Volume 2

# Philadelphia Gas Works 

## Before The

# Pennsylvania Public Utility Commission 

Computation of Annual Purchased Gas Costs
For Twelve Months Ending August 31, 2024

## 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, 2023

# Philadelphia Gas Works 1307(f) - 2023 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, 2023, and an updated Annual Resource Planning Report is not available at this time.

# ANNUAL RESOURCE PLANNING REPORT 

## Philadelphia Gas Works

# Philadelphia, Pennsylvania 

March 2022
Forms 1 \& 2

# BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION 

Philadelphia Gas Works<br>800 West Montgomery Avenue<br>Philadelphia, Pennsylvania 19122

# ANNUAL RESOURCE PLANNING REPORT <br> MARCH 2022 

Forms 1 \& 2

## PHILADELPHIA GAS WORKS

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

Exhibit 1
Sheet 1 of 2

## 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, $5^{\text {th }}$ Floor
Harrisburg, PA 17101-1921
Office of Small Business Advocate
Suite 202, Commerce Building
300 N. Second Street
Harrisburg, PA 17101

Exhibit 1

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 utilityspecific. 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: $\quad$ Forms $1 \mathrm{~A}, 1 \mathrm{~B}, 2 \mathrm{~A}, 2 \mathrm{~b}$, 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. Florian Teme Vice President, Marketing \& Gas Planning at 215-684-6463. The following individual is available to answer questions concerning Forms 1 and 2: Mrs. Meriola Gjergo, Manager - Gas Planning \& Rates at (215) 684-6484.

Exhibit 2 Sheet 1 of 1

## 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.

Exhibit 3
Sheet 1 of 1

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<br>800 WEST MONTGOMERY AVENUE<br>PHILADELPHIA, PENNSYLVANIA

Annual Resource Planning Summary Report

Filed: March 2022

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

## PHILADELPHIA GAS WORKS

## 2022 Annual Resource Planning Summary Report

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## 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:

Section I. PGW's Overall Approach to Integrated Resource Planning

Section II. Supply Forecasting Methodology and Assumptions

Section III. Demand Forecasting Methodology and Assumptions

Section IV Design Day Forecasting Methodology and Assumptions

Section V. PGW Corporate Modeling System

## Section 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.

## Section 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 PGW's 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.

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

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

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

Delivery from these fields utilizes approximately 8\% of the daily TETCO and TGPL capacity rights to the Philadelphia city gates. These storage fields also act as a physical fixed price to counter winter price conditions since the WACOG usually reflects a winter/summer pricing
differential. Additionally, PGW purchases $17 \%$ of its supply using day purchases as needed and releases eleven percent (11\%) of its capacity to its choice suppliers.

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-themonth 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 offsystems 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.

## Section 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 summer and winter usage patterns are established from historical records. Summer data provides an insight into each class of customers' nontemperature 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
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 20-year period. This pattern reflects 3,893 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 Fahrenheit, there would be 25 degree days. The annual 3,893 degree days, which are 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.

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 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.

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.

## Section 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 Fahrenheit day and from this data, the load for a -5 degrees Fahrenheit 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.

## Section 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 Gas 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.

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.

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.

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

|  | Historical Data |  | Current Year | Three Year Forecast |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Index Year Actual Year | $\begin{gathered} \hline \hline-2 \\ 2019-2020 \end{gathered}$ | $\begin{gathered} \hline \hline-1 \\ 2020-2021 \end{gathered}$ | $\begin{gathered} \hline \hline 0 \\ 2021-2022 \end{gathered}$ | $\begin{gathered} \hline \hline 1 \\ 2022-2023 \end{gathered}$ | $\begin{gathered} \hline \hline 2 \\ 2023-2024 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 3 \\ 2024-2025 \end{gathered}$ |
| Firm Requirements: <br> Retail Residential <br> Retail Commercial Retail Industrial Electric Power Generation Exchanges with Other Utilities Unaccounted For Gas Company Use Other - Prior Period Adjustment Subtotal Firm | 31,576 <br> 7,012 <br> 399 <br> - <br> - <br> 740 <br> 209 <br> - <br> 39,937 | $\begin{array}{r} 32,148 \\ 7,696 \\ 447 \\ - \\ - \\ 978 \\ 296 \\ - \\ \hline 41,564 \\ \hline \end{array}$ | 33,521 <br> 8,288 <br> 423 <br> - <br> - <br> 1,409 <br> 173 <br> - <br> 43,814 | 35,330 <br> 8,170 <br> 414 <br>  <br> - <br> 2,325 <br> 254 <br> $-\quad$ <br> 46,493 | 35,274 <br> 8,123 <br> 409 <br> - <br> - <br> 2,314 <br> 254 <br> - <br> 46,372 | 35,254 <br> 8,080 <br> 403 <br> - <br> - <br> 2,329 <br> 254 <br> - <br> 46,319 |
| Interruptible Requirements: <br> Retail <br> Electric Power Generation Company's Own Plant Unaccounted For Gas Subtotal Interruptible | $\begin{array}{r}588 \\ - \\ 57 \\ 20 \\ \hline 664\end{array}$ | 492 - 51 14 557 | $\begin{array}{r}471 \\ - \\ 97 \\ 14 \\ \hline 581\end{array}$ | $\begin{array}{r}257 \\ - \\ 129 \\ 6 \\ \hline 392\end{array}$ | 257 - 129 6 392 | $\begin{array}{r}257 \\ - \\ 129 \\ 6 \\ 392 \\ \hline\end{array}$ |
| SUBTOTAL FIRM AND INTERRUPTIBLE | 40,601 | 42,121 | 44,396 | 46,885 | 46,765 | 46,711 |
| Transportation: <br> Firm Residential <br> Firm Commercial <br> Firm Industrial <br> Interruptible Residential <br> Interruptible Commercial <br> Interruptible Industrial <br> Other - Non-Utility Power Producers Subtotal Transportation | $\begin{array}{r} 1,504 \\ 4,300 \\ 351 \\ - \\ 7,502 \\ 5,549 \\ 12,721 \\ \hline 31,927 \end{array}$ | 1,535 <br> 4,012 <br> 376 <br> $-\quad$ <br> 6,881 <br> 5,065 <br> 13,239 <br> 31,109 | $\begin{array}{r} 1,939 \\ 4,210 \\ 417 \\ - \\ 6,637 \\ 5,034 \\ 13,242 \\ \hline 31,479 \end{array}$ | $\begin{array}{r} 2,204 \\ 4,351 \\ 450 \\ - \\ 6,594 \\ 4,897 \\ 13,655 \\ \hline 32,151 \end{array}$ | $\begin{array}{r} 2,344 \\ 4,402 \\ 455 \\ - \\ 6,594 \\ 4,897 \\ 13,655 \\ \hline 32,348 \end{array}$ | $\begin{array}{r} 2,484 \\ 4,454 \\ 461 \\ - \\ 6,594 \\ 4,897 \\ 13,655 \\ \hline 32,545 \end{array}$ |
| TOTAL GAS REQUIREMENTS | 72,528 | 73,230 | 75,875 | 79,036 | 79,112 | 79,256 |
| Increase (Decrease) <br> Percent Change (\%) | $\begin{aligned} & \hline(5,834) \\ & -7.44 \% \\ & \hline \end{aligned}$ | $\begin{array}{r} 702 \\ 0.97 \% \\ \hline \end{array}$ | $\begin{aligned} & \hline 2,645 \\ & 3.61 \% \end{aligned}$ | $\begin{aligned} & \hline 3,161 \\ & 4.17 \% \\ & \hline \end{aligned}$ | $\begin{array}{r} \hline 76 \\ 0.10 \% \\ \hline \end{array}$ |  |


| FORM-IRP-GAS-1B:PEAK DAY REQUIREMENTS REPORTING UTILITY: PHILADELPHIA GAS WORKS (VOLUMES IN MMcf) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Historical Data |  | Current Year $^{(2)}$ <br> 0 <br> $2021-2022$ | Three Year Forecast ${ }^{(1)}$ |  |  |
| Index Year Actual Year | $\begin{gathered} \hline \hline-2 \\ 2019-2020 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline-1 \\ 2020-2021 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \hline 1 \\ 2022-2023 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 2 \\ 2023-2024 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 3 \\ 2024-2025 \\ \hline \end{gathered}$ |
| Firm Requirements: <br> Retail Residential <br> Retail Commercial <br> Retail Industrial <br> Electric Power Generation <br> Exchanges with Other Utilities <br> Unaccounted For Gas <br> Company Use <br> Other <br> Subtotal Firm | 279 62 4 $-\quad-$ 7 2 $-\quad 353$ | 303 72 4 - - 9 3 $-\quad 391$ | 441 <br> 109 <br> 6 <br> - <br> - <br> 19 <br> 2 <br> - | 464 <br> 107 <br> 5 <br> - <br> - <br> 31 <br> - <br> 611 | 463 <br> 107 <br> 5 <br> - <br> - <br> 30 <br> - | 463 106 5 - - 31 3 - 608 |
| Interruptible Requirements: <br> Retail <br> Electric Power Generation Company's Own Plant Unaccounted For Gas Subtotal Interruptible | 0.0 <br> - <br> 0.3 <br> 0.0 <br> 0.4 | $\begin{aligned} & 0.0 \\ & - \\ & 0.3 \\ & 0.0 \\ & \hline 0.4 \end{aligned}$ | 1.1 - 0.6 - 1.7 | $\begin{aligned} & 0.7 \\ & - \\ & 0.6 \\ & \frac{0.0}{1.3} \end{aligned}$ | $\begin{aligned} & 0.7 \\ & - \\ & 0.6 \\ & \frac{0.0}{1.3} \end{aligned}$ | $\begin{aligned} & 0.7 \\ & - \\ & 0.6 \\ & \frac{0.0}{1.3} \end{aligned}$ |
| SUBTOTAL FIRM AND INTERRUPTIBLE | 353 | 392 | 578 | 612 | 611 | 610 |
| Transportation: <br> Firm Residential <br> Firm Commercial <br> Firm Industrial <br> Interruptible Residential <br> Interruptible Commercial <br> Interruptible Industrial <br> Other - Non-Utility Power Producers Subtotal Transportation | 12 <br> 27 <br> 2 <br> - <br> 41 <br> 17 <br> 51 <br> 151 | 14 <br> 29 <br> 2 <br> $-\quad 42$ <br> 18 <br> 55 <br> 161 | 28 47 - - - - 79 | 31 <br> 50 <br> 4 <br> - <br> - <br> - <br> - | 33 <br> 50 <br> - <br> - <br> - <br> - <br> - | $\begin{array}{r} 35 \\ 51 \\ 4 \\ - \\ - \\ - \\ - \\ \hline \end{array}$ |
| TOTAL GAS REQUIREMENTS | 505 | 552 | 657 | 698 | 698 | 700 |
| Increase (Decrease) Percent Change (\%) | $\begin{gathered} (163) \\ -24.4 \% \end{gathered}$ | $\begin{array}{r} \hline 48 \\ 9.5 \% \end{array}$ | $\begin{array}{r} \hline 104 \\ 18.9 \% \end{array}$ | $\begin{array}{r} \hline 41 \\ 6.3 \% \end{array}$ | 1 $0.1 \%$ | 2 $0.2 \%$ |

