

Philadelphia Gas Works
Before The
Pennsylvania Public Utility Commission

**Computation of Annual Purchased Gas Costs
For Twelve Months Ending August 31, 2019**

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.**

February 1, 2018

Philadelphia Gas Works 1307f - 2018 Prefiling

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Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

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:

- (5) A listing and updating, if necessary, of projections of gas supply and demand provided to the Commission for any purpose—see § 59.67 (relating to formats). In addition, provide an accounting of the difference between reported gas supply available and gas supply deliverable—including storage—from the utility to its customers under various circumstances and time periods.

Response:

Please see the attached document. PGW's next Annual Resource Planning Report (Forms 1 and 2) is due for submission to the Commission on March 1, 2018 and an updated Annual Resource Planning Report is not available at this time.

ANNUAL RESOURCE PLANNING REPORT

Philadelphia Gas Works

Philadelphia, Pennsylvania

March 2017

Forms 1 & 2

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

**Philadelphia Gas Works
800 West Montgomery Avenue
Philadelphia, Pennsylvania 19122**

ANNUAL RESOURCE PLANNING REPORT
MARCH 2017

Forms 1 & 2

**Information Submitted in Compliance with and Pursuant to Title 52
Pennsylvania Code Section 59.81**

PHILADELPHIA GAS WORKS

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<u>EXHIBIT NO.</u>	<u>REGULATION</u>	<u>DESCRIPTION</u>
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2	59.81	Forms IRP-Gas 1A, and 1B Annual and Peak Day Energy Demand
3	59.81	Forms IRP-Gas 2A, 2B, and 2C Annual and Peak Day Energy Resources, And transmission and storage contracts

Section 59.81: **General**

Pursuant to Section 59.81 (a), each major jurisdictional gas utility must file an annual resource planning report (ARPR) on or before June 1, 1996 and June 1 of each succeeding year, except Form 1A/2A which filing date is March 1. The report must be submitted to:

Secretary
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265

One courtesy copy should also be submitted to:

Pennsylvania Public Utility Commission
Conservation, Economics and Energy Planning
P.O. Box 3265
Harrisburg, PA 17105-3265

Also submit one (1) copy to the following:

Office of Consumer Advocate
555 Walnut Street
Forum Place, 5th Floor
Harrisburg, PA 17101-1921

Office of Small Business Advocate
Suite 202, Commerce Building
300 N. Second Street
Harrisburg, PA 17101

Be sure to indicate the name and telephone number of at least one individual at the company who is familiar with the filing and will be available to answer any questions the Commission staff may have. You may also wish to list those individuals who are directly involved in the preparation of the various document components.

Information contained in annual resource planning reports must be utility-specific. The report should follow an outline similar to that which is contained herein, with narrative accompanying the required data. Forms may be modified to accommodate wide columns of numbers and enhance readability, but the general format should be used to maintain consistency.

This information is not generally considered confidential. Utilities are obligated to provide complete information. However, we will treat as confidential those portions of the report designated by the utility as proprietary. If a utility's proprietary claim is challenged, the Commission will direct the utility to file a petition for protective order pursuant to 52 PA Code 5.423.

All questions concerning the reporting requirements for Forms IRP Gas 1A through 9 should be addressed to Pennsylvania Public Utility Commission Bureau of Conservation, Economics and Energy Planning.

Response:

Forms 1A, 1B, 2A, 2b, and 2C along with a general discussion of the methodologies, data sources, and assumptions are being submitted to meet the requirements of the March 1 filing.

All questions concerning the ARPR should be directed to Mr. Kenneth Dybalski, Vice President, Energy Planning & Technical Compliance at 215-684-6317. The following individual is available to answer questions concerning Forms 1 and 2: Ms. Maria Hogan, Director – Gas Planning & Rates at (215) 684-6618.

Section 59.81 **Forms IRP-Gas 1A, and 1B – Annual and Peak Day Demand**

The load growth projections shall reflect the effects of price elasticity, market induced conservation, building and appliance efficiency standards, and the effects of the utility's existing and planned conservation and load management activities.

Response: Please see the attached documentation and forms.

**FORM-IRP-GAS-1A: ANNUAL GAS REQUIREMENTS
REPORTING UTILITY: PHILADELPHIA GAS WORKS
(VOLUMES IN MMcf)**

Index Year Actual Year	Historical Data			Current Year			Three Year Forecast		
	-2 2014-2015	-1 2015-2016	0 2016-2017	1 2017-2018	2 2018-2019	3 2019-2020			
Firm Requirements:									
Retail Residential	39,026	30,604	33,575	37,067	37,156	37,261			
Retail Commercial	8,917	6,747	7,224	7,986	8,085	8,209			
Retail Industrial	474	332	379	404	403	403			
Electric Power Generation Exchanges with Other Utilities	-	-	-	-	-	-			
Unaccounted For Gas	1,641	1,017	2,097	1,511	1,518	1,525			
Company Use	343	233	303	321	321	321			
Other - Prior Period Adjustment	-	-	-	-	-	-			
Subtotal Firm	50,401	38,934	43,578	47,290	47,482	47,718			
Interruptible Requirements:									
Retail	514	38	561	1,017	1,017	1,017			
Electric Power Generation	-	-	-	-	-	-			
Company's Own Plant	57	44	85	104	104	105			
Unaccounted For Gas	1	1	0	1	1	1			
Subtotal Interruptible	571	83	646	1,122	1,122	1,122			
SUBTOTAL FIRM AND INTERRUPTIBLE	50,973	39,017	44,224	48,411	48,604	48,841			
Transportation:									
Firm Residential	50	43	12	-	-	-			
Firm Commercial	3,922	3,801	4,292	4,274	4,380	4,462			
Firm Industrial	449	406	400	464	464	464			
Interruptible Residential	-	-	-	-	-	-			
Interruptible Commercial	7,284	6,265	7,160	8,265	8,756	9,252			
Interruptible Industrial	7,095	6,336	7,085	7,992	8,446	8,917			
Other - Non-Utility Power Producers	12,036	11,736	11,946	12,057	12,057	12,090			
Subtotal Transportation	30,835	28,588	30,895	33,053	34,103	35,185			
TOTAL GAS REQUIREMENTS	81,808	67,605	75,118	81,464	82,706	84,026			
Increase (Decrease)	1,798	(14,203)	7,513	6,346	1,242	1,319			
Percent Change (%)	2.25%	-17.36%	11.11%	8.45%	1.52%	1.60%			

**FORM-IRP-GAS-1B:PEAK DAY REQUIREMENTS
REPORTING UTILITY: PHILADELPHIA GAS WORKS
(VOLUMES IN MMcf)**

Index Year Actual Year	Historical Data		Current Year ⁽²⁾			Three Year Forecast ⁽¹⁾		
	2014-2015 -2	2015-2016 -1	2016-2017 0	2017-2018 1	2018-2019 2	2019-2020 3		
Firm Requirements:								
Retail Residential	389	368	430	466	467	468		
Retail Commercial	87	81	92	100	102	103		
Retail Industrial	5	4	5	5	5	5		
Electric Power Generation	-	-	-	-	-	-		
Exchanges with Other Utilities	-	-	-	-	-	-		
Unaccounted For Gas	11	12	27	19	19	19		
Company Use	4	3	4	4	4	4		
Other	-	-	-	-	-	-		
Subtotal Firm	496	468	558	594	596	599		
Interruptible Requirements:								
Retail	3.1	1.5	2.3	2.8	2.8	3		
Electric Power Generation	0.0	0.0	-	-	-	-		
Company's Own Plant	0.3	0.4	0.6	0.5	0.5	0		
Unaccounted For Gas	0.1	0.1	-	0.1	0.1	0.1		
Subtotal Interruptible	3.6	2.0	2.9	3.4	3.4	3.4		
SUBTOTAL FIRM AND INTERRUPTIBLE	499	470	561	597	600	602		
Transportation:								
Firm Residential	0	1	-	-	-	-		
Firm Commercial	30	38	41	45	46	47		
Firm Industrial	2	4	3	4	4	4		
Interruptible Residential	-	-	-	-	-	-		
Interruptible Commercial	51	46	-	-	-	-		
Interruptible Industrial	28	27	-	-	-	-		
Other - Non-Utility Power Producers	29	45	-	-	-	-		
Subtotal Transportation	140	160	44	49	50	51		
TOTAL GAS REQUIREMENTS	640	630	605	647	650	653		
Increase (Decrease)		(10)	(25)	41	3	3		
Percent Change (%)		-1.5%	-4.0%	6.8%	0.5%	0.5%		

⁽¹⁾ Peak Day is forecasted at a 2 degree temperature.

⁽²⁾ Current Year Peak Day is forecasted at a 5 degree temperature.

Section 59.81

Forms IRP-Gas 2A, 2B and 2C - Annual and Peak Day Energy Resources, Transmission and Storage Contracts

The forecast of energy sources shall indicate sources of all presently available and new supplies which the utility estimates will become available, displayed by component parts.

Response:

Please see the attached documentation and forms.

FORM-IRP-GAS-2A: ANNUAL/PEAK SUPPLY
 TABLE 1: ANNUAL/PEAK SUPPLY
 REPORTING UTILITY: PHILADELPHIA GAS WORKS
 (Volumes in MMcf)

Index Year Actual Year	Historical Data				Three Year Forecast (1)								
	-2 2014-2015	-1 2015-2016	0 2016-2017	1 2017-2018	2 2018-2019	3 2019-2020	2018-2019	2019-2020	2019-2020	2019-2020			
Gas Supply for Sales Service													
Spot Purchases	52,701	41,473	45,828	50,121	50,297	50,478	50,297	50,478	50,297	50,478	50,478	50,297	50,478
Storage Withdrawals	12,235	10,201	7,905	13,739	13,587	11,928	13,587	11,928	13,587	11,928	11,928	13,587	11,928
LNG Withdrawal	2,238	1,259	1,947	2,155	2,175	2,199	2,175	2,199	2,175	2,199	2,199	2,175	2,199
LNG Purchases	-	-	-	-	-	-	-	-	-	-	-	-	-
Exchanges with other LDCs	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Gas Supply	67,174	52,932	55,680	66,015	66,059	64,605	66,059	64,605	66,059	64,605	64,605	66,059	64,605
Total Transportation Services	30,835	28,588	30,895	33,053	34,103	35,185	34,103	35,185	34,103	35,185	35,185	34,103	35,185
TOTAL GAS SUPPLY AND TRANSPORTATION SERVICE	98,010	81,521	86,575	99,068	100,162	99,791	100,162	99,791	100,162	99,791	99,791	100,162	99,791
Deductions													
Pipeline: TRANS FUEL	1,323	1,006	1,083	1,178	1,187	1,197	1,187	1,197	1,187	1,197	1,197	1,187	1,197
Storage: INJ, INJ FUEL, WITHDRAW FUEL, TRANS FUEL	12,733	10,583	8,210	14,188	14,031	12,324	14,031	12,324	14,031	12,324	12,324	14,031	12,324
LNG: LIQUE, INJ FUEL, TRANS FUEL	2,145	2,327	2,164	2,237	2,238	2,244	2,238	2,244	2,238	2,244	2,244	2,238	2,244
Sales to other LDC's	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Deductions	16,202	13,916	11,456	17,604	17,456	15,765	17,456	15,765	17,456	15,765	15,765	17,456	15,765
NET GAS SUPPLY	81,808	67,605	75,118	81,464	82,706	84,026	82,706	84,026	82,706	84,026	84,026	82,706	84,026
BTU	1,056	1,050	1,037	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050

(1) Peak Day is forecasted at a 2 degree temperature.

(2) Current Year Peak Day is forecasted at a 5 degree temperature.

**FORM-IRP-GAS-2B: NATURAL GAS TRANSPORTATION
REPORTING UTILITY: PHILADELPHIA GAS WORKS
(volumes in MMcf)**

Index Year Actual Year	Historical Data				Current Year				Three Year Forecast			
	-2 2014-2015		-1 2015-2016		0 2016-2017		1 2017-2018		2 2018-2019		3 2019-2020	
	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak
<u>City Gate Transportation Contracts:</u>												
Transcontinental Transmission Corp.	3,931	59	3,927	59	3,977	59	3,927	59	3,927	59	3,927	59
Texas Eastern Transmission Corp.	2,202	42	2,188	42	2,228	43	2,200	42	2,200	42	2,200	42
Texas Eastern Transmission Corp.	712	20	707	20	-	20	-	20	-	20	-	20
Transcontinental Transmission Corp.	432	5	429	5	437	5	432	5	432	5	432	5
Total	7,277	126	7,251	125	6,641	127	6,559	125	6,559	125	6,559	125
<u>Upstream Transportation Contracts:</u>												
Transcontinental Transmission Corp.	57,486	157	57,588	157	58,151	159	57,431	157	57,431	157	57,588	157
Texas Eastern Transmission Corp.	26,096	71	26,143	71	26,398	72	26,071	71	26,071	71	26,143	71
Texas Eastern Transmission Corp.	8,289	23	8,304	23	8,385	23	8,281	23	8,281	23	8,304	23
Texas Eastern Transmission Corp.	2,540	17	2,537	17	2,569	17	2,537	17	2,537	17	2,537	17
Texas Eastern Transmission Corp.	2,540	17	2,537	17	2,569	17	2,537	17	2,537	17	2,537	17
Transcontinental Transmission Corp.	169	2	169	2	171	2	169	2	169	2	169	2
Texas Eastern Transmission Corp.	1,740	5	1,743	5	1,760	5	1,738	5	1,738	5	1,743	5
Total	98,858	293	99,020	293	100,002	296	98,764	293	98,764	293	99,020	293
<u>Storage-Related Transportation Contracts:</u>												
Dominion Transmission Inc.	8,945	25	8,911	24	9,049	25	8,937	24	8,937	24	8,961	24
Dominion Transmission Inc.	2,710	7	2,715	7	2,741	8	2,707	7	2,707	7	2,715	7
Total	11,655	32	11,625	32	11,790	32	11,644	32	11,644	32	11,676	32

Conversions at 1050 Btu

**FORM-IRP-GAS-2C: NATURAL GAS STORAGE
REPORTING UTILITY: PHILADELPHIA GAS WORKS
(volumes in MMcf)**

Index Year Actual year	Historical Data				Three Year Forecast							
	-2 2014-2015		-1 2015-2016		0 2016-2017		1 2017-2018		2 2018-2019		3 2019-2020	
	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak	Annual	Peak
Transcontinental Transmission Corp.	3,931	59	3,905	59	3,977	59	3,927	59	3,927	59	3,927	59
Dominion Transmission Inc.	3,598	32	3,594	32	3,639	32	3,594	32	3,594	32	3,594	32
Transcontinental Transmission Corp.	3,103	33	3,083	33	3,139	33	3,100	33	3,100	33	3,100	33
Texas Eastern Transmission Corp.	2,368	42	3,594	42	2,395	43	2,365	42	2,365	42	2,365	42
Texas Eastern Transmission Corp.	2,202	20	2,188	20	2,228	20	2,200	20	2,200	20	2,200	20
Transcontinental Transmission Corp.	712	84	707	84	-	5	432	5	432	5	432	5
Transcontinental Transmission Corp.	432	5	429	5	437	5	432	5	432	5	432	5
Total	16,346	275	17,500	274	15,815	192	15,619	190	15,619	190	15,619	190

Forecasted Dth to Mcf Conversions at 1050 BTU.

	Contract Expiration Date ⁽¹⁾
Transcontinental Transmission Corp.	3/31/2023
Dominion Transmission Inc.	3/31/2019
Transcontinental Transmission Corp.	10/31/2017
Texas Eastern Transmission Corp.	4/30/2022
Texas Eastern Transmission Corp.	4/30/2022
Transcontinental Transmission Corp. (2)	3/31/2016
Transcontinental Transmission Corp.	4/15/2018

⁽¹⁾ For purposes of this report, contracts that are due to expire are assumed renewed for the forecast years.

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

**PHILADELPHIA GAS WORKS
800 WEST MONTGOMERY AVENUE
PHILADELPHIA, PENNSYLVANIA**

Annual Resource Planning Summary Report

Filed: March 2017

**Information Submitted in Compliance with and Pursuant to Title 52
Pennsylvania Code Sections 59.81-59.84**

PHILADELPHIA GAS WORKS

2017 Annual Resource Planning Summary Report

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INTRODUCTION

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SECTION V -- PGW Corporate Modeling System

Introduction

By Order entered January 11, 1996, the Pennsylvania Public Utility Commission (PUC) adopted final regulations (52 PA Code §§ 59.81 - 59.84) which set forth revised requirements for filing an Annual Resource Planning Report (the Plan). The Plan submitted represents Philadelphia Gas Works' (PGW or the Company) belief that integrated resource planning (IRP) is a workable approach to utility planning.

This plan summary contains historical data and projections for annual, winter and peak day supply to meet projected customer requirements in a least cost manner, while ensuring adequate and reliable service. It is organized into the following five sections:

- I. PGW's Overall Approach to Integrated Resource Planning
- II. Supply Forecasting Methodology and Assumptions
- III. Demand Forecasting Methodology and Assumptions
- IV. Design Day Forecasting Methodology and Assumptions
- V. PGW Corporate Modeling System

I. PGW's Overall Approach to Integrated Resource Planning

PGW Optimization Standard for Purchasing and Utilizing Gas Supplies

As reasonably anticipated PGW intends on meeting its contractual obligations to supply all of its current firm customers in its service territory on the coldest day, throughout the heating season and throughout the year. Projected customer requirements for design day and design winter conditions form the basis for capacity commitments for pipeline supply, storage, and transportation contracting.

Natural gas supplies are purchased under a portfolio approach with PGW intending to secure the lowest overall price consistent with the corporate goals of reliability and security of supply. In addition, consideration is given to maintaining a diversity of sources and types of supply, coupled with contractual and operational flexibility on both a daily and seasonal basis. Short term purchases from spot market sources are utilized to the maximum degree that they are more economical, available, and transportable.

Natural gas supplies are utilized so as to minimize gas costs subject to reliability constraints. Supply contract obligations are honored and prudent Gas Control operational requirements are assumed. Storage gas is drawn down so as to always maintain an inventory level sufficient for the remaining winter in the event that design temperature conditions should occur in the remaining segment of the winter season. Within the above parameters, priority is given to utilizing the most economical sources of supply first within the context of preserving the capability of meeting seasonal and annual demands rather than the momentary daily requirements. All facilities and sources of supply – flowing, storage and LNG – are available to achieve the intended end, namely, minimizing gas costs subject to reliability constraints.

II. Supply Forecasting Methodology and Assumptions **Basic Assumptions**

The PGW Gas Supply Policy Committee comprised of senior corporate management as well as Gas Planning, Gas Control, Gas Supply, and Regulatory departmental management, approved the aforementioned Optimization Standard for Purchasing and Utilizing Gas Supplies (Section I). All natural gas purchases continue to be made in accordance with this standard. Projected sales, revenues and natural gas expenses in this report result from this agreement, particularly in the areas of inventory valuation, priorities of gas selection and interruptible supply availability.

Incorporated into our projections are additional implementation steps involved with developing a cohesive gas supply/demand strategy for the near term and the longer range. These include developing a cost relationship comparison for current resources and a review of current contract terms and alternatives for continuing, extending, modifying or eliminating contracts.

In order to achieve this while maintaining a balance between economics and security of supply, the company uses a portfolio strategy approach. This approach incorporates a menu driven selection of services which allows the company to choose only those specific services necessary to meet its requirements. This is achieved by taking into consideration transportation capacity rights and then sources of supply are contracted to cover the firm transport rights over differing seasonal obligations.

Operating flexibility is sustained by variations in contract stipulations to permit the system to swing on the most economical gas supplies available while maintaining the ability to supply rapidly fluctuating temperature requirements. Storage facilities are substituted wherever opportunity affords to reduce annual expense for flowing 365 day pipeline service without reducing design day and design winter season delivery capability. Direct control of all storage is paramount to permit PGW to minimize winter costs by injecting lower priced purchases and to cycle storage to balance daily take fluctuations to avoid overrun/balancing charges.

II. Supply Forecasting Methodology and Assumptions **Basic Assumptions (Continued)**

PGW's supply strategy incorporates maintaining full current winter day deliverability with regard to transportation capacity but to convert, where possible, to storage rather than winter flowing contracts to enhance financial and operational flexibility. A variety of longer term supply contracts are necessary to support pipeline transportation capacity because reliance upon best effort spot suppliers to fill wintertime supply requirements to meet firm customers' demands has proven to be an unreliable alternative. As a result longer-term contracts are utilized to support firm transportation capacity. To accomplish this end, the Company purchases winter supply contracts with daily deliverability equal to approximately 37% of the contractual daily transportation entitlements on its two interstate pipelines with direct connections to PGW's service territory. Additionally, these supply contracts match the contractual entitlements of the two pipelines by sourcing supply in a manner consistent with the pipeline's upstream contractual requirements. In this way, PGW not only helps ensure the security of supply by sourcing the gas from geographically diverse supply regions but this diversity also allows PGW to take advantage of the pricing basis differential inherent in these supply locations.

These contracts all contain the ability to fix the price for upcoming months as well as to allow the pricing to default to an agreed upon market index when there is no market advantage in fixing a price before the month begins. PGW uses this fixed price option in conjunction with its Gas Cost Rate (GCR) filing (GCR filing includes pricing based upon the NYMEX) by always attempting to buy under the GCR forecasted prices. Through the matching of the duration supply contracts to a seasonal demand, such as the winter operating season, the firm ratepayers benefit from not paying demand charges year-round.

A second component of PGW's supply portfolio or a volume equal to 27% of pipeline capacity, is purchased gas based on the daily midpoint price published in "Platt's Gas Daily". These contracts allow for daily change in volumetric take. This allows the Company to effectively shut-off higher priced supply replacing such supply with daily cheaper spot priced gases. Under assumed normal winter conditions, PGW utilizes WSS storage field in a manner similar to third party supply. Specifically, this storage contract does not contain transportation to the PGW city gate. Therefore, these storages must flow within

II. Supply Forecasting Methodology and Assumptions
Basic Assumptions (Continued)

PGW's contractual upstream capacity rights on TGPL. Delivery from these fields utilizes approximately 8% of the daily TETCO and TGPL capacity rights to the Philadelphia city gates. These storage fields also act as a physical fixed price to counter winter price conditions since the WACOG usually reflects a winter/summer pricing differential. Additionally, PGW purchases 18% of its supply using day purchases as needed. PGW's summer purchasing strategy also incorporates a portfolio approach to the purchase of system supply and storage refill. The GCR filing is again used as a yardstick in purchasing supply for both system supply and storage refill. PGW attempts to always purchase a portion of its supply needs below the projected GCR cost estimate with a portion of the portfolio purchased at default, first-of-the-month pricing. These first of the month pricing option contracts, in most instances, allow PGW to evaluate daily spot prices and provide for a turn-off of first-of-the-month index priced supply in favor of the purchase of more advantageous daily spot purchases.

Operating conditions permitting, the Company enters into the FERC approved capacity release market to offset demand charges it pays for its firm transportation and the incremental off-systems sales market when it is economically advantageous for the firm ratepayer. In both instances, these opportunities are sought only when firm customer needs are satisfied. Additionally, PGW's bundled storages and LNG can be utilized as a substitute for higher price gas supply based on market pricing conditions and the results of PGW's status report. Effectively, the Gas Supply Group is at all times studying the market for any economic advantage it can bring to the firm ratepayer.

III. Demand Forecasting Methodology and Assumptions **Basic Assumptions**

PGW uses a combination of four basic methods to develop demand projections. They are:

- 1) Historical Data -- data showing long-term demand trends, conservation and utilization patterns by the various classes of customers -- Residential, Commercial, Industrial and Interruptible.
- 2) Customer Survey -- Information as gathered by PGW's Marketing Department and used for annual projections by month and year.
- 3) Relative End Use -- Projections via Marketing methods of customer load sizing by appliance type, maximum input, maximum summer and winter full load hour (FLH) calculations which are used to develop yearly and monthly demand requirements.
- 4) Judgment -- Experienced opinion as applied to the evaluation of the combination of all data to develop the basic demand requirements.

Customer Demand

The total system-wide demand is a function of the projected gas demand per customer and the anticipated number of customers in each class. In determining customer demand, consideration is given to projecting current customer usage, augmented by significant gains or losses in each of numerous homogeneous groups for the period being projected. The Gas Planning Department attempts to determine for each customer class, the level of demand relating to experienced temperatures and the component of demand that is apparently not affected by changes in temperature. Within each class the most recent summer and winter usage patterns are established from historical records. Summer data provides an insight into each class of customers' non-temperature sensitive load requirements or baseload which can be expressed in terms of thousands of cubic feet (Mcf) per day, per customer. Similarly, winter data after removal of the daily baseload level provides the temperature sensitive load requirements for each class of customer.

This usage primarily reflects space heating but also includes such other temperature sensitive needs as water heating attributable to colder ground water inlet temperatures and similar process variations. This overall heating requirement can be expressed in terms of the cubic feet of gas

III. Demand Forecasting Methodology and Assumptions **Basic Assumptions (Continued)**

utilized per degree of temperature change on a per customer basis for each separate customer classification.

In addition, consideration must be given to the variation of customer utilization patterns for space heating over the year, recognizing the transitional fall start-up of heaters, the deep winter period needs and the tapering off and shut-down which occurs in the spring. These usage patterns taken in conjunction with anticipated customer counts and appropriate temperature patterns form the basis of determining class and total system demands. Due to the inconsistencies of weather and weather forecasting techniques, no attempt is made to predict the specific daily temperatures of the projection period. Instead PGW has developed a normal monthly temperature pattern by analyzing statistical records of actual temperature patterns over a 10-year period. This pattern reflects 3,855 degree-days annually distributed in a stylized pattern preserving the monthly range of colder to warmer daily temperatures experienced in the January to May period and warmer to colder daily temperatures in the September to December period.

The term "degree days" quantifies the number of degrees of temperature below a base level of 65 degrees Fahrenheit and is used as a tool to measure space heating requirements, i.e. on a day experiencing an average temperature of 40 degrees F. there would be 25 degree days. The annual 3,855 degree days which is composed of the PGW normal monthly temperature patterns, form the basis of the calculation of the temperature sensitive component of demand. The application of the above described baseload, space heating factors and customer counts, when applied to a calendar based daily temperature pattern, produce a daily calculation of total customer requirements identified as sendout. It should be noted that there is a difference between sendout volume and sales volume. Sendout represents those volumes metered at the city gate to supply customers' requirements while sales are those volumes registered on customer meters. The variation between sendout and sales, after adjustments, is that portion which is lost and unaccounted for in the PGW distribution system.

III. Demand Forecasting Methodology and Assumptions **Basic Assumptions (Continued)**

Sales and sendout differ on a monthly basis in the degree day distribution pattern. For efficiency, meter reading and billing efforts are distributed uniformly over the available number of working days in a month and the majority of PGW customers are divided into 20 individual groups or cycles containing residential, commercial and industrial accounts within a specific geographic area. When these cycle customers are billed each month they reflect meter reading usage not for the calendar month being billed, but for the number of days and temperature pattern of degree-days experienced during their specific interval between meter readings. For example, assume the month of January contained 900 calendar degree-days. The customers in cycle 10 being billed for the month of January might have had meter readings taken on December 15 and again on January 17. Sales billed and reported in the company records for these customers would reflect the number of days and degree days between these reading dates rather than the 900 degree days of the month. Similarly, cycle 1 customers that might have had meter readings taken on December 1 and January 2 would reflect principally the month of December temperature experience, whereas, cycle 20 customers with meter readings taken possibly December 28 and January 29 would reflect principally the month of January temperature experience.

An average of the 20 cycles (Average Cycle Degree-Days) is used as the temperature pattern upon which to project the volume of sales in the forecast period. Both projections of sales and sendouts represent the full demand for that period from both firm and interruptible customers.

Methodology Used to Develop Monthly Estimates

A trial domestic factor is developed by classes of customers from sales reported for the summer months in the previous year. This average factor is then utilized in the sendout formula with the customer counts for the months of July, August and September. A comparison between what the formula calculates and the actual experienced for those three months is ascertained and the trial

III. Demand Forecasting Methodology and Assumptions **Basic Assumptions (Continued)**

domestic (baseload) factors are finalized to replicate the total sendout experienced. The finalized domestic factors (DOMs) are then utilized in conjunction with the actual sales 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 the remaining temperature sensitive load. The results are weighted by degree-days to give an average value which is utilized as a trial value for the heating factor.

The finalized domestic factor and the trial heating factor developed, as such, are then applied in the sendout calculations together with customer counts for the months of December, January and February (the peak winter heating period) to project an estimated sendout for each of these months. The projected sendout is then compared with the actual sendout experienced. Any variation between the projected and actual is adjusted to force the replication of the actual sendout experience thus resulting in the determination of a finalized heating factor.

To project the number of customers for each individual rate class, each rate class of customers are reviewed and accumulated individually. Current customers are ascertained from the number of billings data available from sales and revenue actually experienced immediately prior to the commencement of a model run. Declines are projected for anticipated losses to electric and other fuels, demolitions and transfers to other rates. Direct transfers from a non-heating to a heating account, as a result of a current customer's conversion to gas heat, moves the domestic load to the new category. Projected additional customers are developed by the Marketing Department where staff dealing with individual classes of customers and having the most direct knowledge of conditions within their expertise, project annual load additions which are translated into customer counts based upon typical customer usage for that individual customer class. The approximate month of turn-on is also developed to permit reflection of the effective portion of the load addition within the fiscal period under study. Interruptible class customers as well as other large special accounts are detailed individually incorporating expected gains and losses as direct contact and experience has indicated.

III. Demand Forecasting Methodology and Assumptions
Basic Assumptions (Continued)

The base revenue projections for both firm and interruptible customer groups are derived as the product of the projected sales volumes and the present tariff rate for each individual customer class within each group. The GCR revenue projections are derived as the product of the GCR factor and the projected sales volumes to the firm GCR customers.

IV. Design Day and Design Hour Forecasting Methodology and Assumptions

Each year a six year estimate of Design Day and Design Hour requirements anticipated under design day and design hour operating conditions is prepared to ensure that adequate resources are under contract and to further ensure that PGW can fulfill its supply obligation for its firm customer requirements on a design day and design hour.

The projected demands for design day are developed utilizing previous winter periods data for all weekdays where the temperature average for the day is 32 degrees Fahrenheit or below. The total sendout for these days as recorded under actual conditions and is reduced to firm sendout by removal of the interruptible load. A computer generated linear regression procedure is utilized to develop a sendout model from actual daily sendouts and degree days, and the process is repeated in a quadratic regression and a cubic regression procedure. From the predicted sendouts in the regression, which are within a reasonable percent of error to the actual sendout, factors are derived to replicate the actual sendouts. The factors derived from this are used to determine the current load requirements for a 0 degrees F day and from this data, the load for a -5 degrees F hour is calculated. PGW's Marketing Department's load projections for present and future years are then applied to these requirements to develop design day and design hour present and future load requirements. This is achieved by the addition of the projected marketing load growth on an annual basis (by day) to the derived base-year design day requirements.

PGW Corporate Modeling System

General Description

The corporate modeling system is a tool used by PGW management to project sales, revenues and expenses, as well as to examine key planning strategies and evaluate their effects on company operations. The system provides the ability to determine the results of alternate plans and scenarios, while at the same time allowing for responses to "what if" type situations quantifying revenue and expenses. The system combines the power of the computer with the experience of management to develop both short and long range projections based upon experienced historical data for sales and sendout volumes, raw material expenses and revenues. The corporate model system is composed of five separate parts. Each part operates independently but requires substantial external data inputs as well as data output results from one or more of the other parts in the system.

Gas Demand Model

The gas demand model is used to forecast total requirements for gas based upon current customer usage experience with adjustments for projected gains and losses. Input data includes domestic and space heating usage factors, customer counts by rate classifications, temperature patterns and results in projections of sales and sendout volumes. Detail and summary reports include sales and sendout by rate classification. This data is then used by the Gas Supply Model.

Gas Supply Model

The supply model is used to dispatch the various supply sources in accordance with contract availability limitations. It develops the necessary balance between supply and demand which reflects plant fuel and storage injection requirements as well as customer demands by identifying the availability of interruptible load balancing sales. Detail and summary reports include daily and monthly load requirements, the volumes taken from each source by pipeline contract, storage balances, LNG requirements, etc.

V. PGW Corporate Modeling System (Continued)

This model is also used to determine natural gas and other raw material costs dispatched. The model tracks the various cost components of each contract - the demand, capacity, commodity, injection and withdrawal charges - providing monthly and annual details and summary information including inventory valuations and expenses for supplemental LNG supplies. This data is then used by the Gas Cost Rate Model.

Gas Cost Rate Model

The gas cost rate model is used to develop the GCR. This model in conjunction with the gas supply model ascribes responsibility for the raw material costs to firm rate classes in accordance with PGW's tariff requirements, and compensates for the Interruptible Revenue Credit, interest, gas transportation Supplier Storage Peaking and migration charges and the previous over or under billing of fuel expenses. The GCR is then used by the Revenue Model.

Revenue Model

The revenue model is used to project billed revenue by rate classification in accordance with PGW's rate tariffs. It prepares the net billed revenue, GCR revenues, senior citizen discounts, and cycle billing information all detailed by rate classification. The detail and summary reports provided by this model are directed to the accounting and financial departments for inclusion in various financial reviews.

Summary

The corporate modeling system allows PGW management to effectively address supply/demand balancing, supply facilities planning, projected sales, cost, revenues, and sendout volumes. Results assist in the development of PGW's annual Operating Budget, setting of the GCR and planning of supply resources.

V. PGW Corporate Modeling System (Continued)

The model also provides a Status Report for the evaluation of remaining winter period requirements on both normal and design temperature patterns and the extrapolation of the current year based upon the experience to date and an assumption of temperatures anticipated for the remaining period of the year, this latter acting as a guide for both financial cash flow planning and winter operations.

Tab 5

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

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) as utility seeking recovery of purchased as 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:

53.64(c)(6) Each Section 1307 (f) utility shall file with the Commission a statement of its current fuel procurement practices, detailed information concerning, the staffing and expertise of its fuel procurement personnel, a discussion of its methodology for obtaining a least cost and reliable source of as supply, including a discussion of any methodologies, assumptions, models or rules of thumb employed in selecting its gas supply, transportation and storage mix, its loss prevention strategy in the event of fraud, nonperformance or interruption of performance, its participation in capacity release and reallocation programs, the impact, if any, upon least cost fuel procurement by constraints imposed by local transportation end users, interruptible service, balancing, storage and dispatching, options, and its strategy for improving its fuel procurement practices in the future and timetable for implementing these changes.

Response:

I. Current Strategy

PGW's current strategy for meeting the system's supply requirements is to use a portfolio approach in both contract structures and pricing. The Company's supply portfolio is split into four distinct categories. First, the Company enters into winter-only supply contracts. These winter-only supply arrangements provide gas supply that fills approximately thirty-seven percent (37%) of PGW's daily firm transportation entitlements on both Spectra Energy Gas Transmission (formerly Duke Energy Gas Transmission) and Williams Gas Pipeline.

Item 53.64(c)(6) continued

The Enbridge Energy and Williams pipelines represent the only interstate pipeline facilities with physical connections to the PGW service territory. These supply contracts also recognize pipeline receipt and delivery rights. By sourcing supply in this manner, PGW not only ensures security of supply from the pipelines, but also can take advantage of varying basis differentiated pricing in the market. These contracts all contain the ability to set the price for upcoming months or to have the pricing default to an agreed upon market index. Second, an additional twenty-seven percent (27 %) is priced at the “gas daily mid-point” for each day of usage. These contracts allow for daily changes in volume. The operational flexibility of these contracts allows the company to increase or decrease gas supply to meet variations in send out requirements. Third, the company utilizes one (1) pipeline storage service as an additional source of supply. This storage service does not contain bundled transportation, and therefore, is moved to the city gates within PGW's firm interstate pipeline capacity. This service represents eight percent (8 %) of supply at a fixed price. Additionally, the company purchases eighteen percent (18%) of its supply using day purchases as needed. The company will again attempt to release capacity for year periods totaling 33,000 dekatherms, as it did last year; if this proves less economic for the ratepayer, the company will release these capacities for the winter and summer season separately. These capacity releases are with twenty-four hour recall rights in their terms and conditions. They are split between the two interstate pipelines that service PGW. If the need would arise to recall this capacity, PGW would do so and use its unbundled storage to fill the TGPL portion (10,000 dekatherms) and depend on market-based prices to fill the TETCO portion (23,000 dekatherms). The Company also releases firm capacity to its firm choice suppliers on a monthly basis based upon their firm pool size.

Additionally, PGW utilizes bundled storage and LNG to meet operational requirements and to accomplish other cost saving initiatives. Specifically, once design winter sendout requirements are ensured of being met, the company may utilize bundled storage and LNG inventories to displace higher priced supply based on the current market conditions. PGW uses a portfolio approach to address system supply and storage refill in the traditional non-peak season. The Gas Supply area uses the GCR filing as a template in an attempt to purchase gas volumes for both system supply and storage refill below the projected cost, when possible. However, some proportion of the supply will always be subject to spot market pricing, either daily or monthly, due to the constant need to purchase gas to meet sendout variations that are inherent in a residential firm heating load. PGW seeks to recoup demand charges for its firm transportation through the FERC-approved capacity release mechanisms.

The company also enters into the incremental off systems sales market to generate additional revenue when it is economically advantageous to do so. At all times, the company is studying the market for any economic advantage that can be derived in support of the firm ratepayer.

Item 53.64(c) (6) continued

II. Overview of Gas Supply Section

The Gas Supply Section of Gas Management is comprised of four departments: Gas Supply, Gas Transportation, Gas Accounting and Gas Control. The Gas Supply Section is responsible for ensuring that there is an adequate supply of natural gas available at all times to meet the requirements of PGW's over 490,000 firm customers. The Gas Supply Section accomplishes this through continuous interaction with various departments within PGW.

The staff of the Gas Supply Section is expected to maintain an in-depth working knowledge of all facets of the natural gas supply markets. The staff members of the four departments are required to maintain a working knowledge of PGW's natural gas contracts and facilities for the purpose of ensuring the safe and efficient operation of the distribution system, in accordance with company procedures, and in compliance with federal, state, and local regulations.

III. Organization and Staffing

Director of Gas Transportation and Gas Control: This person has over a twenty-five year history in the supply area and a seven-year history in gas control. This individual has a BA as well as having a background in natural gas accounting, allocation and confirmation experience under the first stages of FERC Order 636, and its effect on supply portfolio management.

This individual and the staffs of the departments that report to him interact continuously and provide 24/7 coverage in all situations pertaining to the gas supply portfolio and operation of the natural gas facilities. This is done in conjunction with the Gas Supply Committee, as well as everyday meetings with the VP of Gas Management and the other direct reports of the VP of Gas Management. The following departments report directly to this individual: Gas Supply, Gas Control, Gas Accounting, and Gas Transportation.

Administrator, Gas Supply: this person has over eleven years of experience in the gas supply area. This individual has a MBA and BBA in addition to having an extensive background in the area of gas purchasing. Reporting to this individual are the gas accountants, gas coordinators and gas buyers.

Manager, Gas Control: This person has over nineteen years in the supply area, is responsible for the day-today management of the city distribution grid and daily confirmation of each day's gas volumes. He supervises the gas control department on a 24/7 basis. The manager has a BS degree and extensive experience in the Distribution Department's network analysis area, as well as post graduate courses in computer science.

Tab 6

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

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:

- (7) A list of off-system sales, including transportation, storage, or capacity releases by the utility at less than the weighted average price of gas, or at less than the original contract cost of transportation, storage, or capacity supplied to the utility for its own customers.

