

**Philadelphia Gas Works**

**Before The**

**Pennsylvania Public Utility Commission**

**Computation of Annual Purchased Gas Costs  
For Twelve Months Ending August 31, 2016**

**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, 2016**

# Philadelphia Gas Works 1307f - 2015 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, 2016 and an updated Annual Resource Planning Report is not available at this time.

# ANNUAL RESOURCE PLANNING REPORT

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## **Philadelphia Gas Works**

### **Philadelphia, Pennsylvania**

March 2015

Forms 1 & 2

**BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION**

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

**ANNUAL RESOURCE PLANNING REPORT**  
**MARCH 2015**

**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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<b><u>EXHIBIT NO.</u></b>	<b><u>REGULATION</u></b>	<b><u>DESCRIPTION</u></b>
1	59.81	General
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, 5<sup>th</sup> 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, Director, Rates & Gas Planning at 215-684-6317. The following individual is available to answer questions concerning Forms 1 and 2: Ms. Maria Hogan, Manager – Gas Planning 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.

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.

**BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION**

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

**Annual Resource Planning Summary Report**

**Filed: March 2015**

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

**PHILADELPHIA GAS WORKS**

**2015 Annual Resource Planning Summary Report**

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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 45% 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 38% of pipeline capacity, is purchased gas based on a first-of-the-month index pricing methodology with contracts that 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 certain storage fields (Eminence and Washington) in a manner similar to third party supply. Specifically, these storage contracts do not contain

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

transportation to the PGW city gate. Therefore, these storages must flow within PGW's contractual upstream capacity rights on TGPL. Delivery from these fields utilizes approximately 17% 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. 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 30-year period. This pattern reflects 4237 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 4,237 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.



## V. 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.

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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) 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:

**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 forty seven percent (47%) 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 Spectra 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 thirty percent (30 %) 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 three (3) pipeline storage services, as an additional source of supply. These storage services do not contain bundled transportation and therefore are moved to the city gates within PGW's firm interstate pipeline capacity. These services represent seventeen percent (17 %) of supply at a fixed price. Additionally the company purchases six percent (6%) of its supply using day purchases as needed. The Company will again attempt to release capacity for year periods totaling thirty-three thousand 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, which 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 (ten thousand dekatherms) and depend on market based prices to fill the TETCO portion (twenty three thousand dekatherms). The Company also release firm capacity to its firm choice suppliers on a monthly basis based upon there 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's also 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-three year history in the supply area and a seven-year history in gas control. This individual has a BA as well as 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 provides 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.

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

Manager, Gas Control: This person has over eighteen years in the supply area, is responsible for the day-to-day management of the city distribution grid as well as 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, 2015 to December 31, 2015.

Schedule 1 – reflects all off system sales margins for the period January 1, 2015 to December 31, 2015.

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, 2015**

<b>Off-System Sales</b>			
<b>MONTH</b>	<b>Total Revenue</b>	<b>Ratepayer Margin</b>	<b>Total Credit</b>
Jan-15	\$0	\$0	\$0
Feb-15	\$0	\$0	\$0
Mar-15	\$0	\$0	\$0
Apr-15	\$0	\$0	\$0
May-15	\$0	\$0	\$0
Jun-15	\$0	\$0	\$0
Jul-15	\$0	\$0	\$0
Aug-15	\$0	\$0	\$0
Sep-15	\$0	\$0	\$0
Oct-15	\$0	\$0	\$0
Nov-15	\$0	\$0	\$0
Jan-00	\$0	\$0	\$0

**Off System Sale Profits Per WACOG Worksheet**

PGW had no off system sales.

Philadelphia Gas Works  
 Pennsylvania Public Utilities Commission  
 52 Pa. Code §53.61, et seq.

Schedule 3  
 Item 53.64(C)(7)

For the Twelve Months Ending December 31, 2015

MONTH	Capacity Release			
	Total		Total	
	TGPL	Credits	TETCO	Credits
Jan-15	\$ 270,242	\$ 875,577	\$ 1,145,819	\$ 1,145,819
Feb-15	\$ 142,837	\$ 797,578	\$ 940,416	\$ 940,416
Mar-15	\$ 318,785	\$ 882,516	\$ 1,201,301	\$ 1,201,301
Apr-15	\$ 159,353	\$ 250,411	\$ 409,764	\$ 409,764
May-15	\$ 201,557	\$ 528,550	\$ 730,108	\$ 730,108
Jun-15	\$ 256,967	\$ 552,370	\$ 809,336	\$ 809,336
Jul-15	\$ 284,987	\$ 570,759	\$ 855,746	\$ 855,746
Aug-15	\$ 281,409	\$ 578,175	\$ 859,584	\$ 859,584
Sep-15	\$ 274,684	\$ 558,578	\$ 833,262	\$ 833,262
Oct-15	\$ 409,029	\$ 472,921	\$ 881,949	\$ 881,949
Nov-15	\$ 301,360	\$ 464,247	\$ 765,607	\$ 765,607
Dec-15	\$ 331,984	\$ 498,865	\$ 830,849	\$ 830,849
<b>TOTAL</b>	<b>\$ 3,233,193</b>	<b>\$ 7,030,547</b>	<b>\$ 10,263,740</b>	<b>\$ 10,263,740</b>

M / YR	PIPELINE	PATH	RECALL STATUS	MONTHLY VOLUME DTH	TOTAL MONTHLY CREDIT	CREDIT DTH	TOTAL CREDIT	REPLACEMENT SHIPPER
January-15	TETCO	ELA - M-3	N	486,948	\$ 477,209 04	\$ 0 9800	\$ 477,209 04	DTE Energy
	TETCO	ELA - M-3	N	40,083	\$ 18,658 49	\$ 0 4156	\$ 18,658 49	CNE Gas Sup
	TETCO	ELA - M-3	N	2,728	\$ 1,133 77	\$ 0 4156	\$ 1,133 77	South Jersey Res
	TETCO	ELA - M-3	N	95,015	\$ 39,488 24	\$ 0 4156	\$ 39,488 24	UGI
	TETCO	ELA - M-3	N	2,146	\$ 891 88	\$ 0 4156	\$ 891 88	PPL
	TETCO	ELA - M-3	N	129,921	\$ 53,995 16	\$ 0 4156	\$ 53,995 16	Direct Energy
	TETCO	ELA - M-3	N	19,623	\$ 6,620 81	\$ 0 3374	\$ 6,620 81	Sprague
	TETCO	ELA - M-3	N	232,500	\$ 279,000 00	\$ 1 2000	\$ 279,000	DTE Energy
	TETCO	ELA - M-3	N	1,395	\$ 579 76	\$ 0 4156	\$ 580	CIMA
				<u>1,010,359</u>			<u>\$ 875,577 15</u>	
	TRANSCO	3-6	N	160,000	\$ 83,200	\$ 0 5200	\$ 83,200 00	DTE Energy
	TRANSCO	3-6	N	60,000	\$ 31,200 00	\$ 0 5200	\$ 31,200 00	DTE Energy
	TRANSCO	3-6	N	155,000	\$ 5,425 00	\$ 0 0350	\$ 5,425 00	Tenaska
	TRANSCO	3-6	N	46,500,000	\$ 11,625 00	\$ 0 0003	\$ 11,625 00	Texla
	TRANSCO	3-6	N	155,000	\$ 4,650 00	\$ 0 0300	\$ 4,650 00	Tenaska
	TRANSCO	3-6	N	2,728	\$ 1,256 74	\$ 0 4607	\$ 1,256 74	South Jersey
	TRANSCO	3-6	N	19,623	\$ 9,039 91	\$ 0 4607	\$ 9,039 91	Sprague
	TRANSCO	3-6	N	40,114	\$ 18,479 72	\$ 0 4607	\$ 18,479 72	CNE
	TRANSCO	3-6	N	95,046	\$ 43,785 95	\$ 0 4607	\$ 43,785 95	UGI Energy
	TRANSCO	3-6	N	2,294	\$ 1,056 79	\$ 0 4607	\$ 1,056 79	PPL
TRANSCO	3-6	N	129,952	\$ 59,866 27	\$ 0 4607	\$ 59,866 27	Direct Energy	
TRANSCO	3-6	N	1,426	\$ 656 89	\$ 0 4607	\$ 656 89	CIMA	
			<u>47,321,183</u>			<u>\$ 270,242 27</u>		
February-15	TETCO	ELA - M-3	N	210,000	\$ 252,000 00	\$ 1 2000	\$ 252,000 00	DTE Energy
	TETCO	ELA - M-3	N	1,586	\$ 679 28	\$ 0 4283	\$ 679 28	CNE
	TETCO	ELA - M-3	N	2,520	\$ 1,079 30	\$ 0 4283	\$ 1,079 30	South Jersey
	TETCO	ELA - M-3	N	16,044	\$ 6,871 64	\$ 0 4283	\$ 6,871 64	Sprague
	TETCO	ELA - M-3	N	114,856	\$ 49,192 83	\$ 0 4283	\$ 49,192 83	Direct Energy
	TETCO	ELA - M-3	N	1,540	\$ 659 58	\$ 0 4283	\$ 659 58	CIMA
	TETCO	ELA - M-3	N	1,586	\$ 679 28	\$ 0 4283	\$ 679 28	CNE
	TETCO	ELA - M-3	N	41,236	\$ 17,661 38	\$ 0 4283	\$ 17,661 38	CNE
	TETCO	ELA - M-3	N	2,072	\$ 887 44	\$ 0 4283	\$ 887 44	PPL
	TETCO	ELA - M-3	N	86,016	\$ 36,840 65	\$ 0 4283	\$ 36,840 65	UGI
	TETCO	ELA - M-3	N	439,824	\$ 431,027 00	\$ 0 9800	\$ 431,027 00	DTE Energy
				<u>917,280</u>			<u>\$ 797,578 38</u>	
	TRANSCO	3-6	N	2,072	\$ 954 52	\$ 0 4607	\$ 954 52	PPL
	TRANSCO	3-6	N	2,520	\$ 1,160 88	\$ 0 4607	\$ 1,160 88	So Jersey Res
	TRANSCO	3-6	N	16,072	\$ 7,404 04	\$ 0 4607	\$ 7,404 04	Sprague
	TRANSCO	3-6	N	44,408	\$ 20,457 92	\$ 0 4607	\$ 20,457 92	CNE
	TRANSCO	3-6	N	86,044	\$ 39,638 76	\$ 0 4607	\$ 39,638 76	UGI
	TRANSCO	3-6	N	114,856	\$ 52,911 88	\$ 0 4607	\$ 52,911 88	Direct Energy
	TRANSCO	3-6	N	140,000	\$ 4,900 00	\$ 0 0350	\$ 4,900 00	Tenaska
	TRANSCO	3-6	N	42,000,000	\$ 10,500 00	\$ 0 0003	\$ 10,500 00	Texla
TRANSCO	3-6	N	1,540	\$ 709 24	\$ 0 4605	\$ 709 24	CIMA	
TRANSCO	3-6	N	140,000	\$ 4,200 00	\$ 0 0300	\$ 4,200 00	Tenaska	
			<u>42,547,512</u>			<u>\$ 142,837 24</u>		
March-15	TETCO	ELA - M-3	N	486,948	\$ 477,209 04	\$ 0 9800	\$ 477,209 04	DTE Energy
	TETCO	ELA - M-3	N	50,902	\$ 21,801 34	\$ 0 4283	\$ 21,801 34	CNE
	TETCO	ELA - M-3	N	95,263	\$ 40,801 15	\$ 0 4283	\$ 40,801 15	UGI
	TETCO	STX - M-3	N	2,542	\$ 1,088 74	\$ 0 4283	\$ 1,088 74	South Jersey
	TETCO	STX - M-3	N	122,946	\$ 52,657 77	\$ 0 4283	\$ 52,657 77	Direct Energy
	TETCO	STX - M-3	N	19,096	\$ 8,178 83	\$ 0 4283	\$ 8,178 83	Sprague
	TETCO	ELA - M-3	N	2,294	\$ 982 51	\$ 0 4283	\$ 982 51	PPL
	TETCO	ELA - M-3	N	232,500	\$ 279,000 00	\$ 1 2000	\$ 279,000 00	DTE Energy
	TETCO	ELA - M-3	N	1,860	\$ 796 64	\$ 0 4283	\$ 796 64	CIMA
				<u>1,014,351</u>			<u>\$ 882,516 02</u>	
	TRANSCO	3-6	N	155,000	\$ 5,425 00	\$ 0 0350	\$ 5,425 00	Tenaska
	TRANSCO	3-6	N	310,000	\$ 161,200 00	\$ 0 5200	\$ 161,200 00	DTE Energy
	TRANSCO	3-6	N	155,000	\$ 4,650 00	\$ 0 0300	\$ 4,650 00	Tenaska
	TRANSCO	3-6	N	2,294	\$ 1,056 79	\$ 0 4607	\$ 1,056 79	PPL
	TRANSCO	3-6	N	2,573	\$ 1,185 44	\$ 0 4607	\$ 1,185 44	South Jersey
	TRANSCO	3-6	N	19,127	\$ 8,811 44	\$ 0 4607	\$ 8,811 44	Sprague
	TRANSCO	3-6	N	50,902	\$ 23,449 64	\$ 0 4607	\$ 23,449 64	CNE
	TRANSCO	3-6	N	95,263	\$ 43,885 77	\$ 0 4607	\$ 43,885 77	UGI
	TRANSCO	3-6	N	46,500,000	\$ 11,625 00	\$ 0 0003	\$ 11,625 00	Texla
	TRANSCO	3-6	N	122,946	\$ 56,638 86	\$ 0 4607	\$ 56,638 86	Direct Energy
TRANSCO	3-6	N	1,860	\$ 856 84	\$ 0 4607	\$ 856 84	CIMA	
			<u>47,414,965</u>			<u>\$ 318,784 78</u>		
April-15	TETCO	ELA - M-3	N	225,000	\$ 41,175 00	\$ 0 1830	\$ 41,175 00	Nextera Energy
	TETCO	ELA - M-3	N	119,190	\$ 51,049 07	\$ 0 4283	\$ 51,049 07	Direct Energy
	TETCO	ELA - M-3	N	49,500	\$ 21,200 85	\$ 0 4283	\$ 21,200 85	CNE
	TETCO	STX - M-3	N	17,850	\$ 7,645 17	\$ 0 4283	\$ 7,645 17	Sprague
	TETCO	STX - M-3	N	2,460	\$ 1,053 62	\$ 0 4283	\$ 1,053 62	South Jersey
	TETCO	STX - M-3	N	92,850	\$ 39,767 67	\$ 0 4283	\$ 39,767 67	UGI
	TETCO	STX - M-3	N	2,220	\$ 950 81	\$ 0 4283	\$ 950 81	PPL
	TETCO	STX - M-3	N	471,240	\$ 86,708 00	\$ 0 1840	\$ 86,708 00	Texla Energy
	TETCO	STX - M-3	N	2,010	\$ 860 89	\$ 0 4283	\$ 860 89	CIMA
				<u>982,320</u>			<u>\$ 250,411 08</u>	

	PIPELINE	PATH	RECALL STATUS	MONTHLY VOLUME DTH	TOTAL MONTHLY CREDIT	CREDIT DTH	TOTAL CREDIT	REPLACEMENT SHIPPER
	TRANSCO	3-6	N	2,040	\$ 939 90	\$ 0 4607	\$ 939 90	PPL
	TRANSCO	3-6	N	105,000	\$ 1,165 50	\$ 0 0111	\$ 1,165 50	So Jersey
	TRANSCO	3-6	N	105,000	\$ 2,362 50	\$ 0 0225	\$ 2,362 50	So Jersey
	TRANSCO	3-6	N	105,000	\$ 4,725 00	\$ 0 0450	\$ 4,725 00	Mercuna
	TRANSCO	3-6	N	105,000	\$ 4,500 00	\$ 0 0429	\$ 4,500 00	Mercuna
	TRANSCO	3-6	N	2,490	\$ 1,146 90	\$ 0 4606	\$ 1,146 90	So Jersey
	TRANSCO	3-6	N	17,850	\$ 8,223 00	\$ 0 4607	\$ 8,223 00	Sprague
	TRANSCO	3-6	N	49,500	\$ 22,803 60	\$ 0 4607	\$ 22,803 60	CNE
	TRANSCO	3-6	N	92,850	\$ 42,774 30	\$ 0 4607	\$ 42,774 30	UGI
	TRANSCO	3-6	N	45,000,000	\$ 14,850 00	\$ 0 0003	\$ 14,850 00	Textla
	TRANSCO	3-6	N	119,220	\$ 54,922 20	\$ 0 4607	\$ 54,922 20	Direct Energy
	TRANSCO	3-6	N	2,040	\$ 939 90	\$ 0 4607	\$ 939 90	CIMA
				<u>45,705,990</u>			<u>\$ 159,352 80</u>	
May-15	TETCO	WLA - M-3	N	232,500	\$ 47,778 75	\$ 0 2055	\$ 47,778 75	Infinite
	TETCO	WLA - M-3	N	19,189	\$ 8,218 65	\$ 0 4283	\$ 8,218 65	Sprague
	TETCO	ELA - M-3	N	95,542	\$ 40,920 64	\$ 0 4283	\$ 40,920 64	UGI
	TETCO	STX - M-3	N	2,542	\$ 1,088 74	\$ 0 4283	\$ 1,088 74	South Jersey
	TETCO	STX - M-3	N	109,678	\$ 23,036 12	\$ 0 2100	\$ 23,036 12	Direct Energy
	TETCO	STX - M-3	N	53,785	\$ 23,036 12	\$ 0 4283	\$ 23,036 12	CNE
	TETCO	ELA - M-3	N	2,294	\$ 982 51	\$ 0 4283	\$ 982 51	PPL
	TETCO	ELA - M-3	N	30,000	\$ 6,150 00	\$ 0 2050	\$ 6,150 00	Infinite
	TETCO	ELA - M-3	N	486,948	\$ 104,937 29	\$ 0 2155	\$ 104,937 29	Infinite
	TETCO	ELA - M-3	N	2,573	\$ 1,102 02	\$ 0 4283	\$ 1,102 02	CIMA
	TETCO	ELA - M-3	N	558,000	\$ 135,649 79	\$ 0 2431	\$ 135,649 79	Grays Ferry
	TETCO	STX - M-3	N	558,000	\$ 135,649 79	\$ 0 2431	\$ 135,649 79	Grays Ferry
				<u>2,151,051</u>			<u>\$ 528,550 42</u>	
	TRANSCO	3-6	N	155,000	\$ 6,975 00	\$ 0 0450	\$ 6,975 00	Mercuna
	TRANSCO	3-6	N	155,000	\$ 6,975 00	\$ 0 0450	\$ 6,975 00	Mercuna
	TRANSCO	3-6	N	2,294	\$ 1,056 79	\$ 0 4607	\$ 1,056 79	PPL
	TRANSCO	3-6	N	155,000	\$ 3,487 50	\$ 0 0225	\$ 3,487 50	South Jersey
	TRANSCO	3-6	N	19,189	\$ 8,840 27	\$ 0 4607	\$ 8,840 27	Sprague
	TRANSCO	3-6	N	53,816	\$ 24,791 94	\$ 0 4607	\$ 24,791 94	CNE
	TRANSCO	3-6	N	95,542	\$ 44,014 42	\$ 0 4607	\$ 44,014 42	UGI
	TRANSCO	3-6	N	119,629	\$ 55,110 56	\$ 0 4607	\$ 55,110 56	Direct Energy
	TRANSCO	3-6	N	100,000	\$ 5,100 00	\$ 0 0510	\$ 5,100 00	BP Energy
	TRANSCO	3-6	N	100,000	\$ 5,100 00	\$ 0 0510	\$ 5,100 00	Infinite
	TRANSCO	3-6	N	310,000	\$ 21,855 00	\$ 0 0705	\$ 21,855 00	Infinite
	TRANSCO	3-6	N	46,500,000	\$ 15,345 00	\$ 0 0003	\$ 15,345 00	Textla
	TRANSCO	3-6	N	2,573	\$ 1,185 13	\$ 0 4606	\$ 1,185 13	CIMA
	TRANSCO	3-6	N	155,000	\$ 1,720 50	\$ 0 0111	\$ 1,720 50	South Jersey
				<u>##### ###</u>			<u>\$ 201,557 11</u>	
June-15	TETCO	ELA - M-3	N	471,240	\$ 101,552 22	\$ 0 2155	\$ 101,552 22	Infinite
	TETCO	STX - M-3	N	90,000	\$ 18,450 00	\$ 0 2050	\$ 18,450 00	Infinite
	TETCO	STX - M-3	N	18,930	\$ 8,107 72	\$ 0 4283	\$ 8,107 72	Sprague
	TETCO	ELA - M-3	N	52,650	\$ 22,550 01	\$ 0 4283	\$ 22,550 01	CNE Gas Sup
	TETCO	ELA - M-3	N	115,560	\$ 49,494 35	\$ 0 4283	\$ 49,494 35	Direct Energy
	TETCO	ELA - M-3	N	225,000	\$ 46,237 50	\$ 0 2055	\$ 46,237 50	Infinite
	TETCO	ELA - M-3	N	2,670	\$ 1,143 56	\$ 0 4283	\$ 1,143 56	So Jersey
	TETCO	ELA - M-3	N	94,470	\$ 40,461 50	\$ 0 4283	\$ 40,461 50	UGI
	TETCO	ELA - M-3	N	2,220	\$ 950 81	\$ 0 4283	\$ 950 81	PPL
	TETCO	ELA - M-3	N	2,040	\$ 873 73	\$ 0 4283	\$ 873 73	CIMA
	TETCO	ELA - M-3	N	540,000	\$ 131,274 11	\$ 0 2431	\$ 131,274 11	Grays Ferry
	TETCO	ELA - M-3	N	540,000	\$ 131,274 11	\$ 0 2431	\$ 131,274 11	Grays Ferry
				<u>2,154,780</u>			<u>\$ 552,369 62</u>	

	PIPELINE	PATH	RECALL STATUS	MONTHLY VOLUME DTH	TOTAL MONTHLY CREDIT	CREDIT DTH	TOTAL CREDIT	REPLACEMENT SHIPPER
	TRANSCO	3-6	N	300,000	\$ 15,300 00	\$ 0 0510	\$ 15,300 00	Infinite
	TRANSCO	3-6	N	150,000	\$ 1,665 00	\$ 0 0111	\$ 1,665 00	So Jersey
	TRANSCO	3-6	N	150,000	\$ 3,375 00	\$ 0 0225	\$ 3,375 00	So Jersey
	TRANSCO	3-6	N	2,220	\$ 1,022 70	\$ 0 4607	\$ 1,022 70	PPL
	TRANSCO	3-6	N	18,960	\$ 8,734 50	\$ 0 4607	\$ 8,734 50	Sprague
	TRANSCO	3-6	N	52,680	\$ 24,268 80	\$ 0 4607	\$ 24,268 80	CNE
	TRANSCO	3-6	N	94,470	\$ 43,520 70	\$ 0 4607	\$ 43,520 70	UGI
	TRANSCO	3-6	N	150,000	\$ 6,750 00	\$ 0 0450	\$ 6,750 00	Mercuna
	TRANSCO	3-6	N	150,000	\$ 6,750 00	\$ 0 0450	\$ 6,750 00	Mercuna
	TRANSCO	3-6	N	115,560	\$ 53,236 20	\$ 0 4607	\$ 53,236 20	Direct Energy Business
	TRANSCO	3-6	N	300,000	\$ 21,150 00	\$ 0 0705	\$ 21,150 00	Infinite
	TRANSCO	3-6	N	2,040	\$ 939 90	\$ 0 4607	\$ 939 90	CIMA
	TRANSCO	3-6	N	300,000	\$ 15,300 00	\$ 0 0510	\$ 15,300 00	BP Energy
	TRANSCO	3-6	N	190,000	\$ 9,880 00	\$ 0 0520	\$ 9,880 00	Mercuna
	TRANSCO	3-6	N	190,000	\$ 7,980 00	\$ 0 0420	\$ 7,980 00	Mercuna
	TRANSCO	3-6	N	45,000 000	\$ 14,850 00	\$ 0 0003	\$ 14,850 00	Texla
	TRANSCO	3-6	N	300,000	\$ 21,000 00	\$ 0 0700	\$ 21,000 00	Macquane
	TRANSCO	3-6	N	2,700	\$ 1,243 80	\$ 0 4607	\$ 1,243 80	South Jersey
				<u>47,468,630</u>			<u>\$ 256,966 60</u>	
July-15	TETCO	ELA - M-3	N	486,948	\$ 104,937 00	\$ 0 2155	\$ 104,937 00	Infinite
	TETCO	STX - M-3	N	93,000	\$ 19,065 00	\$ 0 2050	\$ 19,065 00	Infinite
	TETCO	ELA - M-3	N	2,108	\$ 902 86	\$ 0 4283	\$ 902 86	CIMA
	TETCO	WLA - M-3	N	54,405	\$ 23,301 66	\$ 0 4283	\$ 23,301 66	CNE
	TETCO	WLA - M-3	N	119,412	\$ 51,144 51	\$ 0 4283	\$ 51,144 51	Direct En Mk
	TETCO	WLA - M-3	N	19,561	\$ 8,377 97	\$ 0 4283	\$ 8,377 97	Sprague
	TETCO	WLA - M-3	N	2,759	\$ 1,181 67	\$ 0 4283	\$ 1,181 67	South Jersey
	TETCO	WLA - M-3	N	2,294	\$ 982 51	\$ 0 4283	\$ 982 51	Talen
	TETCO	WLA - M-3	N	97,619	\$ 41,810 22	\$ 0 4283	\$ 41,810 22	UGI
	TETCO	ELA - M-3	N	232,500	\$ 47,778 75	\$ 0 2055	\$ 47,778 75	Infinite
	TETCO	STX - M-3	N	558,000	\$ 135,638 46	\$ 0 2431	\$ 135,638 46	Grays Ferry
	TETCO	STX - M-3	N	558,000	\$ 135,638 46	\$ 0 2431	\$ 135,638 46	Grays Ferry
				<u>2,226,606</u>			<u>\$ 570,759 07</u>	
	TRANSCO	3-6	N	155,000	\$ 1,720 50	\$ 0 0111	\$ 1,720 50	South Jersey
	TRANSCO	3-6	N	2,294	\$ 1,056 79	\$ 0 4607	\$ 1,056 79	Talen
	TRANSCO	3-6	N	2,790	\$ 1,285 26	\$ 0 4607	\$ 1,285 26	South Jersey
	TRANSCO	3-6	N	19,592	\$ 9,025 65	\$ 0 4607	\$ 9,025 65	Sprague
	TRANSCO	3-6	N	54,436	\$ 25,077 76	\$ 0 4607	\$ 25,077 76	CNE Gas Sup
	TRANSCO	3-6	N	97,619	\$ 44,971 39	\$ 0 4607	\$ 44,971 39	UGI Energy
	TRANSCO	3-6	N	119,412	\$ 55,010 74	\$ 0 4607	\$ 55,010 74	Direct Energy Business
	TRANSCO	3-6	N	155,000	\$ 6,975 00	\$ 0 0450	\$ 6,975 00	Mercuna
	TRANSCO	3-6	N	155,000	\$ 6,975 00	\$ 0 0450	\$ 6,975 00	Mercuna
	TRANSCO	3-6	N	155,000	\$ 3,487 50	\$ 0 0225	\$ 3,487 50	South Jersey
	TRANSCO	3-6	N	2,108	\$ 971 23	\$ 0 4607	\$ 971 23	CIMA
	TRANSCO	3-6	N	310,000	\$ 21,855 00	\$ 0 0705	\$ 21,855 00	Infinite
	TRANSCO	3-6	N	310,000	\$ 21,700 00	\$ 0 0700	\$ 21,700 00	Macquane
	TRANSCO	3-6	N	310,000	\$ 15,810 00	\$ 0 0510	\$ 15,810 00	BP Energy
	TRANSCO	3-6	N	310,000	\$ 13,020 00	\$ 0 0420	\$ 13,020 00	Mercuna
	TRANSCO	3-6	N	310,000	\$ 16,210 00	\$ 0 0523	\$ 16,210 00	Mercuna
	TRANSCO	3-6	N	46,500,000	\$ 15,345 00	\$ 0 0003	\$ 15,345 00	Texla
	TRANSCO	3-6	N	155,000	\$ 8,680 00	\$ 0 0560	\$ 8,680 00	Texla
	TRANSCO	3-6	N	310,000	\$ 15,810 00	\$ 0 0510	\$ 15,810 00	Infinite
				<u>##### ###</u>			<u>\$ 284,986 82</u>	
August-15	TETCO	STX - M-3	N	93,000	\$ 19,065 00	\$ 0 2050	\$ 19,065 00	Infinite Ene
	TETCO	STX - M-3	N	2,294	\$ 978 62	\$ 0 4266	\$ 978 62	Talen
	TETCO	ELA - M-3	N	2,108	\$ 899 28	\$ 0 4266	\$ 899 28	CIMA
	TETCO	STX - M-3	N	486,948	\$ 104,937 00	\$ 0 2155	\$ 104,937 00	Infinite Ene
	TETCO	STX - M-3	N	232,500	\$ 47,778 75	\$ 0 2055	\$ 47,778 75	Infinite Ene
	TETCO	ELA - M-3	N	54,405	\$ 23,209 17	\$ 0 4266	\$ 23,209 17	CNE
	TETCO	WLA - M-3	N	119,412	\$ 50,941 16	\$ 0 4266	\$ 50,941 16	Direct En Mk
	TETCO	WLA - M-3	N	19,561	\$ 8,344 73	\$ 0 4266	\$ 8,344 73	Sprague
	TETCO	ELA - M-3	N	2,759	\$ 1,176 98	\$ 0 4266	\$ 1,176 98	So Jersey
	TETCO	WLA - M-3	N	97,619	\$ 41,644 28	\$ 0 4266	\$ 41,644 28	UGI
	TETCO	STX - M-3	N	558,000	\$ 139,599 93	\$ 0 2502	\$ 139,599 93	Grays Ferry
	TETCO	STX - M-3	N	558,000	\$ 139,599 93	\$ 0 2502	\$ 139,599 93	Grays Ferry
				<u>2,226,606</u>			<u>\$ 578,174 83</u>	

Philadelphia Gas Works  
 Pennsylvania Public Utilities Commission  
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 Philadelphia Gas Works