[^0]FORM-IRP-GAS-2A: ANNUALIPEAK SUPPLY
TABLE 1: ANNUAL/PEAK SUPPLY
REPORTING UTILITY: PHILADELPHIA GAS WORKS (Volumes in MMcf)

|  | Historical Data |  |  |  | Current Year (2) |  | Three Year Forecast (1) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Index Year Actual Year | $\begin{gathered} \hline \hline-2 \\ 2019-2020 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \hline-1 \\ 2020-2021 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline 0 \\ 2021-2022 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \hline 1 \\ 2022-2023 \\ \hline \end{gathered}$ |  | $\begin{gathered} 2 \\ 2023-2024 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \hline 3 \\ 2024-2025 \\ \hline \end{gathered}$ |  |
|  | Annual | Peak | Annual | Peak | Annual | Peak | Annual | Peak | Annual | Peak | Annual | Peak |
| Gas Supply for Sales Service |  |  |  |  |  |  |  |  |  |  |  |  |
| Spot Purchases | 42,454 | 152 | 42,913 | 153 | 45,293 | 281 | 48,326 | 261 | 47,923 | 256 | 47,900 | 255 |
| Storage Withdrawals | 9,109 | 166 | 10,521 | 165 | 13,612 | 162 | 14,891 | 185 | 14,949 | 190 | 15,103 | 190 |
| LNG Withdrawal | 1,141 | 36 | 1,293 | 74 | 1,966 | 207 | 2,600 | 249 | 2,591 | 250 | 2,601 | 251 |
| LNG Purchases | - | - | - | - | - | - | - | - | - | - | - | - |
| Exchanges with other LDCs | - | - | - | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Gas Supply | 52,704 | 353 | 54,726 | 392 | 60,871 | 650 | 65,817 | 695 | 65,463 | 696 | 65,604 | 696 |
| Total Transportation Services | 31,927 | 151 | 31,109 | 161 | 31,479 | 18 | 32,151 | 15 | 32,348 | 15 | 32,545 | 16 |
| TOTAL GAS SUPPLY AND |  |  |  |  |  |  |  |  |  |  |  |  |
| TRANSPORTATION SERVICE | 84,631 | 505 | 85,835 | 552 | 92,350 | 667 | 97,969 | 710 | 97,811 | 711 | 98,149 | 712 |
| Deductions |  |  |  |  |  |  |  |  |  |  |  |  |
| Pipeline: TRANS FUEL | 986 | - | 805 | - | 683 | 6 | 870 | 6 | 864 | 6 | 866 | 6 |
| Storage: INJ, INJ FUEL, WITHDRAW FUEL, TRANS FUEL | 9,384 | - | 10,608 | - | 14,274 | 1 | 15,334 | 2 | 15,366 | 2 | 15,571 | 1 |
| LNG: LIQUE, INJ FUEL, TRANS FUEL | 1,733 | - | 1,192 | - | 1,517 | 4 | 2,729 | 4 | 2,468 | 4 | 2,457 | 5 |
| Sales to other LDC's | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Deductions | 12,103 | - | 12,605 | - | 16,475 | 11 | 18,933 | 12 | 18,699 | 12 | 18,893 | 12 |
| NET GAS SUPPLY | 72,528 | 505 | 73,230 | 552 | 75,875 | 657 | 79,036 | 698 | 79,112 | 698 | 79,256 | 700 |
| BTU | 1.034 |  | 1.031 |  | 1.031 |  | 1.031 |  | 1.031 |  | 1.031 |  |

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

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

|  | Historical Data |  |  |  | Current Year |  | Three Year Forecast |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Index Year Actual year | $\begin{gathered} \hline \hline-2 \\ 2019-2020 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline-1 \\ 2020-2021 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \hline 0 \\ 2021-2022 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \hline 1 \\ 2022-2023 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \hline 2 \\ 2023-2024 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \hline 3 \\ 2024-2025 \\ \hline \end{gathered}$ |  |
| City Gate Transportation Contracts: | Annual | Peak | Annual | Peak | Annual | Peak | Annual | Peak | Annual | Peak | Annual | Peak |
| Transcontinental Transmission Corp. | 3,988 | 60 | 4,000 | 60 | 4,000 | 60 | 4,000 | 60 | 4,000 | 60 | 4,000 | 60 |
| Texas Eastern Transmission Corp. | 2,242 | 43 | 2,250 | 43 | 2,250 | 43 | 2,250 | 43 | 2,250 | 43 | 2,250 | 43 |
| Texas Eastern Transmission Corp. | 443 | 20 | 445 | 20 | 445 | 20 | 445 | 20 | 445 | 20 | 445 | 20 |
| Transcontinental Transmission Corp. | 443 | 5 | 445 | 5 | 445 | 5 | 445 | 5 | 445 | 5 | 445 | 5 |
| Total | 7,116 | 127 | 7,139 | 128 | 7,139 | 128 | 7,139 | 128 | 7,139 | 128 | 7,139 | 128 |
| Upstream Transportation Contracts: |  |  |  |  |  |  |  |  |  |  |  |  |
| Transcontinental Transmission Corp. | 58,479 | 160 | 58,489 | 160 | 58,489 | 160 | 58,489 | 160 | 58,649 | 160 | 58,489 | 160 |
| Texas Eastern Transmission Corp. | 26,547 | 73 | 26,552 | 73 | 26,552 | 73 | 26,552 | 73 | 26,625 | 73 | 26,552 | 73 |
| Texas Eastern Transmission Corp. | 8,432 | 23 | 8,434 | 23 | 8,434 | 23 | 8,434 | 23 | 8,457 | 23 | 8,434 | 23 |
| Texas Eastern Transmission Corp. | 2,576 | 17 | 2,584 | 17 | 2,584 | 17 | 2,584 | 17 | 2,584 | 17 | 2,584 | 17 |
| Texas Eastern Transmission Corp. | 2,576 | 17 | 2,584 | 17 | 2,584 | 17 | 2,584 | 17 | 2,584 | 17 | 2,584 | 17 |
| Transcontinental Transmission Corp. | 171 | 2 | 172 | 2 | 172 | 2 | 172 | 2 | 172 | 2 | 172 | 2 |
| Texas Eastern Transmission Corp. | 1,770 | 5 | 1,770 | 5 | 1,775 | 5 | 1,770 | 5 | 1,775 | 5 | 1,770 | 5 |
| Total | 100,553 | 297 | 100,584 | 298 | 100,589 | 298 | 100,584 | 298 | 100,845 | 298 | 100,584 | 298 |
| Storage-Related Transportation Contracts: |  |  |  |  |  |  |  |  |  |  |  |  |
| Dominion Transmission Inc. | 9,100 | 25 | 9,102 | 25 | 9,102 | 25 | 9,102 | 25 | 9,127 | 25 | 9,102 | 25 |
| Dominion Transmission Inc. | 2,757 | 8 | 2,757 | 8 | 2,757 | 8 | 2,757 | 8 | 2,765 | 8 | 2,757 | 8 |
| Total | 11,857 | 32 | 11,859 | 32 | 11,859 | 32 | 11,859 | 32 | 11,891 | 32 | 11,859 | 32 |

Conversions at 1031 Btu

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

|  | Historical Data |  |  |  |  |  | Three Year Forecast |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Index Year Actual year | $\begin{gathered} \hline-2 \\ 2019-2020 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \hline-1 \\ 2020-2021 \end{gathered}$ |  | $\begin{gathered} \hline \hline 0 \\ 2021-2022 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \hline 1 \\ 2022-2023 \end{gathered}$ |  | $\begin{gathered} 2 \\ \hline \hline 2023-2024 \end{gathered}$ |  | $\begin{gathered} \hline \hline 3 \\ 2024-2025 \end{gathered}$ |  |
|  | Annual | Peak | Annual | Peak | Annual | Peak | Annual | Peak | Annual | Peak | Annual | Peak |
| Transcontinental Transmission Corp. | 3,988 | 60 | 4,000 | 60 | 4,000 | 60 | 4,000 | 60 | 4,000 | 60 | 4,000 | 60 |
| Dominion Transmission Inc. | 3,655 | 32 | 3,685 | 32 | 3,685 | 32 | 3,685 | 32 | 3,685 | 32 | 3,685 | 32 |
| Transcontinental Transmission Corp. | 3,150 | 33 | 3,165 | 33 | 3,165 | 33 | 3,165 | 33 | 3,165 | 33 | 3,165 | 33 |
| Texas Eastern Transmission Corp. | 2,410 | 43 | 2,419 | 43 | 2,419 | 43 | 2,419 | 43 | 2,419 | 43 | 2,419 | 43 |
| Texas Eastern Transmission Corp. | 2,242 | 20 | 2,250 | 20 | 2,250 | 20 | 2,250 | 20 | 2,250 | 20 | 2,250 | 20 |
| Transcontinental Transmission Corp. | 443 | 5 | 445 | 5 | 445 | 5 | 445 | 5 | 445 | 5 | 445 | 5 |
| Total | 15,888 | 193 | 15,965 | 194 | 15,965 | 193 | 15,965 | 194 | 15,965 | 194 | 15,965 | 194 |

Forecasted Dth to Mcf Conversions at 1031 BTU.

|  | Contract <br> Expiration Date ${ }^{(\mathbf{1})}$ |
| :--- | :---: |
| Transcontinental Transmission Corp. | $3 / 31 / 2025$ |
| Dominion Transmission Inc. | $3 / 31 / 2026$ |
| Transcontinental Transmission Corp. | $9 / 30 / 2022$ |
| Texas Eastern Transmission Corp. | $4 / 30 / 2027$ |
| Texas Eastern Transmission Corp. | $4 / 30 / 2027$ |
| Transcontinental Transmission Corp. | $4 / 15 / 2023$ |

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

Tab 5

## Philadelphia Gas Works

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

Item 53.64(c)
Thirty days prior to the filing, of a tariff reflecting an increase or decrease in natural gas costs, each Section 1307(f) as utility seeking recovery of purchased as costs under that section shall provide notice to the public, under § 53.68 (relating to notice requirements), and shall file the following supporting information with the Commission, with a copy to the Consumer Advocate, Small Business Advocate and to intervenors upon request:
(6) Each Section l307(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 gas 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 a portfolio approach. The Company's supply portfolio is split into four categories. First, the Company enters baseload supply contracts, which account for approximately thirtyseven percent (37\%) of PGW's daily firm transportation entitlements on both Enbridge’s Texas Eastern and Williams’ Transco Gas Pipelines.