Response: The attached schedules list off system sales, capacity release, and asset management for the period of January 1, 2017 to December 31, 2017.

Schedule 1 – reflects all off system sales margins for the period January 1, 2017 to December 31, 2017.

Schedule 2 – would reflect any off system sales transactions, which were done at less than the weighted average cost of gas. The schedule is blank because none of the deals match the criteria.

Schedule 3 – illustrates all capacity release deals.

Schedule 4 - would reflect any individual capacity release transactions, which were done at less than the weighted average cost of capacity.

Schedule 1
Item 53.64(C)(7)

Philadelphia Gas Works
Pennsylvania Public Utilities Commission
52 Pa. Code §53.61, et seq.
For the Twelve Months Ending December 31, 2017

Off-System Sales			
MONTH	Total Revenue	Ratepayer Margin	Total Credit
Jan-17	\$0	\$0	\$0
Feb-17	\$0	\$0	\$0
Mar-17	\$0	\$0	\$0
Apr-17	\$0	\$0	\$0
May-17	\$0	\$0	\$0
Jun-17	\$0	\$0	\$0
Jul-17	\$0	\$0	\$0
Aug-17	\$0	\$0	\$0
Sep-17	\$0	\$0	\$0
Oct-17	\$0	\$0	\$0
Nov-17	\$0	\$0	\$0
Dec-17	\$0	\$0	\$0

Off System Sale Profits Per WACOG Worksheet

PGW had no off system sales, which were not less than the weighted average cost of gas.

**Schedule 3
Item 53.64(C)(7)**

**Philadelphia Gas Works
Pennsylvania Public Utilities Commission
52 Pa. Code §53.61, et seq.
For the Twelve Months Ending December 31, 2017**

MONTH	Capacity Release			
	Total		Total	
	TGPL Credits		TETCO Credits	Total Credits
Jan-17	\$ 231,711	\$	356,325	\$ 588,036
Feb-17	\$ 207,727	\$	322,199	\$ 529,926
Mar-17	\$ 255,589	\$	380,754	\$ 636,343
Apr-17	\$ 164,104	\$	167,552	\$ 331,656
May-17	\$ 177,887	\$	297,463	\$ 475,350
Jun-17	\$ 180,024	\$	280,646	\$ 460,670
Jul-17	\$ 191,885	\$	272,038	\$ 463,923
Aug-17	\$ 204,202	\$	362,235	\$ 566,437
Sep-17	\$ 184,042	\$	298,710	\$ 482,752
Oct-17	\$ 202,386	\$	245,245	\$ 447,631
Nov-17	\$ 544,152	\$	686,128	\$ 1,230,280
Dec-17	\$ 560,721	\$	787,016	\$ 1,347,737
TOTAL	\$ 3,104,430	\$	4,456,311	\$ 7,560,741

M / YR	PIPELINE	PATH	RECALL STATUS	MONTHLY VOLUME DTH	TOTAL MONTHLY CREDIT	CREDIT DTH	TOTAL CREDIT	REPLACEMENT SHIPPER	
January-17	TETCO	ELA - M-3	Y	11,594	\$ 4,998.18	\$ 0.4311	\$ 4,998.18	Sprague	
	TETCO	ELA - M-3	Y	103,540	\$ 44,636.09	\$ 0.4311	\$ 44,636.09	CNE	
	TETCO	ELA - M-3	Y	1,178	\$ 507.83	\$ 0.4311	\$ 507.83	WGL Energy	
	TETCO	ELA - M-3	Y	3,720	\$ 1,603.69	\$ 0.4311	\$ 1,603.69	South Jersey	
	TETCO	ELA - M-3	Y	99,541	\$ 42,912.11	\$ 0.4311	\$ 42,912.11	Direct Energy	
	TETCO	ELA - M-3	Y	76,136	\$ 32,822.23	\$ 0.4311	\$ 32,822.23	UGI Energy Services	
	TETCO	ELA - M-3	Y	8,308	\$ 3,581.57	\$ 0.4311	\$ 3,581.57	CIMA	
	TETCO	M-3 - M-3	Y	160,208	\$ 64,083.20	\$ 0.4000	\$ 64,083.20	Consolidated Edison	
	TETCO	M-3 - M-3	Y	486,948	\$ 161,179.79	\$ 0.3310	\$ 161,179.79	UGI Energy Services	
				<u>951,173</u>			\$ 356,324.69		
		TRANSCO	3-6	Y	1,178	\$ 542.81	\$ 0.46079	\$ 542.81	WGL Energy
		TRANSCO	3-6	Y	7,502	\$ 3,455.88	\$ 0.46066	\$ 3,455.88	South Jersey
		TRANSCO	3-6	Y	8,339	\$ 3,841.52	\$ 0.46067	\$ 3,841.52	CIMA
		TRANSCO	3-6	Y	11,594	\$ 5,341.30	\$ 0.46070	\$ 5,341.30	Sprague
		TRANSCO	3-6	Y	76,136	\$ 35,074.33	\$ 0.46068	\$ 35,074.33	UGI Energy Services
	TRANSCO	3-6	Y	99,541	\$ 45,856.44	\$ 0.46068	\$ 45,856.44	Direct Energy	
	TRANSCO	3-6	Y	103,540	\$ 47,698.77	\$ 0.46068	\$ 47,698.77	CNE	
	TRANSCO	3-6	Y	310,000	\$ 89,900.00	\$ 0.29000	\$ 89,900.00	Consolidated Edison	
			<u>617,830</u>			\$ 231,711.05			
February-17	TETCO	ELA - M-3	Y	1,064	\$ 460.07	\$ 0.4324	\$ 460.07	WGL Energy	
	TETCO	ELA - M-3	Y	7,504	\$ 3,244.73	\$ 0.4324	\$ 3,244.73	CIMA	
	TETCO	ELA - M-3	Y	3,360	\$ 1,452.87	\$ 0.4324	\$ 1,452.87	South Jersey	
	TETCO	ELA - M-3	Y	89,908	\$ 38,876.22	\$ 0.4324	\$ 38,876.22	Direct Energy	
	TETCO	ELA - M-3	Y	68,768	\$ 29,735.28	\$ 0.4324	\$ 29,735.28	UGI Energy Services	
	TETCO	ELA - M-3	Y	93,520	\$ 40,438.04	\$ 0.4324	\$ 40,438.04	CNE	
	TETCO	ELA - M-3	Y	10,472	\$ 4,528.09	\$ 0.4324	\$ 4,528.09	Sprague	
	TETCO	M-3 - M-3	Y	144,704	\$ 57,881.60	\$ 0.4000	\$ 57,881.60	Consolidated Edison	
	TETCO	M-3 - M-3	Y	439,824	\$ 145,581.74	\$ 0.3310	\$ 145,581.74	UGI Energy Services	
				<u>859,124</u>			\$ 322,198.64		
		TRANSCO	3-6	Y	1,064	\$ 490.28	\$ 0.46079	\$ 490.28	WGL Energy
		TRANSCO	3-6	Y	3,388	\$ 1,560.72	\$ 0.46066	\$ 1,560.72	South Jersey
		TRANSCO	3-6	Y	7,532	\$ 3,469.76	\$ 0.46067	\$ 3,469.76	CIMA
		TRANSCO	3-6	Y	10,472	\$ 4,824.40	\$ 0.46070	\$ 4,824.40	Sprague
		TRANSCO	3-6	Y	68,768	\$ 31,680.04	\$ 0.46068	\$ 31,680.04	UGI Energy Services
	TRANSCO	3-6	Y	89,908	\$ 41,418.72	\$ 0.46068	\$ 41,418.72	Direct Energy	
	TRANSCO	3-6	Y	93,520	\$ 43,082.76	\$ 0.46068	\$ 43,082.76	CNE	
	TRANSCO	3-6	Y	280,000	\$ 81,200.00	\$ 0.29000	\$ 81,200.00	Consolidated Edison	
			<u>554,652</u>			\$ 207,726.68			
March-17	TETCO	ELA - M-3	Y	17,670	\$ 7,640.51	\$ 0.4324	\$ 7,640.51	Sprague	
	TETCO	ELA - M-3	Y	101,184	\$ 43,751.96	\$ 0.4324	\$ 43,751.96	Direct Energy	
	TETCO	ELA - M-3	Y	91,388	\$ 39,516.17	\$ 0.4324	\$ 39,516.17	UGI Energy Services	
	TETCO	ELA - M-3	Y	6,541	\$ 2,828.33	\$ 0.4324	\$ 2,828.33	CIMA	
	TETCO	ELA - M-3	Y	248	\$ 107.23	\$ 0.4324	\$ 107.23	Energy Plus	
	TETCO	ELA - M-3	Y	1,178	\$ 509.37	\$ 0.4324	\$ 509.37	WGL Energy	
	TETCO	ELA - M-3	Y	5,394	\$ 2,332.37	\$ 0.4324	\$ 2,332.37	South Jersey	
	TETCO	ELA - M-3	Y	135,997	\$ 58,805.09	\$ 0.4324	\$ 58,805.09	CNE	
	TETCO	M-3 - M-3	Y	160,208	\$ 64,083.20	\$ 0.4000	\$ 64,083.20	Consolidated Edison	
	TETCO	M-3 - M-3	Y	486,948	\$ 161,179.79	\$ 0.3310	\$ 161,179.79	UGI Energy Services	
				<u>1,006,756</u>			\$ 380,754.02		
		TRANSCO	3-6	Y	248	\$ 114.39	\$ 0.46125	\$ 114.39	Energy Plus
		TRANSCO	3-6	Y	1,178	\$ 542.81	\$ 0.46079	\$ 542.81	WGL Energy
		TRANSCO	3-6	Y	5,394	\$ 2,484.96	\$ 0.46069	\$ 2,484.96	South Jersey
		TRANSCO	3-6	Y	6,541	\$ 3,013.20	\$ 0.46066	\$ 3,013.20	CIMA
	TRANSCO	3-6	Y	17,670	\$ 8,140.29	\$ 0.46068	\$ 8,140.29	Sprague	
	TRANSCO	3-6	Y	91,419	\$ 42,115.05	\$ 0.46068	\$ 42,115.05	UGI Energy Services	
	TRANSCO	3-6	Y	101,215	\$ 46,627.72	\$ 0.46068	\$ 46,627.72	Direct Energy	
	TRANSCO	3-6	Y	135,997	\$ 62,651.00	\$ 0.46068	\$ 62,651.00	CNE	
	TRANSCO	3-6	Y	310,000	\$ 89,900.00	\$ 0.29000	\$ 89,900.00	Consolidated Edison	
			<u>669,662</u>			\$ 255,589.42			

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April-17	TETCO	ELA - M-3	Y	97,140	\$	42,003.33	\$	0.4324	\$	42,003.33	Direct Energy
	TETCO	ELA - M-3	Y	1,470	\$	635.63	\$	0.4324	\$	635.63	WGL Energy
	TETCO	ELA - M-3	Y	131,760	\$	56,973.03	\$	0.4324	\$	56,973.03	CNE
	TETCO	ELA - M-3	Y	180	\$	77.84	\$	0.4324	\$	77.84	Energy Plus
	TETCO	ELA - M-3	Y	5,910	\$	2,555.48	\$	0.4324	\$	2,555.48	CIMA
	TETCO	ELA - M-3	Y	5,310	\$	2,296.04	\$	0.4324	\$	2,296.04	South Jersey
	TETCO	ELA - M-3	Y	17,070	\$	7,381.07	\$	0.4324	\$	7,381.07	Sprague
	TETCO	ELA - M-3	Y	88,440	\$	38,241.45	\$	0.4324	\$	38,241.45	UGI Energy Services
	TETCO	M-3 - M-3	Y	540,000	\$	17,388.00	\$	0.0322	\$	17,388.00	Colonial Energy
				887,280					\$	167,551.87	

PIPELINE	PATH	RECALL STATUS	MONTHLY VOLUME DTH	TOTAL MONTHLY CREDIT	CREDIT DTH	TOTAL CREDIT	
TRANSCO	3-6	Y	180	\$ 82.80	\$ 0.46000	\$ 82.80	Energy Plus
TRANSCO	3-6	Y	1,500	\$ 691.20	\$ 0.46080	\$ 691.20	WGL Energy
TRANSCO	3-6	Y	5,310	\$ 2,446.20	\$ 0.46068	\$ 2,446.20	South Jersey
TRANSCO	3-6	Y	5,910	\$ 2,722.50	\$ 0.46066	\$ 2,722.50	CIMA
TRANSCO	3-6	Y	17,100	\$ 7,877.40	\$ 0.46067	\$ 7,877.40	Sprague
TRANSCO	3-6	Y	88,470	\$ 40,756.50	\$ 0.46068	\$ 40,756.50	UGI Energy Services
TRANSCO	3-6	Y	97,170	\$ 44,764.50	\$ 0.46068	\$ 44,764.50	Direct Energy
TRANSCO	3-6	Y	131,790	\$ 60,713.10	\$ 0.46068	\$ 60,713.10	CNE
TRANSCO	3-6	Y	300,000	\$ 4,050.00	\$ 0.01350	\$ 4,050.00	Colonial Energy
			647,430			\$ 164,104.20	

May-17	TETCO	ELA - M-3	Y	1,519	\$	653.16	\$	0.4300	\$	653.16	WGL Energy
	TETCO	ELA - M-3	Y	97,867	\$	42,082.81	\$	0.4300	\$	42,082.81	Direct Energy
	TETCO	ELA - M-3	Y	186	\$	79.98	\$	0.4300	\$	79.98	Energy Plus
	TETCO	ELA - M-3	Y	17,639	\$	7,584.77	\$	0.4300	\$	7,584.77	Sprague
	TETCO	ELA - M-3	Y	3,193	\$	1,373.00	\$	0.4300	\$	1,373.00	South Jersey
	TETCO	ELA - M-3	Y	88,598	\$	38,097.14	\$	0.4300	\$	38,097.14	UGI Energy Services
	TETCO	ELA - M-3	Y	6,200	\$	2,666.00	\$	0.4300	\$	2,666.00	CIMA
	TETCO	ELA - M-3	Y	138,911	\$	59,731.73	\$	0.4300	\$	59,731.73	CNE
	TETCO	M-3 - M-3	Y	486,948	\$	25,223.91	\$	0.0518	\$	25,223.91	Spotlight Energy
	TETCO	WLA - M-3	Y	558,000	\$	59,985.04	\$	0.1075	\$	59,985.04	Grays Ferry
	TETCO	WLA - M-3	Y	558,000	\$	59,985.04	\$	0.1075	\$	59,985.04	Grays Ferry
				1,957,061					\$	297,462.58	

TRANSCO	3-6	Y	217	\$ 100.13	\$ 0.46143	\$ 100.13	Energy Plus
TRANSCO	3-6	Y	1,550	\$ 714.24	\$ 0.46080	\$ 714.24	WGL Energy
TRANSCO	3-6	Y	3,193	\$ 1,470.95	\$ 0.46068	\$ 1,470.95	South Jersey
TRANSCO	3-6	Y	6,200	\$ 2,856.03	\$ 0.46065	\$ 2,856.03	CIMA
TRANSCO	3-6	Y	17,639	\$ 8,126.03	\$ 0.46069	\$ 8,126.03	Sprague
TRANSCO	3-6	Y	88,598	\$ 40,815.22	\$ 0.46068	\$ 40,815.22	UGI Energy Services
TRANSCO	3-6	Y	97,867	\$ 45,085.47	\$ 0.46068	\$ 45,085.47	Direct Energy
TRANSCO	3-6	Y	138,911	\$ 63,993.61	\$ 0.46068	\$ 63,993.61	CNE
TRANSCO	3-6	Y	310,000	\$ 4,185.00	\$ 0.01350	\$ 4,185.00	Colonial Energy
TRANSCO	3-6	Y	310,000	\$ 6,820.00	\$ 0.02200	\$ 6,820.00	Green Plains
TRANSCO	3-6	Y	310,000	\$ 3,720.00	\$ 0.01200	\$ 3,720.00	Spotlight Energy
			1,284,175			\$ 177,886.68	

June-17	TETCO	ELA - M-3	Y	6,930	\$	2,979.90	\$	0.4300	\$	2,979.90	CIMA
	TETCO	ELA - M-3	Y	1,470	\$	632.10	\$	0.4300	\$	632.10	WGL Energy
	TETCO	ELA - M-3	Y	17,070	\$	7,340.10	\$	0.4300	\$	7,340.10	Sprague
	TETCO	ELA - M-3	Y	93,120	\$	40,041.59	\$	0.4300	\$	40,041.59	Direct Energy
	TETCO	ELA - M-3	Y	86,760	\$	37,306.80	\$	0.4300	\$	37,306.80	UGI Energy Services
	TETCO	ELA - M-3	Y	3,090	\$	1,328.71	\$	0.4300	\$	1,328.71	South Jersey
	TETCO	ELA - M-3	Y	240	\$	103.20	\$	0.4300	\$	103.20	Energy Plus
	TETCO	ELA - M-3	Y	137,310	\$	59,043.29	\$	0.4300	\$	59,043.29	CNE
	TETCO	M-3 - M-3	Y	471,240	\$	24,410.23	\$	0.0518	\$	24,410.23	Spotlight Energy
	TETCO	WLA - M-3	Y	540,000	\$	53,730.08	\$	0.0995	\$	53,730.08	Grays Ferry
	TETCO	WLA - M-3	Y	540,000	\$	53,730.08	\$	0.0995	\$	53,730.08	Grays Ferry
				1,897,230					\$	280,646.08	

	PIPELINE	PATH	RECALL STATUS	MONTHLY VOLUME DTH	TOTAL MONTHLY CREDIT	CREDIT DTH	TOTAL CREDIT	
	TRANSCO	3-6	Y	270	\$ 124.50	\$ 0.46111	\$ 124.50	Energy Plus
	TRANSCO	3-6	Y	1,500	\$ 691.20	\$ 0.46080	\$ 691.20	WGL Energy
	TRANSCO	3-6	Y	3,090	\$ 1,423.50	\$ 0.46068	\$ 1,423.50	South Jersey
	TRANSCO	3-6	Y	6,960	\$ 3,206.40	\$ 0.46069	\$ 3,206.40	CIMA
	TRANSCO	3-6	Y	17,100	\$ 7,877.40	\$ 0.46067	\$ 7,877.40	Sprague
	TRANSCO	3-6	Y	86,790	\$ 39,982.50	\$ 0.46068	\$ 39,982.50	UGI Energy Services
	TRANSCO	3-6	Y	93,120	\$ 42,898.50	\$ 0.46068	\$ 42,898.50	Direct Energy
	TRANSCO	3-6	Y	137,340	\$ 63,270.00	\$ 0.46068	\$ 63,270.00	CNE
	TRANSCO	3-6	Y	300,000	\$ 4,050.00	\$ 0.01350	\$ 4,050.00	Colonial Energy
	TRANSCO	3-6	Y	300,000	\$ 6,600.00	\$ 0.02200	\$ 6,600.00	Green Plains
	TRANSCO	3-6	Y	300,000	\$ 3,600.00	\$ 0.01200	\$ 3,600.00	Spotlight Energy
	TRANSCO	3-6	Y	300,000	\$ 6,300.00	\$ 0.02100	\$ 6,300.00	Tenaska
				<u>1,546,170</u>			<u>\$ 180,024.00</u>	
July-17	TETCO	ELA - M-3	Y	96,348	\$ 41,429.64	\$ 0.4300	\$ 41,429.64	Direct Energy
	TETCO	ELA - M-3	Y	1,519	\$ 653.16	\$ 0.4300	\$ 653.16	WGL Energy
	TETCO	ELA - M-3	Y	93	\$ 40.00	\$ 0.4301	\$ 40.00	BlueRock Energy
	TETCO	ELA - M-3	Y	85,994	\$ 36,977.42	\$ 0.4300	\$ 36,977.42	UGI Energy Services
	TETCO	ELA - M-3	Y	248	\$ 106.64	\$ 0.4300	\$ 106.64	Energy Plus
	TETCO	ELA - M-3	Y	18,507	\$ 7,958.00	\$ 0.4300	\$ 7,958.00	Sprague
	TETCO	ELA - M-3	Y	141,732	\$ 60,944.76	\$ 0.4300	\$ 60,944.76	CNE
	TETCO	ELA - M-3	Y	7,564	\$ 3,252.52	\$ 0.4300	\$ 3,252.52	CIMA
	TETCO	ELA - M-3	Y	3,193	\$ 1,373.00	\$ 0.4300	\$ 1,373.00	South Jersey
	TETCO	M-3 - M-3	Y	486,948	\$ 25,223.91	\$ 0.0518	\$ 25,223.91	Spotlight Energy
	TETCO	WLA - M-3	Y	558,000	\$ 47,039.43	\$ 0.0843	\$ 47,039.43	Grays Ferry
	TETCO	WLA - M-3	Y	558,000	\$ 47,039.43	\$ 0.0843	\$ 47,039.43	Grays Ferry
				<u>1,958,146</u>			<u>\$ 272,037.91</u>	
	TRANSCO	3-6	Y	93	\$ 42.78	\$ 0.46000	\$ 42.78	BlueRock Energy
	TRANSCO	3-6	Y	248	\$ 114.08	\$ 0.46000	\$ 114.08	Energy Plus
	TRANSCO	3-6	Y	1,550	\$ 714.24	\$ 0.46080	\$ 714.24	WGL Energy
	TRANSCO	3-6	Y	3,193	\$ 1,470.95	\$ 0.46068	\$ 1,470.95	South Jersey
	TRANSCO	3-6	Y	7,595	\$ 3,498.97	\$ 0.46069	\$ 3,498.97	CIMA
	TRANSCO	3-6	Y	18,538	\$ 8,539.88	\$ 0.46067	\$ 8,539.88	Sprague
	TRANSCO	3-6	Y	85,994	\$ 39,615.52	\$ 0.46068	\$ 39,615.52	UGI Energy Services
	TRANSCO	3-6	Y	96,348	\$ 44,385.49	\$ 0.46068	\$ 44,385.49	Direct Energy
	TRANSCO	3-6	Y	141,732	\$ 65,293.13	\$ 0.46068	\$ 65,293.13	CNE
	TRANSCO	3-6	Y	310,000	\$ 4,185.00	\$ 0.01350	\$ 4,185.00	Colonial Energy
	TRANSCO	3-6	Y	310,000	\$ 6,820.00	\$ 0.02200	\$ 6,820.00	Green Plains
	TRANSCO	3-6	Y	310,000	\$ 3,720.00	\$ 0.01200	\$ 3,720.00	Spotlight Energy
	TRANSCO	3-6	Y	310,000	\$ 6,510.00	\$ 0.02100	\$ 6,510.00	Tenaska
	TRANSCO	3-6	Y	310,000	\$ 6,975.00	\$ 0.02250	\$ 6,975.00	BNP Paribas
				<u>1,905,291</u>			<u>\$ 191,885.04</u>	
August-17	TETCO	ELA - M-3	Y	93	\$ 39.81	\$ 0.4281	\$ 39.81	BlueRock Energy
	TETCO	ELA - M-3	Y	95,511	\$ 40,888.26	\$ 0.4281	\$ 40,888.26	Direct Energy
	TETCO	ELA - M-3	Y	248	\$ 106.16	\$ 0.4281	\$ 106.16	Energy Plus
	TETCO	ELA - M-3	Y	1,519	\$ 650.27	\$ 0.4281	\$ 650.27	WGL Energy
	TETCO	ELA - M-3	Y	18,507	\$ 7,922.85	\$ 0.4281	\$ 7,922.85	Sprague
	TETCO	ELA - M-3	Y	7,564	\$ 3,238.14	\$ 0.4281	\$ 3,238.14	CIMA
	TETCO	ELA - M-3	Y	84,413	\$ 36,137.21	\$ 0.4281	\$ 36,137.21	UGI Energy Services
	TETCO	ELA - M-3	Y	143,158	\$ 61,285.94	\$ 0.4281	\$ 61,285.94	CNE
	TETCO	ELA - M-3	Y	3,472	\$ 1,486.35	\$ 0.4281	\$ 1,486.35	South Jersey
	TETCO	M-3 - M-3	Y	486,948	\$ 25,223.91	\$ 0.0518	\$ 25,223.91	Spotlight Energy
	TETCO	WLA - M-3	Y	558,000	\$ 92,628.04	\$ 0.1660	\$ 92,628.04	Grays Ferry
	TETCO	WLA - M-3	Y	558,000	\$ 92,628.04	\$ 0.1660	\$ 92,628.04	Grays Ferry
				<u>1,957,433</u>			<u>\$ 362,234.98</u>	

	PIPELINE	PATH	RECALL STATUS	VOLUME DTH	MONTHLY CREDIT	CREDIT DTH	TOTAL CREDIT	
	TRANSCO	3-6	Y	93	\$ 42.78	\$ 0.46000	\$ 42.78	BlueRock Energy
	TRANSCO	3-6	Y	279	\$ 128.65	\$ 0.46111	\$ 128.65	Energy Plus
	TRANSCO	3-6	Y	1,550	\$ 714.24	\$ 0.46080	\$ 714.24	WGL Energy
	TRANSCO	3-6	Y	3,472	\$ 1,599.60	\$ 0.46071	\$ 1,599.60	South Jersey
	TRANSCO	3-6	Y	7,595	\$ 3,498.97	\$ 0.46069	\$ 3,498.97	CIMA
	TRANSCO	3-6	Y	18,507	\$ 8,525.93	\$ 0.46069	\$ 8,525.93	Sprague
	TRANSCO	3-6	Y	84,413	\$ 38,887.33	\$ 0.46068	\$ 38,887.33	UGI Energy Services
	TRANSCO	3-6	Y	95,542	\$ 44,014.11	\$ 0.46068	\$ 44,014.11	Direct Energy
	TRANSCO	3-6	Y	143,158	\$ 65,950.02	\$ 0.46068	\$ 65,950.02	CNE
	TRANSCO	3-6	Y	310,000	\$ 4,185.00	\$ 0.01350	\$ 4,185.00	Colonial Energy
	TRANSCO	3-6	Y	310,000	\$ 6,820.00	\$ 0.02200	\$ 6,820.00	Green Plains
	TRANSCO	3-6	Y	310,000	\$ 3,720.00	\$ 0.01200	\$ 3,720.00	Spotlight Energy
	TRANSCO	3-6	Y	310,000	\$ 6,510.00	\$ 0.02100	\$ 6,510.00	Tenaska
	TRANSCO	3-6	Y	310,000	\$ 6,975.00	\$ 0.02250	\$ 6,975.00	BNP Paribas
	TRANSCO	3-6	Y	310,000	\$ 5,580.00	\$ 0.01800	\$ 5,580.00	Mercuria
	TRANSCO	3-6	Y	250,000	\$ 6,250.00	\$ 0.02500	\$ 6,250.00	UGI Energy Services
	TRANSCO	3-6	Y	40,000	\$ 800.00	\$ 0.02000	\$ 800.00	United Energy
				<u>2,504,609</u>			<u>\$ 204,201.63</u>	
September-17	TETCO	ELA - M-3	Y	240	\$ 102.73	\$ 0.4280	\$ 102.73	Energy Plus
	TETCO	ELA - M-3	Y	90	\$ 38.53	\$ 0.4281	\$ 38.53	BlueRock Energy
	TETCO	ELA - M-3	Y	81,690	\$ 34,971.49	\$ 0.4281	\$ 34,971.49	UGI Energy Services
	TETCO	ELA - M-3	Y	1,470	\$ 629.32	\$ 0.4281	\$ 629.32	WGL Energy
	TETCO	ELA - M-3	Y	92,430	\$ 39,569.27	\$ 0.4281	\$ 39,569.27	Direct Energy
	TETCO	ELA - M-3	Y	17,910	\$ 7,667.27	\$ 0.4281	\$ 7,667.27	Sprague
	TETCO	ELA - M-3	Y	3,360	\$ 1,438.43	\$ 0.4281	\$ 1,438.43	South Jersey
	TETCO	ELA - M-3	Y	7,320	\$ 3,133.70	\$ 0.4281	\$ 3,133.70	CIMA
	TETCO	ELA - M-3	Y	138,540	\$ 59,308.96	\$ 0.4281	\$ 59,308.96	CNE
	TETCO	M-3 - M-3	Y	471,240	\$ 24,410.23	\$ 0.0518	\$ 24,410.23	Spotlight Energy
	TETCO	WLA - M-3	Y	540,000	\$ 63,719.88	\$ 0.1180	\$ 63,719.88	Grays Ferry
	TETCO	WLA - M-3	Y	540,000	\$ 63,719.88	\$ 0.1180	\$ 63,719.88	Grays Ferry
				<u>1,894,290</u>			<u>\$ 298,709.69</u>	
	TRANSCO	3-6	Y	90	\$ 41.40	\$ 0.46000	\$ 41.40	BlueRock Energy
	TRANSCO	3-6	Y	270	\$ 124.50	\$ 0.46111	\$ 124.50	Energy Plus
	TRANSCO	3-6	Y	1,500	\$ 691.20	\$ 0.46080	\$ 691.20	WGL Energy
	TRANSCO	3-6	Y	3,360	\$ 1,548.00	\$ 0.46071	\$ 1,548.00	South Jersey
	TRANSCO	3-6	Y	7,350	\$ 3,386.10	\$ 0.46069	\$ 3,386.10	CIMA
	TRANSCO	3-6	Y	17,910	\$ 8,250.90	\$ 0.46069	\$ 8,250.90	Sprague
	TRANSCO	3-6	Y	81,690	\$ 37,632.90	\$ 0.46068	\$ 37,632.90	UGI Energy Services
	TRANSCO	3-6	Y	92,460	\$ 42,594.30	\$ 0.46068	\$ 42,594.30	Direct Energy
	TRANSCO	3-6	Y	138,540	\$ 63,822.60	\$ 0.46068	\$ 63,822.60	CNE
	TRANSCO	3-6	Y	300,000	\$ 4,050.00	\$ 0.01350	\$ 4,050.00	Colonial Energy
	TRANSCO	3-6	Y	300,000	\$ 6,600.00	\$ 0.02200	\$ 6,600.00	Green Plains
	TRANSCO	3-6	Y	300,000	\$ 3,600.00	\$ 0.01200	\$ 3,600.00	Spotlight Energy
	TRANSCO	3-6	Y	300,000	\$ 6,300.00	\$ 0.02100	\$ 6,300.00	Tenaska
	TRANSCO	3-6	Y	300,000	\$ 5,400.00	\$ 0.01800	\$ 5,400.00	Mercuria
				<u>1,843,170</u>			<u>\$ 184,041.90</u>	
October-17	TETCO	ELA - M-3	Y	310	\$ 132.71	\$ 0.4281	\$ 132.71	Energy Plus
	TETCO	ELA - M-3	Y	1,302	\$ 557.39	\$ 0.4281	\$ 557.39	WGL Energy
	TETCO	ELA - M-3	Y	7,812	\$ 3,344.33	\$ 0.4281	\$ 3,344.33	BlueRock Energy
	TETCO	ELA - M-3	Y	102,889	\$ 44,046.78	\$ 0.4281	\$ 44,046.78	Direct Energy
	TETCO	ELA - M-3	Y	18,724	\$ 8,015.74	\$ 0.4281	\$ 8,015.74	Sprague
	TETCO	ELA - M-3	Y	9,114	\$ 3,901.70	\$ 0.4281	\$ 3,901.70	CIMA
	TETCO	ELA - M-3	Y	85,901	\$ 36,774.22	\$ 0.4281	\$ 36,774.22	UGI Energy Services
	TETCO	ELA - M-3	Y	4,867	\$ 2,083.57	\$ 0.4281	\$ 2,083.57	South Jersey
	TETCO	ELA - M-3	Y	165,199	\$ 70,721.69	\$ 0.4281	\$ 70,721.69	CNE
	TETCO	M-3 - M-3	Y	486,948	\$ 25,223.91	\$ 0.0518	\$ 25,223.91	Spotlight Energy
	TETCO	M-3 - M-3	Y	558,000	\$ 22,320.00	\$ 0.0400	\$ 22,320.00	Colonial Energy
	TETCO	M-3 - M-3	Y	558,000	\$ 28,123.20	\$ 0.0504	\$ 28,123.20	Green Plains
				<u>1,999,066</u>			<u>\$ 245,245.24</u>	

Philadelphia Gas Works
 Pennsylvania Public Utilities Commission
 52 Pa. Code §53.61, et seq.
 For the Twelve Months Ending December 31, 2017

	TRANSCO	3-6	Y	341	\$	156.86	\$	0.4600	\$	156.86	Energy Plus
	TRANSCO	3-6	Y	1,302	\$	598.61	\$	0.4598	\$	598.61	WGL Energy
	TRANSCO	3-6	Y	4,898	\$	2,252.77	\$	0.4599	\$	2,252.77	South Jersey
	TRANSCO	3-6	Y	7,812	\$	3,592.90	\$	0.4599	\$	3,592.90	BlueRock Energy
	TRANSCO	3-6	Y	9,145	\$	4,206.08	\$	0.4599	\$	4,206.08	CIMA
	TRANSCO	3-6	Y	18,724	\$	8,611.49	\$	0.4599	\$	8,611.49	Sprague
	TRANSCO	3-6	Y	85,901	\$	39,506.71	\$	0.4599	\$	39,506.71	UGI Energy Services
	TRANSCO	3-6	Y	102,889	\$	47,319.64	\$	0.4599	\$	47,319.64	Direct Energy
	TRANSCO	3-6	Y	165,230	\$	75,990.92	\$	0.4599	\$	75,990.92	CNE
	TRANSCO	3-6	Y	310,000	\$	6,820.00	\$	0.0220	\$	6,820.00	Green Plains
	TRANSCO	3-6	Y	310,000	\$	3,720.00	\$	0.0120	\$	3,720.00	Spotlight Energy
	TRANSCO	3-6	Y	310,000	\$	9,610.00	\$	0.0310	\$	9,610.00	Vitol
				<u>1,326,242</u>					\$	<u>202,385.98</u>	
November-17	TETCO	ELA - M-3	Y	96,720	\$	41,405.84	\$	0.4281	\$	41,405.84	Direct Energy
	TETCO	ELA - M-3	Y	153,330	\$	65,640.56	\$	0.4281	\$	65,640.56	CNE
	TETCO	ELA - M-3	Y	360	\$	154.13	\$	0.4281	\$	154.13	Energy Plus
	TETCO	ELA - M-3	Y	1,680	\$	719.20	\$	0.4281	\$	719.20	WGL Energy
	TETCO	ELA - M-3	Y	8,850	\$	3,788.70	\$	0.4281	\$	3,788.70	CIMA
	TETCO	ELA - M-3	Y	14,640	\$	6,267.37	\$	0.4281	\$	6,267.37	BlueRock Energy
	TETCO	ELA - M-3	Y	21,150	\$	9,054.33	\$	0.4281	\$	9,054.33	Sprague
	TETCO	ELA - M-3	Y	4,710	\$	2,016.35	\$	0.4281	\$	2,016.35	South Jersey
	TETCO	ELA - M-3	Y	88,350	\$	37,822.65	\$	0.4281	\$	37,822.65	UGI Energy Services
	TETCO	M-3 - M-3	Y	<u>471,240</u>	\$	<u>519,259.36</u>	\$	<u>1.1019</u>	\$	<u>519,259.36</u>	Freepoint Commodities
				861,030					\$	686,128.49	
	TRANSCO	3-6	Y	96,750	\$	44,496.30	\$	0.4599	\$	44,496.30	Direct Energy
	TRANSCO	3-6	Y	153,360	\$	70,531.80	\$	0.4599	\$	70,531.80	CNE
	TRANSCO	3-6	Y	360	\$	165.60	\$	0.4600	\$	165.60	Energy Plus
	TRANSCO	3-6	Y	1,680	\$	772.80	\$	0.4600	\$	772.80	WGL Energy
	TRANSCO	3-6	Y	8,850	\$	4,070.40	\$	0.4599	\$	4,070.40	CIMA
	TRANSCO	3-6	Y	14,670	\$	6,747.00	\$	0.4599	\$	6,747.00	BlueRock Energy
	TRANSCO	3-6	Y	21,180	\$	9,741.00	\$	0.4599	\$	9,741.00	Sprague
	TRANSCO	3-6	Y	4,740	\$	2,180.10	\$	0.4599	\$	2,180.10	South Jersey
	TRANSCO	3-6	Y	88,380	\$	40,647.00	\$	0.4599	\$	40,647.00	UGI Energy Services
	TRANSCO	3-6	Y	300,000	\$	357,000.00	\$	1.1900	\$	357,000.00	Shell Energy North America
	TRANSCO	1-3	Y	150,000	\$	3,900.00	\$	0.0260	\$	3,900.00	BP Energy
	TRANSCO	2-3	Y	<u>150,000</u>	\$	<u>3,900.00</u>	\$	<u>0.0260</u>	\$	<u>3,900.00</u>	BP Energy
				989,970					\$	544,152.00	
December-17	TETCO	ELA - M-3	Y	86,428	\$	37,094.91	\$	0.4292	\$	37,094.91	UGI Energy Services
	TETCO	ELA - M-3	Y	5,270	\$	2,261.89	\$	0.4292	\$	2,261.89	South Jersey
	TETCO	ELA - M-3	Y	22,010	\$	9,446.69	\$	0.4292	\$	9,446.69	Sprague
	TETCO	ELA - M-3	Y	16,120	\$	6,918.72	\$	0.4292	\$	6,918.72	BlueRock Energy
	TETCO	ELA - M-3	Y	9,114	\$	3,911.73	\$	0.4292	\$	3,911.73	CIMA
	TETCO	ELA - M-3	Y	2,170	\$	931.37	\$	0.4292	\$	931.37	WGL Energy
	TETCO	ELA - M-3	Y	372	\$	159.65	\$	0.4292	\$	159.65	Energy Plus
	TETCO	ELA - M-3	Y	159,092	\$	68,282.29	\$	0.4292	\$	68,282.29	CNE
	TETCO	ELA - M-3	Y	98,766	\$	42,390.36	\$	0.4292	\$	42,390.36	Direct Energy
	TETCO	M-3 - M-3	Y	486,948	\$	536,568.00	\$	1.1019	\$	536,568.00	Freepoint Commodities
	TETCO	M-3 - M-3	Y	<u>93,000</u>	\$	<u>79,050.00</u>	\$	<u>0.8500</u>	\$	<u>79,050.00</u>	WGL Energy
				979,290					\$	787,015.61	
	TRANSCO	3-6	Y	86,459	\$	39,763.39	\$	0.4599	\$	39,763.39	UGI Energy Services
	TRANSCO	3-6	Y	5,301	\$	2,437.84	\$	0.4599	\$	2,437.84	South Jersey
	TRANSCO	3-6	Y	22,041	\$	10,137.00	\$	0.4599	\$	10,137.00	Sprague
	TRANSCO	3-6	Y	16,151	\$	7,427.91	\$	0.4599	\$	7,427.91	BlueRock Energy
	TRANSCO	3-6	Y	9,145	\$	4,206.08	\$	0.4599	\$	4,206.08	CIMA
	TRANSCO	3-6	Y	2,201	\$	1,012.46	\$	0.4600	\$	1,012.46	WGL Energy
	TRANSCO	3-6	Y	372	\$	171.12	\$	0.4600	\$	171.12	Energy Plus
	TRANSCO	3-6	Y	159,123	\$	73,182.32	\$	0.4599	\$	73,182.32	CNE
	TRANSCO	3-6	Y	98,766	\$	45,423.37	\$	0.4599	\$	45,423.37	Direct Energy
	TRANSCO	1-3	Y	155,000	\$	4,030.00	\$	0.0260	\$	4,030.00	BP Energy
	TRANSCO	2-3	Y	155,000	\$	4,030.00	\$	0.0260	\$	4,030.00	BP Energy
	TRANSCO	3-6	Y	<u>310,000</u>	\$	<u>368,900.00</u>	\$	<u>1.1900</u>	\$	<u>368,900.00</u>	Shell Energy North America
				1,019,559					\$	560,721.49	

Tab 7

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

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:

- (8) A list of agreements to transport gas by the utility through its system, for other utilities, pipelines or jurisdictional customers including the quantity and price of the transportation.