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PIPELINE	PATH	RECALL STATUS	VOLUME DTH	MONTHLY CREDIT	CREDIT DTH	TOTAL CREDIT	REPLACEMENT SHIPPER		
TRANSCO	3-6	N	46,500,000	\$	15,345 00	\$	15,345 00	Texla	
TRANSCO	3-6	N	155,000	\$	8,680 00	\$	8,680 00	Texla	
TRANSCO	3-6	N	155,000	\$	3,487 50	\$	3,487 50	South Jersey Resources	
TRANSCO	3-6	N	155,000	\$	1,720 50	\$	1,720 50	South Jersey Resources	
TRANSCO	3-6	N	155,000	\$	3,487 50	\$	3,487 50	South Jersey Resources	
TRANSCO	3-6	N	310,000	\$	15,810 00	\$	15,810 00	BP Energy	
TRANSCO	3-6	N	19,592	\$	9,025 65	\$	9,025 65	Sprague	
TRANSCO	3-6	N	54,436	\$	25,077 76	\$	25,077 76	CNE Gas Supply	
TRANSCO	3-6	N	97,619	\$	44,971 39	\$	44,971 39	UGI Energy	
TRANSCO	3-6	N	119,412	\$	55,010 74	\$	55,010 74	Direct Energy Business	
TRANSCO	3-6	N	310,000	\$	15,810 00	\$	15,810 00	Infinite	
TRANSCO	3-6	N	310,000	\$	21,855 00	\$	21,855 00	Infinite	
TRANSCO	3-6	N	2,792	\$	1,285 26	\$	1,285 26	South Jersey Resources	
TRANSCO	3-6	N	310,000	\$	16,120 00	\$	16,120 00	Mercuna	
TRANSCO	3-6	N	155,000	\$	6,975 00	\$	6,975 00	Mercuna	
TRANSCO	3-6	N	310,000	\$	13,020 00	\$	13,020 00	Mercuna	
TRANSCO	3-6	N	2,294	\$	1,056 79	\$	1,056 79	Talen	
TRANSCO	3-6	N	2,108	\$	971 23	\$	971 23	CIMA	
TRANSCO	3-6	N	310,000	\$	21,700 00	\$	21,700 00	Macquane	
			<u>49,433,253</u>			<u>\$</u>	<u>281,409 32</u>		
<b>September-15</b>	TETCO	ELA - M-3	N	90,000	\$	18,450 00	\$	18,450 00	Infinite
	TETCO	ELA - M-3	N	471,240	\$	101,552 22	\$	101,552 22	Infinite
	TETCO	ELA - M-3	N	225,000	\$	46,237 00	\$	46,237 00	Infinite
	TETCO	STX - M-3	N	52,650	\$	22,460 51	\$	22,460 51	CNE
	TETCO	ELA - M-3	N	18,930	\$	8,075 54	\$	8,075 54	Sprague
	TETCO	STX - M-3	N	115,560	\$	49,297 90	\$	49,297 90	Direct En Mk
	TETCO	STX - M-3	N	94,470	\$	40,300 90	\$	40,300 90	UGI
	TETCO	STX - M-3	N	2,040	\$	870 26	\$	870 26	CIMA
	TETCO	STX - M-3	N	2,670	\$	1,139 02	\$	1,139 02	So Jersey
	TETCO	STX - M-3	N	540,000	\$	135,097 20	\$	135,097 20	Grays Ferry
	TETCO	STX - M-3	N	540,000	\$	135,097 20	\$	135,097 20	Grays Ferry
			<u>2,152,560</u>			<u>\$</u>	<u>558,577 75</u>		
	TRANSCO	3-6	N	150,000	\$	6,750 00	\$	6,750 00	Mercuna
	TRANSCO	3-6	N	150,000	\$	6,750 00	\$	6,750 00	Mercuna
	TRANSCO	3-6	N	2,040	\$	939 90	\$	939 90	CIMA
	TRANSCO	3-6	N	2,700	\$	1,243 80	\$	1,243 80	South Jersey
	TRANSCO	3-6	N	150,000	\$	1,665 00	\$	1,665 00	South Jersey
	TRANSCO	3-6	N	150,000	\$	3,375 00	\$	3,375 00	South Jersey
	TRANSCO	3-6	N	18,960	\$	8,734 50	\$	8,734 50	Sprague
	TRANSCO	3-6	N	52,680	\$	24,268 80	\$	24,268 80	CNE
	TRANSCO	3-6	N	94,470	\$	43,520 70	\$	43,520 70	UGI
	TRANSCO	3-6	N	115,560	\$	53,236 20	\$	53,236 20	Direct Energy Business
	TRANSCO	3-6	N	45,000,000	\$	14,850 00	\$	14,850 00	Texla
	TRANSCO	3-6	N	150,000	\$	8,400 00	\$	8,400 00	Texla
	TRANSCO	3-6	N	300,000	\$	15,300 00	\$	15,300 00	Infinite
	TRANSCO	3-6	N	300,000	\$	21,150 00	\$	21,150 00	Infinite
	TRANSCO	3-6	N	300,000	\$	15,600 00	\$	15,600 00	Mercuna
	TRANSCO	3-6	N	300,000	\$	21,000 00	\$	21,000 00	Macquane
	TRANSCO	3-6	N	300,000	\$	15,300 00	\$	15,300 00	BP Energy
	TRANSCO	3-6	N	300,000	\$	12,600 00	\$	12,600 00	Mercuna
			<u>47,836,410</u>			<u>\$</u>	<u>274,683 90</u>		



October-15	PIPELINE	PATH	RECALL STATUS	VOLUME DTH	MONTHLY CREDIT	CREDIT DTH	TOTAL CREDIT	REPLACEMENT SHIPPER
	TETCO	ELA - M-3	N	93,000	\$ 19,065 00	\$ 0 2050	\$ 19,065 00	Infinite
	TETCO	ELA - M-3	N	486,948	\$ 85,264 59	\$ 0 1751	\$ 85,264 59	BP Energy
	TETCO	STX - M-3	N	61,783	\$ 26,356 62	\$ 0 4266	\$ 26,356 62	CNE
	TETCO	STX - M-3	N	119,474	\$ 50,967 61	\$ 0 4266	\$ 50,967 61	Direct En Mk
	TETCO	STX - M-3	N	232,500	\$ 41,850 00	\$ 0 1800	\$ 41,850 00	Infinite
	TETCO	WLA - M-3	N	96,007	\$ 40,954 58	\$ 0 4266	\$ 40,954 58	UGI Energy
	TETCO	WLA - M-3	N	19,654	\$ 8,384 40	\$ 0 4266	\$ 8,384 40	Sprague
	TETCO	WLA - M-3	N	3,844	\$ 1,639 85	\$ 0 4266	\$ 1,639 85	CIMA
	TETCO	WLA - M-3	N	1,953	\$ 850 12	\$ 0 4353	\$ 850 12	So Jersey
	TETCO	WLA - M-3	N	558,000	\$ 97,705 80	\$ 0 1751	\$ 97,705 80	Infinite
	TETCO	WLA - M-3	N	558,000	\$ 99,882 00	\$ 0 1790	\$ 99,882 00	Infinite
				2,231,163			\$ 472,920 57	
	TRANSCO	3-6	N	19,654	\$ 9,054 17	\$ 0 4607	\$ 9,054 17	Sprague
	TRANSCO	3-6	N	3,844	\$ 1,771 03	\$ 0 4607	\$ 1,771 03	CIMA
	TRANSCO	3-6	N	1,984	\$ 914 19	\$ 0 4608	\$ 914 19	So Jersey
	TRANSCO	3-6	N	155,000	\$ 1,720 50	\$ 0 0111	\$ 1,720 50	So Jersey
	TRANSCO	3-6	N	155,000	\$ 3,487 50	\$ 0 0225	\$ 3,487 50	So Jersey
	TRANSCO	3-6	N	155,000	\$ 6,975 00	\$ 0 0450	\$ 6,975 00	Mercuna
	TRANSCO	3-6	N	155,000	\$ 6,975 00	\$ 0 0450	\$ 6,975 00	Mercuna
	TRANSCO	3-6	N	61,783	\$ 28,462 34	\$ 0 4607	\$ 28,462 34	CNE
	TRANSCO	3-6	N	96,038	\$ 44,242 89	\$ 0 4607	\$ 44,242 89	UGI
	TRANSCO	3-6	N	119,474	\$ 55,039 26	\$ 0 4607	\$ 55,039 26	Direct Energy Business
	TRANSCO	3-6	N	310,000	\$ 15,810 00	\$ 0 0510	\$ 15,810 00	BP Energy
	TRANSCO	3-6	N	310,000	\$ 15,810 00	\$ 0 0510	\$ 15,810 00	Infinite
	TRANSCO	3-6	N	46,500,000	\$ 15,345 00	\$ 0 0003	\$ 15,345 00	Texia
	TRANSCO	3-6	N	310,000	\$ 16,120 00	\$ 0 0520	\$ 16,120 00	Mercuna
	TRANSCO	3-6	N	310,000	\$ 13,020 00	\$ 0 0420	\$ 13,020 00	Mercuna
	TRANSCO	3-6	N	310,000	\$ 88,381 00	\$ 0 2851	\$ 88,381 00	So Jersey
	TRANSCO	3-6	N	310,000	\$ 85,901 00	\$ 0 2771	\$ 85,901 00	So Jersey
				49,282,777			\$ 409,028 88	
November-15	TETCO	ELA - M-3	N	93,600	\$ 39,929 76	\$ 0 4266	\$ 39,929 76	UGI Energy
	TETCO	ELA - M-3	N	121,710	\$ 51,921 48	\$ 0 4266	\$ 51,921 48	Direct En Mk
	TETCO	STX - M-3	N	15,480	\$ 6,603 77	\$ 0 4266	\$ 6,603 77	Sprague Ope
	TETCO	ELA - M-3	N	72,960	\$ 31,124 74	\$ 0 4266	\$ 31,124 74	CNE
	TETCO	ELA - M-3	N	2,310	\$ 985 44	\$ 0 4266	\$ 985 44	So Jersey
	TETCO	ELA - M-3	N	4,110	\$ 1,753 32	\$ 0 4266	\$ 1,753 32	Cima
	TETCO	ELA - M-3	N	155,040	\$ 82,171 20	\$ 0 5300	\$ 82,171 20	Shell Energy
	TETCO	ELA - M-3	N	471,240	\$ 249,757 20	\$ 0 5300	\$ 249,757 20	Shell Energy
				936,450			\$ 464,246 91	
	TRANSCO	3-6	N	45,000,000	\$ 14,850 00	\$ 0 0003	\$ 14,850 00	Texia
	TRANSCO	3-6	N	2,310	\$ 1,064 10	\$ 0 4606	\$ 1,064 10	South Jersey
	TRANSCO	3-6	N	150,000	\$ 4,740 00	\$ 0 0316	\$ 4,740 00	South Jersey
	TRANSCO	3-6	N	15,510	\$ 7,145 40	\$ 0 4607	\$ 7,145 40	Sprague
	TRANSCO	3-6	N	72,990	\$ 33,625 20	\$ 0 4607	\$ 33,625 20	CNE
	TRANSCO	3-6	N	91,630	\$ 43,133 70	\$ 0 4707	\$ 43,133 70	UGI
	TRANSCO	3-6	N	121,740	\$ 56,082 90	\$ 0 4607	\$ 56,082 90	Direct Energy Business
	TRANSCO	3-6	N	300,000	\$ 135,000 00	\$ 0 4500	\$ 135,000 00	J Aron&Company
	TRANSCO	3-6	N	4,110	\$ 1,893 30	\$ 0 4607	\$ 1,893 30	CIMA Energy
	TRANSCO	3-6	N	150,000	\$ 3,825 00	\$ 0 0255	\$ 3,825 00	Total Gas&Power North Amerca
				45,908,290			\$ 301,359 60	
December-15	TETCO	ELA - M-3	N	121,055	\$ 51,666 29	\$ 0 4268	\$ 51,666 29	CNE
	TETCO	ELA - M-3	N	120,156	\$ 51,282 58	\$ 0 4268	\$ 51,282 58	Direct En Mk
	TETCO	ELA - M-3	N	16,585	\$ 7,078 49	\$ 0 4268	\$ 7,078 49	Sprague
	TETCO	ELA - M-3	N	100,502	\$ 42,894 26	\$ 0 4268	\$ 42,894 26	UGI
	TETCO	ELA - M-3	N	2,387	\$ 1,018 77	\$ 0 4268	\$ 1,018 77	So Jersey
	TETCO	ELA - M-3	N	4,526	\$ 1,931 70	\$ 0 4268	\$ 1,931 70	CIMA
	TETCO	ELA - M-3	N	160,208	\$ 84,910 24	\$ 0 5300	\$ 84,910 24	Shell Energy
	TETCO	ELA - M-3	N	486,948	\$ 258,082 44	\$ 0 5300	\$ 258,082 44	Shell Energy
				1,012,367			\$ 498,864 77	
	TRANSCO	3-6	N	46,500,000	\$ 15,345 00	\$ 0 0003	\$ 15,345 00	Texia
	TRANSCO	3-6	N	155,000	\$ 4,898 00	\$ 0 0316	\$ 4,898 00	South Jersey
	TRANSCO	3-6	N	2,387	\$ 1,099 57	\$ 0 4606	\$ 1,099 57	South Jersey
	TRANSCO	3-6	N	16,585	\$ 7,640 57	\$ 0 4607	\$ 7,640 57	Sprague
	TRANSCO	3-6	N	121,085	\$ 55,782 02	\$ 0 4607	\$ 55,782 02	CNE
	TRANSCO	3-6	N	100,502	\$ 46,299 12	\$ 0 4607	\$ 46,299 12	UGI
	TRANSCO	3-6	N	120,187	\$ 55,367 86	\$ 0 4607	\$ 55,367 86	Direct Energy Business
	TRANSCO	3-6	N	310,000	\$ 139,500 00	\$ 0 4500	\$ 139,500 00	J Aron&Company
	TRANSCO	3-6	N	4,557	\$ 2,099 32	\$ 0 4607	\$ 2,099 32	CIMA Energy
	TRANSCO	3-6	N	155,000	\$ 3,952 50	\$ 0 0255	\$ 3,952 50	Total Gas&Power North Amerca
				47,485,304			\$ 331,983 96	

**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 2015 - December 2015**

MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL CCF	Max Daily Qty (Dth)	Max Daily Qty (Mcf)
1457534	112094.79	114605.72	82077.74	15788.17	0	0	0	0	0	22287.99	37354.12	43297.97	427506.50	267	258
2026784	10952.05	10317.02	7897.33	3896.35	924.58	603.09	578.08	597.63	624.85	3665.87	4116.06	5100.16	49273.07	420	406
2024683	35227.79	33629.93	28854.53	14997.8	2360.79	2011.33	1928.13	1787.64	1805.1	10780.53	15147.88	19222.05	167753.50	360	348
1533333	20407.89	22036.64	14863.1	3693.51	10.58	0	0	0	20.79	2158.86	6496.84	7348.61	77036.82	706	683
1611639	13851.96	14599.56	7390.56	640.8	0	0	0	0	0	692.19	2292.36	3227.95	42695.38	1465	1417
1519033	26690.46	24364.91	22264.74	8804.71	405.13	0	0	0	0	5262.74	10448.35	12137.34	110378.38	994	961
1305000	197680.99	190857.35	163889.59	128604.23	107139.24	106586.62	105969.5	103810.41	102112.49	119221.68	125726.51	135968.67	1592047.28	400	387
1571005	18599.36	19409.4	13455.08	5217.92	10.52	0	0	0	0	5522.23	4890.35	6482.16	73986.78	1032	998
1571006	14570.2	15674.8	9741.52	2104	10.52	0	0	0	0	873.45	3142.4	4432.43	50549.32	348	337
1724230	21340	11097	6625	1008	4	1	0	7.16	3.11	346.35	1752.4	3039.49	45223.51	280	271
2027533	18305.63	18464.07	14810.71	5900.6	1.09	0	0	0	0	3749.9	7257.08	7962.13	76451.21	58	56
1987805	14303.07	16141.36	10252.21	2232.39	308.71	280.67	255.78	270.35	281.27	1564.38	3617.4	5144.99	54652.58	340	329
1724005	25205.46	19269.05	22203.12	21169.25	22135.69	21259.82	21556.98	22264.28	21482.28	21988.62	13652.97	0	232187.52	417	403
2027459	29028.7	24922.55	24990.78	21917.05	24098.68	22705.01	23816.14	24494.94	23932.86	25815.46	18966.81	0	264688.98	452	437
2035554	5001.81	4871.19	4373.53	1988.27	835.44	635.72	577.49	544.98	574.16	1490.02	2245.08	2642.48	25780.15	240	232
2123525	25410	16480	19920	7580	0	0	0	0	0	6348.62	15473.03	17898.28	109109.93	81	78
1533337	32410	33240	23690	2920	0	0	0	0	0	7469.45	17033.37	18007.82	134770.64	720	696
2064975	20003.38	19865.83	21936.55	20030.59	18312.8	17833.45	16660.9	15944.91	16197.89	19157.88	19689.41	19482.26	225115.85	200	193
1724226	74060.23	72141.18	73680.05	54028.66	56305.85	52549.26	54263.55	54458.8	35454.14	59944.01	55394.91	62074.41	704355.05	200	193
2027375	23608	23457	18963	9616	4396	3584	3248	3137.11	3254.92	7274.52	11403.53	13053.42	124995.50	180	174
1806081	34010.6	38134.72	43758.52	44963.62	45967.87	39406.77	38000.82	41337.47	40108.3	49113.99	46964.84	43691.53	505459.05	700	677
2035210	3446.06	3234.45	2581.03	677.89	0	0	0	0	0	530.67	1210.6	1403.08	13083.78	311	301
2035366	4023.88	3893.1	3013.98	761.62	0	0	0	0	0	541.8	1306.34	1445.66	14986.38	403	390
1989426	35267.62	34994.51	29267.39	10767.16	3171.35	2772.38	2323.05	2203.87	2326.29	9505.42	14473.08	16514.31	163586.43	383	370
2024644	9822	8620	7265	3117	1489	1479	1446	1490.14	1439.29	3203	4655.59	5118.46	49144.48	340	329
2123519	60380	62030	56220	30317	30590	25960	23970	22169.18	24065.81	41289.49	44391.14	52287.58	473670.20	475	459
1723873	6604.55	7162.16	4749.25	1168.12	72.76	0	0	0	0	636.36	1078.75	2391.94	23863.89	958	926
1526465	24495.6	21789.24	16596.52	6725.94	3434.72	3009.76	3290.96	3090.99	3106.04	6647.12	11602.92	14157.59	117947.40	407	394
1526465	24495.6	21789.24	16596.52	6725.94	3434.72	3009.76	3290.96	3090.99	3106.04	6647.12	11602.92	14157.59	117947.40	400	387
2064976	20740.64	21451.79	20971.35	2130.58	0	0	0	0	0	2725.08	14932.41	9484.41	92436.26	172	166
1989652	29786.63	31392.25	19314.88	8606.91	6859.62	5915.92	4681.19	4766.19	3924.1	5990.33	7943.64	10943.28	140124.94	226	219
2035356	2821	2997	2429	814	0	0	0	0	1.04	404.47	852.74	1017.48	11336.73	31	30
2024712	19983	19535	11915	564	0	0	0	0	0	406.3	2989.12	6207.42	61599.84	120	116
2023951	39257.21	40411.65	18858.14	0	0	0	0	0	0	690.32	3664.12	9710.42	112591.86	1833	1773
1553331	67764.6	70092.84	48468.68	12986.88	1473.84	1121.4	768.96	958.67	934.98	4839.39	18795.86	25113.18	251319.28	300	290
2070242	4722.33	5245.51	2686.1	801.75	28.02	0	0	0	0	266.29	926.21	1218.39	15894.60	419	405
2070249	4188.23	4284.35	2953.35	796.06	67.01	0	0	0	0	1067.09	2468.2	3321.37	19145.66	958	926
2070260	4555.71	4519.03	3745.81	2081.39	472.65	0	0	0	0	753.47	1514.75	1737.98	19380.79	336	325
2070271	4939.06	4813.24	4002.99	1967.82	314.74	4.21	4.18	0	0	703.12	1536.25	1495.25	19880.86	302	292
1906628	0	0	0	0	0	0	0	0	0	0	0	0	3910.59	90	87
2025139	15164.52	14108.8	14032.63	3124.45	0	0	0	0	0	2915.96	7998.31	8324.35	65669.02	408	395
1987495	11985.04	12854.75	16095.17	12878.08	11043.1	15998.86	6911.09	14344.81	12399.14	14008.7	12316.14	9028.55	149863.43	216	209
1884506	13237.95	13008.57	7056.69	1098.83	0	0	2.08	0	0	313.08	1177.16	2945.52	38839.88	266	257
1756663	82315.58	88713.25	62598.9	11179.51	0	0	0	0	0	6183.36	24622.84	34105.7	309719.14	223	216
1658879	11830	11630	9150	4970	2090	1470	1470	1472.37	1281.99	1538.51	4572.64	5853.62	57329.13	360	348
1724853	44347.04	46520.39	28654.78	8663.52	0	0	111.24	0	111.46	9522	12690.75	15227.43	166848.11	144	139
2024307	15616	15377	11964	2735	30	0	0	0	0	1673.94	4351.79	5727.1	57474.83	360	348
1546140	74218.6	69863.44	66286.52	22859.96	5501.96	4923.36	4523.6	4581.24	4780.36	18226.16	30814.08	37693.98	344073.26	600	580

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MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL CCF	Max Daily Qty (Dth)	Max Daily Qty (Mcf)
1921578	8363	8160	7166	1950	1057	1547	2043	1705.96	2114.04	2774.43	4864.46	5060.5	46805.39	81	78
2027635	4707	4851	3696	2415	2472	2858	2902	2901.64	2943.88	2510.63	2771.07	3398.82	38427.04	500	484
2157700	67303.36	68201.41	61382.39	50846.76	42830.24	36137.21	32276.22	31016.71	30538.4	45103.1	48137.3	50646.69	564419.69	2847	2753
2012886	5872.56	6559.45	4585.6	1653.67	0	1.05	3.12			1008.65	1788.31	2152.13	23624.54	75	73
1594769	0	0	0	0	0	0	0	520.7	0	0	0	0	520.70	92	89
1621317	390547.2	424184.33	354278.88	285839.36	208050.49	198044.7	311732.59	216518.61	257392.78	209745.91	293925.74	276542.47	3426803.06	419	405
2090400	206035.56	250392.46	167454.29	111302.28	162177.14	108762.74	168098.27	237483.02	166725.5	124171.55	120548.06	127336.46	1950507.73	92	89
1987777	10343.56	8914.92	8740.71	7997.27	6685.48	6931.31	6597.62	6357.49	6336.75	7577.51	7784.1	9307.35	93573.67	302	292
1884577	15985.14	15547.08	11867.72	8793.5	7190.71	7399.54	6987.25	7055.45	7180.86	8372.64	9382.31	10009.18	115771.38	43	42
1884577	34375.43	32531.14	25530.24	6057.8	306.09	382.34	0	0	0	3627.63	9799.05	12987.92	125597.64	624	603
1685273	32026.86	31193.02	23990.08	10406.54	3548.18	2241.93	2209.99	2013.34	2093.31	6178.95	12288.91	15300.85	143491.96	782	756
2027531	19831.38	20736.59	14646.46	4850.9	18.65	0	0	0	4687.61	15027.57	16834.5	18211.83	167979.74	3128	3025
2115837	25898.7	22345.49	19106.6	13065.13	9170.18	7597.59	6585.16	6783.6	7353.39	15027.57	1917.86	2962.56	28858.14	312	302
2157694	17627.3	19671.21	16256.54	6813.2	208.76	105.89	20.87	0	0	852.07	7183.93	6705.73	75445.50	325	314
1906625	9756.08	9869.3	10807	8525.71	6010.58	7456.67	6304.32	7475.26	7711.38	8306.02	7448.43	9327.45	98998.20	30	29
1724008	41675.12	43521.56	36634.86	23185.94	21158.25	20218.41	18434.51	19041.07	19533.41	22631.91	27260.13	31331.76	324626.93	522	505
2027477	3482	4312	4755	3844	3147	2822	2201	3421.55	2918.8	3222.74	3961.44	2968.18	41055.71	162	157
2036147	9526	7885	4551	1044	0	0	0	0	0	971.72	1917.86	2962.56	28858.14	312	302
2024704	13243	13783	9247	1363	35	0	0	0	16246.92	1289.57	2904.71	4232.49	46097.77	313	303
2157692	83200.72	86051.69	63959.89	0	29965.43	6834.27	9035.15	0	0	20523.61	34111.22	43198.4	393127.30	852	824
2024705	18718.2	20241.77	15064.57	7574.56	4269.87	4111.05	3664.21	3770.39	3879.48	5293.93	7054.47	8429.49	102071.99	522	505
1806076	74436.69	76274.8	57450.03	24498.08	15018.33	13989.55	14626.44	18392.63	18343.79	25220.1	32588.58	36019.79	406848.81	374	362
2035943	5022.06	4971.99	4129.98	2038.49	1663.45	2165.14	2227.6	1975.42	1999.31	1971.59	2266.8	2565.86	32997.69	240	232
1921575	20969.25	21984.27	12566.88	3110.39	0	1.09	0	0	1392.01	2735.22	2735.22	3589.28	66348.39	281	272
2024648	31510.66	29751.13	26828.04	19940.78	16813.16	15790.91	16267.58	16848.11	15483.07	19478.95	21106.46	21052.69	250871.54	490	474
2027406	28469.57	31642.42	29114.76	21082.47	17131.9	20084.2	20568.64	20402.05	20091.28	22907.21	24180.05	25166.4	280840.95	209	202
2027544	25875.6	28909.55	26375.49	18916.7	15389.8	17828.2	18027.91	17831.05	17602.63	20429.8	21439.57	22314	250940.30	64	62
2115543	6235.91	6419.76	4415.07	1481.04	0	0	0	0	1269.56	2101.31	2571.24	24493.89	64	62	
2157683	42100	45950	46250	34140	31190	32120	33770	32509.54	33594.91	30576.28	33736.09	35593.84	431530.66	550	532
2026758	17439.19	16478.17	11527.11	1317.84	0	0	0	0	720.69	6044.77	8552.19	8552.19	62079.96	6.34	6
1806092	43799.89	40623.3	41159.8	38082.14	35652.62	39522.21	35050.94	0	29492.6	32055.88	32120.37	28831.8	396391.55	1046	1012
2094623	99166.89	87951.13	92305.19	78843.87	73838.86	78921.25	85485.38	0	71975.62	70265.66	79917.3	76253.64	894924.79	384	371
1987500	56390.84	55268.43	41044.81	8864.53	116.3	0	0	0	2119.89	18478.28	24216.95	206500.03	206500.03	479	463
2027401	11364	10762	9839	5797	4302	4597	3665	4723.26	5326.18	6069.52	6453.84	7008.72	79907.52	707	684
2027402	13617	12798	11839	6930	5291	5682	4514	5930.12	6703.05	7466.55	7712.16	8443.28	96926.16	305	295
1658880	19408.34	19903.77	18952.89	19742.81	16145.27	16972.28	16503.8	16685.6	17072.46	18395.65	18350.21	19937.79	218070.87	272	263
2157688	21600	26660	30460	21290	23890	10300	13680	8756.27	15297.92	22145.73	19360.88	23257.28	236698.08	750	725
2157696	56064.77	59319.05	49235.03	24628.6	12824.97	13681.92	12472.19	9764.51	9204	18303.35	24962.79	31403.33	321864.51	450	435
1724001	17940	18990	11640	1600	30	0	0	10.45	3045.19	3045.19	12256.82	8755.25	74267.71	173	163
1658881	29265.4	29842.09	24437.83	6327.01	0	0	0	0	6857.24	12488.01	14336.21	14336.21	123553.79	403	390
1989625	6872.99	6905.21	5588.68	678.54	0	0	0	0	0	117.01	1211.76	1211.76	21374.19	1300	1257
2035891	8211.53	7983.91	7740.58	6047.95	3112.69	2255.48	2247.56	2329.7	2150.8	3851.31	4925.65	5034.08	55891.24	591	572
2036188	26217.02	30411.08	23177.64	11828.12	12519.37	14134.26	13218.02	13661.11	11502.19	11321.98	14905.99	16298.01	201194.79	454	439
1921579	8769.81	7982.47	6892.41	5589.2	2453.43	1525.16	984.85	876.48	857.99	2650.63	3058.52	2657.19	44298.14	843	815
1909351	8603.04	8658.73	6221.61	1945.91	0	0	0	0	0	1902.41	3517.41	4023.92	34873.03	504	487
2123488	12725	11970	7444	2472	0	1	0	0	0	4113.46	6934.07	7672.04	53331.57	400	387
2024715	44896.15	46892.31	22503.95	3234.94	0	0	0	0	0	1452.24	5748.03	10661.65	135389.27	503	486
2035967	0	3981.55	4706.37	4850.61	4775.58	4608.63	5085.75	5065.56	4961.8	5887.76	5630.32	6044.81	55598.74	685	662

