7825 \$ 0.0100	\$ 2.7720 \$ 0.0100	\$ 3.1675	\$ 4.7275
Commodity Transco Supply8 - Dem	\$ 3.7789	\$ 2.6808	\$ 2.6554	\$ 2.7087	\$ 2.7591	\$ 2.9062	\$ 0.0100 \$ 2.7871	\$ 2.9272	\$ 2.9307	\$ 3.2047		
Commodity Transco Supply10 - Dem	\$ 2.7200	\$ 3.7200	\$ 2.6200									
Commodity Transco Supply14 - Dem												
Commodity Transco Supply14 - Dem	\$ 2.7700	\$ 2.7300	\$ 2.7300	\$ 2.5625	\$ 2.5525	\$ 2.6325	\$ 2.8225	\$ 2.7625	\$ 2.6425	\$ 2.6425	\$ 3.1500	\$ 4.7188
Commodity Transco Supply22 - Dem Commodity	\$ 0.0075 \$ 3.7764	\$ 2.7200 \$ 0.0075 \$ 2.6783	\$ 2.6379 \$ 0.0075 \$ 2.6477	\$ 0.0075 \$ 2.7016	\$ 0.0075 \$ 2.7583					\$ 3.1725		
Transco Supply23 - Dem Commodity	\$ 3.7704	\$ 2.0703	\$ 2.0477	\$ 2.7010	\$ 2.7303							
Transco Supply23 - Dem Commodity												
Transco Supply25 - Dem Commodity												
Transco Supply25 - Dem Commodity												
Transco Supply26 - Dem Commodity												
Transco Supply29 - Dem Commodity	\$ 2.6630	\$ 3.5560	\$ 2.8200	\$ 2.5675	\$ 2.5575	\$ 2.6375	\$ 2.8275	\$ 2.7675	\$ 2.6475	\$ 2.6475	\$ 3.3900	\$ 3.3900
Transco Supply29 - Dem Commodity	\$ 2.8900	\$ 2.8000	\$ 2.8000									
Transco Supply30 - Dem Commodity Transco Supply30 - Dem	\$ 2.8850	\$ 2.7850	\$ 2.7650									
Commodity Transco Supply30 - Dem	\$ 3.2595	\$ 2.8900	\$ 2.8147	\$ 2.7450							\$ 4.6167 \$ 0.0048	\$ 0.0048
Commodity Transco Supply31 - Dem	\$ 2.8200									\$ 3.2212	\$ 3.8309	\$ 4.1659
Commodity Transco Supply32 - Dem												
Commodity Transco Supply33 - Dem Commodity	\$ 2.7175	\$ 3.7175	\$ 2.7250									
Transco Supply34 - Dem Commodity	\$ 3.7271	\$ 3.7175	\$ 2.7250								\$ 0.0061 \$ 4.2884	\$ 0.0061 \$ 3.8739
Transco Supply35 - Dem Commodity	\$ 3.6064										ų 4.2004	ψ 0.0733
Transco Supply36 - Dem Commodity						\$ 0.0075 \$ 2.9037	\$ 0.0075 \$ 2.7865	\$ 0.0075 \$ 2.9222	\$ 0.0075 \$ 2.9270	\$ 0.0075 \$ 3.2012	\$ 4.2909	\$ 4.0402
Tetco Supply1 - Dem Commodity				\$ 2.2075	\$ 2.2575	\$ 2.1775	\$ 2.3075	\$ 2.3875	\$ 2.4475	\$ 2.3675		
Tetco Supply3 - Dem Commodity											\$ 0.0100 \$ 4.0159	\$ 0.0100 \$ 3.6177
Tetco Supply5 - Dem Commodity	\$ 2.2700	\$ 3.0200	\$ 2.1100									\$ 3.6862
Tetco Supply16 - Dem Commodity Tetco Supply19 - Dem				\$ 2.2075	\$ 2.2575	\$ 2.1775	\$ 2.3075	\$ 2.3875	\$ 2.4475	\$ 2.3675	\$ 2.7725	\$ 4.2825
Commodity Tetco Supply24 - Dem												
Commodity Tetco Supply24 - Dem	\$ 2.2700	\$ 3.0200	\$ 2.1100									
Commodity Tetco Supply24 - Dem	\$ 2.2700 \$ 0.0100	\$ 3.0200 \$ 0.0100	\$ 2.1100 \$ 0.0100	\$ 2.2300	\$ 2.2800	\$ 2.2000	\$ 2.3300	\$ 2.4100	\$ 2.4700	\$ 2.3900	\$ 2.8150 \$ 0.0100	\$ 4.3250 \$ 0.0100
Commodity Tetco Supply25 - Dem	\$ 3.2437	\$ 2.3580	\$ 2.4129	\$ 2.4412	\$ 2.1562	\$ 2.3080	\$ 2.3452	\$ 2.5734	\$ 2.2216	\$ 2.7703	\$ 4.0006	\$ 3.9615
Commodity Tetco Supply26 - Dem	\$ 2.2800	\$ 3.0300	\$ 2.1200								\$ 2.7925	\$ 4.3025
Commodity Tetco Supply26 - Dem	\$ 3.2738	\$ 2.3728	\$ 2.3900	\$ 2.4583	\$ 2.1658	\$ 2.3180	\$ 2.3518	\$ 2.5734	\$ 2.2403	\$ 2.7832		
Commodity Tetco Supply28 - Dem	\$ 6.5150	6 2 0 4 5 0	6 2 1050	\$ 2.2100	\$ 2.2600	\$ 2.1800	\$ 2.3100	\$ 2.3900	\$ 2.4500	\$ 2.3700	\$ 2.7750	\$ 4.2850
Commodity Tetco Supply28 - Dem Commodity	\$ 2.2650 \$ 3.2920	\$ 3.0150 \$ 2.5992	\$ 2.1050	\$ 2.2090	\$ 2.2590	\$ 2.1790	\$ 2.3090	\$ 2.3890	\$ 2.4490	\$ 2.3690	\$ 2.7725	\$ 4.2825
Tetco Supply29 - Dem Commodity	φ 3.292U	φ 2.3992										
Tetco Supply30 - Dem Commodity												
Tetco Supply31 - Dem Commodity												

Commodity
Tetco Supply31 - Dem
Commodity

Philadelphia Gas Works

Page 4 of 11	Cost Of Fuels Purchased																					
Amounts - \$		Jan-18		Feb-18		Mar-18		Apr-18		May-18		June-18		July-18		Aug-18	Sep-18		Oct-18	Nov-18		Actual Dec-18
Spot Purchases -Transco Spot -Transco Spot Purchases -Tetco Spot for Resale	\$	385,635	\$	51,680	\$	45,772	\$	124,437	\$	27,272	\$	14,213	\$	15,812	\$	21,930 \$	23,1	38 \$	378 \$	35,20	1 \$	168,497
Firm Contracts Transco Supply2 - Dem Commodity							\$	385,500	e	396,800	¢	396,000	¢	438,650	¢	407,650 \$	390,0	nn ¢	410,750	961,50	n ¢	1,238,450
Commodity Transco Supply3 - Dem Commodity Transco Supply6 - Dem							Φ	303,300	Þ	390,000	Ф	390,000	φ	430,030	Ф	407,000 \$	390,0	00 ф	410,750	901,500) Þ	1,230,430
Commodity Transco Supply7 - Dem							\$	387,000		395,250		397,500		440,200		423,150 \$	375,0					1,462,425
Commodity Transco Supply8 - Dem Commodity	\$ \$	6,200 2,342,900		5,600 1,072,300		6,200 1,246,376	\$ \$ \$	774,000 6,000 679,915	\$	799,800 6,200 638,679	\$	852,000 6,000 448,480	\$	917,600 6,200 444,442	\$	850,175 \$ 6,200 \$ 517,995 \$		50 \$ 00 \$ 66 \$	6,200	950,250) \$	1,465,525
Transco Supply8 - Dem Commodity Transco Supply10 - Dem	\$	1,264,800	\$	1,562,400	\$	1,218,300																
Commodity Transco Supply14 - Dem		400.050	•	000 000	•	100 150	•	004.075	•	005.000	•	204.075	•	100.075	•	400.400		A	400 500			0.005.005
Commodity Transco Supply14 - Dem Commodity	\$	429,350	\$	382,200 582,967	\$	423,150 188,454		384,375		395,638	\$	394,875	\$	423,375	\$	428,188 \$	396,3	/5 \$ \$		945,000) \$	2,925,625
Transco Supply22 - Dem Commodity	\$ \$	5,813 2,926,688		5,250 1,339,125		5,813 1,735,861		5,625 1,437,416		5,813 936,465												
Transco Supply23 - Dem Commodity Transco Supply23 - Dem	•	,,	·	,,	·	,,	·	, . , .		,												
Commodity Transco Supply25 - Dem																						
Commodity Transco Supply25 - Dem Commodity																						
Transco Supply26 - Dem Commodity																						
Transco Supply29 - Dem Commodity Transco Supply29 - Dem	\$	412,765	\$	497,840	\$	437,100	\$	385,125	\$	396,413	\$	395,625	\$	424,125	\$	428,963 \$	397,1	25 \$	410,363	508,500	\$	525,450
Commodity Transco Supply30 - Dem	\$	447,950	\$	392,000	\$	434,000																
Commodity Transco Supply30 - Dem	\$	446,263		389,900		428,575																
Commodity Transco Supply30 - Dem Commodity	\$ \$	1,460,828 437,100		809,200	\$	1,160,657	\$	85,035										\$	431,313 S	2,88	\$	2,976 3,874,300
Transco Supply31 - Dem Commodity	Φ	437,100																φ	431,313	2,073,20	J	3,674,300
Transco Supply32 - Dem Commodity Transco Supply33 - Dem																						
Commodity	\$	842,425	\$	1,040,900	\$	844,750													,	041	- 6	946
Transco Supply34 - Dem Commodity	\$	400,560																	\$		5 \$ 5 \$	600,450
Transco Supply35 - Dem Commodity Transco Supply36 - Dem	\$	387,586									\$	5,625	\$	5,813	\$	5,813 \$	5.6	25 \$	5,813			
Commodity Tetco Supply1 - Dem											\$	896,188		722,381		745,535 \$	782,9			1,888,00	\$	2,100,900
Commodity Tetco Supply3 - Dem Commodity							\$	662,250	\$	699,825	\$	653,250	\$	715,325	\$	740,125 \$	734,2	50 \$	733,925 \$.,		4,650 1,682,250
Tetco Supply5 - Dem Commodity	\$	1,055,550	\$	1,268,400	\$	981,150													`	1,323,10	\$	1,025,600
Tetco Supply16 - Dem Commodity Tetco Supply19 - Dem							\$	662,250	\$	699,825	\$	653,250	\$	715,325	\$	740,125 \$	734,2	50 \$	733,925	831,75	\$	1,327,575
Commodity Tetco Supply24 - Dem																						
Commodity Tetco Supply24 - Dem	\$	351,850	\$	422,800	\$	327,050																
Commodity Tetco Supply24 - Dem	\$	351,850 4,650		422,800 4,200		327,050 4,650	\$	334,500	\$	342,000	\$	330,000	\$	361,150	\$	373,550 \$	370,5	00 \$	370,450	422,250 6,000	\$	670,375 6,200
Commodity	\$	1,508,325		707,400		880,126	\$	460,319	\$	552,033	\$	634,700	\$	363,500	\$	398,875 \$	274,4	10 \$	476,639			1,584,600
Tetco Supply25 - Dem Commodity Tetco Supply26 - Dem	\$	1,060,200	\$	1,272,600	\$	985,800													\$	418,87	5 \$	666,888
Commodity Tetco Supply26 - Dem	\$	1,766,310	\$	913,818	\$	1,268,474	\$	841,287	\$	341,931	\$	354,167	\$	232,377	\$	243,792 \$	205,3	94 \$	510,254			
Commodity Tetco Supply28 - Dem	\$	104,852					\$	331,500	\$	350,300	\$	327,000	\$	358,050	\$	370,450 \$	367,5	00 \$	367,350	1,246,20	3 \$	1,992,525
Commodity Tetco Supply28 - Dem	\$	1,053,295	\$	1,266,384	\$	978,890	\$	331,350	\$	350,145	\$	326,850	\$	357,895	\$	370,295 \$	367,3	50 \$	367,195	1,663,50	\$	2,655,150
Commodity Tetco Supply29 - Dem	\$	264,907	\$	63,908																		
Commodity Tetco Supply30 - Dem Commodity																						

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Philadelphia Gas Works Volumes Purchased Williams Pipeline Company

Volumes-DTH	Jan-18	Feb-18	Mar-18	Apr-18	May-18	June-18	July-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
S-2 Storage Capacity	1,088,612	1,205,249	1,166,370	1,205,249	1,166,370	1,205,249	1,205,249	1,166,370	1,205,249	1,166,370	1,205,249	1,205,249
S-2 Demand	145,348	160,921	155,730	160,921	155,730	160,921	160,921	155,730	160,921	155,730	160,921	160,921
Handling fr Stg.	88,543	78,223	61,577	8,535							41,457	66,824
Handling to Stg.				15,353	55,800	54,000	55,800	58,979	59,610	31,544	4,200	-
GSS Demand	1,908,577	1,723,876	1,908,577	1,847,010	1,908,577	1,847,010	1,908,577	1,908,577	1,847,010	1,908,577	1,847,010	1,908,577
Stg. Cap.Vol. Chg.	127,835,723	115,464,524	127,835,723	123,711,990	127,835,723	123,711,990	127,835,723	127,835,723	123,711,990	127,835,723	123,711,990	127,835,723
Handling fr Stg.	1,028,841	646,112	683,807	306,540							403,531	351,633
Storage Injection	96,366	74,163	16,634	73,401	496,318	553,131	586,799	587,439	566,410	353,289	95,490	128,347
WSS Demand	1,088,565	983,220	1,088,565	1,053,450	1,088,565	1,053,450	1,088,565	1,088,565	1,053,450	1,088,565	1,053,450	1,088,565
Stg. Cap Vol Chg.	103,413,179	93,405,452	103,413,179	100,077,270	103,413,179	100,077,270	103,413,179	103,413,179	100,077,270	103,413,179	100,077,270	103,413,179
Handling fr Stg.	376,939	109,281	191,575	146,167							62,164	139,288
Handling to Stg.	34,536	20,186	5,448	14,332	31,336	20,189	64,884	49,157	45,893	74,432	15,712	40,043
FT Demand/.3691	5,121,572	4,625,936	5,145,349	4,979,370	5,145,349	4,979,370	5,145,349	5,145,349	4,979,370	5,145,349	4,979,370	5,121,572
FT Commodity/.3691	4,173,577	2,963,063	3,430,233	2,103,192	1,747,691	1,614,203	1,556,675	1,595,129	1,548,872	2,481,702	2,945,324	3,617,727
PSFT Demand/5001	84,754	76,552										84,754
PSFT Commodity/5001												
Eminence Cust.Dem.												
Eminence Cust. Cap.												
Eminence Storage Dem.												
Eminence Storage Cap.												
Handling fr Stg.												
Handling to Stg.												
Capacity Rel. Dem.Credit #3691	(620,000)	(560,000)	(620,000)	(600,000)	(1,040,000)	(1,350,000)	(1,395,000)	(1,515,000)	(1,950,000)	(1,240,000)	(600,000)	(620,000)
Capacity Rel.Dem. Credit #5001	(397,792)	(362,852)	(397,885)	(391,500)	(425,238)	(429,750)	(445,093)	(473,339)	(464,580)	(497,333)	(463,890)	(472,285)
S2 Credit												

Actual

Eminence #2 Demand
Eminence #2 Capacity
Handling to Stg.
Handling fr. Stg.
Eminence #2 adj.
Cashout / Cashout Majority Sell
S 2 Adj. (02/1/16 - 02/29/16)
WSS Capacity Release
Eminence Capacity Release
Unathorized Overrun 02/2016
Eminence Capacity Release
Cashout / Cashout 03/31/16

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Eminence #2 Capacity

Handling to Stg.
Handling fr Stg.
WSS Capacity Release
Eminenec Capacity Release
S 2 Adj. (02/1/15 - 02/29/16)

Cashout / Cashout Majority Sell Unathorized Overrun 02/2016 Cashout / Cashout 03/31/16

Philadelphia Gas Works Cost Of Fuel Purchased Williams Pipeline Company

Actual

Rate - \$	Jan-18	Feb-18	Mar-18	Apr-18	May-18	June-18	July-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
S-2 Capacity	0.00397	0.00397	0.00397	0.00397	0.00397	0.00397	0.00397	0.00397	0.00381	0.00381	0.00381	0.00381
Storage Demand	0.14522	0.14522	0.14522	0.14522	0.14522	0.14522	0.14571	0.14571	0.13973	0.13973	0.13973	0.13973
Handling fr Stg.	0.03888	0.03918	0.03918	0.03918	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.04010	0.05180
Handling to Stg.	0.00000	0.00000	0.00000	0.02995	0.02995	0.02995	0.02995	0.02995	0.02995	0.02906	0.02907	0.00000
GSS Demand	0.10074	0.10074	0.10074	0.10068	0.10068	0.10068	0.10068	0.10068	0.10068	0.10068	0.10068	0.10068
Stg. Cap.Vol. Chg.	0.00053	0.00053	0.00053	0.00053	0.00053	0.00053	0.00053	0.00053	0.00053	0.00053	0.00053	0.00053
Handling fr Stg.	0.04448	0.04448	0.04448	0.04314	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.04292	0.04292
Storage Injection	0.05216	0.05216	0.05216	0.05082	0.05082	0.05082	0.05082	0.05082	0.05082	0.05082	0.05061	0.05061
WSS Demand	0.02557	0.02557	0.02557	0.02557	0.02557	0.02557	0.02557	0.02557	0.02557	0.02557	0.02557	0.02557
Stg. Cap Vol Chg.	0.00027	0.00027	0.00027	0.00027	0.00027	0.00027	0.00027	0.00027	0.00027	0.00027	0.00027	0.00027
Handling fr Stg.	0.01456	0.01456	0.01456	0.01456	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01456	0.01456
Handling to Stg.	0.01456	0.01456	0.01456	0.01456	0.01456	0.01456	0.01456	0.01456	0.01456	0.01456	0.01456	0.01456
FT Demand/.3691	0.47481	0.47481	0.47311	0.47232	0.47232	0.47232	0.47232	0.47232	0.47232	0.47232	0.47232	0.47401
FT Commodity/.3691	0.03507	0.03438	0.03459	0.02004	0.01768	0.01712	0.01637	0.01655	0.01659	0.01993	0.02756	0.02785
PSFT Demand/.5001	0.71044	0.71044	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.70925
PSFT Commodity/.5001												
Eminence Cust.Dem.												
Eminence Cust. Cap.												
Eminence Storage Dem.												
Eminence Storage Cap.												
Handling fr Stg.												
Handling to Stg.												
Capacity Rel. Dem.Credit #3691	0.60800	0.60800	0.60800	0.03175	0.02952	0.03367	0.03367	0.03654	0.03551	0.03175	0.78125	0.78125
Capacity Rel. Dem Credit #5001	0.45991	0.45991	0.45991	0.45914	0.45914	0.45914	0.45914	0.45914	0.45914	0.45914	0.45914	0.45914
S2 Credit												
Eminence #2 Demand												

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Philadelphia Gas Works Cost of Fuel Purchased Williams Pipeline Company

Williams Pipeline Company													A 1
		1 40	F.1.40					1.1.40	4 40	0 40	0.4.40	N: 40	Actual
Amount - \$	_	Jan-18	Feb-18	Mar-18	Apr-18	May-18	June-18	July-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
S-2 Capacity	\$	4,322 \$	4,785 \$	4,631 \$	4,785 \$	4,631 \$		4,785 \$	4,631 \$	4,592 \$	4,444 \$	4,592 \$	4,592
Storage Demand	\$	21,108 \$	23,369 \$	22,615 \$	23,369 \$	22,615 \$	23,369 \$	23,448 \$	22,691 \$	22,486 \$	21,760 \$	22,486 \$	22,486
Handling fr Stg.	\$	3,443 \$	3,065 \$	2,413 \$	334				. =	•	\$	1,662 \$	3,462
Handling to Stg.			.==	\$	460 \$	1,671 \$		1,671 \$	1,766 \$	1,785 \$	917 \$	122 \$	-
GSS Demand	\$	192,270 \$	173,663 \$	192,270 \$	185,957 \$	192,155 \$	185,957 \$	192,155 \$	192,155 \$	185,957 \$	192,155 \$	185,957 \$	192,155
Stg. Cap.Vol. Chg.	\$	67,753 \$	61,196 \$	67,753 \$	65,567 \$	67,753 \$	65,567 \$	67,753 \$	67,753 \$	65,567 \$	67,753 \$	65,567 \$	67,753
Handling fr Stg.	\$	45,763 \$	28,739 \$	30,416 \$	13,224						\$	17,320 \$	15,092
Storage Injection	\$	5,026 \$	3,868 \$	868 \$	3,730 \$	25,223 \$		29,821 \$	29,854 \$	28,785 \$	17,954 \$	4,833 \$	6,496
WSS Demand	\$	27,835 \$	25,141 \$	27,835 \$	26,937 \$	27,835 \$		27,835 \$	27,835 \$	26,937 \$	27,835 \$	26,937 \$	27,835
Stg. Cap Vol Chg.	\$	27,922 \$	25,220 \$	27,922 \$	27,021 \$	27,922 \$	27,021 \$	27,922 \$	27,922 \$	27,021 \$	27,922 \$	27,021 \$	27,922
Handling fr Stg.	\$	5,488 \$	1,591 \$	2,789 \$	2,128						\$	905 \$	2,028
Handling to Stg.	\$	503 \$	294 \$	79 \$	209 \$	456 \$	294 \$	945 \$	716 \$	668 \$	1,084 \$	229 \$	583
FT Demand/.3691	\$	2,431,778 \$	2,196,444 \$	2,434,334 \$	2,351,842 \$	2,430,236 \$	2,351,842 \$	2,430,236 \$	2,430,236 \$	2,351,842 \$	2,430,236 \$	2,351,842 \$	2,427,683
FT Commodity/.3691	\$	146,350 \$	101,863 \$	118,657 \$	42,157 \$	30,902 \$	27,628 \$	25,483 \$	26,397 \$	25,699 \$	49,458 \$	81,184 \$	100,755
PSFT Demand/5001	\$	60,213 \$	54,386									\$	60,112
PSFT Commodity													
Eminence Cust.Dem.													
Eminence Cust. Cap.													
Eminence Storage Dem.													
Eminence Storage Cap.													
Handling fr Stg.													
Handling to Stg.													
Capacity Rel. Dem.Credit #3691	\$	(376,960) \$	(340,480) \$	(376,960) \$	(19,050) \$	(30,705) \$		(46,965) \$	(55,365) \$	(69,240) \$	(39,370) \$	(468,750) \$	(484,375)
Capacity Rel. Dem.Credit #5001	\$	(182,948) \$	(166,879) \$	(182,991) \$	(179,753) \$	(195,244) \$		(204,360) \$	(217,329) \$	(213,308) \$	(228,347) \$	(212,990) \$	(216,845)
S2 Credit	\$	(3,266) \$	(3,290) \$	(3,317) \$	(3,323) \$	(3,322) \$	(3,349) \$	(3,355) \$	(3,362) \$	(3,362) \$	(3,353) \$	(3,357) \$	(3,414)
Eminence #2 Demand													
Eminence #2 Capacity													
Handling to Stg.													
Handling fr Stg.													
Eminence #2 ajd.													
Cashout / Cashout 02/29/2016													
S2 Adj. (02/1/15 - 02/28/15)													
WSS Capacity Release													
Eminence Capacity Release													
FT-Demand Charges Paid by VA Power													
Cashout / Cashout 03/31/16													
S2 Adj. (02/1/16 - 02/29/16)													
Cashout / Cashout Majority Sell													
Unathorized Overrun 02/2016													
TOTAL	\$	2,476,597 \$	2,192,974 \$	2,369,312 \$	2,545,594 \$	2,602,128 \$	2,497,012 \$	2,577,374 \$	2,555,900 \$	2,455,429 \$	2,570,448 \$	2,105,559 \$	2,254,318