Response:

Please see the attached list of gas transportation agreements for PGW's jurisdictional customers. PGW has no transportation agreements with other utilities or pipeline customers.

**PHILADELPHIA GAS WORKS
JANUARY 2017 - DECEMBER 2017**

MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL_CCF	Max Daily Qty (Dth)
1526423	13871	12090	14934	7491	4576	2564	2376	1679	549	5528	11490	17157	94305	400
1526435	92621	70629	83052	51419	52752	43627	40814	44461	32968	52750	67843	93434	726371	600
1526478	24851	18130	25549	2111	0	0	0	0	0	1109	16645	32998	121393	135
1546144	4422	3143	4898	281	0	0	0	0	10	343	3358	5402	21857	285
1546148	59000	47589	56505	11341	776	0	0	0	129	10802	44072	56353	286567	844
1553324	32420	24008	26218	7296	637	0	0	0	0	2183	21542	33131	147435	167
1553325	59554	41323	51827	11879	0	0	0	0	0	0	41999	70445	277027	397
1553328	9110	6390	7685	880	0	0	0	0	0	731	5039	10665	40500	27
1553331	56824	40303	47431	8400	2628	1104	717	907	785	4982	39584	69633	273299	225
1553337	22221	18064	20527	4346	0	0	0	0	0	4809	15548	24408	109923	720
1571005	16671	11421	13192	2472	11	0	0	0	0	11	6396	13339	63513	1032
1571006	13536	8781	10838	3116	0	0	0	0	0	1191	6974	12635	57072	348
1575425	14228	11103	13937	1751	10	0	0	0	0	0	4872	12780	58683	383
1582087	18529	12963	16953	688	22	0	0	0	21	172	9692	19807	78847	676
1582088	45216	34340	40653	10415	3754	3091	2924	2964	3036	9618	27420	43531	226962	42
1582089	52089	41957	48119	20453	4904	4229	4006	4151	4227	11973	33325	52042	281474	479
1594768	0	0	0	1051597	1381048	1208472	1233634	1241503	1226399	1316391	1319897	1354762	11333702	3432
1594769	0	0	0	0	0	0	0	104	104	0	0	0	208	92
1601880	11369	8137	10635	2329	0	0	0	0	0	384	4885	11465	49204	272
1611015	0	0	1143	32074	66328	50674	44548	48190	57594	44431	65025	27008	437015	547
1611016	0	0	0	904208	1178748	0	2068634	1049506	1027167	1102169	1102713	1135865	9569011	419
1611635	71057	52265	60991	18499	12894	6493	6098	6225	6420	11679	0	109923	362544	3300
1611639	13857	8554	9517	1156	0	0	0	0	0	11	5649	12631	51375	1465
1611640	8894	6391	6774	208	0	0	0	0	0	52	3659	10490	36469	240
1621317	354973	303048	335783	221012	337805	265233	306448	170122	192567	264142	267539	406342	3425014	92
1621318	24571	17283	19470	2040	145	41	10	0	21	0	11027	25527	100136	550
1658873	11768	6358	9607	1018	103	0	0	0	0	343	4478	13197	46873	1400
1658874	45440	41309	47003	41368	39945	33226	17524	35321	35964	40746	43028	35102	455977	402
1658875	24919	19172	23444	6927	2721	0	0	0	0	98	17046	28985	123313	400
1658876	22069	16628	23369	2437	0	0	0	0	0	914	17089	26805	109311	54
1658878	0	0	0	0	0	0	0	0	0	1652	29961	47641	79254	1222
1658879	11495	8415	10102	2412	765	537	630	798	1202	1609	6329	11462	55755	360
1658880	21512	19137	22519	17165	18273	15947	14082	16954	15267	17668	18147	17527	214200	272
1658882	35524	22690	30661	1995	0	0	0	0	0	1499	18028	32123	142520	31
1658883	0	0	0	0	2241	219638	32823	0	0	2367	14320	37938	309328	111
1658884	64453	48648	68983	17674	7957	5174	0	0	10562	8928	37000	60681	330060	240
1658885	4322	2621	6709	3739	22492	23355	42158	21654	16344	932	3434	22364	170124	400
1658886	0	0	0	0	0	0	0	0	0	0	0	0	0	90
1685268	6166	5110	8063	427	0	0	0	0	0	156	2920	8087	30928	144
1685269	32753	28737	33274	29070	24340	25028	27610	28666	25568	28612	30352	33841	347853	216
1685273	24972	18154	22183	6667	2285	1827	1937	1873	1970	3546	14568	23228	123209	782
1685275	3870	3310	2720	3870	3680	5280	3970	3500	4170	3170	2510	2850	42900	375
1685276	7086	6243	10658	1197	0	10	0	0	0	259	4810	11450	41713	437
1685277	22328	13600	20706	809	0	0	0	0	0	0	9248	24404	91095	380
1685278	35757	26013	36366	6734	4979	2749	2472	2745	2733	5624	22153	40705	189030	133
1685280	63624	52074	62401	45182	46505	39809	41774	49521	56566	50464	58473	66801	633194	625
1701736	0	0	0	11417	0	0	35888	0	0	0	26940	628797	703042	60
1701737	0	0	0	11417	0	0	38197	0	0	0	26940	619555	694110	432
1722879	14613	11620	13829	5405	4216	1837	1286	1459	1897	3433	9631	14449	83678	302
1722889	9193	7408	8968	1625	1144	0	0	0	0	1362	6928	10653	47281	373
1722906	20474	16977	18603	4897	0	1	0	0	0	3566	11648	18189	94355	222
1723873	3811	2855	3544	543	63	0	0	0	0	165	1873	6188	19042	958
1723876	10673	8092	8798	3151	1	0	0	0	0	1504	6318	10449	48985	151
1723898	44124	30339	29909	1452	0	0	0	0	104	2389	27134	47451	182901	424
1723900	31759	27667	32588	25033	24509	23158	21802	19380	17927	18275	21923	33103	297123	453
1723998	53922	43896	58969	32497	22456	14878	13711	14302	15813	23251	40250	52735	386678	907
1724001	20320	17166	13059	1203	166	0	0	0	21	0	11694	15280	78909	173
1724003	27963	20618	26662	7992	4896	3907	4019	3866	3927	5607	18445	31117	159018	305
1724008	36192	31484	35144	22942	21235	18827	18715	21058	20429	23654	33497	42736	325912	522
1724008	36192	31484	35144	22942	21235	18827	18715	21058	20429	23654	33497	42736	325912	522
1724010	22822	22811	24251	22096	24293	21827	20559	23978	20391	23874	22100	21869	270871	76
1724011	8393	6052	8398	612	0	0	0	0	21	1039	4386	10559	39459	907
1724230	9237	6680	7591	1013	3	10	9	11	9	390	4325	8452	37732	280
1724240	9969	5836	8504	397	0	0	0	1	0	205	4882	10697	40490	703
1724851	77100	65897	74040	47785	41468	40215	38127	40730	42174	40368	37195	71004	616103	1461
1724852	90617	77387	87092	56409	48912	48176	45463	48606	49842	47010	43117	84831	727461	228
1724853	39517	23599	26337	1778	0	0	0	0	0	1331	20981	40607	154150	144
1724854	86638	79785	90954	72607	77374	58211	46704	49124	49534	62308	85397	93401	852038	240
1724856	34995	21038	33645	5928	934	0	0	0	0	1871	23068	32890	154369	701
1756663	60939	43869	52107	10180	1291	0	0	0	0	1404	32398	64161	266350	223
1756664	27189	17256	21946	1430	31	0	0	0	0	1059	12749	25058	106718	346
1771898	2509	0	1970	50449	71731	108286	89897	120310	146967	108803	109519	35157	845599	648
1771899	9675	7292	8725	0	0	0	0	0	0	0	0	0	25692	90
1786008	374262	303876	351448	227912	207700	170378	158707	161157	162071	193775	280216	377160	2968661	5500
1786009	345029	280784	325022	211707	193218	158695	147754	150172	150258	179859	259435	348460	2750394	5500
1806076	56898	41402	49307	18082	15100	15094	15602	16789	14092	17339	40839	64326	364871	374
1806077	68854	55772	65071	17982	2379	1963	1860	1866	2072	5608	54231	67881	345540	277
1806079	24641	16762	23515	7279	10540	804	55	264	1209	1043	13973	20819	120905	107
1806080	10384	7225	10417	3803	4033	3702	1269	1648	3119	5899	10432	14640	76572	120
1806081	56415	51972	59431	56967	54270	49431	51690	53204	54499	59743	59050	59208	665878	700
1806092	38284	43422	38950	44969	34717	43165	40412	36786	37755	29937	35518	75298	499215	384
1826506	6227	5989	6126	4702	3495	3596	3424	4338	3561	4549	5097	5850	56954	302
1826561	9286	7036	8864	3818	1171	999	771	850	982	1513	5260	8110	48659	132
1826616	7313	5996	6624	2631	1641	260	0	0	225	1544	4242	7450	37926	703
1826674	14857	13899	16508	12264	10259	10317	8732	9032	8382	9660	14128	12294	140333	114
1884404	2608	2054	2411	649	246	207	201	228	224	614	1895	2414		

PHILADELPHIA GAS WORKS
JANUARY 2017 - DECEMBER 2017

MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL_CCF	Max Daily Qty (Dth)
1884510	23313	17321	20467	7058	5844	5681	4786	5177	5798	5515	14204	24258	139421	34
1884513	9335	7226	6392	4488	4329	4064	800	107	255	2162	0	0	39159	241
1884532	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1884573	23067	15077	18488	1559	0	0	0	0	0	1041	12471	25237	96941	698
1884576	29616	22437	27512	13016	10783	0	33	0	0	6751	20041	33421	163609	89
1884577	21687	14984	19242	2457	25	0	0	0	0	2039	18443	27414	106292	624
1884579	6811	5518	6403	1382	0	0	0	0	0	1902	4457	7051	33525	174
1906514	1092600	927100	1014000	327600	0	0	0	0	0	0	0	0	3361300	92
1906623	9050	7624	8134	3415	1109	938	873	924	950	3701	7452	9332	53502	89
1906625	9750	9272	10669	7917	7878	6925	3947	6945	5804	6543	7830	8920	92400	30
1906628	9395	5775	7752	485	0	0	0	0	0	21	4061	9539	37028	90
1906630	5385	4245	4862	354	0	1	0	0	0	299	4344	5780	25270	43
1909300	1582990	1001500	1465170	674550	1240400	1351770	163290	130740	92000	0	0	0	7702410	644
1909301	10924100	10047900	10038000	8418900	7267900	6612900	10068000	9733200	7345200	10139800	9214800	10821800	110632500	5500
1909334	6122	4852	5669	2713	2678	1814	1310	1323	1300	2605	4286	6339	41013	98
1909351	8181	5470	5697	993	0	0	0	0	0	960	4812	8321	34434	504
1921575	10654	8919	11307	600	89	0	0	0	0	810	4695	11061	48134	281
1921578	7818	5960	7816	2896	2080	2060	1342	1849	2014	2230	6695	8354	51113	81
1921579	4092	3939	4376	2232	1404	905	673	706	961	1516	1850	2679	25334	843
1921700	39586	31654	34858	5970	0	0	0	0	0	2562	25515	35520	175666	549
1921701	35684	26869	29283	15357	13899	10004	9568	10471	10966	12320	20785	30303	231235	42
1921703	37786	27362	28658	9506	4590	0	0	0	0	6286	26155	35217	175559	400
1954681	53222	42733	47218	28367	23995	21606	20975	22075	21864	24295	40934	54884	402166	127
1954683	45584	34687	39063	22855	20066	14784	15396	15546	15749	18899	30443	45462	318535	200
1954684	70420	47744	59713	10172	0	0	0	0	0	5564	37571	65640	296824	296
1986388	5217	3569	4357	530	0	0	0	0	0	295	2999	5399	22364	38
1987495	14772	11259	12708	10578	13204	14614	10063	17203	12656	14451	13389	10322	155221	216
1987496	12990	9681	12262	1258	0	41	0	0	83	1486	9107	17164	64071	50
1987500	44614	28935	41221	0	0	0	0	0	0	0	29669	52963	197403	479
1987633	3609	2689	3162	203	0	0	0	0	0	6	2054	3647	15370	1252
1987683	1209	970	1237	142	16	0	0	0	0	2	788	1390	5753	302
1987743	0	1545	2142	454	103	0	0	0	27	415	1633	2512	8832	1461
1987777	9868	8568	9271	7610	8042	7509	7127	8142	6641	8898	8700	8586	98962	43
1987785	6701	5526	6384	3750	0	0	1750	0	0	0	0	0	24111	120
1987786	7510	5929	6681	475	0	0	0	0	0	5	5144	8163	33907	48
1987797	0	0	0	46046	20391	8933	7407	8531	7577	9275	11907	14609	134675	302
1987801	28171	16593	24695	9001	5405	10426	22410	18300	13908	9199	17858	28433	204397	75
1987803	52657	39009	47563	41339	50045	64327	78087	72908	60087	55094	38235	53745	653096	296
1987805	11264	7582	9776	1865	718	287	254	277	256	1284	5969	12024	51556	340
1987808	63	32	0	0	0	0	0	715	10370	1326	0	0	12505	370
1987810	9372	6950	7910	883	0	0	10	0	10	530	5538	9882	41085	2087
1987812	11715	7731	10015	1366	382	0	0	0	0	477	8980	14441	55106	1046
1987814	509795	502827	550500	511596	507075	488117	398100	525264	485454	525830	498054	413823	5916435	3432
1987815	69164	60979	67700	33529	23132	21733	19229	15820	18176	31005	56207	78428	495102	131
1989421	22484	16827	17335	2861	0	0	0	0	3	0	12695	22765	94969	400
1989422	4476	2642	1898	42	1	1	0	0	0	8	1535	4289	14892	73
1989426	29628	21495	25921	7309	4889	2604	2372	2655	2625	6533	19375	30098	155504	383
1989428	59044	46571	58319	29937	28361	14757	11078	13509	16698	26642	47694	69437	422048	302
1989625	1043	474	622	14	8	5	4	0	4	0	0	0	2175	454
1989652	18854	33363	0	57110	8366	6468	3781	3896	4089	4552	9541	18297	168297	226
2012845	9717	6388	6872	6200	6276	5647	5044	5225	5098	6537	6532	7238	75612	400
2012851	4076	3289	3278	1697	899	239	343	353	582	1239	2581	3779	22355	90
2012853	3884	3260	3105	2251	1264	331	127	244	603	1547	2945	3753	23316	72
2012857	3385	2641	2533	1444	925	223	86	282	592	1035	2168	2900	18215	72
2012880	8606	6598	7780	3046	2104	1194	882	854	896	1506	4932	8349	46748	396
2012886	3802	2782	3343	902	241	1	0	0	0	0	0	0	11071	75
2023712	1563	1197	1959	263	0	0	0	0	0	1	655	1935	7571	1461
2023812	13266	9554	11484	3801	2488	2125	1943	1910	1960	2607	7355	12575	71069	235
2023825	6859	4341	5931	438	0	0	0	0	0	59	3413	6229	27271	541
2023831	3660	3213	3586	3060	2927	2526	2333	2198	2451	2674	2954	3445	35027	89
2023840	6198	4846	5928	2263	1279	712	656	664	681	1489	4710	6438	35864	934
2023947	9451	7014	8281	5145	3807	3312	2911	2955	2931	3669	5937	8269	63680	418
2023948	20459	16739	15866	4976	2783	2694	2748	2922	3121	6833	15802	22967	117910	81
2023952	37497	27576	31113	11228	6723	5758	5528	6052	5295	5347	23817	34195	200129	140
2023953	70349	55740	68516	41845	35281	24959	23018	24500	26572	35272	51825	75952	533828	576
2023955	86967	63809	68554	17666	8169	5439	4662	5356	4607	13502	58102	83825	420660	149
2023958	19089	14431	20582	3200	0	0	0	0	0	278	4174	14298	76051	397
2023960	16152	14536	21680	17943	19376	22698	20894	26643	17756	21972	23644	31073	254365	1151
2024285	6723	5053	5983	2398	1581	593	504	521	582	1480	4511	6945	36875	4740
2024290	6914	5281	6103	2764	2039	626	527	519	553	1852	5223	6985	39385	64
2024299	6558	4805	5539	2053	1359	686	570	777	724	1376	4142	6774	35363	64
2024307	13417	8258	10916	1504	307	0	0	1	1	677	8873	15014	58967	360
2024367	4513	3367	4997	412	0	0	0	0	3	208	2745	4710	20955	26
2024389	4514	4158	4514	408	0	0	0	0	0	509	2063	4549	20715	90
2024604	5292	4433	4979	4786	5233	5333	5215	6241	8102	9775	6847	5276	71511	110
2024644	10155	7822	7972	2848	1917	1429	1269	1496	1535	1466	4677	6884	49471	340
2024645	14821	11775	13077	3619	2108	846	551	708	1021	3190	12037	14003	77755	313
2024648	31658	26076	28958	21378	20875	18515	17060	17456	18043	18751	21621	24066	262460	490
2024675	722	651	666	572	579	463	423	467	469	515	698	852	7077	64
2024683	28047	20754	23965	8997	4943	2102	1775	1837	1957	6449	18464	26804	146094	360
2024684	6685	4594	5143	494	0	31	0	7	10	363	3427	5904	26660	281
2024690	30460	24810	27573	10562	11730	4659	4857	0	0	36823	32184	37138	220796	300
2024694	9548	6857	9900	1311	85	0	0	0	0	260	4517	12389	44867	377
2024698	7171	5113	6526	1393	0	0	0	0	0	470	4358	8021	33050	272
2024702	21140	15002	18298	2823	2038	114	0	0	0	1218	11799	17641	90072	58
2024703	17377	12641	15565	2686	1367	0	0	0	0	1616	10945	16771	78968	50
2024704	10647	6352	9393	711	0	0	0	0	0	558	6155	11860	45676	313

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MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL_CCF	Max Daily Qnty (Dth)
2024705	16041	12705	14398	4672	3171	3258	2938	2837	2789	3553	11447	17741	95549	522
2024706	7256	4774	6378	229	63	0	0	1	1	142	2232	7772	28848	156
2024712	17634	10948	13105	1537	0	0	0	0	0	27	6317	16938	66507	120
2024714	10310	6170	8524	373	1	2	5	24	38	493	5091	9101	40132	167
2024715	21550	16166	21030	1229	0	0	0	0	0	10608	21252	91836	503	
2024719	7917	5658	5847	1595	1723	1674	1191	580	581	990	4056	7294	39105	573
2024851	16958	10282	14729	3856	2196	71	0	0	0	2741	13325	19333	83492	244
2024992	1729	1234	1566	361	126	6	0	0	0	24	586	1566	7198	1851
2025003	5516	3964	4683	1996	4277	2776	1687	2028	2804	3970	4548	5577	43827	54
2025031	11992	10725	10465	1674	1	0	0	0	0	0	0	0	34857	90
2025049	3966	3111	4406	2759	2451	1682	2185	3624	3337	3381	3711	5633	40246	277
2025082	2441	1925	2283	897	809	157	0	60	322	910	1798	2727	14329	75
2025099	4346	2772	3753	659	12	0	0	0	0	98	2569	5884	20093	54
2025107	9348	6083	8172	1109	0	0	0	0	0	4462	9871	39045	576	
2025139	15475	12055	10355	1927	0	0	0	0	0	1342	7404	10740	59298	408
2025146	5579	4052	5361	666	0	12	4	0	17	412	3150	5988	25242	140
2025149	7286	6197	6708	1829	1147	670	683	846	1523	1656	2019	2504	33068	14
2025150	7715	5127	6382	740	135	0	0	0	0	1095	4564	7536	33295	178
2025156	7139	5372	5233	1075	0	0	0	21	0	555	4365	5809	29568	139
2025158	13311	9201	14239	691	1	1	1	1	0	727	5699	11792	55662	626
2025166	4937	3029	3503	237	0	0	0	1	2	48	2622	4030	18409	192
2025172	5134	3738	4984	618	0	9	4	0	17	374	2740	5522	23140	175
2025174	7413	6750	7864	6497	5532	3406	3454	2539	2522	2878	3103	5466	57445	78
2025178	15296	13038	16325	9697	7456	5801	7327	6974	7026	9143	12963	19844	130890	149
2026643	21268	5912	7867	1072	0	0	0	0	0	0	0	0	36118	189
2026737	8527	5177	7373	2215	39	0	0	49	154	172	2575	10485	36767	143
2026758	11253	8349	11004	2730	0	0	0	0	0	0	5313	13644	52294	250
2026766	15714	12675	13088	2094	516	0	0	0	0	2261	8435	13830	68613	272
2026784	9227	6174	8530	4034	2475	1103	559	587	703	2344	6429	9873	52036	420
2026819	21361	17143	19929	10468	17161	18244	546	5582	12672	8090	15078	18331	164604	425
2026820	18242	15744	16827	15339	16413	12567	10154	8634	16991	18009	18368	19742	187029	300
2026838	15448	11265	13707	1781	0	0	0	0	0	1286	8854	16685	69027	946
2026870	3428	2511	2858	387	0	0	0	0	0	303	2012	3783	15282	1851
2026874	3696	2634	3301	812	0	0	0	0	0	239	1994	3687	16363	703
2027160	8979	6202	7935	1882	0	0	0	0	0	1034	6099	8516	40646	164
2027375	22006	17286	20201	8951	5852	4068	3331	3391	3900	5826	14820	22859	132491	180
2027381	5047	3518	4057	1495	1313	1111	980	1191	1042	1301	3548	4836	29440	513
2027383	8222	7140	7922	2482	0	0	0	0	0	180	5026	8372	39345	645
2027386	7147	5776	6465	6936	5736	4548	5185	5868	4211	4284	5391	3991	65538	141
2027387	15635	11168	13194	5851	7600	4297	4937	4500	4708	6364	13837	20529	112520	224
2027392	10549	8680	10005	6664	6450	4903	3784	5036	4442	5648	8413	9804	84378	400
2027401	11033	9196	11045	5840	4837	3754	3336	6324	5143	5646	6336	9470	81960	305
2027402	13230	10967	13178	6807	5719	4532	4011	7759	6223	6781	7608	11341	98157	707
2027403	19939	15648	18540	7949	6235	4060	3515	3671	3982	5898	12936	20629	123001	400
2027406	33695	25288	33844	22588	22426	22853	20672	26308	23874	27541	29021	34685	322794	209
2027423	5587	3813	4534	957	375	1	0	0	0	711	3444	5780	25202	1709
2027430	4918	3428	4122	1481	1313	1113	1003	1178	1007	1377	3480	4902	29322	232
2027433	7051	5018	6672	1817	1163	2465	3430	1908	2179	2011	4458	8121	46293	450
2027434	5878	4229	5696	1566	1022	2287	3421	2978	1801	1622	3984	7165	41650	455
2027443	19609	14549	18504	5781	5053	3157	2893	3178	2965	4074	11748	21571	113081	430
2027454	6502	6049	6350	1823	181	0	0	0	0	768	3628	6743	32046	127
2027464	13598	9270	11244	2027	1042	0	0	0	0	1509	8396	17305	64390	424
2027476	9287	8513	10720	5841	6749	4810	4680	4906	4602	5737	7627	9930	83401	82
2027477	3325	3118	3130	2463	2801	2428	2011	2789	2267	2496	2545	2135	31508	162
2027483	12376	9571	12095	1178	0	1	0	1	0	892	7884	16063	60061	95
2027484	12930	9510	12871	1259	0	0	0	0	0	1136	11738	25547	74990	98
2027485	38530	29696	33344	9922	4811	3791	3301	3481	3822	4505	24061	32512	191777	1461
2027494	22138	16705	19665	3595	0	0	0	0	0	4199	15430	23400	105132	100
2027498	29319	25917	29488	24751	29556	30763	30626	30019	27813	31007	32215	31428	352901	90
2027509	21449	16577	19960	11567	8491	7410	7319	8178	8077	8669	17155	25241	160094	450
2027510	7663	6971	8103	6711	7626	8507	7954	7875	6013	8145	7501	7645	90712	215
2027520	16219	10605	13303	2851	0	0	0	0	10	2071	8132	12067	65258	149
2027524	30270	17498	25861	9295	5595	11248	24312	19923	15166	10049	18944	29877	218036	207
2027527	19494	15164	18480	6879	1461	1592	967	3061	3560	4516	12955	13684	101813	64
2027529	51460	38414	46269	11934	7967	5901	5294	6167	7537	18179	35496	51798	286417	706
2027531	14895	10897	12974	2953	994	30	0	0	11	3268	9428	13570	69020	3128
2027533	13728	10191	12645	3778	1	0	0	0	1	1589	9689	15056	66678	58
2027536	6785	4428	5710	444	0	0	0	0	0	3640	8061	8061	29068	616
2027544	29943	22299	29831	19607	19662	19865	17927	22845	20865	24263	25667	30824	283598	464
2027560	7315	5874	5653	3565	2960	0	4405	2230	2715	3044	5425	6371	49556	432
2027563	10691	6344	6367	631	0	0	0	0	0	4015	9546	37594	388	
2027564	4721	3497	4449	1353	670	358	374	422	491	872	5524	9436	32167	728
2027581	14390	10483	12408	1163	0	0	0	0	3	1521	9329	14889	64185	354
2027583	39196	35663	39120	38904	40473	40075	41360	39407	38044	39252	38089	36925	466508	202
2027589	10489	7228	8712	1443	0	0	0	0	0	862	5376	11625	45734	153
2027591	4054	3958	2991	1904	1846	1640	1366	1359	1122	1319	1811	2538	25908	83
2027599	5359	4264	4952	3098	2505	1838	2005	2278	2302	2806	4548	6178	42132	123
2027620	15052	10601	14062	3286	2669	1	1	128	193	1954	11551	17512	77009	424
2027625	4099	3806	4244	1386	619	284	183	381	818	870	3260	5640	25590	1565
2027635	4707	3704	4132	3272	3628	4079	4360	4214	3969	3905	3263	4619	47853	500
2027641	11580	9653	9081	665	0	0	0	0	0	0	6840	12955	50774	368
2027642	17584	10720	15948	1109	0	0	0	0	137	1441	9925	19548	76411	392
2035210	2225	1730	2276	656	30	0	0	0	0	442	1758	2814	11931	403
2035356	2260	1582	1937	347	0	0	0	0	0	171	1345	2452	10095	31
2035366	2712	1942	2232	631	0	0	0	0	0	138	1964	3654	13273	311
2035408	2732	1704	2220	399	183	0	0	0	0	238	1674	2835	11987	127
2035554	4770	3663	4310	1595	792	601	524	555	598	1192	3426	5199	27226	240

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MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL_CCF	Max Daily Qty (Dth)
2035694	1274	872	1018	125	0	0	0	0	0	5	844	1658	5795	60
2035839	5997	4616	5305	2216	1652	2250	2173	2202	2234	2392	3855	6065	40956	112
2035886	6601	8197	1060	0	0	0	0	0	0	0	0	0	15858	95
2035891	7780	6711	7650	4799	4064	2368	2458	3004	3283	4680	7281	8206	62282	591
2035943	3855	3073	3677	2089	2029	2122	2385	2272	2262	2563	3539	4931	34795	240
2035967	6628	5928	6585	6287	7132	6366	5968	6762	7577	7575	7043	6833	80702	685
2035975	11898	9272	11300	8459	9303	7654	7286	8313	7572	10006	10141	12354	113558	554
2035986	4242	3994	4284	2276	2400	2127	1750	2247	1897	2227	2869	3647	33961	599
2036046	3084	2649	2691	1668	0	0	0	1	0	0	1990	3008	15091	120
2036145	18965	14237	17825	7404	5789	3823	0	0	13	2733	8662	16518	95970	25
2036147	4886	3723	4142	615	382	50	2	49	66	164	2533	6104	22715	312
2036151	9204	6974	8158	3145	1004	0	0	0	0	655	6712	9199	45053	202
2036167	16129	10668	12862	3464	1610	0	0	0	0	2467	10867	15289	73357	4372
2036180	43598	37214	44961	34563	33121	24791	23394	26614	25486	28228	28277	36429	386677	1362
2036185	13291	13230	16480	1197	0	0	0	0	0	1060	9481	20263	75003	72
2036186	102486	79259	94286	26017	0	10	0	0	0	5621	69768	117398	494845	141
2036187	38773	29829	29029	7254	2529	0	0	0	0	2825	19872	42454	172564	576
2036188	22883	16198	20446	11280	11024	12764	14195	15389	14012	13693	16974	24650	193509	1300
2036189	16489	11658	15757	1311	0	0	0	0	11	973	9972	22252	78423	168
2036191	44937	52478	46901	33384	14357	42615	55407	65460	34850	45298	23375	61993	521055	120
2036192	53029	45034	51752	34493	32671	28656	29194	35524	33577	41008	49107	70273	504318	740
2036193	15417	9846	14837	1144	0	0	0	0	0	1560	6857	17614	67274	126
2036194	298347	291995	297914	296764	272139	223272	296848	281241	327862	330570	368827	378747	3664527	89
2036195	26403	21889	27987	2601	1551	0	0	0	0	2389	13510	34469	130799	120
2064820	2251	1470	1918	167	1	0	0	0	0	140	1169	2642	9757	99
2064880	1996	1791	1945	1218	3185	2990	2252	1596	2228	2373	2382	2855	26811	115
2064920	8412	6180	9774	5009	4855	4185	0	0	0	0	15720	13773	67909	375
2064973	183062	154104	175062	115325	106655	84708	87373	89750	86751	101765	138765	184845	1508165	400
2064974	25388	14372	21849	1157	0	0	0	0	0	62	12098	28228	103154	456
2064975	19664	17240	20294	17696	20144	18098	15674	16219	15974	19387	20278	21771	222440	200
2064976	25416	22176	26080	7163	0	0	0	0	0	2367	19039	29672	131913	172
2064977	9403	5929	8755	1839	145	0	0	0	0	582	4927	10989	42569	250
2064979	22466	13989	20860	9597	9829	14118	17295	17905	21778	10138	12938	20763	191677	235
2064980	58792	40603	58561	8213	332	0	0	111	0	5548	27407	46624	246191	223
2064981	0	0	0	0	0	0	0	0	415	0	0	0	415	11586
2064982	801076	656883	700714	411626	374550	294857	284143	298274	312114	363223	547990	801654	5847104	5500
2070242	2900	1811	2225	563	0	0	0	0	21	355	1522	2730	12127	302
2070249	3887	2945	4218	1102	0	0	0	0	0	208	1459	2906	16725	336
2070260	2976	2205	2704	744	0	0	0	0	0	406	1999	3220	14255	958
2070271	3569	3092	3848	1460	0	0	0	5	0	439	2220	3421	18055	419
2090400	217543	178547	217860	138889	146949	185648	228551	130350	110465	123670	169875	261148	2109495	419
2094623	80130	88683	79896	91252	75784	79550	71117	66125	72856	69010	80360	160435	1015199	1046
2115067	4539	4015	4373	364	0	0	0	0	0	1505	2969	4053	21819	316
2115136	6615	4907	4951	322	0	0	0	0	0	276	1911	7828	26809	72
2115137	31771	23549	27968	5063	0	0	0	0	0	0	14850	22847	126049	417
2115141	4857	4484	5221	273	0	0	0	58	27	345	2827	5837	23928	26
2115143	10551	7161	7897	1446	1	0	0	0	0	726	6978	11883	46643	750
2115434	785	597	681	126	0	0	0	0	0	0	429	844	3463	541
2115543	4847	3396	4404	975	466	0	0	0	0	723	3300	5057	23168	64
2115588	10228	7882	8505	3038	2049	1716	1609	1734	1630	2036	5789	8969	55184	100
2115589	9295	7243	7859	2854	1930	1528	1434	1529	1452	1878	5363	8152	50516	168
2115593	16505	13504	15710	8674	8911	8992	6383	8366	8878	9646	12590	14219	132377	388
2115595	21166	0	0	0	0	0	0	0	0	0	0	0	21166	301
2115831	39938	36036	31436	5850	0	0	0	0	0	0	4255	21044	138559	330
2115832	32314	26117	30958	21720	23281	19765	16429	21547	21677	22489	26347	34401	297044	375
2115833	8188	5691	7569	590	0	0	0	0	0	143	4474	8509	35164	690
2115837	23264	18764	21171	15673	13110	9195	8853	9524	9768	12988	18620	23706	184635	782
2115841	58718	47155	53196	49577	46719	36116	33542	38998	32333	44031	47128	54893	542406	183
2115842	6758	4678	8142	679	0	0	0	0	13	603	3501	8385	32761	748
2115844	71109	57703	64523	60520	58545	47710	45828	50241	43584	55090	58098	67046	679996	240
2115901	591	398	554	104	0	0	0	0	0	1	320	576	2544	925
2116004	4489	3276	4698	841	0	0	0	0	0	272	3662	5359	22597	103
2116016	3062	2099	2684	558	284	5	0	0	12	286	1850	3268	14109	5500
2116023	2740	2190	1872	1819	2008	2242	1647	1788	1863	2497	3058	3021	26744	201
2116148	10748	6985	9287	2900	1823	1003	961	953	1005	2461	7254	10402	55782	500
2116149	6500	5052	7094	509	0	0	0	0	31	291	2712	7697	29887	341
2116150	15438	11268	12985	2309	0	0	0	0	0	1433	7461	14824	65717	270
2116151	17992	11879	16150	1419	55	0	0	0	0	3930	11500	20717	83642	455
2116152	9812	6624	9410	884	207	10	0	0	0	405	3731	9600	40684	245
2116154	10476	10629	10722	8543	7792	7462	5273	8964	7436	8645	9423	11831	107196	141
2116156	17376	11925	15776	7291	4114	2824	2296	2872	2761	3476	10087	19508	100304	76
2116157	47296	42118	49670	31372	29270	24026	23734	23991	24517	30205	44013	55011	425222	86
2116158	53812	47117	58126	8528	0	0	0	0	52	7613	0	20127	195375	2169
2116159	4410	4002	4378	291	0	0	0	0	0	581	0	21176	34839	170
2116160	19053	26544	37294	16313	0	0	0	0	0	1142	0	58163	158510	547
2116161	178747	171404	189688	57566	0	0	0	0	0	1144	100809	178576	877935	518
2116162	162922	135977	159473	110420	101365	95323	92883	87782	96163	107683	143584	185899	1479474	2549
2116171	37965	28029	34848	15430	8101	0	0	0	0	9131	29986	43253	206742	1252
2116174	67892	50369	62469	28783	15227	1136	0	0	0	17158	54444	77414	374692	1252
2123295	6599	5974	6580	6640	1741	5273	6058	6729	6033	1483	5547	6641	65298	430
2123460	6373	5052	5619	600	0	0	0	0	0	46	2738	7003	27432	89
2123463	4315	3164	3573	2378	2170	1719	1492	1647	1791	2487	4343	4343	31053	80
2123467	6343	4719	5784	1946	743	587	479	489	521	1342	4476	6795	34224	80
2123484	3923	2893	3267	2157	1973	1564	1361	1511	1628	1775	2263	4018	28333	119
2123489	9824	7022	9061	348	1	4	0	2	0	8397	12504	47163	190	190
2123490	5552	3706	5081	492	2109	4250	3733	3891	5311	1966	2592	6556	45240	50
2123495	12827	9843	12437	5549	5445	3179	3662	4740	0	4984	13741	13062	89469	120