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2024851	21572.44	20725.5	17962.72	6805.09	0	0	0	0	0	2761	8973.17	11134.95	89934.87	244	236
2025158	25372.74	27730.18	11770.19	4099.25	0	0	0	0	0	3671.94	5919.24	6058.68	84622.22	626	605
2171231	84980.6	84028.95	68618.55	39447.7	23039.66	20135.73	22141.94	25375.33	23244.48	33906.09	38793.5	49299.04	513011.57	860	832
1724011	17910.07	18718.66	14384.64	1612.51	0	0	0	0	0	608.22	2145.6	2632.2	58011.90	907	877
2023840	6355	5817	5091	2926	989	851	819	828.06	827.42	2420.11	3737.66	4057.54	34718.79	934	903
1658873	19608.99	24870.07	12787.78	1106.63	0	0	0	0	31.23	1746.23	4542.82	7339.83	72033.58	1400	1354
2036167	19941.3	18967.55	15662.55	6110.78	244.96	2.11	0	0	0	4738.82	8186.21	8371.69	82226.02	4372	4228
1806077	79543.49	85524.23	70531.78	23504.01	2536.69	2119.43	1879.78	1566.53	1875.16	25046.01	50771.55	54309.36	399208.02	277	268
2025150	8596	9175	6460	1271	0	0	0	0	0	2140.95	3533.86	3813.89	34990.70	178	172
2123510	0	0	0	0	0	0	0	0	0	0	3542.04	4108.58	7650.62	90	87
2116171	43020	43670	34890	13590	160	0	0	0	0	4008.49	14915.85	22308.16	176572.90	1252	1211
2116174	76500	77200	62500	24900	400	0	0	0	10.4	7555.34	27682.45	41073.16	317810.95	1252	1211
2157697	64943.93	60633.16	62149.39	39327.43	12659.39	9972.94	9127.85	9846.21	16745.73	42986.55	47195.65	49656.22	425244.45	550	532
1989428	62257.14	66404.06	65705.73	39939.37	21144.38	14709.99	8895.06	8722.89	8833.81	36522.91	41676.35	48425.01	423236.70	302	292
2035975	13728.43	14007.89	14383.89	10360.21	7882.59	7993.9	8213.14	7959.85	7879.53	9428.34	8766.56	10497.49	121101.82	554	536
1826616	8591	8181	6265	2981	0	0	0	0	0	3539.5	3757.86	4537.71	37853.07	703	680
2123526	24090	23160	19240	4190	0	0	0	0	0	3487.37	8818.4	12524.16	95509.93	305	295
2027599	0	15873.09	7057.82	5865.03	3192.03	1637.97	740.52	1222.94	1898.87	2723.13	2961.89	3214.92	46388.21	123	119
1723898	51974.7	56732.12	42555.31	3605.43	0	0	0	0	0	3677.95	20600.22	17095.95	196241.68	424	410
2171221	28468.89	29488.23	28313.42	21994.66	18442.8	17668.88	18594.6	19773.37	18890.47	20449.9	21023	23144.98	266253.20	400	387
2064973	70903.05	66604.85	70416.88	49991.7	39566.19	34454.44	34168.75	31677.92	31165.6	43592.73	45732.91	47083.24	565418.26	424	410
2123509	33252.77	31825.82	18935.12	559.46	0	0	0	0	0	1481.7	16507.6	17615.38	162151.56	430	416
1526471	58751.08	56654.01	48426.43	28922.87	16043.02	16310.92	17589.38	16955.01	13320.42	25440.41	30144.15	35061.01	363618.71	324	313
1987785	6630	6370	6127	3550	1636	1407	1370	842.62	855.55	4577.09	4650.06	5294.27	43309.59	120	116
1884513	8658	8839	7219	4028	3435	3088	2984	3228.89	3399.74	4043.35	5207.49	5538.2	59648.67	241	233
1845573	43336.15	41099.18	27654.98	3047.16	0	0	0	0	0	104.17	1999.43	5570.92	131939.27	698	675
1611640	15190	15960	11410	1500	0	0	0	0	0	62.84	1558.2	2597.07	48278.11	240	232
2116154	11567.29	12083.58	14573.69	11111.04	8466.94	10647.09	4816.87	8780.29	8239.99	8059.07	9050.55	9090.29	116486.69	141	136
1921703	35230	37830	33940	9970	30	0	0	0	0	83.39	7748.03	12506.96	152512.35	400	387
2024703	20251.21	20599.39	15461.54	4785.55	95.34	0	0	0	0	14.55	2846.17	0	64053.75	389	376
2123295	0	3967.53	6053.31	5948.61	4886.26	2941.17	5306.78	4009.46	5647.54	6178.25	1463.12	4537.36	50739.39	430	416
2171230	42502.32	50145.52	30852.3	2224.31	35.23	46.55	0	0	0	1367.41	8731.74	11220.56	147044.16	340	329
1724240	13044.2	16466.68	9638.52	1475.98	0	0	0	0	0	1338.95	3338.61	3147.94	48532.66	703	680
1514402	21058.84	18028.26	10657.45	3658.1	21.17	0	0	0	0	829.51	2291.33	2673.94	65508.19	264	255
1526424	9210	10520	7490	1440	0	0	0	0	0	0	7364.07	4720.3	34454.78	418	404
2023947	9860.48	9951.36	8020.16	5850.4	4896.16	3680.64	3328.48	3428.6	3492.58	6097.42	5934.08	5861.93	70402.29	418	404
2133386	2099	2099	1597	148	0	0	0	0	0	390.89	588.19	665.53	7670.61	495	479
1987808	10.68	74.4	0	0	0	0	0	0	0	41.28	115.84	0	25143.43	370	358
1526437	115541	115250.82	81066.58	38403.78	14488.2	11868.69	5232.61	9600.17	11444.34	34996.64	48462.54	56130.41	521649.66	449	434
1724003	31890	33750	20000	6730	4190	4530	4840	2443.13	3241.51	4826.32	9689.62	15994.08	142124.66	305	295
1621318	35528.69	39323.47	17958.34	2496.3	0	0	0	0	0	2807.76	5971.05	9074.41	113160.02	550	532
1909301	1199877	1044922	1171972	736028	973303	876755	1005138	1015939	975142	892054	950681	1107523	11949334.00	0	0
2027485	45808.74	44668.87	36204.87	14149.96	5421.98	4409.07	4186.31	3872.21	4167.74	13131.54	21349.71	23759.27	221130.27	1461	1413
2023712	3137	3370	3000	408	0	0	0	0	0	484.21	1057.58	1774.56	13231.35	1461	1413
2025166	6049.62	5928.22	3758.34	644.74	0	0	0	0	2.08	389.48	1199.82	1993.71	19966.01	192	186
1987812	14950	14510	9700	1030	0	0	0	0	0	1398.44	4613.42	5062.02	51263.88	1046	1012
2012861	5285.41	5532.63	4704.92	3496.64	1755.79	1421.97	1279.65	1109.72	1348.87	2492.88	0	0	28428.48	285	276
2123518	15382.97	16717	11308.86	2643.69	11.8	0	0	0	0	147.87	0	0	46212.19	1380	1335

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2115067	6236	5559	5691	874	0	0	0	0	0	2905.26	5378.49	5468.55	32112.30	316	306
1826506	7306.64	7823.52	7154.4	4342.78	3242.06	3780.51	2367.32	3314.78	3307.34	3533.07	3037.75	3312.2	52522.37	302	292
2116016	3777.16	3998.62	2791.57	820.62	35.28	610.24	0	0	0	490.78	1116.24	1403.3	14433.57	5500	5319
2132966	6174.42	6179.14	4978.86	2234.21	770.58	610.24	594.22	543.93	573.07	1466.4	2697.21	3154.41	29976.69	5500	5319
2027423	6221.82	6237.94	4912.99	1670.37	0	0	0	0	0	1584.29	2124.68	2933.21	25685.30	1709	1653
1723876	15615.26	15815.11	11492.37	5144.49	268.54	0	1.04	0	0	3002.7	5831.77	6994.78	64166.06	151	146
1723876	15615.26	15815.11	11492.37	5144.49	268.54	0	1.04	0	0	3002.7	5831.77	6994.78	64166.06	400	387
1546143	15944.28	16275.16	11405.02	4756.4	3060.64	2802.14	2440.24	2472.94	2672.63	4673.36	6131.1	7408.22	80042.13	605	585
2025049	4627.02	5206.08	4393.35	2630.37	2485.6	2257.11	2324.3	2084.75	1711.11	3138.35	3544.34	4265.5	38667.88	277	268
1546132	89302.63	78240.89	77345.52	77376.82	90371.64	82245	82136.28	77146.03	77530.65	54886.89	97349.76	102682.48	986614.59	130	126
1582085	2630012.91	2435979.44	2238963.49	2383895.84	2369598.29	2341449.06	2310441.37	2283340.9	2325619.05	2030993.43	2427369.15	2571584.5	28349247.43	63	61
1582086	0	0	0	0	0	0	0	0	2496.94	0	0	0	2496.94	90	87
1884510	31039.08	32018.59	23516.88	11295.72	5202.37	4996.59	4114.94	4197.27	4717.98	8508.73	12025.71	14344.76	155978.62	34	33
1826674	14036.65	17098.3	15769.01	12245.73	9389.43	9160.14	8657.58	7959.71	8469.29	8296.11	9222.71	11693.54	131988.20	114	110
2023831	3578	3577	0	6568	2482	2239	2178	1992.29	1943.82	2456.6	2427.57	2789.17	32231.45	89	86
2025178	18297	17893	15118	9884	6283	5902	5847	6111.28	6200.55	9398.19	11089.59	12245.25	124268.86	149	144
1582087	20049.26	24050.84	13772.88	2068	0	0	0	0	0	1147.82	4220.28	6527.43	71836.51	676	654
1685278	44480.3	49480.48	33521.65	7876.59	2947.42	2953.65	2733.1	2698.84	2983.58	8218.23	16964.11	19712.2	194570.15	133	129
1658878	54266.72	58765.28	41373.12	8497.28	0	0	0	0	70.98	5578.98	12441.5	20982.06	201975.92	1222	1182
2115590	218869	227467	232690	182695	138638	140348	136322	134980.12	106828.15	153624.16	142872.05	146392.32	1961725.80	644	623
2115595	23827.38	21611.91	16445.25	2.35	4135.13	6172.81	8533.31	7977.44	5585.07	1334.81	983.79	6335.26	102944.51	301	291
1406184	16128.85	14863.84	8564.65	1255.1	0	10.63	0	0	0	0	1220.82	3170.29	45214.18	144	139
1724851	76200	70300	70300	55400	45400	40400	39800	41564.27	40541.9	47049.53	60643.16	70964.96	658563.82	228	221
1724852	89600	82400	82800	66400	54000	47800	46700	48563.09	47629.27	55227.15	71575.39	83417.88	776112.78	1461	1413
2023960	27668.96	30066.77	21939.41	17712.62	17148.52	16883.1	16925.02	11458.36	12561.3	12607.52	10001.95	10951.3	205884.83	1151	1113
1722879	17153.88	16666.64	15012.16	6054.66	2647.67	1987.06	1692.19	1710.43	1886.38	3047.6	8289.13	9307.23	85455.03	302	292
1884404	3185	2712	1784	1202	450	245	222	202.47	208.3	705.04	1105.88	1656.76	13678.45	130	126
1921552	1727	1612	1646	1285	384	332	313	338.24	359.46	1072.02	1588.94	1765.34	12423.00	1500	1451
2070351	1812	1789	1854	1337	467	372	359	358.05	361.49	867.45	1468.19	1692.49	12737.67	89	86
2070391	1926	2380	2396	1297	398	322	281	280.8	315.67	984.49	1657.18	1804	14042.14	89	86
2123504	0	0	32666.11	6839.55	0	133	0	1.38	1.38	5196.94	6862.42	9527.38	61096.49	276	267
2024604	4732.17	4775.98	4847.52	4758.9	5752.12	6049	5255.49	6547.34	6922.72	6359.12	5314.09	5535.24	66849.69	110	106
1906623	8226	8280	6988	4911	1579	1134	1102	1144.45	1224.49	3204.56	5335.99	6559.33	49688.82	89	86
1546144	7625.24	7170.27	5020.63	969.29	0	10.59	0	0	0	0	2070.36	2139.76	25006.14	285	276
2115841	46347	50713	46800	37974	34681	31460	34594	35954.63	37975.19	42817.16	43673.42	51151.13	494140.53	240	232
2115844	56197	60986	56771	47677	46808	44519	47358	48286.76	48583.77	52789.95	53904.81	63052.1	626933.39	183	177
2123527	22660	24160	20330	5050	0	0	0	0	0	2857.48	5825.01	5947.01	86829.50	831	804
1723998	64702.67	64796.57	56990.23	31873.69	19421.83	16203.21	11725.55	9565.28	13339.21	27320.23	41543.4	47127.99	404609.86	907	877
2024645	13511.21	14727.03	13627.75	7196.29	1816.85	765.72	814.04	983.91	1131.45	6583.72	8224.61	10359.54	79742.12	800	774
2025149	7140.96	8125.3	4823.18	11063.84	13597.64	7540.84	5142.08	4317.16	5939.42	13647.02	10124.34	4187.42	95649.20	13.7	13
2027560	6766.6	7348.94	6473.24	3622.73	1596.3	505.39	408.23	512.81	1094.18	2727.95	3617.26	5055.16	39728.79	313	303
2116156	15797.76	15488.72	14387.05	4753.94	2463.37	1064.18	713.16	768.99	1004.37	2988.79	5530.94	6731.43	71692.70	76	74
2132737	68276.61	64865.71	49760.61	24196.15	17777.55	9689.97	10974.46	13821.37	10625.98	19713.2	30707.99	31918.42	352328.02	432	418
2036151	11354.22	11038.36	8837.91	3772.5	0	0	0	0	0	2799.03	4163.76	6244.48	48210.26	202	195
2064880	2969.77	2894.78	2423.45	1636.11	1263.86	1518.3	1511.6	3384.47	3134.67	3496.68	3358.45	2817.02	30409.16	115	111
2023958	36652.44	31428.63	20798.45	8747.58	139.48	0	0	0	0	2672.01	12106.34	14310.69	125855.62	397	384
2024684	8850.84	8623.04	8367.55	1835.42	6.34	0	0	0	5.2	2428.11	3695.26	3132.05	36943.81	281	272
2116148	11915.84	12482.68	11064.21	4982.62	1596.23	1356.45	1211.68	887.2	990.01	4521.35	5381.73	5730.85	62120.85	500	484

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MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL CCF	Max Daily Qty (Dth)	Max Daily Qty (Mcf)
2064974	36147.81	36164.89	20055.38	2026.33	0	0	0	0	0	2226.99	6717.43	7976.02	111314.85	456	441
2171222	22937.27	24134.56	13478.69	3934.44	0	10.58	0	10.41	31.25	2002.16	4217.45	5824.68	76581.49	300	290
1420497	115527.77	122133.51	107261.84	84155.05	75343.45	86828.98	85317.23	91572.79	83052.66	97824.1	89285.23	85449.93	1123752.54	2847	2753
2012880	8814.8	9150.68	7731.29	3507.95	1655.97	1205.89	1134.21	1096.34	1095.33	3253.86	4969.14	5095.16	48710.62	396	383
1724854	109907.22	87234.84	91066.07	67038.77	49154.24	40800.93	33327.79	12416.01	41669.96	64862.88	75247.13	78064.81	750790.65	240	232
1426742	29195.87	29442.32	21672.87	10965.6	3293.76	1772.33	339.21	1267.17	2094.46	11142.66	16027.98	20829.45	148043.68	272	263
2171232	42815.7	44200.08	36275.73	6891.87	0	0	0	0	0	4729.06	4737.34	12795.45	152445.23	400	387
2116158	43077.73	54315.61	37669.17	9928.02	0	0	0	0	20.81	7704.34	20115.46	17656.2	190487.34	2169	2098
2116159	26081.96	29351.18	18862.54	4647.67	0	0	0	0	10.4	4734.87	10646.82	8023.15	102358.59	170	164
2133065	8416.21	8804.75	5968.86	992.28	0	0	0	0	0	871.73	2363.55	1739.65	29157.03	269	260
2116152	13171.29	11289.07	7800.13	0	710.04	0	0	0	52.04	861.63	1757.57	3148.79	38811.40	245	237
2157693	13206.53	13013.71	7382.28	1572.46	0	0	0	0	0	943.88	1879.98	2714.94	40713.78	300	290
2123523	0	34187.58	11289.7	2545.68	0	0	0	0	0	714.08	2169.68	3052.28	53959.00	375	363
2027510	7227	6659	8016	7063	5529	6053	7425	7263.7	7182.85	6899.56	7098.23	7423.65	83839.99	215	208
1954681	61236.72	57688.42	51493.02	28071.3	20407.41	19818.33	18699.62	18067.42	18552.19	27297.6	37526.22	39982.34	398840.59	127	123
2027454	8858	9062	6731	2166	0	0	0	0	5.2	2687.06	5070.25	4491.22	39070.73	127	123
2035408	3001.66	3205.15	2320.39	0	25510	25720	26470	21112.48	22801.7	25484.23	24451.58	28011.47	322641.46	216	209
1685269	29590	31920	33890	27680	0	0	0	0	0	608.52	2762.65	2885.2	26689.37	103	100
1756662	47490	56330	57890	50360	25390	18090	0	0	0	0	0	0	255550.00	354	342
1921701	81040	75070	67150	31860	31970	29870	17880	0	0	0	0	0	334840.00	84	81
2123495	14902	14811	12100	6530	2700	424	1	12.51	0	6961.21	7954.85	8878.9	75275.47	120	116
1987815	84541.56	83631.3	65525.51	35607.85	19243.77	17029.93	15524.67	15381.29	16188.61	30010.87	39558.18	41352.79	463596.33	131	127
1724010	22857.91	22588.23	23132.36	21155.16	21194.15	20218.71	20398.22	19644.04	21508.42	24033.75	25258.09	24551.6	266540.64	76	74
2026561	9899.9	10509.26	8348.19	3837.81	1198.37	975.91	912.73	869.82	881.66	2336.17	3934.89	5015.43	48720.04	132	128
2035839	7751.44	7905.23	5899.49	2775.58	1541.01	1506.84	1500.39	1534.61	1483.76	2470.07	2947.73	3537.14	40853.29	112	108
1756664	34618.43	37717.48	25344.57	6807.44	10.57	74.03	0	0	0	3013.99	8978.65	15542.27	132107.43	346	335
1921700	58494.36	65010.04	47362.69	18029.78	0	22.65	0	0	0	7904.17	15609.99	22254.42	234688.10	549	531
2025107	10770.48	12032.57	7347.97	540.89	0	0	0	0	0	0	2261.95	2891.1	35844.96	576	557
2116161	202863.58	200472.47	146189.2	71275.74	0	0	0	0	0	1054.27	59851.8	140635.86	822342.92	518	501
2157680	73289.9	73681.24	53274.76	50338.91	44449.62	40869	39999.78	41394.16	41728.75	47608.17	43210.42	51981.5	601826.21	267	258
2036180	61366.35	62769.03	58489.32	49483.81	33178.82	29746.38	23868.67	24116.6	27916.25	35705.01	33789.14	30491.78	470921.16	1362	1317
1884579	7209.61	7638.64	5830.05	1642.52	0	0	0	0	0	2279.79	4194.63	4667.89	33463.13	174	168
1685272	61071.79	65597.61	52301.34	20285.85	0	0	0	0	0	8003.4	21312.9	22824.6	251397.49	174	168
1987814	562964.57	469138.17	539156.99	539561.41	489646.47	519302.36	468158.94	494307.5	421930.66	510248.94	479313.64	408412.5	5902142.15	3432	3319
1658883	48320.17	49730.32	25458.31	2130.45	0	0	0	0	0	3468.25	10638.67	12200.13	151946.30	111	107
2025174	54899	55836.3	33475	4284.8	0	0	0	0	0	2529.1	9566.7	9982.41	170707.21	20	19
2157699	8896.4	8898.47	6677.6	5109.86	4604.48	4012.2	4015.15	4060.14	3722.1	4353.2	4184.37	4345.93	62879.90	78	75
1452606	0	80985.44	33171.2	13109.44	0	0	0	0	0	10495.45	17828.49	10373.59	165963.61	480	464
1601879	53380	47580	54860	68040	77000	75730	79480	77587.07	73038.6	59172.3	77643.99	64606.29	808118.25	782	756
1906514	118185	110425	115923	95908	92151	87331	83249	85301	85143	94305	99759	102378	1170058.00	0	0
1526402	18237.2	17240.59	14347.24	1417.19	0	0	0	0	10.96	2774.75	6339.93	8018.11	68385.97	172	166
1582088	54735.89	56531.91	41949.09	13461.31	3573.71	3285.19	3206.86	3038.84	3199.71	13774.46	21889.71	26522.44	245169.12	42	41
2123514	83704.45	82391.27	56686.69	22912.52	11563.85	13101.11	1069.77	0	213.04	4521.18	9495.52	9643.26	295302.66	291	281
2123515	74.76	0	0	0	0	1347.61	9072.89	0	7766.88	10892.02	10474.68	12542.6	52171.44	211	204
2123516	37550.42	37138.1	31033.14	17191.34	23774.88	42792.73	47557.08	40092.3	2657.17	12448.88	15924.34	17887.34	326047.72	260	251
2026766	20696.94	19267.71	11542.58	3748	0	0	0	0	0	2506.84	5407.22	6263.42	69432.71	272	263
2027581	14880	16372	10739	2974	0	0	0	0	0	3928.09	6883.13	7141.58	62917.80	354	342



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1553327	41193.51	41686.74	31626.46	16977.82	1686.94	0	0	0	204.73	16080.83	18188.67	20816.41	188462.11	152	147
2133053	10076	11150	8754	2031	0	0	0	0	0	0	0	0	32011.00	257	249
2133091	88520	82980	86920	86990	85070	79370	76200	85180.77	78304.38	86680.2	89254.77	89495.55	1016965.67	278	269
2027509	0	20205.92	19447.03	12483.4	7736.02	6905.61	6913.58	7821.2	8286.92	10398.8	14156.35	14988.78	129343.61	450	435
1658884	103649.16	106021.97	67342.4	30823.79	10776.64	5721.32	4287.18	8350.12	10845.84	34855.11	33944.07	31747.4	448365.00	240	232
2064979	39460	46232.51	25499.17	14764	16280.48	12775.8	18328.11	18041.23	14521.59	13002.04	9571.55	10511.68	238988.16	235	227
1553324	35007.13	35264.13	30968.11	11777.28	14.2	0	0	0	0	4925.17	16696.76	19444.05	154096.83	167	162
1601878	44608.31	41091.99	35363.7	1544.97	198.81	10.58	0	0	0	7991.74	16920.11	25902.3	173632.51	251	243
1724219	14569.09	19063.45	21219.2	19329.59	16895.8	19890.96	19001.73	19749.65	20076.06	23237.86	20277.76	18017.74	231328.89	429	415
1526468	21306.6	23218.32	13681.08	2200.08	0	0	0	22.25	3082.01	3943.68	3943.68	5652.25	73106.27	100	97
1987803	76267.52	71933.05	48862.73	39325.87	59344.57	61884.13	70309.89	69992.54	64558.8	39405.83	39959.93	39303.32	681148.18	296	286
1989421	25574.89	28575.93	15984.5	210.79	0	0	0	1.1	0	722.87	2833.32	6142.54	79323.07	400	387
2024719	9329.83	10623.56	7472.13	921.34	745.42	691.87	624.46	602.32	661.75	14789.39	2359.68	4253.46	39008.69	573	554
1621319	46680.32	40893.19	34894.7	17190.15	9753.15	8782.68	8612.34	7784.13	8526.94	14789.39	18532.37	22456.57	238895.93	65	63
1785666	36417.43	11553.46	21065.57	6211.73	0	0	0	0	0	1582.17	0	0	76830.36	163	158
2023955	101703.25	93027.91	86699.47	30288.9	7859.62	5192.6	4028.12	3747.55	3265.66	20889.81	34562.49	54856.79	446122.17	149	144
2027392	12501.17	12654.51	11754.93	7851.14	5299.54	6075.72	5848.77	5488.55	6119.54	7751.28	6709.73	7827.27	95882.19	400	387
2171233	42599.61	43130.01	32556.32	12093.47	2006.57	1483.21	1253.03	1461.8	1459.4	7545.33	14495.21	16659.97	176743.93	650	629
2027498	22445.53	25408.77	29484.64	25226.62	21887.17	22049.16	20582.96	20272.19	23066.82	22752.57	22361.67	24714.8	280252.90	90	87
2035986	5015.59	6478.87	5401.94	3583.42	2521.78	2617.64	2686.98	2518.36	2301.63	2503.2	3098.28	3180.48	41908.17	599	579
2026707	0	23440.07	4717.17	611.81	8.03	5.34	0	0	16.62	510.78	0	0	29309.82	260	251
2027156	0	7451.43	0	5607.47	8.03	8.02	0	0	16.64	580.47	0	0	13672.06	90	87
2036046	3773.09	3919.19	4620.16	1074.16	215.47	0	0	4.15	0	674.73	2164.43	2708.08	19153.46	120	116
2027224	4920.38	5084	5377.3	888.65	0	0	0	6.25	0	0	1603.98	2839.58	20720.14	201	194
2025156	7599.21	9762.13	8131.61	3284.16	0	0	0	5.2	0	2109.95	3327.91	3705.54	37925.71	139	134
1526403	46089.55	45329.12	40054.18	21991.12	7197.89	4864.05	4262.67	3477.17	3605.83	17088.36	23713.68	28420.51	246094.13	599	579
1514011	165466.68	171119.84	121063.35	58416.32	16923.44	0	0	0	10.39	34704.26	79293.58	86476.32	733474.18	254	246
1954684	63301.6	45359.24	61110.09	19597.99	0	0	0	0	0	14478.12	28126.19	30571.87	262545.10	296	286
2036186	13374.37	132039.57	104410.39	26807.12	1890.32	0	0	0	0	25663.91	50620.94	65445.23	540251.85	141	136
1806080	14973.15	13502.35	11394.33	7584.83	6647.45	5447.35	4741.82	5044.72	5044.72	6787.55	10560.39	7432.89	99161.10	89	86
2036191	31580.8	25446.4	33852.8	18062.4	17494.4	46235.2	45667.2	40340.86	45693.65	39834.6	80583.43	87739.14	512530.88	120	116
2036194	302417.26	268386.16	294284.19	243283.27	249844.1	217316.82	207982	236808.57	231341.98	248998.94	260652.04	406028.59	3167343.92	330	319
2115831	33421.44	25066.08	20151.95	3615.3	950.69	11689.47	10524.54	923.18	6502.24	10125.2	31593.27	27632.09	182195.45	120	116
2012851	4640.57	4893.72	3809.52	2024.77	662.81	200.11	179.48	276.77	466.74	1239.77	2168.47	2476.43	23039.16	72	70
2012853	4938.55	4993.6	4289.23	2872.09	1120.08	422.57	98.04	204.74	378.17	1429.06	2592.89	2701.78	26040.80	82	80
2012857	4027.91	3974.79	3369.96	1991.27	608.57	157.67	316.38	223.46	368.77	952.53	1672.26	1732.08	19395.65	90	87
2027476	10430	9784	8783	7006	5471	4220	4355	4901.64	4723.5	6559.44	7142.4	7257.37	80633.35	72	70
2025003	6440.49	6458.86	4869.43	2455.33	1596.59	1788.82	1815.33	1955.01	2060.26	2801.76	3155.91	3345.38	38743.17	54	52
2025082	3628.53	3119	2465.93	1546.18	67.5	5.28	0	0	0	515.61	1079.54	1206.1	13633.67	75	73
1987801	36705.96	30633.5	27595.82	12710.55	7972.05	11732.05	22626.92	20359.07	16881.84	10317.19	14179.3	16565.99	228280.24	207	200
2027524	39506.84	32921.29	29757.67	13759.98	9031.02	13341.59	25224.41	22743.31	18712.62	11488.75	15791.65	18597.78	250876.91	75	73
1611615	13517.68	11594.98	7413.36	2588.2	49.35	3.17	0	0	3.12	1152.14	2389.69	3168.28	41879.97	189	183
1546088	31009.05	26264.31	23817.24	8877	0	0	0	0	0	0	0	0	89967.60	50	48
2028852	0	0	0	0	0	0	0	0	0	0	0	0	0.00	255	247
2027258	33733.46	25588.41	1321.29	11.1	0	0	0	0	0	0	0	0	60654.26	90	87
2027336	0	11.35	0	0	0	0	0	0	0	0	0	0	11.35	90	87
2123490	8698.7	9767.06	5733.81	1254.77	3308.72	3842.81	3550.69	4560.92	4247.72	820.3	1728.74	2298.98	49813.22	50	48
1526435	105217.19	101665.27	84792.08	60687.08	54126.34	46631.04	43242.61	43757.29	47526.31	60786.46	67266.47	71885.31	787583.45	600	580