Philadelphia Gas Works Volumes Purchased <u>Texas Eastern</u>

		Texas Lastern										
Volumes - Dth	Jan-18	Feb-18	Mar-18	Apr-18	May-18	June-18	July-18	Aug-18	Sep-18	Oct-18	Nov-18	Actual Dec-18
CDS Market Area Demand	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
CDS Access Area Demand	97,573	97,573	97,573	97,573	97,573	97,573	97,573	97,573	97,573	97,573	97,573	97,573
CDS Commodity	1,510,760	1,079,080	1,270,800	1,404,738	1,319,434	1,303,615	1,162,253	1,158,253	1,094,890	1,261,995	1,158,482	1,512,365
CDS ACA Charge	1,510,760	1,079,080	1,270,800	1,404,738	1,319,434	1,303,615	1,162,253	1,158,253	1,094,890	1,261,995	1,158,482	1,512,365
CDS PCB True-up Settlement	, ,	, ,	, ,	, ,		, ,	, ,	, ,	, ,	, ,	, ,	
FT1 Market Area Demand	23,822	23,822	23,822	23,822	23,822	23,822	23,822	23,822	23,822	23,822	23,822	23,822
FT1 Access Area Demand	54,878	54,878	54,878	54,878	54,878	54,878	54,878	54,878	54,878	54,878	54,878	54,878
FT1 Commodity	15,708	- ,-	- ,	-	- ,-	- /-	- /-	- ,	- ,-	- ,-	- ,	- ,-
FT1 ACA Charge	15,708	-	-	-	-	-	-	-	-	-	-	-
FT1 PCB True-up Settlement	-,											
SS1 Demand 400121	44,118	44,118	44.118	44,118	44,118	44,118	44,118	44,118	44,118	44,118	44,118	44,118
Space Charge	220,590	220,590	220,590	220,590	220,590	220,590	220,590	220,590	220,590	220,590	220,590	220,590
Handling fr Storage	693,423	424,244	294,759	468,269							130,131	200,876
Excess Withdrawal	,	,	- ,	,							1,124	-
Storage Injection	93,136	65,841	25,852	73,171	125,409	408,150	199,073	421,755	161,676	275,662	40,818	73,863
Excess Injection	127,281	148,774	32,676	2,701	-	-	-		-	,	40,065	107,583
Storage Surcharge Credit	,	,	02,0.0	2,. 0 .							10,000	,
PCB True-up Settlement 400121												
SS1 Demand 400209	20,847	20,847	20,847	20.847	20,847	20,847	20,847	20,847	20,847	20,847	20,847	20.847
Space Charge	205,177	205,177	205,177	205,177	205,177	205,177	205,177	205,177	205,176	205,176	205,176	205,176
Handling fr Storage	475,293	415,010	452,798	387,716	-	-	-	-	-	59,164	170,465	245,051
Excess Withdrawal	470,200	410,010	402,700	307,710						00,104	170,400	240,001
Storage Injection	99,394	71,763	47,436	116,403	338,019	226,781	392,336	180,600	375,688	172,859	64,201	97,631
Excess Injection	00,001	71,700	11,100	110,100	000,010	220,701	002,000	100,000	070,000	52,310	01,201	07,001
Storage Surcharge Credit										02,010		
PCB True-up Settlement 400209												
FTS-2 Demand	5,394	5,394	5,394	5,394	5,394	5,394	5,394	5,394	5,394	5,394	5,394	5,394
FTS-7 Demand	7.788	7,788	7,788	7,788	7,788	7,788	7,788	7,788	7,788	7,788	7,788	7.788
FTS-8 Demand	25,709	25,709	25,709	25,709	25,709	25,709	25,709	25,709	25,709	25,709	25,709	25,709
FTS-2 PCB True-up Settlement	20,700	20,700	20,700	20,700	20,700	20,700	20,700	20,100	20,700	20,700	20,700	20,700
FT-1 Market Demand 800514	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
FT-1 Market Demand 800514 FT-1 Access Area Demand 800514	11,474	11,474	11,474	11,474	11,474	11,474	11,474	11,474	11,474	11,474	11,474	11,474
FT Commodity	558,000	504,000	560,007	-	11,474	11,474	11,474	11,474	11,474	11,474	540,000	558,000
FT-1 ACA Charge	558,000	504,000	560,007	_							540,000	558,000
FT3-3 Cap.Rel. dem.credit 800514	330,000	304,000	300,007	540,000	558,000	540,000	558,000	558,000	540,000	558,000	-	-
PCB True-up Settlement 800514				340,000	330,000	340,000	330,000	330,000	340,000	330,000		
FT-1 Market Demand 800515	18,000	18,000	18,000	18.000	18,000	18,000	18.000	18,000	18,000	18.000	18,000	18.000
FT-1 Market Demand 800515 FT-1 Access Area Demand 800515	11,474	11,474	11,474	11,474	11,474	11,474	11,474	11,474	11,474	11,474	11.474	11,474
FT Commodity	558.000	504,000	558,335	-	-	11,474	11,474	11,474	11,474	11,414	539.099	558.000
• • • • • •	558,000	504,000	558,335	-	-						539,099	558,000
FT-1 ACA Charge	556,000	304,000	550,555	- E40.000	- EE9 000	E40.000	EE0 000	EE0 000	E40.000	EE0 000	539,099	558,000
FT1-3 Cap.Rel. dem. credit 800515				540,000	558,000	540,000	558,000	558,000	540,000	558,000	-	-
PCB True-up Settlement 800515	(207 627)	(362,684)	(207 660)	(201.250)	(425,083)	(420.450)	(447.400)	(472.067)	(614.240)	(CEO 11C)	(462 620)	(472,037)
CDS 800232 M1-M1 Cap. Rel.	(397,637)		(397,668)	(391,350)		(429,450)	(447,423)	(472,967)	(614,340)	(652,116)	(463,620)	
FT1-800233 M3-M3 Cap. Rel.	(564,240)	(523,824)	(579,948)	(561,240)	(579,948)	(561,240)	(579,948)	(579,948)	(561,240)	(579,948)	(714,660)	(738,482)
FTS-2,7,8 ACA	1,034,575	597,970	849,930	234,980	150,000	150,000	155,000	155,000	150,000	155,000	703,679	775,415
CSHOUT UNDER 5% DS				2,342								

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Philadelphia Gas Works Cost Of Fuel Purchased <u>Texas Eastern</u>

Column C													Actual
CDS Commont 3.885 3.8851 3.885	Volumes - Dth	Jan-18	Feb-18	Mar-18	Apr-18	May-18	June-18	July-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
COS Commonting	CDS Market Area Demand	10.6720	10.5910	10.5910	10.5910	10.5910	10.5910	10.5910	10.6480	10.6480	10.6480	10.6480	10.6500
CDS PCE True spettlement	CDS Access Area Demand	3.3853	3.3851	3.3851	3.3851	3.3851	3.3851	3.3851	3.3851	3.3851	3.3851	3.3851	3.3851
COS	CDS Commodity	0.0439	0.0447	0.0447	0.0447	0.0447	0.0447	0.0447	0.0512	0.0512	0.0512	0.0512	0.0686
FT Market Area Demand 10.4490 10.3880 10.3880 10.3880 10.3880 10.3880 10.3880 10.3880 10.3880 10.4290 10.4250 10.4250 10.4250 10.4270	CDS ACA Charge	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013
FT Common(*)	CDS PCB True-up Settlement	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
FTI cammathy FTI ACA Charge	FT1 Market Area Demand	10.4490	10.3680	10.3680	10.3680	10.3680	10.3680	10.3680	10.4250	10.4250	10.4250	10.4250	10.4270
FT 14 CA Charge	FT1 Access Area Demand	3.5485	3.5482	3.5482	3.5482	3.5482	3.5482	3.5482	3.5482	3.5482	3.5482	3.5482	3.5482
FT PGE True-up Settlement 0,000 0,0000	FT1 Commodity	0.0439	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SA 10 SA 130 SA 330 SA	FT1 ACA Charge	0.0013	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SA 10mm Month SA 190 S	FT1 PCB True-up Settlement	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Handflamer		5.4390	5.4180	5.4180	5.4180	5.4180	5.4180	5.4180	5.4330	5.4330	5.4330	5.4330	5.4330
	Space Charge	0.1293	0.1293	0.1293	0.1293	0.1293	0.1293	0.1293	0.1293	0.1293	0.1293	0.1293	0.1293
Stronge Injection	Handling fr Storage	0.0464	0.0467	0.0467	0.0467	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0489	0.0606
Storage Nigerlane 0,1559 0,1559 0,1559 0,1559 0,0000	Excess Withdrawal	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.9938	0.0000
Storage Surcharting Credit 0,0000	Storage Injection	0.0311	0.0311	0.0311	0.0311	0.0311	0.0311	0.0311	0.0311	0.0311	0.0311	0.0311	0.0353
PCB True-up Settlement 400121 SS Demand 4002299	Excess Injection	0.1559	0.1559	0.1559	0.1559	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1559	0.1601
SAID Demand 400209 5,4390 5,4390 5,4180 5,4180 5,4180 5,4180 5,4180 5,430 5,4330	Storage Surcharge Credit	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Name	PCB True-up Settlement 400121	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Handling if Storage 0.0464 0.0467 0.0467 0.0467 0.0467 0.0467 0.0467 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.000	SS1 Demand 400209	5.4390	5.4180	5.4180	5.4180	5.4180	5.4180	5.4180	5.4330	5.4330	5.4330	5.4330	5.4330
Storage Injection 0.0000	Space Charge	0.1293	0.1293	0.1293	0.1293	0.1293	0.1293	0.1293	0.1293	0.1293	0.1293	0.1293	0.1293
Storage Injection 0.0311 0.0311 0.0311 0.0311 0.0311 0.0311 0.0311 0.0311 0.0311 0.0311 0.0311 0.0313 0.0303 0.0000	Handling fr Storage	0.0464	0.0467	0.0467	0.0467	0.0000	0.0000	0.0000	0.0000	0.0000	0.0489	0.0489	0.0606
Storage Surcharge Credit 0.0000 0	Excess Withdrawal	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Storage Surcharge Credit 0.0000	Storage Injection	0.0311	0.0311	0.0311	0.0311	0.0311	0.0311	0.0311	0.0311	0.0311	0.0311	0.0311	0.0353
PCB True-up Settlement 400209 0.0000	Excess Injection	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1559	0.0000	0.1601
FTS-2 Demand FTS-2 Demand FTS-2 Demand FTS-2 Demand FTS-2 Demand FTS-7 Demand FTS-8 Demand FTS-	Storage Surcharge Credit	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
FTS-2 Demand 6.5760 6.57	PCB True-up Settlement 400209	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
FTS-8 Demand 6.8640 FTS-2 PCB True-up Settlement 10.0000 0.0000	FTS-2 Demand	7.9600	7.9600	7.9600	7.9600	7.9600	7.9600	7.9600	7.9600	7.9600	7.9600	7.9600	7.9600
FTS-2 PCB True-up Settlement 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.000	FTS-7 Demand	6.5760	6.5760	6.5760	6.5760	6.5760	6.5760	6.5760	6.5760	6.5760	6.5760	6.5760	6.5760
FT-1 Market Demand 800514 FT-1 Access Area Demand 800514 Commodity Commodi	FTS-8 Demand	6.8640	6.8640	6.8640	6.8640	6.8640	6.8640	6.8640	6.8640	6.8640	6.8640	6.8640	6.8640
FT-1 Access Area Demand 800514 2.2387 2.23	FTS-2 PCB True-up Settlement	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
FT Commodity 0.0439 0.0447 0.0449 0.0000 0.0001 0.0000 0	FT-1 Market Demand 800514	10.4490	10.3680	10.3680	10.3680	10.3680	10.3680	10.3680	10.4250	10.4250	10.4250	10.4250	10.4270
FT-1 ACA Charge 0.0013 0.0013 0.0013 0.0000	FT-1 Access Area Demand 800514			2.2387	2.2387		2.2387			2.2387	2.2387		
FT3-3 Cap.Rel. demand credit 800514 0.0000 0.	FT Commodity	0.0439	0.0447	0.0449	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0512	0.0637
PCB True-up Settlement 800514 0.0000 </th <th>FT-1 ACA Charge</th> <th>0.0013</th> <th>0.0013</th> <th>0.0013</th> <th>0.0000</th> <th>0.0000</th> <th>0.0000</th> <th>0.0000</th> <th>0.0000</th> <th>0.0000</th> <th>0.0000</th> <th>0.0013</th> <th>0.0013</th>	FT-1 ACA Charge	0.0013	0.0013	0.0013	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0013	0.0013
FT-1 Market Demand 800515 10.4490 10.3680 10.3680 10.3680 10.3680 10.3680 10.3680 10.3680 10.3680 10.3680 10.4250 10.63	FT3-3 Cap.Rel. demand credit 800514												
FT-1 Access Area Demand 800515 2.2387<	PCB True-up Settlement 800514	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
FT Commodity 0.0439 0.0447 0.0447 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0013 0.0013 0.0013 FT1-3 Cap.Rel. demand credit 800515 0.0000 0	FT-1 Market Demand 800515		10.3680	10.3680	10.3680	10.3680	10.3680	10.3680	10.4250	10.4250	10.4250	10.4250	10.4270
FT-1 ACA Charge 0.0013 0.0013 0.0013 0.0013 0.0013 0.0000 0.0000 0.0000 0.0000 0.0000 0.0013 0.0013 FT1-3 Cap.Rel. demand credit 800515 0.0000 <t< th=""><th>FT-1 Access Area Demand 800515</th><th></th><th></th><th>2.2387</th><th>2.2387</th><th>2.2387</th><th>2.2387</th><th></th><th>2.2387</th><th>2.2387</th><th>2.2387</th><th></th><th></th></t<>	FT-1 Access Area Demand 800515			2.2387	2.2387	2.2387	2.2387		2.2387	2.2387	2.2387		
FT1-3 Cap.Rel. demand credit 800515 0.0000 0.0000 0.0000 0.0000 0.0510 0.1286 0.1388 0.0982 0.0883 0.1301 0.1500 0.0000 0.0000 0.0000 PCB True-up Settlement 800515 0.0000 </th <th>FT Commodity</th> <th></th>	FT Commodity												
PCB True-up Settlement 800515 0.0000 </th <th>FT-1 ACA Charge</th> <th></th>	FT-1 ACA Charge												
CDS 800232 M1-M1 Cap. Rel. 0.4292 0.4266	•												
FT1-800233 M3-M3 Cap. Rel. 1.0604 1.0615 1.0615 0.1095	·												
FTS-2,7,8 ACA 0.0013 0.0013 0.0013 0.0013 0.0013 0.0013 0.0013 0.0013 0.0013 0.0013 0.0013 0.0013 0.0013	CDS 800232 M1-M1 Cap. Rel.												
	•												
CSHOUT UNDER 5% 0.0000 0.0000 0.0000 2.3870 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	* *												
	CSHOUT UNDER 5%	0.0000	0.0000	0.0000	2.3870	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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Philadelphia Gas Works Cost Of Fuel Purchased <u>Texas Eastern</u>

											Actual
Amount - \$	Jan-18	Feb-18	Mar-18	Apr-18	May-18	June-18	July-18	Aug-18 Sep-18	Oct-18	Nov-18	Dec-18
CDS Market Area Demand	\$ 800,400 \$	794,325 \$	794,325 \$	794,325 \$	794,325 \$	794,325 \$	794,325 \$	798,600 \$ 798,600 \$	798,600 \$	798,600 \$	798,750
CDS Access Area Demand	\$ 330,313 \$	330,293 \$	330,293 \$	330,293 \$	330,293 \$	330,293 \$	330,293 \$	330,293 \$ 330,293 \$	330,293 \$	330,293 \$	330,293
CDS Commodity	\$ 66,322 \$	48,235 \$	56,805 \$	62,792 \$	58,979 \$	58,272 \$	51,953 \$	59,303 \$ 56,058 \$	64,614 \$	59,314 \$	103,778
CDS ACA Charge	\$ 1,964 \$	1,403 \$	1,652 \$	1,826 \$	1,715 \$	1,695 \$	1,511 \$	1,506 \$ 1,423 \$	1,641 \$	1,506 \$	1,966
CDS PCB True-up Settlement											
FT1 Market Area Demand	\$ 248,916 \$	246,987 \$	246,987 \$	246,987 \$	246,987 \$	246,987 \$	246,987 \$	248,344 \$ 248,344 \$	248,344 \$	248,344 \$	248,392
FT1 Access Area Demand	\$ 194,733 \$	194,717 \$	194,717 \$	194,717 \$	194,717 \$	194,717 \$	194,717 \$	194,717 \$ 194,717 \$	194,717 \$	194,717 \$	194,717
FT1 Commodity	\$ 690 \$	- \$	-								
FT1 ACA Charge	\$ 20 \$	- \$	-								
FT1 PCB True-up Settlement											
SS1 Demand 400121	\$ 239,958 \$	239,031 \$	239,031 \$	239,031 \$	239,031 \$	239,031 \$	239,031 \$	239,693 \$ 239,693 \$		239,693 \$	239,693
Space Charge	\$ 28,522 \$	28,522 \$	28,522 \$	28,522 \$	28,522 \$	28,522 \$	28,522 \$	28,522 \$ 28,522 \$	- /	28,522 \$	28,522
Handling fr Storage	\$ 32,175 \$	19,812 \$	13,765 \$	21,868 \$	- \$	- \$	- \$	- \$ - \$		6,363 \$	12,173
Excess Withdrawal	\$ - \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$ - \$	- \$	1,117 \$	-
Storage Injection	\$ 2,897 \$	2,048 \$	804 \$	2,276 \$	3,900 \$	12,693 \$	6,191 \$	13,117 \$ 5,028 \$	8,573 \$	1,269 \$	2,607
Excess Injection	\$ 19,843 \$	23,194 \$	5,094 \$	421 \$	- \$	- \$	- \$	- \$ - \$	- \$	6,246 \$	17,224
Storage Surcharge Credit	\$ (28,016) \$	(28,246) \$	(28,294) \$	(28,220) \$	(28,511) \$	(28,562) \$	(28,625) \$	(28,625) \$ (28,545) \$	(28,579) \$	(29,070) \$	(29,191)
PCB True-up Settlement 400121											
SS1 Demand 400209	\$ 113,387 \$	112,949 \$	112,949 \$	112,949 \$	112,949 \$	112,949 \$	112,949 \$	113,262 \$ 113,262 \$	113,262 \$	113,262 \$	113,262
Space Charge	\$ 26,529 \$	26,529 \$	26,529 \$	26,529 \$	26,529 \$	26,529 \$	26,529 \$	26,529 \$ 26,529 \$	-,	26,529 \$	26,529
Handling fr Storage	\$ 22,054 \$	19,381 \$	21,146 \$	18,106 \$	- \$	- \$	- \$	- \$ - \$		8,336 \$	14,850
Excess Withdrawal	\$ - \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$ - \$	- \$	- \$	-
Storage Injection	\$ 3,091 \$	2,232 \$	1,475 \$	3,620 \$	10,512 \$	7,053 \$	12,202 \$	5,617 \$ 11,684 \$		1,997 \$	3,446
Excess Injection	\$ - \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$ - \$		- \$	-
Storage Surcharge Credit	\$ (13,214) \$	(13,323) \$	(13,345) \$	(13,310) \$	(13,448) \$	(13,471) \$	(13,501) \$	(13,501) \$ (13,463) \$	(13,480) \$	(13,711) \$	(13,768)
PCB True-up Settlement 400209											
FTS-2 Demand	\$ 42,936 \$	42,936 \$	42,936 \$	42,936 \$	42,936 \$	42,936 \$	42,936 \$	42,936 \$ 42,936 \$		42,936 \$	42,936
FTS-7 Demand	\$ 51,214 \$	51,214 \$	51,214 \$	51,214 \$	51,214 \$	51,214 \$	51,214 \$	51,214 \$ 51,214 \$	51,214 \$	51,214 \$	51,214
FTS-8 Demand	\$ 176,467 \$	176,467 \$	176,467 \$	176,467 \$	176,467 \$	176,467 \$	176,467 \$	176,467 \$ 176,467 \$	176,467 \$	176,467 \$	176,467
FTS-2 PCB True-up Settlement											
FT-1 Market Demand 800514	\$ 188,082 \$	186,624 \$	186,624 \$	186,624 \$	186,624 \$	186,624 \$	186,624 \$	187,650 \$ 187,650 \$		187,650 \$	187,686
FT-1 Access Area Demand 800514	\$ 25,687 \$	25,687 \$	25,687 \$	25,687 \$	25,687 \$	25,687 \$	25,687 \$	25,687 \$ 25,687 \$		25,687 \$	25,687
FT Commodity	\$ 24,496 \$	22,529 \$	25,128						\$	27,648 \$	35,545
FT-1 ACA Charge	\$ 725 \$	655 \$	728						\$	702 \$	725
FT3-3 Cap.Rel. dem. credit 800514			\$	(52,380) \$	(71,759) \$	(74,952) \$	(54,796) \$	(49,271) \$ (70,254) \$	(83,700) \$	- \$	-
PCB True-up Settlement 800514											
FT-1 Market Demand 800515	\$ 188,082 \$	186,624 \$	186,624 \$	186,624 \$	186,624 \$	186,624 \$	186,624 \$	187,650 \$ 187,650 \$		187,650 \$	187,686
FT-1 Access Area Demand 800515	\$ 25,687 \$	25,687 \$	25,687 \$	25,687 \$	25,687 \$	25,687 \$	25,687 \$	25,687 \$ 25,687 \$		25,687 \$	25,687
FT Commodity	\$ 24,496 \$	22,529 \$	24,974						\$	27,602 \$	35,545
FT-1 ACA Charge	\$ 725 \$	655 \$	726						\$	701 \$	725
FT1-3 Cap.Rel. dem. credit 800515			\$	(27,540) \$	(71,759) \$	(74,952) \$	(54,796) \$	(49,271) \$ (70,254) \$	(83,700) \$	- \$	-
PCB True-up Settlement 800515											
CDS 800232 M1-M1 Cap. Rel.	\$ (170,666) \$	(154,721) \$	(169,645) \$	(166,950) \$	(181,340) \$	(183,203) \$	(190,871) \$	(202,714) \$ (206,516) \$		(198,708) \$	(202,315)
FT1-800233 M3 - M3 Cap. Rel.	\$ (598,309) \$	(556,042) \$	(615,618) \$	(61,483) \$	(63,532) \$	(61,483) \$	(63,532) \$	(63,532) \$ (61,483) \$		(1,093,409) \$	(1,129,856)
FTS-2,7,8 ACA	\$ 1,345 \$	777 \$	1,105 \$	305 \$	195 \$	195 \$	202 \$	202 \$ 195 \$	202 \$	915 \$	1,008
CSHOUT UNDER 5% DS			\$	5,590							
PRIOR ADJUSTMENTS											
O.F.O CREDITS					\$	(175,289)		\$	(9,514)		
TOTAL	\$ 2,071,553 \$	2,079,709 \$	1,995,091 \$	2,435,515 \$	2,313,545 \$	2,136,587 \$	2,334,530 \$	2,350,080 \$ 2,301,125 \$	2,270,036 \$	1,486,071 \$	1,531,985

Philadelphia Gas Works Volumes, Rates, and Total Amounts <u>Dominion</u>

Volumes GSS Storage Demand GSS Storage Capacity GSS Storage Injection GSS Handling from Storage GSS-TE Surcharge GSS-TE Excess Injection Unathorized Overrun Charges		Jan-18 34,047 3,918,971 - 893,694 893,694		Feb-18 34,047 3,918,971 - 465,340 465,340		Mar-18 34,047 3,918,971 - 705,936 705,936 - -		Apr-18 34,047 3,918,971 - 86,436 86,436		May-18 34,047 3,918,971 582,404		June-18 34,047 3,918,971 577,590 - - - -		July-18 34,047 3,918,971 522,640 - - - -		Aug-18 34,047 3,918,971 540,640 - - -		Sep-18 34,047 3,918,971 523,200 - - - -		Oct-18 34,047 3,918,971 300,000 - - - -		Nov-18 34,047 3,918,971 - 562,476 562,476 -		Actual Dec-18 34,047 3,918,971 - 630,572 630,572 - -
Rates - \$																								
GSS Storage Demand GSS Storage Capacity GSS Storage Injection GSS Handling from Storage GSS-TE Surcharge GSS-TE Excess Injection Unathorized Overrun Charges Total Amount - \$	\$ \$ \$ \$ \$ \$ \$	1.8672 0.0145 0.0290 0.0167 0.0043 0.2381 0.6311	\$ \$ \$ \$ \$ \$ \$	1.8672 0.0145 0.0290 0.0167 0.0043 0.2381 0.6311	\$ \$ \$	1.8672 0.0145 0.0290 0.0167 0.0043 0.2381 0.6311	\$ \$ \$ \$ \$ \$ \$	1.8672 0.0145 0.0290 0.0167 0.0043 0.2381 0.6311	\$ \$ \$ \$ \$ \$ \$	1.8672 0.0145 0.0290 0.0167 0.0043 0.2381 0.6311	\$ \$	1.8672 0.0145 0.0290 0.0167 0.0043 0.2381 0.6311	\$ \$ \$ \$ \$ \$	1.8672 0.0145 0.0290 0.0167 0.0043 0.2381 0.6311	\$ \$ \$ \$ \$ \$ \$	0.0290 0.0167 0.0043 0.2381	\$ \$ \$ \$ \$ \$ \$	1.8672 0.0145 0.0290 0.0167 0.0043 0.2381 0.6311	\$ \$ \$	0.0290 0.0167	\$ \$ \$	0.0164 0.0044 0.2378	\$ \$ \$	1.8673 0.0145 0.0287 0.0164 0.0044 0.2378 0.6309
GSS Storage Demand GSS Storage Capacity GSS Storage Injection GSS Handling from Storage GSS-TE Surcharge GSS-TE Excess Injection *Overrun/Penalty Distribution Unathorized Overrun Charges	\$ \$ \$ \$ \$ \$ \$ \$	63,573 56,825 - 14,925 3,843 - -	\$ \$ \$ \$ \$ \$ \$ \$ \$	63,573 56,825 - 7,771 2,001 - -	\$ \$ \$ \$ \$	63,573 56,825 - 11,789 3,036 - -	\$ \$ \$ \$ \$ \$ \$ \$	63,573 56,825 - 1,443 372 - -	\$ \$ \$ \$ \$ \$ \$ \$	63,573 56,825 16,890 - - - -	\$ \$ \$ \$ \$ \$ \$ \$	63,573 56,825 16,750 - - (9,742)	\$ \$ \$ \$	63,573 56,825 15,157 - - -	\$ \$ \$ \$ \$ \$ \$ \$	15,679 - - - -	\$ \$ \$ \$ \$ \$ \$ \$	63,573 56,825 15,173 - - -	\$ \$ \$ \$	63,573 56,825 8,700 - - -	\$ \$ \$ \$ \$ \$ \$	9,225 2,475 -	\$ \$ \$	63,576 56,825 - 10,341 2,775 -
TOTAL	\$	139,165	\$	130,170	\$	135,222	\$	122,213	\$	137,287	\$	127,405	\$	135,554	\$	136,076	\$	135,570	\$	129,098	\$	132,101	\$	133,517