**PHILADELPHIA GAS WORKS
JANUARY 2017 - DECEMBER 2017**

MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL_CCF	Max Daily Qty (Dth)
2123504	32128	28075	34178	10117	1	1	1	0	1	10047	28689	35333	178572	276
2123509	18729	11824	14907	96	0	0	1	201	5786	7816	15457	26827	101644	430
2123510	7714	5725	7085	1757	818	94	0	13	0	0	5880	9856	38944	90
2123512	0	0	47791	31438	280	31	0	10	270	2430	12239	17302	111792	201
2123513	20383	11536	18648	1390	0	0	0	0	135	8397	17947	78435	380	
2123514	20187	14394	13910	531	82	141	164	400	306	885	8713	21261	80975	291
2123515	22263	16072	18405	2704	376	94	105	118	47	591	8559	24000	93334	211
2123516	20743	15890	18227	7026	4316	2357	1849	1876	2072	3261	11504	20404	109525	260
2123517	25812	19929	21578	7889	5016	4714	3678	3855	3958	5700	15046	22980	140157	430
2123519	71030	58534	62693	45535	36818	24114	26619	24007	26666	29478	51975	71233	528700	475
2123520	9723	7655	7945	819	109	0	0	0	65	142	2579	9248	38285	250
2123521	9312	7527	8990	408	0	0	0	0	0	43	5859	11429	43567	380
2123522	4435	3169	3864	364	0	0	0	21	0	291	1527	2792	16463	430
2123523	10589	6730	8071	717	372	0	0	0	0	0	1736	6625	34838	375
2123525	25479	19775	23587	4214	0	0	0	0	0	0	18332	26433	117820	81
2123526	0	0	0	21597	0	0	86	1918	1703	1965	9468	21766	58503	305
2123526	0	0	0	21597	0	0	86	1918	1703	1965	9468	21766	58503	305
2123527	12306	10081	10387	2885	0	0	0	0	0	789	9861	17066	63377	831
2123528	28195	20477	20784	10713	9392	859	0	0	0	2420	14343	19975	127157	430
2132737	51872	38352	45888	18343	11107	12893	10559	16843	14083	19316	37380	52150	328784	800
2132738	135566	107985	111839	99919	100217	94284	92888	96280	92432	95921	111995	136157	1275482	424
2132941	0	0	6351	6287	6566	5898	6086	6565	6199	5715	6502	5853	62022	591
2132966	5165	3913	4633	1766	1264	649	578	594	628	1124	3382	5527	29221	5500
2133043	0	0	0	0	0	0	0	0	0	0	0	3217	3217	541
2133053	0	0	0	0	0	0	0	0	0	0	0	0	0	257
2133065	6199	4481	5626	398	0	0	0	2	644	5140	6912	29402	269	
2133071	19678	15324	18182	7298	5704	3704	3395	3620	4044	5925	12841	20438	120152	1269
2133091	97610	44000	99849	92569	96162	100889	95892	88537	93505	93086	94051	88833	1084981	278
2133093	33647	22156	29187	5651	1230	234	1	0	327	3938	22682	27769	146824	500
2133386	1327	949	1131	171	0	0	0	0	0	21	917	1597	6111	495
2155650	0	0	0	0	0	0	0	0	0	710	4977	8360	14047	5500
2157680	67207	54831	56239	45067	44460	37097	35834	36080	33717	43938	53972	60583	569023	267
2157683	52677	47304	47874	43065	45015	43989	42551	43641	43522	44835	44559	49823	548856	550
2157683	52677	47304	47874	43065	45015	43989	42551	43641	43522	44835	44559	49823	548856	550
2157685	41554	30827	24883	11082	6859	3370	3110	3192	3347	7530	23475	38239	197468	479
2157686	10857	8294	11135	1445	31	0	0	10	0	791	5798	12838	51200	1465
2157687	33321	25804	31230	13624	6480	0	0	0	0	7179	22884	34202	174723	400
2157690	12153	7903	11783	527	0	0	0	0	0	75	6585	13265	52291	90
2157692	66229	50649	59300	19475	10611	8911	8121	8405	7895	13604	42860	69160	365221	852
2157693	7349	4651	7868	603	0	0	0	10	603	3274	7095	31453	300	
2157694	14536	11630	12878	3313	1801	228	0	0	0	1766	7326	12670	66149	325
2157695	32363	24430	27428	6143	3428	0	0	0	0	4096	20152	30518	148559	167
2157696	52578	43074	49878	26722	17809	12054	12069	14613	13730	20249	31094	51285	351155	450
2157697	56118	49017	57078	35871	21588	9191	9454	9919	9377	18025	29964	41355	346957	550
2157699	39364	34752	37353	4744	1385	138	0	0	0	0	25327	49635	192698	20
2157700	63393	56606	63605	50066	46232	42905	32981	36377	36682	44024	55687	74034	602573	2847
2157702	30029	23784	26570	22392	24097	18966	18815	18179	18869	29892	38952	36046	306592	43
2171219	91582	12502	80956	29613	18510	15507	12502	12332	1245	20980	62238	96470	511320	449
2171220	95889	73550	82898	55767	55360	56605	50776	57588	46049	40320	41173	53975	709951	600
2171221	26834	23599	26213	20245	21936	18097	18925	20299	19666	21058	23534	27272	267677	400
2171222	10474	7887	8916	997	0	10	0	0	62	790	3980	11703	44819	300
2171227	9830	6429	8584	167	0	0	0	0	0	0	8398	17335	50743	368
2171228	66647	56713	66635	47369	41887	37524	30686	28915	29221	33122	42183	61473	542375	480
2171229	0	0	0	0	0	0	0	0	0	0	0	24343	24343	1709
2171230	33220	19544	26747	1662	0	0	0	0	0	0	13614	30269	125056	340
2171231	76902	63923	66845	50482	39100	31739	34821	35652	30465	35307	51429	73847	590511	860
2171232	35416	28326	34492	623	103	0	0	0	0	0	0	0	98960	400
2171233	33426	23836	29877	9250	5796	3412	2996	3109	3626	6959	21094	36874	180256	650
2171234	70436	62795	74524	50351	48608	41114	38599	39549	46340	60339	72201	92272	697128	500
2171235	33029	21537	29078	2493	0	103	207	0	1870	15797	30162	134278	302	
2188099	2641	2323	2122	813	391	331	310	299	298	985	1817	2126	14593	89
2188130	2436	2315	2346	1251	830	302	306	312	378	982	1783	2112	15352	89
2188210	0	0	13195	74187	3216	3173	2976	0	3068	3181	3478	14058	120532	407
2188211	14639	12028	13060	4437	6281	3700	1751	3622	2390	3170	10100	15599	90778	605
2188212	16405	13482	15881	1934	0	0	0	0	0	1517	9561	16468	75249	706
2188213	7327	4715	4690	873	103	0	0	0	0	468	3242	6681	28100	418
2188214	26706	20167	23956	12297	10240	2553	684	1996	6940	12389	18277	24111	160317	272
2188215	25551	16332	18395	957	0	0	0	0	0	59	15940	30414	107648	1833
2188218	19047	14693	16926	1441	145	0	0	0	44	122	8501	14048	74967	100
2188219	54332	43177	53306	28685	17643	16272	16534	18748	20289	22615	41738	57972	391310	324
2188222	41736	33470	37961	17145	9960	6741	5218	6021	7181	13627	29956	42918	251934	599
2188223	9600	5927	7921	883	165	0	0	0	693	395	4603	8748	38936	1225
2188225	16085	13302	14821	8124	7363	7019	5754	4114	4341	4942	12926	17200	115992	523
2188226	85632	66363	72006	26478	10047	3568	2565	2900	3270	4347	5202	6058	288437	825
2188227	15941	10398	13520	1601	11	0	0	0	0	1147	13009	19636	75263	172
2198739	8459	7123	7992	1096	353	3	0	10	220	3359	7817	36432	189	
2198741	73305	56680	72501	62713	60360	74021	73504	56263	60927	16337	63984	64293	734887	300
2198744	0	0	0	606744	85777	79122	0	0	211558	51601	77948	78230	1190979	644
2198748	0	0	0	0	964003	101989	90375	88243	88828	64664	98774	98898	1595755	644
2198752	0	0	0	0	0	0	0	0	0	0	0	9435	9435	99
2198753	0	0	4363	818	0	0	0	0	0	412	3068	5515	14176	958
2198755	16311	12798	13890	5971	163	0	0	0	25	1904	10657	15710	77429	400
2198756	0	0	0	0	0	0	0	0	0	0	0	9313	9313	99
2211303	2948	2574	2805	1160	508	445	430	463	525	1037	2028	2609	17531	130
2211334	11272	13453	14628	7484	3937	1697	1368	1692	1735	1931	5331	9942	74470	449
2211338	75562	65259	78405	62082	62232	56826	58676	63852	47651	68607	74907	85980	800039	200
2211341	0	0	0	0	0	0	0	0	0	0	0	13253	13253	311

**PHILADELPHIA GAS WORKS
JANUARY 2017 - DECEMBER 2017**

<u>MTR_NBR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL_CCF</u>	<u>Max Daily Qty (Dth)</u>
2227843	0	0	0	24271	55362	49237	53314	41588	42661	49272	54493	52417	422615	302
2227846	0	0	0	22297	49839	43873	48073	37357	37162	43530	49757	48914	380801	1362
2227850	0	0	0	0	0	0	0	0	0	0	0	0	30638	144
2239836	8048	6855	10658	373	0	0	0	0	0	21	4509	14924	45389	313
2239838	19847	14873	17843	6974	6030	4952	4505	4612	4611	5545	13799	21440	125029	340
2239839	22536	15316	19826	4514	1995	331	361	114	10	810	15776	23808	105399	624
2239840	126403	92714	131369	50285	0	113	0	0	166	30272	79745	132759	643826	296
2239841	63148	56864	59468	41535	39055	32337	31198	32084	32162	34494	47425	61685	531454	576
2239843	92378	67837	85741	12307	0	0	0	0	0	7625	55696	88116	409699	127
2239845	79187	77271	90235	31977	32086	66667	66593	60645	64632	40419	34149	56594	700456	60
2245126	47111	34693	40535	12405	5710	0	0	0	0	8543	0	81341	230339	42

Tab 8

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

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:

- (9) A schedule depicting historic monthly end-user transportation through-put by customer. Each customer or account shall be identified solely by a unique alphanumeric code, the key to which may be provided subject to § 5.423 (relating to orders to limit availability of proprietary information).

Response:

Please see the attached schedule depicting the monthly end-user transportation through-put by customer.

**PHILADELPHIA GAS WORKS
JANUARY 2017 - DECEMBER 2017**

MTR NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL CCF	Max Daily Qty (Dth)
1526423	13871	12090	14934	7491	4576	2564	2376	1679	549	5528	11490	17157	94305	400
1526435	92621	70629	83052	51419	52752	43627	40814	44461	32968	52750	67843	93434	726371	600
1526478	24851	18130	25549	2111	0	0	0	0	0	1109	16645	32998	121393	135
1546144	4422	3143	4898	281	0	0	0	0	10	343	3358	5402	21857	285
1546148	59000	47589	56505	11341	776	0	0	0	129	10802	44072	56353	286567	844
1553324	32420	24008	26218	7296	637	0	0	0	0	2183	21542	33131	147435	167
1553325	59554	41323	51827	11879	0	0	0	0	0	41999	70445	277027	397	
1553328	9110	6390	7685	880	0	0	0	0	0	731	5039	10665	40500	27
1553331	56824	40303	47431	8400	2628	1104	717	907	785	4982	39584	69633	273299	225
1553337	22221	18064	20527	4346	0	0	0	0	0	4809	15548	24408	109923	720
1571005	16671	11421	13192	2472	11	0	0	0	0	11	6396	13339	63513	1032
1571006	13536	8781	10838	3116	0	0	0	0	0	1191	6974	12635	57072	348
1575425	14228	11103	13937	1751	10	0	0	0	0	4872	12780	58683	383	
1582087	18529	12963	16953	688	22	0	0	0	21	172	9692	19807	78847	676
1582088	45216	34340	40653	10415	3754	3091	2924	2964	3036	9618	27420	43531	226962	42
1582089	52089	41957	48119	20453	4904	4229	4006	4151	4227	11973	33325	52042	281474	479
1594768	0	0	0	1051597	1381048	1208472	1233634	1241503	1226399	1316391	1319897	1354762	11333702	3432
1594769	0	0	0	0	0	0	0	104	104	0	0	0	208	92
1601880	11369	8137	10635	2329	0	0	0	0	0	384	4885	11465	49204	272
1611015	0	0	1143	32074	66328	50674	44548	48190	57594	44431	65025	27008	437015	547
1611016	0	0	0	904208	1178748	0	2068634	1049506	1027167	1102169	1102713	1135865	9569011	419
1611635	71057	52265	60991	18499	12894	6493	6098	6225	6420	11679	0	109923	362544	3300
1611639	13857	8554	9517	1156	0	0	0	0	0	11	5649	12631	51375	1465
1611640	8894	6391	6774	208	0	0	0	0	0	52	3659	10490	36469	240
1621317	354973	303048	335783	221012	337805	265233	306448	170122	192567	264142	267539	406342	3425014	92
1621318	24571	17283	19470	2040	145	41	10	0	21	0	11027	25527	100136	550
1658873	11768	6358	9607	1018	103	0	0	0	0	343	4478	13197	46873	1400
1658874	45440	41309	47003	41368	39945	33226	17524	35321	35964	40746	43028	35102	455977	402
1658875	24919	19172	23444	6927	2721	0	0	0	0	98	17046	28985	123313	400
1658876	22069	16628	23369	2437	0	0	0	0	0	914	17089	26805	109311	54
1658878	0	0	0	0	0	0	0	0	0	1652	29961	47641	79254	1222
1658879	11495	8415	10102	2412	765	537	630	798	1202	1609	6329	11462	55755	360
1658880	21512	19137	22519	17165	18273	15947	14082	16954	15267	17668	18147	17527	214200	272
1658882	35524	22890	30661	1995	0	0	0	0	0	1499	18028	32123	142520	31
1658883	0	0	0	0	2241	219638	32823	0	0	2367	14320	37938	309328	111
1658884	64453	48648	68983	17674	7957	5174	0	0	10562	8928	37000	60681	330060	240
1658885	4322	2621	6709	3739	22492	23355	42158	21654	16344	932	3434	22364	170124	400
1658886	0	0	0	0	0	0	0	0	0	0	0	0	0	90
1685268	6166	5110	8063	427	0	0	0	0	0	156	2920	8087	30928	144
1685269	32753	28737	33274	29070	24340	25028	27610	28666	25568	28612	30352	33841	347853	216
1685273	24972	18154	22183	6667	2285	1827	1937	1873	1970	3546	14568	23228	123209	782
1685275	3870	3310	2720	3870	3680	5280	3970	3500	4170	3170	2510	2850	42900	375
1685276	7086	6243	10658	1197	0	10	0	0	0	259	4810	11450	41713	437
1685277	22328	13600	20706	809	0	0	0	0	0	0	9248	24404	91095	380
1685278	35757	26013	36366	6734	4979	2749	2472	2745	2733	5624	22153	40705	189300	133
1685280	63624	52074	62401	45182	46505	39809	41774	49521	56566	50464	58473	66801	633194	625
1701736	0	0	0	11417	0	0	35888	0	0	0	26940	628797	703042	60
1701737	0	0	0	11417	0	0	36197	0	0	0	26940	619555	694110	432
1722879	14613	11620	13829	5405	4216	1837	1286	1459	1897	3433	9631	14449	83678	302
1722889	9193	7408	8968	1625	1144	0	0	0	0	1362	6928	10653	47281	373
1722906	20474	16977	18603	4897	0	1	0	0	0	3566	11648	18189	94355	222
1723873	3811	2855	3544	543	63	0	0	0	0	165	1873	6188	19042	958
1723876	10673	8092	8798	3151	1	0	0	0	0	1504	6318	10449	48985	151
1723898	44124	30339	29909	1452	0	0	0	0	104	2389	27134	47451	182901	424
1723900	31759	27667	32588	25033	24509	23158	21802	19380	17927	18275	21923	33103	297123	453
1723998	53922	43896	58969	32497	22456	14878	13711	14302	15813	23251	40250	52735	386678	907
1724001	20320	17166	13059	1203	166	0	0	0	21	0	11694	15280	78909	173
1724003	27963	20618	26662	7992	4896	3907	4019	3866	3927	5607	18445	31117	159018	305
1724008	36192	31484	35144	22942	21235	18827	18715	21058	20429	23654	33497	42736	325912	522
1724008	36192	31484	35144	22942	21235	18827	18715	21058	20429	23654	33497	42736	325912	522
1724010	22822	22811	24251	22096	24293	21827	20559	23978	20391	23874	22100	21869	270871	76
1724011	8393	6052	8398	612	0	0	0	0	21	1039	4386	10559	39459	907
1724230	9237	6680	7591	1013	3	10	9	11	9	390	4325	8452	37732	280
1724240	9969	5836	8504	397	0	0	0	1	0	205	4882	10697	40490	703
1724851	77100	65897	74040	47785	41468	40215	38127	40730	42174	40368	37195	71004	616103	1461
1724852	90617	77387	87092	56409	48912	48176	45463	48606	49842	47010	43117	84831	727461	228
1724853	39517	23599	26337	1778	0	0	0	0	0	1331	20981	40607	154150	144
1724854	86638	79785	90954	72607	77374	58211	46704	49124	49534	62308	85397	93401	852038	240
1724856	34995	21038	33645	5928	934	0	0	0	0	1871	23068	32890	154369	701
1756663	60939	43869	52107	10180	1291	0	0	0	0	1404	32398	64161	266350	223
1756664	27189	17256	21946	1430	31	0	0	0	0	1059	12749	25058	106718	346
1771898	2509	0	1970	50449	71731	108286	89897	120310	146967	108803	109519	35157	845599	648
1771899	9675	7292	8725	0	0	0	0	0	0	0	0	0	25692	90
1786008	374262	303876	351448	227912	207700	170378	158770	161157	162071	193775	280216	377160	2968661	5500
1786009	345029	280784	325022	211707	193218	158695	147754	150172	150258	179859	259435	348460	2750394	5500
1806076	56898	41402	49307	18082	15100	15094	15602	16789	14092	17339	40839	64326	364871	374
1806077	68854	55772	65071	17982	2379	1963	1860	1866	2072	5608	54231	67881	345540	277
1806079	24641	16762	23515	7279	10540	804	55	264	1209	1043	13973	20819	120905	107
1806080	10384	7225	10417	3803	4033	3702	1269	1648	3119	5899	10432	14640	76572	120
1806081	56415	51972	59431	56967	54270	49431	51690	53204	54499	59743	59050	59208	665878	700
1806092	38284	43422	38950	44969	34717	43165	40412	36786	37755	29937	35518	75298	499215	384
1826506	6227	5989	6126	4702	3495	3596	3424	4338	3561	4549	5097	5850	56954	302
1826561	9286	7036	8864	3818	1171	999	771	850	982	1513	5260	8110	48659	132
1826616	7313	5996	6624	2631	1641	260	0	0	225	1544	4242	7250	37926	703
1826674	14857	13899	16508	12264	10259	10317	8732	9032	8382	9660	14128	14424	140333	114
1884404	2608	2054	2411	649	246	207	201	228	224	614	1895	2414		

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MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL_CCF	Max Daily Qty (Dth)
1884510	23313	17321	20467	7058	5844	5681	4786	5177	5798	5515	14204	24258	139421	34
1884513	9335	7226	6392	4488	4329	4064	800	107	255	2162	0	0	39159	241
1884532	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1884573	23067	15077	18488	1559	0	0	0	0	0	1041	12471	25237	96941	698
1884576	29616	22437	27512	13016	10783	0	33	0	0	6751	20041	33421	163609	89
1884577	21687	14984	19242	2457	25	0	0	0	0	2039	18443	27414	106292	624
1884579	6811	5518	6403	1382	0	0	0	0	0	1902	4457	7051	33525	174
1906514	1092600	927100	1014000	327600	0	0	0	0	0	0	0	0	3361300	92
1906623	9050	7624	8134	3415	1109	938	873	924	950	3701	7452	9332	53502	89
1906625	9750	9272	10669	7917	7878	6925	3947	6945	5804	6543	7830	8920	92400	30
1906628	9395	5775	7752	485	0	0	0	0	0	21	4061	9539	37028	90
1906630	5385	4245	4862	354	0	1	0	0	0	299	4344	5780	25270	43
1909300	1582990	1001500	1465170	674550	1240400	1351770	163290	130740	92000	0	0	0	7702410	644
1909301	10924100	10047900	10038000	8418900	7267900	6612900	10068000	9733200	7345200	10139800	9214800	10821800	110632500	5500
1909334	6122	4852	5669	2713	2678	1814	1310	1323	1300	2605	4286	6339	41013	98
1909351	8181	5470	5697	993	0	0	0	0	0	960	4812	8321	34434	504
1921575	10654	8919	11307	600	89	0	0	0	0	810	4695	11061	48134	281
1921578	7818	5960	7816	2896	2080	2060	1342	1849	2014	2230	6695	8354	51113	81
1921579	4092	3939	4376	2232	1404	905	673	706	961	1516	1850	2679	25334	843
1921700	39586	31654	34858	5970	0	0	0	0	0	2562	25515	35520	175666	549
1921701	35684	26869	29283	15357	13899	10004	9568	10471	10966	12320	20785	36030	231235	42
1921703	37786	27362	28658	9506	4590	0	0	0	0	6286	26155	35217	175559	400
1954681	53222	42733	47218	28367	23995	21606	20975	22075	21864	24295	40934	54884	402166	127
1954683	45584	34687	39063	22855	20066	14784	15396	15546	15749	18899	30443	45462	318535	200
1954684	70420	47744	59713	10172	0	0	0	0	0	5564	37571	65640	296824	296
1986388	5217	3569	4357	530	0	0	0	0	0	295	2999	5399	22364	38
1987495	14772	11259	12708	10578	13204	14614	10063	17203	12656	14451	13389	10322	155221	216
1987496	12990	9681	12262	1258	0	41	0	0	83	1486	9107	17164	64071	50
1987500	44614	28935	41221	0	0	0	0	0	0	0	29669	52963	197403	479
1987633	3609	2689	3162	203	0	0	0	0	0	6	2054	3647	15370	1252
1987683	1209	970	1237	142	16	0	0	0	0	2	788	1390	5753	302
1987743	0	1545	2142	454	103	0	0	0	0	27	415	1633	8832	1461
1987777	9868	8568	9271	7610	8042	7509	7127	8142	6641	8898	8700	8586	98962	43
1987785	6701	5526	6384	3750	0	0	1750	0	0	0	0	0	24111	120
1987786	7510	5929	6681	475	0	0	0	0	0	5	5144	8163	33907	48
1987797	0	0	0	46046	20391	8933	7407	8531	7577	9275	11907	14609	134675	302
1987801	28171	16593	24695	9001	5405	10426	22410	18300	13908	9199	17858	28433	204397	75
1987803	52657	39009	47563	41339	50045	64327	78087	72908	60087	55094	38235	53745	653096	296
1987805	11264	7582	9776	1865	718	287	254	277	256	1284	5969	12024	51556	340
1987808	63	32	0	0	0	0	0	715	10370	1326	0	0	12505	370
1987810	9372	6950	7910	883	0	0	10	0	10	530	5538	9882	41085	2087
1987812	11715	7731	10015	1366	382	0	0	0	0	477	8980	14441	55106	1046
1987814	509795	502827	550500	511596	507075	488117	398100	525264	485454	525830	498054	413823	5916435	3432
1987815	69164	60979	67700	33529	23132	21733	19229	15820	18176	31005	56207	78428	495102	131
1989421	22484	16827	17335	2861	0	0	0	0	3	0	12695	22765	94969	400
1989422	4476	2642	1898	42	1	1	0	0	0	8	1535	4289	14892	73
1989426	29628	21495	25921	7309	4889	2604	2372	2655	2625	6533	19375	30098	155504	383
1989428	59044	46571	58319	29937	28361	14757	11078	13509	16698	26642	47694	69437	422048	302
1989625	1043	474	622	14	8	5	4	0	4	0	0	0	2175	454
1989652	18854	33363	0	57110	8366	6468	3781	3896	4069	4552	9541	18297	168297	226
2012845	9717	6388	6872	6200	6276	5647	5044	5225	5098	5376	6532	7238	75612	400
2012851	4076	3289	3278	1697	899	239	343	353	582	1239	2581	3779	22355	90
2012853	3884	3260	3105	2251	1264	331	127	244	603	1547	2945	3753	23316	72
2012857	3385	2641	2533	1444	925	223	86	282	592	1035	2168	2900	18215	72
2012880	8606	6598	7780	3046	2104	1194	882	854	896	1506	4932	8349	46748	396
2012886	3802	2782	3343	902	241	1	0	0	0	0	0	0	11071	75
2023712	1563	1197	1959	263	0	0	0	0	0	1	655	1935	7571	1461
2023812	13266	9554	11484	3801	2488	2125	1943	1910	1960	2607	7355	12575	71069	235
2023825	6859	4341	5931	438	0	0	0	0	0	59	3413	6229	27271	541
2023831	3660	3213	3586	3060	2927	2526	2333	2198	2451	2674	2954	3445	35027	89
2023840	6198	4846	5928	2263	1279	712	656	664	681	1489	4710	6438	35864	934
2023947	9451	7014	8281	5145	3807	3312	2911	2955	2931	3669	5937	8269	63680	418
2023948	20459	16739	15866	4976	2783	2694	2748	2922	3121	6833	15802	22967	117910	81
2023952	37497	27576	31113	11228	6723	5758	5528	6052	5295	5347	23817	34195	200129	140
2023953	70349	55740	68516	41845	35281	24959	23018	24500	26572	35272	51825	75952	533828	576
2023955	86967	63809	68554	17666	8169	5439	4662	5356	4607	13502	58102	83825	420660	149
2023958	19089	14431	20582	3200	0	0	0	0	0	278	4174	14298	76051	397
2023960	16152	14536	21680	17943	19376	22698	20894	26643	17756	21972	23644	31073	254365	1151
2024285	6723	5053	5983	2398	1581	593	504	521	582	1480	4511	6945	36875	4740
2024290	6914	5281	6103	2764	2039	626	527	519	553	1852	5223	6985	39385	64
2024299	6558	4805	5539	2053	1359	686	570	777	724	1376	4142	6774	35363	64
2024307	13417	8258	10916	1504	307	0	0	1	1	677	8873	15014	58967	360
2024367	4513	3367	4997	412	0	0	0	0	0	3	208	2745	20955	26
2024389	4514	4158	4514	408	0	0	0	0	0	509	2063	4549	20715	90
2024604	5292	4433	4979	4786	5233	5333	5215	6241	8102	9775	6847	5276	71511	110
2024644	10155	7822	7972	2848	1917	1429	1269	1496	1535	1466	4677	6884	49471	340
2024645	14821	11775	13077	3619	2108	846	551	708	1021	3190	12037	14003	77755	313
2024648	31658	26076	28958	21378	20875	18515	17060	17456	16043	18751	21621	24066	262460	490
2024675	722	651	666	572	579	463	423	467	469	515	698	852	7077	64
2024683	28047	20754	23965	8997	4943	2102	1775	1837	1957	6449	18464	26804	146094	360
2024684	6685	4594	5143	494	0	31	0	7	10	363	3427	5904	26660	281
2024690	30460	24810	27573	10562	11730	4659	4857	0	0	36823	32184	37138	220796	300
2024694	9548	6857	9900	1311	85	0	0	0	0	260	4517	12389	44867	377
2024698	7171	5113	6526	1393	0	0	0	0	0	470	4358	8021	33050	272
2024702	21140	15002	18298	2823	2038	114	0	0	0	1218	11799	17641	90072	58
2024703	17377	12641	15565	2686	1367	0	0	0	0	1616	10945	16771	78968	50
2024704	10647	6352	9393	711	0	0	0	0	0	558	6155	11860	45676	313

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MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL_CCF	Max Daily Qnty (Dth)
2024705	16041	12705	14398	4672	3171	3258	2938	2837	2789	3553	11447	17741	95549	522
2024706	7256	4774	6378	229	63	0	0	1	1	142	2232	7772	28848	156
2024712	17634	10948	13105	1537	0	0	0	0	0	27	6317	16938	66507	120
2024714	10310	6170	8524	373	1	2	5	24	38	493	5091	9101	40132	167
2024715	21550	16166	21030	1229	0	0	0	0	0	10608	21252	91836	503	
2024719	7917	5658	5847	1595	1723	1674	1191	580	581	990	4056	7294	39105	573
2024851	16958	10282	14729	3856	2196	71	0	0	0	2741	13325	19333	83492	244
2024992	1729	1234	1566	361	126	6	0	0	0	24	586	1566	7198	1851
2025003	5516	3964	4683	1996	4277	2776	1687	2028	2804	3970	4548	5577	43827	54
2025031	11992	10725	10465	1674	1	0	0	0	0	0	0	0	34857	90
2025049	3966	3111	4406	2759	2451	1682	2185	3624	3337	3381	3711	5633	40246	277
2025082	2441	1925	2283	897	809	157	0	60	322	910	1798	2727	14329	75
2025099	4346	2772	3753	659	12	0	0	0	0	98	2569	5884	20093	54
2025107	9348	6083	8172	1109	0	0	0	0	0	4462	9871	39045	576	
2025139	15475	12055	10355	1927	0	0	0	0	0	1342	7404	10740	59298	408
2025146	5579	4052	5361	666	0	12	4	0	17	412	3150	5988	25242	140
2025149	7286	6197	6708	1829	1147	670	683	846	1523	1656	2019	2504	33068	14
2025150	7715	5127	6382	740	135	0	0	0	0	1095	4564	7536	33295	178
2025156	7139	5372	5233	1075	0	0	0	21	0	555	4365	5809	29568	139
2025158	13311	9201	14239	691	1	1	1	1	0	727	5699	11792	55662	626
2025166	4937	3029	3503	237	0	0	0	1	2	48	2622	4030	18409	192
2025172	5134	3738	4984	618	0	9	4	0	17	374	2740	5522	23140	175
2025174	7413	6750	7864	6497	5532	3406	3454	2539	2522	2878	3103	5486	57445	78
2025178	15296	13038	16325	9697	7456	5801	7327	6974	7026	9143	12963	19844	130890	149
2026643	21268	5912	7867	1072	0	0	0	0	0	0	0	0	36118	189
2026737	8527	5177	7373	2215	39	0	0	49	154	172	2575	10485	36767	143
2026758	11253	8349	11004	2730	0	0	0	0	0	0	5313	13644	52294	250
2026766	15714	12675	13088	2094	516	0	0	0	0	2261	8435	13830	68613	272
2026784	9227	6174	8530	4034	2475	1103	559	587	703	2344	6429	9873	52036	420
2026819	21361	17143	19929	10468	17161	18244	546	5582	12672	8090	15078	18331	164604	425
2026820	18242	15744	16827	15339	16413	12567	10154	8634	16991	18009	18368	19742	187029	300
2026838	15448	11265	13707	1781	0	0	0	0	0	1286	8854	16685	69027	946
2026870	3428	2511	2858	387	0	0	0	0	0	303	2012	3783	15282	1851
2026874	3696	2634	3301	812	0	0	0	0	0	239	1994	3687	16363	703
2027160	8979	6202	7935	1882	0	0	0	0	0	1034	6099	8516	40646	164
2027375	22006	17286	20201	8951	5852	4068	3331	3391	3900	5826	14820	22859	132491	180
2027381	5047	3518	4057	1495	1313	1111	980	1191	1042	1301	3548	4836	29440	513
2027383	8222	7140	7922	2482	0	0	0	0	0	180	5026	8372	39345	645
2027386	7147	5776	6465	6936	5736	4548	5185	5868	4211	4284	5391	3991	65538	141
2027387	15635	11168	13194	5851	7600	4297	4837	4500	4708	6364	13837	20529	112520	224
2027392	10549	8680	10005	6664	6450	4903	3784	5036	4442	5648	8413	9804	84378	400
2027401	11033	9196	11045	5840	4837	3754	3336	6324	5143	5646	6336	9470	81960	305
2027402	13230	10967	13178	6807	5719	4532	4011	7759	6223	6781	7608	11341	98157	707
2027403	19939	15648	18540	7949	6235	4060	3515	3671	3982	5898	12936	20629	123001	400
2027406	33695	25288	33844	22588	22426	22853	20672	26308	23874	27541	29021	34685	322794	209
2027423	5587	3813	4534	957	375	1	0	0	0	711	3444	5780	25202	1709
2027430	4918	3428	4122	1481	1313	1113	1003	1178	1007	1377	3480	4902	29322	232
2027433	7051	5018	6672	1817	1163	2465	3430	1908	2179	2011	4458	8121	46293	450
2027434	5878	4229	5696	1566	1022	2287	3421	2978	1801	1622	3984	7165	41650	455
2027443	19609	14549	18504	5781	5053	3157	2893	3178	2965	4074	11748	21571	113081	430
2027454	6502	6049	6350	1823	181	0	0	0	0	768	3628	6743	32046	127
2027464	13598	9270	11244	2027	1042	0	0	0	0	1509	8396	17305	64390	424
2027476	9287	8513	10720	5841	6749	4810	4680	4906	4602	5737	7627	9930	83401	82
2027477	3325	3118	3130	2463	2801	2428	2011	2789	2267	2496	2545	2135	31508	162
2027483	12376	9571	12095	1178	0	1	0	1	0	892	7884	16063	60061	95
2027484	12930	9510	12871	1259	0	0	0	0	0	1136	11738	25547	74990	98
2027485	38530	29696	33344	9922	4811	3791	3301	3481	3822	4505	24061	32512	191777	1461
2027494	22138	16705	19665	3595	0	0	0	0	0	4199	15430	23400	105132	100
2027498	29319	25917	29488	24751	29556	30763	30626	30019	27813	31007	32215	31428	352901	90
2027509	21449	16577	19960	11567	8491	7410	7319	8178	8077	8669	17155	25241	160094	450
2027510	7663	6971	8103	6711	7626	8507	7954	7875	6013	8145	7501	7645	90712	215
2027520	16219	10605	13303	2851	0	0	0	0	10	2071	8132	12067	65258	149
2027524	30270	17498	25861	9295	5595	11248	24312	19923	15166	10049	18944	29877	218036	207
2027527	19494	15164	18480	6879	1461	1592	967	3061	3560	4516	12955	13684	101813	64
2027529	51460	38414	46269	11934	7967	5901	5294	6167	7537	18179	35496	51798	286417	706
2027531	14895	10897	12974	2953	994	30	0	0	11	3268	9428	13570	69020	3128
2027533	13728	10191	12645	3778	1	0	0	0	1	1589	9689	16056	66878	58
2027536	6785	4428	5710	444	0	0	0	0	0	3640	8061	29068	416	
2027544	29943	22299	29831	19607	19662	19865	17927	22845	20865	24263	25667	30824	283598	64
2027560	7315	5874	5653	3565	2960	0	4405	2230	2715	3044	5425	6371	49556	432
2027563	10691	6344	6367	631	0	0	0	0	0	4015	9546	37594	388	
2027564	4721	3497	4449	1353	670	358	374	422	491	872	5524	9436	32167	728
2027581	14390	10483	12408	1163	0	0	0	0	3	1521	9329	14889	64185	354
2027583	39196	35663	39120	38904	40473	40075	41360	39407	38044	39252	38089	36925	466508	202
2027589	10489	7228	8712	1443	0	0	0	0	0	862	5376	11625	45734	153
2027591	4054	3958	2991	1904	1846	1640	1366	1359	1122	1319	1811	2538	25908	83
2027599	5359	4264	4952	3098	2505	1838	2005	2278	2302	2806	4548	6178	42132	123
2027620	15052	10601	14062	3286	2669	1	1	128	193	1954	11551	17512	77009	424
2027625	4099	3806	4244	1386	619	284	183	381	818	870	3260	5640	25590	1565
2027635	4707	3704	4132	3272	3628	4079	4360	4214	3969	3905	3263	4619	47853	500
2027641	11580	9653	9081	665	0	0	0	0	0	0	6840	12955	50774	368
2027642	17584	10720	15948	1109	0	0	0	0	137	1441	9925	19548	76411	392
2035210	2225	1730	2276	656	30	0	0	0	0	442	1758	2814	11931	403
2035356	2260	1582	1937	647	0	0	0	0	0	171	1345	2452	10095	31
2035366	2712	1942	2232	331	0	0	0	0	0	138	1964	3654	13273	311
2035408	2732	1704	2220	399	183	0	0	0	0	238	1674	2835	11987	127
2035554	4770	3663	4310	1595	792	601	524	555	598	1192	3426	5199	27226	240

PHILADELPHIA GAS WORKS
JANUARY 2017 - DECEMBER 2017

MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL_CCF	Max Daily Qty (Dth)
2035694	1274	872	1018	125	0	0	0	0	0	5	844	1658	5795	60
2035839	5997	4616	5305	2216	1652	2250	2173	2202	2234	2392	3855	6065	40956	112
2035886	6601	8197	1060	0	0	0	0	0	0	0	0	0	15858	95
2035891	7780	6711	7650	4799	4064	2368	2458	3004	3283	4680	7281	8206	62282	591
2035943	3855	3073	3677	2089	2029	2122	2385	2272	2262	2563	3539	4931	34795	240
2035967	6628	5928	6585	6287	7132	6366	5968	6762	7577	7575	7043	6833	80702	685
2035975	11898	9272	11300	8459	9303	7654	7286	8313	7572	10006	10141	12354	113558	554
2035986	4242	3994	4284	2276	2400	2127	1750	2247	1897	2227	2869	3647	33961	599
2036046	3084	2649	2691	1668	0	0	0	1	0	0	1990	3008	15091	120
2036145	18965	14237	17825	7404	5789	3823	0	0	13	2733	8662	16518	95970	25
2036147	4896	3723	4142	615	382	50	2	49	66	164	2533	6104	22715	312
2036151	9204	6974	8158	3145	1004	0	0	0	0	655	6712	9199	45053	202
2036167	16129	10668	12862	3464	1610	0	0	0	0	2467	10867	15289	73357	4372
2036180	43598	37214	44961	34563	33121	24791	23394	26614	25486	28228	28277	36429	386677	1362
2036185	13291	13230	16480	1197	0	0	0	0	0	1060	9481	20263	75003	72
2036186	102466	79259	94286	26017	0	10	0	0	0	5621	69768	117398	494845	141
2036187	38773	29829	29029	7254	2529	0	0	0	0	2825	19872	42454	172564	576
2036188	22883	16198	20446	11280	11024	12764	14195	15389	14012	13693	16974	24650	193509	1300
2036189	16489	11658	15757	1311	0	0	0	0	11	973	9972	22252	78423	168
2036191	44937	52478	46901	33384	14357	42615	55407	65460	34850	45298	23375	61993	521055	120
2036192	53029	45034	51752	34493	32671	28656	29194	35524	33577	41008	49107	70273	504318	740
2036193	15417	9846	14837	1144	0	0	0	0	0	1560	6857	17614	67274	126
2036194	298347	291995	297914	296764	272139	223272	296848	281241	327862	330570	368827	378747	3664527	89
2036195	26403	21889	27987	2601	1551	0	0	0	0	2389	13510	34469	130799	120
2064820	2251	1470	1918	167	1	0	0	0	0	140	1169	2642	9757	99
2064880	1996	1791	1945	1218	3185	2990	2252	1596	2228	2373	2382	2855	26811	115
2064920	8412	6180	9774	5009	4855	4185	0	0	0	0	15720	13773	67909	375
2064973	183062	154104	175062	115325	106655	84708	87373	89750	86751	101765	138765	184845	1508165	400
2064974	25388	14372	21849	1157	0	0	0	0	0	62	12098	28228	103154	456
2064975	19664	17240	20294	17696	20144	18098	15674	16219	15974	19387	20278	21771	222440	200
2064976	25416	22176	26080	7163	0	0	0	0	0	2367	19039	29672	131913	172
2064977	9403	5929	8755	1839	145	0	0	0	0	582	4927	10989	42569	250
2064979	22466	13989	20860	9597	9829	14118	17295	17905	21778	10138	12938	20763	191677	235
2064980	58792	40603	58561	8213	332	0	0	111	0	5548	27407	46624	246191	223
2064981	0	0	0	0	0	0	0	0	415	0	0	0	415	11586
2064982	801076	656883	700714	411626	374550	294857	284143	298274	312114	363223	547990	801654	5847104	5500
2070242	2900	1811	2225	563	0	0	0	0	21	355	1522	2730	12127	302
2070249	3887	2945	4218	1102	0	0	0	0	0	208	1459	2906	16725	336
2070260	2976	2205	2704	744	0	0	0	0	0	406	1999	3220	14255	958
2070271	3569	3092	3848	1460	0	0	0	5	0	439	2220	3421	18055	419
2090400	217543	178547	217860	138889	146949	185648	228551	130350	110465	123670	169875	261148	2109495	419
2094623	80130	88683	79896	91252	75784	79550	71117	68125	72856	69010	80360	160435	1015199	1046
2115067	4539	4015	4373	364	0	0	0	0	0	1505	2969	4053	21819	316
2115136	6615	4907	4951	322	0	0	0	0	0	276	1911	7828	26809	72
2115137	31771	23549	27968	5063	0	0	0	0	0	0	14850	22847	126049	417
2115141	4857	4484	5221	273	0	0	0	58	27	345	2827	5837	23928	26
2115143	10551	7161	7897	1446	1	0	0	0	0	726	6978	11883	46643	750
2115434	785	597	681	126	0	0	0	0	0	0	429	844	3463	541
2115543	4847	3396	4404	975	466	0	0	0	0	723	3300	5057	23168	64
2115588	10228	7882	8505	3038	2049	1716	1609	1734	1630	2036	5789	8969	55184	100
2115589	9295	7243	7859	2854	1930	1528	1434	1529	1452	1878	5363	8152	50516	168
2115593	16505	13504	15710	8674	8911	8992	6383	8366	8878	9646	12590	14219	132377	388
2115595	21166	0	0	0	0	0	0	0	0	0	0	0	21166	301
2115831	39938	36036	31436	5850	0	0	0	0	0	0	4255	21044	138559	330
2115832	32314	26117	30958	21720	23281	19765	16429	21547	21677	22489	26347	34401	297044	375
2115833	8188	5691	7569	590	0	0	0	0	0	143	4474	8509	35164	690
2115837	23264	18764	21171	15673	13110	9195	8853	9524	9768	12988	18620	23706	184635	782
2115841	58718	47155	53196	49577	46719	36116	33542	38998	32333	44031	47128	54893	542406	183
2115842	6758	4678	8142	679	0	0	0	0	13	603	3501	8385	32761	748
2115844	71109	57703	64523	60520	58545	47710	45828	50241	43584	55090	58098	67046	679996	244
2115901	591	398	554	104	0	0	0	0	0	1	320	576	2544	925
2116004	4489	3276	4698	841	0	0	0	0	0	272	3662	5359	22597	103
2116016	3062	2099	2684	558	284	5	0	0	12	286	1850	3268	14109	5500
2116023	2740	2190	1872	1819	2008	2242	1647	1788	1863	2497	3058	3021	26744	201
2116148	10748	6985	9287	2900	1823	1003	961	953	1005	2461	7254	10402	55782	500
2116149	6500	5052	7094	509	0	0	0	0	31	291	2712	7697	29887	341
2116150	15438	11268	12985	2309	0	0	0	0	0	1433	7481	14824	65717	270
2116151	17992	11879	16150	1419	55	0	0	0	0	3930	11500	20717	83642	455
2116152	9812	6624	9410	884	207	10	0	0	0	405	3731	9600	40684	245
2116154	10476	10629	10722	8543	7792	7462	5273	8964	7436	8645	9423	11831	107196	141
2116158	17376	11925	15776	7291	4114	2824	2296	2872	2761	3476	10087	19508	100304	76
2116157	47296	42118	49670	31372	29270	24026	23734	23991	24517	30205	44013	55011	425222	86
2116158	53812	47117	58126	8528	0	0	0	0	52	7613	0	20127	195375	2169
2116159	4410	4002	4378	291	0	0	0	0	0	581	0	21176	34839	170
2116160	19053	26544	37294	16313	0	0	0	0	0	1142	0	58163	158510	547
2116161	178747	171404	189688	57566	0	0	0	0	0	1144	100809	178576	877935	518
2116162	162922	135977	159473	110420	101365	95323	92883	87782	96163	107683	143584	185899	1479474	2549
2116171	37965	28029	34848	15430	8101	0	0	0	0	9131	29986	43253	206742	1252
2116174	67692	50369	62469	28783	15227	1136	0	0	0	17158	54444	77414	374692	1252
2123295	6599	5974	6580	6640	1741	5273	6058	6729	6033	1483	5547	6641	65298	430
2123460	6373	5052	5619	600	0	0	0	0	0	46	2738	7003	27432	89
2123463	4315	3164	3573	2378	2170	1719	1492	1647	1791	1974	2487	4343	31053	80
2123467	6343	4719	5784	1946	743	587	479	489	521	1342	4476	6795	34224	80
2123484	3923	2893	3267	2157	1973	1564	1361	1511	1628	1775	2263	4018	28333	119
2123489	9824	7022	9061	348	1	4	0	2	0	8397	12504	47163	190	
2123490	5552	3706	5081	492	2109	4250	3733	3891	5311	1966	2592	6556	45240	50
2123495	12827	9843	12437	5549	5445	3179	3662	4740	0	4984	13741	13062	89469	120