**Philadelphia Gas Works**  
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MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL CCF	Max Daily Qty (Dth)	Max Daily Qty (Mcf)
2116157	44030	43860	40240	26760	19460	18440	16820	18547.33	19000.84	25469.9	30451.04	36171.46	339050.57	86	83
1658874	48995.68	43974.56	46598.72	44872	38783.04	36340.64	21561.28	34639.25	37558.13	44358.01	44235.44	32641.12	474557.87	402	389
2123517	17670	17760	12510	6330	4860	3020	2860	3164.39	3689.6	7500.52	12353.86	13589.88	105308.25	430	416
2026874	4707.81	5133.1	3896.86	1304.76	439.77	19.03	0	0	0	862.52	1951.01	2129.68	20444.54	703	680
1954683	37504.71	52181.3	42486.94	41600.33	23559.15	13743.81	16426.03	16398.04	33074.93	0	18742.03	23542.72	319259.99	200	193
1685268	14970.41	14354.49	8647.69	1855.75	10.6	0	0	0	0	672.44	2376.48	2840.59	45728.45	144	139
2027381	5362	5359	4666	1866	1125	1110	1087	1081.25	1067.13	1555.79	2013.63	2778.23	29071.03	513	496
2027430	5323	5382	4619	1893	1129	1141	1036	1127.28	1003.67	1582.92	2013.54	2782.55	29032.96	232	224
2027642	27833.72	33648.76	15213.86	4348.47	0	0	0	0	1.17	1460.25	5358.34	7136.76	95001.33	392	379
2115832	29780	30250	22870	11440	6390	5280	5070	5492.72	5690.59	10787.82	12864.88	12163.9	158079.91	375	363
2115588	11447.61	11904.77	7967.9	2883.37	1914.41	1671.96	1625.27	1735.5	1672.75	2802.43	4582.71	6167.6	56376.28	100	97
2115589	10379.77	10482.69	6800.43	2636.64	1774.99	1555.13	1508.99	1605.01	1549.6	2599.98	4236.07	5633.11	50762.41	168	162
2023612	17843.75	17970.17	12821.61	6156.49	2660.32	2267.9	2212.7	2225.24	2173.59	2593.14	6239.67	7878.77	85683.35	235	227
1402992	47930.35	44260.61	36747.28	13895.28	2791.16	2479.73	2371.02	2307.68	2397.05	13946.17	20733.59	23561.79	213421.71	500	484
2023952	47995.99	44828.49	36375.36	13568.62	5264.89	4408.6	4167.89	4062.05	4012.95	9231.13	21653.68	24671.97	220241.62	140	135
1771898	0	0	6592.95	127257.44	75000.64	70640.71	94411.97	151018.71	120143.05	120687.49	85116.31	36884.57	887753.84	648	627
1722906	24781.08	22794.54	21075.88	11805.71	999.31	0	0	0	0	5640.39	13414.45	13672.9	114184.26	222	215
2036145	10035	11960	6475	2265	0	2957	2134	1965.63	1873.01	3021.17	8479.16	9525.72	60690.69	24.6	24
2027591	3702.61	3669.34	3187.09	2181.7	1514.72	1133.84	1314.85	1311.36	1014.11	1886.9	2081.37	2437.93	25435.82	83	80
1771899	0	0	0	0	4700	0	100	103.95	0	0	421.04	1978.49	7303.48	90	87
1685280	44680.74	49538.72	37660.95	33153	29607.11	23925.59	33112.01	28329.83	36309.01	34414.53	32844.28	51427.65	435003.42	605	585
2117228	72941.42	77978.75	64685.36	34748.7	21034.77	17590.3	20676.67	24651.43	25640.3	37044.84	39510.64	43542.46	480045.64	480	464
2026737	10610.77	11976.12	7861.03	2347.9	0	0	0	0	0	1299.38	3568.43	3767.76	41431.39	424	410
2027620	18810.12	18991.34	15400.37	4838.23	369.85	15.6	2.79	0	0	2000.73	4714.45	5792.12	70935.60	143	138
2026838	18571.53	19160.94	14332.16	4370.63	0	0	0	0	0	2650.14	7217.91	8463.62	74766.93	946	915
2116150	18266.73	17987.06	12564.45	5900.45	0	0	0	0	0	2265.72	6383.7	9298.85	72666.96	270	261
1989422	10293.52	11275.61	8518.82	475.23	0	0	0	0	0	0	2238.06	2101.68	34902.92	73	71
2027589	12140	11697	7893	1398	0	0	0	0	0	2133.21	3988.67	4166.9	43416.78	153	148
1414492	38984.51	44106.83	30534.14	12622.4	0	0	0	0	0	3780.43	15050.39	13333.73	158412.43	223	216
1526470	14584.39	14457.29	6936.22	338.96	0	10.6	0	0	0	618.45	3989.85	4808.63	45744.39	120	116
1553328	11136.4	13095.96	6227.47	1536.72	0	0	0	0	0	997.66	2652.97	3254.53	38901.71	154	149
1658876	35482.37	34875.84	24070.98	1080.74	0	0	0	0	0	1413.43	5742.83	9025.18	111712.21	54	52
1906630	7481	7229	4706	1058	0	0	0	0	0	230.58	1208.03	1835.22	23747.83	380	368
1987496	16323.58	17550.91	11235.67	1983.43	0	10.59	0	0	0	2169.75	5130.27	10084.98	64489.18	72	70
1987786	13644.39	13200.91	11362.5	1875.91	0	0	0	0	0	631.29	1550.11	2560.25	44825.36	168	162
2024367	7523.09	7598.94	5304.66	1183.42	0	0	0	0	0	108.3	1271.51	3151.24	26141.16	455	440
2024389	3275	3322	2365	286	0	0	0	0	0	232.06	635.96	827.45	10923.47	126	122
2024706	9932.6	10385.16	7695.15	1133.26	0	0	0	0	0	595.95	1535.11	2374.7	33651.93	380	368
2027464	17037.6	17098.94	10925.51	2071.1	82.91	0	0	0	0	3202.55	5809.27	6219.3	62451.34	50	48
2027483	10659.37	8577.95	10752.44	1946.98	1.03	0	0	0	0	12.89	4287.81	6089.35	42327.82	424	410
2027484	8985.72	9160.39	7543.61	2912.88	0	0	0	0	0	689.8	1492.27	2031.67	32817.38	250	242
2036185	29388.44	27861.28	16180.04	3427.31	0	0	0	0	0	902.5	3934.42	6114.63	87808.62	750	725
2036189	28387.65	23383.94	19407.46	4652.07	0	0	0	0	0	1117.34	4867.71	5875.43	87691.60	186	180
2036193	23400	23200	14000	3000	0	0	0	0	0	2098.18	3886.76	5554.06	75139.00	48	46
2036195	48030.81	51431.67	37455.66	6864.79	0	0	0	0	0	3370.72	8733.39	17112.36	172999.40	190	184
2064980	88970.35	91560.38	74079.45	13042.22	0	0	0	0	0	6599.44	24082.91	27054.55	325389.30	95	92
2115136	9617.99	10667.12	5410.05	930.47	0	1.09	15.09	0	1.07	670.35	2200.21	2296.6	31810.04	27.4	26
2115141	6823	8054	5013	652	0	0	0	5.21	14.58	860.3	1521.79	1826.23	24770.11	690	667

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MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL CCF	Max Daily Qty (Dth)	Max Daily Qty (Mcf)
2115143	12501	11818	8676	2488	234	0	2	0	0	1572.05	4255.33	4724.88	46271.26	166	151
2115833	8640	9263	7579	1089	0	0	0	0	5.19	1095.47	3153.51	3070	33895.17	341	330
2115842	11630	9700	4779	1314	0	0	0	0	0	932.18	2119.37	2748.32	33222.87	748	723
2116149	10298.25	9784.46	6860.66	1420.85	0	10.46	0	0	0	463.79	1955.86	2464.56	33258.89	98	95
2116151	18116.4	22130.64	15486.46	5248.11	145.79	0	0	0	0	4748.09	7540.18	9326.94	82742.61	72	70
2123489	12595.04	14141.89	6863.58	1960.39	1.03	1.03	0	2.14	1.07	1392.18	2391.25	4042.64	43392.24	26	25
2123513	31390	26750	15340	5610	0	0	0	0	0	3307.1	8299.22	9321.31	100017.63	26	25
2123520	19996.12	16484.56	12813	1605.8	0	0	11.01	0	0	1370.73	3151.36	2492.52	57925.10	43	42
2123521	20275.18	19172.63	12640.62	1126.53	10.94	0	0	0	0	1752.12	4413.27	5218.16	64609.45	90	87
2157690	0	0	0	0	0	0	0	0	0	0	0	3887.28	3887.28	90	87
1987810	12025.28	11949.36	8086.3	964.44	0	0	0	0	0	598.58	2673.61	2812.51	39110.08	2087	2018
1548148	43865.97	40631.75	36206.83	11613.61	0	0	0	0	0	0	6985.18	17741.83	157045.17	397	384
1553325	74544.66	62033.46	65020.29	23157.3	0	0	0	0	0	19464.58	31936.79	28862.88	305019.96	417	403
1658875	37770.69	34255.42	33977.62	11326.22	0	0	0	0	0	4723.96	15775.38	7274.3	145103.59	58	56
1724856	43342.86	42709.65	27768.59	4965.19	0	0	0	0	0	2105.49	8309.71	15625.77	144827.26	844	816
2024702	40893.71	38645.01	33921.22	11486.43	0	0	0	0	0	12.03	13008.78	24175.29	162142.47	2365	2287
2025031	16779.36	14930.67	10512.47	2217.7	3.26	0	1.08	0	0	3460.54	6277.44	8513.96	62696.48	701	678
2027520	22147.88	21382.81	15780.03	2369.25	0	0	0	0	1.38	1378.8	5078.01	5963.94	74102.10	500	484
2115137	46555.74	40127.32	32704.04	13422.47	0	0	0	0	14.59	12542.64	18649.81	22880.47	186897.08	430	416
2123528	28782.31	26260.58	20169.93	10484.16	1100.94	0	0	0	20.8	5663.43	6442.1	9942.88	110233.22	149	144
2133093	37272.27	39519.15	30865.15	3644.64	17.3	16	33.3	27.73	19.37	0	12107.01	13168	136689.92	90	87
2064977	11120	5800	6380	2400	150	0	0	0	0	905.82	2892.08	3308.98	32956.88	250	242
2024694	16079.73	15306.5	8549.2	2013.46	0	0	0	0	6.25	1176.59	2316.11	3411.01	48858.85	377	365
2027618	1930	0	2039	0	1518	1360	0	0	0	0	0	0	6847.00	229	221
1722873	22950.6	22892.78	17237.54	7643.77	3080.23	2054.66	1674.4	1439.79	1527.69	5123.44	8201.36	9387.93	103214.19	1269	1227
1722888	28474.48	29668.31	23075.85	11863.38	7179.67	5717.26	5400.24	5261.18	5320.65	8873.92	11564.52	12942.07	155341.53	400	387
2024285	8304.2	8340.26	6723.64	2986.95	872.6	554.12	529.51	474.99	506.4	2050.86	3711.73	4323.72	39378.98	64	62
2024290	10832.75	10412.53	9660.85	4663.05	1505.17	633.6	605.71	557.53	566.88	2751.02	4902.3	5633.88	52725.27	64	62
2024299	10077.97	9929.54	7828.04	3279.4	1014.14	581.67	571.21	525.12	647.01	2540.87	4514.28	4928.6	46437.85	4740	4584
2024675	9517.83	9178.7	6198.69	3640.6	551.99	493.12	525.14	505.07	532.08	2778.61	4899.12	6210.89	45031.84	64	62
2027527	17736.16	18405.78	14021.5	7071.79	2042.59	1773.5	1814.58	1744.74	1760.72	4673.63	7315.75	9908.18	88268.92	64	62
2123460	9271.02	9884.27	6066.59	1053.8	0	0	0	0	0	533.55	1408.02	2384.77	30602.02	89	86
1884576	38800.55	42527.9	32033.52	9837.54	802.68	870.52	0	0	133.55	11738.34	16605.99	23349.75	176700.34	89	86
1611635	92097.05	91525.46	63796.83	25505.74	6616.93	6265.16	5263.03	5164.08	5339.95	21376.34	30662.76	39970.37	393583.70	3300	3191
2027387	0	0	0	0	0	0	0	0	0	0	8721.99	9637.9	18359.78	224	217
1685276	27193.91	29628.86	14247.75	1472.49	0	0	0	0	0	2100.38	3656.68	4815.98	83116.05	437	423
1658882	43629.24	51002.3	28034.59	2845.07	0	22.65	0	0	33.37	2081.58	11059.63	15622.84	154331.27	31	30
1723900	40996.53	46845.62	35748.23	26789.27	27600.28	23845.38	24650.49	22557.42	23661.75	24996.51	25016.6	25421.74	348129.82	453	438
2171234	86080.8	99537.6	83624.4	39302.4	32360.4	28515.6	27127.2	30336.89	36064.95	41778.82	48410.96	49589.24	602729.26	500	484
2115901	743	771	511	166	0	0	0	0	0	96.63	241.69	317.22	2846.54	925	895
1987633	4336	4631	3253	390	0	0	0	0	0	88.04	1359.42	931.28	14988.74	1252	1211
1987683	1862	1790	1583	550	0	0	0	0	0	3.12	971.21	669.22	7428.55	302	292
2035694	1936	2038	1462	300	0	0	0	0	0	140.7	483.68	615.88	6976.26	60	58
2115434	1012	1175	726	150	0	0	0	0	0	87.29	327.9	433.76	3911.95	541	523
2023825	8616.93	8303.62	5952.08	2103.66	0	0	0	0	3.12	916.65	2115.62	2702.58	30714.26	541	523
2027536	8083	8375	5379	572	0	0	0	0	0	635.69	3206.81	3968.5	30220.00	388	375
2027563	8886	8548	5615	725	0	0	0	0	0	1007.24	4283.3	3852.68	32917.22	416	402
1722889	12144.48	11082.96	8940.04	2949.29	29.61	22.2	0	0	0	3169.4	5411.32	4924.19	48673.49	373	361

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1526423	0	0	0	0	0	75050	2410	2475.01	3324.23	7187.52	9472.46	10718.17	110637.39	400	387
2026870	4318	4855	2852	412	113	17	0	0	0	0	2394.91	2706.45	18615.15	1851	1790
1806079	28462	27175.91	19629.59	8811.63	1339.44	1645.77	363.39	0	516.14	6055.21	9095.85	12071.35	115166.28	107	103
2027641	17686	17946	12584	3901	3	0	0	0	0	1954.81	4408.45	6984.9	65468.16	368	356
2024992	2064.63	2168.17	1560.61	545.19	21.8	0	0	0	0	241.95	676.01	862.13	8140.49	1851	1790
2025099	6444.84	7032.74	4467.68	808.25	15.54	0	0	0	0	223.64	1635.99	1966.82	22595.50	54	52
1986388	6821.02	7204.15	4931.33	1175.97	8.37	0	0	0	0	519.76	1881.39	2793.74	25335.73	38	37
1526404	17360	17480	14450	8190	3400	2900	3170	3111.91	2887.21	5548.59	9461.59	10845.46	98804.76	523	506
1909334	6002	6078	4638	2350	1571	873	910	924.33	976.57	2579	3400.07	3853.29	34155.26	98	95
2027383	9552	9873	6682	1264	0	0	0	0	0	665.38	1908.98	2353.31	32298.67	645	624
1701736	367200	1232100	298500	425800	3300	0	0	117634.32	0	132360.35	0	22462.46	2599357.13	60	58
1701737	303300	1014100	244100	343900	2700	0	0	94419.66	0	129437.79	0	22046.6	2154004.05	432	418
2123522	6060	5590	0	4050	0	0	1	0	0	62.25	124.04	191.79	16079.08	430	416
1611015	0	0	200	28400	28800	34800	25500	31033.21	23129.2	38796.47	45356.29	18657.45	274672.62	547	529
1403018	15927.58	20513.57	9386.51	2426.75	52.58	0	0	0	31.24	1455.54	3083.45	3924.85	56802.07	1225	1185
1658885	534.19	532.65	4149.96	1372.85	0	34180.7	29074.05	20961.73	21362.71	2512.5	417.22	0	115098.56	5500	5319
1658886	0	0	0	0	0	0	104.18	0	0	0	0	0	104.18	5500	5319
1786008	444185.23	432274.39	380370.87	258530.45	194985.42	166281.28	153433.03	157070.58	161558.56	212180.65	235441.24	260489.86	3056801.56	5500	5319
1786009	41171.91	399447.01	351757.52	239928.08	181981.67	155789.89	143092.77	146522.91	150822.49	197635.02	218939.8	242174.11	2839263.18	740	716
2036192	82412.03	83168.6	60001.45	38147.12	40052.26	31076.04	28531.25	29087.59	28046.33	34169.36	38564.21	42607.71	535863.95	55	53
2064981	2770.29	0	0	0	0	0	0	521.8	0	0	0	0	3292.09	11586	11205
2064982	1001088.51	1009562.62	868125.15	533422.63	358995.46	322912.32	291840.95	301592.03	318512.02	460431.32	519569.42	557740.53	6543792.96	90	87
2027386	7748.67	7478.2	10790.87	8414.14	5591.49	3083.56	4532.36	5187.81	4145.69	5277.1	6692.39	5407.2	74349.48	141	136
2026820	19677.25	18230.73	18772.1	17898.39	17731.82	7594.12	3774.89	1857.68	0	1.38	0	9516.58	115054.94	300	290
2023953	80440.16	82962.08	67467.04	45451.36	28672.64	24264.96	20152.64	20727.26	21749.88	40022.77	40614.37	41893.18	514418.34	576	557
2027564	7167	8598	4647	2227	1000	364	0	220.49	564.71	952.52	2309.23	1676.46	29716.41	728	704
2027625	6104	6460	4707	1363	469	25	0	334.24	727.34	1431.65	1932.82	1142.09	24696.14	1565	1514
2027529	70038.45	68643.3	51185.89	23151.2	8690.6	7030.82	5774.64	6121.88	5857.73	18207.27	22320.33	28219.75	315241.86	706	683
2035886	8078	4508	6800	7142	4727	6440	6055	5506.8	5496.48	8457.58	7670.47	5810.26	76691.59	95	92
1526433	63778.63	63271.62	54302.06	38110.16	33638.94	28011.1	26430.72	25924.87	25918.03	34123.68	36854.8	39876.69	470241.30	1043	1009
2116160	38228.52	33780.06	33404.9	26588.88	103.64	0	0	0	0	4433.06	21231.9	24794.7	182565.66	547	529
2027433	10476.89	10111.66	7407.35	2408.62	1993.98	2694.15	3749.31	3397.05	2585.78	1629.96	2613.79	3489.1	52557.64	450	435
2027434	8402	8430	5970	1949	1571	2173	2981	3088.17	2519.01	1438.87	2208	2910.77	43640.82	455	440
1909500	162725	175500	148406	108860	20944	40099	90	226	23407	87936	45585	62187	875965.00	0	0
1685277	38790	37350	18580	1330	0	0	10	0	0	837.89	4302.23	8729.23	109929.35	380	368
1546146	24439.91	17263.49	15124.83	5689.82	5794.61	5203.47	4512.29	4531.84	4731.86	8474.98	11156.19	12004.3	118927.59	313	303
1526425	27352.46	27626.65	21179.05	11070.85	2653.79	2342.91	2253.23	2163.76	2203.92	9953.98	12719.42	14833.57	136353.59	479	463
1582089	66927.95	70006.44	55698.75	24356.18	5916.44	5172.29	4919.55	4695.63	5553.61	17280.7	28124.21	31835.63	320487.38	360	348
2024714	11763	12338	9238	1317	0	0	0	0	0	1327.02	3650.05	3861.97	43495.04	167	162
2064820	4276	4747	2890	404	0	0	0	0	9.35	393.9	804.33	1165.43	14690.01	99	96
1526476	28949.25	31017.21	25782.85	15192.5	14159.14	13054.31	13845.06	14391.91	15352.36	17511.16	19419.71	19345.85	228021.31	43	42
2027583	9745.5	9752.91	19780.78	19286.68	29807.93	29720.1	30502.29	30415.69	29487.42	30477.36	29731.39	29841.22	298549.27	202	195
2036187	47124.73	48395.63	44560.91	22795.58	333.05	0	0	13.9	13.9	9945.63	19720.29	21911.29	214801.01	576	557
2116162	172500	174800	154000	111900	91800	81900	78000	83143.32	89531.14	114330.84	118887.25	126518.72	1397311.27	2549	2465
1685275	0	0	5340	2460	3000	4650	0	0	12380	3500	3670	3340	38340.00	375	363
2027494	25773.68	26657.3	21066.47	4610.58	0	0	0	0	0	6402.33	11436.63	11705.03	107652.02	100	97
2123463	5576.8	6051.49	3958.92	1965.03	1247.32	1075.55	982.87	961.49	1123.45	1908.16	2124.18	2326	29301.26	80	77
2123484	5046.5	5460.78	3526.91	1718.82	1113.06	974.88	900.33	885.27	1025.45	1709.4	1878.19	2047.62	26287.21	119	115

**Philadelphia Gas Works  
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MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL CCF	Max Daily Qnty (Dth)	Max Daily Qnty (Mcf)
2123467	7203	6330	5928	3068	1028	793	725	705.05	722.1	1979.42	3559.65	4058.41	36099.63	80	77
2115593	21159.58	22365.09	19202.11	10570.54	8178.15	8217.18	6245.18	6481.33	8007.73	8483.67	8799.42	9827.8	137537.78	388	375
1575425	12240	12460	10160	1270	0	0	90	0	0	412.15	3291.04	5534.55	45457.74	383	370
1724210	24891	16625	14571	4285	1677	1611	19.81	336.59	1513.49	6597.32	6200.82	4139.62	82467.65	449	434
2025146	15708.42	12649.81	9154.69	1830.23	0	0	0	0	0	1190.63	3606.65	3259.04	47399.47	140	135
2025172	13825.12	11214.31	8259.92	1676.08	0	0	0	0	0	1056.82	3206.53	2930.73	42169.51	175	169
2027443	22855.25	24661.56	17318.48	7353.66	3149.19	2431.51	2456.94	2863	2597.09	6103.55	8133.26	10071.86	109995.35	430	416
1526478	45503.03	42666.05	33870.49	4723.6	0	0	0	0	0	3698.73	8419.1	8510.33	147391.33	135	131
2027160	12699.71	13050.36	11842.25	3317.52	0	0	0	0	0	1768.9	3878.35	4218.33	50775.42	164	159
2024698	9282.81	9578.31	6357.12	1927.85	64.35	0	0	0	0	564.16	2249.32	3212.41	33236.33	272	263
1601880	19435.13	18621.99	13064.54	4244.14	103.84	0	0	0	0	1735.03	4941.46	6433.87	68580.00	272	263

**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 2015 - December 2015**

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MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL CCF	Max Daily Qnty (Dth)	Max Daily Qnty (Mcf)
1457534	112094.79	114605.72	82077.74	15788.17	0	0	0	0	0	22287.99	37354.12	43297.97	427506.50	267	258
2026784	10952.05	10317.02	7897.33	3896.35	924.58	603.09	578.08	597.63	624.85	3665.87	4116.06	5100.16	49273.07	420	406
2024683	35227.79	33629.93	28854.53	14997.8	2360.79	2011.33	1928.13	1787.64	1805.1	10780.53	15147.88	19222.05	167753.50	360	348
1533333	20407.99	22036.64	14863.1	3693.51	10.58	0	0	0	20.79	2158.86	6496.84	7348.61	77036.82	706	683
1611639	13851.96	14599.56	7390.56	640.8	0	0	0	0	0	692.19	2292.36	3227.95	42695.38	1465	1417
1519033	26690.46	24364.91	22264.74	8804.71	405.13	0	0	0	0	5262.74	10448.35	12137.34	110378.38	994	961
1305000	197660.99	190857.35	168389.59	128604.23	107139.24	106586.62	105969.5	103810.41	102112.49	119221.68	125726.51	135968.67	1592047.28	400	387
1571005	18599.36	19409.4	13455.08	5217.92	410.28	0	0	0	0	5522.23	4890.35	6482.16	73986.78	1032	998
1457106	14570.2	15674.8	9741.52	2104	10.52	0	0	0	0	873.45	3142.4	4432.43	50549.32	348	337
1724230	21340	11097	6625	1008	4	1	0	7.16	3.11	346.35	1752.4	3039.49	45223.51	280	271
2027533	18305.63	18464.07	14810.71	5900.6	1.09	0	0	0	0	3749.9	7257.08	7962.13	76451.21	58	56
1987805	14303.07	16141.36	10252.21	2232.39	308.71	280.67	255.78	270.35	281.27	1564.38	3617.4	5144.99	54652.58	340	329
1724005	25205.46	19269.05	22203.12	21169.25	22135.69	21259.82	21556.98	22264.28	21482.28	21988.62	13652.97	0	232187.52	417	403
2027459	29028.7	24922.55	24990.78	21917.05	24098.68	22705.01	23816.14	24494.94	23932.86	25815.46	18966.81	0	264688.98	452	437
2035554	5001.81	4871.19	4373.53	1988.27	835.44	635.72	577.49	544.98	574.16	1490.02	2245.08	2642.46	25780.15	240	232
2123525	25410	16480	19920	7580	0	0	0	0	0	6348.62	15473.03	17898.28	109109.93	81	78
1553337	32410	33240	23690	2920	0	0	0	0	0	7469.45	17033.37	18007.82	134770.64	720	696
20064975	20003.38	19865.83	21936.55	20030.59	18312.8	17833.45	16660.9	15944.91	16197.89	19157.88	19689.41	19482.26	225115.85	200	193
1724226	74060.23	72141.18	73680.05	54028.66	56305.85	52549.26	54263.55	54458.8	35454.14	59944.01	55394.91	62074.41	704355.05	200	193
2027375	23608	23457	18963	9616	4396	3584	3248	3137.11	3254.92	7274.52	11403.53	13053.42	124995.50	180	174
1806081	34010.6	38134.72	43758.52	44963.62	45967.87	39406.77	38000.82	41337.47	40108.3	49113.99	46964.84	43691.53	505459.05	700	677
2035210	3446.06	3234.45	2581.03	677.89	0	0	0	0	0	530.67	1210.6	1403.08	13083.78	311	301
2035366	4023.88	3893.1	3013.98	761.62	0	0	0	0	0	541.8	1306.34	1445.66	14986.38	403	390
1989426	35267.62	34994.51	29267.39	10767.16	3171.35	2772.38	2323.05	2203.87	2326.29	9505.42	14473.08	16514.31	163586.43	383	370
2024644	9822	8620	7265	3017	1489	1479	1446	1490.14	1439.29	3203	4655.59	5118.46	49144.48	340	329
2123519	60380	62030	56220	30317	30590	25960	23970	22169.18	24065.81	41289.49	44391.14	52287.58	473670.20	475	459
1723873	6604.55	7162.16	4749.25	1168.12	72.76	0	0	0	0	636.36	1078.75	2391.94	23863.89	958	926
1526465	24495.6	21789.24	16596.52	6725.94	3434.72	3009.76	3290.96	3090.99	3106.04	6647.12	11602.92	14157.59	117947.40	407	394
1526465	24495.6	21789.24	16596.52	6725.94	3434.72	3009.76	3290.96	3090.99	3106.04	6647.12	11602.92	14157.59	117947.40	400	387
2064976	20740.64	21451.79	20971.35	2130.58	0	0	0	0	0	2725.08	14932.41	9484.41	92436.26	172	166
1989652	29786.63	31392.25	19314.88	8606.91	6859.62	5915.92	4681.19	4766.19	3924.1	5990.33	7943.64	10943.28	140124.94	226	219
2035356	2821	2997	2429	814	0	0	0	0	1.04	404.47	852.74	1017.48	11336.73	31	30
2024712	19983	19535	11915	564	0	0	0	0	0	406.3	2989.12	6207.42	61599.84	120	116
2023951	39257.21	40411.65	18858.14	0	0	0	0	0	0	690.32	3664.12	9710.42	112591.86	1833	1773
1553331	67764.6	70092.84	46468.68	12986.88	1473.84	1121.4	768.96	958.67	934.98	4839.39	18795.86	25113.18	251319.28	300	290
2070242	4722.33	5245.51	2686.1	801.75	28.02	0	0	0	0	266.29	926.21	1218.39	15894.60	419	405
2070249	4188.23	4284.35	2953.35	796.06	67.01	0	0	0	0	1067.09	2468.2	3321.37	19145.66	958	926
2070260	4555.71	4519.03	3745.81	2081.39	472.65	0	0	0	0	753.47	1514.75	1737.98	19380.79	336	325
2070271	4939.06	4913.24	4002.99	1967.82	314.74	4.21	4.18	0	0	703.12	1536.25	1495.25	19880.86	302	292
1906628	0	0	0	0	0	0	0	0	0	0	0	0	0	90	87
2025139	15164.52	14108.8	14032.63	3124.45	0	0	0	0	0	2915.96	7998.31	8324.35	65669.02	408	395
1987495	11985.04	12854.07	16095.17	12878.08	11043.1	15998.86	6911.09	14344.81	12399.14	14008.7	12316.14	9028.55	149863.43	216	209
1884506	13237.95	13008.57	7056.69	1098.83	0	0	2.08	0	0	313.08	1177.16	2945.52	38539.88	266	257
1756663	82315.58	88713.25	62598.9	11179.51	0	0	0	0	0	6183.36	24622.84	34105.7	309719.14	223	216
1658879	11830	11630	9150	4970	2090	1470	1470	1472.37	1281.99	1538.51	4572.64	5853.62	57329.13	360	348
1724853	44347.04	46520.39	29654.78	8663.52	0	0	111.24	0	111.46	9522	12690.25	15227.43	166848.11	144	139
2024307	15616	15377	11964	2735	30	0	0	0	0	1673.94	4351.79	5727.1	57474.83	360	348
1546140	74218.6	69663.44	66286.52	22859.96	5501.96	4923.36	4523.6	4581.24	4780.36	18226.16	30814.08	37693.98	344073.26	600	580



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MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL CCF	Max Daily Qnty (Dth)	Max Daily Qnty (Mcf)
1921578	8363	8160	7166	1950	1057	1547	2043	1705.96	2114.04	2774.43	4864.46	5060.5	46805.39	81	78
2027635	4707	4851	3696	2415	2472	2858	2902	2901.64	2943.88	2510.63	2771.07	3398.82	38427.04	500	484
20157700	67303.36	68201.31	61382.39	50846.76	42830.24	36137.21	32276.22	31016.71	30538.4	45103.1	48137.3	50646.69	564419.69	2847	2753
2012886	5872.56	6559.45	4585.6	1653.67	0	1.05	0	0	3.12	1008.65	1788.31	2152.13	23624.54	75	73
1594769	0	0	0	0	0	0	0	520.7	0	0	0	0	520.70	92	89
1621317	390547.2	424184.33	354278.88	285839.36	208050.49	198044.7	311732.59	216518.61	257392.78	209745.91	293925.74	276542.47	3426803.06	419	405
2090400	206055.56	250392.46	167454.29	111302.28	162177.14	108762.74	168098.27	237483.42	166725.5	124171.55	120548.06	127336.46	1950507.73	92	89
1987777	10343.56	8914.92	8740.71	7997.27	6685.48	6931.31	6597.62	6357.09	6336.75	7577.51	7784.1	9307.35	93573.67	302	292
1884577	34375.43	32531.14	25530.24	6057.8	306.09	382.34	0	0	0	3627.63	9799.05	12987.92	125597.64	624	603
1685273	32026.86	31193.02	23990.08	10406.54	3548.18	2241.93	2209.99	2013.34	2093.31	6178.95	12288.91	15300.85	143491.96	782	756
2027531	19831.38	20736.59	14846.46	4850.9	18.65	0	0	0	0	4687.61	9520.85	18002.28	85094.72	782	756
2115837	25898.7	22345.49	19106.6	13065.13	9170.18	7597.59	6585.16	6783.6	7353.39	15027.57	16834.5	18211.83	167979.74	3128	3025
2157694	17627.3	19671.21	16256.54	6813.2	208.76	105.89	20.87	0	0	852.07	7183.93	6705.73	75445.50	325	314
1906625	9756.08	9869.3	10807	8525.71	6010.58	7456.67	6304.32	7475.26	7711.38	8306.02	7448.43	9327.45	98998.20	30	29
1724008	41675.12	43521.56	36634.86	23185.94	21158.25	20218.41	18434.51	19041.07	19533.41	22631.91	27260.13	31331.76	324626.93	522	505
2027477	3482	4312	4755	3844	3147	2822	2201	3421.55	2918.8	3222.74	3961.44	2968.18	41055.71	162	157
2026147	9526	7885	4551	1044	7685	0	0	0	0	971.72	1917.86	2962.56	28858.14	312	302
2024704	13243	13783	9247	1363	35	0	0	0	0	1289.57	2904.71	4232.49	46097.77	313	303
2157692	83200.72	86051.69	63959.89	0	29965.43	6834.27	9035.15	0	0	16246.92	34111.22	43198.4	393127.30	852	824
2024705	18718.2	20241.77	15064.57	7574.56	4269.87	4111.05	3664.21	3770.39	3879.48	5293.93	7054.47	8429.49	102071.99	522	505
1806706	74436.69	76274.8	57450.03	24498.08	15018.33	13989.55	14626.44	18382.63	18343.79	25220.1	32588.58	36019.79	406848.81	374	362
2035943	5022.06	4971.99	4129.98	2038.49	1663.45	2165.14	2227.6	1975.42	1999.31	1971.59	2266.8	2565.86	32997.69	240	232
1921575	20969.25	21984.27	12566.88	3110.39	0	1.09	0	0	0	1392.01	2735.22	3589.28	66348.39	281	272
2024648	31510.66	29751.13	26828.04	19940.78	16813.16	15790.91	16267.58	16848.11	15483.07	19478.95	21106.46	21052.69	250871.54	490	474
2027406	28469.57	31642.42	29114.76	21082.47	17131.9	20084.2	20568.64	20402.05	20091.28	22907.21	24180.05	25166.4	280840.95	209	202
2027544	25875.6	28909.55	26375.49	18916.7	15389.8	17828.2	18027.91	17831.05	17602.63	20429.8	21439.57	22314	250940.30	64	62
2115543	6235.91	6419.76	4415.07	1481.04	0	0	0	0	0	1269.56	2101.31	2571.24	24493.89	64	62
2157683	42100	45950	46250	34140	31190	32120	33770	32509.54	33594.91	30576.28	33736.09	35593.84	431530.66	550	532
2026758	17439.19	16478.17	11527.11	1317.84	0	0	0	0	0	720.69	6044.77	8552.19	62079.96	6.34	6
1806092	43799.89	40623.3	41159.8	38082.14	35652.62	39522.21	35050.94	0	29492.6	32055.88	32120.37	28831.8	396391.55	1046	1012
2094623	99166.89	87951.13	92305.19	78843.87	73838.86	78921.25	85485.38	0	71975.62	70265.66	79917.3	76253.64	894924.79	384	371
1987500	56390.84	55268.43	41044.81	8864.53	116.3	0	0	0	0	2119.89	18478.28	24216.95	206500.03	479	463
2027401	11364	10762	9839	5797	4302	4597	3665	4723.26	5326.18	6069.52	6453.84	7008.72	79907.52	707	684
2027402	13617	12798	11839	6930	5291	5682	4514	5930.12	6703.05	7466.55	7712.16	8443.28	96926.16	305	295
1658880	19408.34	19903.77	18952.89	19742.81	16145.27	16972.28	16503.8	16685.6	17072.46	18395.65	18350.21	19937.79	218070.87	272	263
2157688	21600	26660	30460	21290	23890	10300	13680	8756.27	15297.92	22145.73	19360.88	23257.28	236698.08	750	725
2157696	56064.77	59319.05	49235.03	24628.6	12824.97	13681.92	12472.19	9764.51	9204	18303.35	24962.79	31403.33	321864.51	450	435
1724001	17940	18990	11640	1600	30	0	0	10.45	0	3045.19	12256.82	8755.25	74267.71	173	165
1658881	29265.4	29842.09	24437.83	6327.01	0	0	0	0	0	6857.24	12488.01	14336.21	123553.79	403	390
1989625	6872.99	6905.21	5588.68	678.54	0	0	0	0	0	0	117.01	1211.76	21374.19	1300	1257
2035891	8211.53	7983.91	7740.58	6047.95	3112.69	2255.48	2247.56	2329.7	2150.8	3851.31	4925.65	5034.08	55891.24	591	572
2036188	28217.02	30411.08	23177.64	11828.12	12519.37	14134.26	13218.02	13661.11	11502.19	11321.98	14905.99	16298.01	201194.79	454	439
1921579	8769.81	7992.41	6892.41	5589.2	2453.43	1525.16	984.85	876.48	857.99	2650.63	3058.52	2657.19	44298.14	843	815
1909351	8603.04	8658.73	6221.61	1945.91	0	0	0	0	0	1902.41	3517.41	4023.92	34873.03	504	487
2123488	12725	11970	7444	2472	0	0	1	0	0	4113.46	6934.07	7672.04	53331.57	400	387
2024715	44896.15	46892.31	22503.95	3234.94	0	0	0	0	0	1452.24	5748.03	10661.65	135389.27	503	486
2035967	0	3981.55	4706.37	4850.61	4775.58	4608.63	5085.75	5065.56	4961.8	5887.76	5630.32	6044.81	55598.74	685	662