Schedule 2 Item 53.64(C)(1)

	TG	PL .	TEI	ГСО	Combin	ed Total
	Total	Volume	Total	Volume	Total	Volume
MONTH	Credits	DTH'S	Credits	DTH'S	Credits	DTH'S
Jan-18	\$ 559,908	1,017,792	\$ 768,975	961,877	\$ 1,328,884	1,979,669
Feb-18	\$ 507,359	922,852	\$ 710,763	886,508	\$ 1,218,122	1,809,360
Mar-18	\$ 559,951	1,017,885	\$ 785,263	977,616	\$ 1,345,215	1,995,501
Apr-18	\$ 198,803	991,500	\$ 308,353	2,032,590	\$ 507,156	3,024,090
May-18	\$ 225,949	1,465,238	\$ 388,390	2,121,031	\$ 614,339	3,586,269
Jun-18	\$ 242,766	1,779,750	\$ 394,590	2,070,690	\$ 637,356	3,850,440
Jul-18	\$ 251,325	1,840,093	\$ 363,994	2,143,371	\$ 615,319	3,983,464
Aug-18	\$ 272,694	1,988,339	\$ 364,788	2,168,915	\$ 637,482	4,157,254
Sep-18	\$ 282,548	2,414,580	\$ 408,507	2,255,580	\$ 691,055	4,670,160
Oct-18	\$ 267,717	1,737,333	\$ 447,096	2,348,064	\$ 714,813	4,085,397
Nov-18	\$ 681,740	1,063,890	\$ 1,292,116	1,178,280	\$ 1,973,856	2,242,170
Dec-18	\$ 701,220	1,092,285	\$ 1,332,171	1,210,519	\$ 2,033,391	2,302,804
	\$ 4,751,981	17,331,537	\$ 7,565,006	20,355,041	\$ 12,316,987	37,686,578

Tab 4

	1/1/2019: Jan	2/1/2019: Feb	3/1/2019: Mar	4/1/2019: Apr	5/1/2019: May	6/1/2019: Jun	7/1/2019: Jul	8/1/2019: Aug	9/1/2019: Sep	10/1/2019: Oct
Spot Purchases - Transco	48,542	122,952	84,303	1,160,875	831,850	364,908	7/1/2019: Jul 377,072	377,072	364,908	1,049,568
Spot Purchases - Transco Spot Purchases - Tetco	1,130,555	904,155	333,624	1,981,285	2,336,738	2,203,233	2,007,995	1,957,108	1,876,727	2,073,887
Transco Supply 1	-	-	-	-	-	-	-	-	-	-
Transco Supply 2 Transco Supply 3	-	-	-	-	-	-	-	-	-	-
Transco Supply 4	-	-	-	-	-	-	-	-	-	-
Transco Supply 5	-	-	-	-	-	-	-	-	-	-
Transco Supply 6	620,000	280,000	310,000	-	-	-	-	-	-	-
Transco Supply 7 Transco Supply 8	310,000	280,000	310,000	-	-	-	-	-	-	-
Transco Supply 9	-	-	-	-	-	-	-	-	-	-
Transco Supply 10	-	-	-	-	-	-	-	-	-	-
Transco Supply 11 Transco Supply 12	-	-	-	-	-	-	-	-	-	-
Transco Supply 12	-	-	-	-	-	-	-	-	-	-
Transco Supply 14	310,000	280,000	310,000	-	-	-	-	-	-	-
Transco Supply 15 Transco Supply 16	-	-	-	-	-	-	-	-	-	-
Transco Supply 17	-	-	-	-	-	-	-	-	-	-
Transco Supply 18	-	-	-	-	-	-	-	-	-	-
Transco Supply 19	-	-	-	-	-	-	-	-	-	-
Transco Supply 20 Transco Supply 21	-	-	-	-	-	-	-	-	-	-
Transco Supply 21 Transco Supply 22	-	-	-	- -	-	-	-	-	-	-
Transco Supply 23	-	-	-	-	-	-	-	-	-	-
Transco Supply 24 Transco Supply 25	-	-	-	-	-	-	-	-	-	-
Transco Supply 25 Transco Supply 26	-	-	-	-	-	-	-		-	_
Transco Supply 27	-	-	-	-	-	-	-	-	-	-
Transco Supply 28	155,000	140,000	155,000	-	-	-	-	-	-	-
Transco Supply 29 Transco Supply 30	573,483	432,387	425,623	600,000	620,000	562,720	560,800	598,473	556,945	620,000
Transco Supply 31	-	-	-	-	-	-	-	-	-	-
Transco Supply 32	-	-	-	-	-	-	-	-	-	-
Transco Supply 33 Transco Supply 34	310,000 80,000	280,000 45,000	310,000 35,000	150,000	155,000	112,720	130,782	93,109	123,740	155,000
Transco Supply 35	-	-	-	-	-	-	130,762	-	-	-
Transco Supply 36	180,738	130,334	89,809	492,491	221,197	-	-	-	13,131	394,827
Tetco Supply 1	-	-	-	-	-	-	-	-	-	-
Tetco Supply 2 Tetco Supply 3	-	75,000	75,000	90,000	60,000	75,000	45,000	165,000	60,000	45,000
Tetco Supply 4	-	-	-	-	-	-	-	-	-	-
Tetco Supply 5	-	-	-	-	-	-	-	-	-	-
Tetco Supply 6 Tetco Supply 7	-	-	-	-	-	-	-	-	-	-
Tetco Supply 8	-	-	-	-	-	-	-	-	-	-
Tetco Supply 9	-	-	-	-	-	-	-	-	-	-
Tetco Supply 10 Tetco Supply 11	-	-	-	-	-	-	-	-	-	-
Tetco Supply 12	-	-	-	-	-	-	-	-	-	-
Tetco Supply 13	-	-	-	-	-	-	-	-	-	-
Tetco Supply 14 Tetco Supply 15	-	-	-	-	-	-	-	-	-	-
Tetco Supply 15	310,000	280,000	310,000	-	-	-	-	-	-	-
Tetco Supply 17	-	-	-	-	-	-	-	-	-	-
Tetco Supply 18 Tetco Supply 19	-	-	-	-	-	-	-	-	-	-
Tetco Supply 19 Tetco Supply 20	-	-	-	-	-	-	-	-	-	-
Tetco Supply 21	-	-	-	-	-	-	-	-	-	-
Tetco Supply 22	-	-	-	-	-	-	-	-	-	-
Tetco Supply 23 Tetco Supply 24	195,000	180,000	175,000	190,835	210,781	150,000	160,049	184,464	152,106	228,398
Tetco Supply 25	155,000	140,000	155,000		,/01	-	,,-			
Tetco Supply 26	465,000	420,000	465,000	-	-	-	-	-	-	-
Tetco Supply 27 Tetco Supply 28	620,000	560,000	620,000	-	-	-	-	-	-	-
Tetco Supply 29	-	500,000	-	-	-	-	-	-	-	
Tetco Supply 30	-	-	-	-	-	-	-	-	-	-
Tetco Supply 31	-	-	-	-	-	-	-	-	-	-
Tetco Supply 32				-						
Total Volumes	5,463,318	4,549,828	4,163,359	4,665,486	4,435,567	3,468,581	3,281,697	3,375,225	3,147,558	4,566,680

	11/1/2019: Nov	12/1/2019: Dec	1/1/2020: Jan	2/1/2020: Feb	3/1/2020: Mar	4/1/2020: Apr	5/1/2020: May	6/1/2020: Jun	7/1/2020: Jul	8/1/2020: Aug
Spot Purchases - Transco Spot Purchases - Tetco	992,595 1,720,126	1,065,051 1,988,929	668,925 2,095,462	1,076,047 1,810,537	574,965 1,581,402	1,052,021 1,839,773	1,036,529 2,316,464	425,840 2,120,640	440,034 2,062,196	440,034 1,658,142
Transco Supply 1 Transco Supply 2	-	-	-	-	-	-	-	-	-	-
Transco Supply 2 Transco Supply 3	-	-	-	-	-	-	-	-	-	-
Transco Supply 4	-	-	-	-	-	-	-	-	-	-
Transco Supply 5	-	-	-	-	-	-	-	-	-	-
Fransco Supply 6 Fransco Supply 7	-	-	-	-	-	-	-	-	-	-
Fransco Supply 8	-	-	-	-	-	-	-	-	-	-
Transco Supply 9	-	-	-	-	-	-	-	-	-	-
Fransco Supply 10	-	-	-	-	-	-	-	-	-	-
Γransco Supply 11 Γransco Supply 12	-	-	-	-	-	-	-	-	-	-
Γransco Supply 13	-	-	-	-	-	-	-	-	-	-
Γransco Supply 14	-	-	-	-	-	-	-	-	-	-
Fransco Supply 15	-	-	-	-	-	-	-	-	-	-
Γransco Supply 16 Γransco Supply 17	-		-	-		-	-	-	_	-
Γransco Supply 17	-	-	-	-	-	-	-	-	-	_
Γransco Supply 19	-	-	-	-	-	-	-	-	-	-
Fransco Supply 20	-	-	-	-	-	-	-	-	-	-
Fransco Supply 21 Fransco Supply 22	-	-	-	-	-	-	-	-	-	-
Fransco Supply 22 Fransco Supply 23	-	-	-	-	-	-	-	-	-	-
Transco Supply 24	-	-	-	-	-	-	-	-	-	-
Transco Supply 25	-	-	-	-	-	-	-	-	-	-
Transco Supply 26	-	-	-	-	-	-	-	-	-	-
Fransco Supply 27 Fransco Supply 28	-	-	-	-	-	-	-	-	-	-
Transco Supply 29	-	-	-	-	-	-	_	-	-	-
Transco Supply 30	554,275	540,082	464,438	440,000	234,464	600,000	620,000	600,000	548,707	564,550
Γransco Supply 31	-	-	-	-	-	-	-	-	-	-
Γransco Supply 32 Γransco Supply 33	-	-	-	-	-	-	-	-	-	-
Fransco Supply 34	119,757	155,000	125,000	110,000	66,044	150,000	155,000	150,000	103,510	87,667
Transco Supply 35	-	-	-	-	-	-	-	-	-	-
Fransco Supply 36	428,815	437,633	358,463	440,000	196,837	451,059	-	25,523	-	-
Tetco Supply 1 Tetco Supply 2	-	-	-	-	-	-	-	-	-	_
Tetco Supply 2	330,000	435,000	390,000	290,216	280,478	210,000	105,000	60,000	60,000	330,000
Tetco Supply 4	-	-	-	-	-	-	-	-	-	-
Tetco Supply 5	-	-	-	-	-	-	-	-	-	-
Tetco Supply 6 Tetco Supply 7	-	-	-	-	-	-	-	-	-	-
Tetco Supply 8	-	-		-	_	-	-	_	-	_
Tetco Supply 9	-	-	-	-	-	-	-	-	-	-
Tetco Supply 10	-	-	-	-	-	-	-	-	-	-
Tetco Supply 11 Tetco Supply 12	-	-	-	-	-	-	-	-	-	-
Tetco Supply 13	-	-	-	-	-	-	-	_	-	-
Γetco Supply 14	-	-	-	-	-	-	-	-	-	-
Tetco Supply 15	-	-	-	-	-	-	-	-	-	-
Γetco Supply 16 Γetco Supply 17	-	-	-	-	-	-	-	-	-	-
Tetco Supply 17 Tetco Supply 18	-	-	-	-	-	-	-	-	-	-
Γetco Supply 19	-	-	-	-	-	-	-	-	-	-
Tetco Supply 20	-	-	-	-	-	-	-	-	-	-
Tetco Supply 21	-	-	-	-	-	-	-	-	-	-
Γetco Supply 22 Γetco Supply 23	-	-	-	-	-	-	-	-	-	-
Tetco Supply 24	430,000	735,000	675,000	568,124	442,956	170,000	175,000	163,513	163,856	288,183
Tetco Supply 25	-	-	-	-	-	-	-	-	-	-
Tetco Supply 26	-	-	-	-	-	-	-	-	-	-
Fetco Supply 27 Fetco Supply 28	-	-	-	-	-	-	-	-	-	-
Tetco Supply 29	-	-	-	-	-	-	-	-	-	-
Tetco Supply 30	-	-	-	-	-	-	-	-	-	-
Tetco Supply 31	-	-	-	-	-	-	-	-	-	-
		_	-	_	_	-	_	_	-	-
Tetco Supply 32										

	1/1/2019: Jan	2/1/2019: Feb	3/1/2019: Mar	4/1/2019: Apr	5/1/2019: May	6/1/2019: Jun	7/1/2019: Jul	8/1/2019: Aug	9/1/2019: Sep	10/1/2019: Oct
Williams	\$ 2,190,164	\$ 2,293,677	\$ 2,389,976	\$ 2,628,704	\$ 2,625,429	\$ 2,599,662	\$ 2,600,254	\$ 2,599,741	\$ 2,446,062	\$ 2,475,512
	\$ 2,237,762									\$ 1,998,162
Dominion	\$ 136,248	\$ 132,848		\$ 130,443	\$ 139,772	\$ 139,147	\$ 135,726	\$ 136,694	\$ 132,586	\$ 132,586
Spot Purchases - Transco		\$ 413,611		\$ 3,265,543				\$ 1,073,901		\$ 2,987,071
Spot Purchases - Tecto	\$ 3,742,139	\$ 2,869,789	\$ 979,853	\$ 5,196,911	\$ 6,045,142	\$ 5,783,487	\$ 5,345,282	\$ 5,201,993	\$ 5,067,164	\$ 5,653,417
Transco Supply 1	\$ -	\$ -	\$ -	S -	\$ -	S -	\$ -	\$ -	\$ -	\$ -
Transco Supply 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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	\$ 2,249,825	\$ 941,220		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 1,127,625	\$ 907,620		\$ -	s -	\$ -	S -	\$ -	S -	\$ -
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	\$ 1,109,800	\$ 937,720		\$ -	s -	\$ -	\$ -	\$ -	\$ -	\$ -
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	\$ 525,450	\$ 470,610	-	s -	s -	s -	s -	\$ -	s -	\$ -
	\$ 2,090,455	\$ 1,461,561		\$ 1,696,680		\$ 1,592,563	\$ 1,607,984	\$ 1,713,411	\$ 1,579,035	\$ 1,773,696
	\$ 2,090,433	\$ 1,401,501	\$ 1,556,157	\$ 1,090,000		\$ 1,392,303 \$ -	\$ 1,007,984	\$ 1,713,411	\$ 1,379,033	\$ 1,773,090
	\$ -	\$ -	s -	s -		s -	\$ -	s -	s -	s -
	\$ 1,002,850	\$ 798,000	T	\$ -	s -	s -	s -	s -	s -	\$ -
	\$ 292,146			-	-	-	-	\$ 267,050	7	\$ 443,625
	\$ -	\$ -	\$ -	\$ -24,505		\$ -	\$ 575,245 \$ -	\$ -	\$ -	\$
	\$ 658,337	\$ 440,073		\$ 1,391,532		s -	s -	\$ -		\$ 1,128,613
	\$ -	\$ -		\$ 1,571,552 \$ -		\$ -	s -	\$ -	\$ -	\$ 1,120,015
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	\$ 4,650	\$ 242,250	~	\$ 236,070	~	\$ 196,875	7	\$ 438,570	\$ 162,000	\$ 122,670
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Tetco Supply 16	\$ 1,023,775	\$ 890,820	\$ 912,795	S -	\$ -	S -	S -	\$ -	S -	\$ -
Tetco Supply 17	\$ -	\$ -	\$ -	S -	\$ -	S -	\$ -	\$ -	\$ -	\$ -
Tetco Supply 18	\$ -	\$ -	\$ -	\$ -	S -	\$ -	\$ -	\$ -	\$ -	\$ -
Tetco Supply 19	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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** *	\$ 657,075			\$ 500,560		\$ 393,750	\$ 426,049	\$ 490,304	\$ 410,687	\$ 622,612
	\$ 514,987	,	,	s -	s -	\$ - \$ -	S -	\$ -	s -	S -
	\$ 1,536,825	\$ 1,333,080	\$ 1,365,705	\$ -	s -	p -	S -	\$ -	s - s -	s -
	\$ - \$ 2.047.550	φ - \$ 1777.440	\$ 1,000,040	s -	•	φ - ¢	•	•	•	φ - •
	\$ 2,047,550 \$ -	\$ 1,777,440		s -	s -	•	φ - ¢	•	•	φ - •
	\$ - \$ -	s -	\$ - \$ -	s - s -	s -	s -	φ - \$	s -	s -	э - s
	s -	s -	s -	s -	s -	\$	\$	s -		\$
Tetco Supply 32	s -	S -	\$ -	s -	s -	s -	s -	s -	S -	\$ -
FT PAYBACK ADJUST!	<u>-</u>	s -	s -	s -	\$ 441,303	\$ 441,303	\$ 441,303	\$ 441,303	s -	s -
Total Costs	\$ 23,324,354							\$ 14,297,986		\$ 17,337,965
		7,731,021	- 1,217,207	- 1,,730,332	- 10,075,000		7,057,511			- 1,,551,705

	11/1/2019: Nov	12/1/2019: Dec	1/1/2020: Jan	2/1/2020: Feb	3/1/2020: Mar	4/1/2020: Apr	5/1/2020: May	6/1/2020: Jun	7/1/2020: Jul	8/1/2020: Aug
Williams	\$ 2,447,90	7 \$ 2,577,943	\$ 2,606,468	\$ 2,592,223	\$ 2,616,501	\$ 2,599,758	\$ 2,606,598	\$ 2,585,742	\$ 2,575,686	\$ 2,575,241
	\$ 2,636,159			\$ 2,750,177	\$ 2,852,487	\$ 2,711,658		\$ 2,724,083	\$ 2,714,368	\$ 2,713,309
	\$ 121,54			\$ 134,940	\$ 130,424	\$ 129,774	\$ 139,772	\$ 139,147	\$ 136,148	\$ 135,897
	\$ 2,872,570	3,240,950		\$ 3,295,934	\$ 1,653,023	\$ 2,679,498	\$ 2,587,176	\$ 1,072,690	\$ 1,121,208	\$ 1,122,088
	\$ 4,771,62		\$ 6,322,009	\$ 5,328,411	\$ 4,356,762	\$ 4,465,130	\$ 5,503,918	\$ 5,087,416	\$ 5,007,012	\$ 4,029,286
	\$ -	\$ -	S -	\$ -	s -	s -	\$ -	S -	S -	S -
	\$ -	\$ -	s -	\$ -	s -	s -	s -	s -	s -	\$ -
	\$ -	\$ -	S -	s -	s -	s -	S -	s -	s -	s -
	s -	s -	S -	s -	S -	s -	S -	s -	s -	s -
Transco Supply 5	\$ -	s -	s -	\$ -	S -	s -	s -	s -	s -	s -
Transco Supply 6	s -	s -	S -	s -	S -	s -	S -	s -	s -	s -
	\$ -	s -	s -	s -	S -	s -	S -	s -	s -	s -
	s -	s -	S -	s -	S -	s -	S -	s -	s -	s -
Transco Supply 9	\$ -	\$ -	s -	s -	s -	s -	s -	s -	s -	s -
Transco Supply 10	\$ -	\$ -	\$ -	\$ -	S -	s -	\$ -	\$ -	s -	\$ -
Transco Supply 11	\$ -	\$ -	\$ -	\$ -	\$ -	s -	\$ -	\$ -	\$ -	s -
Transco Supply 12	\$ -	\$ -	\$ -	\$ -	s -	s -	s -	\$ -	s -	\$ -
Transco Supply 12	\$ -	\$ -	\$ -	\$ -	s -	s -	\$ -	\$ -	s -	s -
Transco Supply 14	\$ -	\$ -	\$ -	\$ -	s -	s -	\$ -	\$ -	s -	\$ -
Transco Supply 15	\$ -	\$ -	\$ -	\$ -	s -	s -	s -	\$ -	s -	\$ -
Transco Supply 15 Transco Supply 16	s -	\$ -	\$ -	\$	\$	s -	S -	S -	s -	s -
Transco Supply 17	\$ -	\$ -	\$ -	\$ -	s -	s -	s -	s -	s -	s -
	\$ -	\$ -	s -	s -	s -	s -	S -	s -	s -	s -
Transco Supply 19	\$ -	\$ -	s -	\$ -	s -	s -	S -	s -	s -	s -
Transco Supply 20	s -	\$ -	s -	\$ -	s -	s -	s -	š -	s -	Š -
Transco Supply 21	s -	\$ -	s -	\$ -	s -	s -	s -	s -	s -	s -
Transco Supply 22	\$ -	\$ -	\$ -	\$ -	s -	\$ -	s -	s -	\$ -	\$ -
Transco Supply 23	s -	\$ -	s -	\$ -	s -	s -	s -	s -	s -	s -
Transco Supply 24	\$ -	s -	s -	\$ -	S -	s -	s -	s -	s -	s -
Transco Supply 25	\$ -	s -	s -	s -	s -	S -	s -	s -	s -	s -
Transco Supply 26	s -	s -	S -	s -	S -	s -	S -	s -	s -	s -
	\$ -	s -	s -	\$ -	S -	s -	s -	s -	s -	s -
	\$ -	s -	s -	s -	s -	S -	s -	s -	s -	s -
	\$ -	s -	s -	s -	s -	S -	s -	s -	s -	s -
	\$ 1,612,49	4 \$ 1,651,845	\$ 1,464,564	\$ 1,354,904	\$ 679,403	\$ 1,537,080	\$ 1,556,696	\$ 1,520,280	\$ 1,406,568	\$ 1,448,223
	\$ -	\$ -	S -	\$ -	S -	S -	S -	S -	s -	S -
	\$ -	\$ -	\$ -	\$ -	\$ -	s -	\$ -	s -	\$ -	s -
	\$ -	\$ -	s -	\$ -	\$ -	S -	\$ -	S -	s -	s -
	\$ 348,689	9 \$ 474,160	\$ 394,320	\$ 338,914	\$ 191,483	\$ 384,465	\$ 389,375	\$ 380,265	\$ 265,725	\$ 225,374
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	S -	\$ -	\$ -
	\$ 1,246,35	2 \$ 1,337,188	\$ 1,128,980	\$ 1,353,220	\$ 568,367	\$ 1,154,485	\$ -	\$ 64,611	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 919,92) \$ 1,276,155	\$ 1,181,280	\$ 858,455	\$ 777,366	\$ 509,670	\$ 249,480	\$ 143,940	\$ 145,680	\$ 801,900
Tetco Supply 4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	S -	\$ -	\$ -	\$ -
Tetco Supply 5	\$ -	\$ -	\$ -	\$ -	\$ -	S -	\$ -	\$ -	\$ -	S -
Tetco Supply 6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	S -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	S -	\$ -	\$ -	\$ -	S -
Tetco Supply 8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	S -	\$ -	\$ -
Tetco Supply 9	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	S -	\$ -	\$ -
Tetco Supply 10	\$ -	\$ -	\$ -	\$ -	\$ -	S -	\$ -	\$ -	\$ -	S -
research to the first	\$ -	\$ -	S -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tetco Supply 13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	S -	S -	\$ -	S -
Tetco Supply 14	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tetco Supply 15	\$ -	\$ -	\$ -	\$ -	\$ -	S -	s -	s -	s -	S -
Tetco Supply 16	\$ -	\$ -	\$ -	\$ -	\$ -	S -	\$ -	S -	S -	S -
Tetco Supply 17	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tetco Supply 18	\$ -	\$ -	\$ -	\$ -	\$ -	S -	\$ -	S -	S -	S -
Tetco Supply 19	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	S -	\$ -	\$ -
Tetco Supply 20	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tetco Supply 21	\$ -	\$ -	S -	s -	S -	S -	S -	S -	S -	S -
	s -	\$ -	\$ -	\$ -	S -	s -	\$ -	s -	s -	s -
	\$ -	\$ -	s -	\$ -	s -	s -	s -	s -	s -	s -
				-			-			
	\$ 1,198,82 \$ -	1 \$ 2,154,605 \$ -	\$ 2,042,675 \$	\$ 1,677,788 \$ -	\$ 1,226,545 \$ -	\$ 412,590 \$ -	\$ 415,800 \$	\$ 392,269 \$ -	\$ 397,842 \$ -	\$ 700,285 \$ -
	s -	s -	s -	s -	s -	s -		s -	s -	s -
Tetco Supply 26 Tetco Supply 27	• -	\$ - \$	•	\$	s -	s -	•	•	s -	\$
Tetco Supply 28	s	\$	S	\$	s :	\$	s .	s -	s -	s -
Tetco Supply 29	s	\$	S	\$	s :	s -	s .	s -	s -	s -
Tetco Supply 29	š -	\$ - \$ -	Š -	\$ -	s -	s -	š -	š -	š -	š -
Tetco Supply 30	s -	\$ -	\$ -	\$ -	s -	Š -	S -	s -	s -	s -
Tetco Supply 32	\$ -	\$ -	\$ -	\$ -	s -	š -	s -	\$ -	\$ -	\$ -
FT PAYBACK ADJUST!	<u>s</u> -	\$ -	s -	\$ -	s -	s -	\$ 660,863	\$ 660,863	\$ 660,863	\$ 660,863
Total Costs	\$ 18,176,09			\$ 19,684,967	\$ 15,052,362	\$ 16,584,108		\$ 13,449,580	\$ 13,109,373	\$ 13,090,740