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MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL_CCF	Max Daily Qty (Dth)
2123504	32128	28075	34178	10117	1	1	1	0	1	10047	28689	35333	178572	276
2123509	18729	11824	14907	96	0	0	1	201	5786	7816	15457	26827	101644	430
2123510	7714	5725	7085	1757	818	94	0	13	0	5880	9856	38944	90	201
2123512	0	0	47791	31438	280	31	0	10	270	12239	17302	111792	201	201
2123513	20383	11536	18648	1390	0	0	0	0	135	8397	17947	78435	360	360
2123514	20187	14394	13910	531	82	141	164	400	306	885	8713	21261	80975	291
2123515	22263	16072	18405	2704	376	94	105	118	47	591	8559	24000	93334	211
2123516	20743	15890	18227	7026	4316	2357	1849	1876	2072	3261	11504	20404	109525	260
2123517	25812	19929	21578	7889	5016	4714	3678	3855	3958	5700	15046	22980	140157	430
2123519	71030	58534	62693	45535	36818	24114	26619	24007	26666	29478	51975	71233	528700	475
2123520	9723	7655	7945	819	109	0	0	65	142	2579	9248	38285	250	250
2123521	9312	7527	8990	408	0	0	0	0	43	5859	11429	43567	380	380
2123522	4435	3169	3864	364	0	0	0	21	0	291	1527	2792	16463	430
2123523	10589	6730	8071	717	372	0	0	0	0	1736	6625	34838	375	375
2123525	25479	19775	23587	4214	0	0	0	0	0	18332	26433	117820	81	81
2123526	0	0	0	21597	0	0	86	1918	1703	1965	9468	21766	58503	305
2123527	12306	10081	10387	2885	0	0	0	0	0	789	9861	17066	63377	831
2123528	28195	20477	20784	10713	9392	859	0	0	0	2420	14343	19975	127157	430
2132737	51872	38352	45888	18343	11107	12893	10559	16843	14083	19316	37380	52150	328784	800
2132738	135566	107985	111839	99919	100217	94284	92888	96280	92432	95921	111995	136157	1275482	424
2132941	0	0	6351	6287	6566	5898	6086	6565	6199	5715	6502	5853	62022	591
2132966	5165	3913	4633	1766	1264	649	578	594	628	1124	3382	5527	29221	5500
2133043	0	0	0	0	0	0	0	0	0	0	0	3217	3217	541
2133053	0	0	0	0	0	0	0	0	0	0	0	0	0	257
2133065	6199	4481	5626	398	0	0	0	2	644	5140	6912	29402	269	269
2133071	19678	15324	18182	7298	5704	3704	3395	3620	4044	5925	12841	20438	120152	1269
2133091	97610	44000	99849	92569	96162	100889	95892	88537	93505	93086	94051	88833	1084981	278
2133093	33647	22156	29187	5651	1230	234	1	0	327	3936	22682	27769	146824	500
2133386	1327	949	1131	171	0	0	0	0	21	917	1597	6111	495	495
2155650	0	0	0	0	0	0	0	0	710	4977	8360	14047	5500	5500
2157680	67207	54831	56239	45067	44460	37097	35834	36080	33717	43938	53972	60583	569023	267
2157683	52677	47304	47874	43065	45015	43989	42551	43641	43522	44835	44559	49823	548856	550
2157683	52677	47304	47874	43065	45015	43989	42551	43641	43522	44835	44559	49823	548856	550
2157685	41554	30827	24883	11082	8859	3370	3110	3192	3347	7530	23475	38239	197468	479
2157686	10857	8294	11135	1445	31	0	0	10	0	791	5798	12838	51200	1465
2157687	33321	25804	31230	13624	6480	0	0	0	0	7179	22884	34202	174723	400
2157690	12153	7903	11783	527	0	0	0	0	0	75	6585	13265	52291	90
2157692	66229	50649	59300	19475	10611	8911	8121	8405	7895	13604	42860	69160	365221	852
2157693	7349	4651	7868	603	0	0	0	10	603	3274	7095	31453	300	300
2157694	14536	11630	12878	3313	1801	228	0	0	0	1766	7326	12670	66149	325
2157695	32363	24430	27428	6143	3428	0	0	0	0	4096	20152	30518	148559	167
2157696	52578	43074	49878	26722	17809	12054	12069	14613	13730	20249	37094	51285	351155	450
2157697	56118	49017	57078	35871	21588	9191	9454	9919	9377	18025	29964	41355	346957	550
2157699	39364	34752	37353	4744	1385	138	0	0	0	25327	49635	192698	20	20
2157700	63393	56606	63605	50066	46232	42905	32961	36377	36682	44024	55687	74034	602573	2847
2157702	30029	23784	26570	22392	24097	18966	18815	18179	18869	29892	38952	36046	306592	43
2171219	91582	69385	80956	29613	18510	15507	12502	12332	1245	20980	62238	96470	511320	449
2171220	95889	73550	82698	55767	55360	56605	50776	57588	46049	40320	41173	53975	709951	600
2171221	26834	23599	26213	20245	21936	18097	18925	20299	19666	21058	23534	27272	267677	400
2171222	10474	7887	8916	997	0	10	0	0	62	790	3980	11703	44819	300
2171227	9830	6429	8584	167	0	0	0	0	0	8398	17335	50743	368	368
2171228	86647	56713	66635	47369	41887	37524	30686	28915	29221	33122	42183	61473	542375	480
2171229	0	0	0	0	0	0	0	0	0	0	0	24343	24343	1709
2171230	33220	19544	26747	1662	0	0	0	0	0	13614	30269	125056	340	340
2171231	76902	63923	66845	50482	39100	31739	34821	35652	30465	35307	51429	73847	590511	860
2171232	35416	28326	34492	623	103	0	0	0	0	0	0	0	98960	400
2171233	33426	23836	29877	9250	5796	3412	2996	3109	3626	6959	21094	36874	180256	650
2171234	70436	62795	74524	50351	48608	41114	38599	39549	46340	60339	72201	92272	697128	500
2171235	33029	21537	29078	2493	0	103	207	0	1870	15797	30162	134278	302	302
2188099	2641	2323	2122	813	391	331	310	299	298	985	1817	2264	14593	89
2188130	2436	2315	2346	1251	830	302	306	312	378	982	1783	2112	15352	89
2188210	0	0	13195	74187	3216	3173	2976	0	3068	3181	3478	14058	120532	407
2188211	14639	12028	13060	4437	6281	3700	1751	3622	2390	3170	10100	15599	90778	605
2188212	16405	13482	15881	1934	0	0	0	0	0	1517	9561	16468	75249	706
2188213	7327	4715	4690	873	103	0	0	0	0	468	3242	6681	28100	418
2188214	26706	20167	23956	12297	10240	2553	684	1996	6940	12389	18277	24111	160317	272
2188215	25551	16332	18395	957	0	0	0	0	0	59	15940	30414	107648	1833
2188218	19047	14693	16926	1441	145	0	0	0	44	122	8501	14048	74967	100
2188219	54332	43177	53306	28685	17643	16272	16534	18748	20289	22615	41738	57972	391310	324
2188222	41736	33470	37961	17145	9960	6741	5218	6021	7181	13627	29956	42918	251934	599
2188223	9600	5927	7921	883	165	0	0	0	693	395	4603	8748	38936	1225
2188225	16085	13302	14821	8124	7363	7019	5754	4114	4341	4942	12926	17200	115992	523
2188226	85632	66363	72006	26478	10047	3568	2565	2900	3270	4347	5202	6058	288437	825
2188227	15941	10398	13520	1601	11	0	0	0	0	1147	13009	19636	75263	172
2198739	8459	7123	7992	1096	353	3	0	10	220	3359	7817	36432	189	189
2198741	73305	56680	72501	62713	60360	74021	73504	56263	60927	16337	63984	64293	734887	300
2198744	0	0	0	606744	85777	79122	0	0	211558	51601	77948	78230	1190979	644
2198748	0	0	0	0	964003	101969	90375	88243	88828	64664	98774	98898	1595755	644
2198752	0	0	0	0	0	0	0	0	0	0	0	9435	9435	99
2198753	0	0	4363	818	0	0	0	0	0	412	3068	5515	14176	958
2198755	16311	12798	13890	5971	163	0	0	0	25	1904	10657	15710	77429	400
2198756	0	0	0	0	0	0	0	0	0	0	0	9313	9313	99
2211303	2948	2574	2805	1160	508	445	430	463	525	1037	2028	2609	17531	130
2211334	11272	13453	14628	7484	3937	1697	1368	1692	1735	1931	5331	9942	74470	449
2211338	75562	65259	78405	62082	62232	56826	58676	63852	47651	68607	74907	85980	800039	200
2211341	0	0	0	0	0	0	0	0	0	0	0	13253	13253	311

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<u>MTR NBR</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL CCF</u>	<u>Max Daily Qty (Dth)</u>
2227843	0	0	0	24271	55362	49237	53314	41588	42661	49272	54493	52417	422615	302
2227846	0	0	0	22297	49839	43873	48073	37357	37162	43530	49757	48914	380801	1362
2227850	0	0	0	0	0	0	0	0	0	0	0	0	30638	144
2239836	8048	6855	10658	373	0	0	0	0	0	21	4509	14924	45389	313
2239838	19847	14873	17843	6974	6030	4952	4505	4612	4611	5545	13799	21440	125029	340
2239839	22536	15316	19826	4514	1995	331	361	114	10	810	15776	23808	105399	624
2239840	126403	92714	131369	50285	0	113	0	0	166	30272	79745	132759	643826	296
2239841	63148	56864	59468	41535	39055	32337	31198	32084	32162	34494	47425	61685	531454	576
2239843	92378	67837	85741	12307	0	0	0	0	0	7625	55696	88116	409699	127
2239845	79187	77271	90235	31977	32086	66667	66593	60645	64632	40419	34149	56594	700456	60
2245126	47111	34693	40535	12405	5710	0	0	0	0	8543	0	81341	230339	42

Tab 9

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

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:

- (10) A schematic system map, locating and identifying by name, the pressure and capacity of all interstate or intrastate transmission pipeline connections, compressor stations, utility transmission or distribution mains 6 inches or larger in size, storage facilities, including maximum daily injection and withdrawal rates, production fields, and each individual supply or transportation customer which represents 5% or more of total system throughput in a month. Each customer or account shall be identified solely by a unique alphanumeric code, the key to which may be provided subject to § 5.423.

Response:

Following the lead of the industry, as well as federal policy guidelines regarding the security of information relating to energy transmission sites, PGW will no longer provide this data to the general public. However, upon request PGW will provide this information to the Commission and will also provide access to this information, upon written request, to parties to this proceeding that have legitimate business reasons to view this information.

Tab 10

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

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:

- (11) If any rate structure or rate allocation changes are to be proposed, a detailed explanation of each proposal, reasons therefore, number of customers affected, net effect on each customer class, and how the change relates to or is justified by changes in gas costs proposed in the Section 1307(f) tariff filing. Explain how gas supply, transportation and storage capacity costs are allocated to customers which are primarily nonheating, interruptible or transportation customers.

Response:

PGW is not proposing any rate structure or rate allocation changes in the instant proceeding, therefore, no testimony or schedules have been provided in this pre-filing to support such changes.

PGW will provide testimony regarding gas procurement policies, strategies and the GCR calculation in its 1307f March 1 filing.

Tab 11

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

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:

(12) A schedule depicting the most recent 5-year consecutive 3-day peak data by customer class (or other historic peak day data used for system planning), daily volumetric throughput by customer class (including end-user transportation throughput), gas interruptions and high, low and average temperature during each day.

Response:

Schedule 1 – Three-day peak for FY 12-13 through FY 16-17.

There were not any gas interruptions during the period of FY 12-13 through FY 16-17.

3 DAY PEAK ANALYSIS

Winter	Average	Hi	Low	Total	Firm	Cogen	LBS	BPS	GTS	IT
2012 - 2013	21	24	19	542,095	474,747	40	78	235	3,499	63,496
2012 - 2013	23	28	19	520,871	454,814	40	79	225	3,697	62,016
2012 - 2013	23	31	20	532,130	467,509	41	79	224	3,645	60,632
2013 - 2014	14	19	8	576,853	513,402	59	0	114	2,422	60,855
2013 - 2014	18	26	13	550,700	485,528	61	0	104	1,698	63,310
2013 - 2014	22	29	15	544,086	478,302	61	0	114	3,716	61,893
2014 - 2015	11	17	4	645,370	563,253	0	0	0	4,018	78,099
2014 - 2015	16	21	9	617,947	527,584	0	0	0	3,957	86,406
2014 - 2015	24	30	19	532,242	452,250	0	0	0	3,751	76,241
2015 - 2016	26	30	22	490,537	407,974	43	0	0	3,984	78,536
2015 - 2016	16	24	9	583,377	498,793	43	0	0	3,870	80,671
2015 - 2016	18	24	11	562,929	489,468	43	0	0	3,653	69,765
2016 - 2017	21	25	17	496,220	432,592	0	0	0	3,905	59,723
2016 - 2017	21	27	18	528,423	461,805	0	0	0	3,791	62,827
2016 - 2017	24	31	19	519,336	449,873	0	0	0	3,709	65,754

Tab 12

Docket No. R-18XXX

Item 53.64 (c)(13)

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

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:

(13) Identification and support for any peak day methodology used to project future gas demands and studies supporting the validity of the methodology.

Response: Please see the attached Peak Day analysis. Also attached are excerpts from the August, 2006 ICF International *Natural Gas Supply Study* which supports PGW's peak day methodology.

Peak Day Analysis

PGW performs a peak day analysis on an annual basis to determine its projected sendout requirements during peak conditions. Essentially this process is completed by collecting sendout and average temperature data for all days where the temperature is at or below 32 degrees Fahrenheit, excluding holidays and weekends. All interruptible transportation volumes are removed from total sendout to arrive at firm sendout on a daily basis.

Common statistical practices warrant that no less than thirty (30) data points be utilized in the analysis to ensure its integrity. For this analysis, PGW has utilized data from the period winter of FY 14-15 through FY 16-17 which would reflect the most current consumption behaviors of its customers. This period yielded 53 data points where the average temperature was at or below 32 degrees Fahrenheit.

Degree days are calculated by subtracting the average daily temperature from sixty-five (65).

A standard linear regression was performed on the data using the calculated degree-days and the actual firm daily sendout information. Additionally, in order to confirm the accuracy of the analysis, and to smooth the charting of the data, a quadratic and a cubic regression analysis were also completed.

A resulting R^2 (Correlation Coefficient) indicates an 82.1 % correlation between firm sendout and degree-days. The multiple regression correlation co-efficient, R^2 , is a measure of the proportion of variability explained by, or due to the regression (linear relationship) in a sample of paired data. It is a number between zero and one and a value close to zero suggests a poor model.

To verify the level of confidence we can ascribe to the model, we developed the attached Linear Regression Confidence Level Table. Essentially, this table compares the actual versus projected sendout to determine the level of variance expressed as a standard deviation. A standard deviation represents the positive square root of the variance where the variance simply represents the dispersion about the mean. In this analysis the sample standard deviation is 26,150 MCF.

The sample loses one degree of freedom for each estimated parameter. Thus, with a sample of 100 paired values and two estimated parameters (one for the constant and one for the coefficient of "degree days"), there are $100-2=98$ degrees of freedom. In this analysis we had 53 data points and there were 51 Degrees of Freedom.

Finally, based upon the models developed, it can be determined that the company's projected peak day sendout should be set at 672,749 MCF per day at 0 degree Fahrenheit. This calculation is performed using the X Coefficient (i.e. slope) multiplied by the number of degree days and adding the Constant (Y Intercept).

Winter 15-17 Data for Daily Temperatures <= 32 Degrees Fahrenheit
W/O Holidays, Weekends

Day	Date	Daily Temp	Degree Days X	X ²	X ³	Actual Firm Sendout (Mcf)	Firm Sendout Per DD (Mcf)	Linear Projected Firm Sendout (Mcf)	Quadratic Projected Firm Sendout (Mcf)	Cubic Projected Firm Sendout (Mcf)
Tuesday	11/18/2014	28	37	1,369	50,653	350,906	9.484	384,746	384,660	384,449
Wednesday	12/31/2014	29	33	1,089	35,937	340,403	10,315	343,603	344,097	344,563
Monday	1/5/2015	32	36	1,296	46,656	348,249	9,674	374,461	374,483	374,328
Tuesday	1/6/2015	25	40	1,600	64,000	400,833	10,021	415,604	415,335	415,254
Wednesday	1/7/2015	18	47	2,209	103,823	488,236	10,388	487,604	487,759	488,272
Thursday	1/8/2015	22	43	1,849	79,507	479,237	11,145	446,461	446,229	446,485
Friday	1/9/2015	28	37	1,369	50,653	413,890	11,186	384,746	384,660	384,449
Tuesday	1/13/2015	26	39	1,521	59,319	391,385	10,036	405,318	405,086	404,923
Wednesday	1/14/2015	31	34	1,156	39,304	373,561	10,987	353,889	354,202	354,374
Friday	1/16/2015	31	34	1,156	39,304	357,367	10,442	343,603	344,097	344,563
Wednesday	1/21/2015	32	33	1,089	35,937	344,596	10,511	353,889	354,202	354,374
Monday	1/26/2015	28	37	1,369	50,653	379,785	10,264	384,746	384,660	384,449
Tuesday	1/27/2015	27	38	1,444	54,872	407,871	10,733	395,032	394,861	394,651
Wednesday	1/28/2015	29	36	1,296	46,656	397,632	11,045	374,461	374,483	374,328
Friday	1/30/2015	27	38	1,444	54,872	396,701	10,440	395,032	394,861	394,651
Monday	2/2/2015	28	37	1,369	50,653	391,048	10,569	384,746	384,660	384,449
Tuesday	2/3/2015	28	37	1,369	50,653	395,063	10,677	384,746	384,660	384,449
Thursday	2/5/2015	23	42	1,764	74,088	426,585	10,157	436,175	435,907	436,046
Friday	2/6/2015	31	34	1,156	39,304	393,873	11,584	353,889	354,202	354,374
Monday	2/9/2015	30	35	1,225	42,875	365,974	10,456	364,175	364,330	364,299
Thursday	2/12/2015	27	38	1,444	54,872	399,536	10,514	395,032	394,861	394,651
Friday	2/13/2015	22	43	1,849	79,507	454,929	10,580	446,461	446,229	446,485
Tuesday	2/17/2015	24	41	1,681	68,921	452,250	11,030	425,890	425,609	425,632
Wednesday	2/18/2015	25	40	1,600	64,000	420,596	10,515	415,604	415,335	415,254
Thursday	2/19/2015	12	53	2,809	148,877	539,717	10,183	549,319	550,780	549,807
Friday	2/20/2015	16	49	2,401	117,649	552,584	11,277	508,176	508,669	509,025
Monday	2/23/2015	19	46	2,116	97,336	463,598	10,078	477,319	477,340	477,843
Tuesday	2/24/2015	24	41	1,681	68,921	445,516	10,866	425,890	425,609	425,632
Thursday	2/26/2015	29	36	1,296	46,656	379,463	10,541	374,461	374,483	374,328
Friday	2/27/2015	25	40	1,600	64,000	405,365	10,134	415,604	415,335	415,254
Thursday	3/5/2015	21	44	1,936	85,184	421,654	9,583	456,747	456,575	456,939
Friday	3/6/2015	23	42	1,764	74,088	423,507	10,084	436,175	435,907	436,046
Monday	1/4/2016	21	44	1,936	85,184	407,940	9,271	456,747	456,575	456,939
Tuesday	1/5/2016	27	38	1,444	54,872	398,646	10,491	395,032	394,861	394,651
Monday	1/11/2016	31	34	1,156	39,304	334,881	9,849	353,889	354,202	354,374
Wednesday	1/13/2016	28	37	1,369	50,653	379,941	10,269	384,746	384,660	384,449
Tuesday	1/19/2016	26	39	1,521	59,319	430,686	11,043	405,318	405,086	404,923
Thursday	1/21/2016	31	34	1,156	39,304	361,668	10,637	353,889	354,202	354,374
Friday	1/22/2016	27	38	1,444	54,872	387,773	10,468	395,032	394,861	394,651
Wednesday	2/10/2016	31	34	1,156	39,304	355,015	10,442	353,889	354,202	354,374

Winter 15-17 Data for Daily Temperatures <= 32 Degrees Fahrenheit

W/O Holidays, Weekends

Day	Date	Daily Temp	Degree Days X	Actual Firm Sendout (Mcf)			Linear Projected Firm Sendout (Mcf)	Quadratic Projected Firm Sendout (Mcf)	Cubic Projected Firm Sendout (Mcf)
				Firm Sendout	Per DD	X^3			
Thursday	2/11/2016	24	41	1,681	435,736	10,628	425,890	425,609	425,632
Friday	2/12/2016	26	39	1,521	419,340	10,752	405,318	405,086	404,923
Thursday	2/18/2016	32	33	1,089	345,555	10,471	343,603	344,097	344,563
Thursday	12/15/2016	21	44	1,936	442,443	10,056	456,747	456,575	456,939
Friday	12/16/2016	28	37	1,369	398,274	10,764	384,746	384,660	384,449
Monday	12/19/2016	28	37	1,369	362,151	9,788	384,746	384,660	384,449
Friday	1/6/2017	29	36	1,296	352,966	9,794	374,461	374,483	374,328
Monday	1/9/2017	24	41	1,681	449,790	10,970	425,890	425,609	425,632
Friday	2/3/2017	30	35	1,225	355,990	10,171	364,175	364,330	364,299
Thursday	2/9/2017	27	38	1,444	369,581	9,726	395,032	394,861	394,651
Friday	3/10/2017	30	35	1,225	311,755	8,907	364,175	364,330	364,299
Tuesday	3/14/2017	28	37	1,369	376,677	10,180	384,746	384,660	384,449
Wednesday	3/15/2017	28	37	1,369	398,105	10,760	384,746	384,660	384,449
			53	2,809	401,631	10,395	549,319	550,780	549,807
			Count	53					

Firm Sendout Projection Based Data From 15-17 Data for Daily Temperatures <= 32 Degrees Fahrenheit

R_Squared	Change	Student's_T	Degrees of Freedom	Critical Value	@ 97.5% Significant
0.820896	0.820896	15.288901	51	1.99	Yes
0.820938	0.000042	0.108545	50	1.98	No
0.820970	0.000032	0.094049	49	1.98	No

Degrees of Freedom
 97.5% Significance Level
 95.0% Significance Level

51
 1.99
 1.98
 1.66

50
 1.98
 1.66

49
 1.98
 1.66

Linear Projection at Zero Degrees Fahrenheit

672,749 Mcf
 518,462 Mcf

Student's T = Square Root[(Increase * Degrees of Freedom)/(1 - R Squared)]

Linear SO = Constant + (X * X Coefficient)

Quadratic SO = Constant + (X * X Coeff) + (X1u2 * X1u2 Coeff)

Cubic SO = Constant + (X * X Coeff) + (X1u2 * X1u2 Coeff) + (X1u3 * X1u3 Coeff)

Linear Regression Confidence Level Table

Count	Degree Days X	Firm Sendout (MEF)	Y	Projected Linear Firm Sendout (MEF) Ydc	Difference Actual Versus Projected Y - Yc	Actual Versus Projected Squared (Y - Yc) ²	(Degree Days - Xm) Squared	(Degree Days - Xm)	t-ratio	Upper Acc		Lower Acc		"± 1 SD"		"± 2 SD"	
										Ydc + t-ratio	Lower	Ydc + t-ratio	Lower	Ydc + t-ratio	Lower	Ydc + t-ratio	Lower
1	33	340,403	343,603	343,603	(3,200)	10,237,327	(6)	32	4,731	353,024	324,432	363,774	323,261	383,945			
2	33	344,596	343,603	343,603	993	986,665	(6)	32	4,731	353,024	324,432	363,774	323,261	383,945			
3	33	345,555	343,603	343,603	1,952	3,810,597	(6)	32	4,731	353,024	324,432	363,774	323,261	383,945			
4	34	373,561	353,889	353,889	19,672	386,981,981	(5)	22	4,211	362,273	333,718	374,060	313,547	394,231			
5	34	357,367	353,889	353,889	3,478	12,094,381	(5)	22	4,211	362,273	333,718	374,060	313,547	394,231			
6	34	393,873	353,889	353,889	39,984	1,598,700,410	(5)	22	4,211	362,273	333,718	374,060	313,547	394,231			
7	34	334,881	353,889	353,889	(19,008)	361,310,819	(5)	22	4,211	362,273	333,718	374,060	313,547	394,231			
8	34	361,668	353,889	353,889	7,779	60,507,811	(5)	22	4,211	362,273	333,718	374,060	313,547	394,231			
9	34	355,015	353,889	353,889	1,126	1,267,134	(5)	22	4,211	362,273	333,718	374,060	313,547	394,231			
10	35	365,974	364,175	364,175	1,800	3,238,142	(4)	13	3,739	371,620	344,004	384,346	323,833	404,517			
11	35	355,990	364,175	364,175	(8,185)	66,990,397	(4)	13	3,739	371,620	344,004	384,346	323,833	404,517			
12	35	311,755	364,175	364,175	(52,420)	2,747,833,901	(4)	13	3,739	371,620	344,004	384,346	323,833	404,517			
13	36	348,249	374,461	374,461	(26,211)	687,040,709	(3)	7	3,337	381,106	354,290	394,631	334,119	414,802			
14	36	397,632	374,461	374,461	23,172	536,926,669	(3)	7	3,337	381,106	354,290	394,631	334,119	414,802			
15	36	379,463	374,461	374,461	5,002	25,023,407	(3)	7	3,337	381,106	354,290	394,631	334,119	414,802			
16	36	352,566	374,461	374,461	(21,894)	479,362,783	(3)	7	3,337	381,106	354,290	394,631	334,119	414,802			
17	37	350,906	384,746	384,746	(33,840)	1,145,160,954	(2)	3	3,033	390,785	364,575	404,917	344,404	425,088			
18	37	413,890	384,746	384,746	29,144	849,360,039	(2)	3	3,033	390,785	364,575	404,917	344,404	425,088			
19	37	379,785	384,746	384,746	(4,961)	24,614,972	(2)	3	3,033	390,785	364,575	404,917	344,404	425,088			
20	37	391,048	384,746	384,746	6,302	39,709,941	(2)	3	3,033	390,785	364,575	404,917	344,404	425,088			
21	37	395,063	384,746	384,746	10,317	106,430,849	(2)	3	3,033	390,785	364,575	404,917	344,404	425,088			
22	37	379,941	384,746	384,746	(4,805)	23,091,127	(2)	3	3,033	390,785	364,575	404,917	344,404	425,088			
23	37	398,274	384,746	384,746	13,528	183,003,603	(2)	3	3,033	390,785	364,575	404,917	344,404	425,088			
24	37	362,151	384,746	384,746	(22,595)	510,531,780	(2)	3	3,033	390,785	364,575	404,917	344,404	425,088			
25	37	376,677	384,746	384,746	(8,069)	65,116,730	(2)	3	3,033	390,785	364,575	404,917	344,404	425,088			
26	37	398,105	384,746	384,746	13,358	178,440,798	(2)	3	3,033	390,785	364,575	404,917	344,404	425,088			
27	38	407,871	395,032	395,032	12,839	164,828,195	(1)	0	2,857	400,722	374,861	415,203	354,690	435,374			
28	38	396,701	395,032	395,032	1,669	2,786,173	(1)	0	2,857	400,722	374,861	415,203	354,690	435,374			
29	38	399,536	395,032	395,032	4,504	20,289,217	(1)	0	2,857	400,722	374,861	415,203	354,690	435,374			
30	38	398,646	395,032	395,032	3,614	13,059,338	(1)	0	2,857	400,722	374,861	415,203	354,690	435,374			
31	38	397,773	395,032	395,032	2,740	7,510,314	(1)	0	2,857	400,722	374,861	415,203	354,690	435,374			

Linear Regression Confidence Level Table

Count	Degree Days X	Firm Sendout (MEF) Y	Projected Linear Firm Sendout (MEF) Ydc	Difference		Actual Versus Projected Squared (Y - Yp) ²	(Degree Days - Xm) ²	Days - Xm	Squared (X - Xm) ²	sdvc	Lower Ace Ydc + t*sdvc		Upper Ace Ydc + t*sdvc	".1 SD" Lower Ydc + sdydc		".1 SD" Lower Ydc + sdydc	".2 SD" Lower Ydc + 2sdydc	
				Actual Versus Projected (Y - Yc)	Projected Versus Actual (Yc - Y)						Lower	Lower		Lower	Lower			
32	38	369,381	395,032	(25,451)	647,740,172	0	2,857	5,690	389,342	400,722	374,861	415,203	354,690	435,374				
33	39	391,385	405,318	(13,933)	194,137,958	0	2,835	5,645	399,673	410,963	385,147	425,489	364,976	445,660				
34	39	430,686	405,318	25,368	643,512,583	0	2,835	5,645	399,673	410,963	385,147	425,489	364,976	445,660				
35	39	419,340	405,318	14,022	196,618,709	0	2,835	5,645	399,673	410,963	385,147	425,489	364,976	445,660				
36	40	400,833	415,604	(14,771)	218,168,467	1	2,969	5,912	409,692	421,515	395,433	435,775	375,262	455,946				
37	40	420,596	415,604	4,993	24,925,281	1	2,969	5,912	409,692	421,515	395,433	435,775	375,262	455,946				
38	40	405,365	415,604	(10,239)	104,834,893	1	2,969	5,912	409,692	421,515	395,433	435,775	375,262	455,946				
39	41	452,250	425,690	26,360	694,852,111	2	3,240	6,451	419,438	432,341	405,719	446,061	385,548	466,232				
40	41	445,516	425,690	19,626	385,184,307	2	3,240	6,451	419,438	432,341	405,719	446,061	385,548	466,232				
41	41	435,736	425,690	9,847	96,953,766	2	3,240	6,451	419,438	432,341	405,719	446,061	385,548	466,232				
42	41	449,790	425,690	23,900	571,217,976	2	3,240	6,451	419,438	432,341	405,719	446,061	385,548	466,232				
43	42	426,585	436,175	(9,591)	91,863,544	3	3,617	7,203	428,973	443,378	416,004	456,346	395,833	476,517				
44	42	423,507	436,175	(12,668)	160,484,253	3	3,617	7,203	428,973	443,378	416,004	456,346	395,833	476,517				
45	43	479,237	446,461	32,776	1,074,272,567	4	4,071	8,107	438,354	454,568	426,290	466,632	406,119	486,803				
46	43	454,929	446,461	8,468	71,711,563	4	4,071	8,107	438,354	454,568	426,290	466,632	406,119	486,803				
47	44	421,654	456,747	(35,093)	1,231,521,955	5	4,580	9,120	447,627	465,867	436,576	476,918	416,405	497,089				
48	44	407,940	456,747	(48,807)	2,382,140,558	5	4,580	9,120	447,627	465,867	436,576	476,918	416,405	497,089				
49	44	442,443	456,747	(14,304)	204,613,978	5	4,580	9,120	447,627	465,867	436,576	476,918	416,405	497,089				
50	46	463,598	477,319	(13,721)	188,262,496	7	5,400	11,350	465,969	488,688	457,148	497,089	436,977	517,661				
51	47	488,236	487,604	632	399,251	8	7,000	12,531	475,074	500,135	467,344	507,775	447,263	528,946				
52	49	552,584	508,176	44,408	1,972,028,070	10	10,700	14,973	493,203	523,150	488,005	528,347	467,834	548,518				
53	53	539,717	549,319	(9,602)	92,206,427	14	20,600	20,041	529,278	569,360	529,148	569,360	508,977	569,661				
54	53	549,319	549,319	(549,319)	301,751,776,227	14	20,600	20,041	529,278	569,360	529,148	569,360	508,977	569,661				
Total/Avg	39	401,631	360,787		21,564,019,133	934												

Xm = 39
 Population Variance = 406,866,286
 Population Standard Deviation of Regression = 20,171
 Standard error of sendout projection = 1,99
 T-factor (T factor) * (Std error of projection) = 40,946

t = 1.99
 Upper Range = 421,802
 Lower Range = 381,480

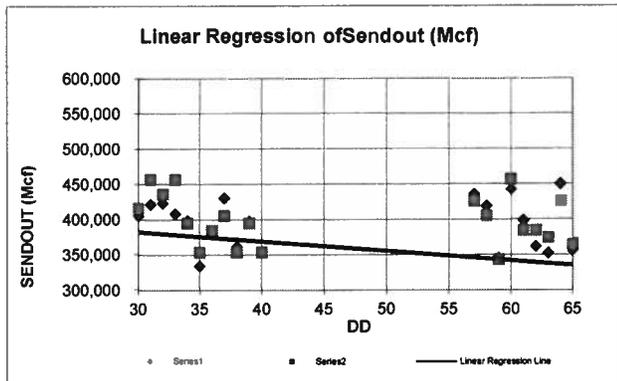
Regression Results

Winter 15-17

Based On Data for Daily Temperatures <= 32 Degrees Fahrenheit

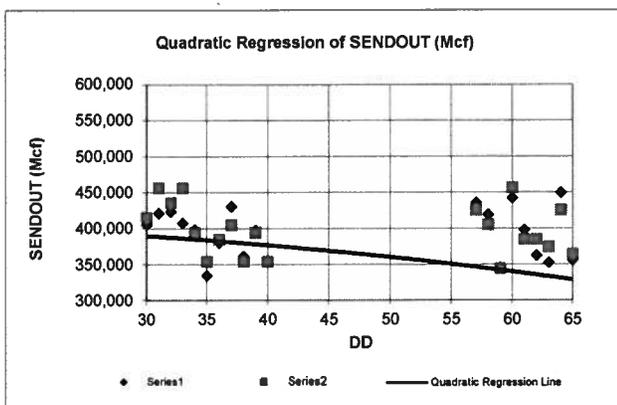
Regression Output:		Quadratic		Cubic	
Regression Output:		Regression Output:		Regression Output:	
Constant	4,171	24,231	158,142		
Std Err of Y Est	26,150	186,664	Std Err of Y Est	1,436,281	
R Squared	0.8209	1	R Squared	1	
No. of Observations	53	53	No. of Observations	53	
Degrees of Freedom	51	50	Degrees of Freedom	49	
X Coefficient(s)	10,286	X	X	X^2	X^3
Std Err of Coef.	673	9293.6895	X Coefficient(s)	247	(2)
		9165.4603	Std Err of Coef.	104,322	2,502
					20
Zero Degree Temp Sendout	549,319	550,780		549,807	
DD	53				

Regression Chart Analysis
Based Upon Data For Temperatures Of ≤ 32 Degrees F.
Winters 15-17



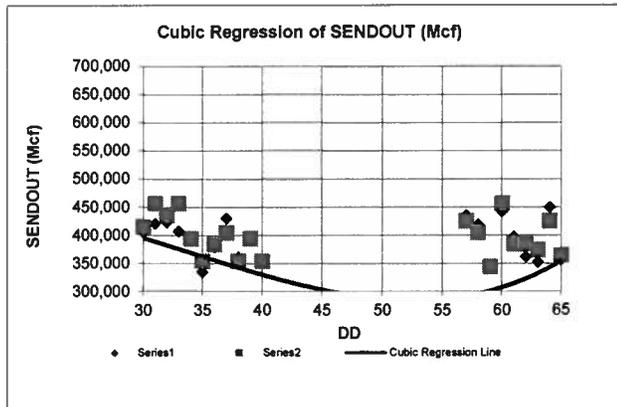
Linear Regression Output

Constant	4,171
Std. Error of Y Estimate	26,150
R Squared	0.821
Number of Observations	53
Degrees of Freedom	51
X Coefficient	10286
Std. Err. Of Coefficient	673



Quadratic Regression Output

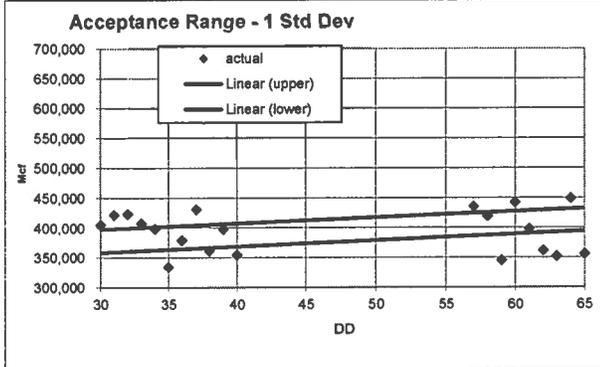
Constant	24,231
Std. Error of Y Estimate	186,684
R Squared	0.821
Number of Observations	53
Degrees of Freedom	50
X Coefficient	9,294
Std. Err. Of Coefficient	9,165



Cubic Regression Output

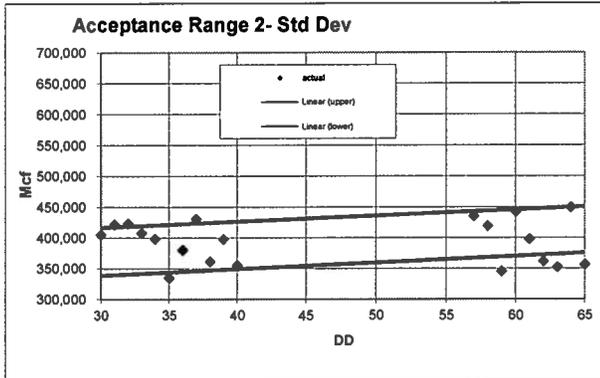
Constant	158,142
Std. Error of Y Estimate	1,436,281
R Squared	0.821
Number of Observations	53
Degrees of Freedom	49
X Coefficient	-479
Std. Err. Of Coefficient	104322

Regression Chart Analysis
Based Upon Data For Temperatures Of <=32 Degrees F.
Winters 15-17