The Enbridge and Williams' pipelines are the only interstate pipeline facilities with physical connections to the PGW service territory. These supply contracts also recognize pipeline receipt and delivery rights. By sourcing supply in this manner, PGW not only ensures security of supply from the pipelines, but also can take advantage of varying basis differentiated pricing in the market. These contracts all contain the ability to set the price for upcoming months, or to have the pricing default to an agreed upon market index.

Second, an additional twenty-seven percent (27 \%) is priced at the "gas daily mid-point" for each day of usage. These contracts allow for daily changes in volume. The operational flexibility of these contracts allows the company to increase or decrease gas supply to meet variations in send out requirements.

Third, the Company utilizes one (1) pipeline storage services, as an additional source of supply. This storage service does not contain bundled transportation and therefore are moved to the city gates within PGW's firm interstate pipeline capacity. This service represents eight percent ( $8 \%$ ) of supply at a fixed price. The Company will again attempt to release capacity for year periods totaling 33,000 dekatherms as it did last year. If this proves less economic for the ratepayer, the Company will release these capacities for the winter and summer season separately. These capacity releases have twenty-four-hour recall rights. If the need arises, PGW can recall this capacity and use its unbundled storage to fill the TGPL portion 10,000 dekatherms and depend on marketbased prices to fill the TETCO portion 23,000 dekatherms. The Company also releases firm capacity to its firm choice suppliers on a monthly basis based upon the suppliers' 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 met, the company may utilize bundled storage and LNG inventories to displace higher priced supply based on the current market conditions. PGW uses a portfolio approach to address system supply and storage refill in the traditional non-peak season. The Gas Supply area uses the GCR filing as a template 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 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.

## 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 always an adequate supply of natural gas available 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 indepth 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 a six-year history working in the Gas Supply area and a five-year history in Gas Processing for PGW. This individual also has a background working in the Oil and Petrochemical industries. This individual has a BS in Chemical Engineer and MBA as well as having a background in natural gas accounting, allocation and confirmation experience under the first stages of FERC Order 636, and its effect on supply portfolio management.

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

## individual: Gas Supply, Gas Control, Gas Accounting, and Gas

 Transportation.Manager, Gas Supply: This person has more than ten years’ experience in the utility industry. At PGW, she has over seven years’ experience in gas supply, tariff rates and federal regulatory areas. She has held leadership position representing LDC groups in pipeline rate case and other FERC proceedings. She holds a B.S. from the Wharton School of the University of Pennsylvania and a PhD in economics. She has completed course work in rates and management. The administrators of Gas Supply and Retail Operations report directly to the manager of gas supply.

Administrator, Gas Supply: Administrator, Gas Supply \& Acquisition: this person has nineteen years of natural gas experience :seventeen of which was spent in the gas supply area. This person also has experience in the Customer Service, IS, Retail Operations areas as well. This individual has an MBA in International Business and BBA with a concentration in Management Information Systems, in addition to having an extensive background in the area of gas purchasing. Reporting to this individual are the natural gas accountants, natural gas transportation coordinators and natural gas analysts.

Administrator, Retail Operations: This individual has seventeen years of experience in the Natural Gas Industry with knowledge in Marketing, Gas Planning, Budget/Strategic Development, and Gas Supply. This person has a Master's Degree in Business Administration and a Bachelor's Degree in Marketing. She has experience with regulatory filings, budget preparation, program management, and natural gas purchasing. Reporting to this individual is the Retail Operations Analyst

Manager, Gas Control: This person has over ten years in the oil \& gas area, is responsible for the day-to-day management of the city distribution grid and daily confirmation of each day's gas volumes. He manages the gas control department on a $24 / 7$ basis. The manager has completed the course work for a BS degree and has extensive experience in the Distribution Department's Pressure Control and Network Analysis area.

## 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, 2022 to December 31, 2022.

Schedule 1 - reflects all off-system sales margins for the period January 1, 2022 to December 31, 2022.

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

Schedule 3 - illustrates all capacity release deals.
Schedule 4 - reflects individual capacity release transactions that 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, 2022

| Off-System Sales |  |  |  |
| ---: | ---: | ---: | ---: |
| MONTH | Total <br> Revenue | Ratepayer <br> Margin | Total <br> Credit |
| Jan-22 | $\$ 41,360$ | $\$ 9,643$ | $\$ 38,146$ |
| Feb-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Mar-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Apr-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| May-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Jun-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Jul-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Aug-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Sep-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Oct-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Nov-22 | $\$ 164,387$ | $\$ 0$ | $\$ 164,387$ |
| Dec-22 | $\$ 1,738,614$ | $\$ 730,797$ | $\$ 1,495,015$ |

Schedule 2

Philadelphia Gas Works
Pennsylvania Public Utilities Commission
52 Pa. Code §53.61, et seq.
For the Twelve Months Ending December 31, 2022

| Off-System Sales (loss) |  |  |  |  |
| ---: | ---: | ---: | ---: | :---: |
| MONTH | Total <br> Revenue | Total <br> Cost of Gas | Total <br> Loss |  |
| Jan-22 | $\$ 0$ |  | $\$ 0$ |  |
| Feb-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |  |
| Mar-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |  |
| Apr-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |  |
| May-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |  |
| Jun-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |  |
| Jul-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |  |
| Aug-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |  |
| Sep-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |  |
| Oct-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |  |
| Nov-22 | $\$ 164,387$ | $\$ 267,191$ | $-\$ 102,804$ |  |
| Dec-22 | $\$ 0$ | $\$ 0$ | $\$ 0$ |  |

$\begin{array}{ll}\text { Philadelphia Gas Works } & \text { Schedule 3 } \\ \text { Pennsylvania Public Utilities Commission } & \text { Item 53.64(C)(7) }\end{array}$
52 Pa. Code §53.61, et seq.
For the Twelve Months Ending December 31, 2022

|  | Capacity Release |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  | Total |  |  |  |
|  | TGPL |  | TETCO |  | Total |  |
| MONTH |  | Credits |  | Credits |  | Credits |
| Jan-22 | \$ | 804,742 | \$ | 1,255,604 | \$ | 2,060,347 |
| Feb-22 | \$ | 744,932 | \$ | 1,137,669 | \$ | 1,882,601 |
| Mar-22 | \$ | 814,724 | \$ | 1,260,518 | \$ | 2,075,242 |
| Apr-22 | \$ | 417,928 | \$ | 560,202 | \$ | 978,130 |
| May-22 | \$ | 413,356 | \$ | 936,526 | \$ | 1,349,883 |
| Jun-22 | \$ | 1,315,361 | \$ | 911,191 | \$ | 2,226,552 |
| Jul-22 | \$ | 1,372,108 | \$ | 936,886 | \$ | 2,308,994 |
| Aug-22 | \$ | 941,008 | \$ | 1,049,949 | \$ | 1,990,957 |
| Sep-22 | \$ | 616,542 | \$ | 1,054,805 | \$ | 1,671,347 |
| Oct-22 | \$ | 412,641 | \$ | 536,123 | \$ | 948,764 |
| Nov-22 | \$ | 1,855,620 | \$ | 2,309,278 | \$ | 4,164,898 |
| Dec-22 | \$ | 1,926,852 | \$ | 2,401,687 | \$ | 4,328,540 |
| TOTAL | \$ | 11,635,816 | \$ | 14,350,440 | \$ | 25,986,256 |