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2024851	21572.44	20725.5	17962.72	6805.09	0	0	0	0	0	2761	8973.17	11134.95	89934.87	244	236
2025158	25372.74	27730.18	11770.19	4099.25	0	0	0	0	0	3671.94	5919.24	6058.68	84622.22	626	605
2171231	84980.6	84028.95	68618.55	39447.7	23039.66	20135.73	22141.94	25375.33	23244.48	33906.09	38793.5	49299.04	513011.57	860	832
1724011	17910.07	18718.66	14384.64	1612.51	0	0	0	0	0	608.22	2145.6	2632.2	58011.90	907	877
2023840	6355	5817	5091	2926	989	851	819	828.06	827.42	2420.11	3737.66	4057.54	34718.79	934	903
1658873	19608.99	24870.07	12787.78	1106.63	0	0	0	0	31.23	1746.23	4542.82	7339.83	72033.58	1400	1354
2036167	19941.3	18967.6	15662.55	6110.78	244.96	2.11	0	0	0	4738.82	8186.21	8371.69	82226.02	4372	4228
1806077	79543.49	85524.23	70531.78	23504.01	2536.69	2119.43	1879.78	1566.53	1875.16	25046.01	50771.55	54309.36	399208.02	277	268
2025150	8596	9175	6460	1271	0	0	0	0	0	2140.95	3533.86	3813.89	34990.70	178	172
2123510	0	0	0	0	0	0	0	0	0	0	3542.04	4108.58	7650.62	90	87
2116171	43020	43670	34890	13590	160	0	0	0	10.4	4008.49	14915.85	22308.16	176572.90	1252	1211
2116174	76500	77200	62500	24900	400	0	0	0	0	7555.34	27682.45	41073.16	317810.95	1252	1211
2157697	64943.93	60633.16	62149.39	39327.43	12659.39	9972.94	9127.85	9846.21	16745.73	42986.55	47195.65	49656.22	425244.45	550	532
1989428	62257.14	66404.06	65705.73	39939.37	21144.38	14709.99	8895.06	8722.89	8833.81	36522.91	41676.35	48425.01	423236.70	302	292
2035975	13728.43	14007.89	14383.89	10360.21	7882.59	7993.9	8213.14	7959.85	7879.53	9428.34	8766.56	10497.49	121101.82	554	536
1826616	8591	8181	6265	2981	0	0	0	0	0	3539.5	3757.86	4537.71	37853.07	703	680
2123526	24090	23160	19240	4190	0	0	0	0	0	3487.37	8818.4	12524.16	95509.93	305	295
2027599	0	15873.09	7057.82	5865.03	3192.03	1637.97	740.52	1222.94	1898.87	2723.13	2961.89	3214.92	46388.21	123	119
1723898	51974.7	56732.12	42555.31	3605.43	0	0	0	0	0	3677.95	20600.22	17095.95	196241.68	424	410
2171221	28468.89	29488.23	28313.42	21994.66	18442.8	17668.88	18594.6	19773.37	18890.47	20449.9	21023	23144.98	266253.20	400	387
2064973	70903.05	66684.85	70416.88	49991.7	39566.19	34454.44	34168.75	31677.92	31165.6	43592.73	45732.91	47083.24	565418.26	424	410
2123509	33252.77	31825.82	18935.12	559.46	0	0	0	0	0	14811.7	16507.6	17615.38	162151.56	430	416
1526471	58751.08	56654.01	48426.43	28922.87	16043.02	16310.92	17589.38	16955.01	13320.42	25440.41	30144.15	35061.01	363618.71	324	313
1987785	6630	6370	6127	3550	1636	1407	1370	842.62	855.55	4577.09	4650.06	5294.27	43309.59	120	116
1884513	8658	8639	7219	4028	3435	3088	2964	3228.89	3399.74	4043.35	5207.49	5538.2	59648.67	241	233
1845573	43366.15	41099.18	27654.98	3047.16	0	0	0	0	104.17	1999.43	5570.92	9127.28	131939.27	698	675
1611640	15190	15960	11410	1500	0	0	0	0	0	62.84	1558.2	2597.07	48278.11	240	232
2116154	11567.29	12083.58	14573.69	11111.04	8466.94	10647.09	4816.87	8780.29	8239.99	8059.07	9050.55	9090.29	116486.69	141	136
1921703	35230	37830	33940	9970	30	0	0	0	0	7748.03	12506.96	15173.97	152512.35	400	387
2024703	20251.21	20599.39	15461.54	4785.55	95.34	0	0	0	14.55	2846.17	1463.12	4537.36	50739.39	430	416
2123295	0	3967.53	6053.31	5948.61	4686.26	2941.17	5306.78	4009.46	5647.54	6178.25	8731.74	11220.56	147044.16	340	329
2171230	42502.32	50145.52	30852.3	2224.31	0	0	0	0	0	1367.41	3338.61	3147.94	48532.66	703	680
1724240	13044.2	16466.68	9638.52	1475.98	35.23	46.55	0	0	0	1338.95	7364.07	4720.3	65508.19	264	255
1514012	21058.84	18028.26	10657.45	3658.1	21.17	0	0	0	0	0	2291.33	2673.94	34454.78	418	404
1526424	9210	10520	7490	1440	0	0	0	0	0	829.51	2291.33	2673.94	34454.78	418	404
2023947	9860.48	9951.36	8020.16	5850.4	4896.16	3680.64	3328.48	3428.6	3492.58	6097.42	5934.08	5861.93	70402.29	418	404
2133386	2099	2182	1597	148	0	0	0	0	0	390.89	588.19	665.53	7670.61	495	479
1987808	1068	74.4	0	0	0	0	0	0	11444.34	41.28	115.84	0	25143.43	370	358
1526437	115541	115250.82	81066.58	38403.78	14488.2	11868.69	5232.61	0	208.39	34996.64	48462.54	56130.41	521649.66	449	434
1724003	31890	33750	20000	6730	4190	4530	4840	2443.13	3241.51	4826.32	9689.62	15994.08	142124.66	305	295
1621318	35528.69	39323.47	17958.34	2496.3	0	0	0	0	0	2807.76	5971.05	9074.41	113160.02	550	532
1909301	1199877	1044922	736028	736028	973303	876755	1005138	1015939	975142	892054	950681	1107523	11949334.00	0	0
2027485	45808.74	44668.87	36204.87	14149.96	5421.98	4409.07	4186.31	3872.21	4167.74	13131.54	21349.71	23759.27	221130.27	1461	1413
2023712	3137	3370	3000	408	0	0	0	0	0	484.21	1057.58	1774.56	13231.35	1461	1413
2025166	6049.62	5928.22	3758.34	644.74	0	0	0	0	2.08	389.48	1199.82	1993.71	19966.01	192	186
1987812	14950	14510	9700	1030	0	0	0	0	0	1398.44	4613.42	5062.02	51263.88	1046	1012
2012861	5285.41	5532.63	4704.92	3496.64	1755.79	1421.97	1279.65	1109.72	1348.87	2492.88	0	0	28428.48	285	276
2123518	15382.97	16717	11308.86	2643.69	11.8	0	0	0	0	147.87	0	0	46212.19	1380	1335

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2115067	6236	5559	5691	874	0	0	0	0	0	2905.26	5378.49	5468.55	32112.30	316	306
1826506	7306.64	7823.52	7154.4	4342.78	3242.06	3780.51	2367.32	3314.78	3307.34	3533.07	3037.75	3312.2	52522.37	302	292
2116016	3777.16	3998.62	2791.57	820.62	35.28	0	0	0	0	490.78	1116.24	1403.3	14433.57	5500	5319
2132966	6174.42	6179.14	4978.86	2234.21	770.58	610.24	594.22	543.93	573.07	1466.4	2697.21	3154.41	29976.69	5500	5319
2027423	6221.82	6237.94	4912.99	1670.37	0	0	0	0	0	1584.29	2124.68	2933.21	25685.30	1709	1653
1723876	15615.26	15815.11	11492.37	5144.49	268.54	0	1.04	0	0	3002.7	5831.77	6994.78	64166.06	151	146
1723876	15615.26	15815.11	11492.37	5144.49	268.54	0	1.04	0	0	3002.7	5831.77	6994.78	64166.06	400	387
1546143	15944.28	16275.16	11405.02	4756.4	3060.64	2802.14	2440.24	2472.94	2672.63	4673.36	6131.1	7408.22	80042.13	605	585
2025049	4627.02	5206.08	4393.35	2630.37	2485.6	2257.11	2324.3	2084.75	1711.11	3138.35	3544.34	4265.5	38667.88	277	268
1546132	89302.63	78240.89	77345.52	77376.82	90371.64	82245	82136.28	77146.03	77530.65	54886.89	97349.76	102682.48	986614.59	130	126
1582085	2630012.91	2435979.44	2238963.49	2383895.84	2369598.29	2341449.06	2310441.37	2283340.9	2325619.05	2030993.43	2427369.15	2571584.5	28349247.43	63	61
1582086	0	0	0	0	0	0	0	0	2496.94	0	0	0	2496.94	90	87
1884510	31039.08	32018.59	23516.88	11295.72	5202.37	4996.59	4114.94	4197.27	4717.98	8508.73	12025.71	14344.76	155978.62	34	33
1826674	14036.65	17098.3	15769.01	12245.73	9389.43	9160.14	8657.58	7959.71	8469.29	8296.11	9222.71	11693.54	131988.20	114	110
2023831	3578	3577	0	6568	2482	2239	2178	1992.29	1943.82	2456.6	2427.57	2789.17	32231.45	89	86
2025178	18297	17893	15118	9884	6283	5902	5847	6111.28	6200.55	9398.19	11089.59	12245.25	124268.86	149	144
1582078	20049.26	24050.84	13772.88	2068	0	0	0	0	0	1147.82	4220.28	6527.43	71836.51	676	654
1685278	44480.3	49480.48	33521.65	7876.59	2947.42	2953.65	2733.1	2698.84	2983.58	8218.23	16964.11	19712.2	194570.15	133	129
1658878	54266.72	58765.28	41373.12	8497.28	0	0	0	0	70.98	5578.98	12441.5	20982.06	201975.92	1222	1182
2115590	218869	227467	232690	182695	138638	140348	136322	134980.12	106828.15	153624.16	142872.05	146392.32	1961725.80	644	623
2115595	23827.38	21611.91	16445.25	2.35	4135.13	6172.81	8533.31	7977.44	5585.07	1334.81	983.79	6335.26	102944.51	301	291
1406184	16128.85	14863.84	8564.65	1255.1	0	10.63	0	0	0	0	1220.82	3170.29	45214.18	144	139
1724851	76200	70300	70300	55400	45400	40400	39800	41564.27	40541.9	47049.53	60643.16	70964.96	658563.82	228	221
1724852	89600	82400	82800	66400	54000	47800	46700	48563.09	47629.27	55227.15	71575.39	83417.88	776112.78	1461	1413
2023960	27668.96	30006.77	21939.41	17712.62	17148.52	16883.1	16925.02	11458.36	12561.3	12607.52	10001.95	10951.3	205864.83	1151	1113
1722879	17153.88	16666.64	15012.16	6054.66	2647.67	1987.06	1692.19	1710.43	1886.38	3047.6	8289.13	9307.23	85455.03	302	292
1884404	3185	2712	1784	1202	450	245	222	202.47	208.3	705.04	1105.88	1656.76	13678.45	130	126
1921552	1727	1612	1646	1285	384	332	313	338.24	359.46	1072.02	1588.94	1765.34	12423.00	1500	1451
2070351	1812	1789	1854	1337	467	372	359	358.05	361.49	867.45	1468.19	1692.49	12737.67	89	86
2070391	1926	2380	2396	1297	398	322	281	280.8	315.67	984.49	1657.18	1804	14042.14	89	86
2123504	0	0	32666.11	6839.55	0	1.33	0	1.38	1.38	5196.94	6862.42	9527.38	61096.49	276	267
2024604	4732.17	4775.98	4847.52	4758.9	5752.12	6049	5255.49	6547.34	6922.72	6359.12	5314.09	5535.24	66849.69	110	106
1906623	8226	8280	6988	4911	1579	1134	1102	1144.45	1224.49	3204.56	5335.99	6559.33	49688.82	89	86
1546144	7625.24	7170.27	5020.63	969.29	0	10.59	0	0	0	0	2070.36	2139.76	25006.14	285	276
2115841	46347	50713	46800	37974	34681	31460	34594	35954.63	37975.19	42817.16	43673.42	51151.13	494140.53	240	232
2115844	56197	60986	56771	47677	46808	44519	47358	48286.76	48583.77	52789.95	53904.81	63052.1	626933.39	183	177
2123527	22660	24160	20330	5050	0	0	0	0	0	2857.48	5825.01	5947.01	86829.50	831	804
1723998	64702.67	64796.57	56990.23	31873.69	19421.83	16203.21	11725.55	9565.28	13339.21	27320.23	41543.4	47127.99	404609.86	907	874
2024645	13511.21	14727.03	13627.75	7196.29	1816.85	765.72	814.04	983.91	1131.45	6583.72	8224.61	10359.54	79742.12	800	777
2025149	7140.96	8125.3	4823.18	11063.84	13597.64	7540.84	5142.08	4317.16	5939.42	13647.02	10124.34	4187.42	95649.20	13.7	13
2027560	6766.6	7348.94	6473.24	3622.73	1596.3	505.39	408.23	512.81	1094.18	2727.95	3617.26	5055.16	39728.79	313	303
2116156	15797.76	15488.72	14387.05	4753.94	2463.37	1064.18	713.16	768.99	1004.37	2988.79	5530.94	6731.43	71692.70	76	74
2132737	68276.61	64865.71	49760.61	24196.15	17777.55	9689.97	10974.46	13821.37	10625.98	19713.2	30707.99	3918.42	352328.02	432	418
2036151	11354.22	11038.36	8837.91	3772.5	0	0	0	0	0	2799.03	4163.76	6244.48	48210.26	202	195
2064880	2969.77	2894.78	2423.45	1636.11	1263.86	1518.3	1511.6	3384.47	3134.67	3496.68	3358.45	2817.02	30409.16	115	111
2023958	35652.44	31428.63	20798.45	8747.58	139.48	0	0	0	0	2672.01	12106.34	14310.69	125855.62	397	384
2024684	8850.84	8623.04	8367.55	1835.42	6.34	0	0	0	5.2	2428.11	3695.26	3132.05	36943.81	281	272
2116148	11915.84	12482.68	11064.21	4982.62	1596.23	1356.45	1211.68	887.2	990.01	4521.35	5381.73	5730.85	62120.85	500	484

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2064974	36147.81	36164.89	20055.38	2026.33	0	0	0	0	0	2226.99	6717.43	7976.02	111314.85	456	441
2171222	22937.27	24134.56	13478.69	3934.44	0	10.58	0	10.41	31.25	2002.16	4217.45	5824.68	76581.49	300	290
1420497	115527.77	122133.51	107261.84	84155.05	75343.45	86828.98	85317.23	91572.79	83052.66	97824.1	89285.23	85449.93	1123752.54	2847	2753
2012880	8814.8	9150.68	7731.29	3507.95	1655.97	1205.89	1134.21	1096.34	1095.33	3253.86	4969.14	5095.16	48710.62	396	383
1724854	109907.22	87234.84	91066.07	67038.77	49154.24	40800.93	33327.79	12416.01	41689.96	64862.88	75247.13	78064.81	750790.65	240	232
1426742	29195.87	29442.32	21672.87	10965.6	3293.76	1772.33	339.21	1267.17	2094.46	11142.66	16027.98	20829.45	148043.68	272	263
2171232	42815.7	44200.08	36275.73	6891.87	0	0	0	0	4729.06	4729.06	4737.34	12795.45	152445.23	400	387
2116158	43077.73	54315.61	37669.17	9928.02	0	0	0	0	20.81	7704.34	20115.46	17656.2	190487.34	2169	2098
2116159	26081.96	29351.18	18862.54	4647.67	0	0	0	0	10.4	4734.87	10646.82	8023.15	102358.59	170	164
2133065	8416.21	8804.75	5968.86	992.28	0	0	0	0	0	871.73	2363.55	1739.65	29157.03	269	260
2116152	13171.29	11289.07	7800.13	0	710.04	0	0	20.84	52.04	861.63	1757.57	3148.79	38811.40	245	237
2157693	13206.53	13013.71	7382.28	1572.46	0	0	0	0	0	943.88	1879.98	2714.94	40713.78	300	290
2123523	0	34187.58	11289.7	2545.68	0	0	0	0	0	714.08	2169.68	3052.28	53959.00	375	363
2027510	7227	6659	8016	7063	5529	6053	7425	7263.7	7182.85	6899.56	7098.23	7423.65	83839.99	215	208
1954681	61236.72	57688.42	51493.02	28071.3	20407.41	19818.33	18699.62	18067.42	18552.19	27297.6	37526.22	39982.34	398840.59	127	123
2027454	8858	9062	6731	2166	0	0	0	0	5.2	2687.06	5070.25	4491.22	39070.73	127	123
2035408	3001.66	3205.15	2320.39	0	0	442.87	0	0	0	326.27	855.57	1046.75	11198.66	127	123
1685269	29590	31920	33890	27680	25510	25720	26470	21112.48	22801.7	25484.23	24451.58	28011.47	322641.46	216	209
2116004	7345	7434	5284	370	0	0	0	0	0	608.52	2762.65	2885.2	26689.37	103	100
1756662	47490	56330	57890	50360	25390	18090	17880	0	0	0	0	0	255550.00	354	342
1921701	81040	75070	67150	31860	31970	29870	17880	0	0	0	0	0	334840.00	84	81
2123495	14902	14811	12100	6530	2700	424	1	12.51	0	6961.21	7954.85	8878.9	75275.47	120	116
1987815	84541.56	83631.3	65525.51	35607.85	19243.77	17029.93	15524.67	15381.29	16188.61	30010.87	39558.18	41352.79	463596.33	131	127
1724010	22857.91	22588.23	21240.36	21155.16	21194.15	20218.71	20398.22	19644.04	21508.42	24033.75	25258.09	24551.6	266540.64	76	74
1828561	9899.9	10509.16	8348.19	3837.81	1198.37	975.91	912.73	869.82	881.66	2336.17	3934.89	5015.43	48720.04	132	128
2035839	7751.44	7905.23	5899.49	2775.58	1541.01	1506.84	1500.39	1534.61	1483.76	2470.07	2947.73	3537.14	40853.29	112	108
1758664	34618.43	37717.48	25344.57	6807.44	10.57	74.03	0	0	0	3013.99	8978.65	15542.27	132107.43	346	335
1921700	58494.36	65010.04	47362.69	18029.78	0	22.65	0	0	0	7904.17	15609.99	22254.42	234688.10	549	531
2025107	10770.48	12032.57	7347.97	540.89	0	0	0	0	0	0	2261.95	2891.1	35844.96	578	557
2116161	202863.58	200472.47	146189.2	71275.74	0	0	0	0	0	1054.27	59851.8	140635.86	822342.92	516	501
2157680	73289.9	73681.24	53274.76	50338.91	44449.62	40869	39999.78	41394.16	41728.75	47608.17	43210.42	51981.5	601826.21	267	258
2036180	61366.35	62769.03	58489.32	49483.81	33178.82	29746.38	23868.67	24116.6	27916.25	35705.01	33789.14	30491.78	470921.16	1362	1317
1884579	7209.61	7638.64	5830.05	1642.52	0	0	0	0	0	2279.79	4194.63	4667.89	33463.13	174	168
1685272	61071.79	65597.61	52301.34	20285.85	0	0	0	0	0	8003.4	21312.9	22824.6	251397.49	174	168
1987814	562964.57	469138.17	539156.99	539561.41	489646.47	519302.36	468158.94	494307.5	421930.66	510248.94	479313.64	408412.5	5902142.15	3432	3319
1658883	48320.17	49730.32	25458.31	2130.45	0	0	0	0	0	3468.25	10638.67	12200.13	151946.30	111	107
2157699	54899	55836.3	33475	4284.8	0	0	133.9	0	0	2529.1	9566.7	9982.41	170707.21	20	19
2025174	8896.4	8898.47	6677.6	5109.86	4604.48	4012.2	4015.15	4060.14	3722.1	4353.2	4184.37	4345.93	62879.90	78	75
1452606	0	80985.44	33171.2	13109.44	0	0	0	0	0	10495.45	17828.49	10373.59	165963.61	480	464
1601879	53380	47580	54860	68040	77000	75730	79480	77587.07	73038.6	59172.3	77643.99	64606.29	808118.25	782	756
1906514	118185	110425	115923	95908	92151	87331	83249	85301	85143	94305	99759	102378	1170058.00	0	0
1526402	18237.2	17240.59	14347.24	1417.19	0	0	0	0	10.96	2774.75	6339.93	8018.11	68385.97	172	166
1582088	54735.89	56531.91	41949.09	13461.31	3573.71	3285.19	3206.86	3038.84	3199.71	13774.46	21889.71	26522.44	245169.12	42	41
2123514	83704.45	82391.27	56686.69	22912.52	11563.85	13101.11	1069.77	0	213.04	4521.18	9495.52	9643.26	295302.66	291	281
2123515	74.76	0	0	0	0	1347.61	9072.89	0	7766.88	10892.02	10474.68	12542.6	52171.44	211	204
2123516	37550.42	37138.1	31033.14	17191.34	23774.88	42792.73	47557.08	40092.3	2657.17	12448.88	15924.34	17887.34	326047.72	260	251
2026766	20696.94	19267.71	11542.58	3748	0	0	0	0	0	2506.84	5407.22	6263.42	69432.71	272	263
2027581	14880	16372	10739	2974	0	0	0	0	0	3928.09	6883.13	7141.58	62917.80	354	342

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MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL CCF	Max Daily Qty (Dth)	Max Daily Qty (Mcf)
1553327	41193.51	41686.74	31626.46	16977.82	1686.94	0	0	0	204.73	16080.83	18188.67	20816.41	188462.11	152	147
2133053	10076	11150	8754	2031	0	0	0	0	0	0	0	0	32011.00	257	249
2133091	88520	82980	86920	86990	85070	79370	76200	85180.77	78304.38	88680.2	89254.77	89495.55	1016965.67	278	269
2027509	0	20205.92	19447.03	12483.4	7736.02	6905.61	6913.58	7821.2	8286.92	10398.8	14156.35	14988.78	129343.61	450	435
1658884	103649.16	106021.97	67342.4	30823.79	10776.64	5721.32	4287.18	8350.12	10845.84	34855.11	33944.07	31747.4	448365.00	240	232
2064979	39460	46232.51	25499.17	14764	16280.48	12775.8	18328.11	18041.23	14521.59	13002.04	9571.55	10511.68	238988.16	235	227
1553324	35007.13	35264.13	30968.11	11777.28	14.2	0	0	0	0	4925.17	16696.76	19444.05	154096.83	167	162
1601878	44608.31	41091.99	35363.7	1544.97	198.81	10.58	0	0	7991.74	16920.11	25902.3	173632.51	251	243	
1724219	14569.09	19063.45	21219.2	19329.59	16895.8	19890.96	19001.73	19749.65	20076.06	23237.86	20277.76	18017.74	231328.89	429	415
1526468	21306.6	23218.32	13681.08	2200.08	0	0	0	0	22.25	3082.01	3943.68	5652.25	73106.27	100	97
1987803	76267.52	71933.05	48862.73	39325.87	59344.57	61884.13	70309.89	69992.54	64558.8	39405.83	39959.93	39303.32	681148.18	296	286
1989421	25574.89	28575.93	15984.5	210.79	0	0	0	0	1.1	0	2833.32	6142.54	79323.07	400	354
2024719	9329.83	10623.56	7472.13	921.34	745.42	691.87	624.46	602.32	661.75	722.87	2359.68	4253.46	39008.69	573	587
1621319	46880.32	40893.19	34894.7	17190.15	9753.15	8782.68	8612.34	7784.13	8526.94	14789.39	18532.37	22456.57	238895.93	65	63
1785666	36417.43	11553.46	21065.57	6211.73	0	0	0	0	0	1582.17	0	0	76830.36	163	158
2023955	101703.25	93027.91	86699.47	30288.9	7859.62	5192.6	4028.12	3747.55	3265.66	20889.81	34562.49	54856.79	446122.17	149	144
2027392	12501.17	12654.55	11754.93	7851.14	5299.54	6075.72	5848.77	5488.55	6119.54	7751.28	6709.73	7827.27	95882.19	400	387
2171233	42599.61	43130.01	32556.32	12093.47	2006.57	1483.21	1253.03	1461.8	1459.4	7545.33	14495.21	16659.97	176743.93	650	629
2027498	22445.53	25408.77	29484.64	25226.62	21887.17	22049.16	20582.96	20272.19	23066.82	22752.57	22361.67	24714.8	280252.90	90	87
2035986	5015.59	6478.87	5401.94	3583.42	2521.78	2617.64	2686.98	2518.36	2301.63	2503.2	3098.28	3180.48	41908.17	599	579
2026707	0	23440.07	4717.17	611.81	8.03	5.34	0	0	16.62	510.78	0	0	29309.82	260	251
2027156	0	7451.43	0	5607.47	8.03	8.02	0	0	16.64	580.47	0	0	13672.06	90	87
2036046	3773.09	3919.19	4620.16	1074.16	215.47	0	0	4.15	0	674.73	2164.43	2708.08	19153.46	120	116
2027224	4920.38	5084	5377.3	888.65	0	0	0	6.25	0	0	1603.98	2839.58	20720.14	201	194
2025156	7599.21	9762.13	8131.61	3284.16	0	0	0	5.2	0	2109.95	3327.91	3705.54	37925.71	139	134
1526403	46089.55	45329.12	40054.18	21991.12	7197.89	4864.05	4262.67	3477.17	3605.83	17088.36	23713.68	28420.51	246094.13	599	579
1514011	165466.68	17119.84	121063.35	58416.32	16923.44	0	0	0	10.39	34704.26	79293.58	86476.32	733474.18	254	246
1954684	63301.6	45359.24	61110.09	19597.99	0	0	0	0	0	14478.12	28126.19	30571.87	262545.10	296	286
2036186	133374.37	132039.57	104410.39	26807.12	1890.32	0	0	0	0	25663.91	50620.94	65445.23	540251.85	141	136
1806080	14973.15	13502.35	11394.33	7584.83	6647.45	5447.35	4741.82	5044.27	5044.72	6787.55	10560.39	7432.89	99161.10	89	86
2036191	31580.8	25446.4	33852.8	18062.4	17494.4	46235.2	45667.2	40340.86	45693.65	39834.6	80583.43	87739.14	512530.88	120	116
2036194	302417.26	268386.16	294284.19	243283.27	249844.1	217316.82	207982	236808.57	231341.98	248998.94	260652.04	406028.59	3167343.92	330	319
2115831	33421.44	25066.08	20151.95	3615.33	950.69	11689.47	10524.54	923.18	6502.24	10125.2	31593.27	27632.09	182195.45	120	116
2012851	4640.57	4893.72	3809.52	2024.77	662.81	200.11	179.48	276.77	466.74	1239.77	2168.47	2476.43	23039.16	82	79
2012853	4938.55	4993.6	4289.23	2872.09	1120.08	422.57	98.04	204.74	378.17	1429.06	2592.89	2701.78	26040.80	72	70
2012857	4027.91	3974.79	3369.96	1991.27	608.57	157.67	316.38	223.46	368.77	952.53	1672.26	1732.08	19395.65	90	87
2027476	10430	9784	8783	7006	5471	4220	4355	4901.64	4723.5	6559.44	7142.4	7257.37	80633.35	72	70
2025003	6440.49	6458.86	4869.43	2455.33	1596.59	1788.82	1815.33	1955.01	2060.26	2801.76	3155.91	3345.38	38743.17	54	52
2025082	3628.53	3119	2465.93	1546.18	67.5	5.28	0	0	0	515.61	1079.54	1206.1	13633.67	75	73
1987801	36705.96	30633.5	27595.82	12710.55	7972.05	11732.05	22626.92	20359.07	16881.84	10317.19	14179.3	16565.99	228280.24	207	200
2027524	39506.84	32921.29	29757.67	13759.98	9031.02	13341.59	25224.41	22743.31	18712.62	11488.75	15791.65	18597.78	250876.91	75	73
1611615	13517.68	11594.98	7413.36	2588.2	49.35	3.17	0	0	3.12	1152.14	2389.69	3168.28	41879.97	189	183
1546088	31009.05	26264.31	23817.24	8877	0	0	0	0	0	0	0	0	89967.60	50	48
2026852	0	0	0	0	0	0	0	0	0	0	0	0	0.00	255	247
2027258	33733.46	25588.41	1321.29	11.1	0	0	0	0	0	0	0	0	60654.26	90	87
2027336	0	11.35	0	0	0	0	0	0	0	0	0	0	11.35	90	87
2123490	8698.7	9767.06	5733.81	1254.77	3308.72	3842.81	3550.69	4560.92	4247.72	820.3	1728.74	2298.98	49813.22	50	48
1526435	105217.19	101665.27	84792.08	60687.08	54126.34	46631.04	43242.61	43757.29	47526.31	60786.46	67266.47	71885.31	787583.45	600	580