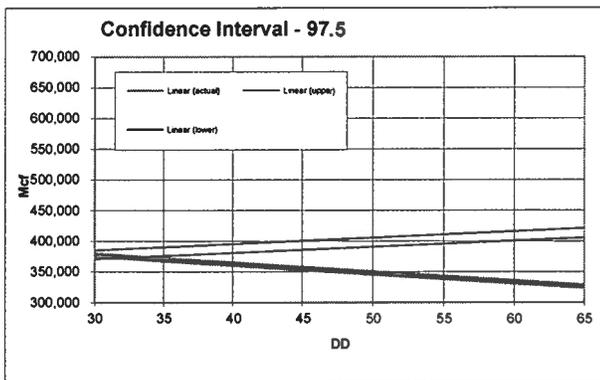
Acceptance Range @ 1 Standard Deviation

Regression Squared	406,868,286
Regression	20,171
Upper Range 1sd	421,802
Lower Range 1sd	381,460



Acceptance Range @ 2 Standard Deviation

Regression Squared	406,868,286
Regression	20,171
Upper Range 2sd	441,973
Lower Range 2sd	361,289



Confidence Interval: 97.5%

Regression Squared	406,868,286
Standard error of sendout projection	20,563
X Mean	39
T Distribution	1.99



PGW Natural Gas Supply Study

Prepared for
Philadelphia Gas Works



August 2006

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icfi.com

Outline

- Introduction
- Market Context
- Design Winter and Day Analysis
- Supply Analysis and Issues
- Conclusions and Recommendations

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Purpose of Demand Estimation Review



- Design day and winter parameters drive investment decisions and asset allocations
 - Pipeline capacity
 - Storage capacity and utilization
 - LNG storage and vaporization
- Design parameters in turn impact system costs
 - Capacity payments
 - Inventory holding costs
- ICF used design day and design winter estimates to determine the appropriate gas asset mix

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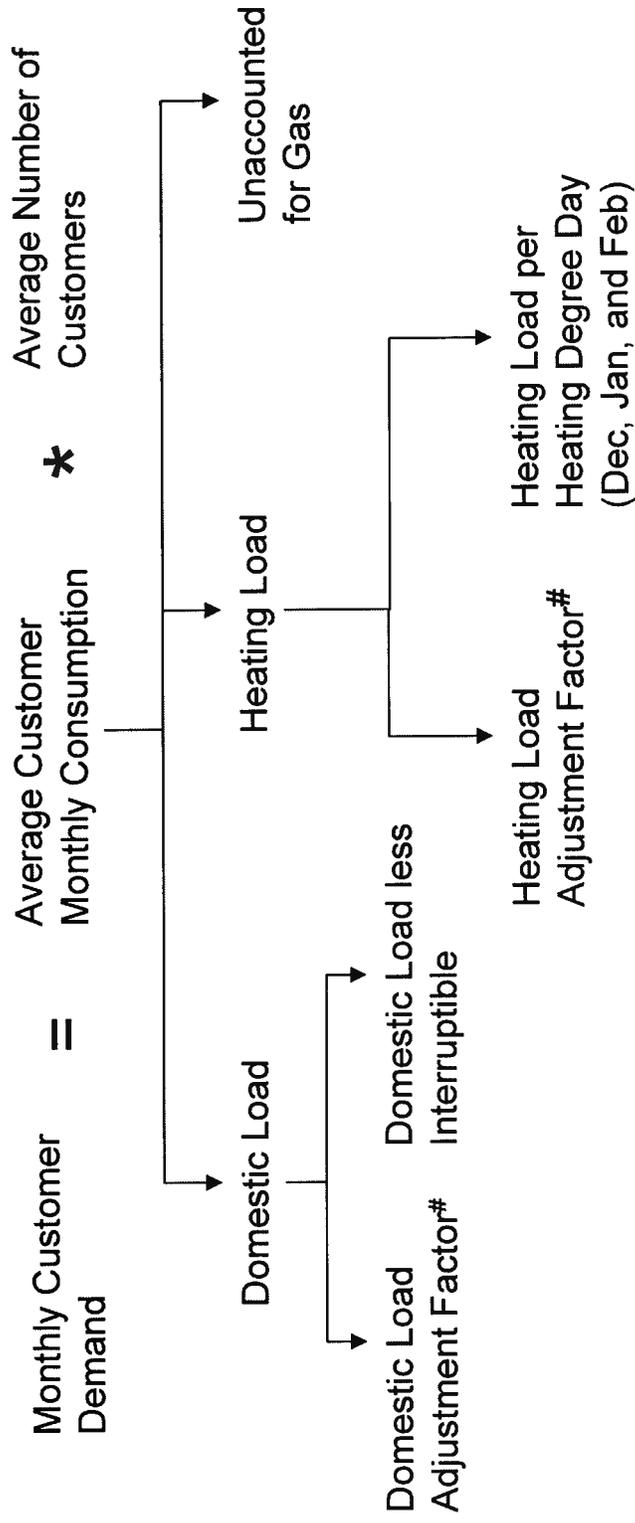
PGW's Approach to Estimating Demand



- PGW uses a combination of inputs into demand estimation
 - Historical demand trends for each customer class
 - Customer surveys
 - End use studies – appliance characteristics
 - Judgment of system operators
- Demand is related to temperature through heating degree days (HDD)
- Capacity planning focuses on the “Design Winter” and “Design Day”
 - These are concepts of peak demand that define the largest amount of gas that PGW must be able to deliver to meet system requirements and maintain system integrity
 - These represent statistically derived historical system peak limits

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PGW Demand Estimation Methodology Overview



#Adjustment Factors account for error in estimation of demand in previous year

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PGW Demand Estimation Methodology

Evaluation



- Domestic Load is estimated by using latest year customer load thus accounting for improvements in energy efficiency of customer appliances
- Heating Load Adjustment Factor is estimated using normalized Heating Degree Days thus representing only error in estimation methodology
- Design Day demand estimated using firm load thus making the forecasting regression methodology robust
- Design Day demand estimated using four year peak day heating degree days allowing for a good fit

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Philadelphia Winter Heating Degree Days



Data Set (1976-2005)	Nov	Dec	Jan	Feb	Mar	Winter Season
Historical Mean Degree Days	533	862	1,028	844	671	3,938 ^b
Historical Peak Degree Days	762	1,219	1,400	1,183	911	4,535 ^b
No. of Sample Observations	30	30	30	30	30	30
Sample Standard Deviation	95	144	162	129	99	213
Data Relative to Mean ^a (%)	18	17	16	15	15	5 ^b
PGW's Design Degree Days	608	1,005	1,191	973	778	4,555

Notes:

^a It is coefficient of variation, calculated as (sample standard deviation/sample mean)*100.

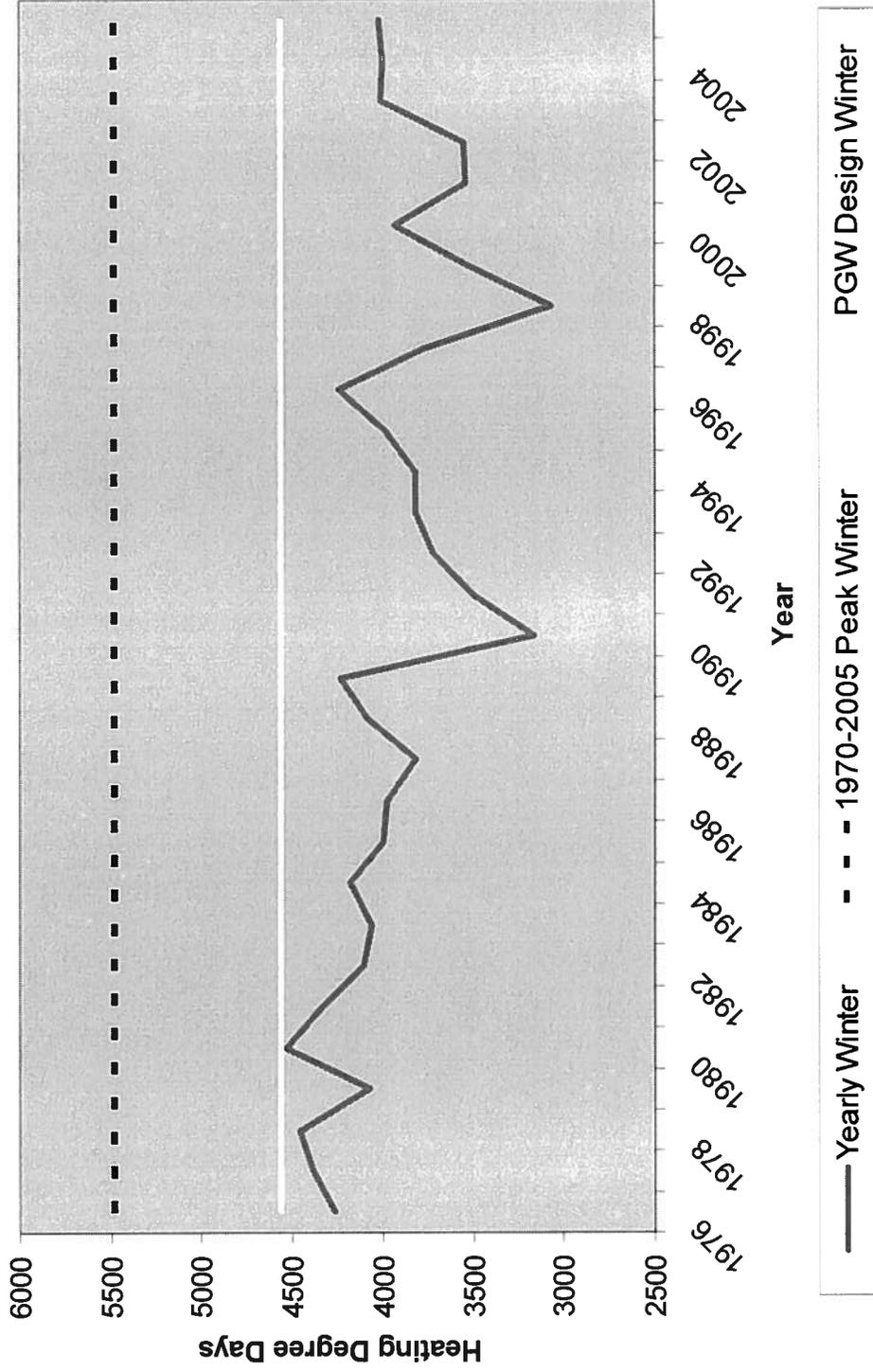
^b Individual months do not add up to this total, because it has been calculated independently using the historical winter season data or the standard deviation for the season total.

PGW Design Degree Days are higher than NOAA estimate because of the location and frequency of measurements. PGW measures several times per day at the Richmond Plant. NOAA uses a simple average of the high and low temperatures.

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PGW Design Winter Heating Degree Days

Philadelphia Winter Heating Degree Days



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PGW's Design Year Estimates



- The previous slide compares the design winter based on coldest winter in 30 years with historical winter weather and the theoretically coldest winter, measured in heating degree days (HDDs).
- Recent winters have been warmer than in the 1980s, and the trend suggests warming.
- PGW's design winter is still substantially below the theoretical coldest winter
 - Theoretical coldest winter includes the coldest winter months picked from the last 30 years and assumes each month is the thirty year cold month

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Findings on Peak and Winter Demand



- PGW’s approach remains essentially the same as was reviewed in the previous study.
- PGW’s approach yields a forecast of design day and design winter that are reasonable estimations.
 - The design conditions are below “theoretical” worst case (which could yield higher than necessary investments)
 - The probability of meeting design winter conditions remains approximately once in every 16 years.
- PGW’s approach incorporates recent trends in local markets towards more efficient equipment and demand response to prices.
- Potential for demand growth is modest (given local and national trends).

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ICF's Approach to Estimating Design Winter Sendout



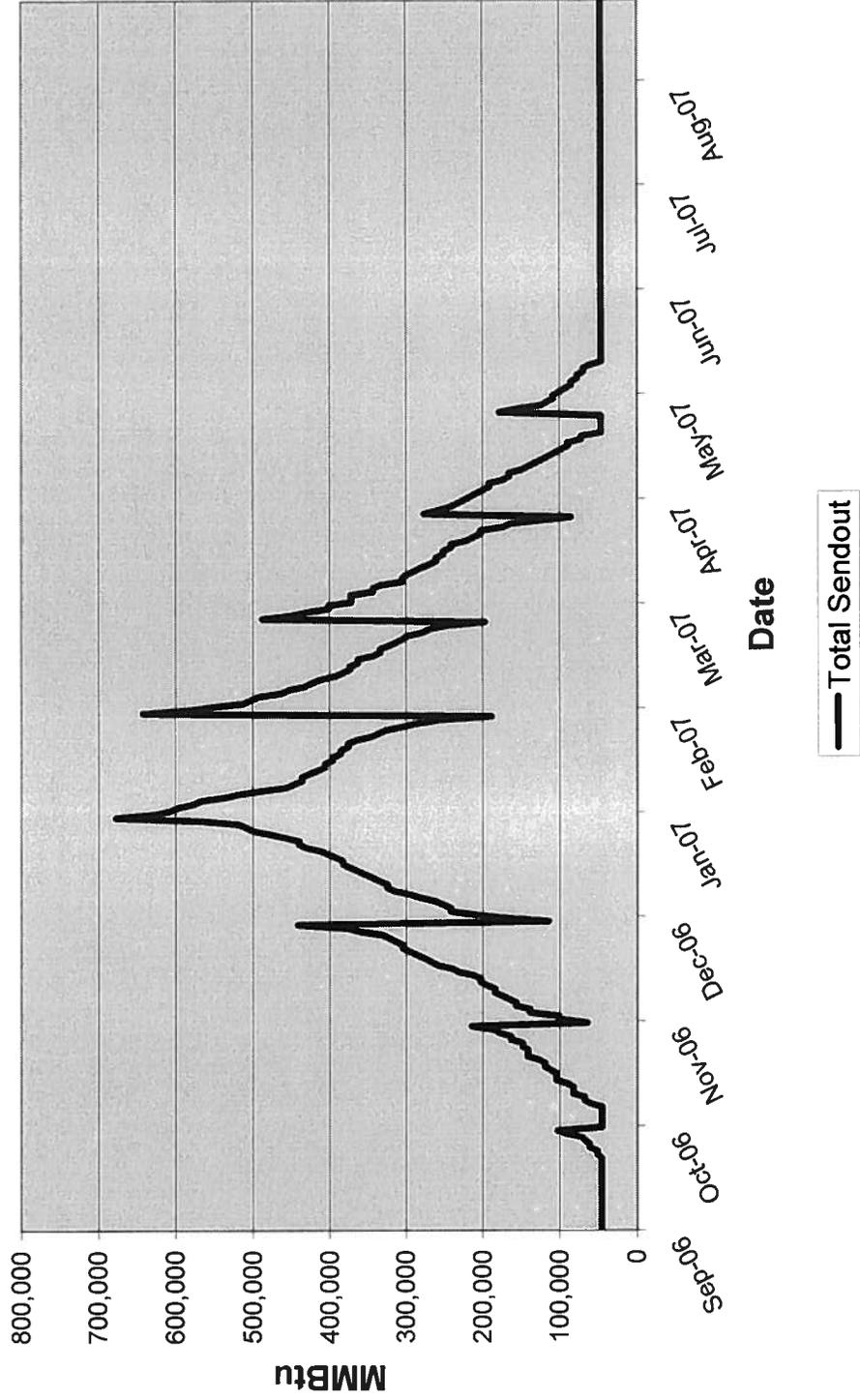
- First step is to use design winter parameters for 2006-2007 provided by PGW for its PGC filings with the Philadelphia Gas Commission.
 - These data are from September through August and in the form of load duration curves for each month.
- Data were converted to April through March and randomized to reflect typical random weather and gas pricing patterns.
 - Converting data for April through March makes modeling storage easier
 - Gas sendout and prices are correlated
- Design and average years were differentiated.
 - All the analysis is based on daily, sequential sendout
 - Average and design years differ only in winter sendout

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Design Year Sendout for Planning – Sept. 1 to August 31



Design Year Sendout

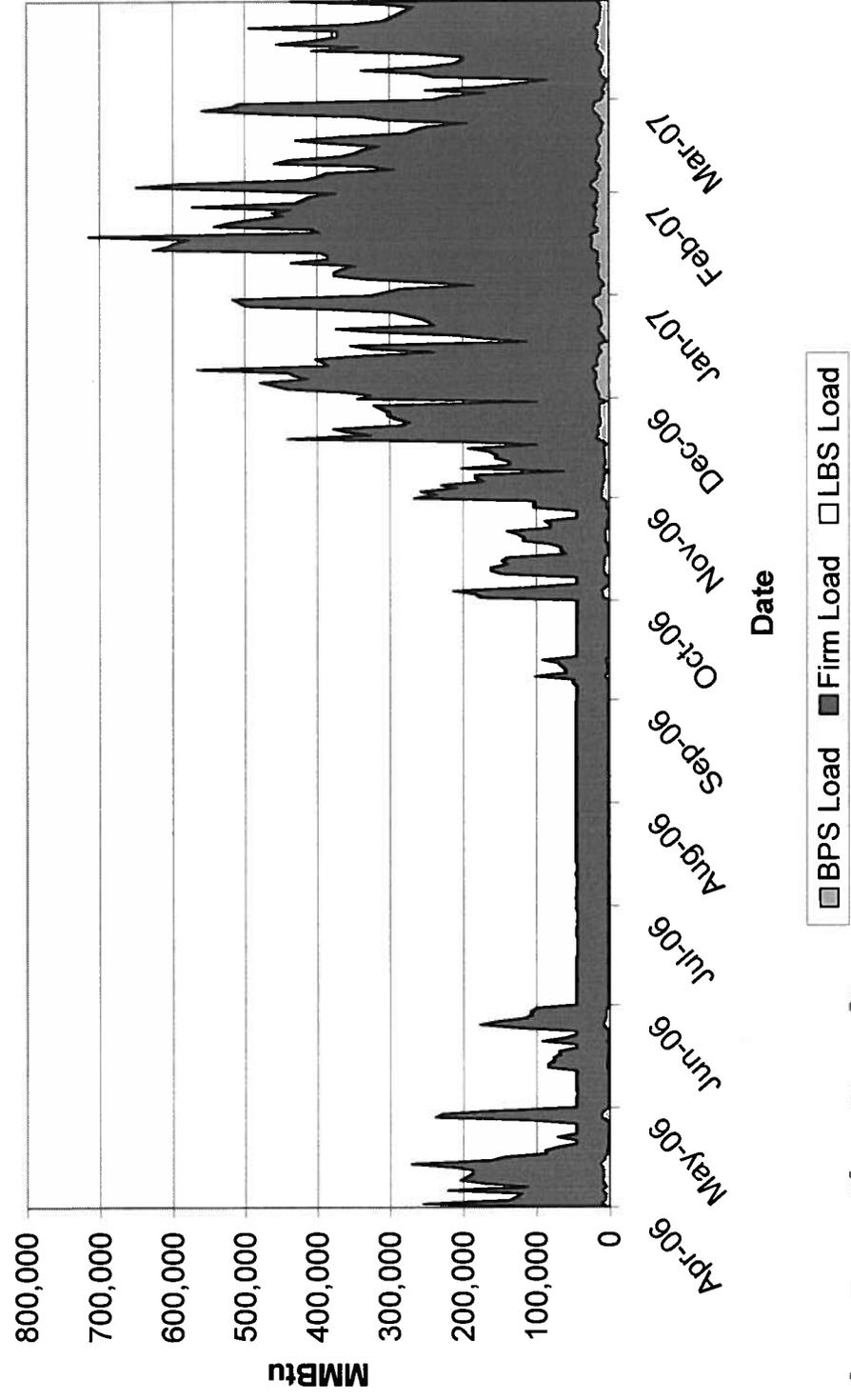


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Sendout Reordered and Randomized – April 1 to March 31



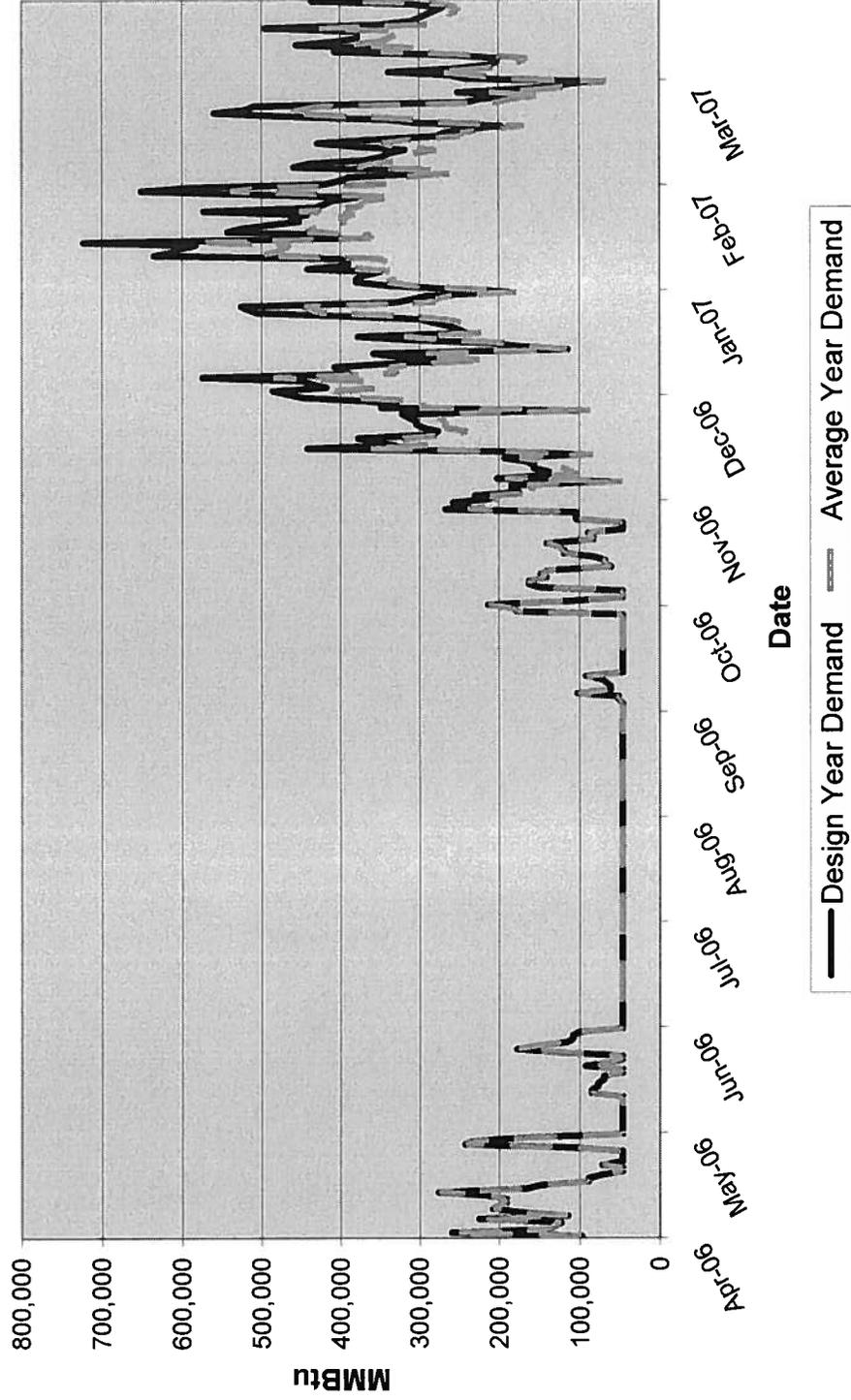
PGW Reference Case Sendout



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Demand Patterns Modeled Consistent with Gas Prices

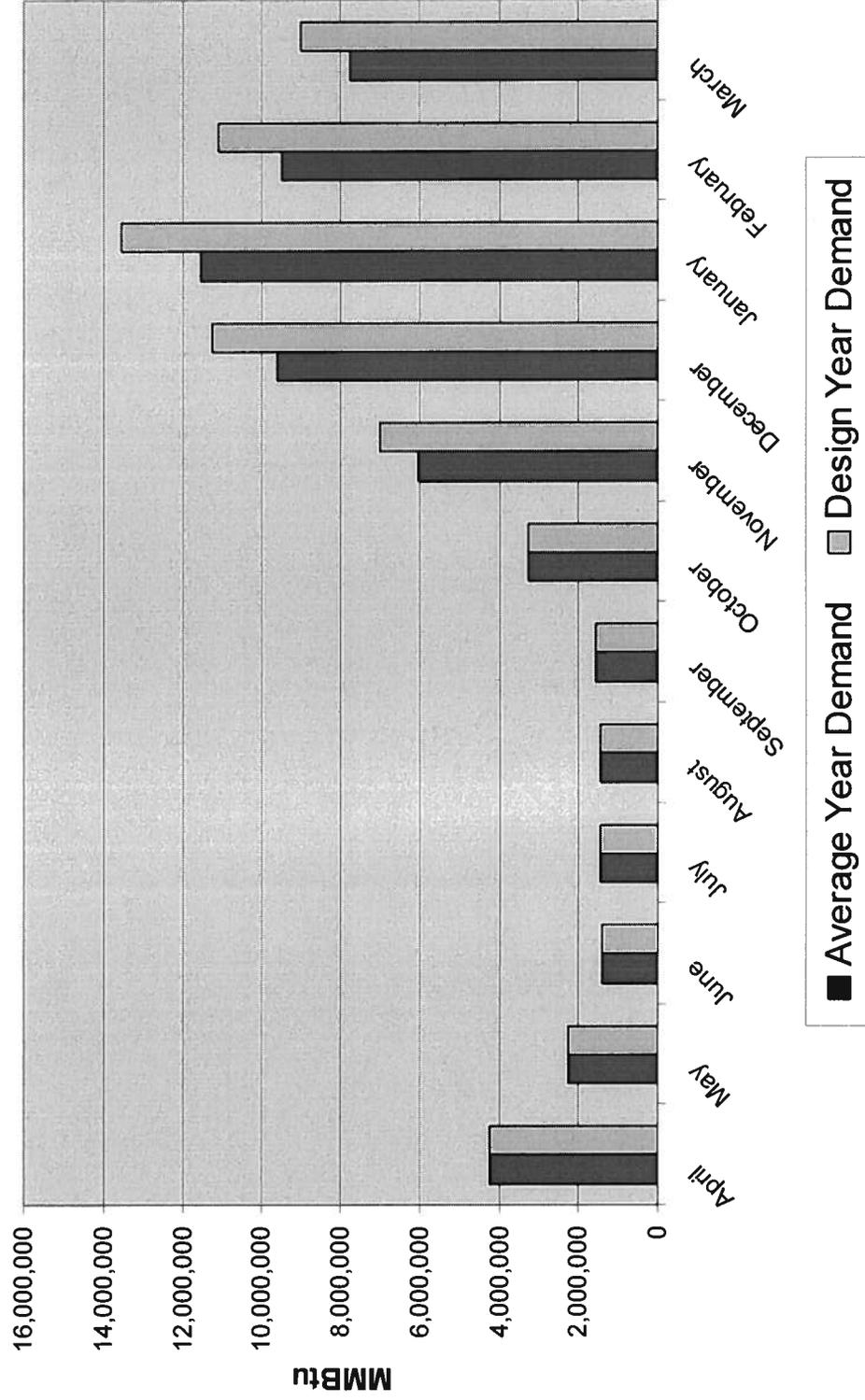
Design and Average Year Total Demand



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Design and Average Winter Demand -- Simplified

Design and Average Year Total Demand



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Observation: Design Day Deliverability is an Incomplete Measure of Asset Value



- Comparing Design Day requirements with available options is not a complete analysis.
- PGW operates with a 12 percent reserve margin over Design Day sendout requirements. This does not appear unreasonable.
 - Deliverability options on Design Day include
 - Transco long haul pipeline capacity
 - Transco GSS storage
 - Tetco/Dominion/Equitrans Storage delivered through Tetco FTS services
 - LNG
 - PAID – released capacity which has no long term fixed costs
- Design Day does not account for “Design Hour” requirements to maintain system pressures
- Design Day does not account for storage optionality in volatile gas markets.

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Conclusions and Recommendations



- PGW’s approach to estimating design winter and day conditions is reasonable and yields results that are prudent for capacity planning purposes.
- PGW uses its full pipeline capacity during winter seasons. Overall capacity utilization is higher for Transco, which is the lower cost pipeline, than it is for Tetco.
 - PGW has some opportunities to release capacity on these pipes, or engage in off-system sales when capacity is not needed for native load.
 - PGW should not permanently release capacity without call-back rights for winter seasons.
- PGW storage services appear adequate to meet peak requirements.

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Tab 13

Docket No. R-18XXX

Item 53.64 (c)(14)

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

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:

(14) Analysis and data demonstrating, on an historic and projected future basis, the minimum gas entitlements needed to provide reliable and uninterrupted service to priority one customers during peak periods.

Response: Attached is the Capacity Resource and Asset Management Evaluation Report completed by Summit Energy in January, 2011.

JAN 25, 2011

Capacity Resource and Asset Management EVALUATION REPORT

 **SummitEnergy**



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Executive Summary

After conducting a thorough review of PGW's existing asset portfolio, historical operations, and future load projections; and based upon the assumptions and market dynamics stated herein, Summit has identified several recommendations for the utility's consideration. All recommendations have been made based upon the fundamental premise that PGW's primary objective is providing reliable and cost-effective natural gas supply to its customer base. Each of the recommendations can be considered independently of the others.

After comparing PGW's capacity to its design forecast, Summit recommends the utility evaluate eliminating or reducing portions of its existing asset base, provided favorable asset management arrangements cannot be attained. A stack ranking methodology of the cost of each asset was utilized to help determine the most appropriate areas of focus. Based upon its volume and high cost, Summit recommends the release of PGW's Equitrans storage. In addition to eliminating the Equitrans storage from the utility's portfolio, Summit also recommends consideration be given to reducing its Dominion storage (in addition to its associated Tetco FTS-7 and FTS-8 contracts). We estimate that with a reduction of 10,000 Dth of demand of the Dominion storage (along with the associated storage capacity and FTS transport contracts) PGW would still be capable of serving design scenarios. Despite the utility's ability to meet design scenarios with the recommended capacity reductions, it is important to note that such reductions will increase the utility's reliance on LNG and reduce capacity release credits to the gas cost rate. Additionally, reduction of the Dominion storage from approximately 4 Bcf to 3 Bcf could result in new contract rates that may diminish some or all of the potential savings.

While Summit recommends consideration of the elimination and reduction of some assets, we also recommend maintaining others due to their associated value. First and foremost, we recommend PGW retain all existing long-haul interstate capacity due to both its cost-effectiveness as well as the utility's lateral delivery requirements. Additionally, as both Tetco and Transco are fully subscribed it is questionable whether such capacity could ever be regained in the future if it were surrendered.

While we also currently recommend the retention of PGW's production area storage, the market should continue to be monitored for changing dynamics that would impact or alter the future value of the storage assets. Despite the protection that is afforded against balancing penalties and supply disruptions in the production area, this type of storage becomes less valuable in a marketplace lacking volatility.

Summit also recommends PGW continue to actively monitor potential new asset opportunities. With the significant changes that are taking place in the natural gas complex and particularly in the Northeastern US, it is possible that new supply and/or capacity alternatives could develop that could displace or replace current assets.

When taking into account PGW's assets and historical operations, one additional recommendation is to evaluate the feasibility of creating a more dynamic management of the utility's underutilized long-haul capacity. While the utility currently manages an active capacity release program, it is possible that additional benefits could be gained through administering an even more vigorous program. More participation in weekly long-haul capacity releases could yield incremental returns over and above what has historically been received. Based on current market conditions and the complexities involved, Summit would recommend PGW manage any enhanced release program at this time versus relying on a third party.

The market dynamics in the Northeast have vastly changed in the past several years and are still rapidly evolving. Therefore, Summit recommends a short-term approach to any further contractual asset retention. It is also Summit's belief that PGW would be well served to internally re-evaluate its asset portfolio on a regular basis (annual to every two years) to ensure it can take better advantage of any future market developments.

In conclusion, Summit advocates that PGW utilize the enclosed report to consider these recommendations and take action accordingly.

Introduction and Scope

The following report outlines independent analysis conducted by Summit Energy Services, Inc. (Summit) regarding the natural gas capacity resources of Philadelphia Gas Works (PGW). This assessment was constructed based upon a thorough investigation of the utility's existing gas capacity asset portfolio, the utility's servicing obligations, and a detailed review of existing and projected market fundamentals. The study consisted of the following:

- Review and analysis of PGW current gas supply infrastructure assets (pipeline capacity, storage, and LNG)
- Assessment of range of appropriate levels of capacity resources
- Investigation of alternative supply and/or capacity options
- Examination of value of utilizing third party asset management
- Review of asset management payment structures

Background

PGW initially engaged Summit through a competitive request for proposal to perform a thorough evaluation of both PGW's capacity portfolio holdings and its commodity purchasing strategies. PGW program evaluations have been periodically performed by independent parties in the past, the most recent being a study issued by a third party in 2006. Such studies must be re-evaluated at discrete time intervals to consider changes not only in the load characteristics of PGW itself, but also to evaluate changes that occur in both the commodity and capacity markets.

Summit Approach

Upon engagement, Summit reviewed historical testimony of PGW personnel outlining the utility's operational practices as well as the aforementioned study from 2006. In addition, Summit reviewed testimony from prior Gas Cost Rate (GCR) proceedings.

PGW has historically maintained the perspective that keeping the existing infrastructure portfolio intact best enables the utility to provide safe, adequate, and reliable service to its customers. Although there were recommendations which advocated the future consideration of shedding the most marginal economic assets in the portfolio, the previous study largely supported the utility's viewpoint. A contrary opinion from a GCR proceeding participant, however, called for more definitive action, stating that PGW had a large amount of excess capacity that needed to be relinquished, and that its current portfolio holdings were causing the GCR to be inflated.

As Summit prepared to re-evaluate the PGW portfolio and provide its own assessment, the utility collected and disseminated updated information to Summit including the following:

- Most current information concerning historical design day, design year, and actual delivery send out data
- Utility-controlled Liquefied Natural Gas (LNG) liquefaction and vaporization capacities, boil-off histories, and historical monthly inventories
- Capacity release and off-system sales histories, including both long-term and short-term transactions
- Third party supplier agreements designating volumes, price structures, optionality, delivery points, etc.
- Commodity purchasing program details, including historical purchase information

The provided data was supplemented with questions set forth by Summit as additional information was required, as well as with detailed interviews of PGW strategic and tactical personnel. These discussions provided opportunities to learn about operational constraints and details that were not set forth in the provided documentation. This was particularly necessary with the LNG asset evaluation, as this was not jurisdictional at the interstate level and lacked the visibility of FERC-mandated tariffs for long-haul and storage capacity.

Summit next engaged in its own analysis independent of PGW. This consisted of first establishing a set of assigned costs for each capacity asset in the PGW portfolio. This included a standard set of assumptions involving the commodity cost, heating values, utilization of current interstate pipeline tariffs, and other factors to make sure assets were evaluated using equivalent measures.

Summit included all relevant costs for each asset to assign an “as delivered” cost. This included demand charges, commodity charges, fuel, as well as any carrying costs for assets such as storage and LNG. Storage assets also included transportation for both injection and withdrawal capacity to deliver to the PGW city gate. Additional considerations such as storage cycling requirements and load factor assumptions were also integrated. After each asset was assigned a cost, Summit then stack ranked the assets to ascertain relative costs.

Once such analysis was complete, Summit prepared both a “snapshot analysis” of how PGW is currently managed, as well as a set of recommendations to best position PGW in the future in light of market shifts. These findings and recommendations are incorporated herein.

PGW Historical Operations

Reviewing the historical performance of PGW operations, Summit concludes that PGW has succeeded in its core mission of ensuring that all system delivery requirements are fulfilled. PGW has not had to curtail firm service customers and has been able to satisfy all design day and design winter delivery scenarios. Thus, it is evident that the current asset portfolio is adequate to meet needs now and into the anticipated future. This does not answer the question, however, of whether PGW carries excess capacity in its portfolio. This issue is discussed in the recommendation section of this report.

Long-haul Transportation Capacity

Due to the nature of peaking assets not being required at all times, utilities are naturally over-subscribed (or “long”) on their capacity during most periods. While it would be optimal to have “load following” capacity, it is not feasible for pipelines to provide this service. Thus, most interstate pipeline long-haul firm transportation and storage are based upon demand charges for the largest amount of capacity the purchaser requires on a given day. This requires a careful balancing of one’s needs.

Generally, PGW has performed well balancing such needs. Interstate long-haul capacity is first scheduled to serve “as needed” daily demand, with any unutilized capacity next being scheduled to deliver gas into either interstate storage or PGW-owned LNG liquefaction facilities. Any excess capacity beyond such needs is released into a relatively liquid secondary capacity market using an internal bidding system supplemented by the applicable interstate pipeline electronic bulletin board (EBB) system. This allows other entities to bid on such capacity, though PGW permits the originally selected bidder to retain a right of first refusal to match the right of the highest bid.

PGW's participation in the secondary capacity markets allows them to effectively recoup or "monetize" assets on otherwise sunk costs. The values of these assets can fluctuate over time, and are typically less valuable in times of lower demand.

Storage Capacity

Storage is critical towards achieving the goal of delivering peak day needs, as interstate capacity alone is insufficient for this task. Interstate storage is another asset that PGW extensively utilizes, and is largely divided into production area storage (Gulf region) and market area storage (Pennsylvania market area). These classifications are important due to their very different strategic characteristics.

Production area storage tends to have large amounts of capacity associated per storage field (many are abandoned gas reservoirs), and usually does not have equivalent long-haul transportation contracts associated directly with it, although there are usually receipt point rights that match the storage field.

Production storage has three primary functions. First, it can be used when there are temporary issues with obtaining gas from the furthest points in the Gulf due to hurricanes or well freeze-offs in the winter season. Owners of such storage can make withdrawals until the supply disruption ends.

Second, variations between actual usage and nominations can be managed with storage assets to avoid daily balancing penalties. Additionally, the potential for large penalties (upward of \$50/Dth) to be incurred during Operational Flow Order (OFO) periods would be less likely to materialize, as needed gas can be drawn from storage or unnecessary gas can be injected. This is valuable during crisis times when it is difficult to purchase or sell incremental gas.

Finally, the use of storage in "contango" markets (those where future pricing is significantly higher than current month pricing) make it less expensive to purchase gas in current months, carry volumes in storage, and then withdraw it during higher priced periods. As long as the future month price premium exceeds the cost of the storage assets, storage is a tool for price risk management, in addition to its physical reliability.

Market area storage shares many of the same characteristics as production area storage, but there are some key differentiators. As many of the storage fields have physically less capacity, PGW is required to contract for multiple storage services, each of which has differing pricing and deliverability structures. This does have an ancillary benefit, however, since it effectively diversifies their portfolio across multiple locations, and allows for receipt of gas at additional delivery points in the event of force majeure.

Market area storage is designed to provide security of supply in the event long line purchases are lost, to meet peak day demand and design year requirements, and to provide swing and balancing service. In addition, it provides a physical price hedge for a

portion of the portfolio. PGW manages these fields to be regularly “cycled” according to minimum pipeline requirements.

PGW-Owned LNG Infrastructure

PGW has substantial LNG assets that are owned and maintained internally, including storage facilities at Richmond (4,045,800 Mcf capacity) and Passyunk (253,000 Mcf capacity). These assets are critical to the utility’s ability to meet design day capacity needs due to their large vaporization and send out capabilities (411,000 Mcf/day and 47,000 Mcf/day, respectively). As is typical with LNG storage managed by utilities, PGW holds LNG in order to meet high deliverability needs on a short-term basis, often in the form of “needle-peak” demand spikes in the winter season.