For the Twelve Months Ending December 31, 2022

| M / YR | PIPELINE | PATH | RECALL STATUS | MONTHLY VOLUME DTH |  | TOTAL MONTHLY CREDIT |  | CREDIT DTH |  | TOTAL CREDIT | REPLACEMENT SHIPPER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| January-22 | TETCO | STX-M3 | N | 18,321 | \$ | 10,241.64 | \$ | 0.5590 | \$ | 10,241.64 | Sprague |
|  | TETCO | STX-M3 | N | 15,066 | \$ | 8,424.47 | \$ | 0.5592 | \$ | 8,424.47 | Vista Energy |
|  | TETCO | STX - M3 | N | 42,873 | \$ | 23,970.84 | \$ | 0.5591 | \$ | 23,970.84 | SFE Energy |
|  | TETCO | STX - M3 | N | 4,092 | \$ | 2,290.02 | \$ | 0.5596 | \$ | 2,290.02 | Statewise |
|  | TETCO | STX - M3 | N | 2,635 | \$ | 1,475.95 | \$ | 0.5601 | \$ | 1,475.95 | Josco Energy |
|  | TETCO | STX - M3 | N | 279 | \$ | 157.62 | \$ | 0.5649 | \$ | 157.62 | Carbonbetter |
|  | TETCO | STX - M3 | N | 4,495 | \$ | 2,515.87 | \$ | 0.5597 | \$ | 2,515.87 | American Power |
|  | TETCO | STX - M3 | N | 7,471 | \$ | 4,175.42 | \$ | 0.5589 | \$ | 4,175.42 | Atlantic Energy |
|  | TETCO | STX-M3 | N | 1,364 | \$ | 761.52 | \$ | 0.5583 | \$ | 761.52 | Greenlight |
|  | TETCO | STX - M3 | N | 279 | \$ | 157.62 | \$ | 0.5649 | \$ | 157.62 | New Wave Energy |
|  | TETCO | STX - M3 | N | 4,991 | \$ | 2,788.85 | \$ | 0.5588 | \$ | 2,788.85 | Residents |
|  | TETCO | STX - M3 | N | 2,015 | \$ | 1,129.28 | \$ | 0.5604 | \$ | 1,129.28 | Eligo Energy |
|  | TETCO | STX - M3 | N | 310 | \$ | 173.33 | \$ | 0.5591 | \$ | 173.33 | Median Energy |
|  | TETCO | STX - M3 | N | 1,116 | \$ | 625.04 | \$ | 0.5601 | \$ | 625.04 | Direct Energy |
|  | TETCO | STX - M3 | N | 38,440 | \$ | 21,491.81 | \$ | 0.5591 | \$ | 21,491.81 | Direct Energy |
|  | TETCO | STX - M3 | N | 84,351 | \$ | 47,159.02 | \$ | 0.5591 | \$ | 47,159.02 | Direct Energy |
|  | TETCO | STX-M3 | N | 3,317 | \$ | 1,853.99 | \$ | 0.5589 | \$ | 1,853.99 | Shipley |
|  | TETCO | STX - M3 | N | 94,612 | \$ | 52,899.74 | \$ | 0.5591 | \$ | 52,899.74 | Exelon |
|  | TETCO | STX - M3 | N | 2,201 | \$ | 1,228.95 | \$ | 0.5584 | \$ | 1,228.95 | Nordic Energy |
|  | TETCO | STX - M3 | N | 15,190 | \$ | 8,492.73 | \$ | 0.5591 | \$ | 8,492.73 | WGL Energy |
|  | TETCO | STX - M3 | N | 4,309 | \$ | 2,410.79 | \$ | 0.5595 | \$ | 2,410.79 | Marathon Power |
|  | TETCO | STX - M3 | N | 109,740 | \$ | 61,355.63 | \$ | 0.5591 | \$ | 61,355.63 | UGI Energy |
|  | TETCO | STX-M3 | N | 713 | \$ | 399.17 | \$ | 0.5598 | \$ | 399.17 | Alpha Gas |
|  | TETCO | STX - M3 | N | 310 | \$ | 173.33 | \$ | 0.5591 | \$ | 173.33 | South Bay |
|  | TETCO | STX - M3 | N | 3,379 | \$ | 1,890.84 | \$ | 0.5596 | \$ | 1,890.84 | Park Power |
|  | TETCO | STX-M3 | N | 9,579 | \$ | 5,357.25 | \$ | 0.5593 | \$ | 5,357.25 | Palmco |
|  | TETCO | STX-M3 | N | 2,449 | \$ | 1,370.87 | \$ | 0.5598 | \$ | 1,370.87 | EDF Trading |
|  | TETCO | STX - M3 | N | 2,480 | \$ | 1,386.57 | \$ | 0.5591 | \$ | 1,386.57 | CIMA Energy |
|  | TETCO | STX-M3 | N | 5,301 | \$ | 2,962.15 | \$ | 0.5588 | \$ | 2,962.15 | MPower |
|  | TETCO | STX - M3 | N | 186 | \$ | 105.08 | \$ | 0.5649 | \$ | 105.08 | Spring |
|  | TETCO | STX - M3 | N | 93,000 | \$ | 162,750.00 | \$ | 1.7500 | \$ | 162,750.00 | Castleton Commodities |
|  | TETCO | STX - M3 | N | 486,948 | \$ | 823,429.07 | \$ | 1.6910 | \$ | 823,429.07 | Castleton Commodities |
|  | TETCO | M2 - M3 | N | 20,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  | TETCO | M2- M3 | N | 5,100 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  | TETCO | M2-M3 | N | 20,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  | TETCO | M2-M3 | N | 20,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  | TETCO | M2-M3 | N | 20,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  | TETCO | M2 - M3 | N | 20,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  | TETCO | M2-M3 | N | 20,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  |  |  |  | 1,186,912 |  |  |  |  | \$ | 1,255,604.46 |  |
|  | TRANSCO | 2-6 | N | 31 | \$ | 17.05 | \$ | 0.55000 | \$ | 17.05 | Clearview Electric |
|  | TRANSCO | 2-6 | N | 186 | \$ | 101.68 | \$ | 0.54667 | \$ | 101.68 | Spring |
|  | TRANSCO | 2-6 | N | 279 | \$ | 152.21 | \$ | 0.54556 | \$ | 152.21 | Carbonbetter |
|  | TRANSCO | 2-6 | N | 279 | \$ | 152.21 | \$ | 0.54556 | \$ | 152.21 | New Wave Energy |
|  | TRANSCO | 2-6 | N | 310 | \$ | 169.26 | \$ | 0.54600 | \$ | 169.26 | Median Energy |
|  | TRANSCO | 2-6 | N | 341 | \$ | 186.00 | \$ | 0.54545 | \$ | 186.00 | South Bay |
|  | TRANSCO | 2-6 | N | 713 | \$ | 389.05 | \$ | 0.54565 | \$ | 389.05 | Alpha Gas |
|  | TRANSCO | 2-6 | N | 1,116 | \$ | 609.15 | \$ | 0.54583 | \$ | 609.15 | Direct Energy |
|  | TRANSCO | 2-6 | N | 1,395 | \$ | 761.36 | \$ | 0.54578 | \$ | 761.36 | Greenlight |
|  | TRANSCO | 2-6 | N | 2,046 | \$ | 1,117.24 | \$ | 0.54606 | \$ | 1,117.24 | Eligo Energy |
|  | TRANSCO | 2-6 | N | 2,232 | \$ | 1,218.61 | \$ | 0.54597 | \$ | 1,218.61 | Nordic Energy |
|  | TRANSCO | 2-6 | N | 2,480 | \$ | 1,354.08 | \$ | 0.54600 | \$ | 1,354.08 | CIMA Energy |
|  | TRANSCO | 2-6 | N | 2,480 | \$ | 1,354.08 | \$ | 0.54600 | \$ | 1,354.08 | EDF Trading |
|  | TRANSCO | 2-6 | N | 2,666 | \$ | 1,455.45 | \$ | 0.54593 | \$ | 1,455.45 | Josco Energy |
|  | TRANSCO | 2-6 | N | 3,317 | \$ | 1,810.71 | \$ | 0.54589 | \$ | 1,810.71 | Shipley |
|  | TRANSCO | 2-6 | N | 3,410 | \$ | 1,861.55 | \$ | 0.54591 | \$ | 1,861.55 | Park Power |
|  | TRANSCO | 2-6 | N | 4,092 | \$ | 2,233.86 | \$ | 0.54591 | \$ | 2,233.86 | Statewise |
|  | TRANSCO | 2-6 | N | 4,340 | \$ | 2,369.64 | \$ | 0.54600 | \$ | 2,369.64 | Marathon Power |
|  | TRANSCO | 2-6 | N | 4,495 | \$ | 2,454.27 | \$ | 0.54600 | \$ | 2,454.27 | American Power |
|  | TRANSCO | 2-6 | N | 5,022 | \$ | 2,741.95 | \$ | 0.54599 | \$ | 2,741.95 | Residents |
|  | TRANSCO | 2-6 | N | 5,332 | \$ | 2,910.90 | \$ | 0.54593 | \$ | 2,910.90 | MPower |
|  | TRANSCO | 2-6 | N | 7,502 | \$ | 4,095.72 | \$ | 0.54595 | \$ | 4,095.72 | Atlantic Energy |
|  | TRANSCO | 2-6 | N | 9,579 | \$ | 5,229.39 | \$ | 0.54592 | \$ | 5,229.39 | Palmco |
|  | TRANSCO | 2-6 | N | 15,066 | \$ | 8,225.23 | \$ | 0.54595 | \$ | 8,225.23 | Vista Energy |
|  | TRANSCO | 2-6 | N | 15,221 | \$ | 8,309.86 | \$ | 0.54595 | \$ | 8,309.86 | WGL Energy |
|  | TRANSCO | 2-6 | N | 18,321 | \$ | 10,002.46 | \$ | 0.54596 | \$ | 10,002.46 | Sprague |
|  | TRANSCO | 2-6 | N | 38,440 | \$ | 20,986.38 | \$ | 0.54595 | \$ | 20,986.38 | Direct Energy |
|  | TRANSCO | 2-6 | N | 42,873 | \$ | 23,406.55 | \$ | 0.54595 | \$ | 23,406.55 | SFE Energy |
|  | TRANSCO | 2-6 | N | 84,382 | \$ | 46,068.48 | \$ | 0.54595 | \$ | 46,068.48 | Direct Energy |
|  | TRANSCO | 2-6 | N | 94,612 | \$ | 51,653.44 | \$ | 0.54595 | \$ | 51,653.44 | Exelon |
|  | TRANSCO | 2-6 | N | 109,771 | \$ | 59,929.51 | \$ | 0.54595 | \$ | 59,929.51 | UGI Energy |
|  | TRANSCO | 1-3 | N | 155,000 | \$ | 5,657.50 | \$ | 0.03650 | \$ | 5,657.50 | Nextera Energy |
|  | TRANSCO | 2-3 | N | 155,000 | \$ | 5,657.50 | \$ | 0.03650 | \$ | 5,657.50 | Nextera Energy |
|  | TRANSCO | 3-6 | N | 310,000 | \$ | 530,100.00 | \$ | 1.71000 | \$ | 530,100.00 | Vitol |
|  | TRANSCO | 3-6 | N | 2,325,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  | TRANSCO | 3-6 | N | 775,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  | TRANSCO | 3-6 | N | 49,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  | TRANSCO | 3-6 | N | 7,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  | TRANSCO | 3-6 | N | 72,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |