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2116157	44030	43660	40240	26760	19460	18440	16820	18547.33	19000.84	25469.9	30451.04	36171.46	339050.57	86	83
1658874	48995.68	43974.56	46598.72	44872	38783.04	36340.64	21561.28	34639.25	37558.13	44358.01	44235.44	32641.12	474557.87	402	389
2123517	17670	17760	12510	6330	4860	3020	2860	3164.39	3689.6	7500.52	12353.86	13589.88	105308.25	430	416
2026874	4707.81	5133.1	3896.86	1304.76	439.77	19.03	0	0	0	862.52	1951.01	2129.68	20444.54	703	680
1954683	37504.71	52181.3	42486.94	41600.33	23559.15	13743.81	16426.03	16398.04	33074.93	0	18742.03	23542.72	319259.99	200	193
1685268	14970.41	14354.49	8647.69	1855.75	10.6	0	0	0	0	672.44	2376.48	2840.59	45728.45	144	139
2027381	5362	5359	4666	1866	1125	1110	1087	1081.25	1067.13	1555.79	2013.63	2778.23	29071.03	513	496
2027430	5323	5382	4619	1893	1129	1141	1036	1127.28	1003.67	1582.92	2013.54	2782.55	29032.96	232	224
2027642	27833.72	33648.76	15213.86	4348.47	0	0	0	0	1.17	1460.25	5358.34	7136.76	95001.33	392	379
2115832	29780	30250	22870	11440	6390	5280	5070	5492.72	5690.59	10787.82	12864.88	12163.9	158079.91	375	363
2115588	11447.61	11904.77	7967.9	2883.37	1914.41	1671.96	1625.27	1735.5	1672.75	2802.43	4582.71	6167.6	56376.28	100	97
2115589	10379.77	10482.69	6800.43	2636.64	1774.99	1555.13	1508.99	1605.01	1549.6	2599.98	4236.07	5633.11	50762.41	168	162
2023812	17843.75	17970.17	12821.61	6156.49	2660.32	2267.9	2212.7	2225.24	2173.59	5233.14	6239.67	7878.77	85683.35	235	227
1402992	47930.35	44260.61	36747.28	13895.28	2791.16	2479.73	2371.02	2307.68	2397.05	13946.17	20733.59	23561.79	213421.71	500	484
2023952	47995.99	44828.49	36375.36	13568.62	5264.89	4408.6	4167.89	4062.05	4012.95	9231.13	21653.68	24671.97	220241.62	140	135
1771898	0	0	6592.95	127257.44	75000.64	70640.71	94411.97	151018.71	120143.05	120687.49	85116.31	36884.57	887753.84	648	627
1722906	24781.08	22794.54	21075.88	11805.71	999.31	0	0	0	0	5640.39	13414.45	13672.9	114184.26	222	215
2036145	10035	11960	6475	2265	0	2957	2134	1965.63	1873.01	3021.17	8479.16	9525.72	60690.69	24.6	24
2027591	3702.61	3669.34	3187.09	2181.7	1514.72	1133.84	1314.85	1311.36	1014.11	1886.9	2081.37	2437.93	25435.82	83	80
1771899	0	0	0	0	4700	100	100	103.95	0	0	421.04	1978.49	7303.48	90	87
1685280	44680.74	49538.72	37660.95	33153	29607.11	23925.59	33112.01	28329.83	36309.01	34414.53	32844.28	51427.65	435003.42	605	585
2171228	72941.42	77978.75	64685.36	34748.7	21034.77	17590.3	20676.67	24651.43	25640.3	37044.84	39510.64	43542.46	480045.64	480	464
2026737	10610.77	11976.12	7861.03	2347.9	0	0	0	0	0	1299.38	3568.43	3767.76	41431.39	424	410
2027620	18810.12	18991.34	15400.37	4838.23	369.85	15.6	2.79	0	0	2000.73	4714.45	5792.12	70935.60	143	138
2026838	18571.53	19160.94	14332.16	4370.63	0	0	0	0	0	2650.14	7217.91	8463.62	74766.93	946	915
2116150	18266.73	17987.06	12564.45	5900.45	0	0	0	0	0	2265.72	6383.7	9298.85	72666.96	270	261
1989422	10293.52	11275.61	8518.82	475.23	0	0	0	0	0	0	2238.06	2101.68	34902.92	73	71
2027589	12140	11697	7893	1398	0	0	0	0	0	2133.21	3988.67	4166.9	43416.78	153	148
1414492	38984.51	44106.83	30534.14	12622.4	0	0	0	0	0	3780.43	15050.39	13333.73	158412.43	223	216
1526470	14584.39	14457.29	6936.22	338.96	0	10.6	0	0	0	618.45	3989.85	4808.63	45744.39	120	116
1553328	11136.4	13095.96	6227.47	1536.72	0	0	0	0	0	997.66	2652.97	3254.53	38901.71	154	149
1658876	35482.37	34875.84	24070.98	1080.74	0	0	0	0	20.84	1413.43	5742.83	9025.18	111712.21	54	52
1906630	7481	7229	4706	1058	0	0	0	0	0	230.58	1208.03	1835.22	23747.83	380	368
1987496	16323.58	17550.91	11235.67	1983.43	0	10.59	0	0	0	2169.75	5130.27	10084.98	64489.18	72	70
1987786	13644.39	13200.91	11362.5	1875.91	0	0	0	0	0	631.29	1550.11	2560.25	44825.36	168	162
2024367	7523.09	7598.94	5304.66	1183.42	0	0	0	0	0	108.3	1271.51	3151.24	26141.16	455	440
2024389	3275	3322	2365	266	0	0	0	0	0	232.06	635.96	827.45	10923.47	126	122
2024706	9932.6	10385.16	7695.15	1133.26	0	0	0	0	0	595.95	1535.11	2374.7	33651.93	380	368
2027464	17037.6	17098.94	10925.51	2071.1	82.91	0	0	0	4.16	3202.55	5809.27	6219.3	62451.34	50	48
2027483	10659.37	8577.95	10752.44	1946.98	1.03	0	0	0	0	12.89	4287.81	6089.35	42327.82	424	410
2027484	8985.72	9160.39	7543.61	2912.88	0	0	0	0	1.04	689.8	1492.27	2031.67	32817.38	250	242
2036185	29388.44	27861.28	16180.04	3427.31	0	0	0	0	0	902.5	3934.42	6114.63	87808.62	750	725
2036189	28387.65	23383.94	19407.46	4652.07	0	0	0	0	0	1117.34	4867.71	5875.43	87691.60	186	180
2036193	23400	23200	14000	3000	0	0	0	0	0	2098.18	3886.76	5554.06	75139.00	48	46
2036195	48030.81	51431.67	37455.66	6864.79	0	0	0	0	0	3370.72	8733.39	17112.36	172999.40	190	184
2064980	88970.35	91560.38	74079.45	13042.22	0	0	0	0	0	6599.44	24082.91	27054.55	325389.30	95	92
2115136	9617.99	10667.12	5410.05	930.47	0	1.09	15.09	0	1.07	670.35	2200.21	2296.6	31810.04	27.4	26
2115141	6823	8054	5013	652	0	0	0	5.21	14.58	860.3	1521.79	1826.23	24770.11	690	667

Philadelphia Gas Works  
January 2015 - December 2015

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MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL CCF	Max Daily Qty (Dth)	Max Daily Qty (Mcf)
2115143	12501	11818	8676	2488	234	0	2	0	0	1572.05	4255.33	4724.88	46271.26	156	151
2115833	8640	9263	7579	1089	0	0	0	0	5.19	1095.47	3153.51	3070	33895.17	341	330
2115842	11630	9700	4779	1314	0	0	0	0	0	932.18	2119.37	2748.32	33222.87	748	723
2116149	10298.25	9784.46	6860.66	1420.85	0	0	10.46	0	0	463.79	1955.86	2464.56	33258.89	98	95
2116151	18116.4	22130.64	15486.46	5248.11	145.79	0	0	0	0	4748.09	7540.18	9326.94	82742.61	72	70
2123489	12595.04	14141.89	6863.58	1960.39	1.03	1.03	0	2.14	1.07	1392.18	2391.25	4042.64	43392.24	26	25
2123513	31390	26750	15340	5610	0	0	0	0	0	3307.1	8299.22	9321.31	100017.63	26	25
2123520	19996.12	16484.56	12813	1605.8	0	0	11.01	0	0	1370.73	3151.36	2492.52	57925.10	43	42
2123521	20275.18	19172.63	12640.62	1126.53	10.94	0	0	0	0	1752.12	4413.27	5218.16	64609.45	90	87
2157690	0	0	0	0	0	0	0	0	0	0	0	3887.28	3887.28	90	87
1987810	12025.28	11949.36	8086.3	964.44	0	0	0	0	0	598.58	2673.61	2812.51	39110.08	2087	2018
1546148	43865.97	40631.75	36206.83	11613.61	0	0	0	0	0	6985.18	17741.83	157045.17	157045.17	397	384
1553325	74544.66	62033.46	65020.29	23157.3	0	0	0	0	0	19464.58	31936.79	28862.88	305019.96	417	403
1658875	37770.69	34255.42	33977.62	11326.22	0	0	0	0	0	4723.96	15775.38	7274.3	145103.59	58	56
1724856	43342.86	42709.65	27768.59	4965.19	0	0	0	0	0	2105.49	8309.71	15625.77	144827.26	844	816
2024702	40893.71	38645.01	33921.22	11486.43	0	0	0	0	0	12.03	13008.78	24175.29	162142.47	2365	2287
2025031	16779.36	14930.67	10512.47	2217.7	3.26	0	1.08	0	0	3460.54	6277.44	8513.96	62696.48	701	678
2027520	22147.88	21382.81	15780.03	2369.25	0	0	0	0	0	138	5078.01	5963.94	74102.10	500	484
2115137	46555.74	40127.32	32704.04	13422.47	0	0	0	0	0	14.59	12542.64	22880.47	186897.08	430	416
2123528	28782.31	26260.58	20169.93	10484.16	1100.94	0	0	0	0	20.8	6442.1	9942.88	110233.22	149	144
2133093	37272.27	39519.15	30865.15	3644.64	17.3	16	33.3	27.73	19.37	905.82	12107.01	13168	136689.92	90	87
2064977	11120	5800	6380	2400	150	0	0	0	6.25	1176.59	2316.11	3411.01	48858.85	377	365
2024694	16079.73	15306.5	8549.2	2013.46	0	0	0	0	0	0	0	0	6847.00	229	221
2027618	1930	0	2039	0	1518	1360	0	0	0	0	0	0	103214.19	1269	1227
1722873	22950.6	22892.78	17237.54	7643.77	3080.23	2054.66	1674.4	1439.79	1527.69	5123.44	8201.36	9387.93	103214.19	1269	1227
1722888	28474.48	29668.31	23075.85	11863.38	7179.67	5717.26	5400.24	5261.18	5320.65	8873.92	11564.52	12942.07	155341.53	400	387
2024285	8304.2	8340.26	6723.64	2986.95	872.6	554.12	529.51	474.99	506.4	2050.86	3711.73	4323.72	39378.98	64	62
2024290	10832.75	10412.53	9660.85	4663.05	1505.17	633.6	605.71	557.53	566.88	2751.02	4902.3	5633.88	52725.27	64	62
2024299	10077.97	9929.54	7828.04	3279.4	1014.14	581.67	571.21	525.12	647.01	2540.87	4514.28	4928.6	46437.85	4740	4584
2024675	9517.83	9178.7	6198.69	3640.6	551.99	493.12	525.14	505.07	532.08	2778.61	4899.12	6210.89	45031.84	64	62
2027527	17736.16	18405.78	14021.5	7071.79	2042.59	1773.5	1814.58	1744.74	1760.72	4673.63	7315.75	9908.18	88268.92	64	62
2123460	9271.02	9884.27	6066.59	1053.8	0	0	0	0	0	533.55	1408.02	2384.77	30602.02	89	86
1884576	38800.55	42527.9	32033.52	9837.54	802.68	870.52	0	0	133.55	11738.34	16605.99	23349.75	176700.34	89	86
1611635	92097.05	91525.46	63796.83	25505.74	6616.93	6265.16	5263.03	5164.08	5339.95	21376.34	30662.76	39970.37	393583.70	3300	3191
2027387	0	0	0	0	0	0	0	0	0	0	0	0	18359.78	224	217
1685276	27193.91	29628.86	14247.75	1472.49	0	0	0	0	0	2100.38	3656.68	4815.98	83116.05	437	423
1658882	43629.24	51002.3	28034.59	2845.07	0	22.65	0	0	33.37	2081.58	11059.63	15622.84	154331.27	31	30
1723900	40986.53	46845.62	35748.23	26799.27	27600.28	23845.38	24650.49	22557.42	23661.75	24996.51	25016.6	25421.74	348129.82	453	438
2171234	86080.8	99537.6	83624.4	39302.4	32360.4	28515.6	27127.2	30336.89	36064.95	41778.82	48410.96	49589.24	602729.26	500	484
2115901	743	771	511	166	0	0	0	0	0	96.63	241.69	317.22	2846.54	925	895
1987633	4336	4631	3253	390	0	0	0	0	0	88.04	1359.42	931.28	14988.74	1252	1211
1987683	1862	1790	1583	550	0	0	0	0	0	3.12	971.21	669.22	7428.55	302	292
2035694	1936	2038	1462	300	0	0	0	0	0	140.7	483.68	615.88	6976.26	60	58
2115434	1012	1175	726	150	0	0	0	0	0	87.29	327.9	3911.95	541	523	
2023825	8616.93	8303.62	5952.08	2103.66	0	0	0	0	3.12	916.65	2115.62	2702.58	30714.26	541	523
2027536	8083	8375	5379	572	0	0	0	0	0	635.69	3206.81	3968.5	30220.00	388	375
2027563	8886	8548	5615	725	0	0	0	0	0	1007.24	4283.3	3852.68	32917.22	416	402
1722889	12144.48	11082.96	8940.04	2949.29	29.61	22.2	0	0	0	3169.4	5411.32	4924.19	48673.49	373	361

**Philadelphia Gas Works**  
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MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL CCF	Max Daily Qty (Dth)	Max Daily Qty (Mcf)
1526423	0	0	0	0	0	75050	2410	2475.01	3324.23	7187.52	9472.46	10718.17	110637.39	400	387
2026870	4318	4855	2852	412	113	17	0	0	0	946.79	2394.91	2706.45	18615.15	1851	1790
1806079	28462	27175.91	19629.59	8811.63	1339.44	1645.77	363.39	0	516.14	6055.21	9095.85	12071.35	115166.28	107	103
2027641	17686	17946	12584	3901	3	0	0	0	0	1954.81	4408.45	6984.9	65468.16	368	356
2024992	2064.63	2168.17	1560.61	545.19	21.8	0	0	0	0	241.95	676.01	862.13	8140.49	1851	1790
2025099	6444.84	7032.74	4467.68	808.25	15.54	0	0	0	0	223.64	1635.99	1966.82	22595.50	54	52
1986388	6821.02	7204.15	4931.33	1175.97	8.37	0	0	0	0	519.76	1881.39	2793.74	25335.73	38	37
1526404	17360	17480	14450	8190	3400	2900	3170	3111.91	2887.21	5548.59	9461.59	10845.46	98804.76	523	506
1909334	6002	6078	4638	2350	1571	873	910	924.33	976.57	2579	3400.07	3853.29	34155.26	98	95
2027383	9552	9873	6682	1264	0	0	0	0	0	665.38	1908.98	2353.31	32298.67	645	624
1701736	367200	1232100	298500	425800	3300	0	0	117634.32	0	132360.35	0	22462.46	2599357.13	60	58
1701737	303300	1014100	244100	343900	2700	0	0	94419.66	0	129437.79	0	22046.6	2154004.05	432	418
2123522	6060	5590	0	4050	0	0	1	0	0	62.25	124.04	191.79	16079.08	430	416
1611015	0	0	200	28400	28800	34800	25500	31033.21	23129.2	38796.47	45356.29	18657.45	274672.62	547	529
1403018	15927.58	20513.57	9386.51	2426.75	52.58	0	0	0	31.24	1455.54	3083.45	3924.85	56802.07	1225	1185
1658885	534.19	532.65	4149.96	1372.85	0	34180.7	29074.05	20961.73	21362.71	2512.5	417.22	0	115098.56	5500	5319
1658886	0	0	0	0	0	0	104.18	0	0	0	0	0	104.18	5500	5319
1786008	444185.23	432274.39	380370.87	258530.45	194985.42	166281.28	153433.03	157070.58	161558.56	212180.65	235441.24	260489.86	3056801.56	5500	5319
1786009	411171.91	399447.01	351757.52	239928.08	181981.67	155789.89	143092.77	146522.91	150822.49	197635.02	218939.8	242174.11	2839263.18	740	716
2036192	82412.03	83168.6	60001.45	38147.12	40052.26	31076.04	28531.25	29087.59	28046.33	34169.36	38564.21	42607.71	535863.95	55	53
2064981	2770.29	0	0	0	0	0	0	521.8	0	0	0	0	3292.09	11586	11205
2064982	1001088.51	1009562.62	868125.15	533422.63	358995.46	322912.32	291840.95	301592.03	318512.02	460431.32	519569.42	557740.53	6543792.96	90	87
2027386	7748.67	7478.2	10790.87	8414.14	5591.49	3083.56	4532.36	5187.81	4145.69	5277.1	6692.39	5407.2	74349.48	141	136
2026820	19677.25	18230.73	18772.1	17898.39	17731.82	7594.12	3774.89	1857.68	0	1.38	0	9516.58	115054.94	300	290
2023953	80440.16	82962.08	67467.04	45451.36	28672.64	24264.96	20152.64	20727.26	21749.88	40022.77	40614.37	41893.18	514418.34	576	557
2027564	7167	8588	4647	2227	1000	364	0	220.49	564.71	952.52	2309.23	1676.46	29716.41	728	704
2027625	6104	6460	4707	1363	469	25	0	334.24	727.34	1431.65	1932.82	1142.09	24696.14	1565	1514
2027529	70038.45	68643.3	51185.89	23151.2	8690.6	7030.82	5774.64	6121.88	5857.73	18207.27	22320.33	28219.75	315241.86	706	683
2035886	8078	4508	6800	7142	4727	6440	6055	5506.8	5496.48	8457.58	7670.47	5810.26	76691.59	95	92
1526433	63778.63	63271.62	54302.06	38110.16	33638.94	28011.1	26430.72	25924.87	25918.03	34123.68	36854.8	39876.69	470241.30	1043	1009
2116160	38228.52	33780.06	33404.9	26588.88	103.64	0	0	0	0	4433.06	21231.9	24794.7	182565.66	547	529
2027433	10476.89	10111.66	7407.35	2408.62	1993.98	2694.15	3749.31	3397.05	2585.78	1629.96	2613.79	3489.1	52557.64	450	435
2027434	8402	8430	5970	1949	1571	2173	2981	3088.17	2519.01	1438.87	2208	2910.77	43640.82	455	440
1909300	162725	175500	148406	108860	20944	40099	90	226	23407	87936	45585	62187	875965.00	0	0
1685277	38790	37350	18580	1330	0	0	10	0	0	837.89	4302.23	8729.23	109929.35	380	368
1546146	24439.91	17263.49	15124.83	5689.82	5794.61	5203.47	4512.29	4531.84	4731.86	8474.98	11156.19	12004.3	118927.59	313	303
1526425	27352.46	27626.65	21179.05	11070.85	2653.79	2342.91	2253.23	2163.76	2203.92	9953.98	12719.42	14833.57	136353.59	479	463
1582089	66927.95	70006.44	55698.75	24356.18	5916.44	5172.29	4919.55	4695.63	5553.61	17280.7	28124.21	31835.63	320487.38	360	348
2024714	11763	12338	9238	1317	1817	0	0	0	0	1327.02	3650.05	3861.97	43495.04	167	162
2064820	4276	4747	2890	404	0	0	0	0	9.35	393.9	804.33	1165.43	14690.01	99	96
1526476	28949.25	31017.21	25782.85	15192.5	14159.14	13054.31	13845.06	14391.91	15352.36	17511.16	19419.71	19345.85	228021.31	43	42
2027583	9745.5	9752.91	19780.78	19286.68	29807.93	29720.1	30502.29	30415.69	29487.42	30477.36	29731.39	29841.22	298549.27	203	195
2036187	47124.73	48395.63	44560.91	22795.58	333.05	0	13.9	0	0	9945.63	19720.29	21911.29	214801.01	576	557
2116162	172500	174800	154000	111900	91800	81900	78000	83143.32	89531.14	114330.84	118887.25	126518.72	1397311.27	2549	2465
1685275	0	0	5340	2460	3000	4650	0	12380	0	3500	3670	3340	38340.00	375	363
2027494	25773.68	28657.3	21066.47	4610.58	0	0	0	0	0	6402.33	11436.63	11705.03	107652.02	100	97
2123463	5576.8	6051.49	3958.92	1965.03	1247.32	1075.55	982.87	961.49	1123.45	1908.16	2124.18	2326	29301.26	80	77
2123484	5046.5	5460.78	3526.91	1718.82	1113.06	974.88	900.33	885.27	1025.45	1709.4	1878.19	2047.62	26287.21	119	115



**Philadelphia Gas Works**  
**January 2015 - December 2015**

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MTR_NBR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL CCF	Max Daily Qnty (Dth)	Max Daily Qnty (Mcf)
2123467	7203	6330	5928	3068	1028	793	725	705.05	722.1	1979.42	3559.65	4058.41	36099.63	80	77
2115593	21159.58	22365.09	19202.11	10570.54	8178.15	8217.18	6245.18	6481.33	8007.73	8483.67	8799.42	9827.8	137537.78	388	375
1575425	12240	12460	10160	1270	0	0	90	0	0	412.15	3291.04	5534.55	45457.74	383	370
1724210	24891	16625	14571	4285	1677	1611	19.81	336.59	1513.49	6597.32	6200.82	4139.62	82467.65	449	434
2025146	15708.42	12649.81	9154.69	1830.23	0	0	0	0	0	1190.63	3606.65	3259.04	47399.47	140	135
2025172	13825.12	11214.31	8259.92	1676.08	0	0	0	0	0	1056.82	3206.53	2930.73	42169.51	175	169
2027443	22855.25	24661.56	17318.48	7353.66	3149.19	2431.51	2456.94	2863	2597.09	6103.55	8133.26	10071.86	109995.35	430	416
1526478	45503.03	42666.05	33870.49	4723.6	0	0	0	0	0	3698.73	8419.1	8510.33	147391.33	135	131
2027160	12699.71	13050.36	11842.25	3317.52	0	0	0	0	0	1768.9	3878.35	4218.33	50775.42	164	159
2024698	9282.81	9578.31	6357.12	1927.85	64.35	0	0	0	0	564.16	2249.32	3212.41	33236.33	272	263
1601880	19435.13	18621.99	13064.54	4244.14	103.84	0	0	0	0	1735.03	4941.46	6433.87	68580.00	272	263

**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 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 10-11 through FY 14-15.

There were not any gas interruptions during the period of FY 10-11 through FY 14-15.

**3 DAY PEAK ANALYSIS**

Winter	Average	Hi	Low	Total	Firm	Cogen	LBS	BPS	GTS	IT
2010 - 2011	23	26	20	547,522	484,164	0	533	4,006	3,271	55,547
2010 - 2011	22	28	13	549,808	483,809	26	602	4,232	3,292	57,848
2010 - 2011	27	35	15	515,963	449,536	51	559	4,228	3,562	58,028
2011 - 2012	24	32	17	466,478	403,819	44	197	1,140	3,364	57,914
2011 - 2012	31	38	21	450,472	388,053	43	188	1,069	3,749	57,371
2011 - 2012	38	42	34	377,446	320,686	45	178	936	3,873	51,728
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



**TAB**

**12**

Docket No. R-16XXX

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 13-14 through FY 14-15 which would reflect the most current consumption behaviors of its customers. This period yielded 66 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 a 87.5 % 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 PGW ascribes to the model, PGW 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 17,645 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 66 data points and there were 64 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 653,198 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 14-15 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 Per DD (Mcf)	Linear Projected Firm Sendout (Mcf)	Quadratic Projected Firm Sendout (Mcf)	Cubic Projected Firm Sendout (Mcf)
						Firm Sendout (Mcf)	Per DD (Mcf)				
Wednesday	12/11/2013	32	33	1,089	35,937	345,621	10,473	353,315	349,569	347,717	
Thursday	12/12/2013	29	36	1,296	46,656	383,330	10,648	381,429	381,643	382,887	
Monday	12/16/2013	31	34	1,156	39,304	361,869	10,643	362,686	360,450	360,083	
Tuesday	12/17/2013	31	34	1,156	39,304	359,059	10,561	359,059	360,450	360,083	
Thursday	1/2/2014	26	39	1,521	59,319	384,574	9,861	409,543	412,008	413,166	
Friday	1/3/2014	17	48	2,304	110,592	470,146	9,795	493,885	492,844	490,682	
Monday	1/6/2014	26	39	1,521	59,319	406,578	10,771	409,543	412,008	413,166	
Tuesday	1/7/2014	13	52	2,704	140,608	527,569	10,146	531,370	521,831	526,954	
Wednesday	1/8/2014	26	39	1,521	59,319	454,741	11,660	409,543	412,008	413,166	
Tuesday	1/21/2014	16	49	2,401	117,649	454,261	9,271	503,256	500,876	499,348	
Wednesday	1/22/2014	14	51	2,601	132,651	513,403	10,067	521,999	516,369	517,425	
Thursday	1/23/2014	18	47	2,209	103,823	485,527	10,330	484,514	484,677	487,185	
Friday	1/24/2014	22	43	1,849	79,507	478,302	11,123	447,828	449,835	448,698	
Monday	1/27/2014	28	37	1,369	50,653	411,075	11,110	390,800	391,955	393,444	
Tuesday	1/28/2014	16	49	2,401	117,649	497,174	10,145	503,256	500,876	499,348	
Wednesday	1/29/2014	20	45	2,025	91,125	492,387	10,942	465,771	467,608	465,460	
Thursday	1/30/2014	27	38	1,444	54,872	472,136	11,109	472,136	472,136	472,136	
Monday	2/3/2014	32	33	1,089	35,937	340,943	10,332	353,315	349,569	347,717	
Tuesday	2/6/2014	30	35	1,225	42,875	379,892	10,854	372,058	371,142	371,786	
Friday	2/7/2014	31	34	1,156	39,304	363,342	10,687	362,686	360,450	360,083	
Monday	2/10/2014	25	40	1,600	64,000	419,035	10,476	418,914	421,750	422,449	
Tuesday	2/11/2014	22	43	1,849	79,507	438,956	10,208	447,028	449,835	448,698	
Wednesday	2/12/2014	27	38	1,444	54,872	430,300	11,324	400,172	402,077	403,518	
Tuesday	2/25/2014	32	33	1,089	35,937	360,362	10,920	353,315	349,569	347,717	
Wednesday	2/26/2014	27	38	1,444	54,872	389,769	10,257	400,172	402,077	403,518	
Thursday	2/27/2014	23	42	1,764	74,088	450,050	10,715	437,657	440,663	440,156	
Friday	2/28/2014	22	43	1,849	79,507	440,399	10,242	447,028	449,835	448,698	
Monday	3/3/2014	20	45	2,025	91,125	468,269	10,406	465,771	467,608	465,460	
Tuesday	3/4/2014	28	37	1,369	50,653	408,710	11,046	390,800	391,955	393,444	
Thursday	3/6/2014	30	35	1,225	42,875	372,518	10,643	372,058	371,142	371,786	
Thursday	3/13/2014	30	35	1,225	42,875	377,063	10,773	372,058	371,142	371,786	
Monday	3/17/2014	32	33	1,089	35,937	346,592	10,503	353,315	349,569	347,717	
Monday	3/24/2014	32	33	1,089	35,937	343,473	10,408	353,315	349,569	347,717	
Wednesday	3/26/2014	32	33	1,089	35,937	350,906	10,488	353,315	349,569	347,717	
Tuesday	1/18/2014	28	37	1,369	50,653	340,403	10,315	353,315	349,569	347,717	
Wednesday	12/31/2014	32	33	1,089	35,937	348,249	9,674	381,429	381,643	382,887	
Monday	1/5/2015	29	36	1,296	46,656	400,833	10,021	418,914	421,750	422,449	
Tuesday	1/6/2015	25	40	1,600	64,000	488,236	10,388	484,514	484,677	482,185	
Wednesday	1/7/2015	18	47	2,209	103,823	479,237	11,145	449,835	449,835	448,698	
Thursday	1/8/2015	22	43	1,849	79,507	413,890	11,186	390,800	391,955	393,444	
Friday	1/9/2015	28	37	1,369	50,653	391,385	10,036	409,543	412,008	413,166	
Tuesday	1/13/2015	26	39	1,521	59,319	373,561	10,987	362,686	360,450	360,083	
Wednesday	1/14/2015	31	34	1,156	39,304	357,367	10,511	362,686	360,450	360,083	
Friday	1/16/2015	31	34	1,156	39,304						