LNG has several drawbacks when compared to more traditional natural gas deliveries. First, liquefaction occurs at much slower rates than the vaporization itself, so replenishing exhausted supplies requires considerably more time. While a market exists for delivered LNG, the associated costs are uneconomical. Second, PGW’s current liquefaction system achieves maximum efficiency only during select parts of the year (late winter and autumn), so it is a rigid schedule.

While there are limitations, the LNG capacity PGW owns has some unique benefits. First, the capacity itself is substantial (approximately 4.3 Bcf). Although it would only satisfy 10 days of deliverability at full utilization, the LNG provides insurance against a catastrophic upstream event. Second, it serves as an economic arbitrage tool in the event of a price spike. In such an event, PGW could look to sell incoming pipeline/storage gas to another delivery point for a short period of time, and displace such delivery with LNG. Thus, while illiquid relative to capacity markets, LNG assets could actually result in higher monetization in selected instances. Lastly, as they are self-owned, these LNG assets are not subject to the same rules governing interstate storage, including cycling requirements, variable tariff pricing over time, etc.

Capacity Monetization

PGW employs a variety of strategies to balance its own load requirements and effectively mitigate demand charges. They have increasingly become an active participant in the capacity release market and generally have had little difficulty finding a third party to whom it could release its excess pipeline demand. PGW releases capacity as available on either a monthly or semi-monthly basis dependent upon how actual load is performing relative to plan. They have been successful at obtaining values for some longer term and winter releases near, at, or above maximum tariff rates. This practice helps to offset nearly all demand charges associated with those volumes that are released. Conversely, shorter term releases made during the summer season have often yielded values that are well below actual demand cost, which in turn fail to recover the total cost of the released volumes. Over recent years, PGW’s expanded capacity release activities have yielded an average release benefit increase of over 600% when comparing the early 2000’s to the years leading up to 2010.

In addition to the capacity release strategy, PGW historically has looked at off-system sales (i.e., bundling capacity availability with natural gas itself and selling to third parties at delivery points other than PGW). This option has several limitations per PGW's current resource mix. The off-system sales market is much more short-term in nature (often for a few days at most) and for maximum benefits requires marketing of the supply. Additionally, unlike capacity release, which utilizes the pipeline EBB to monitor and credit back demand dollars, PGW has to devote resources to nominate gas and bill the buyer accordingly. This method of cost recovery works best when pricing substantially rises due to system constraints or extreme weather conditions. In select years past, this was strictly done during instances where PGW was solicited by a third party. Such activities yielded financial benefit for the utility and were based upon existing market conditions.

PGW has also recently employed a one year asset management agreement for a portion of its storage capacity. This type of release has the potential to recover all or more than the value of the actual demand charges. A third party will often pay a premium for such assets (as often pipeline storage can be oversubscribed) to more effectively arbitrage trading positions.

PGW has utilized this strategy successfully for their Transco WSS production storage, releasing approximately half of their storage position to a third party at a rate that exceeded the utility's actual tariff costs. Under this Asset Management Agreement (AMA), PGW releases 1.5 Bcf of Transco WSS storage capacity in return for \$1.1 million via monthly payment installments. The third party arrangement, which is currently the only instance of PGW utilizing the services of an outsourced asset manager, has been a lucrative agreement for the utility based on the market value of the storage capacity. That said, it should be noted such values of storage will fluctuate with the market and the value that can be derived will vary.

Assumptions

Summit approached its analysis with a core set of assumptions. Some of these are more numerical in nature to better evaluate the assets in the portfolio on an "apples to apples" basis. Others more specifically focus around organizational goals.

Reliability

Summit operated under the fundamental premise that PGW has a mandated public service duty to ensure that its service delivery requirements must always be met. This is a different operational mindset than what is held by many non-utility entities. For instance, a for-profit industrial might elect to shut down production and sell off any gas if premium prices existed in the marketplace. Other companies, such as trading entities, might incorporate a greater element of risk into their decision-making by reducing capacity commitments and relying on supply availability at the time it is required.

Summit also focused on unique attributes of the PGW system, especially its reliance on interstate pipeline laterals and its limited LNG liquefaction capabilities. Although PGW

is served by the interstate pipeline system, PGW is actually fed by laterals off of the main pipeline system which constrains deliveries during winter peak demand times when the laterals are delivering full requirements. In addition, Summit examined the relative subscription rates of capacity and storage on the interstate systems to determine the availability to replace any asset removed from the capacity portfolio. Based on such analysis, one core assumption is that there currently tends to be a limited ability to replace service with alternative firm asset commitments. Last, Summit assumed that a financial commitment (i.e., a delivered contract with liquidated damages) was inferior to a physical asset, due to downstream damage that could be created in the event the supplier was unable to fulfill delivery requirements during a peak day.

Economics

Summit prepared its analysis with a standard set of economic assumptions to ensure uniformity as it evaluated each capacity asset in the PGW portfolio. While such assumptions would change over the contract life of the respective assets and under varying commodity pricing thresholds, the relative values of each asset generally remain consistent.

Forward pricing of natural gas changes daily, so to incorporate consistency in our analysis, our first assumption was a base case NYMEX estimate of \$5.00/Dth. Additionally, analysis was run using NYMEX estimates ranging from \$3.50/Dth to \$7.00/Dth in various scenarios.

Summit also used currently effective tariffs to project demand and commodity charges, fuel ratios and storage ratchet requirements. Such numbers are subject to future rate case adjustments, but generally have more stability than the natural gas commodity itself. While different pipeline filings could affect the value of one capacity asset versus another, such changes occur infrequently and can be evaluated periodically to ensure where they each rank from a cost standpoint. PGW has swing contracts within their supply portfolio that carry an additional pipeline demand component, as these are no-notice contracts. The models do not take these additional demand charges into account, as the impact of these charges on the stack ranking would be negligible.

Operations

Where necessary, Summit assumed a Btu conversion of 1.03 to convert Mcf measurements to Dth. This is also the value used by PGW in many of their conversions, and typically, there is low variation in Btu factors across interstate pipelines.

Historical data indicates consistent year-over-year load declines independent of weather factors, which has been confirmed by PGW's own analysis. While this decline is generally modest (approximately half a percent per year), this reinforces the need to perform an internal review of its assets based on current and future needs. For our analysis, Summit used the 2010/2011 Design Day/Year model (shown on next page). Summit did not model asset needs based on a normal load forecast as this was considered imprudent given PGW's core mission of customer reliability.

Second, Summit assumed historical storage injection and withdrawal patterns, including fulfilling cycling requirements as governed by tariffs. This includes injecting gas on a daily and seasonal basis, which limits maximizing more aggressive “fill” strategies that would be based solely on price. Similarly, withdrawal from each individual storage field creates both a floor and a cap on deliverability. Summit assumed compliance with applicable pipeline tariffs as well as a fairly consistent cycling pattern based upon historical data.

2010-11 Design Forecast* (MDth)

	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11
1	42.0	42.5	62.3	115.3	678.7	645.5	475.2	282.3	189.3	42.6	42.6	42.3
2	42.0	42.5	89.7	174.6	628.6	585.8	447.3	264.7	155.0	42.6	42.6	42.3
3	42.0	42.5	108.0	204.3	598.6	555.9	419.4	238.4	129.3	42.6	42.6	42.3
4	42.0	42.5	126.2	224.1	588.6	516.1	400.7	229.6	120.7	42.6	42.6	42.3
5	42.0	42.5	135.3	243.8	558.5	506.2	391.4	220.8	112.2	42.6	42.6	42.3
6	42.0	42.5	144.5	273.5	538.5	486.3	382.1	212.0	103.6	42.6	42.6	42.3
7	42.0	42.5	153.6	283.4	518.5	466.4	372.8	203.2	95.0	42.6	42.6	42.3
8	42.0	57.7	162.7	293.3	498.4	456.4	363.5	194.4	95.0	42.6	42.6	42.3
9	42.0	57.7	171.9	303.2	488.4	446.4	354.2	185.6	86.5	42.6	42.6	42.3
10	42.0	65.4	181.0	313.1	478.4	436.5	344.9	176.8	86.5	42.6	42.6	42.3
11	42.0	73.0	190.1	322.9	468.4	426.5	335.6	176.8	77.9	42.6	42.6	42.3
12	42.0	80.6	199.2	332.8	458.4	416.6	326.3	168.0	69.3	42.6	42.6	42.3
13	42.0	80.6	208.4	342.7	448.4	406.6	317.0	159.2	69.3	42.6	42.6	42.3
14	42.0	88.2	217.5	352.6	438.3	396.7	307.7	150.4	60.8	42.6	42.6	42.3
15	42.0	95.9	226.6	362.5	428.3	386.7	298.4	141.6	60.8	42.6	42.6	42.3
16	42.0	103.5	235.7	372.4	418.3	376.8	289.1	132.8	43.6	42.6	42.6	42.3
17	42.0	103.5	244.9	382.3	418.3	366.8	279.8	124.1	43.6	42.6	42.6	42.3
18	42.0	111.1	254.0	392.2	408.3	356.9	270.5	115.3	43.6	42.6	42.6	42.3
19	42.0	111.1	263.1	402.0	398.3	346.9	261.1	106.5	43.6	42.6	42.6	42.3
20	42.0	118.8	272.2	411.9	388.3	337.0	251.8	97.7	43.6	42.6	42.6	42.3
21	42.0	118.8	281.4	421.8	378.3	327.0	242.5	88.9	43.6	42.6	42.6	42.3
22	42.0	126.4	290.5	431.7	368.2	317.1	233.2	88.9	43.6	42.6	42.6	42.3
23	47.5	126.4	299.6	441.6	358.2	307.1	223.9	71.3	43.6	42.6	42.6	42.3
24	47.5	134.0	308.8	451.5	348.2	297.2	214.6	71.3	43.6	42.6	42.6	42.3
25	53.0	134.0	308.8	471.3	338.2	267.3	205.3	44.9	43.6	42.6	42.6	42.3
26	58.6	141.7	317.9	481.2	328.2	257.4	196.0	44.9	43.6	42.6	42.6	42.3
27	58.6	149.3	327.0	491.0	318.2	247.4	177.4	44.9	43.6	42.6	42.6	42.3
28	69.6	164.6	345.3	510.8	298.1	197.6	168.1	44.9	43.6	42.6	42.6	42.3
29	80.7	172.2	372.6	510.8	288.1		149.5	44.9	43.6	42.6	42.6	42.3
30	97.2	195.1	427.4	530.6	258.1		121.6	44.9	43.6	42.6	42.6	42.3
31		218.0		580.0	188.0		84.3		43.6		42.6	42.3

*Based on the temperature pattern for a design year in the PGW Model. PGW's design day send out at 0° is 681,200 Mcf.

Market Dynamics

An analysis of historical market drivers and pricing trends is often effective for establishing a forecast for future contingencies. This approach, however, loses efficacy if new pricing drivers are introduced such that the supply and demand fundamentals of the market are altered. The following analysis reveals that many pre-2007 market conditions are no longer domestic driving factors today. Further, a new paradigm has evolved in the natural gas complex specifically impacting Northeast gas transportation markets.

US Natural Gas Landscape

In 2006 and 2007, most, if not all, energy markets were indicative of the rapid economic growth experienced both domestically in the US, and abroad. Natural gas consumption continued to witness an upward growth trend into 2007, pushing demand to record levels. Optimism of seemingly unstoppable growth for energy helped push fuel prices to elevated levels and had most market analysts expecting an extended upward trend in prices, which in turn resulted in growing investor interest.

Coming out of 2007, demand evidence was compelling: US natural gas consumption in the first half of 2008 exceeded that of 2007, setting new five-year highs. Demand was not alone in supporting prices during this time. After many years of strong investment in natural gas exploration and production (the gas rig count had been setting new highs for four years running), natural gas production in the US was unable to keep pace with demand. The amount of gas in storage was insufficient at five-year average levels. The result: a steady uptrend in pricing through 2008.

The impact of the “Great Recession” on US natural gas consumption was delayed, but by early 2009, demand had fallen to five-year minimums. Despite this, US natural gas production remained very strong as a result of the favorable investment environment of 2008. In fact, gas production in the US set new highs in 2009. High volumes of natural gas in storage resulted and subsequently persisted throughout 2009. As such, gas prices fell coming out of 2008 and heading into 2009.

In mid 2009, US natural gas consumption began showing signs of recovery and had recovered to near five-year highs by early 2010. US natural gas production also continued to show impressive growth as a result of shale production and storage volumes reached an all-time high in November 2010. Logically, gas prices have remained near the \$4-\$5 range since March.

As we turn to 2011 and beyond, a few major themes emerge as key drivers for the US natural gas market. Demand hinges on industrial market recovery as well as technological advancements through increased investment in the exploration and production industry. The fundamental outlook going forward is for strong growth in production to persist at rates greater than the expected growth in consumption. As such, Summit anticipates prices to remain relatively flat through 2011 and into 2012. Over the next 5 years, our outlook is for the market to move in a slightly upward direction; however, prices are not expected to reach the highs seen pre-2009.

Regional Transportation Pricing Landscape: Northeast

Basis costs in the Northeast historically have been heavily influenced by the incremental escalation of regional natural gas demand while interstate pipeline capacity infrastructure has remained relatively static. The resulting shortage of pipeline capacity to bring sufficient gas into the region created a floor for regional transportation prices making the Northeast a premium gas market. Other regional market drivers like weather, particularly the severity and duration of winter temperatures and precipitation, LNG capabilities, and Canadian gas imports into the region have also been key pricing drivers.

Much has changed in the Northeast since the 2006 study of PGW's assets was completed. The 2006 study was written in the wake of two major hurricanes in 2005 that introduced extreme national natural gas pricing volatility and took significant Gulf supplies off-system for the winter of 2005-2006. Since 2006, we have not seen similar destructive hurricane activity hit producing regions in the Gulf. Subsequently, the credit crisis of 2008 introduced another macro-environment alteration to the industry. Additionally, the cost of obtaining capital for the whole of the industry increased.

The largest market drivers in the Northeast post-2006 have not been the credit crisis nor hurricane activity. Rather, the Northeast natural gas market has responded to simple supply and demand fundamentals consisting of an increase in production and pipeline infrastructure and a simultaneous dip in consumer demand.

In 2008, Northeast natural gas consumption was approximately 9 Bcf/day. In late 2008, the last leg of the Rockies Express Pipeline brought an additional 1.8 Bcf/day into the region via the TCO pipeline system. This provided a 20% boost to Northeast supplies and brought immediate relief to the historically premium regional pricing complex.

Marcellus Shale gas has also introduced increased supply into the Northeast. This intra-region supply is expected to eventually bring as much as 6 Bcf/day into the Northeast's supply mix. Currently, Marcellus Shale is contributing 0.7 to 1.3 Bcf/day of supply. The long-term impact of this shale find is dependent on the following: further build-out of a pipeline gathering system that will connect Marcellus Shale gas to major interstate pipelines, the domestic price of natural gas (which will impact break-even rates for Marcellus drilling rigs), and environmental legislation regarding the hydraulic fracturing required to pull shale gas from underground formations.

The natural gas pipeline infrastructure in the Northeast has experienced exponential growth since 2009. Fifteen new pipeline extensions are set to be completed in the Northeast region by 2013 that will allow approximately 11 Bcf/day¹ in additional gas throughput. This increase in infrastructure is a dramatic shift from the early to mid 2000's when new pipeline build-outs were far less common. Historically, due to the lack of infrastructure, basis prices were bid up to premium levels as various parties competed for the remaining pipeline volumes that were not consumed by upstream pipeline market

¹ www.ferc.gov/industries/gas/gen-info/horizon-pipe.pdf

participants. The new infrastructure has already provided significant relief to regional basis prices and has allowed the new supply from the Rockies and Marcellus Shale to move with more freedom in the region.

While the EIA has not yet released its calendar-year 2010 natural gas consumption numbers for the Northeast states, we expect demand to have decreased proportionately to the broader macro-economic impact of the United States recession.

The changes to the supply and demand landscape of the Northeast outlined above have caused regional transportation prices and assets to decline in value. Excess intra-region supply threatens to displace a large portion of gas entering the region from the Gulf, Rockies, and Canada. While interstate pipeline capacity assets into the Northeast, particularly from the Gulf, have managed to retain value (likely due to a 'wait-and-see' approach as to whether the new supply paradigm will persist in the Northeast), regional basis prices have retreated significantly since early 2009. The new supplies have all but removed the historical pricing volatility in the region.

Summit Analysis Process

Based upon Summit's historical findings of the PGW program as well as the above mentioned dynamics in the marketplace that have occurred in the last several years, Summit designed its own "cost to deliver" model that effectively stack ranks each contracted capacity asset in the PGW portfolio. While the model is based upon the assumptions stated herein, these have been examined through multiple scenarios, and our analysis indicates relative asset rankings generally remain consistent.

The model integrated financial costs including the natural gas commodity as well as associated tariff charges. Additional costs associated with storage assets, such as transportation costs to deliver withdrawals from storage and applicable carrying costs unique to each storage agreement, were also incorporated.

These assets were stack ranked solely on a cost basis. In the first set of scenarios, cost models assumed no spread between winter and summer prices (i.e., NYMEX values flat throughout year). As seen in the table on the following page, the impact of increases in commodity cost to the relative weighted average costs is marginal. Even if NYMEX values were to return to their historical settlement highs, the stack rankings within each category remain consistent.

		NYMEX: \$3.5/Dth Year- Round	NYMEX: \$5/Dth Year- Round	NYMEX: \$7/Dth Year- Round
Market Area Storage	Equitrans SS3	\$7.665	\$9.442	\$11.811
	Tetco SS1-A*	\$6.307	\$8.035	\$10.339
	Dom GSS Tetco FTS8	\$6.062	\$7.766	\$10.037
	Dom GSS Tetco FTS7	\$6.022	\$7.726	\$9.998
	Tetco SS1-B	\$5.743	\$7.471	\$9.776
	Transco GSS	\$5.314	\$6.976	\$9.192
	Transco S2	\$5.290	\$6.955	\$9.174
	LNG	\$4.329	\$5.953	\$8.119
Production Area Storage	Transco ESS1	\$5.447	\$7.036	\$9.155
	Transco ESS2	\$5.447	\$7.036	\$9.155
	WSS Transco FT*	\$4.594	\$6.200	\$8.341
Long-Haul Transport	Tetco CDS	\$4.504	\$6.145	\$8.333
	Tetco FT-1	\$4.490	\$6.130	\$8.318
	Transco FT	\$4.237	\$5.827	\$7.947

*Tetco SS1-A and WSS Transco FT are primary tools employed by PGW to avoid interstate pipeline balancing penalties on differentials between actual consumed and delivered volumes.

Next, cost models assumed \$5.00 NYMEX in summer months, with summer-to-winter spreads of \$.50, \$1.00, and \$2.00. Since most gas is consumed in the winter months, the model assumed storage gas was bought in the summer and used in the winter, while long-haul was based on winter pricing. As seen in the table below, growth in summer-to-winter spreads increases the value of all storage assets, and the lowest cost storage options begin to provide a lower weighted average cost of gas than long-haul; however, the increased value does not outweigh the costs for Equitrans in any of the sample scenarios. In addition, such large summer-to-winter commodity spreads are not expected to materialize in the foreseeable future, as spreads have eroded in recent years due to gas-fired power generation and high storage levels.

		NYMEX: \$5/Dth Summer, \$5.5/Dth Winter	NYMEX: \$5/Dth Summer, \$6/Dth Winter	NYMEX: \$5/Dth Summer, \$7/Dth Winter
Market Area Storage	Equitrans SS3	\$9.442	\$9.442	\$9.442
	Tetco SS1-A	\$8.035	\$8.035	\$8.035
	Dom GSS Tetco FTS8	\$7.766	\$7.766	\$7.766
	Dom GSS Tetco FTS7	\$7.726	\$7.726	\$7.726
	Tetco SS1-B	\$7.471	\$7.471	\$7.471
	Transco GSS	\$6.976	\$6.976	\$6.976
	Transco S2	\$6.955	\$6.955	\$6.955
	LNG	\$5.953	\$5.953	\$5.953
Production Area Storage	Transco ESS1	\$7.036	\$7.036	\$7.036
	Transco ESS2	\$7.036	\$7.036	\$7.036
	WSS Transco FT	\$6.200	\$6.200	\$6.200
Long-Haul Transport	Tetco CDS	\$6.692	\$7.239	\$8.333
	Tetco FT-1	\$6.677	\$7.224	\$8.318
	Transco FT	\$6.357	\$6.887	\$7.947

Based on the scenarios examined on the previous page, changes in the absolute cost of gas do not have a significant impact on the relative cost of delivery options. Additionally, large summer-to-winter commodity spreads are not expected, and modest spreads do not result in changes to the assessment of the highest cost assets. Thus, recommendations for optimization are based on the \$5.00 year-round NYMEX scenario.

Asset Stack Ranking

Market Area Storage	Max Storage Quantity (Dth)	Storage Demand (Dth)	Estimated WACOG (\$/Dth)
Equitrans SS3	522,500	4,998	\$9.442
Tetco SS1-A	2,647,080	44,118	\$8.035
Dom GSS Tetco FTS8	3,007,810	22,495	\$7.766
Dom GSS Tetco FTS7	911,161	6,815	\$7.726
Tetco SS1-B	2,462,120	20,847	\$7.471
Transco GSS	4,123,733	53,871	\$6.976
Transco S2	466,554	5,191	\$6.955
LNG	4,428,073	469,680	\$5.953

Production Area Storage	Max Storage Quantity (Dth)	Storage Demand (Dth)	Estimated WACOG (\$/Dth)
Transco ESS1	482,792	47,986	\$7.036
Transco ESS2	656,013	65,201	\$7.036
WSS Transco FT	3,335,909	39,246	\$6.200

Long-Haul Transport	Capacity (Dth)	Estimated WACOG (\$/Dth)
Tetco CDS	75,000	\$6.145
Tetco FT-1	59,822	\$6.130
Transco FT	167,179	\$5.827

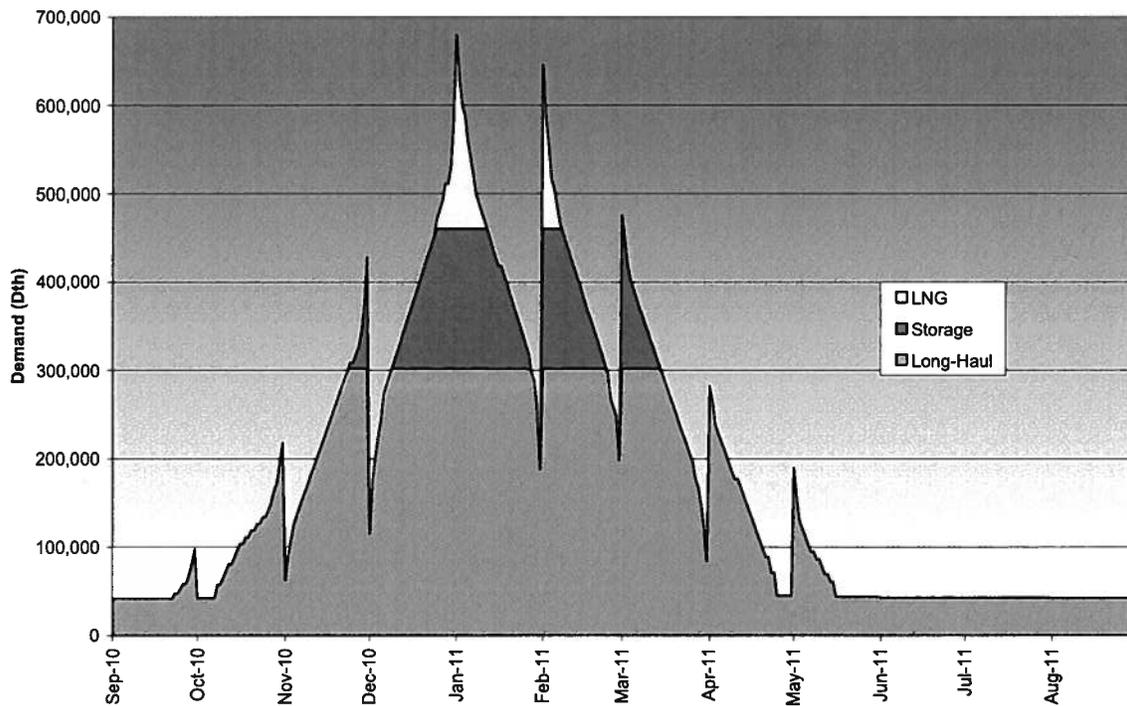
Based upon our initial analysis of storage assets (table above), Equitrans storage was the highest cost delivered asset to serve PGW. Tetco SS1-A was the next highest cost asset due to its relatively high reservation of demand, though this asset plays a significant part in meeting PGW's balancing needs on the Tetco pipeline. Long-haul transportation across Tetco or Transco is intuitively the cheapest option, as it is taken directly from the production area, assessed fuel and transportation costs, and then delivered directly to the market. Storage requires additional costs (demand, storage capacity, fuel, and associated transportation), which raise the total cost of delivery.

After the initial stage of cost-based stack ranking, Summit next created a delivery prioritization model that incorporated relative receipt and delivery constraints of each asset. Thus, long-haul and short-haul interstate capacity is inherently limited by the maximum daily quantity (MDQ) of each transport agreement. Similarly, some storage agreements not only have limits on their injections, withdrawals, and total capacity, but also on seasonal requirements such as ensuring certain percentages of gas in storage are actually withdrawn. Finally, PGW-owned LNG not only has capacity restrictions, but also operational constraints on its liquefaction. These constraints are more physical than contractual.

Summit then incorporated the 2010-2011 peak design consumption model and evaluated alternative scenarios when considering the appropriate ways to guarantee deliveries are met. This included ensuring that maximum deliveries were made via already contracted assets delivering at variable costs, thus avoiding additional incremental purchases. Also, LNG reserves were always maintained to ensure adequate deliverability from vaporization would exist for any necessary peak day/year.

Given PGW's limited capability to aggressively refill its LNG capacity, Summit not only evaluated the needs of a single design year, but also that of two consecutive design years. The results illustrate that as the highest cost storage capacity is eliminated, PGW quickly approaches a scenario where it might not be able to meet its operational requirements.

Design Year Profile



LNG Usage – Design Year Scenarios

Non-LNG Assets	Non-LNG Capacity (1)	LNG Inventory Needed for Design Winter (1,2)	LNG Inventory Needed for Consecutive Design Winters (1,3)
All current assets	460,336	2,237,800	2,965,601
Current asset mix less 5,000 Dth of demand	455,336	2,371,900	3,233,801
Current asset mix less 7,500 Dth of demand	452,836	2,441,900	3,373,801
Current asset mix less 10,000 Dth of demand	450,336	2,513,053	3,516,106
Current asset mix less 12,500 Dth of demand	447,836	2,586,075	3,662,151
Current asset mix less 15,000 Dth of demand	445,336	2,664,129	3,818,257

- (1) Volumes in Dth.
- (2) Volume represents the design demand in excess of non-LNG capacity, inclusive of boil-off volumes for withdrawal season.
- (3) Volume represents the minimum amount of LNG necessary at the beginning of withdrawal season in year 1 to meet two consecutive design winters; this assumes 2,000,000 Dth of liquefaction in a calendar year.

Summit's modeling revealed that any combination of assets that satisfy consecutive design year requirements would always result in some unutilized capacity in any reasonable asset mix. Given that PGW will necessarily be "long" in most circumstances, Summit then proceeded to evaluate which assets could either be directly monetized (capacity release) or indirectly monetized (asset management relationships, off-system sales).

Outsourced Asset Management

PGW requested that Summit advise the Company regarding possible AMAs, including a review of the best practices regarding the payment structure of such arrangements. An asset management program provides for the utility to turn over the management of all or some of its assets to a third party. Under this arrangement, the asset manager commits to satisfy the utility's delivery obligations in return for having the ability to use the asset or assets however the manager decides when such deliveries are not required. The release of one's entire asset portfolio is a popular strategy for smaller municipalities (~5 Bcf or less of annual firm requirements) who will bundle and assign their assets while simultaneously fulfilling their delivery requirements. It enables the utility to reap a larger recovery of dollars than they would have by self-managing their portfolio.

With the exception of the aforementioned AMA for a portion of PGW's storage, PGW does not currently employ this type of asset management strategy and generally retains institutional self-control of its asset base with the exception of capacity release programs. There are numerous asset managers in the marketplace with the primary objectives of providing reliable gas supply to the utility city gate, managing the utility's existing asset

base, and optimizing the value of such contracts. Additionally, there are numerous natural gas distributors who utilize the services of a third party asset manager. Despite this utilization, however, the strategy is not necessarily the most appropriate approach for all gas distributors, nor does it appear to be a rapidly increasing practice. Instead, many utilities regularly perform internal review of their capacity needs.

For a utility, releasing control and management of one's assets to a third party can, at times, pose significant risks and complexities that may offset the benefits achieved by the program. The primary benefit that can be achieved under a third party asset management agreement is the optimization of those assets, some of whose benefits may otherwise be unrealized. Outsourced firms may be better positioned to deliver optimization value because of the following:

- Inherently possess larger scale and flexibility
- More substantial and broader market presence/expertise
- Greater resource availability
- Core operational function

Additionally, there may be value derived from an outsourced AMA as it may enable the utility to focus more intently on customer service and its distribution operations.

While there can be benefits from AMAs, there are also numerous risks to consider. Some of the risks that may exist for a gas distributor evaluating such an arrangement consist of the following:

- Diminished control over a primary business function
- Loss of expertise in a key operational arena
- Exposure to counterparty risk
- Program profitability limitations
- Performance/auditing validation

If PGW considers the possible utilization of an outsourced asset management firm, the utility should carefully weigh the pertinent risks and benefits to ensure the goals of the program align with their overall business objectives. PGW should also consider any internal operational benefits or constraints that may enhance or deter the introduction of such a third party firm. In addition, it is prudent to be cognizant of futures pricing and market dynamics in order to assess the potential viability and profitability of entering an AMA.

Current market levels reflect a summer-to-winter spread differential of approximately \$0.55/Dth, therefore demonstrating a relatively low level of potential profit should any holder look to arbitrage a storage asset. This can be contrasted with market levels from December 2009 (one year ago) when a summer-to-winter spread differential of approximately \$1.00/Dth existed in the market. In this example, the asset's potential value was nearly cut in half over just a 12-month span. A more distant market snapshot from the 2006 – 2007 timeframe would reflect a \$3.00/Dth differential. This second example renders a \$2.45/Dth decrease in value when compared to current market. These

various points in time demonstrate how storage profitability can rapidly erode in an ever-changing marketplace.

Due to Summit's market outlook, we do not anticipate a significant increase in the summer-to-winter spreads over the short-term, thus reducing the overall value that can be derived from PGW's storage assets. Because of current market conditions and the aforementioned spread analysis, the likelihood of interested parties willing to enter AMAs is reduced as is the compensation that could be realized.

However, due to the nature of the evolving natural gas market, individual PGW assets may present an AMA opportunity (as opposed to a third party assuming the entire utility portfolio). This is due to the fact that many niche counterparties might ascribe a higher value to a specific asset than another based upon their own unique requirements. As an example, a growing producer with Marcellus Shale production in Pennsylvania might highly value storage and short-haul capacity, but have little interest in long-haul capacity from the Gulf coast. Thus, an exploration of the options surrounding each independent asset could yield greater value than the entire portfolio as well as increase the number of interested parties.

Should market fundamentals support entering into an AMA, there are various forms of compensation that can be structured with the asset manager. The most prevalent payment constructs consist of 1) outright fixed payment over the term of the agreement and 2) shared-benefit payments based on a percentage split of the gains from the optimization. An asset with a greater value will typically render increased flexibility in terms of negotiating compensation structures as well as potentially other contractual criteria. Ultimately, each party's projected valuations of the asset(s), risk appetite, and regulatory constraints can shape the compensation structure of the agreement.

Due to the nature of PGW's core objectives of providing reliable and cost-effective gas supply to its customer base, Summit would consider a set monthly payment schedule as a best practice, provided such payment represents a value PGW deems as fair and appropriate for such asset(s) in the marketplace. This type of structure would produce guaranteed payments that would benefit ratepayers. By securing a set value for the asset upon entering the AMA, market risk can be eliminated and therefore a known compensation threshold would be established. Furthermore, a fixed price agreement avoids the speculative nature associated with a shared-benefit arrangement that is reliant upon future market outcomes to determine its revenue.

Summit Recommendations

Based upon our analysis of current PGW operating parameters, existing and continuing market trends, and an integrated analysis, Summit makes the following recommendations.

1. Evaluate elimination or reduction of portion of current asset base after assessing asset management opportunities, and leverage PGW-owned LNG assets.

- Eventual release of Equitrans storage as it is the highest unit cost asset in the PGW portfolio; the net cost of this asset per year is approximately \$541,000 (after adjustments for net capacity release credits). However, due to contractual notification of abandonment provisions and the unique geographical position of this asset within the Marcellus Shale supply basin, it would be prudent to first perform an RFP to determine if opportunity exists for a third party AMA that would guarantee value above PGW's cost.
- While Tetco SS1-A is the next highest cost delivery option in the stack ranking, it provides PGW with flexibility in balancing load. For every 1 degree of variance between actual and expected temperatures, PGW experiences a change in demand of approximately 10,000 Dth. Since PGW is able to retroactively balance their load through their SS1 assets, PGW's exposure to balancing penalties is reduced. Hence, Tetco SS1 assets should be retained.
- The next highest cost asset is Dominion storage, along with its Tetco FTS-7 and FTS-8 contracts. Reduction of 10,000 Dth of demand at contract renewal (along with associated storage capacity and FTS transport contracts) would not impede PGW's ability to serve customers in design scenarios. The net cost of this asset per year is approximately \$670,000 (after adjustments for net capacity release credits). It is important to note that there is potential that FTS-7 and FTS-8 contracts could eventually bring Marcellus Shale gas into PGW, thereby changing their functionality and subsequent value. Since the Dominion agreement is specially negotiated, any subsequent renewal needs to factor in both the risk and opportunities of both new pricing and delivery terms changing; reduction of the Dominion storage from approximately 4 Bcf to 3 Bcf could result in new contract rates that may diminish some or all of the potential savings.
- PGW should maintain their LNG inventory consistent with the appropriate level of risk, understanding that their liquefaction capabilities are limited, in order to serve consecutive design winters. Any elimination and/or reduction of designated assets would necessarily entail a greater reliance upon PGW's own LNG assets.
- Many natural gas utilities in PA and surrounding areas do not have utility-owned LNG facilities. For those that do, LNG usage on a peak design day comprises of approximately 27% of the total portfolio; however, when propane is incorporated with LNG into peak day usage for these same utilities, the proportion increases to 32%. Currently, PGW's LNG comprises 32% of their peak design day portfolio. Reducing portions of their non-LNG capacity as referenced in this report would increase this amount to 34%.

2. Production area storage still worthwhile assets; however internal evaluation should be an on-going process

- It serves as protection against supply area production “shocks” and interstate pipeline balancing penalties.
- It is valued as a hedging tool on inter-seasonal basis becoming less valuable as market volatility has flattened.
- Monetization opportunities exist with asset managers, but value may decrease with lessened volatility.
- Internal evaluation of WSS and Eminence storage value should occur regularly.

3. Maintain current long-haul interstate capacity allocations

- Pipeline lateral delivery requirements necessitate preservation of delivery rights.
- It is the least expensive delivery option.
- Transco and Tetco capacity to market area is currently fully subscribed and could potentially be lost if surrendered.
- Long-haul assets are easiest to monetize when not required due to liquid secondary release market.

4. Evaluate more dynamic/active resource management (internal or external) for underutilized assets

- Traditional asset management (entire portfolio turnover to third party with payment/shared savings structure) is likely unworkable due to complexity and declining liquidity of capable providers.
- Certain individual assets, particularly those where long-term elimination or reduction is contemplated, should be bid out for potential AMAs to validate the market value of such assets against PGW’s costs.
- More aggressive tactics such as weekly long-haul capacity releases marketed to others should be considered even if potentially requiring additional resources.

5. Monitor supply/capacity market for more economical infrastructure

- Marcellus Shale/transport projects should be entertained to determine if they can displace Transco/Tetco storage and/or portion of LNG-filled capacity.
- Opportunities to increase long-haul capacity at expense of short-haul capacity/storage also should be considered.
- Both history and anticipated infrastructure projects strongly suggest that market pricing will be fluid and volatile for the foreseeable future. This makes forecasting the optimal asset mix impossible for any substantial length of time. Thus, PGW is best positioned to continuously evaluate its assets by not committing to long-term contracts, thus maintaining flexibility to shift its portfolio between short-haul and long-haul pipeline capacity and its own LNG capacity.

Adoption of Recommendations and Path Forward

Summit advocates that PGW utilize this report and consider these recommendations, while also establishing processes to more fully monetize its existing capacity assets. In addition, the market dynamics in the Northeast have vastly changed over the past several years and appear to be still evolving rapidly. Thus, Summit recommends a short-term approach to any further contractual asset retention and PGW would be well served to internally re-evaluate its asset portfolio on a regular (annual to every two years) basis to ensure it can take better advantage of any future market developments.

Tab 14

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 PA Code 53.61, et seq.

Item 53.64(i) Utilities shall comply with the following:

- (1) Thirty days prior to the filing of a tariff reflecting increases or decreases in purchased gas expenses, gas utilities under 66 Pa.C.S. § 1307 (f) recovering expenses under that section shall file a statement for the 12-month period ending 2 months prior to the filing date under 66 Pa.C.S. § 1307(f) as published in accordance with subsection (b) which shall specify:
 - (i) The total revenues received under 66 Pa.C.S. § 1307(a), (b) or (f), including fuel revenues received, whether shown on the bill as 66 Pa.C.S. § 1307(f) as published in accordance with subsection (b) which shall specify:
 - (ii) The total gas expenses incurred.
 - (iii) The difference between the amounts in sub paragraphs (i) and (ii).
 - (iv) Evidence explaining how actual costs incurred differ from the costs allowed under subparagraph (ii).
 - (v) How these costs are consistent with a least cost fuel procurement policy, as required by 66 Pa.C.S. § 1318 (relating to determination of just and reasonable natural gas rates).

Response: Please see attached schedule. Additionally, please refer to Item 53.64(c)(6) for a detailed discussion regarding the company's least cost fuel procurement policy.

**CALENDAR YEAR 2017
PHILADELPHIA GAS WORKS
C-FACTOR RECONCILIATION**

MONTH	2017	1	2	3	4 = (2 * 3)	5	6	7 = (4 + 5 + 6)	8	9 = (7 + 8 - 1)
		NET COST OF FUEL	TOTAL GCR REVENUE BILLED	C FACTOR % of GCR	C FACTOR REVENUE BILLED	LOAD BALANCING REVENUE	LNG SALES GCR BILLED REVENUE	TOTAL C FACTOR REVENUE BILLED	NATURAL GAS REFUNDS	OVER/ (UNDER) RECOVERY
		(\$)	(\$)		(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
JANUARY		30,560,326	34,670,444	101.2%	35,097,124	75,857	1,622	35,174,603	0	4,614,277
FEBRUARY		31,023,141	27,997,826	101.3%	28,352,401	92,917	0	28,445,318	0	(2,577,823)
MARCH		25,128,443	26,815,639	101.3%	27,155,243	93,172	0	27,248,414	0	2,119,971
APRIL		10,811,146	21,550,758	101.6%	21,904,004	93,633	0	21,997,637	0	11,186,491
MAY		10,354,017	8,774,556	102.0%	8,953,535	92,562	0	9,046,096	0	(1,307,921)
JUNE		7,380,023	6,208,276	102.0%	6,334,909	91,521	0	6,426,430	0	(953,593)
JULY		656,232	4,440,729	101.8%	4,522,126	92,249	0	4,614,375	0	3,958,143
AUGUST		8,160,424	4,129,628	101.6%	4,195,864	93,320	0	4,289,184	0	(3,871,240)
SEPTEMBER		6,660,769	4,400,670	101.6%	4,471,254	93,712	0	4,564,966	0	(2,095,803)
OCTOBER		7,858,969	4,340,618	101.2%	4,391,271	109,718	0	4,500,989	0	(3,357,980)
NOVEMBER		17,769,207	10,995,238	100.8%	11,081,020	113,717	0	11,194,736	0	(6,574,471)
DECEMBER		27,095,257	25,504,332	100.8%	25,703,309	112,668	0	25,815,977	0	(1,279,280)
Totals		183,457,954	179,828,714		182,162,059	1,155,045	1,622	183,318,726	0	(139,228)

Tab 15

Docket No. R-18XXX

Item 53.65 (1)

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 53.65 (1)

The costs of the affiliated gas, transportation or storage as compared to the average market price of other gas, transportation or storage and the price of other sources of gas, transportation and storage.