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For the Twelve Months Ending December 31, 2022

| M / YR | PIPELINE | PATH | RECALL STATUS | MONTHLY VOLUME DTH |  | TOTAL MONTHLY CREDIT |  | $\begin{aligned} & \text { CREDIT } \\ & \text { DTH } \end{aligned}$ |  | TOTAL CREDIT | REPLACEMENT SHIPPER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| February-22 | TETCO | STX - M3 | N | 2,240 | \$ | 1,272.99 | \$ | 0.5683 | \$ | 1,272.99 | Nordic Energy |
|  | TETCO | STX - M3 | N | 252 | \$ | 144.68 | \$ | 0.5741 | \$ | 144.68 | Carbonbetter |
|  | TETCO | STX - M3 | N | 39,564 | \$ | 22,484.69 | \$ | 0.5683 | \$ | 22,484.69 | SFE Energy |
|  | TETCO | STX - M3 | N | 3,836 | \$ | 2,179.53 | \$ | 0.5682 | \$ | 2,179.53 | American Power |
|  | TETCO | STX - M3 | N | 6,748 | \$ | 3,833.42 | \$ | 0.5681 | \$ | 3,833.42 | Atlantic Energy |
|  | TETCO | STX - M3 | N | 980 | \$ | 559.38 | \$ | 0.5708 | \$ | 559.38 | Direct Energy |
|  | TETCO | STX - M3 | N | 420 | \$ | 241.15 | \$ | 0.5742 | \$ | 241.15 | Direct Energy |
|  | TETCO | STX - M3 | N | 35,980 | \$ | 20,449.88 | \$ | 0.5684 | \$ | 20,449.88 | Direct Energy |
|  | TETCO | STX - M3 | N | 70,728 | \$ | 40,195.71 | \$ | 0.5683 | \$ | 40,195.71 | Direct Energy |
|  | TETCO | STX - M3 | N | 2,968 | \$ | 1,687.69 | \$ | 0.5686 | \$ | 1,687.69 | Shipley |
|  | TETCO | STX - M3 | N | 13,384 | \$ | 7,604.17 | \$ | 0.5682 | \$ | 7,604.17 | Vista Energy |
|  | TETCO | STX - M3 | N | 15,848 | \$ | 9,007.40 | \$ | 0.5684 | \$ | 9,007.40 | Sprague |
|  | TETCO | STX - M3 | N | 952 | \$ | 540.04 | \$ | 0.5673 | \$ | 540.04 | New Wave Energy |
|  | TETCO | STX - M3 | N | 5,208 | \$ | 2,960.68 | \$ | 0.5685 | \$ | 2,960.68 | Marathon Power |
|  | TETCO | STX - M3 | N | 616 | \$ | 352.03 | \$ | 0.5715 | \$ | 352.03 | Alpha Gas |
|  | TETCO | STX - M3 | N | 82,684 | \$ | 46,989.81 | \$ | 0.5683 | \$ | 46,989.81 | Exelon |
|  | TETCO | STX - M3 | N | 1,260 | \$ | 718.51 | \$ | 0.5702 | \$ | 718.51 | Greenlight |
|  | TETCO | STX - M3 | N | 2,352 | \$ | 1,335.66 | \$ | 0.5679 | \$ | 1,335.66 | Josco Energy |
|  | TETCO | STX - M3 | N | 252 | \$ | 144.68 | \$ | 0.5741 | \$ | 144.68 | Median Energy |
|  | TETCO | STX - M3 | N | 1,680 | \$ | 954.74 | \$ | 0.5683 | \$ | 954.74 | Eligo Energy |
|  | TETCO | STX - M3 | N | 308 | \$ | 173.57 | \$ | 0.5635 | \$ | 173.57 | Spring |
|  | TETCO | STX - M3 | N | 5,404 | \$ | 3,071.59 | \$ | 0.5684 | \$ | 3,071.59 | Residents |
|  | TETCO | STX - M3 | N | 99,764 | \$ | 56,696.36 | \$ | 0.5683 | \$ | 56,696.36 | UGI Energy |
|  | TETCO | STX - M3 | N | 13,720 | \$ | 7,797.08 | \$ | 0.5683 | \$ | 7,797.08 | WGL Energy |
|  | TETCO | STX - M3 | N | 3,556 | \$ | 2,020.37 | \$ | 0.5682 | \$ | 2,020.37 | Statewise |
|  | TETCO | STX - M3 | N | 5,432 | \$ | 3,086.03 | \$ | 0.5681 | \$ | 3,086.03 | MPower |
|  | TETCO | STX - M3 | N | 308 | \$ | 173.57 | \$ | 0.5635 | \$ | 173.57 | South Bay |
|  | TETCO | STX - M3 | N | 2,212 | \$ | 1,258.55 | \$ | 0.5690 | \$ | 1,258.55 | EDF Trading |
|  | TETCO | STX - M3 | N | 2,128 | \$ | 1,210.34 | \$ | 0.5688 | \$ | 1,210.34 | Spark Energy |
|  | TETCO | STX - M3 | N | 8,596 | \$ | 4,884.61 | \$ | 0.5682 | \$ | 4,884.61 | Palmco |
|  | TETCO | STX - M3 | N | 2,968 | \$ | 1,687.69 | \$ | 0.5686 | \$ | 1,687.69 | Park Power |
|  | TETCO | STX - M3 | N | 2,128 | \$ | 1,210.34 | \$ | 0.5688 | \$ | 1,210.34 | CIMA Energy |
|  | TETCO | STX - M3 | N | 84,000 | \$ | 147,000.00 | \$ | 1.7500 | \$ | 147,000.00 | Castleton Commodities |
|  | TETCO | STX - M3 | N | 439,824 | \$ | 743,742.38 | \$ | 1.6910 | \$ | 743,742.38 | Castleton Commodities |
|  | TETCO | M2-M3 | N | 20,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  | TETCO | M2-M3 | N | 20,000 | \$ | - | \$ | - |  | \$ 1,137,669.32 | Tioga LNG LLC |
|  |  |  |  | 998,300 |  |  |  |  |  |  |  |
|  | TRANSCO | 2-6 | $N$ | 28 | \$ | 15.40 | \$ | 0.55000 | \$ | 15.40 | Clearview Electric |
|  | TRANSCO | 2-6 | N | 280 | \$ | 152.88 | \$ | 0.54600 | \$ | 152.88 | Median Energy |
|  | TRANSCO | 2-6 | N | 280 | \$ | 152.88 | \$ | 0.54600 | \$ | 152.88 | Carbonbetter |
|  | TRANSCO | 2-6 | N | 308 | \$ | 168.00 | \$ | 0.54545 | \$ | 168.00 | South Bay |
|  | TRANSCO | 2-6 | N | 308 | \$ | 168.00 | \$ | 0.54545 | \$ | 168.00 | Spring |
|  | TRANSCO | 2-6 | N | 420 | \$ | 229.32 | \$ | 0.54600 | \$ | 229.32 | Direct Energy |
|  | TRANSCO | 2-6 | N | 616 | \$ | 336.28 | \$ | 0.54591 | \$ | 336.28 | Alpha Gas |
|  | TRANSCO | 2-6 | N | 952 | \$ | 519.68 | \$ | 0.54588 | \$ | 519.68 | New Wave Energy |
|  | TRANSCO | 2-6 | N | 980 | \$ | 534.80 | \$ | 0.54571 | \$ | 534.80 | Direct Energy |
|  | TRANSCO | 2-6 | N | 1,288 | \$ | 703.36 | \$ | 0.54609 | \$ | 703.36 | Greenlight |
|  | TRANSCO | 2-6 | N | 1,708 | \$ | 932.68 | \$ | 0.54607 | \$ | 932.68 | Eligo Energy |
|  | TRANSCO | 2-6 | N | 2,128 | \$ | 1,161.72 | \$ | 0.54592 | \$ | 1,161.72 | Spark Energy |
|  | TRANSCO | 2-6 | N | 2,156 | \$ | 1,177.12 | \$ | 0.54597 | \$ | 1,177.12 | CIMA Energy |
|  | TRANSCO | 2-6 | N | 2,240 | \$ | 1,223.04 | \$ | 0.54600 | \$ | 1,223.04 | EDF Trading |
|  | TRANSCO | 2-6 | N | 2,268 | \$ | 1,238.16 | \$ | 0.54593 | \$ | 1,238.16 | Nordic Energy |
|  | TRANSCO | 2-6 | N | 2,380 | \$ | 1,299.48 | \$ | 0.54600 | \$ | 1,299.48 | Josco Energy |
|  | TRANSCO | 2-6 | N | 2,968 | \$ | 1,620.36 | \$ | 0.54594 | \$ | 1,620.36 | Shipley |
|  | TRANSCO | 2-6 | N | 2,968 | \$ | 1,620.36 | \$ | 0.54594 | \$ | 1,620.36 | Park Power |
|  | TRANSCO | 2-6 | N | 3,584 | \$ | 1,956.64 | \$ | 0.54594 | \$ | 1,956.64 | Statewise |
|  | TRANSCO | 2-6 | N | 3,836 | \$ | 2,094.40 | \$ | 0.54599 | \$ | 2,094.40 | American Power |
|  | TRANSCO | 2-6 | N | 5,208 | \$ | 2,843.40 | \$ | 0.54597 | \$ | 2,843.40 | Marathon Power |
|  | TRANSCO | 2-6 | N | 5,404 | \$ | 2,950.36 | \$ | 0.54596 | \$ | 2,950.36 | Residents |
|  | TRANSCO | 2-6 | N | 5,460 | \$ | 2,980.88 | \$ | 0.54595 | \$ | 2,980.88 | MPower |
|  | TRANSCO | 2-6 | N | 6,776 | \$ | 3,699.36 | \$ | 0.54595 | \$ | 3,699.36 | Atlantic Energy |
|  | TRANSCO | 2-6 | N | 8,596 | \$ | 4,692.80 | \$ | 0.54593 | \$ | 4,692.80 | Palmco |
|  | TRANSCO | 2-6 | N | 13,384 | \$ | 7,306.88 | \$ | 0.54594 | \$ | 7,306.88 | Vista Energy |
|  | TRANSCO | 2-6 | N | 13,748 | \$ | 7,505.68 | \$ | 0.54595 | \$ | 7,505.68 | WGL Energy |
|  | TRANSCO | 2-6 | N | 15,848 | \$ | 8,652.28 | \$ | 0.54595 | \$ | 8,652.28 | Sprague |
|  | TRANSCO | 2-6 | N | 36,008 | \$ | 19,658.52 | \$ | 0.54595 | \$ | 19,658.52 | Direct Energy |
|  | TRANSCO | 2-6 | N | 39,564 | \$ | 21,600.04 | \$ | 0.54595 | \$ | 21,600.04 | SFE Energy |
|  | TRANSCO | 2-6 | N | 70,756 | \$ | 38,629.36 | \$ | 0.54595 | \$ | 38,629.36 | Direct Energy |
|  | TRANSCO | 2-6 | N | 82,684 | \$ | 45,141.32 | \$ | 0.54595 | \$ | 45,141.32 | Exelon |
|  | TRANSCO | 2-6 | N | 99,764 | \$ | 54,466.16 | \$ | 0.54595 | \$ | 54,466.16 | UGI Energy |
|  | TRANSCO | 1-3 | N | 140,000 | \$ | 5,110.00 | \$ | 0.03650 | \$ | 5,110.00 | Nextera Energy |
|  | TRANSCO | 2-3 | N | 140,000 | \$ | 5,110.00 | \$ | 0.03650 | \$ | 5,110.00 | Nextera Energy |
|  | TRANSCO | 2-3 | N | 280,000 | \$ | 18,480.00 | \$ | 0.06600 | \$ | 18,480.00 | United Energy |
|  | TRANSCO | 3-6 | N | 280,000 | \$ | 478,800.00 | \$ | 1.71000 | \$ | 478,800.00 | Vitol |
|  | TRANSCO | 3-6 | N | 2,100,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  | TRANSCO | 3-6 | N | 700,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  |  |  |  | 4,074,896 |  |  |  |  | \$ | 744,931.60 |  |