Cost of Natural Gas

<u>Suppliers</u>	1/1/2019: Jan	2	/1/2019: Feb	3/1	1/2019: Mar	4/	1/2019: Apr	5/1	1/2019: May	6	/1/2019: Jun	7/	/1/2019: Jul	8/	1/2019: Aug	9/	/1/2019: Sep	10	/1/2019: Oct
TR Spot	\$ 176,692	\$	413,611	\$	263,616	\$	3,265,543	\$	2,310,049	\$	1,027,217	\$	1,075,410	\$	1,073,901	\$	1,029,042	\$	2,987,071
Supplier 1	\$ -	\$	· -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$		\$	-
Supplier 2	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	_	\$	-	\$	-
Supplier 3	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 4	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 5	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 6	\$ 2,249,825	\$	941,220	\$	968,595	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 7	\$ 1,127,625	\$	907,620	\$	931,395	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 8	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 9	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 10	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 11	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 12	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 13	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 14	\$ 1,109,800	\$	937,720	\$	964,720	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 15	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 16	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 17	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 18	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 19	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 20	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 21	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 22	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 23	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 24	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 25	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 26	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 27	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 28	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 29	\$ 525,450	\$	470,610	\$	484,297	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 30	\$ 2,090,455	\$	1,461,561	\$	1,338,157	\$	1,696,680	\$	1,730,916	\$	1,592,563	\$	1,607,984	\$	1,713,411	\$	1,579,035	\$	1,773,696
Supplier 31	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 32	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 33	\$ 1,002,850	\$	798,000	\$	883,500	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 34	\$ 292,146	\$	152,684	\$	110,741	\$	424,365	\$	432,931	\$	319,348	\$	375,243	\$	267,050	\$	351,100	\$	443,625
Supplier 35	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 36	\$ 658,337	\$	440,073	\$	281,954	\$	1,391,532	\$	617,030	\$	-	\$	-	\$	-	\$	37,192	\$	1,128,613
Total Suppliers	\$ 9,233,179	\$	6,523,099	\$	6,226,974	\$	6,778,120	\$	5,090,926	\$	2,939,129	\$	3,058,637	\$	3,054,362	\$	2,996,370	\$	6,333,006
Transportation Costs																			
Tr Spot	\$ 99,850	\$	76,511	\$	68,278	\$	67,013	\$	39,673	\$	21,374	\$	21,902	\$	21,902	\$	21,906	\$	57,636
Williams Total	\$ 99,850	\$	76,511	\$	68,278	\$	67,013	\$	39,673	\$	21,374	\$	21,902	\$	21,902	\$	21,906	\$	57,636
Total Costs	\$ 9,333,029		6,599,610		6,295,253		6,845,132		5,130,598		2,960,503		3,080,538		3,076,264		3,018,276		6,390,642

Cost of Natural Gas

<u>Suppliers</u>	11/	1/2019: Nov	12/1/2019: Dec	1/	1/2020: Jan	2/	1/2020: Feb	3/1	1/2020: Mar	4/	1/2020: Apr	5/1	1/2020: May	6/	1/2020: Jun	7/	1/2020: Jul	8/1	/2020: Aug
TR Spot	\$	2,872,570	\$ 3,240,950	\$	2,098,418	\$	3,295,934	\$	1,653,023	\$	2,679,498	\$	2,587,176	\$	1,072,690	\$	1,121,208	\$	1,122,088
Supplier 1	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 2	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 3	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 4	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 5	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 6	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 7	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 8	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 9	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 10	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 11	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 12	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 13	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 14	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 15	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 16	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 17	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 18	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 19	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 20	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 21	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 22	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 23	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 24	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 25	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 26	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 27	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 28	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 29	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 30	\$	1,612,494	\$ 1,651,845	\$	1,464,564	\$	1,354,904	\$	679,403	\$	1,537,080	\$	1,556,696	\$	1,520,280	\$	1,406,568	\$	1,448,223
Supplier 31	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 32	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 33	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 34	\$	348,689	\$ 474,160	\$	394,320	\$	338,914	\$	191,483	\$	384,465	\$	389,375	\$	380,265	\$	265,725	\$	225,374
Supplier 35	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 36	\$	1,246,352	\$ 1,337,188	\$	1,128,980	\$	1,353,220	\$	568,367	\$	1,154,485	\$	-	\$	64,611	\$	-	\$	-
Total Suppliers	\$	6,080,105	\$ 6,704,144	\$	5,086,283	\$	6,342,972	\$	3,092,277	\$	5,755,528	\$	4,533,247	\$	3,037,847	\$	2,793,500	\$	2,795,685
Transportation Costs																			
Tr Spot	\$	63,764	\$ 89,315	\$	72,813	\$	81,746	\$	45,334	\$	62,741	\$	43,738	\$	24,575	\$	21,070	\$	21,070
Williams Total	\$	63,764	\$ 89,315	\$	72,813	\$	81,746	\$	45,334	\$	62,741	\$	43,738	\$	24,575	\$	21,070	\$	21,070
Total Costs	\$	6,143,869	\$ 6,793,459	\$	5,159,096	\$	6,424,718	\$	3,137,611	\$	5,818,269	\$	4,576,985	\$	3,062,421	\$	2,814,571	\$	2,816,755

Volumes (Dth)

Suppliers	1/1/2019: Jan	2/1/2019: Feb	3/1/2019: Mar	4/1/2019: Apr	5/1/2019: May	6/1/2019: Jun	7/1/2019: Jul	8/1/2019: Aug	9/1/2019: Sep	10/1/2019: Oct
TR Spot	48,542	122,952	84,303	1,160,875	831,850	364,908	377,072	377,072	364,908	1,049,568
Supplier 1	-	-	-	-	-	-	-	-	-	-
Supplier 2	-	-	-	-	-	-	-	-	-	-
Supplier 3	-	-	-	-	-	-	-	-	-	-
Supplier 4	-	-	-	-	-	-	-	-	-	-
Supplier 5	-	-	-	-	-	-	-	-	-	-
Supplier 6	620,000	280,000	310,000	-	-	-	-	-	-	-
Supplier 7	310,000	280,000	310,000	-	-	-	-	-	-	-
Supplier 8	-	-	-	-	-	-	-	-	-	-
Supplier 9	-	-	-	-	-	-	-	-	-	-
Supplier 10	-	-	-	-	-	-	-	-	-	-
Supplier 11	-	-	-	-	-	-	-	-	-	-
Supplier 12	-	-	-	-	-	-	-	-	-	-
Supplier 13	-	-	-	-	-	-	-	-	-	-
Supplier 14	310,000	280,000	310,000	-	-	-	-	-	-	-
Supplier 15	-	-	-	-	-	-	-	-	-	-
Supplier 16	-	-	-	-	-	-	-	-	-	-
Supplier 17	-	-	-	-	-	-	-	-	-	-
Supplier 18	-	-	-	-	-	-	-	-	-	-
Supplier 19	-	-	-	-	-	-	-	-	-	-
Supplier 20	-	-	-	-	-	-	-	-	-	-
Supplier 21	-	-	-	-	-	-	-	-	-	-
Supplier 22	-	-	-	-	-	-	-	-	-	-
Supplier 23	-	-	-	-	-	-	-	-	-	-
Supplier 24	-	-	-	-	-	-	-	-	-	-
Supplier 25	-	-	-	-	-	-	-	-	-	-
Supplier 26	-	-	-	-	-	-	-	-	-	-
Supplier 27	-	-	-	-	-	-	-	-	-	-
Supplier 28	-	-	-	-	-	-	-	-	-	-
Supplier 29	155,000	140,000	155,000	-	-	-	-	-	-	-
Supplier 30	573,483	432,387	425,623	600,000	620,000	562,720	560,800	598,473	556,945	620,000
Supplier 31	-	-	-	-	-	-	-	-	-	-
Supplier 32	-	-	-	-	-	-	-	-	-	-
Supplier 33	310,000	280,000	310,000	-	-	-	-	-	-	-
Supplier 34	80,000	45,000	35,000	150,000	155,000	112,720	130,782	93,109	123,740	155,000
Supplier 35	-	-	-	-	-	-	-	-	-	-
Supplier 36	180,738	130,334	89,809	492,491	221,197				13,131	394,827
Total Volumes	2,587,762	1,990,673	2,029,735	2,403,366	1,828,048	1,040,348	1,068,653	1,068,653	1,058,725	2,219,395

Volumes (Dth)

<u>Suppliers</u>	11/1/2019: Nov	12/1/2019: Dec	1/1/2020: Jan	2/1/2020: Feb	3/1/2020: Mar	4/1/2020: Apr	5/1/2020: May	6/1/2020: Jun	7/1/2020: Jul	8/1/2020: Aug
TR Spot	992,595	1,065,051	668,925	1,076,047	574,965	1,052,021	1,036,529	425,840	440,034	440,034
Supplier 1	-	-	-	-	-	-	-	-	-	-
Supplier 2	-	-	-	-	-	-	-	-	-	-
Supplier 3	-	-	-	-	-	-	-	-	-	-
Supplier 4	-	-	-	-	-	-	-	-	-	-
Supplier 5	-	-	-	-	-	-	-	-	-	-
Supplier 6	-	-	-	-	-	-	-	-	-	-
Supplier 7	-	-	-	-	-	-	-	-	-	-
Supplier 8	-	-	-	-	-	-	-	-	-	-
Supplier 9	-	-	-	-	-	-	-	-	-	-
Supplier 10	-	-	-	-	-	-	-	-	-	-
Supplier 11	-	-	-	-	-	-	-	-	-	-
Supplier 12	-	-	-	-	-	-	-	-	-	-
Supplier 13	-	-	-	-	-	-	-	-	-	-
Supplier 14	-	-	-	-	-	-	-	-	-	-
Supplier 15	-	-	-	-	-	-	-	-	-	-
Supplier 16	-	-	-	-	-	-	-	-	-	-
Supplier 17	-	-	-	-	-	-	-	-	-	-
Supplier 18	-	-	-	-	-	-	-	-	-	-
Supplier 19	-	-	-	-	-	-	-	-	-	-
Supplier 20	-	-	-	-	-	-	-	-	-	-
Supplier 21	-	-	-	-	-	-	-	-	-	-
Supplier 22 Supplier 23	-	-	-	-	-	-	-	-	-	-
Supplier 24	-	-	-	-	-	-	-	-	-	-
Supplier 25	-	-	-	-	-	-	-	-	-	-
Supplier 26	-	-	-	-	-	-	-	-	-	-
Supplier 27	-	-	-	-	-	-	-	-	-	-
Supplier 28	-	-	-	-	-	-	-	-	-	-
Supplier 29			-							
Supplier 30	554,275	540,082	464,438	440,000	234,464	600,000	620,000	600,000	548,707	564,550
Supplier 31	-		-	-		-		-	-	
Supplier 32	_	_	_	_	_	_	_	_	_	_
Supplier 33	-	-	_	-	_	-	_	_	-	-
Supplier 34	119,757	155,000	125,000	110,000	66,044	150,000	155,000	150,000	103,510	87,667
Supplier 35	-	-	-	-	-	-	-	-	-	-
Supplier 36	428,815	437,633	358,463	440,000	196,837	451,059		25,523		
Total Volumes	2,095,442	2,197,766	1,616,827	2,066,047	1,072,310	2,253,080	1,811,529	1,201,363	1,092,251	1,092,251

	1/1	/2018: Jan	2/	/1/2018: Feb	3,	/1/2018: Mar	4/1/2018: Apr	5	5/1/2018: May	,	6/1/2018: Jun		7/1/2018: Jul	8/	1/2018: Aug	9	/1/2018: Sep	10/	1/2018: Oct
WSS																			
Injection	\$	-	\$	-	\$	-	\$ 6,984	\$	17,885	\$	11,164	\$	11,536	\$	11,536	\$	11,164	\$	11,164
Withdrawal	\$	11,505	\$	8,391	\$	6,513	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Demand Charges	\$	54,699	\$	54,699	\$	77,164	\$ 77,164	\$	77,164	\$	77,164	\$	77,164	\$	77,164	\$	77,164	\$	77,164
Total Charges	\$	66,204	\$	63,089	\$	83,677	\$ 84,147	\$	95,049	\$	88,327	\$	88,699	\$	88,699	\$	88,327	\$	88,327
S2																			
Injection	\$	-	\$	-	\$	-	\$ 976	\$	2,041	\$	1,953	\$	2,018	\$	2,018	\$	1,953	\$	1,953
Withdrawal	\$	6,453	\$	5,031	\$	2,806	\$ -	\$	-	\$	-	\$	-	\$	_	\$	-	\$	-
Demand Charges	\$	26,568	\$	26,568	\$	26,568	\$ 26,568	\$	26,568	\$	26,568	\$	26,568	\$	26,568	\$	26,568	\$	26,568
Total Charges	\$	33,021	\$	31,599	\$	29,374	\$ 27,544	\$	28,610	\$	28,521	\$	28,586	\$	28,586	\$	28,521	\$	28,521
GSS																			
Injection	\$	-	\$	-	\$	456	\$ 13,334	\$	27,558	\$	26,669	\$	27,558	\$	27,558	\$	26,669	\$	26,669
Withdrawal	\$	71,394	\$	37,872	\$	26,233	\$ 866	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Demand Charges	\$	255,014	\$	255,014	\$	341,241	\$ 341,241	\$	341,241	\$	341,241	\$	341,241	\$	341,241	\$	341,241	\$	341,241
Total Charges	\$	326,408	\$	292,886	\$	367,930	\$ 355,442	\$	368,799	\$	367,910	\$	368,799	\$	368,799	\$	367,910	\$	367,910
Total Injection Charges	\$	-	\$	-	\$	456	\$ 21,295	\$	47,484		39,785			\$	41,111	\$	39,785	\$	39,785
Total Withdrawal Charges	\$	89,352	\$	51,293	\$	35,552	\$	\$	-	\$	-	\$		\$	-	\$	-	\$	-
Total Demand Charges	\$	336,281	\$		\$	444,973	\$ 444,973	\$	444,973	\$	444,973	\$	444,973	\$	444,973	\$	444,973	\$	444,973
Total Storage	\$	425,633	\$	387,574	\$	480,981	\$ 467,133	\$	492,457	\$	484,758	\$	486,084	\$	486,084	\$	484,758	\$	484,758
							For	eca	sted Summary	of F	irm Transporta	tio	<u>n</u>						
Demand Charges	\$	2,177,545	\$	2,177,016	\$	2,117,423	\$ 2,116,908	\$	2,116,394	\$	2,115,879	\$	2,115,363	\$	2,114,850	\$	2,114,447	\$	2,114,002

(23,095) \$

(22,350) \$

2,093,529 \$

(23,095) \$

2,092,268 \$

(23,095) \$

2,091,755 \$

(175,050) \$

1,939,397 \$

(180,885)

1,933,117

(22,350) \$

1,840,717 \$ 2,094,558 \$ 2,093,299 \$

Capacity Release Credit \$

Net Demand Charge

(512,864) \$

1,664,681 \$

(347,424) \$

1,829,592 \$

(276,706) \$

	11/	1/2018: Nov	1	2/1/2018: Dec	1	/1/2019: Jan		2/1/2019: Feb		3/1/2019: Mar		4/1/2019: Apr	5	5/1/2019: May		6/1/2019: Jun		7/1/2019: Jul	8/1	1/2019: Aug
WSS																				
Injection	\$	-	\$	-	\$	-	\$	-	\$	-	\$	6,514	\$	13,462	\$	13,028	\$	13,462	\$	13,462
Withdrawal	\$	-	\$	24,020	\$	25,678	\$	19,955	\$	13,425	\$	-	\$	-	\$	-	\$	-	\$	-
Demand Charges	\$	77,164	\$	77,164	\$	77,164	\$	77,164	\$	77,164	\$	77,164	\$	77,164	\$	77,164	\$	77,164	\$	77,164
Total Charges	\$	77,164	\$	101,183	\$	102,842	\$	97,118	\$	90,588	\$	83,677	\$	90,626	\$	90,191	\$	90,626	\$	90,626
S2																				
Injection	\$	-	\$	-	\$	-	\$	-	\$	-	\$	949	\$	2,053	\$	1,897	\$	1,961	\$	1,961
Withdrawal	\$	208	\$	4,141	\$	6,037	\$	4,580	\$	2,806	\$	-	\$	-	\$	-	\$	-	\$	-
Demand Charges	\$	26,568	\$	26,568	\$	26,568	\$	26,568	\$	26,568	\$	26,568	\$	26,568	\$	26,568	\$	26,568	\$	26,568
Total Charges	\$	26,776	\$	30,709	\$	32,605	\$	31,148	\$	29,374	\$	27,517	\$	28,621	\$	28,466	\$	28,529	\$	28,529
GSS																				
Injection	\$	-	\$	-	\$	-	\$	-	\$	-	\$	12,531	\$	33,202	\$	31,206	\$	25,898	\$	25,898
Withdrawal	\$	399	\$	24,132	\$	66,008	\$	32,951	\$	39,959	\$	1,139	\$	-	\$	-	\$	-	\$	-
Demand Charges	\$	341,241	\$	341,241	\$	341,241	\$	341,241	\$	341,241	\$	341,241	\$	341,241	\$	341,241	\$	341,241	\$	341,241
Total Charges	\$	341,641	\$	365,373	\$	407,250	\$	374,192	\$	381,201	\$	354,911	\$	374,444	\$	372,447	\$	367,139	\$	367,139
T . II	•				•							10.004	Φ.	40.717	•	46 121	•	41.220		41 220
Total Injection Charges	\$	-	\$	52.202	\$	- 07.722	\$		\$		\$. ,		48,717		46,131		41,320		41,320
Total Withdrawal Charge		607	\$ \$	52,292		,	\$	57,485		,		,	\$	444,973	\$	444.072	\$	444,973	\$	444.072
Total Demand Charges Total Storage	<u>\$</u>	444,973 445,580		444,973 497,266	\$	444,973 542,697	\$, , , ,	\$, , , ,	\$		_		\$	444,973 491,104	\$		\$	444,973 486,294
Total Storage	٩	443,380	Þ	497,200	Ф	342,097	٥	302,436	4	301,103	φ	400,100	Þ	493,091	φ	491,104	٠	460,294	Ą	460,294
								For	ec	asted Summary	of]	Firm Transporta	tio	<u>n</u>						
Demand Charges	\$	2,113,613	\$	2,172,247	\$	2,171,844	\$	2,171,399	\$	2,111,917	\$	2,111,471	\$	2,111,082	\$	2,110,623	\$	2,110,234	\$	2,109,789
Capacity Release Credit	\$	(175,050)	\$	(180,885)	\$	(180,885)	\$	(163,380)	\$	(41,912)	\$	(40,560)	\$	(41,912)	\$	(40,560)	\$	(41,912)	\$	(41,912)

Net Demand Charge

\$ 1,938,563 \$ 1,991,362 \$

1,990,959 \$

2,008,019 \$

2,070,005 \$

2,070,911 \$

2,069,170 \$

2,070,063 \$

2,068,322 \$

2,067,877

Cost of Natural Gas

Suppliers	1/	1/2018: Jan	2/	/1/2018: Feb	3/	1/2018: Mar	4/	1/2018: Apr	5/1	/2018: May	6/	1/2018: Jun	7/	1/2018: Jul	8/1	/2018: Aug	9/	1/2018: Sep	10/	1/2018: Oct
TE Spot	\$	3,742,139	\$	2,869,789	\$	979,853	\$	5,196,911	\$	6,045,142	\$	5,783,487	\$	5,345,282	\$	5,201,993	\$	5,067,164	\$	5,653,417
Supplier 1	\$	-	\$	-	\$		\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 2	\$	-	\$	-	\$	-	\$	-	\$	-	\$	_	\$	-	\$	-	\$	-	\$	-
Supplier 3	\$	4,650	\$	242,250	\$	224,925	\$	236,070	\$	155,220	\$	196,875	\$	119,790	\$	438,570	\$	162,000	\$	122,670
Supplier 4	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	
Supplier 5	\$	-	\$	-	\$	-	\$	-	\$	-	\$	_	\$	-	\$	-	\$	-	\$	-
Supplier 6	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 7	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 8	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 9	\$	-	\$	-	\$	-	\$	-	\$	-	\$	_	\$	-	\$	-	\$	-	\$	-
Supplier 10	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 11	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 12	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 13	\$	-	\$	-	\$	-	\$	-	\$	-	\$	_	\$	-	\$	-	\$	-	\$	-
Supplier 14	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 15	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 16	\$	1,023,775	\$	890,820	\$	912,795	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 17	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 18	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 19	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 20	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 21	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 22	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 23	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 24	\$	657,075	\$	581,820	\$	525,600	\$	500,560	\$	545,290	\$	393,750	\$	426,049	\$	490,304	\$	410,687	\$	622,612
Supplier 25	\$	514,987	\$	446,110	\$	457,172	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 26	\$	1,536,825	\$	1,333,080	\$	1,365,705	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 27	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 28	\$	2,047,550	\$	1,777,440	\$	1,820,940	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 29	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 30	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 31	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 32	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	
Sub Total	\$	9,527,001	\$	8,141,309	\$	6,286,990	\$	5,933,541	\$	6,745,652	\$	6,374,112	\$	5,891,121	\$	6,130,867	\$	5,639,851	\$	6,398,699
Transportation Costs																				
TE Spot	\$	182,932	\$	162,807	\$	135,792	\$	144,731	\$	166,811	\$	144,115	\$	131,362	\$	136,907	\$	123,993	\$	139,320
Total TE	\$	182,932	\$	162,807	\$	135,792	\$	144,731	\$	166,811	\$	144,115	\$	131,362	\$	136,907	\$	123,993	\$	139,320
Total Costs	\$	9,709,933	\$	8,304,116	\$	6,422,782	\$	6,078,272	\$	6,912,462	\$	6,518,227	\$	6,022,483	\$	6,267,774	\$	5,763,843	\$	6,538,020

Cost of Natural Gas

Suppliers	11/	/1/2018: Nov	12	/1/2018: Dec	1/	1/2019: Jan	2/	1/2019: Feb	3/	1/2019: Mar	4/1	/2019: Apr	5/1	/2019: May	6/	1/2019: Jun	7/	1/2019: Jul	8/1	1/2019: Aug
TE Spot	\$	4,771,629	\$	5,813,640	\$	6,322,009	\$	5,328,411	\$	4,356,762	\$	4,465,130	\$	5,503,918	\$	5,087,416	\$	5,007,012	\$	4,029,286
Supplier 1	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	_	\$	_	\$	-	\$	_
Supplier 2	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_
Supplier 3	\$	919,920	\$	1,276,155	\$	1,181,280	\$	858,455	\$	777,366	\$	509,670	\$	249,480	\$	143,940	\$	145,680	\$	801,900
Supplier 4	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$		\$	-	\$	-	\$	-
Supplier 5	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 6	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 7	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 8	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 9	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 10	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 11	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 12	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 13	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 14	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 15	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 16	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 17	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 18	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 19	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 20	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 21	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 22	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 23	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 24	\$	1,198,821	\$	2,154,605	\$	2,042,675	\$	1,677,788	\$	1,226,545	\$	412,590	\$	415,800	\$	392,269	\$	397,842	\$	700,285
Supplier 25	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 26	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 27	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 28	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 29	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 30	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 31	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Supplier 32	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	
Sub Total	\$	6,890,370	\$	9,244,400	\$	9,545,964	\$	7,864,655	\$	6,360,672	\$	5,387,390	\$	6,169,198	\$	5,623,625	\$	5,550,534	\$	5,531,471
<u>Transportation Costs</u>																				
TE Spot	\$	147,191	\$	186,408	\$	186,498	\$	157,509	\$	136,065	\$	131,756	\$	154,093	\$	139,130	\$	135,690	\$	135,113
Total TE	\$	147,191	\$	186,408	\$	186,498	\$	157,509	\$	136,065	\$	131,756	\$	154,093	\$	139,130	\$	135,690	\$	135,113
Total Costs	\$	7,037,561	\$	9,430,808	\$	9,732,462	\$	8,022,164	\$	6,496,737	\$	5,519,145	\$	6,323,291	\$	5,762,755	\$	5,686,225	\$	5,666,584