Response:

PGW has no affiliates, see response to 53.64(c)(1) for price of gas, transportation and storage.

Tab 16

Docket No. R-18XXX

Item 53.65 (2)

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 53.65 (2)

Estimates of the quantity of gas, transportation or storage available to the utility from all sources.

Response:

PGW has no affiliates and provided is a summary of all transport and storage.

Philadelphia Gas Works
Gas Supply Group – Supply and Transportation
Abstract of Natural Gas Contracts

This document contains confidential information for the use of the Gas Operations personnel only. It is important to note that this is a brief summary of the terms and conditions of our contracts. The pipeline tariffs and contract files should be referenced for complete information.

PHILA.GAS WORKS

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Transco ES

Transco ES

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #24
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	1 Year
Initial Contract Date:	11/01/2017
Contract Expiration Date:	10/31/2018
Quality of Service:	Firm
Daily Maximum:	15,000 DT
Availability:	Year Round
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	None
Nomination & Scheduling:	Next day nomination change. Nominations subject to Tetco rules. No limit to amount of changes within the month.
Other Terms & Conditions:	Pricing for each day at <i>Platts Gas Daily</i> midpoint index.
Most Recent Negotiation:	Contract expires on 10/31/2018.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #26
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	1Year
Initial Contract Date:	11/01/2017
Contract Expiration Date:	10/31/2018
Quality of Service:	Firm
Daily Maximum:	20,000 DT
Availability:	Year Round
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	None
Nomination & Scheduling:	Next day nomination change. Nominations subject to Tetco rules. No limit to amount of changes within the month.
Other Terms & Conditions:	Pricing for each day is priced at <i>Platts Gas Daily</i> midpoint index.
Most Recent Negotiation:	Contract expires on 10/31/2018.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #5
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2017
Contract Expiration Date:	03/31/2018
Quality of Service:	Firm
Daily Maximum:	15,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	15,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or defaults to <i>Inside FERC's</i> First of Month Index.
Most Recent Negotiation:	Contract expired on 3/31/2018.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #13
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or defaults to an index.
Most Recent Negotiation:	Contract expired on 3/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #26
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or defaults to an index.
Most Recent Negotiation:	Contract expired on 3/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #28
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	10,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	10,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 3/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #24
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS and FTS-2
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	10,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	10,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 3/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #24
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS and FTS-2
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 3/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #24
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT2
Contract Term:	Summer Supply
Initial Contract Date:	04/01/2017
Contract Expiration Date:	10/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Apr-Oct.
Availability:	Summer Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 10/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #28
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Summer Supply
Initial Contract Date:	04/01/2017
Contract Expiration Date:	10/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Apr-Oct.
Availability:	Summer Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 10/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #26
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Summer Supply
Initial Contract Date:	04/01/2017
Contract Expiration Date:	10/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Apr-Oct.
Availability:	Summer Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 10/31/2017.

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PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #25
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2017
Contract Expiration Date:	03/31/2018
Quality of Service:	Firm
Daily Maximum:	15,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	15,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expires on 03/31/18.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #31
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 03/31/17.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #16
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	10,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	10,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 03/31/17.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #3
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 03/31/17.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #28
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2017
Contract Expiration Date:	03/31/2018
Quality of Service:	Firm
Daily Maximum:	15,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	15,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 03/31/18.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #24
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT2
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2017
Contract Expiration Date:	03/31/2018
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 03/31/18.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #24
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2017
Contract Expiration Date:	03/31/2018
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 03/31/18.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #5
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Summer Supply
Initial Contract Date:	04/01/2017
Contract Expiration Date:	10/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Apr-Oct.
Availability:	Summer Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 10/31/17.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #16
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Summer Supply
Initial Contract Date:	04/01/2017
Contract Expiration Date:	10/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Apr-Oct.
Availability:	Summer Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 10/31/17.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #24
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Summer Supply
Initial Contract Date:	04/01/2017
Contract Expiration Date:	10/31/2017
Quality of Service:	Firm
Daily Maximum:	10,000 DT per Day Apr-Oct.
Availability:	Summer Supply Contract
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	10,000 DT per Day
Nomination & Scheduling:	Nominations subject to Tetco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 10/31/17.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #24
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	1 Year
Initial Contract Date:	11/01/2016
Contract Expiration Date:	10/31/2017
Quality of Service:	Firm
Daily Maximum:	10,000 DT
Availability:	Year Round
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	None
Nomination & Scheduling:	Next day nomination change. Nominations subject to Tetco rules. No limit to amount of changes within the month.
Other Terms & Conditions:	Pricing for each day can be negotiated or defaults to Platts <i>Gas Daily</i> Mid-Point index.
Most Recent Negotiation:	Contract expired on 10/31/17.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #26
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	1 Year
Initial Contract Date:	11/01/2016
Contract Expiration Date:	10/31/2017
Quality of Service:	Firm
Daily Maximum:	25,000 DT
Availability:	Year Round
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	None
Nomination & Scheduling:	Next day nomination change. Nominations subject to Tetco rules. No limit to amount of changes within the month.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to Platts <i>Gas Daily</i> Mid-Point index.
Most Recent Negotiation:	Contract expired on 10/31/17.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #8
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract # 1003691
Contract Term:	1 Year
Initial Contract Date:	11/01/2017
Contract Expiration Date:	10/31/2018
Quality of Service:	Firm
Daily Maximum:	20,000 DT per Day
Availability:	Year Round
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	None
Nomination & Scheduling:	24 hour notice business day. Next day nomination change. Nominations subject to Transco rules. No limit to amount of changes within the month.
Other Terms & Conditions:	Pricing for each day defaults to Platts <i>Gas Daily</i> Mid-Point index.
Most Recent Negotiation:	Contract expires 10/31/18.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #22
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract # 1003691
Contract Term:	1 Year
Initial Contract Date:	11/01/2017
Contract Expiration Date:	10/31/2018
Quality of Service:	Firm
Daily Maximum:	25,000 DT per Day
Availability:	Year Round
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	None
Nomination & Scheduling:	24 hour notice business day. Next day nomination change. Nominations subject to Transco rules. No limit to amount of changes within the month.
Other Terms & Conditions:	Pricing for each month defaults to an index.
Most Recent Negotiation:	Contract expires 10/31/18.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #7
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Summer Supply
Initial Contract Date:	04/01/2017
Contract Expiration Date:	10/31/2017
Quality of Service:	Firm
Daily Maximum:	10,000 DT per Day Apr.-Oct.
Availability:	Summer Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	10,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or defaults to <i>Inside FERC's</i> First of Month index.
Most Recent Negotiation:	Contract expired on 10/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #14
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Summer Supply
Initial Contract Date:	04/01/2017
Contract Expiration Date:	10/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Apr.-Oct.
Availability:	Summer Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 10/31/2017.

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PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #2
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Summer Supply
Initial Contract Date:	04/01/2017
Contract Expiration Date:	10/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Apr.-Oct.
Availability:	Summer Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 10/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #6
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Summer Supply
Initial Contract Date:	04/01/2017
Contract Expiration Date:	10/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Apr.-Oct.
Availability:	Summer Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 10/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #32
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Summer Supply
Initial Contract Date:	04/01/2017
Contract Expiration Date:	10/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Apr.-Oct.
Availability:	Summer Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 10/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #29
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2017
Contract Expiration Date:	03/31/2018
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 03/31/2018.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #30
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2017
Contract Expiration Date:	03/31/2018
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 3/31/2018.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #30
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2017
Contract Expiration Date:	03/31/2018
Quality of Service:	Firm
Daily Maximum:	10,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	10,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 3/31/2018.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #29
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2017
Contract Expiration Date:	03/31/2018
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 03/31/2018.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #14
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2017
Contract Expiration Date:	03/31/2018
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 3/31/2018.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #8
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2017
Contract Expiration Date:	03/31/2018
Quality of Service:	Firm
Daily Maximum:	15,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	15,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 3/31/2018.

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PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #33
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2017
Contract Expiration Date:	03/31/2018
Quality of Service:	Firm
Daily Maximum:	10,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	10,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 3/31/2018.

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PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #10
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	10,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	10,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 03/31/2017.

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PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #14
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 03/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #29
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 03/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #8
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 03/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #25
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 3/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #30
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired 3/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #29
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired 3/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #6
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired 3/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #7
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired 3/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #14
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2017
Contract Expiration Date:	11/30/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Fixed price for the month was negotiated.
Most Recent Negotiation:	Contract expired 11/30/2017.

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PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #30
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	12/01/2017
Contract Expiration Date:	12/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Dec.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Fixed price for the month was negotiated.
Most Recent Negotiation:	Contract expired 12/31/2017.

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PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #25
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2016
Contract Expiration Date:	03/31/2017
Quality of Service:	Firm
Daily Maximum:	5,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	5,000 DT per Day
Nomination & Scheduling:	Firm must take contract. Nominations subject to Transco rules.
Other Terms & Conditions:	Pricing for each month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired 3/31/2017.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #8
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract # 1003691
Contract Term:	1 Year
Initial Contract Date:	11/01/2016
Contract Expiration Date:	10/31/2017
Quality of Service:	Firm
Daily Maximum:	20,000 DT per Day
Availability:	Year Round
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	None
Nomination & Scheduling:	24 hour notice business day. Next day nomination change. Nominations subject to Transco rules. No limit to amount of changes within the month.
Other Terms & Conditions:	Pricing for each month defaults to an index.
Most Recent Negotiation:	Contract expired 10/31/17.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #22
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract # 1003691
Contract Term:	1 Year
Initial Contract Date:	11/01/2016
Contract Expiration Date:	10/31/2017
Quality of Service:	Firm
Daily Maximum:	25,000 DT per Day
Availability:	Year Round
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	None
Nomination & Scheduling:	24 hour notice business day. Next day nomination change. Nominations subject to Transco rules. No limit to amount of changes within the month.
Other Terms & Conditions:	Pricing for each month defaults to an index.
Most Recent Negotiation:	Contract expired 10/31/17.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
Transportation Contract

Name & Type of Service:	Transco FT
Delivery Pipeline & Contract #:	Transco FT 1003691
Associated Transportation Contract:	Transco Supply Contracts, WSS, ES, and Spot Supply contracts.
Contract Term:	13 Years
Initial Contract Date:	02/01/1992
Contract Expiration Date:	03/31/2005
Quality of Service:	Firm
Daily Maximum:	165,212 DT
Availability:	Year Round
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	N/A
Nomination & Scheduling:	GISB Standards.
Other Terms & Conditions:	N/A
Most Recent Negotiation:	Contract is now in the evergreen state.

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PGW NATURAL GAS CONTRACT INFORMATION
Transportation Contract

Name & Type of Service:	Transco Peaking Service FT
Delivery Pipeline & Contract #:	Transco FT 1005001
Associated Transportation Contract:	Transco Supply Contracts, WSS, ES, and Spot Supply contracts.
Contract Term:	13 Years
Initial Contract Date:	02/01/1992
Contract Expiration Date:	03/31/2005
Quality of Service:	Firm
Daily Maximum:	1,967 DT
Availability:	Winter Peaking Dec-Feb
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	N/A
Nomination & Scheduling:	GISB Standards.
Other Terms & Conditions:	N/A
Most Recent Negotiation:	Contract is now in the evergreen state.

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PGW NATURAL GAS CONTRACT INFORMATION
Interruptible Transportation Contract

Name & Type of Service:	Transco Interruptible Transportation
Delivery Pipeline & Contract #:	Transco IT 1002427
Associated Transportation Contract:	Transco Supply Contracts, WSS, ES, and Spot Supply contracts.
Contract Term:	13 Years
Initial Contract Date:	02/01/1992
Contract Expiration Date:	03/31/2005
Quality of Service:	Firm
Daily Maximum:	See Transco Tariff
Availability:	See Transco Tariff
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	N/A
Nomination & Scheduling:	GISB Standards.
Other Terms & Conditions:	N/A
Most Recent Negotiation:	Contract is now in the evergreen state.

**PHILA.GAS WORKS
NATURAL GAS CONTRACT INFORMATION
Comprehensive Delivery Service**

Name & Type of Service:	Tetco CDS
Delivery Pipeline & Contract #:	Tetco #800232
Associated Transportation Contract:	Tetco Supply Contracts, Spot Supply contracts.
Contract Term:	2.8 Years
Initial Contract Date:	12/15/1998
Contract Expiration Date:	10/31/2001
Quality of Service:	Firm
Daily Maximum:	75,000 DT per Day
Availability:	See Tetco Tariff
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	N/A
Nomination & Scheduling:	GISB Standards.
Other Terms & Conditions:	See Tetco Tariff
Most Recent Negotiation:	Contract is now in the evergreen state.

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PGW NATURAL GAS CONTRACT INFORMATION
Firm Transportation

Name & Type of Service:	Tetco FT 1
Delivery Pipeline & Contract #:	Tetco #800233
Associated Transportation Contract:	Tetco Supply Contracts, Spot Supply contracts.
Contract Term:	2.8 Years
Initial Contract Date:	12/15/1998
Contract Expiration Date:	10/31/2001
Quality of Service:	Firm
Daily Maximum:	23,822 DT per Day
Availability:	See Tetco Tariff
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	N/A
Nomination & Scheduling:	GISB Standards.
Other Terms & Conditions:	See Tetco Tariff
Most Recent Negotiation:	Contract is now in the evergreen state.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
Firm Transportation

Name & Type of Service:	Tetco FT 1
Delivery Pipeline & Contract #:	Tetco #800514
Associated Transportation Contract:	Tetco Supply Contracts & Spot Supply contracts.
Contract Term:	7.8 Years
Initial Contract Date:	12/15/1996
Contract Expiration Date:	10/31/2003
Quality of Service:	Firm
Daily Maximum:	18,000 DT per Day
Availability:	See Tetco Tariff
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	N/A
Nomination & Scheduling:	GISB Standards.
Other Terms & Conditions:	See Tetco Tariff
Most Recent Negotiation:	Contract in Evergreen state.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION Firm Transportation

Name & Type of Service:	Tetco FT 1
Delivery Pipeline & Contract #:	Tetco #800515
Associated Transportation Contract:	Tetco Supply Contracts & Spot Supply contracts.
Contract Term:	10.8 Years
Initial Contract Date:	12/15/1996
Contract Expiration Date:	10/31/2007
Quality of Service:	Firm
Daily Maximum:	18,000 DT per Day
Availability:	See Tetco Tariff
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	N/A
Nomination & Scheduling:	GISB Standards.
Other Terms & Conditions:	See Tetco Tariff
Most Recent Negotiation:	Contract in Evergreen state.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
Firm Transportation

Name & Type of Service:	Tetco FTS 2
Delivery Pipeline & Contract #:	Tetco #800232
Associated Contract:	
Contract Term:	8.75 Years
Initial Contract Date:	06/01/1993
Contract Expiration Date:	03/31/2002
Quality of Service:	Firm
Daily Maximum:	5,394 DT per Day
Availability:	See Tetco Tariff
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	N/A
Nomination & Scheduling:	GISB Standards.
Other Terms & Conditions:	See Tetco Tariff
Most Recent Negotiation:	Contract in Evergreen state.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION Firm Transportation

Name & Type of Service:	Tetco FTS 7
Delivery Pipeline & Contract #:	Tetco #331725
Associated Contract:	Dominion GSS
Contract Term:	10 Years
Initial Contract Date:	08/07/1996
Contract Expiration Date:	03/31/2005
Quality of Service:	Firm
Daily Maximum:	7,788 DT per Day
Availability:	See Tetco Tariff
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	N/A
Nomination & Scheduling:	GISB Standards.
Other Terms & Conditions:	See Tetco Tariff
Most Recent Negotiation:	Contract in Evergreen state.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
Firm Transportation

Name & Type of Service:	Tetco FTS 8
Delivery Pipeline & Contract #:	Tetco #331822
Associated Contract:	Dominion GSS
Contract Term:	10 Years
Initial Contract Date:	08/07/1996
Contract Expiration Date:	03/31/2005
Quality of Service:	Firm
Daily Maximum:	25,709 DT per Day
Availability:	See Tetco Tariff
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	N/A
Nomination & Scheduling:	GISB Standards.
Other Terms & Conditions:	See Tetco Tariff
Most Recent Negotiation:	Contract in Evergreen state.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
Interruptible Transportation

Name & Type of Service:	Tetco IT
Delivery Pipeline & Contract #:	Tetco #710468
Associated Contract:	Supply Contracts, Spot Supply
Contract Term:	1 Year
Initial Contract Date:	04/01/1993
Contract Expiration Date:	03/31/1994
Quality of Service:	Interruptible
Daily Maximum:	See Tetco Tariff
Availability:	See Tetco Tariff
Fuel (%):	Subject to Tetco fuel rates
Minimum Take Level:	N/A
Nomination & Scheduling:	GISB Standards.
Other Terms & Conditions:	See Tetco Tariff
Most Recent Negotiation:	Contract in Evergreen status.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
Underground Storage Contract

Name & Type of Service: Dominion GSS Storage Service

Delivery Pipeline & Contract #: Tetco

Associated Contract: Tetco FTS 7 Contract#331725
Tetco FTS 8 Contract#331822

Contract Term: 13 Years

Initial Contract Date: 09/30/1993

Contract Expiration Date: 03/31/2006

Quality of Service: Firm (Unbundled)

Daily Maximum Withdrawal: 34,047 DT Inventory % W/D Rate

>35%	34,047
<35%	31,323
<16%	23,833
<10%	21,450

Availability (Withdrawal/Injection): Year round

Daily Maximum Injection: 21,772 DT <50%
18,313 DT >50%

Maximum Storage Quantity: 3,918,971 DT

Fuel (%): 1.95 % injection

Nomination & Scheduling: GISB Standards.

Within day nomination changes may be accomplished as long as both Tetco and Dominion parties are notified and can confirm.

Other Terms & Conditions: Contract in Evergreen state.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
Underground Storage Contract

Name & Type of Service: SS1

Delivery Pipeline & Contract #: Tetco Contract #400121

Associated Contract: None

Contract Term: 19 Years

Initial Contract Date: 06/01/1993

Contract Expiration Date: 04/30/2012

Quality of Service: Firm (Bundled)

Daily Maximum Withdrawal: 44,118 DT Inventory % W/D Rate
100%>20% 44,118
<20%>=10% 36,764
<10%>= 0% 29,413

Availability (Withdrawal/Injection): Year round

Daily Maximum Injection: 13,606 DT

Maximum Storage Quantity: 2,647,080 DT

Fuel (%) Injection & Withdrawal: Subject to Tetco Tariff Revisions

Nomination & Scheduling: GISB Standards.

Other Terms & Conditions: Storage is a No Notice Service

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
Underground Storage Contract

Name & Type of Service: SS1

Delivery Pipeline & Contract #: Tetco Contract #400209

Associated Contract: None

Contract Term: 19 Years

Initial Contract Date: 06/01/1993

Contract Expiration Date: 04/30/2012

Quality of Service: Firm (Bundled)

Daily Maximum Withdrawal: 20,847 DT Inventory % W/D Rate
100%>20% 20,847
<20%>=10% 17,372
<10%>= 0% 13,899

Availability (Withdrawal/Injection): Year round

Daily Maximum Injection: 12,656 DT

Maximum Storage Quantity: 2,462,120 DT

Fuel (%) Injection & Withdrawal: Subject to Tetco Tariff Revisions

Nomination & Scheduling: GISB Standards.

Other Terms & Conditions: Storage is a No Notice Service

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
Underground Storage Contract

Name & Type of Service: GSS

Delivery Pipeline & Contract #: Transco Contract #1000791

Associated Contract: None

Contract Term: 10 Years

Initial Contract Date: 07/09/2012

Contract Expiration Date: 03/31/2023

Quality of Service: Firm (Bundled)

Daily Maximum Withdrawal: 61,567 DT

<u>Inventory % W/D Rate</u>	
100%>35%	61,567
35%>=20%	60,951
20%>= 7%	45,560
7%>=0%	33,862

Availability (Withdrawal/Injection): Year round

Daily Maximum Injection:

<50%	22,910
>50%	19,270

Maximum Storage Quantity: 4,123,733 DT

Fuel (%) Injection : Subject to Transco Tariff Revisions

Nomination & Scheduling: GISB Standards.

Other Terms & Conditions: Storage is a No Notice Service

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
Underground Storage Contract

Name & Type of Service: S 2

Delivery Pipeline & Contract #: Transco Contract #1000943

Associated Contract: None

Contract Term: 5 Years

Initial Contract Date: 04/16/1996

Contract Expiration Date: 04/15/2001

Quality of Service: Firm (Bundled)

Daily Maximum Withdrawal: 5,191 DT Inventory % W/D Rate
100%>20% 5,191
20%>=10% 4,238
10%>= 0% 3,482

Availability (Withdrawal/Injection): Injection from April 16 to Nov 15
Withdrawal from Nov 16 to April 15

Daily Maximum Injection: 3,900 DT

Maximum Storage Quantity: 466,548 DT

Fuel (%) Injection & Withdrawal: Subject to Transco Tariff Revisions

Nomination & Scheduling: GISB Standards.

Other Terms & Conditions: Contract is now in the evergreen state.
Storage is a No Notice Service.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
Underground Storage Contract

Name & Type of Service: WSS

Delivery Pipeline & Contract #: Transco Contract #1038582

Associated Contract: Transco 1003691 & 1005001

Contract Term: 1 Year

Initial Contract Date: 04/01/2001

Contract Expiration Date: 03/31/2002

Quality of Service: Firm (Unbundled)

Daily Maximum Withdrawal: 35,115 Inventory % W/D Rate

100%>80%	35,115
80%>=60%	31,471
60%>= 40%	28,512
40%>=20%	23,828
20%>=0 %	19,283

Availability (Withdrawal/Injection): Year Round

Daily Maximum Injection: <50% 18,533
>50% 15,588

Maximum Storage Quantity: 3,335,909 DT

Fuel (%) Injection : Subject to Transco Tariff Revisions

Nomination & Scheduling: GISB Standards.

Other Terms & Conditions: Storage converted to Part 284G. Contract is now in the evergreen state.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
Underground Storage Contract

Name & Type of Service:	ES
Delivery Pipeline & Contract #:	Transco Contract #1010416
Associated Contract:	Transco 1003691 & 1005001
Contract Term:	Contract Pending
Initial Contract Date:	N/A
Contract Expiration Date:	10/31/2016
Quality of Service:	Firm (Unbundled)
Daily Maximum Withdrawal:	38,327 DT non-ratcheted
Availability (Withdrawal/Injection):	Year Round
Daily Maximum Injection:	3,198 DT
Maximum Storage Quantity:	323,416 DT
Fuel (%) Injection :	Subject to Transco Tariff Revisions
Nomination & Scheduling:	GISB Standards.
Other Terms & Conditions:	Storage contract 1010416 has been abandoned back to the pipeline.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION
Underground Storage Contract

Name & Type of Service:	ES
Delivery Pipeline & Contract #:	Transco Contract #1039085
Associated Contract:	Transco 1003691 & 1005001
Contract Term:	June 1, 2001 through March 31, 2005
Initial Contract Date:	06/01/2001
Contract Expiration Date:	03/31/2016
Quality of Service:	Firm (Unbundled)
Daily Maximum Withdrawal:	52,077 DT non-ratcheted
Availability (Withdrawal/Injection):	Year Round
Daily Maximum Injection:	4,346 DT
Maximum Storage Quantity:	439,455 DT
Fuel (%) Injection :	Subject to Transco Tariff Revisions
Nomination & Scheduling:	GISB Standards.
Other Terms & Conditions:	Storage contract 1039085 has been abandoned back to the pipeline.

Tab 17

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 53.65 (3)

Efforts made by the utility to obtain gas, transportation or storage from nonaffiliated interests.

Response:

PGW has no affiliates, therefore, all gas purchases were made from non-affiliated interests. Also see the response to 53.64(c)(6) outlining PGW's current least cost fuel procurement practices.

Tab 18

Docket No. R-18XXX

Item 53.65 (4)

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 53.65 (4)

The specific reasons why the utility has purchased gas, transportation or storage from an affiliated interest and demonstration that the purchases are consistent with a least cost fuel procurement policy.

Response:

PGW has no affiliates, therefore, all gas purchases were made from non-affiliated interests. Also see the response to 53.64(c)(6) outlining PGW's current least cost fuel procurement practices.

Tab 19

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 53.65 (5) The sources and amounts of gas, transportation or storage, which have been withheld from the market by the utility or, affiliated interest and the reasons why the gas, transportation or storage has been withheld?

Response: PGW has no affiliates.

PGW operates two LNG Peak shaving facilities with a total usable storage capacity of 3.9 Bcf, 18.77 percent of PGW's total storage capacity. When pipeline and underground storage deliveries are insufficient to meet sendout requirements, LNG storage withdrawals will be considered. These LNG storage withdrawals are based upon incremental costs, weather forecasts, inventory balances, distribution system requirements, and other variables such as plant maintenance and operating requirements all of which can influence the vaporization and liquefaction rates of PGW's LNG facilities.

PGW used a total of 1,389,886 Mcf of LNG to meet city sendout requirements during fiscal year 2017.

Tab 20

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1317 (a)(1)

General rule.--In every rate proceeding instituted by a natural gas distribution utility, pursuant to section 1307(f) (relating to sliding scale of rates; adjustments), each such utility shall be required to supply to the commission such information, to be established by commission regulation within 120 days of the passage of this section, that will permit the commission to make specific findings as to whether the utility is pursuing a least cost fuel procurement policy, consistent with the utility's obligation to provide safe, adequate and reliable service to its customers. Such information shall include, but need not be limited to, information, data and statements regarding:

(1) The utility's participation in rate proceedings before the Federal Energy Regulatory Commission which affect the utility's gas costs.

Response:

Please refer to Item 53.64(c)(4) contained in this filing.

Tab 21

Docket No. R-18XXX

Item 1317 (a)(2)

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1317 (a)(2)

General rule.--In every rate proceeding instituted by a natural gas distribution utility, pursuant to section 1307(f) (relating to sliding scale of rates; adjustments), each such utility shall be required to supply to the commission such information, to be established by commission regulation within 120 days of the passage of this section, that will permit the commission to make specific findings as to whether the utility is pursuing a least cost fuel procurement policy, consistent with the utility's obligation to provide safe, adequate and reliable service to its customers. Such information shall include, but need not be limited to, information, data and statements regarding:

(2) The utility's efforts to negotiate favorable contracts with gas suppliers and to renegotiate existing contracts with gas suppliers or take legal actions necessary to relieve the utility from existing contract terms which are or may be adverse to the interests of the utility's ratepayers.

Response:

Please refer to Item 53.64(c)(1) contained in this filing.

Tab 22

Docket No. R-18XXX

Item 1317 (a)(3)

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1317 (a)(3)

General rule.--In every rate proceeding instituted by a natural gas distribution utility, pursuant to section 1307(f) (relating to sliding scale of rates; adjustments), each such utility shall be required to supply to the commission such information, to be established by commission regulation within 120 days of the passage of this section, that will permit the commission to make specific findings as to whether the utility is pursuing a least cost fuel procurement policy, consistent with the utility's obligation to provide safe, adequate and reliable service to its customers. Such information shall include, but need not be limited to, information, data and statements regarding:

(3) The utility's efforts to secure lower cost gas supplies both within and outside of the Commonwealth, including the use of transportation arrangements with pipelines and other gas distribution companies.

Response:

Please refer to Item 53.64(c)(1) contained in this filing.

Tab 23

Docket No. R-18XXX

Item 1317 (a)(4)

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1317 (a)(4)

General rule.--In every rate proceeding instituted by a natural gas distribution utility, pursuant to section 1307(f) (relating to sliding scale of rates; adjustments), each such utility shall be required to supply to the commission such information, to be established by commission regulation within 120 days of the passage of this section, that will permit the commission to make specific findings as to whether the utility is pursuing a least cost fuel procurement policy, consistent with the utility's obligation to provide safe, adequate and reliable service to its customers. Such information shall include, but need not be limited to, information, data and statements regarding:

(4) The sources and amounts of all gas supplies which have been withheld or have been caused to be withheld from the market by the utility and the reasons why such gas is not to be utilized.

Response:

Please refer to Item 53.65 (5) contained in this filing.

Tab 24

Docket No. R-18XXX

Item 1317 (b)(1)

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1317 (b)(1)

Integrated gas companies.--In the case of a natural gas distribution utility which purchases all or part of its gas supplies from an affiliated interest, as that term is defined in section 2101 (relating to definition of affiliated interest), such utility shall, in addition to the materials required in subsection (a), be required to provide to the commission such information, to be established by commission regulation within 120 days of the passage of this section, that will permit the commission to make specific findings as to whether any purchases of gas from an affiliated interest are consistent with a least cost fuel procurement policy, consistent with the utility's obligation to provide safe, adequate and reliable service to its customers. Such information shall include, but need not be limited to, statements regarding:

(1) Efforts made by the utility to obtain gas supplies from nonaffiliated interests.

Response:

Please refer to Item 53.65 (3) contained in this filing.

Tab 25

Docket No. R-18XXX

Item 1317 (b)(2)

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1317 (b)(2)

Integrated gas companies.--In the case of a natural gas distribution utility which purchases all or part of its gas supplies from an affiliated interest, as that term is defined in section 2101 (relating to definition of affiliated interest), such utility shall, in addition to the materials required in subsection (a), be required to provide to the commission such information, to be established by commission regulation within 120 days of the passage of this section, that will permit the commission to make specific findings as to whether any purchases of gas from an affiliated interest are consistent with a least cost fuel procurement policy, consistent with the utility's obligation to provide safe, adequate and reliable service to its customers. Such information shall include, but need not be limited to, statements regarding:

(2) The specific reasons why the utility has purchased gas supplies from an affiliated interest and demonstration that such purchases are consistent with a least cost fuel procurement policy.

Response:

Please refer to Item 53.65 (4) contained in this filing.

Tab 26

Docket No. R-18XXX

Item 1317 (b)(3)

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1317 (b)(3)

Integrated gas companies.--In the case of a natural gas distribution utility which purchases all or part of its gas supplies from an affiliated interest, as that term is defined in section 2101 (relating to definition of affiliated interest), such utility shall, in addition to the materials required in subsection (a), be required to provide to the commission such information, to be established by commission regulation within 120 days of the passage of this section, that will permit the commission to make specific findings as to whether any purchases of gas from an affiliated interest are consistent with a least cost fuel procurement policy, consistent with the utility's obligation to provide safe, adequate and reliable service to its customers. Such information shall include, but need not be limited to, statements regarding:

(3) The sources and amounts of all gas supplies which have been withheld from the market by the utility or any affiliated interest and the reasons why such gas is not being utilized.

Response:

Please refer to Item 53.65 (5) contained in this filing.

Tab 27

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1317 (c)(1)

Reliability plans.--As part of its filing under section 1307(f) or if it is not required to make such a filing on an annual basis, a natural gas distribution company, as defined in section 2202 (relating to definitions), shall file a proposed reliability plan with the commission which shall, at a minimum, identify the following:

(1) The projected peak day and seasonal requirements of the firm customers utilizing the distribution system of the natural gas distribution company during the 12-month projected period specified in section 1307(f)(1). Where operationally required, the design peak day requirements shall be specified for discrete segments of each natural gas distribution system.

Response:

Please refer to Item 53.64(c)(13) contained in this filing.

Tab 28

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1317 (c)(2)

Reliability plans.--As part of its filing under section 1307(f) or if it is not required to make such a filing on an annual basis, a natural gas distribution company, as defined in section 2202 (relating to definitions), shall file a proposed reliability plan with the commission which shall, at a minimum, identify the following:

(2) The transportation capacity, storage, peaking or on-system production that ensures deliverability of the natural gas supplies necessary to meet such projected period peak day and seasonal requirements.

Response:

PGW does not maintain a specific document entitled a Reliability Plan, however, all of the components that would be contained in such a document are prepared by PGW and are contained in this filing in Items 53.64 (c)(1), 53.64 (c)(3), 53.64 (c)(5), 53.64 (c)(6), 53.64 (c)(10), 53.64 (c)(12), 53.64 (c)(13), 53.64 (c)(14), 53.65 (2) and 53.65 (5).

Tab 29

Docket No. R-18XXX

Item 1317 (d)

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1317 (d)

Supply plans.--As part of its filing under section 1307(f), a natural gas distribution company shall file a proposed plan with the commission for acquisition or receipt of natural gas supplies.

Response:

Please refer to Item 53.64(c)(1) and 53.65 (2) contained in this filing.

Tab 30

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1318 (a)(1)

General rule.--In establishing just and reasonable rates for those natural gas distribution companies, as defined in section 2202 (relating to definitions), with gross intrastate operating revenues in excess of \$40,000,000 under section 1307(f) (relating to sliding scale of rates; adjustments) or 1308(d) (relating to voluntary changes in rates) or any other rate proceeding, the commission shall consider the materials provided by the utilities pursuant to section 1317 (relating to regulation of natural gas costs). No rates for a natural gas distribution utility shall be deemed just and reasonable unless the commission finds that the utility is pursuing a least cost fuel procurement policy, consistent with the utility's obligation to provide safe, adequate and reliable service to its customers. In making such a determination, the commission shall be required to make specific findings which shall include, but need not be limited to, findings that:

(1) The utility has fully and vigorously represented the interests of its ratepayers in proceedings before the Federal Energy Regulatory Commission.

Response:

Please refer to Item 53.64(c)(4) contained in this filing.

Tab 31

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1318 (a)(2)

General rule.--In establishing just and reasonable rates for those natural gas distribution companies, as defined in section 2202 (relating to definitions), with gross intrastate operating revenues in excess of \$40,000,000 under section 1307(f) (relating to sliding scale of rates; adjustments) or 1308(d) (relating to voluntary changes in rates) or any other rate proceeding, the commission shall consider the materials provided by the utilities pursuant to section 1317 (relating to regulation of natural gas costs). No rates for a natural gas distribution utility shall be deemed just and reasonable unless the commission finds that the utility is pursuing a least cost fuel procurement policy, consistent with the utility's obligation to provide safe, adequate and reliable service to its customers. In making such a determination, the commission shall be required to make specific findings which shall include, but need not be limited to, findings that:

(2) The utility has taken all prudent steps necessary to negotiate favorable gas supply contracts and to relieve the utility from terms in existing contracts with its gas suppliers which are or may be adverse to the interests of the utility's ratepayers.

Response:

Please refer to Item 53.64(c)(1) contained in this filing.

Tab 32

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1318 (a)(3)

General rule.--In establishing just and reasonable rates for those natural gas distribution companies, as defined in section 2202 (relating to definitions), with gross intrastate operating revenues in excess of \$40,000,000 under section 1307(f) (relating to sliding scale of rates; adjustments) or 1308(d) (relating to voluntary changes in rates) or any other rate proceeding, the commission shall consider the materials provided by the utilities pursuant to section 1317 (relating to regulation of natural gas costs). No rates for a natural gas distribution utility shall be deemed just and reasonable unless the commission finds that the utility is pursuing a least cost fuel procurement policy, consistent with the utility's obligation to provide safe, adequate and reliable service to its customers. In making such a determination, the commission shall be required to make specific findings which shall include, but need not be limited to, findings that:

(3) The utility has taken all prudent steps necessary to obtain lower cost gas supplies on both short-term and long-term bases both within and outside the Commonwealth, including the use of gas transportation arrangements with pipelines and other distribution companies.

Response:

Please refer to Item 53.64(c)(1) contained in this filing.

Tab 33

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1318 (a)(4)

General rule.--In establishing just and reasonable rates for those natural gas distribution companies, as defined in section 2202 (relating to definitions), with gross intrastate operating revenues in excess of \$40,000,000 under section 1307(f) (relating to sliding scale of rates; adjustments) or 1308(d) (relating to voluntary changes in rates) or any other rate proceeding, the commission shall consider the materials provided by the utilities pursuant to section 1317 (relating to regulation of natural gas costs). No rates for a natural gas distribution utility shall be deemed just and reasonable unless the commission finds that the utility is pursuing a least cost fuel procurement policy, consistent with the utility's obligation to provide safe, adequate and reliable service to its customers. In making such a determination, the commission shall be required to make specific findings which shall include, but need not be limited to, findings that:

(4) The utility has not withheld from the market or caused to be withheld from the market any gas supplies which should have been utilized as part of a least cost fuel procurement policy.

Response:

Please refer to Item 53.65 (5) contained in this filing.

Tab 34

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1318 (b)(1)

Limitation on gas purchased from affiliates.--In any instance in which a natural gas distribution company purchases all or part of its gas supplies from an affiliated interest, as that term is defined in section 2101 (relating to definition of affiliated interest), the commission, in addition to the determinations and findings set forth in subsection (a), shall be required to make specific findings with regard to the justness and reasonableness of all such purchases. Such findings shall include, but not be limited to findings:

(1) That the utility has fully and vigorously attempted to obtain less costly gas supplies on both short-term and long-term bases from nonaffiliated interests.

Response:

Please refer to Item 53.65 (3) contained in this filing.

Tab 35

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1318 (b)(2)

Limitation on gas purchased from affiliates.--In any instance in which a natural gas distribution company purchases all or part of its gas supplies from an affiliated interest, as that term is defined in section 2101 (relating to definition of affiliated interest), the commission, in addition to the determinations and findings set forth in subsection (a), shall be required to make specific findings with regard to the justness and reasonableness of all such purchases. Such findings shall include, but not be limited to findings:

(2) That each contract for the purchase of gas from its affiliated interest is consistent with a least cost fuel procurement policy.

Response:

Please refer to Item 53.65 (4) contained in this filing.

Tab 36

Docket No. R-18XXX

Item 1318 (b)(3)

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1318 (b)(3)

Limitation on gas purchased from affiliates.--In any instance in which a natural gas distribution company purchases all or part of its gas supplies from an affiliated interest, as that term is defined in section 2101 (relating to definition of affiliated interest), the commission, in addition to the determinations and findings set forth in subsection (a), shall be required to make specific findings with regard to the justness and reasonableness of all such purchases. Such findings shall include, but not be limited to findings:

(3) That neither the utility nor its affiliated interest has withheld from the market any gas supplies which should have been utilized as part of a least cost fuel procurement policy.

Response:

Please refer to Item 53.65 (5) contained in this filing.

Tab 37

Docket No. R-18XXX
Item 1318 (c)

Philadelphia Gas Works

Pennsylvania Public Utility Commission
52 Pa. Code §53.61, et seq.

Item 1318 (c)

Shut-in gas; special rule.--In determining whether a gas utility has purchased the least costly natural gas available, the commission shall consider as available to the utility any gas supplies that reasonably could have been brought to market during the relevant period but which were voluntarily withheld from the market by the utility or an affiliated interest of the utility.

Response:

Please refer to Item 53.65 (5) contained in this filing.