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For the Twelve Months Ending December 31, 2022

| M / YR | PIPELINE | PATH | RECALL STATUS | MONTHLY VOLUME DTH |  | TOTAL MONTHLY CREDIT |  | CREDIT DTH |  | TOTAL CREDIT | REPLACEMENT SHIPPER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| March-22 | TETCO | STX - M3 | N | 1,054 | \$ | 597.89 | \$ | 0.5673 | \$ | 597.89 | New Wave Energy |
|  | TETCO | STX - M 3 | N | 930 | \$ | 528.52 | \$ | 0.5683 | \$ | 528.52 | Direct Energy |
|  | TETCO | STX - M3 | N | 2,852 | \$ | 1,622.95 | \$ | 0.5691 | \$ | 1,622.95 | Nordic Energy |
|  | TETCO | STX - M 3 | N | 1,116 | \$ | 635.31 | \$ | 0.5693 | \$ | 635.31 | Direct Energy |
|  | TETCO | STX - M 3 | N | 5,766 | \$ | 3,277.90 | \$ | 0.5685 | \$ | 3,277.90 | Marathon Power |
|  | TETCO | STX - M3 | N | 14,539 | \$ | 8,264.14 | \$ | 0.5684 | \$ | 8,264.14 | Vista Energy |
|  | TETCO | STX - M3 | N | 341 | \$ | 192.16 | \$ | 0.5635 | \$ | 192.16 | South Bay |
|  | TETCO | STX - M 3 | N | 682 | \$ | 389.74 | \$ | 0.5715 | \$ | 389.74 | Alpha Gas |
|  | TETCO | STX - M3 | N | 2,573 | \$ | 1,462.78 | \$ | 0.5685 | \$ | 1,462.78 | Josco Energy |
|  | TETCO | STX - M3 | N | 3,162 | \$ | 1,799.14 | \$ | 0.5690 | \$ | 1,799.14 | Park Power |
|  | TETCO | STX - M 3 | N | 9,362 | \$ | 5,322.59 | \$ | 0.5685 | \$ | 5,322.59 | Palmco |
|  | TETCO | STX - M 3 | N | 279 | \$ | 160.20 | \$ | 0.5742 | \$ | 160.20 | Median Energy |
|  | TETCO | STX - M 3 | N | 1,767 | \$ | 1,003.64 | \$ | 0.5680 | \$ | 1,003.64 | Eligo Energy |
|  | TETCO | STX - M3 | N | 6,696 | \$ | 3,806.42 | \$ | 0.5685 | \$ | 3,806.42 | Residents |
|  | TETCO | STX - M 3 | N | 496 | \$ | 282.95 | \$ | 0.5705 | \$ | 282.95 | Spring |
|  | TETCO | STX - M 3 | N | 40,734 | \$ | 23,148.05 | \$ | 0.5683 | \$ | 23,148.05 | Direct Energy |
|  | TETCO | STX - M3 | N | 78,213 | \$ | 44,448.98 | \$ | 0.5683 | \$ | 44,448.98 | Direct Energy |
|  | TETCO | STX - M3 | N | 465 | \$ | 266.97 | \$ | 0.5741 | \$ | 266.97 | Carbonbetter |
|  | TETCO | STX - M3 | N | 3,224 | \$ | 1,831.12 | \$ | 0.5680 | \$ | 1,831.12 | Shipley |
|  | TETCO | STX - M3 | N | 4,216 | \$ | 2,397.04 | \$ | 0.5686 | \$ | 2,397.04 | American Power |
|  | TETCO | STX - M3 | N | 7,502 | \$ | 4,265.56 | \$ | 0.5686 | \$ | 4,265.56 | Atlantic Energy |
|  | TETCO | STX - M 3 | N | 1,488 | \$ | 843.45 | \$ | 0.5668 | \$ | 843.45 | Greenlight |
|  | TETCO | STX - M 3 | N | 109,213 | \$ | 62,066.28 | \$ | 0.5683 | \$ | 62,066.28 | UGI Energy |
|  | TETCO | STX - M 3 | N | 91,233 | \$ | 51,848.26 | \$ | 0.5683 | \$ | 51,848.26 | Constellation |
|  | TETCO | STX - M3 | N | 45,353 | \$ | 25,774.65 | \$ | 0.5683 | \$ | 25,774.65 | SFE Energy |
|  | TETCO | STX - M3 | N | 3,968 | \$ | 2,252.84 | \$ | 0.5678 | \$ | 2,252.84 | Statewise |
|  | TETCO | STX - M 3 | N | 17,670 | \$ | 10,041.86 | \$ | 0.5683 | \$ | 10,041.86 | Sprague |
|  | TETCO | STX - M3 | N | 15,810 | \$ | 8,984.82 | \$ | 0.5683 | \$ | 8,984.82 | WGL Energy |
|  | TETCO | STX - M3 | N | 2,542 | \$ | 1,446.80 | \$ | 0.5692 | \$ | 1,446.80 | Spark Energy |
|  | TETCO | STX - M 3 | N | 7,006 | \$ | 3,982.59 | \$ | 0.5685 | \$ | 3,982.59 | MPower |
|  | TETCO | STX - M 3 | N | 2,449 | \$ | 1,393.40 | \$ | 0.5690 | \$ | 1,393.40 | EDF Trading |
|  | TETCO | STX - M3 | N | 93,000 | \$ | 162,750.00 | \$ | 1.7500 | \$ | 162,750.00 | Castleton Commodities |
|  | TETCO | STX - M3 | N | 486,948 | \$ | 823,429.07 | \$ | 1.6910 | \$ | 823,429.07 | Castleton Commodities |
|  |  |  |  | 1,062,649 |  |  |  |  | \$ 1,260,518.07 |  |  |
|  | TRANSCO | 2-6 | N | 31 | \$ | 17.05 | \$ | 0.55000 | \$ | 17.05 | Clearview Electric |
|  | TRANSCO | 2-6 | N | 279 | \$ | 152.21 | \$ | 0.54556 | \$ | 152.21 | Median Energy |
|  | TRANSCO | 2-6 | N | 341 | \$ | 186.00 | \$ | 0.54545 | \$ | 186.00 | South Bay |
|  | TRANSCO | 2-6 | N | 465 | \$ | 253.89 | \$ | 0.54600 | \$ | 253.89 | Carbonbetter |
|  | TRANSCO | 2-6 | N | 496 | \$ | 270.63 | \$ | 0.54563 | \$ | 270.63 | Spring |
|  | TRANSCO | 2-6 | N | 682 | \$ | 372.31 | \$ | 0.54591 | \$ | 372.31 | Alpha Gas |
|  | TRANSCO | 2-6 | N | 961 | \$ | 524.52 | \$ | 0.54581 | \$ | 524.52 | Direct Energy |
|  | TRANSCO | 2-6 | N | 1,054 | \$ | 575.36 | \$ | 0.54588 | \$ | 575.36 | New Wave Energy |
|  | TRANSCO | 2-6 | N | 1,116 | \$ | 609.15 | \$ | 0.54583 | \$ | 609.15 | Direct Energy |
|  | TRANSCO | 2-6 | N | 1,519 | \$ | 829.56 | \$ | 0.54612 | \$ | 829.56 | Greenlight |
|  | TRANSCO | 2-6 | N | 1,798 | \$ | 981.77 | \$ | 0.54603 | \$ | 981.77 | Eligo Energy |
|  | TRANSCO | 2-6 | N | 2,449 | \$ | 1,337.03 | \$ | 0.54595 | \$ | 1,337.03 | EDF Trading |
|  | TRANSCO | 2-6 | N | 2,573 | \$ | 1,404.61 | \$ | 0.54590 | \$ | 1,404.61 | Spark Energy |
|  | TRANSCO | 2-6 | N | 2,573 | \$ | 1,404.61 | \$ | 0.54590 | \$ | 1,404.61 | Josco Energy |
|  | TRANSCO | 2-6 | N | 2,852 | \$ | 1,557.13 | \$ | 0.54598 | \$ | 1,557.13 | Nordic Energy |
|  | TRANSCO | 2-6 | N | 3,162 | \$ | 1,726.39 | \$ | 0.54598 | \$ | 1,726.39 | Park Power |
|  | TRANSCO | 2-6 | N | 3,224 | \$ | 1,760.18 | \$ | 0.54596 | \$ | 1,760.18 | Shipley |
|  | TRANSCO | 2-6 | N | 3,968 | \$ | 2,166.28 | \$ | 0.54594 | \$ | 2,166.28 | Statewise |
|  | TRANSCO | 2-6 | N | 4,216 | \$ | 2,301.44 | \$ | 0.54588 | \$ | 2,301.44 | American Power |
|  | TRANSCO | 2-6 | N | 5,766 | \$ | 3,148.05 | \$ | 0.54597 | \$ | 3,148.05 | Marathon Power |
|  | TRANSCO | 2-6 | N | 6,727 | \$ | 3,672.57 | \$ | 0.54594 | \$ | 3,672.57 | Residents |
|  | TRANSCO | 2-6 | N | 7,006 | \$ | 3,824.78 | \$ | 0.54593 | \$ | 3,824.78 | MPower |
|  | TRANSCO | 2-6 | N | 7,502 | \$ | 4,095.72 | \$ | 0.54595 | \$ | 4,095.72 | Atlantic Energy |
|  | TRANSCO | 2-6 | N | 9,362 | \$ | 5,110.97 | \$ | 0.54593 | \$ | 5,110.97 | Palmco |
|  | TRANSCO | 2-6 | N | 14,539 | \$ | 7,937.55 | \$ | 0.54595 | \$ | 7,937.55 | Vista Energy |
|  | TRANSCO | 2-6 | N | 15,810 | \$ | 8,631.64 | \$ | 0.54596 | \$ | 8,631.64 | WGL Energy |
|  | TRANSCO | 2-6 | N | 17,701 | \$ | 9,663.63 | \$ | 0.54594 | \$ | 9,663.63 | Sprague |
|  | TRANSCO | 2-6 | N | 40,765 | \$ | 22,255.52 | \$ | 0.54595 | \$ | 22,255.52 | Direct Energy |
|  | TRANSCO | 2-6 | N | 45,353 | \$ | 24,760.32 | \$ | 0.54595 | \$ | 24,760.32 | SFE Energy |
|  | TRANSCO | 2-6 | N | 78,244 | \$ | 42,717.38 | \$ | 0.54595 | \$ | 42,717.38 | Direct Energy |
|  | TRANSCO | 2-6 | N | 91,233 | \$ | 49,808.63 | \$ | 0.54595 | \$ | 49,808.63 | Constellation |
|  | TRANSCO | 2-6 | N | 109,244 | \$ | 59,641.83 | \$ | 0.54595 | \$ | 59,641.83 | UGI Energy |
|  | TRANSCO | 1-3 | N | 155,000 | \$ | 5,657.50 | \$ | 0.03650 | \$ | 5,657.50 | Nextera Energy |
|  | TRANSCO | 2-3 | N | 155,000 | \$ | 5,657.50 | \$ | 0.03650 | \$ | 5,657.50 | Nextera Energy |
|  | TRANSCO | 2-3 | N | 310,000 | \$ | 9,610.00 | \$ | 0.03100 | \$ | 9,610.00 | Macquarie |
|  | TRANSCO | 3-6 | N | 310,000 | \$ | 530,100.00 | \$ | 1.71000 | \$ | 530,100.00 | Vitol |
|  | TRANSCO | 3-6 | N | 2,325,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  | TRANSCO | 3-6 | N | 775,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  |  |  |  | 4,513,011 |  |  |  |  | \$ | 814,723.71 |  |