Day	Date	Daily Temp	Degree Days			Actual Firm Sndout (Mcf)	Per DD (Mcf)	Linear Projected Firm Sndout (Mcf)	Quadratic Projected Firm Sndout (Mcf)	Cubic Projected Firm Sndout (Mcf)
			X	X^2	X^3					
Wednesday	1/21/2015	32	33	1,089	35,937	10,442	153,315	149,569	347,717	
Monday	1/26/2015	28	37	1,369	50,653	10,264		91,955	193,444	
Tuesday	1/27/2015	27	38	1,444	54,872	10,733	400,172	402,077	403,518	
Wednesday	1/28/2015	29	36	1,296	46,656	11,045	381,429	381,643	182,887	
Friday	1/30/2015	27	38	1,444	54,872	10,440	400,172	400,172	403,518	
Monday	2/2/2015	28	37	1,369	50,653	10,569	390,800	391,955	193,444	
Tuesday	2/3/2015	28	37	1,369	50,653	10,677		391,955	193,444	
Thursday	2/5/2015	23	42	1,764	74,088	10,157	437,657	440,663	440,156	
Friday	2/6/2015	31	34	1,156	39,304	11,584	362,686	360,450	360,083	
Monday	2/9/2015	30	35	1,225	42,875	10,456	172,058	371,142	371,786	
Thursday	2/12/2015	27	38	1,444	54,872	10,514	400,172		403,518	
Friday	2/13/2015	22	43	1,849	79,507	10,580	447,038	449,835	448,698	
Tuesday	2/17/2015	24	41	1,681	68,971	11,030	428,286	431,301	431,425	
Wednesday	2/18/2015	25	40	1,600	64	10,515	418,914	41	422,449	
Thursday	2/19/2015	12	53	2,809	148,877	10,183	540,742	531,103	536,890	
Friday	2/20/2015	16	49	2,401	117,649	11,277	503,256	500,806	499,348	
Monday	2/23/2015	19	46	2,116	97,336	10,078	475,142	476,210	473,797	
Tuesday	2/24/2015	24	41	1,681	68,921	10,866	428,286	431,301	431,425	
Thursday	2/26/2015	29	36	1,296	46,656	10,541	381,429	381,643	382,887	
Friday	2/27/2015	25	40	1,600	64	10,134	418,914	421,750	422,449	
Thursday	3/5/2015	21	44	1,936	85,184	9,583	456,400	458,817	457,113	
Friday	3/6/2015	23	42	1,764	74,088	10,084	437,657	440,663	440,156	
Count			65	4,225	274,675	413,661	653,198	603,549	709,447	

**Firm Sendout Projection Based Data From 14-15  
Data for Daily Temperatures <= 32 Degrees Fahrenheit**

<u>R Squared</u>	<u>Change</u>	<u>Student's T</u>	<u>Degrees of Freedom</u>	<u>Critical Value</u>	<u>Significant</u>
0.874661	0.874661	21.133319	64	2.00	Yes
0.877534	0.002872	1.215595	63	2.00	No
0.878423	0.000890	0.673525	62	2.00	No

Degrees of Freedom  
97.5% Significance Level  
95.0% Significance Level

62  
2.00  
1.67

64  
2.00  
1.67

Linear Projection at Zero Degrees Fahrenheit  
Linear Projection at 15 Degrees Fahrenheit

653,198 Mcf  
512,628 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) + (X^2 \* X^2 Coeff)*

*Cubic SO = Constant + (X \* X Coeff) + (X^2 \* X^2 Coeff) + (X^3 \* X^3 Coeff)*

Linear Regression Confidence Level Table

Count	Degree Days X	Firm Sendout (Mcf) Y	Difference		Actual Versus Projected Squared $(\hat{Y} - Y_{proj})^2$	(Degree Days - $\bar{X}_m$ ) Squared $(X - \bar{X}_m)^2$	sdjyc	r <sup>2</sup> sdjyc	Lower Acc		Upper Acc		"-1 SD"		"+1 SD"		"-2 SD"		"+2 SD"	
			Actual	Projected					Lower	Ydc + r <sup>2</sup> sdjyc	Lower	Ydc + sdydc	Lower	Ydc + sdydc	Lower	Ydc + 2sdydc				
1	33	345,621	(7,694)	59,194,952	(6)	-1	2,885	5,764	347,551	359,079	334,572	372,057	315,830	390,800						
2	33	340,943	(12,371)	153,053,190	(6)	-1	2,885	5,764	347,551	359,079	334,572	372,057	315,830	390,800						
3	33	360,362	7,047	49,661,467	(6)	-1	2,885	5,764	347,551	359,079	334,572	372,057	315,830	390,800						
4	33	346,592	(6,723)	45,196,384	(6)	-1	2,885	5,764	347,551	359,079	334,572	372,057	315,830	390,800						
5	33	328,314	(25,001)	625,041,279	(6)	-1	2,885	5,764	347,551	359,079	334,572	372,057	315,830	390,800						
6	33	343,473	(9,842)	96,861,531	(6)	-1	2,885	5,764	347,551	359,079	334,572	372,057	315,830	390,800						
7	33	340,403	(12,911)	166,702,718	(6)	-1	2,885	5,764	347,551	359,079	334,572	372,057	315,830	390,800						
8	33	344,596	(8,718)	76,011,342	(6)	-1	2,885	5,764	347,551	359,079	334,572	372,057	315,830	390,800						
9	34	361,869	(8,171)	66,736,689	(5)	30	2,447	4,889	357,797	367,575	343,944	381,429	325,201	400,171						
10	34	359,059	(3,627)	13,156,369	(5)	30	2,447	4,889	357,797	367,575	343,944	381,429	325,201	400,171						
11	34	363,342	655	429,505	(5)	30	2,447	4,889	357,797	367,575	343,944	381,429	325,201	400,171						
12	34	373,561	10,875	118,256,258	(5)	30	2,447	4,889	357,797	367,575	343,944	381,429	325,201	400,171						
13	34	357,367	(5,200)	28,298,044	(5)	30	2,447	4,889	357,797	367,575	343,944	381,429	325,201	400,171						
14	34	393,873	31,186	972,595,508	(5)	30	2,447	4,889	357,797	367,575	343,944	381,429	325,201	400,171						
15	35	379,892	7,835	61,386,723	(4)	20	2,012	4,019	368,039	376,076	353,315	390,800	334,573	409,543						
16	35	373,518	460	212,045	(4)	20	2,012	4,019	368,039	376,076	353,315	390,800	334,573	409,543						
17	35	377,063	5,005	25,054,868	(4)	20	2,012	4,019	368,039	376,076	353,315	390,800	334,573	409,543						
18	35	365,974	(6,083)	37,003,576	(4)	20	2,012	4,019	368,039	376,076	353,315	390,800	334,573	409,543						
19	36	383,330	1,901	3,614,328	(3)	12	1,580	3,157	378,272	384,586	362,686	400,171	343,944	418,914						
20	36	348,249	(33,180)	1,100,899,758	(3)	12	1,580	3,157	378,272	384,586	362,686	400,171	343,944	418,914						
21	36	397,632	16,203	262,547,905	(3)	12	1,580	3,157	378,272	384,586	362,686	400,171	343,944	418,914						
22	36	379,463	(1,966)	3,865,187	(3)	12	1,580	3,157	378,272	384,586	362,686	400,171	343,944	418,914						
23	37	411,075	30,275	41,067,239	(2)	6	1,158	2,314	388,487	393,114	372,058	409,543	353,315	428,285						
24	37	408,710	17,910	320,760,692	(2)	6	1,158	2,314	388,487	393,114	372,058	409,543	353,315	428,285						
25	37	350,906	(39,894)	1,591,539,601	(2)	6	1,158	2,314	388,487	393,114	372,058	409,543	353,315	428,285						
26	37	413,890	23,090	533,143,675	(2)	6	1,158	2,314	388,487	393,114	372,058	409,543	353,315	428,285						
27	37	379,785	(11,015)	121,335,200	(2)	6	1,158	2,314	388,487	393,114	372,058	409,543	353,315	428,285						
28	37	391,048	248	61,357	(2)	6	1,158	2,314	388,487	393,114	372,058	409,543	353,315	428,285						
29	37	395,063	4,263	18,170,236	(2)	6	1,158	2,314	388,487	393,114	372,058	409,543	353,315	428,285						
30	38	422,136	21,964	482,436,971	(1)	2	761	1,520	398,652	401,691	381,429	418,914	362,687	437,657						
31	38	410,300	30,129	907,732,129	(1)	2	761	1,520	398,652	401,691	381,429	418,914	362,687	437,657						
32	38	389,769	(10,403)	108,213,119	(1)	2	761	1,520	398,652	401,691	381,429	418,914	362,687	437,657						
33	38	407,871	7,699	59,276,687	(1)	2	761	1,520	398,652	401,691	381,429	418,914	362,687	437,657						
34	38	396,701	(3,470)	12,042,459	(1)	2	761	1,520	398,652	401,691	381,429	418,914	362,687	437,657						
35	38	399,536	(635)	403,292	(1)	2	761	1,520	398,652	401,691	381,429	418,914	362,687	437,657						
36	39	384,274	(24,969)	623,445,839	(0)	0	457	914	408,629	410,457	390,800	428,285	372,058	447,028						
37	39	400,578	(8,965)	80,369,386	(0)	0	457	914	408,629	410,457	390,800	428,285	372,058	447,028						
38	39	454,741	45,198	2,042,868,476	(0)	0	457	914	408,629	410,457	390,800	428,285	372,058	447,028						
39	39	391,385	(18,158)	329,723,045	(0)	0	457	914	408,629	410,457	390,800	428,285	372,058	447,028						
40	40	419,035	121	14,680	1	0	483	964	417,950	419,879	400,172	437,657	381,429	456,399						

Count	Degree Days	Firm Scaout (Mtd)	Y	Projected Linear		Difference		Actual		(Degree Days - Xm)	Squared (X - Xm) <sup>2</sup>	sdye	t*sdye	Lower Acc		Upper Acc		Lower	Ydc + sdye	+1 SD*	Lower	Ydc + sdye	+2 SD*	Ydc + 2sdye
				Firm Scaout (Mtd)	Ydc	Actual Versus Projected	Y - Yc	Projected Squared	Y - Yc					X - Xm	Lower Acc	Ydc + 1*sdye								
41	40	400,833	418,914	418,914	(18,081)	326,922,367	1	0	483	964	417,950	-419,879	400,172	437,657	381,429	456,399								
42	40	420,596	418,914	1,682	2,829,302	1	0	483	964	417,950	-419,879	400,172	437,657	381,429	456,399									
43	40	405,365	418,914	(13,549)	183,585,126	1	0	483	964	417,950	-419,879	400,172	437,657	381,429	456,399									
44	41	482,250	428,286	23,964	574,275,695	2	2	806	1,611	426,675	-429,896	409,543	447,028	390,801	465,771									
45	41	445,516	428,286	17,230	296,876,874	2	2	806	1,611	426,675	-429,896	409,543	447,028	390,801	465,771									
46	42	450,030	437,657	12,393	153,585,270	3	7	1,209	2,414	435,243	-440,071	418,914	456,399	400,172	475,142									
47	42	426,585	437,657	(11,072)	122,596,551	3	7	1,209	2,414	435,243	-440,071	418,914	456,399	400,172	475,142									
48	42	433,507	447,028	(14,520)	208,215,862	3	7	1,209	2,414	435,243	-440,071	418,914	456,399	400,172	475,142									
49	43	478,302	447,028	31,274	978,045,645	4	13	1,632	3,261	443,768	-450,289	428,286	465,771	409,543	484,513									
50	43	438,956	447,028	(8,073)	65,169,349	4	13	1,632	3,261	443,768	-450,289	428,286	465,771	409,543	484,513									
51	43	440,399	447,028	(6,629)	43,947,336	4	13	1,632	3,261	443,768	-450,289	428,286	465,771	409,543	484,513									
52	43	479,237	447,028	32,209	1,037,422,266	4	13	1,632	3,261	443,768	-450,289	428,286	465,771	409,543	484,513									
53	43	454,929	447,028	7,901	62,429,223	4	13	1,632	3,261	443,768	-450,289	428,286	465,771	409,543	484,513									
54	44	421,654	456,400	(34,746)	1,207,259,108	5	21	2,064	4,124	452,276	-460,523	447,028	475,142	418,914	493,885									
55	45	492,387	465,771	26,616	708,413,090	6	31	2,500	4,995	460,776	-470,766	447,028	475,142	418,914	493,885									
56	45	468,269	465,771	2,498	6,242,355	6	31	2,500	4,995	460,776	-470,766	447,028	475,142	418,914	493,885									
57	46	463,598	475,142	(11,545)	133,276,062	7	43	2,939	5,870	469,272	-477,765	456,400	493,885	428,286	503,256									
58	47	485,527	484,514	1,013	1,026,858	8	57	3,378	6,748	477,765	-481,013	456,400	493,885	428,286	503,256									
59	47	489,236	484,514	3,723	13,858,393	8	57	3,378	6,748	477,765	-481,013	456,400	493,885	428,286	503,256									
60	48	470,146	493,885	(23,739)	563,540,369	9	73	3,819	7,628	486,257	-486,257	456,400	493,885	428,286	503,256									
61	49	454,261	503,256	(48,995)	2,400,544,375	10	91	4,260	8,510	494,747	-494,747	456,400	493,885	428,286	503,256									
62	49	497,124	503,256	(6,132)	37,605,723	10	91	4,260	8,510	494,747	-494,747	456,400	493,885	428,286	503,256									
63	49	552,584	503,256	49,327	2,433,181,135	10	91	4,260	8,510	494,747	-494,747	456,400	493,885	428,286	503,256									
64	51	513,403	521,999	(8,596)	73,891,924	12	14	5,143	10,274	511,725	-511,725	456,400	493,885	428,286	503,256									
65	52	527,569	531,370	(3,801)	14,450,539	13	158	5,585	11,158	520,213	-520,213	456,400	493,885	428,286	503,256									
66	53	519,717	540,742	(1,025)	1,050,162	14	184	6,078	12,041	528,701	-528,701	456,400	493,885	428,286	503,256									
65	65	653,198	653,198	(653,198)	426,667,464,584	26	653	11,574	23,122	630,046	-630,046	630,046	671,940	615,713	696,683									
Total	39	413,661	413,661		23,184,555,639		1,842																	

t = 2.00

Upper Range

Lower Range

18,742

394,918

351,281,146

432,403

451,146

Nim = 39

Population Variance =

Population Standard Deviation of Regression

Standard error of scaout projection

T-factor

(T factor) \* (Std error of projection)

19,033

2.00

38,022



**REGRESSION RESULTS**

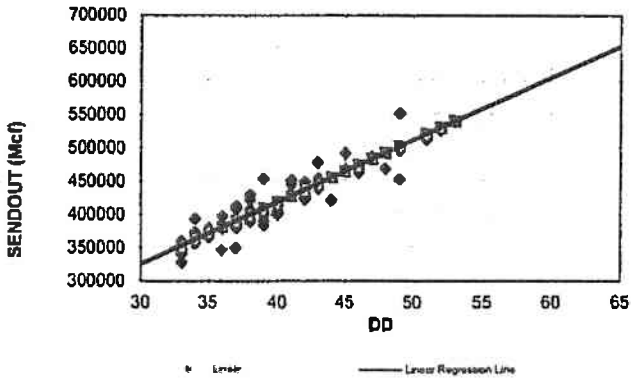
**Winter 14-15**

Based On Data for Daily Temperatures <= 32 Degrees Fahrenheit

Regression Output:		Quadratic		Cubic	
Regression Output:		Regression Output:		Regression Output:	
Constant	44,060	Constant	(116,097)	Constant	(820,578)
Std Err of Y Est	17,645	Std Err of Y Est	132,920	Std Err of Y Est	1,054,447
R Squared	0.8747	R Squared	1	R Squared	1
No. of Observations	66	No. of Observations	66	No. of Observations	66
Degrees of Freedom	64	Degrees of Freedom	63	Degrees of Freedom	62
X Coefficient(s)	9,371	X Coefficient(s)	X	X Coefficient(s)	X
Std Err of Coef.	443	Std Err of Coef.	17245.6872	Std Err of Coef.	68,966
			6492.8170		76,919
			(95)		(1,341)
			78		1,851
					X^2
					X^3
Zero Degree Temp Stdout	653,198		603,549		709,447
DD	65				

**Regression Chart Analysis**  
**Based Upon Data For Temperatures Of <=32 Degrees F.**  
**Winters 14-15**

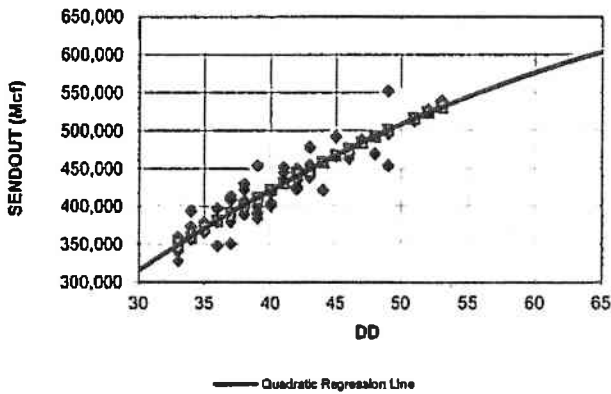
**Linear Regression of Sendout (Mcf)**



**Linear Regression Output**

Constant	44,060
Std. Error of Y Estimate	17,645
R Squared	0.875
Number of Observations	66
Degrees of Freedom	64
X Coefficient	X 9371
Std. Err. Of Coefficeint	443

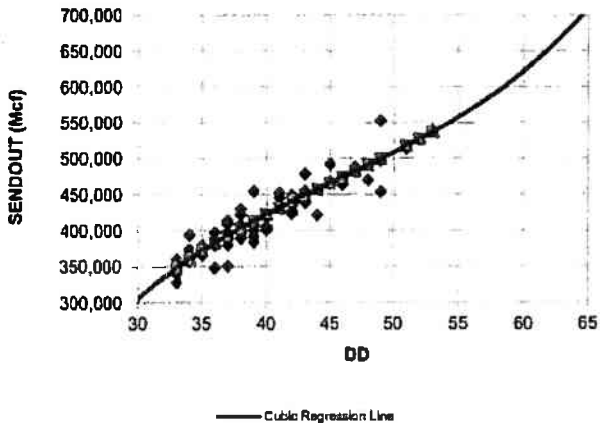
**Quadratic Regression of SENDOUT (Mcf)**



**Quadratic Regression Output**

Constant	(116,097)
Std. Error of Y Estimate	132,920
R Squared	0.878
Number of Observations	66
Degrees of Freedom	63
X Coefficient	X 17,246
Std. Err. Of Coefficeint	6,493
	X ^ 2 (95)
	78

**Cubic Regression of SENDOUT (Mcf)**

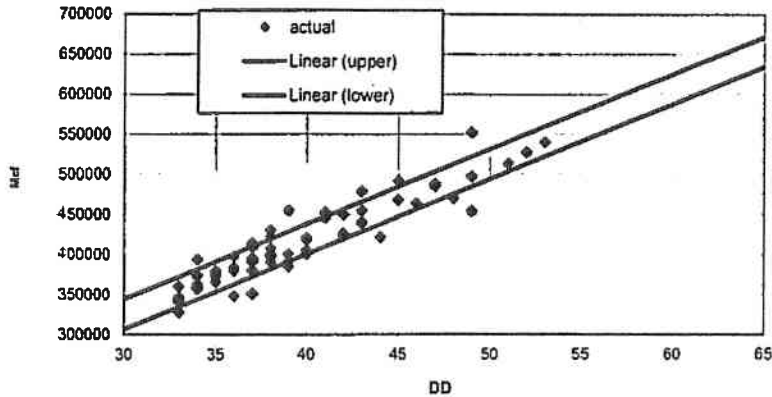


**Cubic Regression Output**

Constant	(820,578)
Std. Error of Y Estimate	1,054,447
R Squared	0.878
Number of Observations	66
Degrees of Freedom	62
X Coefficient	X 68866
Std. Err. Of Coefficeint	76919
	X ^ 2 (1341)
	1851
	X ^ 3 10
	15

**Regression Chart Analysis**  
Based Upon Data For Temperatures Of  $\leq 32$  Degrees F.  
Winters 14-15

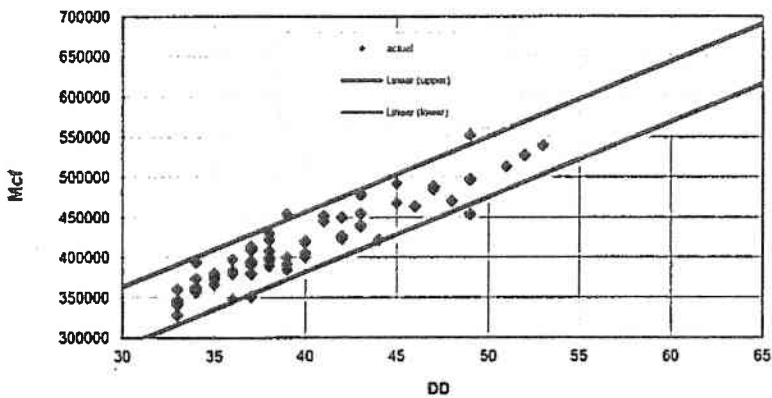
**Acceptance Range - 1 Std Dev**



**Acceptance Range @ 1 Standard Deviation**

Regression Squared	351,281,146
Regression	18,742
Upper Range 1sd	432,403
Lower Range 1sd	394,918

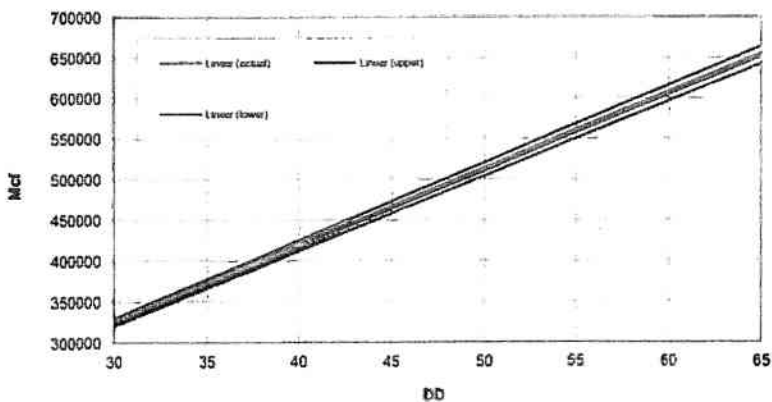
**Acceptance Range 2- Std Dev**



**Acceptance Range @ 2 Standard Deviation**

Regression Squared	351,281,146
Regression	18,742
Upper Range 2sd	451,146
Lower Range 2sd	376,176

**Confidence Interval - 97.5**



**Confidence Interval: 97.5%**

Regression Squared	351,281,146
Standard error of sendout projection	19,033
X Mean	39
T Distribution	2.00



# **PGW Natural Gas Supply Study**

**Prepared for  
Philadelphia Gas Works**



**August 2006**

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*[icfi.com](http://icfi.com)*

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## 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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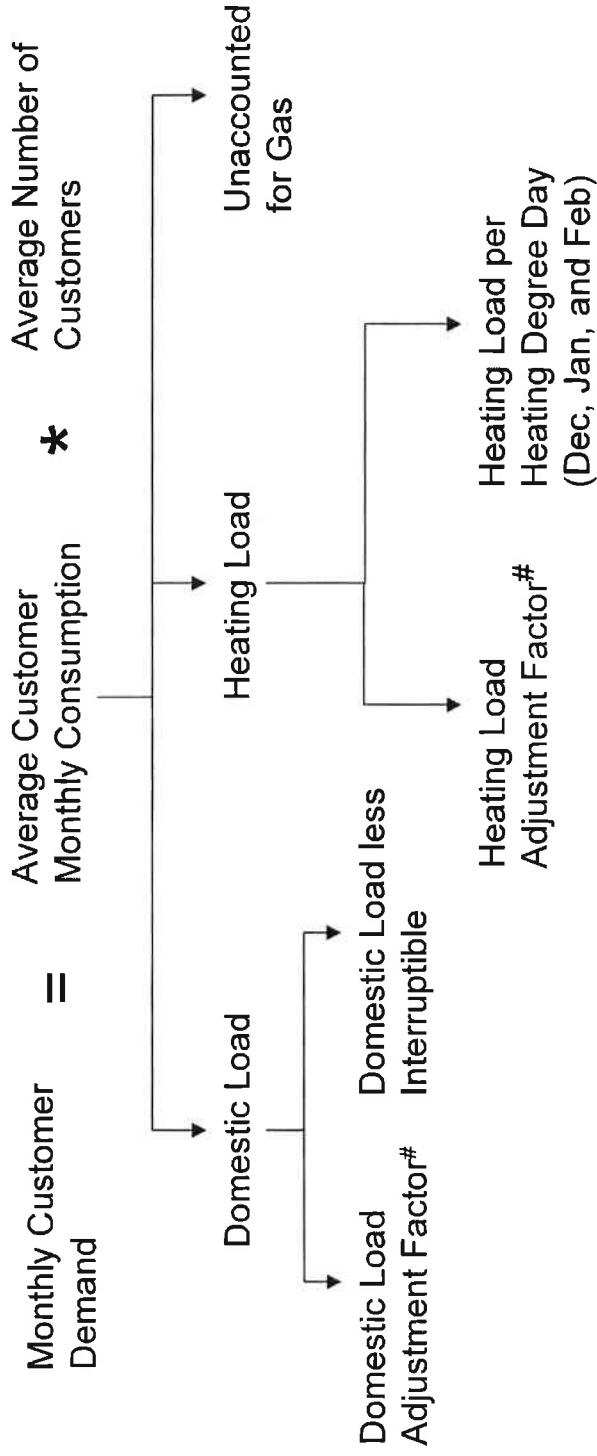
## PGW's Approach to Estimating Demand



- 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 <sup>b</sup>
Historical Peak Degree Days	762	1,219	1,400	1,183	911	4,535 <sup>b</sup>
No. of Sample Observations	30	30	30	30	30	30
Sample Standard Deviation	95	144	162	129	99	213
Data Relative to Mean <sup>a</sup> (%)	18	17	16	15	15	5 <sup>b</sup>
PGW's Design Degree Days	608	1,005	1,191	973	778	4,555

**Notes:**

<sup>a</sup> It is coefficient of variation, calculated as (sample standard deviation/sample mean)\*100.

<sup>b</sup> 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.

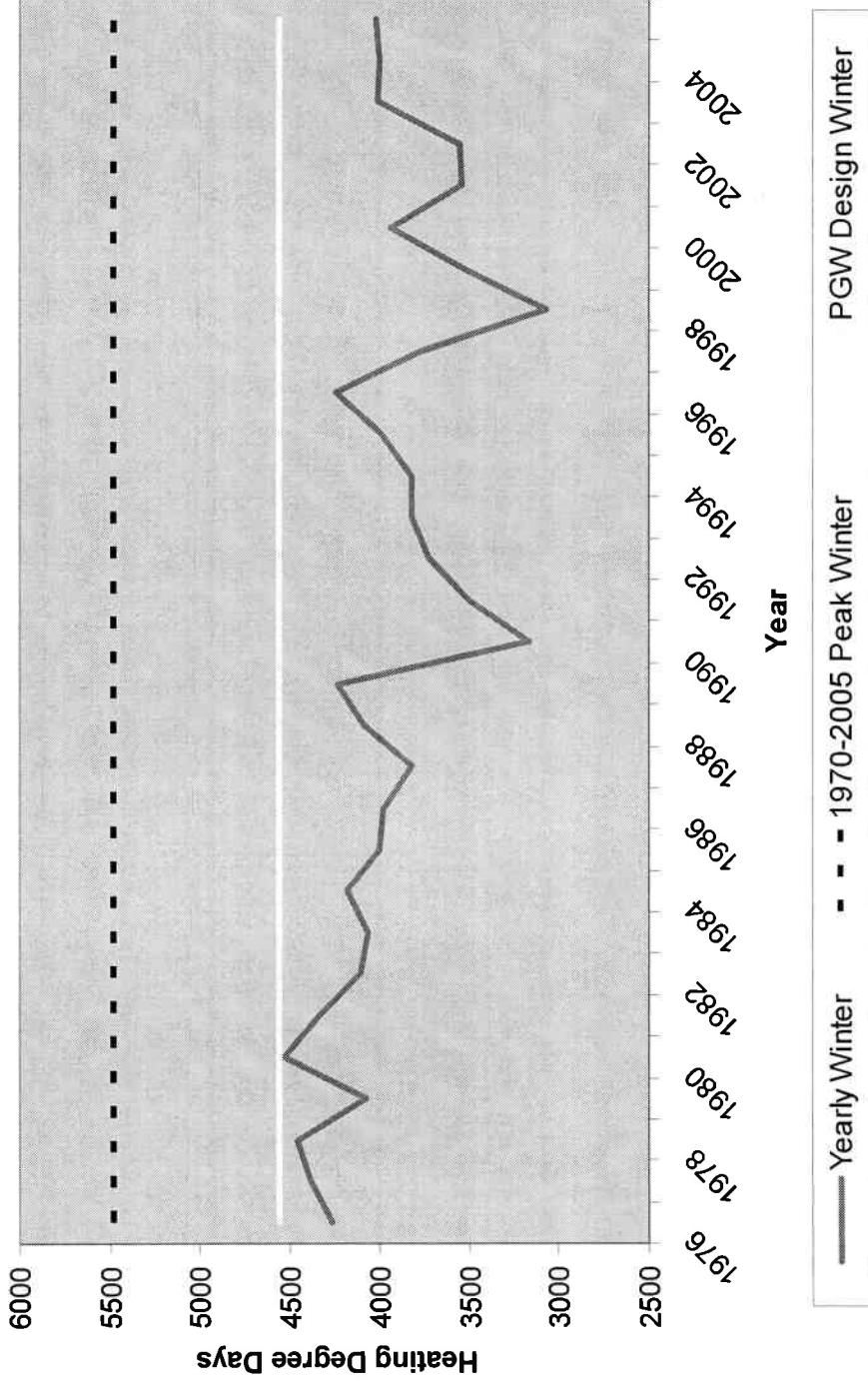
PGW Design Degree Days are higher than NOAA estimate because of the location and frequency of measurements. PGW measures several times per day at the Richmond Plant. NOAA uses a simple average of the high and low temperatures.