Volumes

Suppliers	<u>1/1/2018: Jan</u>	2/1/2018: Feb	3/1/2018: Mar	4/1/2018: Apr	5/1/2018: May	6/1/2018: Jun	7/1/2018: Jul	8/1/2018: Aug	9/1/2018: Sep	10/1/2018: Oct
TE Spot	1,130,555	904,155	333,624	1,981,285	2,336,738	2,203,233	2,007,995	1,957,108	1,876,727	2,073,887
Supplier 1	-	-	-	-	-	-	-	-	-	-
Supplier 2	-	-	-	-	-	-	-	-	-	-
Supplier 3	-	75,000	75,000	90,000	60,000	75,000	45,000	165,000	60,000	45,000
Supplier 4	-	-	-	-	-	-	-	-	-	-
Supplier 5	-	-	-	-	-	-	-	-	-	-
Supplier 6	-	-	-	-	-	-	-	-	-	-
Supplier 7	-	-	-	-	-	-	-	-	-	-
Supplier 8	-	-	-	-	-	-	-	-	-	-
Supplier 9	-	-	-	-	-	-	-	-	-	-
Supplier 10	-	-	-	-	-	-	-	-	-	-
Supplier 11	-	-	-	-	-	-	-	-	-	-
Supplier 12	-	-	-	-	-	-	-	-	-	-
Supplier 13	-	-	_	_	_	-	_	_	-	-
Supplier 14	-	_	-	_	-	-	-	-	_	-
Supplier 15	-	-	-	-	-	-	-	-	-	-
Supplier 16	310,000	280,000	310,000	-	-	-	-	-	-	-
Supplier 17	-	-	-	-	-	-	-	-	-	-
Supplier 18	-	-	-	-	-	-	-	-	-	-
Supplier 19	-	-	-	-	-	-	-	-	-	-
Supplier 20	-	-	-	-	-	-	-	-	-	-
Supplier 21	-	-	-	-	-	-	-	-	-	-
Supplier 22	-	-	-	-	-	-	-	-	-	-
Supplier 23	-	-	-	-	-	-	-	-	-	-
Supplier 24	195,000	180,000	175,000	190,835	210,781	150,000	160,049	184,464	152,106	228,398
Supplier 25	155,000	140,000	155,000	-	-	-	-	-	-	-
Supplier 26	465,000	420,000	465,000	-	-	-	-	-	-	-
Supplier 27	-	-	-	-	-	-	-	-	-	-
Supplier 28	620,000	560,000	620,000	-	-	-	-	-	-	-
Supplier 29	-	-	-	-	-	-	-	-	-	-
Supplier 30	-	-	-	-	-	-	-	-	-	-
Supplier 31	-	-	-	-	-	-	-	-	-	-
Supplier 32	-	-	-	-	-	-	-	-	-	-
Total	2,875,555	2,559,155	2,133,624	2,262,120	2,607,519	2,428,233	2,213,043	2,306,571	2,088,833	2,347,285

Volumes

Suppliers	11/1/2018: Nov	12/1/2018: Dec	1/1/2019: Jan	2/1/2019: Feb	3/1/2019: Mar	4/1/2019: Apr	5/1/2019: May	6/1/2019: Jun	7/1/2019: Jul	8/1/2019: Aug
TE Spot	1,720,126	1,988,929	2,095,462	1,810,537	1,581,402	1,839,773	2,316,464	2,120,640	2,062,196	1,658,142
Supplier 1	1,720,120	1,900,929	2,093,402	1,610,557	1,361,402	1,639,773	2,310,404	2,120,040	2,002,190	1,036,142
Supplier 2	-	-	-	-	-	-	-	-	-	
Supplier 3	330,000	435,000	390,000	290,216	280,478	210,000	105,000	60,000	60,000	330,000
	330,000	435,000	390,000		280,478		105,000	50,000	60,000	330,000
Supplier 4	-	-	-	-	-	-	-	-	-	-
Supplier 5	-	-	-	-	-	-	-	-	-	-
Supplier 6	-	-	-	-	-	-	-	-	-	-
Supplier 7	-	-	-	-	-	-	-	-	-	-
Supplier 8	-	-	-	-	-	-	-	-	-	-
Supplier 9	-	-	-	-	-	-	-	-	-	-
Supplier 10	-	-	-	-	-	-	-	-	-	-
Supplier 11	-	-	-	-	-	-	-	-	-	-
Supplier 12	-	-	-	-	-	-	-	-	-	-
Supplier 13	-	-	-	-	-	-	-	-	-	-
Supplier 14	-	-	-	-	-	-	-	-	-	-
Supplier 15	-	-	-	-	-	-	-	-	-	-
Supplier 16	-	-	-	-	-	-	-	-	-	-
Supplier 17	-	-	-	-	-	-	-	-	-	-
Supplier 18	-	-	-	-	-	-	-	-	-	-
Supplier 19	-	-	-	-	-	-	-	-	-	-
Supplier 20	-	-	-	-	-	-	-	-	-	-
Supplier 21	-	-	-	-	-	-	-	-	-	-
Supplier 22	-	-	-	-	-	-	-	-	-	-
Supplier 23	-	-	-	-	-	-	-	-	-	-
Supplier 24	430,000	735,000	675,000	568,124	442,956	170,000	175,000	163,513	163,856	288,183
Supplier 25	-	-	-	-	-	-	-	-	-	-
Supplier 26	-	-	-	-	-	-	-	-	-	-
Supplier 27 Supplier 28	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
Supplier 29 Supplier 30	-	-	-	-	-	-	-	-	-	-
Supplier 31	-	-	-	-	-	-	-	-	-	-
Supplier 32	-	-	-	-	-	-	-	-	-	-
Supplier 52										
Total	2,480,126	3,158,929	3,160,462	2,668,877	2,304,836	2,219,773	2,596,464	2,344,154	2,286,052	2,276,325

Storages

		1/1/2018: Jan		2/1/2018: Feb	3/1/2018: Mar		4/1/2018: Apr		5/1/2018: May	6/1/2018: Jun	7/1/2018: Jul		8/1/2018: Aug		9/1/2018: Sep		10/1/2018: Oct
SS1A																	
Injections	S	_	\$	_	\$ _	\$	6,340	S	13,736	\$ 19,633	\$ 17,525	S	20,288	S	15,707	\$	15,707
Withdrawal	\$	51,503	\$	44,393	\$ 39,398	\$	17			\$ -	\$	\$	-	\$	-	\$	-
Capacity	\$	28,522	\$	28,522	\$ 28,522	\$	28,522	\$	28,522	\$ 104,626	\$ 104,626	\$	104,626	\$	104,626	\$	104,626
Demand	\$	210,624	\$	210,624	\$ 210,624	\$	210,624	\$	210,624	\$ 331,684	\$ 331,684	\$	331,684	\$	331,684	\$	331,684
Total Charges	\$	290,649	\$	283,539	\$ 278,544	\$	245,503	\$	252,882	\$ 455,943	\$ 453,835	\$	456,597	\$	452,016	\$	452,016
SS1B																	
Injections	S	_	\$	_	\$ _	s	5,817	S	12,553	\$ 18,263	\$ 14.720	S	14.720	\$	14,245	\$	14,245
Withdrawal	\$	39,163	\$	34,544	\$ 30,392	\$	2,179	\$	-	\$ -	\$ -	\$	-	\$		\$	-
Capacity	\$	26,529	\$	26,529	\$ 26,529	\$	26,529	\$	26,529	\$ 97,315	\$ 97,315	\$	97,315	\$	97,315	\$	97,315
Demand	\$	99,551	\$	99,551	\$ 99,551	\$	99,551	\$	99,551	\$ 156,755	\$ 156,755	\$	156,755	\$	156,755	\$	156,755
Total Charges	\$	165,243	\$	160,625	\$ 156,472	\$	134,076	\$	138,634	\$ 272,333	\$ 268,790	\$	268,790	\$	268,315	\$	268,315
GSSTE																	
Injections	S	-	\$	_	\$ 274	s	9,373	S	19,371	\$ 18,746	\$ 15,325	S	16,293	\$	12,185	\$	12,185
Injections/Retention Fu		_	\$	_	\$ 	\$	-	s		\$ 	\$ -	s		s		\$	
Withdrawal	\$	15,847	\$	12,447	\$ 8,943	\$	669	\$	_	\$ _	\$ -	\$	-	\$	_	\$	-
Capacity	\$	56,825	\$	56,825	\$ 56,825	\$	56,825	\$	56,825	\$ 56,825	\$ 56,825	\$	56,825	\$	56,825	\$	56,825
Demand	\$	63,576	\$	63,576	\$ 63,576	\$	63,576	\$	63,576	\$ 63,576	\$ 63,576	\$	63,576	\$	63,576	\$	63,576
Total Charges	\$	136,248	\$	132,848	\$ 129,619	\$	130,443	\$	139,772	\$ 139,147	\$ 135,726	\$	136,694	\$	132,586	\$	132,586
J	\$	-	\$	-	\$ 274		21,529		45,660	56,642	47,570		51,300		42,136	\$	42,136
Total Injections/Retention		-	\$	-	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$	-
Total Withdrawal Charges		106,514		91,385	78,734		2,865		-	\$ -	\$ -	\$	-	\$	-	\$	-
	\$	111,877		111,877	111,877		111,877		111,877	258,766	258,766		258,766		258,766		258,766
Total Demand Charges	\$	373,751	\$	373,751	373,751			\$	373,751	552,015	552,015		552,015		552,015		552,015
•	\$	592,141	\$	577,012	\$ 564,636	\$	510,022	\$	531,288	\$ 867,423	\$ 858,351	\$	862,081	\$	852,917	\$	852,917
					Forecasted	Sur	nmary of Firm Tra	nsp	ortation_								
Texas Eastern Demand	s	2,078,670	s	2,078,097	\$ 2,077,539	\$	2,076,981	s	2,076,423	\$ 2,075,866	\$ 2,075,308	s	2,074,750	s	2,074,313	s	2,073,830
Capacity Release Credits		(479,733)		(324,980)	(467,699)		(115,567)		(119,420)	(115,567)	(119,420)		(119,420)		(905,149)		(935,320)
	\$	1,598,937		1,753,116	1,609,840		1,961,414		1,957,004		1,955,888		1,955,330		1,169,164		1,138,510
Total Demand Charges	\$	1,598,937	\$	1,753,116	\$ 1,609,840	\$	1,961,414	\$	1,957,004	\$ 1,960,298	\$ 1,955,888	\$	1,955,330	\$	1,169,164	\$	1,138,510

Storages

	11/	/1/2018: Nov		12/1/2018: Dec		<u>1/1/2019: Jan</u>		2/1/2019: Feb		3/1/2019: Mar		4/1/2019: Apr		5/1/2019: May		6/1/2019: Jun		7/1/2019: Jul		8/1/2019: Aug
SS1A																				
Injections	S	_	\$	_	\$	_	\$	_	S	_	\$	9,031	\$	19,603	s	18,063	S	18,665	\$	18,665
Withdrawal	s	10	\$	17.332		56,522		45,036		45,057		7,063			\$		s		\$	
Capacity	s	104,626	\$	104.626	\$	104,626		104,626		104,626	\$	104,626		104,626	\$	104,626	s	104,626	\$	104,626
Demand	\$	331,684	\$	331,684	\$	331,684		331,684		331,684	\$	331,684		331,684		331,684		331,684		331,684
Total Charges	\$	436,319	\$	453,641	\$	492,831	\$	481,345	\$	481,367	\$	452,404	\$	455,912	\$	454,372	\$	454,974	\$	454,974
SS1B																				
Injections	\$	-	\$	_	\$	_	S	_	\$	_	\$	8,036	S	17.849	S	16,071	S	16,607	\$	16,607
Withdrawal	S	138	\$	25.025		43,539		41,884		38,525		4,034			\$		s		\$	
Capacity	\$	97,315	\$	97,315	\$	97,315		97,315		97,315	\$	97,315	\$	97,315	\$	97,315	\$	97,315		97,315
Demand	\$	156,755	\$	156,755	\$	156,755	\$	156,755	\$	156,755	\$	156,755	\$	156,755	\$	156,755	\$	156,755	\$	156,755
	\$	254,209		279,095	\$	297,610		295,954		292,595				271,919		270,142				270,677
GSSTE																				
Injections	S	_	\$	_	\$	_	\$	_	\$	_	\$	9,373	\$	19.371	s	18,746	\$	15,747	\$	15,496
Injections/Retention Fu		-	\$	_	\$	_	s	_	\$	_	\$	-,575	\$		\$	-	\$		\$	-
Withdrawal	S	1,148	\$	13,193		15,539	s	14,539	s	10,023	\$	_	\$	_	\$	_	s		\$	_
Capacity	\$	56,825		56,825			\$	56,825	S	56,825		56,825	\$	56,825	\$	56,825	s	56,825	\$	56,825
	s	63,576		63,576		63,576		63,576		63,576		63,576	\$	63,576		63,576		63,576	\$	63,576
Total Charges	\$	121,549	\$	133,594	\$	135,940		134,940	\$	130,424	\$	129,774		139,772		139,147	\$			135,897
Total Injection Charges	\$	-	\$	-	\$	-	\$	-	\$	-	\$	26,440	\$	56,822	\$	52,880	\$	51,018	\$	50,768
Total Injections/Retention	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total Withdrawal Charges	\$	1,296	\$	55,550		115,600	\$		\$	93,605			\$	-	\$	-	\$		\$	-
Total Capacity Charges	\$	258,766	\$	258,766		258,766		258,766	\$	258,766		258,766		258,766	\$	258,766	\$	258,766	\$	258,766
Total Demand Charges	\$	552,015		552,015		552,015			\$	552,015		552,015		552,015		552,015				552,015
•	\$	812,077	\$	866,331	\$	926,381	\$	912,240	\$	904,386	\$	848,318	\$	867,603	\$	863,660	\$	861,799	\$	861,549
						Forecasted	Sun	nmary of Firm Tra	nspe	ortation										
Texas Eastern Demand		2.072.400	•	2.072.024	•	2.072.400	Φ.	2.072.004		2.071.560	•	2.071.004	Φ.	2.070.664		2.070.147		2000 745	•	2.050.252
Capacity Release Credits		2,073,408 (274,969)		2,072,926 (284,134)		2,072,488 (284,134)		2,072,006 (256,637)		2,071,569 (129,109)		2,071,086 (209,728)		2,070,664 (216,719)		2,070,167 (209,728)				2,069,262 (216,719)
	\$	1,798,440		1,788,792		1,788,354		1,815,369		1,942,460		1,861,359		1,853,946		1,860,439				1,852,544
Total Demand Charges	s	1.798.440		1.788.792		1.788.354		1.815.369		1.942.460		1.861.359		1.853.946		1.860.439				1.852.544

CAPACITY RELEASE (Dth)

	TRA	TRANSCO		ТЕТ	CO	•	TE	ГC	0	;	TOTAL I	OL	LARS	TOTAL V	<u>OLUMES</u>
	Contra	ct 36	91	Contrac	800	0232	Contract 8	8005 aid	515-514						
	<u>VOLUMES</u>	DC	<u>DLLARS</u>	<u>VOLUMES</u>	<u>D(</u>	<u>DLLARS</u>	<u>VOLUMES</u>	D	OOLLARS	<u>TI</u>	RANSCO		<u>TETCO</u>	TRANSCO	TETCO
Sep-18	-	\$	-	-	\$	-	-	\$	-	\$	-	\$	-	-	-
Oct-18	-	\$	-	-	\$	-	-	\$	-	\$	-	\$	-	-	-
Nov-18	-	\$	-	-	\$	-	-	\$	-	\$	-	\$	-	-	-
Dec-18	-	\$	-	-	\$	-	-	\$	-	\$	-	\$	-	-	-
Jan-19	310,000	\$	27,652	738,482	\$	65,873	-	\$	-	\$	27,652	\$	65,873	310,000	738,482
Feb-19	280,000	\$	24,976	667,016	\$	59,498	-	\$	-	\$	24,976	\$	59,498	280,000	667,016
Mar-19	310,000	\$	27,652	738,482	\$	65,873	108,000	\$	9,634	\$	27,652	\$	75,506	310,000	846,482
Apr-19	300,000	\$	26,760	714,660	\$	63,748	1,080,000	\$	96,336	\$	26,760	\$	160,084	300,000	1,794,660
May-19	310,000	\$	27,652	738,482	\$	65,873	1,116,000	\$	99,547	\$	27,652	\$	165,420	310,000	1,854,482
Jun-19	300,000	\$	26,760	714,660	\$	63,748	1,080,000	\$	96,336	\$	26,760	\$	160,084	300,000	1,794,660
Jul-19	310,000	\$	27,652	738,482	\$	65,873	1,116,000	\$	99,547	\$	27,652	\$	165,420	310,000	1,854,482
Aug-19	310,000	\$	27,651	738,482	\$	65,873	1,116,000	\$	99,547	\$	27,651	\$	165,420	310,000	1,854,482
TOTAL September 18 - August 19	2,430,000	\$	216,755	5,788,746	\$	516,356	5,616,000	\$	500,947	\$	216,755	\$	1,017,303	2,430,000	11,404,746

CAPACITY RELEASE (Dth)

	TRANSCO		TE	ГCC)	TE	ГCO)		TOTAL I	OI	LLARS	TOTAL V	<u>OLUMES</u>	
	Contra	ct 36	591	Contrac	t 800	0232	Contract 8	8005 aid	15-514						
	<u>VOLUMES</u>	DO	<u>OLLARS</u>	<u>VOLUMES</u>	D	<u>OLLARS</u>	<u>VOLUMES</u>	D	<u>OLLARS</u>	<u>T</u>	RANSCO		<u>TETCO</u>	TRANSCO	TETCO
Sep-19	300,000	\$	255,960	714,660	\$	609,748	1,080,000	\$	921,456	\$	255,960	\$	1,531,204	300,000	1,794,660
Oct-19	310,000	\$	264,492	738,482	\$	630,073	1,116,000	\$	952,171	\$	264,492	\$	1,582,244	310,000	1,854,482
Nov-19	300,000	\$	255,960	714,660	\$	609,748	468,000	\$	399,298	\$	255,960	\$	1,009,046	300,000	1,182,660
Dec-19	310,000	\$	264,492	738,482	\$	630,073	-	\$	-	\$	264,492	\$	630,073	310,000	738,482
Jan-20	310,000	\$	264,492	738,482	\$	630,073	-	\$	-	\$	264,492	\$	630,073	310,000	738,482
Feb-20	280,000	\$	247,428	690,838	\$	589,423	-	\$	-	\$	247,428	\$	589,423	280,000	690,838
Mar-20	310,000	\$	2,263	738,482	\$	5,391	-	\$	-	\$	2,263	\$	5,391	310,000	738,482
Apr-20	300,000	\$	2,190	714,660	\$	5,217	1,080,000	\$	7,884	\$	2,190	\$	13,101	300,000	1,794,660
May-20	310,000	\$	2,263	738,482	\$	5,391	1,116,000	\$	8,147	\$	2,263	\$	13,538	310,000	1,854,482
Jun-20	300,000	\$	2,190	714,660	\$	5,217	1,080,000	\$	7,884	\$	2,190	\$	13,101	300,000	1,794,660
Jul-20	310,000	\$	2,263	738,482	\$	5,391	1,116,000	\$	8,147	\$	2,263	\$	13,538	310,000	1,854,482
Aug-20	310,000	\$	2,263	738,482	\$	5,391	1,116,000	\$	8,147	\$	2,263	\$	13,538	310,000	1,854,482
TOTAL September 19 - August 20	3,650,000		1,566,256	8,718,852		3,731,135	8,172,000		2,313,133	\$	1,566,256	\$	6,044,268	3,650,000	16,890,852

Tab 5

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF

KENNETH S. DYBALSKI

ON BEHALF OF PHILADELPHIA GAS WORKS

Docket No. R-2019-3007636

Philadelphia Gas Works Proposed 2019 Annual GCR Adjustment

March 1, 2019

1	Q.	PLEASE STATE YOUR NAME AND POSITION WITH THE COMPANY.
2		
3	A.	My name is Kenneth S. Dybalski. My position is Vice President- Energy
4		Planning & Technical Compliance at the Philadelphia Gas Works.
5		
6	Q.	HOW LONG HAVE YOU HELD THIS POSITION?
7		
8	A.	I assumed the position of Vice President - Energy Planning & Technical
9		Compliance in 2016. Prior to this position, I was the Director of Gas Planning and
10		Rates from 2006 to 2016 and the Manager of Gas Planning from 2001 to 2006.
11		
12	Q.	AS IT PERTAINS TO ENERGY PLANNING AND RATEMAKING,
13		WHAT ARE YOUR JOB RESPONSIBILITIES?
14		
15	A.	In my present position, I am responsible for the short and long term planning of
16		gas demand, gas supply, raw material expense and revenue; overseeing the
17		preparation of sales, sendout, revenue and fuel expense projections; developing
18		peak day/hour load projections; overseeing the development of the various filings
19		before the Pennsylvania Public Utility Commission (PUC) and Philadelphia Gas
20		Commission (PGC), including the quarterly and annual Gas Cost Rate (GCR)
21		filings; preparing the Integrated Resource Planning Report; and providing
22		supporting documentation for gas costs related to PGW's Operating Budget
23		before the Philadelphia Gas Commission.
24		
25	Q.	PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND.
26		
27	A.	I received a BS and MBA from Temple University in Philadelphia, Pennsylvania.
28		
29		

1	Q.	HAVE YOU EVER PROVIDED TESTIMONY BEFORE THIS
2		COMMISSION?
3		
4	A.	Yes, I submitted testimony for the PGW 1307f Annual GCR Filings in Docket
5		Nos. R-2018-2645938, R-2017-2587526, R-2016-2526700, R-2015-2465656, R-
6		2014-2404355, R-2013-2346376, R-2012-2286447, R-2011-2224739, R-2010-
7		20157062, R-2009-2088076, and R-2008-2021348. I have also submitted
8		testimony in PGW's last base rate proceeding (Docket No. R-2017-2586783), in
9		PGW's previous base rate proceeding (Docket No. R-2009-2139884) and PGW's
10		2008 Extraordinary Rate Request (Docket No. R-2008-2073938).
11		
12	Q.	HOW IS YOUR TESTIMONY STRUCTURED?
13		
14	A.	First, I describe PGW's rate design and Gas Cost Rate (GCR) calculation
15		methodology. Second, I describe the level of heating degree-days utilized in this
16		filing. Third, I identify the methodology for determining the number of customers
17		and calculating firm sales. Fourth, I discuss the calculation for the Unaccounted
18		for Adjustment Factor (UAF). Fifth, I discuss Off System Sales and Capacity
19		Release credits. Sixth, I discuss the Restructuring and Consumer Education
20		Surcharge. Lastly, I will discuss the reasonableness of PGW's gas costs.
21		
22	Q.	PLEASE DESCRIBE THE IMPACT OF THE PROPOSED CHANGE IN
23		PGW's GCR IN THIS PROCEEDING.
24		
25	A.	PGW's GCR on September 1, 2018 was \$3.8633 / Mcf and this rate was increased
26		in the Company's first quarterly GCR filing on December 1, 2018 to \$4.4723.
27		PGW's second quarter GCR filing, also submitted to the PUC concurrently with
28		this filing, increases the GCR to \$4.8779 effective March 1, 2019. The proposed
29		rate to be effective September 1, 2019 is \$4.9887.
30		

1	Q.	PLEASE SUMMARIZE THE EVIDENCE THAT PGW IS SUBMITTING
2		IN SUPPORT OF ITS PROPOSED GCR ADJUSTMENT.
3		
4	A.	Tab 2 of this filing contains the schedules supporting the filing requirements of
5		Section 53.64(a) for the proposed GCR for the period September 1, 2019 through
6		August 31, 2020.
7		
8		Schedule 1 identifies the Levelized Gas Cost Rate. Specifically, this schedule
9		identifies the GCR Firm Sales Volumes in Mcfs ("S"), Total Applicable GCR
10		Expense ("C"), and adjustments for Prior Year Reconciliation and Interest ("E").
11		An adjustment is also included for the Interruptible Revenue Credit (IRC).
12		Additionally, this schedule calculates the company's total projected recovery plus
13		the load balancing revenue and LNG sales demand revenue to determine if these
14		rates adequately cover the Net Applicable GCR Expense (a Net Over/Under
15		Recovery amount is displayed to prove the calculation). Schedule 1a details the
16		Price to Compare for the PGW rate classes.
17		
18		Schedule 2 identifies the calculation of GCR Firm Sales in Mcfs ("S") and the
19		Applicable Volumes. The company utilizes Total Volumes and subtracts the
20		volumes associated with Firm Transportation, Interruptible Sales, LNG Sales and
21		AC Sales to arrive at GCR Firm Sales ("S"). Also included in Schedule 2 are the
22		Applicable Volumes which is comprised of GCR Firm Sales less 20% of the sales
23		attributable to Senior Citizens (Senior Citizen Discount Sales) plus the Firm
24		Transportation Volumes.
25		
26		Schedule 3 identifies the Projected Applicable Fuel Expense. Specifically, this
27		schedule identifies PGW's Net Natural Gas Expense and Total Applicable
28		Expenses. To arrive at the Net Natural Gas Expense, the total cost of commodity
29		and pipeline charges for firm sales are calculated per month. Two credits are then
30		applied for the portion of gas costs recovered from PGW's Interruptible Sales
31		customers (i.e. the "Interruptible & Firm A/C Credit") and for gas used by PGW