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For the Twelve Months Ending December 31, 2022

| M / YR | PIPELINE | PATH | RECALL STATUS | MONTHLY VOLUME DTH |  | TOTAL MONTHLY CREDIT |  | CREDIT DTH |  | TOTAL CREDIT | REPLACEMENT SHIPPER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| April-22 | TETCO | STX - M3 | N | 86,160 | \$ | 78,254.54 | \$ | 0.9082 | \$ | 78,254.54 | Constellation |
|  | TETCO | STX-M3 | N | 3,960 | \$ | 3,599.68 | \$ | 0.9090 | \$ | 3,599.68 | Statewise |
|  | TETCO | STX-M3 | N | 3,030 | \$ | 2,749.50 | \$ | 0.9074 | \$ | 2,749.50 | Shipley |
|  | TETCO | STX-M3 | N | 17,280 | \$ | 15,695.45 | \$ | 0.9083 | \$ | 15,695.45 | Sprague |
|  | TETCO | STX - M3 | N | 14,220 | \$ | 12,913.16 | \$ | 0.9081 | \$ | 12,913.16 | Vista Energy |
|  | TETCO | STX - M3 | N | 1,140 | \$ | 1,032.19 | \$ | 0.9054 | \$ | 1,032.19 | Direct Energy |
|  | TETCO | STX - M3 | N | 40,170 | \$ | 36,485.17 | \$ | 0.9083 | \$ | 36,485.17 | Direct Energy |
|  | TETCO | STX - M3 | N | 75,330 | \$ | 68,413.08 | \$ | 0.9082 | \$ | 68,413.08 | Direct Energy |
|  | TETCO | STX-M3 | N | 44,910 | \$ | 40,786.92 | \$ | 0.9082 | \$ | 40,786.92 | SFE Energy |
|  | TETCO | STX-M3 | N | 2,580 | \$ | 2,344.76 | \$ | 0.9088 | \$ | 2,344.76 | Nordic Energy |
|  | TETCO | STX - M3 | N | 1,020 | \$ | 924.79 | \$ | 0.9067 | \$ | 924.79 | New Wave Energy |
|  | TETCO | STX - M3 | N | 15,570 | \$ | 14,143.20 | \$ | 0.9084 | \$ | 14,143.20 | WGL Energy |
|  | TETCO | STX-M3 | N | 2,430 | \$ | 2,204.58 | \$ | 0.9072 | \$ | 2,204.58 | Spark Energy |
|  | TETCO | STX - M3 | N | 510 | \$ | 462.40 | \$ | 0.9067 | \$ | 462.40 | Carbonbetter |
|  | TETCO | STX-M3 | N | 7,200 | \$ | 6,539.11 | \$ | 0.9082 | \$ | 6,539.11 | Atlantic Energy |
|  | TETCO | STX-M3 | N | 1,500 | \$ | 1,362.32 | \$ | 0.9082 | \$ | 1,362.32 | Greenlight |
|  | TETCO | STX-M3 | N | 4,320 | \$ | 3,921.88 | \$ | 0.9078 | \$ | 3,921.88 | American Power |
|  | TETCO | STX - M3 | N | 480 | \$ | 437.53 | \$ | 0.9115 | \$ | 437.53 | Spring |
|  | TETCO | STX - M3 | N | 1,200 | \$ | 1,089.85 | \$ | 0.9082 | \$ | 1,089.85 | Direct Energy |
|  | TETCO | STX - M3 | N | 1,590 | \$ | 1,444.84 | \$ | 0.9087 | \$ | 1,444.84 | Eligo Energy |
|  | TETCO | STX - M3 | N | 240 | \$ | 214.80 | \$ | 0.8950 | \$ | 214.80 | Median Energy |
|  | TETCO | STX-M3 | N | 2,490 | \$ | 2,262.24 | \$ | 0.9085 | \$ | 2,262.24 | Josco Energy |
|  | TETCO | STX-M3 | N | 7,290 | \$ | 6,621.64 | \$ | 0.9083 | \$ | 6,621.64 | Residents |
|  | TETCO | STX - M3 | N | 360 | \$ | 330.13 | \$ | 0.9170 | \$ | 330.13 | UET |
|  | TETCO | STX-M3 | N | 60 | \$ | 57.66 | \$ | 0.9610 | \$ | 57.66 | Clearview Electric |
|  | TETCO | STX - M3 | N | 5,760 | \$ | 5,234.46 | \$ | 0.9088 | \$ | 5,234.46 | Marathon Power |
|  | TETCO | STX-M3 | N | 111,690 | \$ | 101,438.77 | \$ | 0.9082 | \$ | 101,438.77 | UGI Energy |
|  | TETCO | STX-M3 | N | 8,580 | \$ | 7,794.02 | \$ | 0.9084 | \$ | 7,794.02 | MPower |
|  | TETCO | STX-M3 | N | 330 | \$ | 297.33 | \$ | 0.9010 | \$ | 297.33 | South Bay |
|  | TETCO | STX-M3 | N | 660 | \$ | 602.59 | \$ | 0.9130 | \$ | 602.59 | Alpha Gas |
|  | TETCO | STX-M3 | N | 2,970 | \$ | 2,699.76 | \$ | 0.9090 | \$ | 2,699.76 | Park Power |
|  | TETCO | STX-M3 | N | 2,460 | \$ | 2,237.37 | \$ | 0.9095 | \$ | 2,237.37 | EDF Trading |
|  | TETCO | STX-M3 | N | 10,500 | \$ | 9,536.21 | \$ | 0.9082 | \$ | 9,536.21 | Palmco |
|  | TETCO | STX - M3 | N | 90,000 | \$ | 11,250.00 | \$ | 0.1250 | \$ | 11,250.00 | Tenaska |
|  | TETCO | STX - M3 | N | 471,240 | \$ | 49,480.20 | \$ | 0.1050 | \$ | 49,480.20 | Tenaska |
|  | TETCO | WLA - M3 | N | 540,000 | \$ | 32,940.00 | \$ | 0.0610 | \$ | 32,940.00 | Twin Eagle |
|  | TETCO | WLA - M3 | N | $540,000$ | \$ | 32,400.00 | \$ | 0.0600 | \$ | 32,400.00 | Vitol |
|  |  |  |  | 2,119,230 |  |  |  |  | \$ | 560,202.13 |  |
|  | TRANSCO | 2-6 | N | 60 | \$ | 32.70 | \$ | 0.54500 | \$ | 32.70 | Clearview Electric |
|  | TRANSCO | 2-6 | N | 270 | \$ | 147.60 | \$ | 0.54667 | \$ | 147.60 | Median Energy |
|  | TRANSCO | 2-6 | N | 360 | \$ | 196.80 | \$ | 0.54667 | \$ | 196.80 | South Bay |
|  | TRANSCO | 2-6 | N | 390 | \$ | 213.30 | \$ | 0.54692 | \$ | 213.30 | UET |
|  | TRANSCO | 2-6 | N | 480 | \$ | 262.50 | \$ | 0.54688 | \$ | 262.50 | Spring |
|  | TRANSCO | 2-6 | N | 510 | \$ | 279.00 | \$ | 0.54706 | \$ | 279.00 | Carbonbetter |
|  | TRANSCO | 2-6 | N | 660 | \$ | 361.20 | \$ | 0.54727 | \$ | 361.20 | Alpha Gas |
|  | TRANSCO | 2-6 | N | 1,020 | \$ | 558.00 | \$ | 0.54706 | \$ | 558.00 | New Wave Energy |
|  | TRANSCO | 2-6 | N | 1,140 | \$ | 623.70 | \$ | 0.54711 | \$ | 623.70 | Direct Energy |
|  | TRANSCO | 2-6 | N | 1,230 | \$ | 672.90 | \$ | 0.54707 | \$ | 672.90 | Direct Energy |
|  | TRANSCO | 2-6 | N | 1,530 | \$ | 837.30 | \$ | 0.54725 | \$ | 837.30 | Greenlight |
|  | TRANSCO | 2-6 | N | 1,620 | \$ | 886.50 | \$ | 0.54722 | \$ | 886.50 | Eligo Energy |
|  | TRANSCO | 2-6 | N | 2,430 | \$ | 1,329.60 | \$ | 0.54716 | \$ | 1,329.60 | Spark Energy |
|  | TRANSCO | 2-6 | N | 2,460 | \$ | 1,346.10 | \$ | 0.54720 | \$ | 1,346.10 | EDF Trading |
|  | TRANSCO | 2-6 | N | 2,490 | \$ | 1,362.60 | \$ | 0.54723 | \$ | 1,362.60 | Josco Energy |
|  | TRANSCO | 2-6 | N | 2,610 | \$ | 1,428.30 | \$ | 0.54724 | \$ | 1,428.30 | Nordic Energy |
|  | TRANSCO | 2-6 | N | 3,000 | \$ | 1,641.60 | \$ | 0.54720 | \$ | 1,641.60 | Park Power |
|  | TRANSCO | 2-6 | N | 3,030 | \$ | 1,657.80 | \$ | 0.54713 | \$ | 1,657.80 | Shipley |
|  | TRANSCO | 2-6 | N | 3,960 | \$ | 2,166.60 | \$ | 0.54712 | \$ | 2,166.60 | Statewise |
|  | TRANSCO | 2-6 | N | 4,320 | \$ | 2,364.00 | \$ | 0.54722 | \$ | 2,364.00 | American Power |
|  | TRANSCO | 2-6 | N | 5,790 | \$ | 3,168.00 | \$ | 0.54715 | \$ | 3,168.00 | Marathon Power |
|  | TRANSCO | 2-6 | N | 7,230 | \$ | 3,956.10 | \$ | 0.54718 | \$ | 3,956.10 | Atlantic Energy |
|  | TRANSCO | 2-6 | N | 7,320 | \$ | 4,005.60 | \$ | 0.54721 | \$ | 4,005.60 | Residents |
|  | TRANSCO | 2-6 | N | 8,580 | \$ | 4,694.70 | \$ | 0.54717 | \$ | 4,694.70 | MPower |
|  | TRANSCO | 2-6 | N | 10,500 | \$ | 5,745.30 | \$ | 0.54717 | \$ | 5,745.30 | Palmco |
|  | TRANSCO | 2-6 | N | 14,250 | \$ | 7,797.30 | \$ | 0.54718 | \$ | 7,797.30 | Vista Energy |
|  | TRANSCO | 2-6 | N | 15,570 | \$ | 8,519.70 | \$ | 0.54719 | \$ | 8,519.70 | WGL Energy |
|  | TRANSCO | 2-6 | N | 17,280 | \$ | 9,455.10 | \$ | 0.54717 | \$ | 9,455.10 | Sprague |
|  | TRANSCO | 2-6 | N | 40,200 | \$ | 21,996.60 | \$ | 0.54718 | \$ | 21,996.60 | Direct Energy |
|  | TRANSCO | 2-6 | N | 44,940 | \$ | 24,590.10 | \$ | 0.54718 | \$ | 24,590.10 | SFE Energy |
|  | TRANSCO | 2-6 | N | 75,330 | \$ | 41,219.10 | \$ | 0.54718 | \$ | 41,219.10 | Direct Energy |
|  | TRANSCO | 2-6 | N | 86,190 | \$ | 47,161.50 | \$ | 0.54718 | \$ | 47,161.50 | Constellation |
|  | TRANSCO | 2-6 | N | 111,720 | \$ | 61,131.00 | \$ | 0.54718 | \$ | 61,131.00 | UGI Energy |
|  | TRANSCO | 1-3 | N | 300,000 | \$ | 31,500.00 | \$ | 0.10500 | \$ | 31,500.00 | Vitol |
|  | TRANSCO | 1-3 | N | 300,000 | \$ | 31,500.00 | \$ | 0.10500 | \$ | 31,500.00 | Vitol |
|  | TRANSCO | 2-3 | N | 150,000 | \$ | 9,000.00 | \$ | 0.06000 | \$ | 9,000.00 | NJR Energy |
|  | TRANSCO | 2-3 | N | 300,000 | \$ | 18,000.00 | \$ | 0.06000 | \$ | 18,000.00 | NJR Energy |
|  | TRANSCO | 3-6 | N | 600,000 | \$ | 33,060.00 | \$ | 0.05510 | \$ | 33,060.00 | Twin Eagle |
|  | TRANSCO | 3-6 | N | 600,000 | \$ | 33,060.00 | \$ | 0.05510 | \$ | 33,060.00 | Twin Eagle |