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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



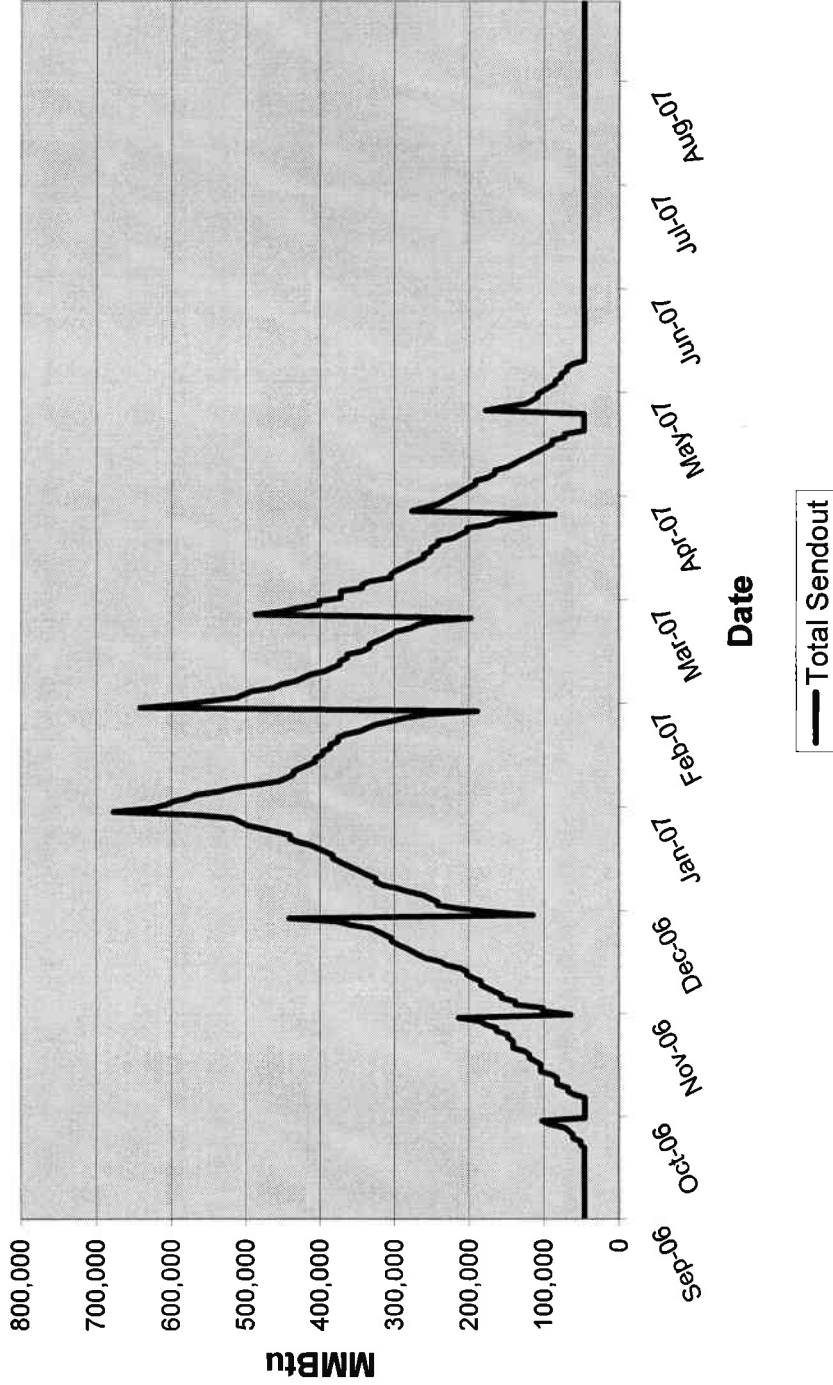
- First step is to use design winter parameters for 2006-2007 provided by PGW for its PGC filings with the Philadelphia Gas Commission.
  - These data are from September through August and in the form of load duration curves for each month.
- Data were converted to April through March and randomized 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

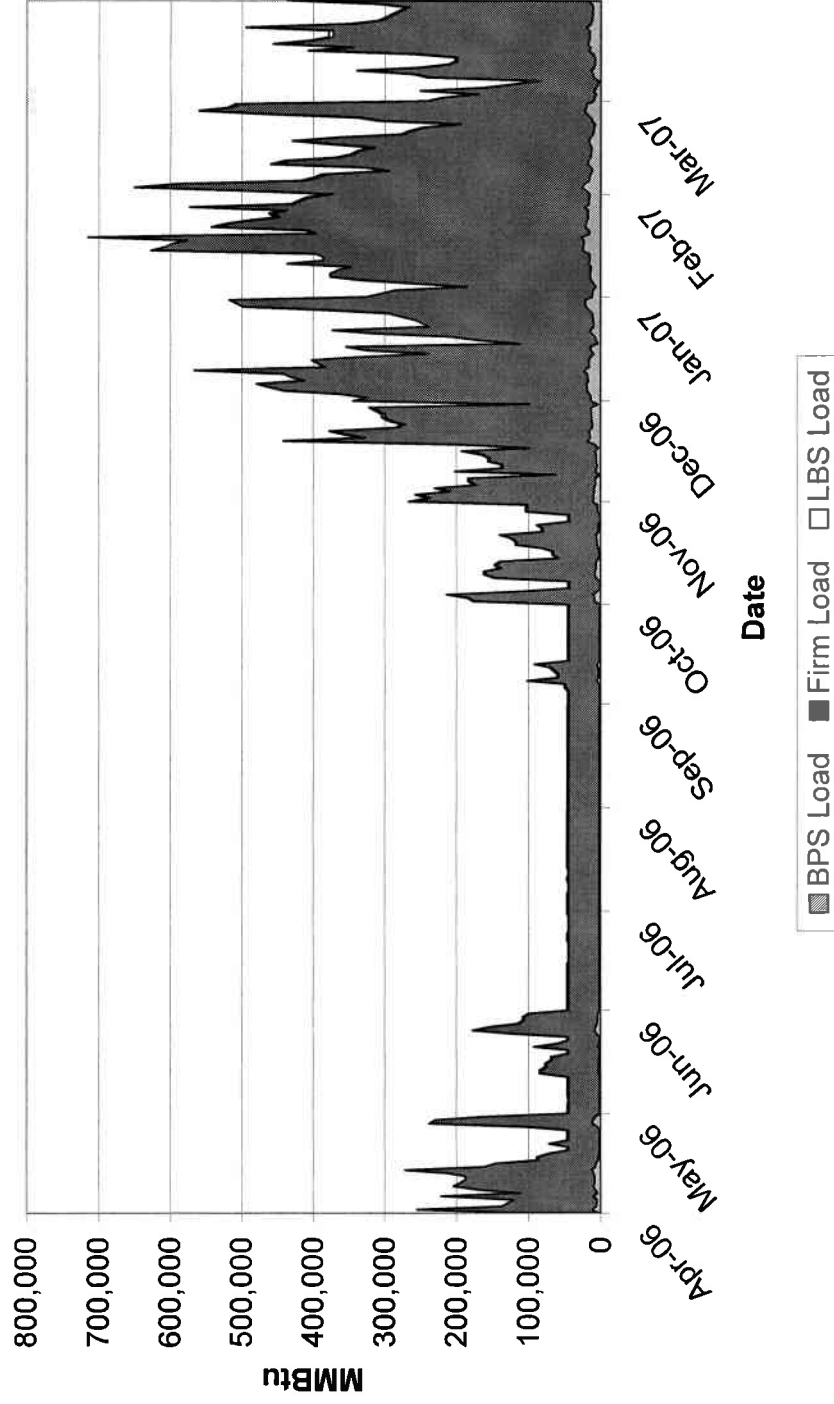


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# Sendout Reordered and Randomized – April 1 to March 31



PGW Reference Case Sendout

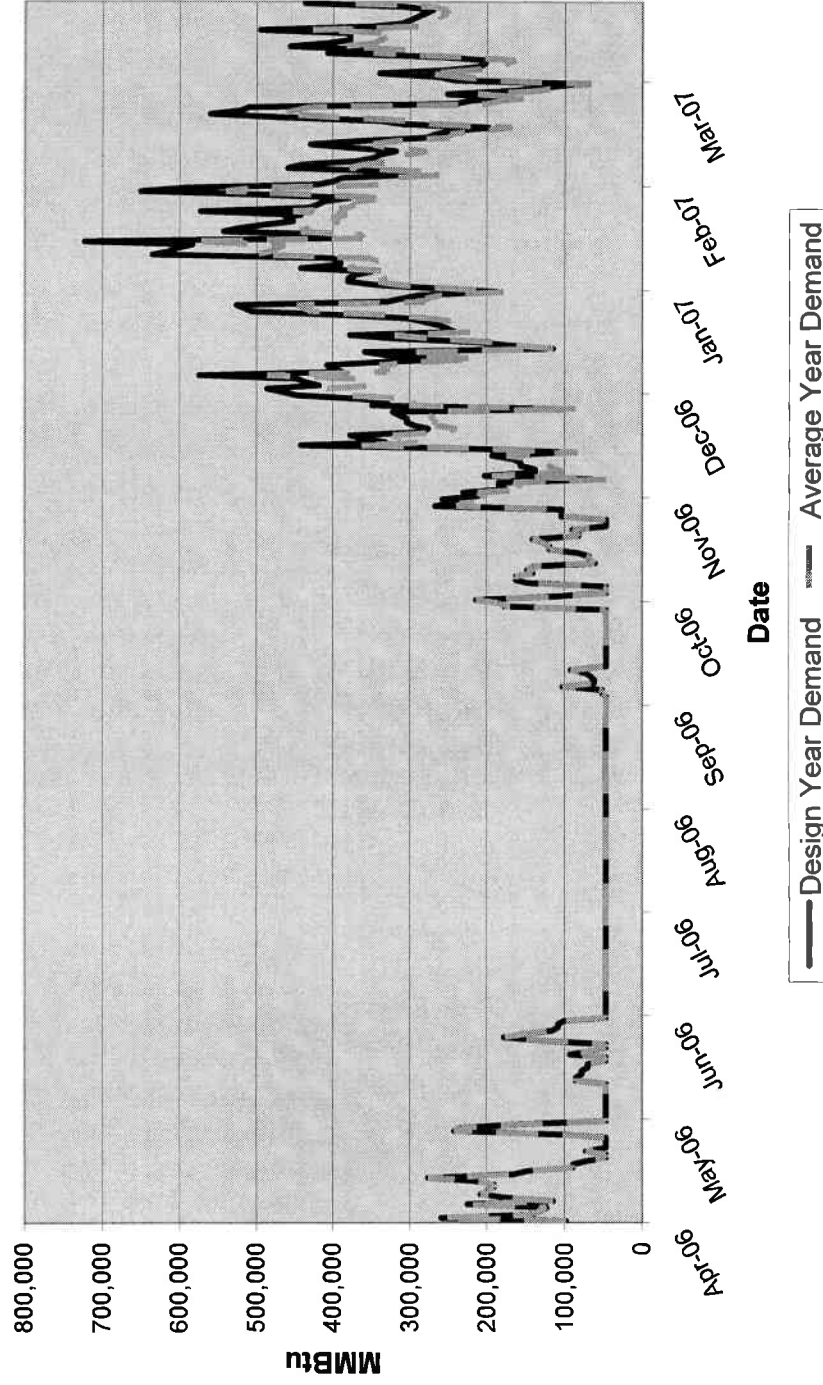


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# Demand Patterns Modeled Consistent with Gas Prices

Design and Average Year Total Demand

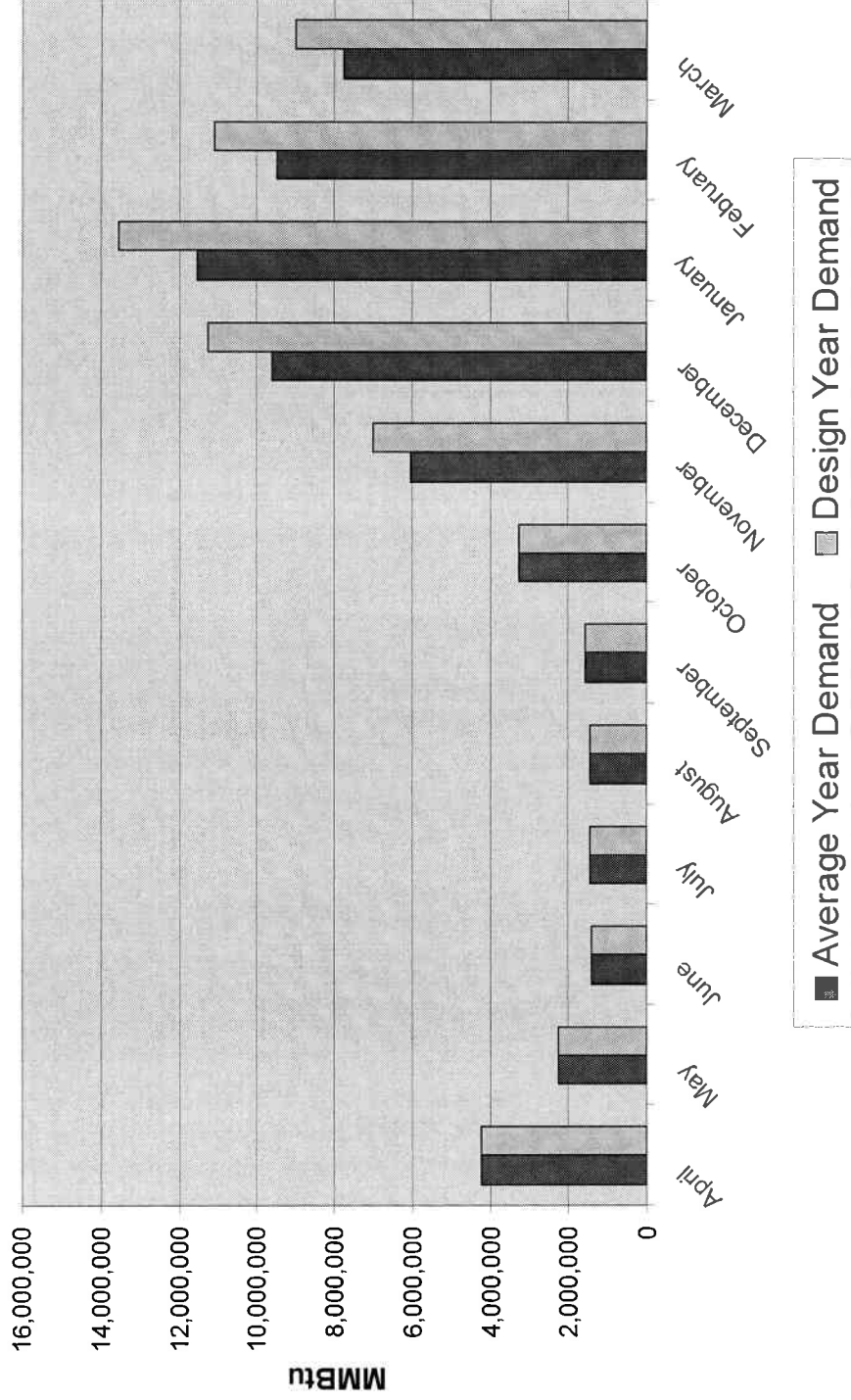


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# Design and Average Winter Demand -- Simplified



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-16XXX

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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Summit Approach.....6

PGW Historical Operations.....7

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Summit Recommendations.....23

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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/day<sup>1</sup> 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

<sup>1</sup> [www.ferc.gov/industries/gas/gen-info/horizon-pipe.pdf](http://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.

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

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

<b>Market Area Storage</b>	<b>Max Storage Quantity (Dth)</b>	<b>Storage Demand (Dth)</b>	<b>Estimated WACOG (\$/Dth)</b>
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

<b>Production Area Storage</b>	<b>Max Storage Quantity (Dth)</b>	<b>Storage Demand (Dth)</b>	<b>Estimated WACOG (\$/Dth)</b>
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

<b>Long-Haul Transport</b>	<b>Capacity (Dth)</b>	<b>Estimated WACOG (\$/Dth)</b>
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.

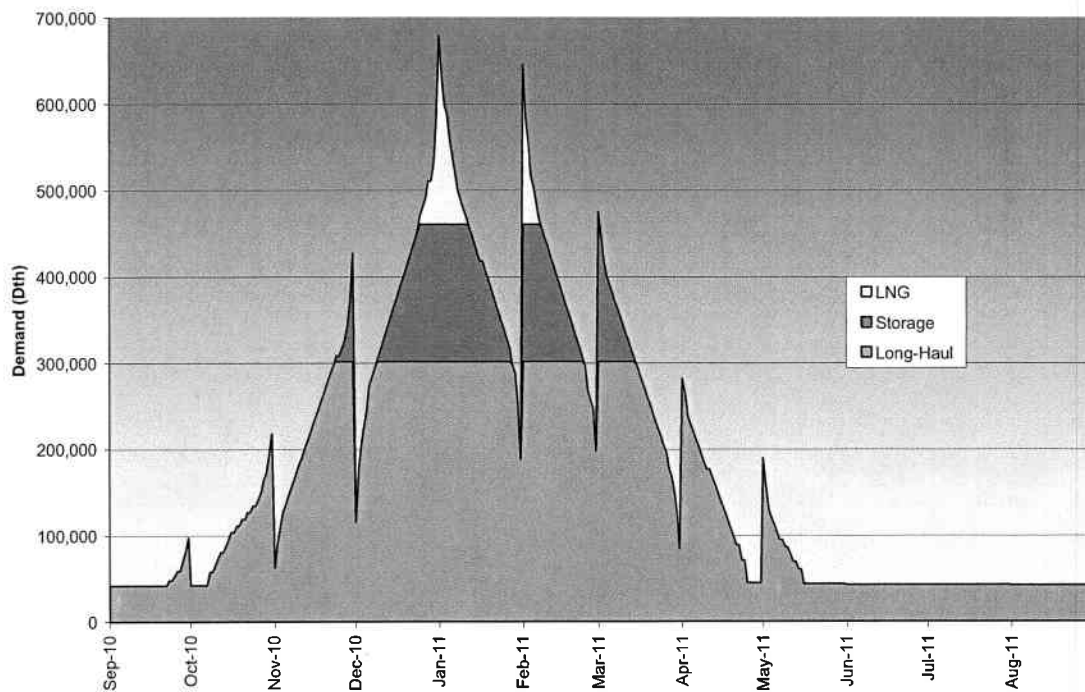
After the initial stage of cost-based stack ranking, Summit next created a delivery prioritization model that incorporated relative receipt and delivery constraints of each asset. Thus, long-haul and short-haul interstate capacity is inherently limited by the maximum daily quantity (MDQ) of each transport 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**

<b>Non-LNG Assets</b>	<b>Non-LNG Capacity (1)</b>	<b>LNG Inventory Needed for Design Winter (1,2)</b>	<b>LNG Inventory Needed for Consecutive Design Winters (1,3)</b>
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 2015  
PHILADELPHIA GAS WORKS  
C-FACTOR RECONCILIATION**

MONTH	NET COST OF FUEL 1	TOTAL GCR REVENUE BILLED 2	C FACTOR % of GCR 3	C FACTOR REVENUE BILLED 4 = (2 * 3)	LOAD BALANCING REVENUE 5	LNG SALES GCR BILLED REVENUE 6	TOTAL C FACTOR REVENUE BILLED 7 = (4 + 5 + 6)	NATURAL GAS REFUNDS 8	OVER/ (UNDER) RECOVERY 9 = (7 + 8 - 1)
	(\$)	(\$)		(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
JANUARY 2015	44,475,311	49,336,834	94.5%	46,620,577	84,045	193,385	46,898,006	0	2,422,695
FEBRUARY	49,443,136	57,489,686	94.5%	54,324,571	81,748	163,048	54,569,367	0	5,126,231
MARCH	31,185,138	47,505,901	94.0%	44,674,676	82,227	3,912	44,760,816	0	13,575,678
APRIL	11,837,315	23,781,190	93.5%	22,226,233	78,424	0	22,304,657	0	10,467,342
MAY	8,878,270	9,407,980	93.5%	8,792,830	78,641	0	8,871,471	0	(6,799)
JUNE	6,006,339	5,143,714	97.3%	5,003,910	78,507	0	5,082,417	0	(923,922)
JULY	6,929,530	4,107,752	101.6%	4,173,128	81,468	0	4,254,596	0	(2,674,934)
AUGUST	6,719,769	3,882,657	101.6%	3,944,450	82,615	0	4,027,065	0	(2,692,704)
SEPTEMBER	7,357,317	3,730,053	103.1%	3,846,146	80,989	0	3,927,135	0	(3,430,182)
OCTOBER	10,733,899	5,461,240	104.7%	5,716,305	78,091	0	5,794,395	6,382	(4,933,121)
NOVEMBER	12,740,299	9,792,985	104.7%	10,250,362	77,245	0	10,327,608	2,005	(2,410,687)
DECEMBER	15,259,149	14,993,180	104.9%	15,721,428	94,959	0	15,806,387	0	547,238
Totals	211,565,472	234,633,172		225,294,618	968,957	360,345	226,623,920	8,387	15,066,835



**TAB**

**15**

Docket No. R-16XXX

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-16XXX  
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:**

Attached is a summary of all transport and storage contracts.

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.



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## TRANSPORTATION CONTRACTS

Transco FT (Firm Transportation)  
Transco PSFT (Peaking Service Firm Transportation)  
Transco IT (Interruptible Transportation)  
Tetco CDS (Comprehensive Delivery Service)  
Tetco FT1 (Firm Transportation Service)  
Tetco FT1 (Firm Transportation Service)  
Tetco FT1 (Firm Transportation Service)  
Tetco FTS 2 (Firm Transportation Service)  
Tetco FTS 7 (Firm Transportation Service)  
Tetco FTS 8 (Firm Transportation Service)  
Tetco IT (Interruptible Transportation)

## UNDERGROUND STORAGE

Dominion GSSTE  
Tetco SS1  
Tetco SS1  
Transco GSS  
Transco S2  
Transco WSS  
Transco ES  
Transco ES

PHILA.GAS WORKS

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:	04/01/2015
Contract Expiration Date:	10/31/2015
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 10/31/2015.

PHILA.GAS WORKS  
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:	1 Year
Initial Contract Date:	11/01/2015
Contract Expiration Date:	10/31/2016
Quality of Service:	Firm
Daily Maximum:	15,000 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 an index.
Most Recent Negotiation:	Contract expires on 10/31/2016

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION  
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #3
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2014
Contract Expiration Date:	03/31/2015
Quality of Service:	Firm
Daily Maximum:	20,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	20,000 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 3/31/2015.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION  
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #3
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Summer Supply
Initial Contract Date:	04/01/2015
Contract Expiration Date:	10/31/2015
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 default to an index.
Most Recent Negotiation:	Contract expired on 10/31/2015.

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:	11/01/2014
Contract Expiration Date:	03/31/2015
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 3/31/2015.

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:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires on 3/31/2016.



## 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:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires on 03/31/2016.

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:	11/01/2014
Contract Expiration Date:	03/31/2015
Quality of Service:	Firm
Daily Maximum:	20,000 DT per Day Nov.-Mar.
Availability:	Winter Supply Contract
Fuel (%):	Subject to Transco fuel rates
Minimum Take Level:	10,000 DT per Day B/L 10,000 DT per Day PUT
Nomination & Scheduling:	Firm must take contract. PUT is subject to daily supplier notification.
Other Terms & Conditions:	B/L Pricing is INFERC - .11 PUT Pricing is INFERC -.01
Most Recent Negotiation:	Contract expired on 3/31/2015

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:	11/01/2014
Contract Expiration Date:	10/31/2015
Quality of Service:	Firm
Daily Maximum:	15,000 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 October 31, 2015.

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:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires 3/31/2016.

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:	11/01/2015
Contract Expiration Date:	10/31/2016
Quality of Service:	Firm
Daily Maximum:	15,000 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 an index.
Most Recent Negotiation:	Contract expires October 31, 2016.

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:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires on 03/31/2016.

PHILA.GAS WORKS

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:	11/01/2014
Contract Expiration Date:	03/31/2015
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 3/31/2015.

PHILA.GAS WORKS

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:	Summer Supply
Initial Contract Date:	04/01/2015
Contract Expiration Date:	10/31/2015
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 10/31/2015



PHILA.GAS WORKS

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:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires on 03/31/2016.

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:	11/01/2014
Contract Expiration Date:	03/31/2015
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 3/31/2015.

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:	04/01/2015
Contract Expiration Date:	10/31/2015
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 10/31/2015

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:	11/01/2014
Contract Expiration Date:	10/31/2015
Quality of Service:	Firm
Daily Maximum:	15,000 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 October 31, 2015.

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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:	Winter Supply
Initial Contract Date:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires 3/31/2016.

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:	11/01/2015
Contract Expiration Date:	10/31/2016
Quality of Service:	Firm
Daily Maximum:	15,000 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 October 31, 2016.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION  
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #23
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2014
Contract Expiration Date:	03/31/2015
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 3/31/2015.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION  
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #23
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Summer Supply
Initial Contract Date:	04/01/2015
Contract Expiration Date:	10/31/2015
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 10/31/2015



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PGW NATURAL GAS CONTRACT INFORMATION  
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #23
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires on 03/31/2016.

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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:	1 Year
Initial Contract Date:	11/01/2014
Contract Expiration Date:	10/31/2015
Quality of Service:	Firm
Daily Maximum:	15,000 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 October 31, 2015.

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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:	11/01/2014
Contract Expiration Date:	03/31/2015
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 3/31/2015.

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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:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires 3/31/2016.

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PGW NATURAL GAS CONTRACT INFORMATION  
GAS SUPPLY CONTRACT

Name & Type of Service:	Transco Gas Supply Contract #31
Delivery Pipeline & Contract #:	Transco
Associated Transportation Contract:	Transco FT Contract 1003691
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires 3/31/2016.

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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:	11/01/2014
Contract Expiration Date:	03/31/2015
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 3/31/2015

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PGW NATURAL GAS CONTRACT INFORMATION  
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #4
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2014
Contract Expiration Date:	03/31/2015
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 3/31/2015

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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:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires on 03/31/16.



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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:	Summer Supply
Initial Contract Date:	04/01/2015
Contract Expiration Date:	10/31/2015
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 10/31/2015

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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:	11/01/2014
Contract Expiration Date:	03/31/2015
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 3/31/2015

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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:	04/01/2015
Contract Expiration Date:	10/31/2015
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 10/31/2015

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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:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires on 03/31/16.

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PGW NATURAL GAS CONTRACT INFORMATION  
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #17
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Winter Supply
Initial Contract Date:	12/01/2014
Contract Expiration Date:	03/31/2015
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 3/31/2015

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PGW NATURAL GAS CONTRACT INFORMATION  
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #19
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires on 03/31/16.

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PGW NATURAL GAS CONTRACT INFORMATION  
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #20
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2014
Contract Expiration Date:	03/31/2015
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 3/31/2015

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:	11/01/2014
Contract Expiration Date:	03/31/2015
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 3/31/2015



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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:	11/01/2014
Contract Expiration Date:	10/31/2015
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 month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expired on 10/31/2015.

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:	04/01/2015
Contract Expiration Date:	10/31/2015
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 10/31/2015

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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:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires on 03/31/16.

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:	11/01/2015
Contract Expiration Date:	03/31/2016
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 03/31/16.

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:	11/01/2015
Contract Expiration Date:	10/31/2016
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 month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expires on 10/31/16.

PHILA.GAS WORKS

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:	11/01/2014
Contract Expiration Date:	03/31/2015
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 3/31/2015

PHILA.GAS WORKS

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:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires on 03/31/16.

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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:	11/01/2014
Contract Expiration Date:	03/31/2015
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 3/31/2015



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:	11/01/2014
Contract Expiration Date:	10/31/2015
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 is priced at gas daily index.
Most Recent Negotiation:	Contract expired on 10/31/2015.

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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:	04/01/2015
Contract Expiration Date:	10/31/2015
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 10/31/2015

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:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires on 03/31/16.

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:	11/01/2015
Contract Expiration Date:	10/31/2016
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 month can be negotiated or default to an index.
Most Recent Negotiation:	Contract expires on 10/31/16.

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PGW NATURAL GAS CONTRACT INFORMATION  
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #27
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Summer Supply
Initial Contract Date:	04/01/2015
Contract Expiration Date:	10/31/2015
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 10/31/2015

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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:	04/01/2015
Contract Expiration Date:	10/31/2015
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 10/31/2015

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:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires on 03/31/16.

PHILA.GAS WORKS

PGW NATURAL GAS CONTRACT INFORMATION  
GAS SUPPLY CONTRACT

Name & Type of Service:	Tetco Gas Supply Contract #29
Delivery Pipeline & Contract #:	Tetco
Associated Transportation Contract:	Tetco FT and CDS
Contract Term:	Winter Supply
Initial Contract Date:	11/01/2015
Contract Expiration Date:	03/31/2016
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 expires on 03/31/16.



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.

PHILA.GAS WORKS

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.

PHILA.GAS WORKS  
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.

PHILA.GAS WORKS

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

Maximum Storage Quantity: 3,918,971 DT

Fuel (%): 2.56 % 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 <u>Inventory % W/D Rate</u> 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 <u>Inventory % W/D Rate</u> 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:	2,647,080 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:	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:	22,910 DT
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:	5,193 DT <u>Inventory % W/D Rate</u> 100%>20% 5,193 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:	466,554 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: 39,246 DT Inventory % W/D Rate

100%>80%	39,246
80%>=60%	35,115
60%>= 40%	31,771
40%>=20%	26,687
20%>=0 %	21,522

Availability (Withdrawal/Injection): Year Round

Daily Maximum Injection: 18,533 DT

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 given to PGW as Transco contract 1003409 terminated.

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 purchased by PGW to aid in security of supply. Contract is now in the evergreen state.

**TAB**

**17**

Docket No. R-16XXX

Item 53.65 (3)

**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-16XXX

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, 19.00 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 1,739,155 Mcf of LNG to meet city sendout requirements during fiscal year 2015.

**TAB**

**20**

Docket No. R-16XXX

Item 1317 (a)(1)

**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-16XXX

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-16XXX

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-16XXX

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-16XXX

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-16XXX

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-16XXX

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**



Docket No. R-16XXX

Item 1317 (c)(1)

**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**

Docket No. R-16XXX

Item 1317 (c)(2)

**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-16XXX

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**

Docket No. R-16XXX

Item 1318 (a)(1)

**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**

Docket No. R-16XXX

Item 1318 (a)(4)

**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**

Docket No. R-16XXX

Item 1318 (b)(1)

**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**



Docket No. R-16XXX

Item 1318 (b)(2)

**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-16XXX

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-16XXX

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.