1	(i.e. "Gas Used by Utility"). Next, the Company calculates the net effect of gas
2	supplies being transferred into and out of storage and LNG. The result is the Net
3	Natural Gas Expense. To arrive at the Total Applicable Expenses in Schedule 3,
4	the fuel expenses for Purchased Electric and miscellaneous are added to the Net
5	Natural Gas Expenses to arrive at Total Applicable Expenses.
6	
7	Schedule 4(a) is the actual/estimated data for FY 19. Schedule 4(b) is the C factor
8	Reconciliation for FY 19. Schedule 4(c) is the E factor Reconciliation for FY 19.
9	Schedule 4(d) is the IRC Revenue Billed for FY 19. Schedule 4(e) is the
10	Reconciliation of Demand Charges for FY 19.
11	
12	Schedule 5(a) ("Interest Calculation") provides the calculation of the interest
13	expense or credit for the period of September 2018 through August 2019 for the
14	under/over recovery of fuel costs and the interest for the natural gas refunds.
15	Schedule 5(b) ("Interest on Natural Gas Refunds") provides information on
16	historic refunds that have been received by the Company resulting from various
17	cases before the Federal Energy Regulatory Commission and the interest on these
18	refunds. Schedule 5(c) provides the calculation of the interest for the demand and
19	commodity charges.
20	
21	Schedule 6 presents the load balancing revenue for the forecast period of
22	September 2019 to August 2020.
23	
24	Schedule 7 calculates total projected recovery with the proposed GCR.
25	
26	Schedule 8 shows the changes in rates identifying the proposed changes to the
27	GCR and distribution charge and the impact on the proposed total commodity
28	rate.
29	
30	Schedule 9(a) shows the calculation of the Universal Service & Energy
31	Conservation Surcharge to be effective September 1, 2019. Schedule 9(b) is the

1	reconciliation of the Universal Service & Energy Conservation Surcharge for
2	period of September 2018 to August 2019.
3	
4	Schedule 10(a) shows the calculation of the Interruptible Revenue Credit to be
5	effective September 1, 2019. Schedule 10(b) is the forecasted Interruptible
6	Revenue Margin for Fiscal Year 2020. Schedule 10(c) is the reconciliation of the
7	Interruptible Revenue Credit for Fiscal Year 2018.
8	
9	Schedule 11(a) shows the calculation of the Other Post Employment Benefit
10	(OPEB) Surcharge to be effective September 1, 2019. Schedule 11(b) is the
11	reconciliation of the OPEB Surcharge for Fiscal Year 2018.
12	
13	Schedule 12(a) shows the calculation of the Efficiency Cost Recovery Surcharge
14	to be effective September 1, 2019. Schedule 12(b) shows the reconciliation of the
15	Efficiency Cost Recovery Surcharge for the Fiscal Year 2019.
16	
17	Schedule 13(a) is the calendar year 2018 reconciliation of the Load Balancing
18	Charge and Schedule 13(b) is the 2018 Load Balancing Expense and Interest
19	Calculation.
20	
21	Schedule 14 sets the load balancing charge to be effective September 1, 2019.
22	
23	Schedule 15 identifies the natural gas prices that were used in the preparation of
24	this filing.
25	
26	Schedule 16 is the annual reconciliation of the retainage rate and lost and
27	unaccounted for rate.
28	
29	Schedule 17(a) is the Restructuring and Consumer Education Surcharge to be
30	effective September 1, 2019; Schedule 17(b) is the Restructuring and Consumer

1		Education Surcharge FY 17 Reconciliation; and Schedule 17(c) is the
2		Restructuring and Consumer Education Expense.
3		
4	Q.	WHAT IS THE TIME PERIOD FOR FORECASTING PGW'S FUTURE
5		GAS COSTS?
6		
7	A.	PGW's forecast period is a twenty (20) month period that commences on January
8		1, 2019 (two months before this filing) and eight months before the effective date
9		of the tariff on September 1, 2019. The 2019-20 GCR year is from September 1,
10		2019 to August 31, 2020, however, since the required forecast covers 20 months,
11		it must begin eight months earlier, consistent with Commission regulations.
12		
13	Q.	PLEASE PROVIDE A GENERAL DESCRIPTION OF PGW'S RATE
14		DESIGN AND GCR CALCULATION METHODOLOGY.
15		
16	A.	The volumetric rates charged to PGW's customers are the distribution charge and
17		the Gas Cost Rate plus the Merchant Function Charge (MFC) and Gas
18		Procurement Charge (GPC). The distribution charge consists of the Delivery
19		Charge; the Universal Service and Energy Conservation Surcharge; the Other Post
20		Retirement Benefit Surcharge; the Efficiency Cost Recovery Surcharge; and
21		Restructuring and Consumer Education Surcharge. The Universal Service and
22		Energy Conservation Surcharge provides for the recovery of Customer
23		Responsibility Program (CRP) discounts; Senior Citizen Discounts; the costs of
24		the Enhanced Low Income Retrofit Program (ELIRP); and CRP arrearage
25		forgiveness. The Other Post Retirement Benefit Surcharge recovers the amount to
26		fund these obligations. The Efficiency Cost Recovery Surcharge recovers the cost
27		of the energy efficiency programs.
28		
29		The second element of the rate is the Gas Cost Rate or GCR factor. This charge is
30		a mechanism used to flow through the costs of natural gas costs and other raw

materials in a timely and equitable manner. The specific elements of PGW's GCR are set forth in PGW's Tariff.

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Generally, the cost of gas purchased to serve the requirements of PGW's customers constitutes the largest single item in the delivered price of gas. In the past, all natural gas costs were recovered through base rates (distribution charge). However, in the early 1970's, the price of gas lost its stability and underwent rapid escalation during and after a worldwide oil crisis. To combat this instability and prevent the economic harm to all parties caused by regulatory lag in reflecting these price fluctuations in base rates, the concept of a fuel adjustment surcharge mechanism was introduced by PGW. This mechanism provides the flexibility to rapidly reflect current conditions without the time delay inherent in a full-scale base rate alteration. The intent is to achieve an annual balance of the costs incurred for fuel and its pass-through to customers. The costs for pipeline transportation, storage capacity and related fuel prices charged by the interstate pipeline suppliers are largely outside of distributor control. The Public Utility Commission oversees the pass-through of these charges and the balancing activity. The Gas Cost Rate Section in PGW's Tariff identifies the appropriate formula for such a balance and the charges that may be recovered through this mechanism. Charges for natural gas and other raw materials are included in the GCR. In addition, the interest expense for the over or under recovery of gas costs and natural gas refunds are also included in the GCR. No labor or profit component is added by PGW. The GCR represents the direct pass-through of actual costs incurred.

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Only costs related to meeting customer sendout requirements, including associated plant fuel, may be included as a fuel expense for GCR purposes. Purchases diverted into storage and/or LNG become an expense only when withdrawn for customer delivery. Costs associated with purchases made to supply interruptible customers are excluded from the Total Applicable GCR

1		Expenses used to calculate the GCR. Also, demand costs for pipeline
2		transportation for the firm transportation customers are excluded from the GCR.
3		
4		Various adjustments are then made to the total applicable expenses eligible for the
5		GCR. Natural gas refunds and interest on the refunds are credited in the
6		calculation of the GCR in the fiscal year received. An adjustment is made to
7		correct for any over or under recovery during the previous period resulting from
8		differences between rates used to project the prior GCR and those actually
9		experienced. The interest expense or credit on the over or under recovery is
10		applied to calculate the total adjustment. An additional adjustment is also made
11		for the Interruptible Revenue Credit which is a credit that firm sales customers
12		receive for the interruptible sales margin.
13		
14		To determine the unit level of the GCR, the remaining total expenses must be
15		divided by the sum of the volumes over which they can be effectively distributed.
16		
17	Q.	WHAT IS THE BASIS FOR THE PRICES USED IN DETERMINING THE
18		GAS COSTS USED IN THIS FILING?
19		
20	A.	The pricing methodology utilized by the Company is consistent with that used in
21		the recent quarterly filings with the inclusion of the additional months in the 20-
22		month forecast. Specifically, the company utilized actual prices for January 2019
23		and the NYMEX Futures close data (as of January 16, 2019) for the 19 forecast
24		months of February 2019 through August 2020.
25		
26	Q.	HOW DOES THE GCR FOR THE FORECAST PERIOD COMPARE
27		WITH THE GCR FORECASTED IN THE COMPANY'S LAST ANNUAL
28		GCR FILING?
29		

1	A.	The GCR forecasted for 2019-2020 is higher than the level PGW had forecasted
2		for the 2018-2019 GCR. The level of costs in the 2019-2020 period are being
3		influenced by the increase in costs compared to the prior year.
4		
5	Q.	DESCRIBE THE LEVEL OF HEATING DEGREE-DAYS THAT WERE
6		USED IN YOUR ANALYSIS.
7		
8	A.	The Company utilizes the temperatures recorded at the PGW Richmond Plant to
9		calculate the average temperature for a given day. The Company subtracts the
10		average temperature from 65 degrees to calculate the number of degree-days for
11		the day. The degree-days for all of the days in the year are aggregated to arrive at
12		the total number of degree-days for the year. Next, the Company calculates the
13		average heating degree-days for the past 20 years to arrive at the forecasted
14		heating degree-days in a normal year and in this filing PGW is using the 20 year
15		average of 3,956 degree days.
16		
17	Q.	HOW HAS THE COMPANY CALCULATED THE NUMBER OF
18		CUSTOMERS IN EACH RATE CLASS?
19		
20	A.	PGW determined the actual number of customer billings on December 31, 2018
21		using the PGW Gas Sales and Revenue Reports. Next, the Marketing Department
22		load forecast was used to factor in the addition and loss of customers. Finally, the
23		customer numbers were adjusted for the loss of customers due to non-payment
24		terminations.
25		
26	Q.	WHAT IS THE METHOLOGY FOR CALCULATING THE WEATHER
27		NORMALIZED BILLED SALES?
28		
29	A.	PGW used a two-step process to arrive at the appropriate level of usage per
30		customer. First, a trial domestic factor is developed by class of customers from
31		sales reported for the previous year's summer months. This average factor is then

31		ARE INCORPORATED INTO THE GCR?
30		RELEASE CREDITS, AND ASSET MANAGEMENT CREDITS THAT
29	Q.	WHAT IS THE TOTAL AMOUNT OF OFF SYSTEM SALES, CAPACITY
28		
27		is based on a 3-year average.
26	A.	The level of unaccounted for gas and retainage rate used in this filing is 2.9 % and
25		
24		THIS FILING?
23	Q.	WHAT IS THE UNACCOUNTED FOR GAS PERCENTAGE USED IN
22		
21		3,956 degree days and the number of customers.
20		Utilizing these domestic and heating factors, billed sales are then forecasted using
19		
18		experience, thus resulting in the determination of a finalized heating factor.
17		projected and actual is adjusted to force the replication of the actual sendout
16		then compared with the actual sendout experienced. Any variation between the
15		project an estimated sendout for each of these months. The projected sendout is
14		months of December, January and February (the peak winter cold period) to
13		then applied in the sendout calculations together with customer counts for the
12		The finalized domestic factor and the trial heating factor developed, as such, are
11		140101.
10		factor.
9		days to give an average value which is utilized as a trial value for the heating
7 8		the remaining temperature sensitive load. The results are weighted by degree-
6		and customer counts for the months of December, January and February to determine the average Mcf per degree day for each of the individual months for
5		domestic factors (DOMS) are then utilized in conjunction with the actual sales
4		factors are finalized to replicate the total sendout experienced. The finalized
3		the actual experienced for those three months is ascertained and the trial domestic
2		August and September. A comparison between what the formula calculates and
1		utilized in the sendout formula with the customer counts for the months of July,

1		
2	A.	PGW has projected the amount of off system sales, capacity release credits, and
3		asset management credits within the GCR period of 2019-20. This amount is
4		based on a 3 year average. Of that amount, \$7,610,524 (75%) was credited to the
5		GCR.
6		
7	Q	WHY IS PGW SEEKING TO RECOVER COSTS THROUGH THE
8		RESTRUCTURING & CONSUMER EDUCATION (R&CE)
9		SURCHARGE?
10		
11	A.	PGW's completion date for system modifications to accommodate its purchase of
12		receivables program and consolidated billing has extended beyond original time
13		estimates. The costs for the remaining implementation activities are a
14		continuation of expenses consistent with the Settlement approved by the
15		Commission's February 20, 2014 Order at Docket Nos. R-2008-2073938 and R-
16		2009-2139884 ("POR Settlement"). In fiscal year 2020, PGW expects to complete
17		implementation activities and recover the expenses through the R&CE in
18		accordance with the POR Settlement. PGW is also refunding an over collation
19		that existed at the end of the surcharge in August, 2018.
20		
21	Q.	BASED UPON THE ABOVE SUPPORTING DATA, DO YOU BELIEVE
22		THAT PGW'S GAS COSTS ARE REASONABLE?
23		
24	A.	Yes, PGW's GCR only contains the direct pass-through of actual costs incurred
25		and projections of the same (for both gas costs and certain non-gas costs that were
26		previously approved by the PUC). As stated by Mr. Snyder in his testimony,
27		PGW follows a least cost gas procurement strategy.
28		
29	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
30		

31

A.

Yes.

Tab 6

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF

RAYMOND M. SNYDER

ON BEHALF OF PHILADELPHIA GAS WORKS

Docket Number R-2019-3007636

Philadelphia Gas Works Proposed 2019 Annual GCR Adjustment

March 1, 2019

1 I. <u>INTRODUCTION</u>

2	Q.	PLEASE STATE YOUR NAME AND CURRENT POSITION WITH PGW.
3	A.	My name is Raymond M. Snyder. My position with PGW is Senior Vice President of
4		Gas Management.
5	Q.	PLEASE SUMMARIZE YOUR BACKGROUND AND EXPERIENCE.
6	A.	I received a Bachelor of Science degree in Civil Engineering from Pennsylvania State
7		University in 1979. I have also received a Masters in Engineering Management from
8		Drexel University in 1988. I am a registered Professional Engineer in Pennsylvania.
9		I have held the following positions at PGW: Engineering Assistant; Assistant Staff
10		Engineer; Staff Engineer; Senior Staff Engineer; Assistant Manager, Engineering;
11		Manager, Engineering; Director, Operations Systems Administration; Director, Gas
12		Processing; and Vice President, Gas Management.
13	Q.	HAVE YOU EVER PROVIDED TESTIMONY BEFORE THIS COMMISSION?
14	A.	Yes. I submitted testimony for the PGW 1307f Annual GCR Filings in Docket Nos. R-
15		2013-2346376, R-2014-2404355, R-2015-2465656, R-2016-2526700,
16		R-2017-2587526 and R-2018-2645938.
17	Q.	WHAT IS THE FOCUS OF YOUR TESTIMONY IN THIS PROCEEDING?
18	A.	My testimony discusses:
19 20 21		 PGW's gas purchasing policies and strategies applicable to FY 2020 (September 1, 2019 through August 31, 2020) and FY 2019 (September 1, 2018 through August 31, 2019);
22		PGW's design day requirement;
23		• Capacity release, off-system sales and asset management fee sharing;
24		 Price analysis and buying advisory service;

1		• Choice supplier capacity release charges;
2		Monthly imbalance reconciliation procedures; and
3		• A proposed expansion of PGW's tariffed LNG services.
4 5 6	Q.	PLEASE PROVIDE A GENERAL DESCRIPTION OF PGW'S GAS DISTRIBUTION SYSTEM.
7	A.	PGW's gas distribution system is located in Southeastern Pennsylvania in the County and
8		City of Philadelphia. Since this is not a gas-producing area, PGW and its natural gas
9		customers are dependent upon the interstate natural gas pipeline system to deliver natural
10		gas into the PGW gas distribution system. PGW relies on the interstate pipeline for all
11		natural gas supply, storage, and transportation services, except for PGW's own on-system
12		peak shaving facilities. PGW owns and operates two LNG facilities that are used
13		primarily both to meet intraday, daily and seasonal supply needs as well as to meet peak
14		day requirement.
15	Q.	PLEASE IDENTIFY PGW'S CURRENT INTERSTATE SUPPLIERS.
16	A.	Spectra Energy's Texas Eastern Transmission pipeline and Williams' Transco Gas
17		Pipeline comprise the two interstate natural gas pipelines that deliver gas to PGW's city
18		gates. In addition, PGW uses off-system natural gas storage services to meet winter peak
19		requirements.
20		
21	II.	GAS PURCHASING POLICIES AND SUPPLY STRATEGY
22 23 24	Q.	DOES PGW UTILIZE A LEAST-COST PROCUREMENT POLICY IN ITS GAS PURCHASING POLICIES AND SUPPLY STRATEGY?
24 25	A.	Yes.
26	Q.	PLEASE DESCRIBE PGW'S SUPPLY STRATEGY.

A. PGW's supply strategy¹ (which is currently being used during the FY 2019 GCR period and which the Company intends to use for the FY 2020 GCR period) is a portfolio approach in both contract structure and pricing. The portfolio approach of purchasing gas supply allows PGW to remove some of the volatility in purchasing natural gas supplies for its ratepayers. Without the use of the portfolio approach, firm ratepayer would be totally at the mercy of market volatility.

The Company's gas supply portfolio is divided into four distinct categories: (1) daily index price swing contracts; (2) physical forward purchased contracts; (3) storage; and (4) LNG.

- (1) The advantage of daily index priced swing contracts are their operational flexibility which allows PGW to increase or decrease the volume in response to changes in sendout requirements. During certain time periods, these types of contracts also provide security of supply.
- (2) The Company enters into physical forward purchased contracts for summer and winter baseload supplies. These contracts permit the Company to make discretionary physical forward purchases on a year-round basis.
- (3) The Company utilizes storage fields which act as additional sources of supply.

 The gas procured under these contracts also act as a physical fixed price counter to market conditions.
- (4) The Company operates its own LNG peak shaving liquefaction, vaporization, and storage facilities.

¹ All natural gas supply strategies are presented to the Company's internal Supply Committee for review and approval. The Supply Committee is comprised of senior corporate management as well as Gas Supply, Gas Planning and Regulatory departmental management. The Supply Committee meets monthly.

Spectra Energy and Williams Gas Pipeline represent the only interstate pipeline facilities with physical connections to the PGW service territory. As a result, all of PGW's supply contracts utilize these pipelines and the contracts also recognize pipeline receipt and delivery rights. These contracts contain the ability to "lock up" the price for upcoming months or to have the pricing default to an agreed upon market index if there is no market advantage in fixing a price before the month begins. As a result, PGW not only ensures security of supply from the pipelines but also can take advantage of varying basis differentiated pricing in the market. This differentiated pricing results from the fact that all shippers of natural gas receive their gas at varying locations along the pipeline. PGW uses a city-gate delivered price in comparing the various alternatives available. The city gate delivered price is computed considering the "into the pipe price of gas" plus all incremental charges levied by the transporting pipeline to deliver the gas to the city gate. These prices include, but are not limited to, reservation fees, fuel, transportation charges and FERC Annual Charge Adjustment ("ACA") charges.

Additionally, PGW utilizes storages and LNG to meet operational requirements. Bundled storage contracts provide for the right both to the storage of the gas and its delivery to PGW via bundled pipeline capacity. Unbundled storage contracts provide storage rights for gas which is transported on PGW firm pipeline transportation capacity. These storages provide off-system storage and LNG provides on-system storage. While both types of storages are important to fulfill operational requirements, PGW's on-system LNG storage is vital during peak days when customer demand exceeds the amount of gas that can be physically provided through PGW's city gates.

Once operational requirements are met, these assets are then used in the overall cost saving strategies. For example, once design winter sendout requirements are ensured, the Company may utilize bundled storage and LNG as a substitute for higher priced gas. PGW's summer gas procurement policy uses a similar approach to address system supply and storage refill. The Gas Supply department also uses forecasted prices as a benchmark to purchase gas volumes for both system supply and storage refill below the projected cost (when possible) on a proportional basis, while leaving a portion of its needs to default to first of the month pricing.

9 Q. DOES PGW PURCHASE GAS FROM ANY AFFILIATED INTEREST?

10 A. No. PGW does not have any affiliated gas suppliers or pipelines.

11 Q. DOES PGW TAKE STEPS TO ENSURE SYSTEM RELIABILITY WHILE SEEKING TO PROCURE GAS AT THE LEAST COST?

A. Yes. PGW physically sources the gas in accordance with its firm pipeline paths. The pipelines give PGW firm entitlements on their systems for the sourcing of gas for which PGW pays a demand charge. By sourcing supply in this way, PGW ensures its sole entitlement to this space on the pipeline and cannot be accused of infringement.

Transporting gas from different locations also mitigates the impact of potential regional disruptions because not all of the supply enters the pipe at the same location. As a result, if there is a disruption at one location, not all of PGW's supply will be affected.

PGW's Gas Planning Department also runs a supply status model during the winter operating season which recognizes normal and design winter conditions and the latest actual balance of gas in all storage facilities. Gas Management utilizes the output of this model to make recommendations or changes in its supply operating strategy to ensure that peak day needs and design winter conditions can be met from that point forward.

1 2 3	Q.	DOES PGW PERIODICALLY REVIEW ITS EXISTING CONTRACTS TO DETERMINE IF THEY ARE APPROPRIATE?
4	A.	Yes. PGW reviews each of its existing contracts on a regular basis to ensure that none of
5		the contracts are adverse to its customers' interests. Whenever appropriate, PGW
6		initiates renegotiations (if the contract permits) to change the terms.
7 8 9	Q.	IN YOUR OPINION, ARE THE GAS COSTS INCURRED BY PGW REASONABLE?
10	A.	Yes. The 2027-2018 gas costs and the gas costs incurred to date during the 2018-2019
11		period are the result of the least cost gas procurement strategy outlined in my testimony
12		and are therefore reasonable.
13		
14	III.	DESIGN DAY REQUIREMENT
15	Q.	PLEASE PROVIDE AN OVERVIEW OF THE DESIGN DAY REQUIREMENT.
16	A.	Details of PGW's design day methodology and an account of the 2018/2019 winter
17		design day requirement can be found in the responses to items 53.64 (c)(13) and
18		53.64(c)(14) which were provided in PGW's February 1, 2019 GCR Filing.
19		
20 21 22	IV.	CAPACITY RELEASE, OFF-SYSTEM SALES MARGIN AND ASSET MANAGEMENT CREDITS/FEES
23 24 25	Q.	HAS PGW BEEN RETAINING A PORTION OF NET PROCEEDS FROM CAPACITY RELEASE CREDITS, OFF-SYSTEM SALES MARGIN AND ASSET MANAGEMENT CREDITS/FEES?
26 27	A.	Yes. During the 2008-2009 GCR proceeding (Docket No. R-2008-2021348), the parties
28		agreed that PGW will retain 25% of all off-system sales margins and capacity release
29		credits with the remaining 75% applied as an offset to purchased gas costs for the

retention period of September 1, 2008 to August 31, 2011. Likewise, the parties agreed that PGW will retain 25% of all off-system sales margins, capacity release credits and asset management margins/credits/fees² with the remaining 75% applied as an offset to purchased gas costs for the following GCR proceedings and retention periods:

GCR Proceeding	Docket No.	Retention Period
2013-2014	R-2013-2346376	9/1/13 to 8/31/14
2014-2015	R-2014-2404355	9/1/14 to 8/31/15
2015-2016	R-2015-2465656	9/1/15 to 8/31/16
2016-2017	R-2016-2526700	9/1/16 to 8/31/17
2017-2018	R-2017-2587526	9/1/17 to 8/31/18
2018-2019	R-2018-2645938	9/1/18 to 8/31/19
2019-2020	R-2019-3007636	9/1/19 to 8/31/20

The Company also agreed to include an off-system sales margin, capacity release credit and asset management margins/credits/fees retention proposal for the Purchased Gas Cost period(s) beginning on September 1, 2019 in its March 1, 2019 annual 1307(f) filing.

Q. DOES PGW HAVE A RETENTION PROPOSAL FOR THE PGC PERIODS BEGINNING ON SEPTEMBER 1, 2019?

A. Yes. PGW proposes to continue the retention of 25% of capacity release credits, off system sales margin and asset management margin/credit/fees and the application of the remaining 75% to the gas cost rate.

Asset management margins/credits/fees are received when PGW enters into a contract with a third party to manage all or part of a storage contract or firm pipeline transportation contract.

1 2 3 4	Q.	DO OTHER PENNSYLVANIA NATURAL GAS DISTRIBUTION ("NGDCs") HAVE SHARING MECHANISMS FOR CAPACITY OFF SYSTEM SALES CREDITS?
5 6	A.	Yes. Six of the largest NGDCs have sharing mechanisms similar to PGW's and the
7		sharing percentage for all of the NGDCs is 25%.
8	Q.	HOW ARE SHARING MECHANISMS BENEFICAL TO BOTH RATEPAYERS AND UTILITIES?
10 11	A.	The ratepayers and the utility benefit from the policy because it creates an incentive to
12		maximize efforts to make off system sales and capacity release transactions, thereby
13		increasing the amounts applied to the gas cost rate and the lesser portion retained by the
14		utility.
15		
16	V.	PRICE ANALYSIS AND BUYING ADVISORY SERVICE
17 18 19	Q.	DOES PGW CURRENTLY USE A PRICE ANAYLSIS AND BUYING ADVISORY SERVICE AS PART OF ITS EFFORTS TO OBTAIN GAS AT LEAST COST?
20	A.	Yes, it does. PGW utilizes a firm called Plananytics to provide such services.
21	Q.	WHAT TYPES OF SERVICES DOES PLANANYTICS PROVIDE TO PGW?
22 23	A.	Planalytics provides the following services:
24		• Price feed from Nymex and Globex for natural gas, crude oil, heating oil and
25		RBOB (reformulated gasoline);
26		• Buying suggestions up to 18 months in the future;
27		A charting tool for technical analysis;
28		Short and medium range weather forecasts;
29		 Weather alerts (issued in advance of significant weather events);

1		 Planalytics' pre-season hurricane forecast and in-season updates; and
2		Additional energy buyer features include reporting (i.e. mark-to-market,
3		transaction history, etc.) and portfolio/hedging parameters.
4 5 6	Q.	WHAT WAS INCORPORATED INTO PGW'S 2018-2019 GCR PROCEEEDING SETTLEMENT AGREEMENT WITH REGARD TO THE PLANANLYTICS ENERGY BUYER SERVICES?
7	A.	PGW agreed to the following:
8 9 10 11		PGW is permitted to recover the Planalytics fee for price analysis and buying advisory services (not to exceed \$125,000) for the 2018-2019 Gas Cost Rate period. Continued recovery of the fee beyond the 2018-2019 Gas Cost Rate period must be addressed in next year's Purchased Gas Cost proceeding.
13 14	Q.	DOES PGW WISH TO CONTINUE THE PLANALYTICS BUYING ADVISORY SERVICES?
15	A.	Yes. The Planalytics' service provides a comprehensive amount of information that the
16		Company finds useful in the procurement of all gas supply. Nonetheless, PGW
17		understands that it must reach a new agreement as to the continuing recovery of the
18		Planalytics fee and the Company looks forward to discussing this issue with the parties
19		involved in this year's proceeding.
20		
21	VII.	GAS SUPPLY PURCHASES
22 23 24	Q.	WHERE DID PGW PURCHASE NATURAL GAS SUPPLY ON THE TEXAS EASTERN TRANSMISSION CORPORATION ("TETCO") PIPELINE IN FY 2019?
25	A.	100% of all baseload and swing supply purchases on the "TETCO" pipeline were from
26		Market Zone M2 in FY 2019.
27 28 29		

1	VIII.	CHOICE SUPPLIER CAPACITY RELEASE CHARGES
2 3 4 5	Q.	DID PGW AGREE TO A SETTLEMENT TERM CONCERNING CHOICE SUPPLIER CAPACITY RELEASE CHARGES IN LAST YEAR'S GCR PROCEEDING?
6	A.	Yes. The Settlement provided that PGW would include a proposal in this year's GCR
7		proceeding to charge Choice suppliers for released capacity based on PGW's weighted
8		average cost of Tetco and Transco capacity, or to demonstrate why such an approach is
9		not appropriate for PGW.
10 11	Q.	HAS PGW EVALUATED ITS CHOICE SUPPLIER CAPACITY RELEASE PROGRAM?
12	A.	PGW has considered the impacts of charging Choice suppliers for released capacity
13		based on PGW's weighted average cost of TETCO and Transco capacity. With respect to
14		Transco, PGW currently releases capacity starting in Zone 3. It retains all capacity in
15		Zones 1 and 2 to fill the WSS storage in Zone 3. At current levels of participation in
16		Choice, if PGW released capacity starting in Zone 1, PGW would have approximately
17		12,486 Dth of capacity in Zone 1. The maximum injection rate for WSS is 18,533 Dth.
18		So PGW would be limited in its ability to fill WSS entirely from Zone 1 if it was a lower
19		cost option. PGW is agreeable to releasing capacity to Choice suppliers starting in Zone
20		1 at the full weighted average cost on a trial basis for evaluation.
21		With respect to TETCO, PGW has two contracts that are split between the 24 inch and 30
22		inch TETCO pipeline from Zone STX. These two pipelines have different paths, one
23		passing through Zone ELA and one through ETX. Currently, PGW releases capacity
24		starting in Zone ELA on the 30 inch pipeline only. PGW is agreeable to releasing
25		capacity to Choice suppliers starting in Zone STX and splitting the capacity release on

1		the 24 inch and 30 inch pipelines at the full weighted average cost on a trial basis for
2		evaluation.
3	VIII.	MONTHLY IMBALANCE RECONCILIATION PROCEDURES
4 5 6	Q.	DID PGW AGREE TO A SETTLEMENT TERM CONCERNING ITS MONTHLY IMBALANCE RECONCILIATION PROCEDURES IN LAST YEAR'S GCR PROCEEDING?
7	A.	Yes. The Settlement provided that PGW would present an analysis in this year's GCR
8		proceeding of the impact of its interruptible transportation ("IT") reconciliation
9		procedures for the period September 2017 – August 2018.
10 11 12	Q.	HAS PGW PROVIDED AN ANALYSIS OF ITS MONTHLY IMBALANCE RECONCILIATION PROCEDURES?
13	A.	Yes. My testimony below discusses this analysis in detail. I would also add that PGW has
14		a suite of four imbalance reconciliation procedures that work together to protect PGW's
15		GCR customers. Those procedures are detailed in PGW's Gas Service Tariff. See PGW's
16		Gas Service Tariff – Pa. P.U.C. No. 2, Supplement No. 118 at Third Revised Pg. No. 104
17		for those procedures.
18		
19		
20 21	Q.	IS PGW'S CURRENT METHODOLOGY FOR CALCULATING THE DAILY MARKET INDEX PRICE REASONABLE?
21 22 23	A.	PGW's current methodology has been, and continues to be reasonable as shown in the
24		attached Exhibit RMS-1, with the added protection for undersupply and oversupply
25		during OFO events.
26		PGW's Exhibit RMS-1 summarizes the Imbalance Reconciliation for IT suppliers for FY
27		2018 through January FY 2019. The average cashout price ranges from \$1.80 per Dth to

1		\$4.32 per Dth, excluding January 2018, which was \$15.04 per Dth. The cashout prices
2		excluding January 2018 are reasonable. January 2018 was an exception due to an OFO
3		issued by PGW to protect against undersupplies that could have resulted in the use of
4		PGW's limited inventory of LNG for interruptible customers, which is reserved for firm
5		customers. The OFO limited undersupply to protect the LNG but it did not limit
6		oversupply, which resulted in excessive oversupply. This reduced the use of LNG but
7		also resulted in higher costs to purchase the oversupply. To correct for this outcome, the
8		OFO issued in 2019 limited both oversupply and undersupply.
9		PGW's service territory is located in the TETCO Zone M-3 and Transco Zone 6 Non-
10		New York market areas, as opposed to a supply/production area zone. If PGW changed
11		the Daily Market Index Price reference it would create asymmetric Daily Market Index
12		Prices, which would lead suppliers to argue that the usage in excess of deliveries
13		procedures (i.e. under-deliveries) should also be priced in the same zone.
14		Overall, PGW's GCR customers are better protected by keeping the Daily Market Index
15		Price the same for all imbalance procedures. PGW is not inclined to change its
16		procedures at the time.
17		
18	IX.	TARIFF RATE SCHEDULE: RATE LNG-N
19 20 21	Q.	AS PART OF THIS TARIFF FILING IS PGW PROPOSING TO MAKE CHANGES TO ANY NON-GCR TARIFF PROVISIONS?
22	A.	Yes, PGW is proposing to expand its existing liquefied natural gas ("LNG") services
23		tariff so that it will accommodate a full a range of LNG-related services. Presently, PGW
24		provides LNG service from its existing facilities at its Richmond plant. At Richmond,

25

PGW can presently liquefy natural gas purchased by PGW, store the liquefied natural gas

1		and then offload the gas in liquid form (via transport vehicle) to a customer. In
2		comparison, at its Passyunk plant, PGW is able to store liquefied gas trucked from
3		Richmond and to similarly offload that LNG via truck. For the last several years, PGW
4		has used its Rate LNG in its Tariff (Third Revised Page No. 142 at Tariff PA PUC No. 2)
5		to provide this LNG service to customers. The current tariff is limited to the provision of
6		PGW-supplied gas that was liquefied and delivered to a customer by transport vehicle.
7		This is done on an interruptible basis.
8 9	Q.	HOW WOULD PROPOSED RATE LNG-N EXPAND THE SERVICES THAT COULD BE OFFERED?
10 11	A.	Proposed Rate LNG-N would replace the existing tariff and would expand the types of
12		LNG sales that PGW could offer to customers. The rate would permit the liquefaction of
13		gas that was either supplied by PGW or gas that was supplied by the counterparty. LNG
14		could be stored for an agreed upon period and then delivered either by picking up the
15		LNG by transport vehicle, pipeline, or by exchange service.
16 17	Q.	PLEASE DESCRIBE THE PROPOSED RATE LNG-N (NEGOTIATED LIQUEFIED NATURAL GAS)?
18 19	A.	Rate LNG-N is only available to customers that have negotiated an agreement with PGW
20		regarding LNG sales and services. Depending upon the needs of the customer, these
21		LNG-related sales and services could include: 1) the provision of the commodity; 2)
22		transportation of natural gas from the Company's City Gate to the Company's Liquefied
23		Natural Gas facilities; 3) the liquefaction of the natural gas by the Company's Liquefied
24		Natural Gas facilities; 4) the injection of the Customer's liquefied natural gas into the
25		Company's Liquefied Natural Gas facilities; 5) the storage of liquefied natural gas; 6) the
26		vaporization of liquefied natural gas; 7) the withdrawal of the liquefied natural gas via

1		transport vehicle; and 8) the delivery of commodity from the Company's Liquefied
2		Natural Gas facilities via pipeline, exchange services, or other delivery mechanism.
3		Depending on the negotiated terms and market requirements, service under Rate LNG-N
4		will be either on a firm basis or on an interruptible basis. Firm service for LNG-N shall
5		be interrupted only in cases of operating emergencies determined by the Company in its
6		sole discretion. Please see Exhibit RMS-2 for the proposed tariff page.
7 8	Q.	PLEASE DISCUSS THE SPECIFICS OF THE RATE DESIGN PROPOSAL FOR RATE LNG-N.
9 10	A.	The rates charged under Rate LNG-N will be negotiated. The Customer Agreement will
11		stipulate the negotiated rate(s) and negotiated terms of service. These Agreements must
12		be economically advantageous to PGW, as determined by PGW in its sole discretion.
13		The negotiated rate(s) shall be in excess of the PGW's incremental costs to
14		provide the negotiated services to the Customer. For example, if PGW is the party who is
15		supplying the commodity itself, the incremental cost to provide that commodity is either
16		the current Gas Cost Rate ("GCR") or the current Weighted Average Cost of Gas
17		("WACOG"). So, the charge for commodity itself will not be less than the current GCR
18		or the current WACOG. This is the same treatment given to sales of the commodity
19		under the current Rate LNG.
20 21	Q.	HOW WILL REVENUES BE TREATED UNDER RATE LNG-N?
22	A.	The treatment of revenues under Rate LNG-N will depend on the party that supplies the
23		LNG or natural gas commodity.
24		If the Customer is supplying the LNG or natural gas commodity, there is no actual
25		sale of LNG or natural gas by PGW. Instead of providing natural gas in the form of
26		LNG, PGW will be supplying LNG services (such as liquefaction, and/or storage, and/or

vaporization or some combination thereof) to that customer. Therefore, revenues from those will be recorded in PGW's account for "Other Revenues," and included in that calculation in PGW's base rate proceedings. This is the same treatment given to other non-gas revenues such as PGW's appliance repair program. That is, PGW will fully account for those revenues in determining its *pro forma* revenues and revenue requirement when calculating its base rates. This treatment will work to provide PGW with a greater cash flow that can be used to finance operations, while insuring that ratepayers receive all the benefits of any such sales.

If PGW is the party that is supplying the commodity, the revenues from the sale of the commodity will be included in the computation of the GCR. If that commodity is provided in liquefied form, there will be an additional negotiated charge for the liquefaction of the natural gas. That additional charge will be recorded in PGW's account for "Other Revenues," in the manner I just described. This is the same treatment given to sales under the current Rate LNG.

Q. WHY IS PGW SEEKING TO IMPLEMENT RATE LNG-N IN THIS PROCEEDING?

A.

PGW intends to have Rate LNG-N in place before offering expanded LNG sales and services. Since part of Rate LNG-N relates to commodity sales by PGW, it is reasonable and appropriate for PGW to propose Rate LNG-N as part of a GCR proceeding. In addition, as PGW expands its LNG facilities, the expanded LNG facilities will further reinforce its system reliability and add additional redundancy.

Q. IS THE PROPOSAL FOR RATE LNG-N THE SAME AS THE EXISTING RATE LNG?

1	A.	No. The proposed Rate LNG-N is broader than the existing Rate LNG. The existing
2		Rate LNG only uses LNG (supplied by PGW) and requires that the LNG be withdrawn
3		from PGW's LNG facilities truck. As I discussed, Rate LNG-N enables PGW to provide
4		LNG in that method. But, Rate LNG-N further authorizes PGW to provide for the sale of
5		LNG in ways other than by truck and also to provide a full range of LNG-related
6		services. The market is looking for, and demanding, services beyond the delivery of
7		LNG by transport vehicle, and PGW is positioned to provide these services, if Rate LNG-
8		N is approved.
9	Q.	DOES PGW INTEND TO CONTINUE SERVICE UNDER RATE LNG?
10	A.	No. Customers will negotiate agreements under Rate LNG-N — if they desire to
11		continue to purchase LNG or use LNG services from PGW's LNG facilities. This is
12		expected to have a minimal impact. None of PGW's customers under Rate LNG have
13		deliveries scheduled under their existing agreements with PGW. PGW does not
14		anticipate receiving requests, in the near future, for deliveries under those existing
15		agreements.
16	Q.	DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
17	A.	Yes.
18		
19		
20		
21		
22		
23		



Exhibit RMS-1

			PGW Imi	balance Recon	ciliat	ion Table: FY	2018 1	hru January	FY2	019	
										Total	Average
Month	Load	Delivery	Imbalance	Position	Ban	d 1 Charges	Band	d 2 Charges	(C	ashed out)/Cashed in	Price
Sep-17	728,112	721,923	-6,189	Undersupply	\$	11,146.90	\$	-	\$	11,146.90	\$ 1.80
Oct-17	832,360	809,979	-22,381	Undersupply	\$	23,875.18	\$	38,800.86	\$	62,676.04	\$ 2.80
Nov-17	1,223,022	1,228,210	5,188	Oversupply	\$	(13,321.06)	\$	-	\$	(13,321.06)	\$ 2.57
Dec-17	1,743,703	1,737,672	-6,031	Undersupply	\$	29,402.40	\$	(39.96)	\$	29,362.44	\$ 4.87
Jan-18	1,844,216	1,862,700	18,484	Oversupply	\$	(277,941.23)	\$	-	\$	(277,941.23)	\$ 15.04
Feb-18	1,453,529	1,469,564	16,035	Oversupply	\$	(44,459.59)	\$	(1,311.17)	\$	(45,770.76)	\$ 2.85
Mar-18	1,671,965	1,688,710	16,745	Oversupply	\$	(41,632.86)	\$	(2,184.06)	\$	(43,816.92)	\$ 2.62
Apr-18	1,166,678	1,214,552	47,874	Oversupply	\$	(119,030.15)	\$	(5,406.62)	\$	(124,436.78)	\$ 2.60
May-18	780,327	792,143	11,816	Oversupply	\$	(24,367.39)	\$	(2,467.44)	\$	(26,834.83)	\$ 2.27
Jun-18	767,948	769,286	1,338	Oversupply	\$	(3,470.77)	\$	-	\$	(3,470.77)	\$ 2.59
Jul-18	797,079	801,925	4,846	Oversupply	\$	(12,882.15)	\$	-	\$	(12,882.15)	\$ 2.66
Aug-18	765,704	772,137	6,433	Oversupply	\$	(18,347.54)	\$	-	\$	(18,347.54)	\$ 2.85
Sep-18	751,216	758,177	6,961	Oversupply	\$	(15,983.10)	\$	(850.05)	\$	(16,833.15)	\$ 2.42
Oct-18	1,014,226	990,435	-23,791	Undersupply	\$	51,227.06	\$	23,880.53	\$	75,107.59	\$ 3.16
Nov-18	1,527,674	1,529,204	1,530	Oversupply	\$	(6,236.28)	\$	-	\$	(6,236.28)	\$ 4.08
Dec-18	1,700,716	1,743,435	42,719	Oversupply	\$	(166,249.93)	\$	(2,247.22)	\$	(168,497.15)	\$ 3.94
Jan-19	2,054,035	2,047,756	-6,279	Undersupply	\$	27,449.01	\$	(326.63)	\$	27,122.38	\$ 4.32
Totals	20,822,510	20,937,808	115,298	Oversupply	\$	(600,821.50)	\$	47,848.24	\$	(552,973.26)	\$ 4.80

EXH. RMS-2

LIQUEFIED NATURAL GAS SERVICE - RATE LNG

Rate: Applicable to Liquefied Natural Gas Service as described below.

AVAILABILITY

Available at the Company's sole discretion where the Customer is able to arrange for the transportation of Liquefied Natural Gas via truck from the Company's Liquefied Natural Gas facilities.

RATES and TERMS OF SERVICE

Contracts stipulating the negotiated rate and negotiated terms of Liquefied Natural Gas Service may be entered into between the Company and Customer when the Company, in its sole discretion, deems such offering to be economically advantageous to the Company. Service under this rate is interruptible, and the Company reserves the right to interrupt service at Company's discretion.

The Company reserves the right to determine whether the customer will be charged the current Gas Cost Rate (GCR) or the current Weighted Average Cost of Gas (WACOG). The charge will not be less than the current GCR or the current WACOG.

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NEGOTIATED LIQUEFIED NATURAL GAS SERVICE - RATE LNG-N

Rate: Applicable to all Negotiated Liquefied Natural Gas Services rendered pursuant to this Rate Schedule as described below.

AVAILABILITY

Available at the Company's sole discretion when Customer and Company have executed a customer agreement ("Customer Agreement") for service under this Rate Schedule. The Customer must be able to arrange for the withdrawal/delivery of the commodity (via pipeline, transport vehicle, exchange services, or other delivery mechanisms agreed to by the parties) from the Company's Liquefied Natural Gas facilities. If the Customer is providing the commodity, then the Customer must also be able to arrange for the transportation of the commodity (via pipeline to Company's City Gate or via transport vehicle or pipeline) to the Company's Liquefied Natural Gas facilities.

RATES and TERMS OF SERVICE

Service under this schedule is for LNG services and may include, but is not limited to: 1) the provision of the commodity; 2) transportation of natural gas from the Company's City Gate to the Company's Liquefied Natural Gas facilities; 3) the liquefaction of the natural gas by the Company's Liquefied Natural Gas facilities; 4) the injection of the Customer's liquefied natural gas into the Company's Liquefied Natural Gas facilities; 5) the storage of liquefied natural gas; 6) the vaporization of liquefied natural gas; 7) the withdrawal of the liquefied natural gas via transport vehicle; and 8) the delivery of commodity from the Company's Liquefied Natural Gas facilities via pipeline, exchange services, or other delivery mechanism.

A Customer Agreement stipulating the negotiated rate(s) and negotiated terms of service shall be entered into between the Company and Customer when the Company, in its sole discretion, deems such offering to be economically advantageous to the Company. Depending on the negotiated terms, service under this rate will be either on a firm basis, which shall be interrupted only in cases of operating emergencies determined by the Company in its sole discretion, or on an interruptible basis in which case the Company reserves the right to interrupt service at Company's discretion pursuant to criteria set forth in the Customer Agreement. The negotiated rate(s) shall be in excess of the Company's incremental costs to provide service to the Customer.

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NEGOTIATED LIQUEFIED NATURAL GAS SERVICE - RATE LNG-N

Rate: Applicable to all Negotiated Liquefied Natural Gas Services rendered pursuant to this Rate Schedule as described below.

AVAILABILITY

Available at the Company's sole discretion when Customer and Company have executed a customer agreement ("Customer Agreement") for service under this Rate Schedule. The Customer must be able to arrange for the withdrawal/delivery of the commodity (via pipeline, transport vehicle, exchange services, or other delivery mechanisms agreed to by the parties) from the Company's Liquefied Natural Gas facilities. If the Customer is providing the commodity, then the Customer must also be able to arrange for the transportation of the commodity (via pipeline to Company's City Gate or via transport vehicle or pipeline) to the Company's Liquefied Natural Gas facilities.

RATES and TERMS OF SERVICE

Service under this schedule is for LNG services and may include, but is not limited to: 1) the provision of the commodity; 2) transportation of natural gas from the Company's City Gate to the Company's Liquefied Natural Gas facilities; 3) the liquefaction of the natural gas by the Company's Liquefied Natural Gas facilities; 4) the injection of the Customer's liquefied natural gas into the Company's Liquefied Natural Gas facilities; 5) the storage of liquefied natural gas; 6) the vaporization of liquefied natural gas; 7) the withdrawal of the liquefied natural gas via transport vehicle; and 8) the delivery of commodity from the Company's Liquefied Natural Gas facilities via pipeline, exchange services, or other delivery mechanism.

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Tab 7

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF

DENISE ADAMUCCI

ON BEHALF OF PHILADELPHIA GAS WORKS

Docket No. R-2019-3007636

Philadelphia Gas Works Proposed 2019 Annual GCR Adjustment

March 1, 2019

1 I. INTRODUCTION AND BACKGROUND

- 2 Q. PLEASE STATE YOUR NAME AND TITLE.
- 3 A. My name is Denise Adamucci and I am the Vice President of Regulatory Compliance and
- 4 Customer Programs at Philadelphia Gas Works ("PGW").
- 5 Q. HOW LONG HAVE YOU HELD THIS POSITION?
- 6 A. Approximately six years.
- 7 O. PLEASE EXPLAIN YOUR JOB RESPONSIBILITIES.
- 8 A. I manage PGW's Pennsylvania Public Utility Commission ("PUC" or "Commission")
- 9 regulatory compliance and customer facing programs sections in customer affairs.
- 10 Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND.
- 11 A. I have an MA in English Literature from Arizona State University and a JD from Boston
- 12 University School of Law. Prior to my current position, I worked as an attorney for
- approximately fourteen years. I worked in private practice at Manta and Welge, and then
- at Klett Rooney Liber & Schorling (acquired by Buchanan Ingersoll & Rooney).
- Subsequently, I worked in PGW's legal department as a senior attorney.
- 16 Q. HAVE YOU EVER PROVIDED TESTIMONY BEFORE THIS COMMISSION?
- 17 A. Yes. I provided written testimony in the following cases before the Commission:
- PGW's Demand Side Management Program proceeding¹ and PGW's most recent base
- 19 rate case.²

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Petition of Philadelphia Gas Works for Approval of Demand-Side Management Plan for FY 2016-2020, and Philadelphia Gas Works Universal Service and Energy Conservation Plan for 2014-2016, 52 Pa. Code § 62.4 – Request for Waivers, Docket No. P-2014-2459362, Final Opinion and Order entered November 1, 2016.

Pennsylvania Public Utility Commission v. Philadelphia Gas Works, Docket No. R-2017-2586783, Opinion and Order entered November 8, 2017.

1	Q.	WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?
2	A.	The purpose of my testimony is to provide additional support for PGW's inclusion of the
3		costs of bill credits provided to participants in its Customer Responsibility Program
4		("CRP") as part of the Commission approved Conservation Incentive Pilot ("CIP")
5		program and proposed tariff revisions related to this proposal.
6 7 8	II.	BACKGROUND OF THE UNIVERSAL SERVICE AND ENERGY CONSERVATION SURCHARGE ("USC") AND PGW'S UNIVERSAL SERVICE AND ENERGY CONSERVATION PLAN
9 10 11	Q.	PLEASE PROVIDE SOME BACKGROUND ON PGW'S CURRENTLY APPROVED UNIVERSAL SERVICE AND ENERGY CONSERVATION PLAN ("USECP").
12	A.	Pursuant to statutory and Commission requirements related to low-income customer
13		assistance programs and energy conservation, ³ PGW files a proposed Universal Service
14		and Energy Conservation Plan ("USECP") as directed by the Commission and staff from
15		the Bureau of Consumer Services ("BCS"). ⁴ PGW's currently effective "2017-2020
16		USECP" covers the program plan period of January 1, 2017 through December 31, 2020

and was approved by the Commission on October 5, 2017.⁵

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The Natural Gas Choice and Competition Act requires, *inter alia*, that the Commission to continue, at a minimum, low-income customer assistance programs already in existence at the time of law and defines "universal service and energy conservation" as "policies, practices, and services that help low-income customers maintain their natural gas service." 66 Pa. C.S. §§ 2202 and 2203(8). Included within the umbrella of universal service and energy conservation are Customer Assistance Programs ("CAPs"), usage reduction programs, service termination protections and customer education. The Commission's CAP Policy Statement at 52 Pa. Code §§ 69.261-60.267 (adopted in 1992 and last amended in 1999) provides guidance on structuring CAPs and establishes a process for utilities to work with the Commission's Bureau of Consumer Services ("BCS") to develop utility-specific CAPs.

The currently applicable universal service plan and independent evaluation schedule was established pursuant to a Secretarial Letter dated June 27, 2014.

Philadelphia Gas Works Universal Service and Energy Conservation Plan for 2017-2020 Submitted in Compliance with 52 Pa. Code § 62.4, Order approving August 31, 2017 revised 2017-2020 USECP entered October 5, 2017.

1 Q. PLEASE PROVIDE A GENERAL OVERVIEW OF THE COMPONENTS OF PGW'S 2017-2020 USECP.

3 The 2017-2020 USECP includes PGW's Customer Assistance Program (or "CAP"), A. 4 called the Customer Responsibility Program ("CRP") the purpose for which is to help 5 low-income residential customers meet their energy needs by offering payment assistance in the form of an affordable bill. Also included with the 2017-2020 USECP is the PUC 6 required⁶ low-income usage reduction plan ("LIURP").⁷ The current program name of 7 PGW's LIURP is Home Comfort⁸ and it provides free, in-home weatherization and 8 9 energy conservation education services for eligible single-family low-income customers as well as conservation and education services for multi-family properties pursuant to a 10 pilot Low Income Multi-Family Efficiency ("LIME") program. 11

12 Q. HOW DOES PGW RECEIVE COST RECOVERY FOR THESE UNIVERSAL SERVICE PROGRAMS?

14 A. PGW's General Service Tariff – Pa P.U.C. No. 2 includes a Commission-approved
15 Universal Service and Energy Conservation ("USC") Surcharge which is designed to
16 recover certain costs associated with PGW's USECP. These costs are identified as:

The Commission's LIURP regulations are at 52 pa. Code §§ 58.1 – 58.18.

Historically, PGW's LIURP was included as part of its Commission approved Demand Side Management ("DSM") Plan which also included other energy efficiency programs for non-residential customers that PGW was not legally required to offer. *Philadelphia Gas Works' Revised Petition For Approval of Energy Conservation and Demand Side Management Plan*, Docket Nos. R-2009-2139884, P-2009-2097639, Opinion and Order entered July 29, 2010 at 3. On November 1, 2016, the Commission approved PGW's current DSM Plan but directed that the LIURP be moved into PGW's 2017-2020 USECP. *Petition of Philadelphia Gas Works for Approval of Demand Side Management Plan for FY 2016-2020, and Philadelphia Gas Works Universal Service Energy Conservation Plan for 2014-2016, 52 Pa Code § 62.4 – Request for Waivers*, Docket No. P-2016-2459362, Final Opinion and Order entered November 1, 2016.

The predecessor program names were CRP Home Comfort, the Conservation Works Program ("CWP") and the Enhanced Low Income Retrofit Program ("ELIRP").

Philadelphia Gas Works Gas Service Tariff – Pa P.U.C. No. 2 Seventy Fifth Revised Page No. 81 effective December 1, 2018.

1 the discounts provided to CRP participants pursuant to the customer assistance 2 program; 3 the discounts provided to Customers pursuant to the Senior Citizen Discount; 4 the costs of LIURP; and, 5 the costs of arrearage forgiveness provided to qualifying CRP participants. 6 HOW ARE THE USC SURCHARGE FACTORS COMPUTED? Q. 7 A. As noted in the tariff, these USC factors are computed in accordance with the automatic 8 adjustment procedures utilized under Section 1307(f) of the Public Utility Code and are 9 submitted for approval as part of PGW's annual GCR filing. PGW's files its annual GCR 10 on March 1 of each year, which: (1) provides the details of PGW's actual costs for the 11 prior 12 month GCR period (ending on December 31); and, (2) provides PGW's forecast 12 for the future GCR period (which includes the 20 month period of January 1 through the 13 end of the GCR period which is August 31 of the following year). PGW Witness 14 Kenneth Dybalski discusses how the costs related to PGW's USC have been calculated 15 for purposes of this GCR filing. 16 Q. IS PGW PROPOSING TO ADD NEW COST ELEMENTS TO THE USC IN THIS 17 PROCEEDING? 18 A. Yes. PGW is proposing to add new cost elements to the USC designed to recover the 19 cost of the bill credits that PGW provides qualifying CRP participants as part of its 20 approved pilot Conservation Incentive Program ("CIP"). 21 III. PILOT CONSERVATION INCENTIVE PROGRAM ("CIP")

PGW agreed as part of the Commission-approved settlement of its 2009-2010 base rate

case to develop a proposal to create a positive incentive to encourage conservation by

PLEASE DESCRIBE THE PILOT CIP.

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Q.

A.

1		CRP participants. In its 2014-2016 USECP, PGW proposed the pilot CIP. As
2		ultimately approved by the Commission, eligible CRP participants receive a bill credit of
3		\$100 if they achieve usage reductions as follows:
4 5 6		• Reduction by 10% or more of their weather normalized usage during the prior November through April period for customers who <u>did not receive</u> PGW provided weatherization services in the prior two years; or,
7 8 9		 Reduction by 20% or more of their weather normalized usage during the prior November through April period for customers who <u>did receive</u> PGW provided weatherization services in the prior two years.
10	Q.	HOW DOES PGW DETERMINE WHO RECEIVES THE INCENTIVE CREDIT?
11	A.	PGW runs a query to compare: (1) the gas consumption of eligible CRP participants for
12		the prior November to April period; with, (2) their usage during that same time period for
13		the previous year. Usage is weather normalized and only customers who were
14		participating in CRP for the entire November to April are considered eligible.
15 16	Q.	WHEN DID PGW FIRST ISSUE BILL CREDITS PURSUANT TO THE PILOT CIP?
17	A.	Though the pilot CIP was proposed as part of the 2014-2016 USEC, which was
18		scheduled to be implemented on January 1, 2014 (assuming Commission approval
19		received by then), the Commission did not approve the 2014-2016 USEC until November
20		13, 2014. This delayed the ability of PGW to put its systems in place and establish the
21		base line usage measurements for CRP participants potentially eligible to receive an
22		incentive credit pursuant to the pilot CIP. Thus, PGW did not run its first query until

Pennsylvania Public Utility Commission v. Philadelphia Gas Works, Docket No. R-2019-2139884, Opinion and Order entered July 29, 2010 at 15-18.

Philadelphia Gas Works Universal Service and Energy Conservation Plan for 2014-2016 Submitted in Compliance with 52 Pa. Code § 62.4, Docket No. M-2013-2366301, Final Order entered August 22, 2014 ("Final Order 2014-2016 USECP"). PGW filed its 2014-2016 USECP on June 1, 2013.

1 May 2016, which compared eligible CRP participant usage from November 2015 through 2 April 2016 with the usage for these same customers from November 2014 through April 2015. Based on the results of this query, the first CIP incentive bill credits were provided 3 4 in 2016. At that time, PGW issued bill credits in the amount of \$100 for 6,375 CRP 5 participants for a total 2016 amount of \$637,500. DID PGW RECEIVE COMMISSION AUTHORIZATION TO CONTINUE THE 6 Q. 7 **CIP AFTER 2016?** 8 Yes. PGW filed its proposed 2017-2020 USECP on April 28, 2016, and it was ultimately A. approved by the Commission October 5, 2017. At the time PGW filed its 2017-2020 9 10 USECP, it proposed to continue the pilot for the next USECP period because it did not

approved by the Commission October 5, 2017. At the time PGW filed its 2017-2020 USECP, it proposed to continue the pilot for the next USECP period because it did not have enough time to evaluate the program results. In its Order approving the 2017-2020 USECP, the Commission agreed that insufficient data existed at that time to analyze and evaluate the pilot CIP and directed PGW to provide a status update summary regarding the CIP with its annual LIURP report due to be filed with the Commission annually by April 30. PGW was also directed to schedule a stakeholder meeting in 2019 or 2020 to evaluate and discuss the pilot CIP. No date for this meeting has yet been set.

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17 Q. PLEASE DETAIL THE CREDIT INCENTIVES THAT HAVE BEEN ISSUED FOR 2017 AND 2018.

As a result of the November 2016 through April 2017 analysis, PGW provided bill credits of \$100 to 3,371 CRP participants for a total payment of \$337,100 in CIP credit incentives for 2017. As a result of the November 2017 through April 2018 query, PGW

Philadelphia Gas Works Universal Service and Energy Conservation Plan for 2012-2020 Submitted in Compliance with 52 Pa. Code § 62.4, Docket No. M-2016-2542415, Order approving revised 2017-2020 USECP entered October 5, 2017.

1		provided bill credits of \$100 to 7,862 CRP participants for a total payment of \$786,200 in
2		CIP credit incentives for 2018.
3	Q.	DOES PGW PLAN TO ISSUE FURTHER INCENTIVE CREDITS PURSUANT TO THE CIP?
5	A.	Yes. PGW's currently approved 2017-2020 USECP remains in effect through December
6		31, 2020. Therefore, PGW anticipates issuing incentive credits for 2019 and 2020.
7 8 9	Q.	HAS PGW MADE ANY DECISION ABOUT WHETHER TO CONTINUE THE PILOT CIP BEYOND THE CURRENTLY EFFECTIVE 2017-2020 USECP PROGRAM YEAR?
10	A.	Not at this time. PGW is in the process of evaluating the pilot CIP in conjunction with
11		the Consumption Limit Pilot that is also in place pursuant to the 2017-2020 USECP and
12		PGW will schedule the previously mentioned CIP stakeholder meeting to discuss the
13		pilot CIP. PGW expects to utilize its analyses and input from the stakeholder meeting to
14		inform the proposals that may be submitted on these issues in PGW's next USECP for
15		the program period of 2021-2023. At this time, PGW has not made a decision about
16		whether or not it will continue the CIP into its next USECP plan period.
17 18	IV.	PROPOSED NEW COST ELEMENT FOR USC TO RECOVER CIP INCENTIVE CREDITS
19	Q.	WHAT IS PGW PROPOSING IN THIS PROCEEDING?
20	A.	PGW is proposing revise its USC to recover the costs of the bill credits that are issued to
21		CRP participants pursuant to the approved CIP. Exhibit DA-1 sets forth PGW's
22		proposed tariff revision. Also included in PGW's proposed tariff revisions is language to
23		update the program name of PGW's LIURP.
24	Q.	WHY IS PGW ENTITLED TO RECEIVE THIS COST RECOVERY?
25	A.	Though I am not testifying as an attorney in this proceeding, the Natural Gas Competition
26		Act requires the Commission to establish "an appropriate nonbypassable, competitively

1		neutral cost-recovery mechanism which is designed to recovery fully the natural gas
2		distribution company's universal service and energy conservation costs over the life of
3		these programs." As I explained previously, PGW's pilot CIP was approved as part of
4		its USECP. The calculation of the incentive credits was done as approved by the
5		Commission. As such, I am advised by counsel that the incentive credits constitute costs
6		of PGW's "universal service and energy conservation" program and PGW's USC is a
7		Commission approved nonbypassable, competitively neutral cost-recovery mechanism.
8		Therefore, including the costs of the incentive credits through the USC is consistent with
9		the other universal service costs currently identified in PGW's tariff and recovered
10		through the USC.
11 12 13	Q.	ARE YOU AWARE OF OTHER SECTIONS OF THE PUBLIC UTILITY CODE THAT SPECIFICALLY ADDRESS THE ABILITY OF PGW TO RECOVER THE COSTS OF ITS UNIVERSAL SERVICE PROGRAM?
14	A.	Yes, Section 2212(h)(2) of the Public Utility Code authorizes a city natural gas
15		distribution operation to propose an automatic adjustment mechanism(s) to adjust rates
16		for fluctuations in gas and nongas costs, including to recover the costs of providing
17		programs for low-income ratepayers and other assisted ratepayers. I am advised by
18		counsel that this section of the Public Utility Code does not limit the types of costs that
19		can be recovered through PGW's USC.
20 21	Q.	PLEASE EXPLAIN WHY PGW HAS NOT SOUGHT TO RECOVER THESE COSTS PRIOR TO NOW.
22	A.	While PGW initially proposed the CIP in June 2013, based on the timing of the

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Commission's approval of the 2014-2016 USECP, PGW was not able to perform the

¹³ 66 Pa.C.S. § 2203(6).

analysis needed and calculate the amount of the incentive credits until 2016. At the time the 2016 incentive credits were issued, PGW's next 2017-2020 USECP was pending with the Commission. The 2017-2020 USECP was connected to significant litigation because of the fact that (at that time) PGW's LIURP was subject to the then-pending litigation of PGW's DSM Plan. The final Commission Order resolving the 2017-2020 USECP was received on October 5, 2017. Now, PGW has the benefit of issuing several years of pilot CIP incentive credits, and has determined that revisions to PGW's existing tariff language are necessary to enable cost recovery for the significant incentive credits being issued pursuant to the CIP.

10 Q. WHY DOES PGW BELIEVE THIS IS THE APPROPRIATE PROCEEDING TO ADDRESS THIS ISSUE?

GCR proceedings provide the forum through which the costs PGW seeks to recover through the USC are evaluated and reviewed by the Commission. As PGW's issuance of incentive credits are paid pursuant to the Commission approved pilot CIP, the recovery of these costs through the USC is appropriate. In the interests of being transparent, PGW believes that its current USC tariff language should be revised (as set forth on Exhibit DA-1) to clearly state that these incentive credit payments are being recovered. PGW is

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A.

PGW filed a petition to continue its DSM (which included its LIURP) on December 23, 2014 and that petition was litigated before the Office of Administrative Law Judge. A final order from the Commission regarding the DSM Petition (and directing PGW to return the LIURP to its USECP) was entered on November 1, 2016. Petition of Philadelphia Gas Works for Approval of Demand-Side Management Plan for FY 2016-2020, and Philadelphia Gas Works Universal Service and Energy Conservation Plan for 2014-2016, 52 Pa. Code § 62.4 – Request for Waivers, Docket No. P-2014-2459362, Final Opinion and Order entered November 1, 2016.

1 not proposing any changes to the manner in which the USC operates or in which the costs 2 are allocated to customers. 15 IF PGW'S PROPOSAL WERE APPROVED, HOW WOULD THAT IMPACT 3 Q. THE OVERALL AMOUNTS THAT PGW WOULD BE COLLECTING 4 5 THROUGH THE USC? 6 A. PGW Witness Kenneth Dybalski explains how the addition of the pilot CIP incentive 7 credits impacts the amounts PGW is seeking to recover through the USC. Schedule 9 8 shows: (1) a CIP credit of \$337,100 in August 2017: (2) a CIP credit of \$786,200 in 9 October 2018; and, (3) a projected CIP credit of \$487,300 in August 2019. The amount 10 of any incentive credits issued for 2020 would be included as part of PGW's next GCR 11 proceeding. I will note that the current schedule does not include the 2016 CIP incentive 12 credit, which was authorized pursuant to PGW's prior effective 2014-2016 USECP. While PGW did not include this amount with this filing, it believes that full recovery of 13 14 all CIP credits is appropriate and, if Commission approval is received, PGW will adjust 15 its schedules as necessary. 16 V. **CONCLUSION** DOES THIS COMPLETE YOUR DIRECT TESTIMONY? 17 Q. 18 A. Yes.

I would note that the Commission specifically directed in PGW's most recently approved base rate case that the issue of how universal service costs should be allocated is to be addressed in PGW's next base rate case. *Id.* at 75.

EXH. DA-1

PHILADELPHIA GAS WORKS

UNIVERSAL SERVICE AND ENERGY CONSERVATION SURCHARGE

Universal service and energy conservation program and related costs will be recovered by a Universal Service and Energy Conservation Surcharge applicable to all volumes of Gas delivered.

- 1. The Surcharge will recover: 1) the discounts provided to Customers pursuant to the Customer Responsibility Program (CRP); 2) the discounts provided to Customers pursuant to the Senior Citizen Discount; 3) the costs of the PGW's Low Income Usage Reduction Program (LIRUP), known as the Home Comfort Program (previously known as the Conservation Works Program (CWP), and the Enhanced Low Income Retrofit Program (ELIRP) and the CRP Home Comfort Program); 4) the costs of the pilot Conservation Incentive Credit program; and, 5) for Customers entering the CRP program on or after September 1, 2003, past due arrearages forgiven pursuant to paragraph A (6) of the CRP/CAP Program Design Stipulation approved by the Commission by its order at M-00021612 (entered March 31, 2003).
- 2. Computation of the Universal Service and Energy Conservation Surcharge factors will be in accordance with the automatic adjustment procedures utilized under Section 1307(f) of the Public Utility Code and will be filed and approved in conjunction with the Company's annual Section 1307(f)-GCR filing.
- 3. Once the surcharge is in place it will be automatically adjusted effective March 1, June 1, September 1, and December 1 of each year in accordance with Section 1307(f) quarterly adjustment procedures. No interest will be included in such surcharge computations. The basic component of the surcharge will be determined by dividing the total universal service and energy conservation program costs approved for annual recovery by the estimated applicable throughput in Mcfs.
- 4. The Universal Service and Energy Conservation Surcharge shall take effect upon the effective date of this Tariff.

Issued: [Date] Effective: [Date]

PHILADELPHIA GAS WORKS

UNIVERSAL SERVICE AND ENERGY CONSERVATION SURCHARGE

Universal service and energy conservation program and related costs will be recovered by a Universal Service and Energy Conservation Surcharge applicable to all volumes of Gas delivered.

- 1. The Surcharge will recover: 1) the discounts provided to Customers pursuant to the Customer Responsibility Program (CRP); 2) the discounts provided to Customers pursuant to the Senior Citizen Discount; 3) the costs of PGW's Low Income Usage Reduction Program (LIRUP), known as the Home Comfort Program (previously known as the Conservation Works Program (CWP), the Enhanced Low Income Retrofit Program (ELIRP) and the CRP Home Comfort Program); 4) the costs of the pilot Conservation Incentive Credit program; and, 5) for Customers entering the CRP program on or after September 1, 2003, past due arrearages forgiven pursuant to paragraph A (6) of the CRP/CAP Program Design Stipulation approved by the Commission by its order at M-00021612 (entered March 31, 2003).
- 2. Computation of the Universal Service and Energy Conservation Surcharge factors will be in accordance with the automatic adjustment procedures utilized under Section 1307(f) of the Public Utility Code and will be filed and approved in conjunction with the Company's annual Section 1307(f)-GCR filing.
- 3. Once the surcharge is in place it will be automatically adjusted effective March 1, June 1, September 1, and December 1 of each year in accordance with Section 1307(f) quarterly adjustment procedures. No interest will be included in such surcharge computations. The basic component of the surcharge will be determined by dividing the total universal service and energy conservation program costs approved for annual recovery by the estimated applicable throughput in Mcfs.
- 4. The Universal Service and Energy Conservation Surcharge shall take effect upon the effective date of this Tariff.

Issued: [Date] Effective: [Date]

Tab 8

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF

FLORIAN TEME

ON BEHALF OF PHILADELPHIA GAS WORKS

Docket No. R-2019-3007636

Philadelphia Gas Works Proposed 2019 Annual GCR Adjustment

March 1, 2019

1 I.	INTRODUCTION
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- 2 Q. PLEASE STATE YOUR NAME AND CURRENT POSITION WITH PGW.
- 3 A. My name is Florian Teme. My position with PGW is Vice President, Marketing and
- 4 Sales.

5 Q. WHAT ARE YOUR JOB RESPONSIBILITIES?

- 6 A. In my present position, I am responsible for the direction of all the marketing sales efforts
- 7 and new business development, while continuing to strengthen business relations and
- 8 increase customer service initiatives.

9 Q. PLEASE SUMMARIZE YOUR BACKGROUND AND EXPERIENCE.

- 10 A. I have been employed with PGW since August 2003. I became PGW's Vice President,
- 11 Marketing and Sales in September 2016. Prior to that, I had various positions with PGW:
- Director, Marketing and Sales (April 2013 September 2016), Manager, Residential and
- 13 Commercial Sales, Marketing (March 2012 April 2013); Manager, Controls and
- 14 Analytics, Supply Chain (January 2010 March 2012); Project Manager, Information
- 15 Services (January 2007 January 2010); Supply Analyst, Gas Planning (April 2005 –
- January 2007); and Technical Project Administrator, Marketing (August 2003 March
- 17 2005).
- 18 I received my Bachelor of Business Administration (Management Information
- 19 Systems) from Temple University Fox School of Business and Management in 2003
- and my Master of Business Administration (Business Intelligence, Six Sigma) from Saint
- Joseph's University Erivan K. Haub School of Business in 2011.

1	Q.	HAVE YOU EVER PROVIDED TESTIMONY BEFORE THIS COMMISSION?			
2	A.	Yes. I presented testimony in PGW's last base rate proceeding at Docket No. R-2017-			
3		2586783.			
4	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?			
5	A.	My testimony provides data regarding PGW's Technology and Economic Development			
6		("TED") Rider and Back-Up Service ("BUS") Rate. In 2017, PGW filed a base rate			
7		increase request with the PUC, which included a request to implement the TED Rider and			
8		tariffed Rate BUS. The Joint Petition for Partial Settlement ("Base Rate Settlement") of			
9		that case included a provision concerning the TED Rider, which states, "as part of its			
10		annual Gas Cost Rate ("GCR") filings, PGW agrees to provide data on all sales to and			
11		costs incurred for TED customers." 1			
12		Additionally, the Base Rate Settlement included a provision concerning Rate			
13		BUS, which states:			
14 15 16 17 18		As part of its annual GCR filings, PGW agrees to provide data on the number of customers, sales levels and costs incurred for BUS customers. In two years (or PGW's next base rate case, whichever is sooner) PGW will provide an analysis of the BUS rate and provide a recommendation as to whether it should continue. ²			
19	Q.	PLEASE BRIEFLY DESCRIBE THE TED RIDER.			
20	A.	The TED Rider is a negotiated rider available on a pilot basis for a three-year period,			
21		which began on December 1, 2017, and is being utilized to support the expansion of new			
22		technologies such as, but not limited to, combined heat and power ("CHP"), natural gas			
23		vehicles, and fuels cells, to develop brownfields, and support economic development in			
24		Pennsylvania by facilitating business retention and attraction, as well as other gas			
	1				

¹ *Pa. PUC v. Philadelphia Gas Works*, Joint Petition for Partial Settlement ¶ 19 (July 21, 2017) at Docket No. R-2017-2586783.

 $^{^{2}}$ *Id.* at ¶ 21.

distribution system expansion activities. The TED Rider is available to those Customers served by the Company that the Company determines, in its sole discretion, have prospective additional gas usage applicable to service for firm service non-residential customers on Tariff Rate Schedules for General Service (Rate GS), Municipal Service (Rate MS), Philadelphia Housing Authority Service (Rate PHA) and Developmental Natural Gas Vehicle Service (Rate NGVS) at the time of execution or renewal of a service agreement. The TED Rider was established for the purpose of adjusting the customer's overall distribution charge to address project-specific or competitive issues to gain access to and expand use of natural gas within the Pennsylvania. The negotiated TED Rider may be either a surcharge or credit depending on project-specific customer and Company economic requirements.

12 Q. PLEASE BRIEFLY DESCRIBE RATE BUS.

- 13 A. Rate BUS permits PGW, at its sole discretion, to negotiate a rate with a customer

 14 installing any type of operable back-up or emergency equipment and who from, time to

 15 time, will require natural gas from the Company for the customer's operation of that

 16 equipment. Service under this rate is firm.
- 17 Q. HAVE YOU PROVIDED DATA IN THIS PROCEEDING TO FULFILL THE
 18 TED RIDER AND RATE BUS REQUIREMENTS OF THE BASE RATE
 19 SETTLEMENT?
- 20 A. Yes. However, there are no customers utilizing the TED Rider yet, so there is no data to
 21 report at this time. I have attached to my testimony, as Exhibit FT-1, a chart showing the
 22 number of customers, sales levels, and costs incurred for the BUS customers, in
 23 fulfillment of the Base Rate Settlement.

24 O. DOES THAT COMPLETE YOUR DIRECT TESTIMONY?

25 A. Yes.

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EXH. FT-1

Backup Service (BUS) Rider - Customer List

Exh. FT-1

AIMS Customer Name	 <u>Meter</u> , Monthly	eter Charge led Year to Date
Customer 1	\$ 100.00	\$ 100.00
Customer 2	\$ 148.00	\$ 148.00
Customer 3	\$ 151.00	\$ 453.00
Customer 4	\$ 347.00	\$ 1,041.00
Customer 5	\$ 565.00	\$ 1,695.00

Summary of BUS Customers Fiscal Year 2019				
Total Customers enrolled		5		
Total Meter Charges Billed Fiscal Year to Date	\$	3,437.00		

VERIFICATION

I, Raymond M. Snyder, hereby state that I am the Sr. Vice President – Gas Management for Philadelphia Gas Works, I am authorized to make this verification its behalf, the facts above set forth in the foregoing document are true and correct (or are true and correct to the best of my knowledge, information and belief), and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Dotad

Raymond M. Snyder