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| M / YR | PIPELINE | PATH | RECALL STATUS | MONTHLY VOLUME DTH |  | TOTAL MONTHLY CREDIT |  | $\begin{aligned} & \text { CREDIT } \\ & \text { DTH } \end{aligned}$ |  | TOTAL CREDIT | REPLACEMENT SHIPPER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| May-22 | TETCO | STX - M3 | N | 1,054 | \$ | 955.61 | \$ | 0.9067 | \$ | 955.61 | New Wave Energy |
|  | TETCO | STX - M3 | N | 1,426 | \$ | 1,296.76 | \$ | 0.9094 | \$ | 1,296.76 | Direct Energy |
|  | TETCO | STX-M3 | N | 527 | \$ | 477.81 | \$ | 0.9067 | \$ | 477.81 | Carbonbetter |
|  | TETCO | STX - M3 | N | 5,983 | \$ | 5,434.63 | \$ | 0.9083 | \$ | 5,434.63 | Marathon Power |
|  | TETCO | STX-M3 | N | 17,701 | \$ | 16,073.77 | \$ | 0.9081 | \$ | 16,073.77 | Sprague |
|  | TETCO | STX - M3 | N | 3,007 | \$ | 2,730.17 | \$ | 0.9079 | \$ | 2,730.17 | Shipley |
|  | TETCO | STX-M3 | N | 2,480 | \$ | 2,252.36 | \$ | 0.9082 | \$ | 2,252.36 | Josco Energy |
|  | TETCO | STX-M3 | N | 248 | \$ | 221.95 | \$ | 0.8950 | \$ | 221.95 | Median Energy |
|  | TETCO | STX-M3 | N | 1,519 | \$ | 1,382.03 | \$ | 0.9098 | \$ | 1,382.03 | Eligo Energy |
|  | TETCO | STX-M3 | N | 10,912 | \$ | 9,913.67 | \$ | 0.9085 | \$ | 9,913.67 | Residents |
|  | TETCO | STX - M3 | N | 620 | \$ | 563.09 | \$ | 0.9082 | \$ | 563.09 | Spring |
|  | TETCO | STX-M3 | N | 2,790 | \$ | 2,533.91 | \$ | 0.9082 | \$ | 2,533.91 | Park Power |
|  | TETCO | STX - M3 | N | 651 | \$ | 588.79 | \$ | 0.9044 | \$ | 588.79 | Alpha Gas |
|  | TETCO | STX-M3 | N | 341 | \$ | 307.25 | \$ | 0.9010 | \$ | 307.25 | South Bay |
|  | TETCO | STX - M3 | N | 77,686 | \$ | 70,556.84 | \$ | 0.9082 | \$ | 70,556.84 | UGI Energy |
|  | TETCO | STX - M3 | N | 14,384 | \$ | 13,062.06 | \$ | 0.9081 | \$ | 13,062.06 | Vista Energy |
|  | TETCO | STX - M3 | N | 310 | \$ | 281.55 | \$ | 0.9082 | \$ | 281.55 | Clearview Electric |
|  | TETCO | STX-M3 | N | 3,038 | \$ | 2,755.86 | \$ | 0.9071 | \$ | 2,755.86 | Nordic Energy |
|  | TETCO | STX - M3 | N | 15,159 | \$ | 13,770.00 | \$ | 0.9084 | \$ | 13,770.00 | WGL Energy |
|  | TETCO | STX-M3 | N | 4,650 | \$ | 4,223.19 | \$ | 0.9082 | \$ | 4,223.19 | American Power |
|  | TETCO | STX - M3 | N | 7,378 | \$ | 6,697.49 | \$ | 0.9078 | \$ | 6,697.49 | Atlantic Energy |
|  | TETCO | STX-M3 | N | 90,365 | \$ | 82,066.29 | \$ | 0.9082 | \$ | 82,066.29 | Constellation |
|  | TETCO | STX - M3 | N | 2,418 | \$ | 2,192.78 | \$ | 0.9069 | \$ | 2,192.78 | Spark Energy |
|  | TETCO | STX-M3 | N | 47,833 | \$ | 43,443.22 | \$ | 0.9082 | \$ | 43,443.22 | SFE Energy |
|  | TETCO | STX - M3 | N | 4,309 | \$ | 3,915.94 | \$ | 0.9088 | \$ | 3,915.94 | Statewise |
|  | TETCO | STX - M3 | N | 1,581 | \$ | 1,433.42 | \$ | 0.9067 | \$ | 1,433.42 | Greenlight |
|  | TETCO | STX-M3 | N | 10,695 | \$ | 9,709.22 | \$ | 0.9078 | \$ | 9,709.22 | Palmco |
|  | TETCO | STX-M3 | N | 1,178 | \$ | 1,066.59 | \$ | 0.9054 | \$ | 1,066.59 | Direct Energy |
|  | TETCO | STX-M3 | N | 77,748 | \$ | 70,608.23 | \$ | 0.9082 | \$ | 70,608.23 | Direct Energy |
|  | TETCO | STX-M3 | N | 38,502 | \$ | 34,971.18 | \$ | 0.9083 | \$ | 34,971.18 | Direct Energy |
|  | TETCO | STX - M3 | N | 372 | \$ | 341.13 | \$ | 0.9170 | \$ | 341.13 | UET |
|  | TETCO | STX-M3 | N | 2,604 | \$ | 2,363.34 | \$ | 0.9076 | \$ | 2,363.34 | EDF Trading |
|  | TETCO | STX-M3 | N | 11,532 | \$ | 10,476.76 | \$ | 0.9085 | \$ | 10,476.76 | MPower |
|  | TETCO | STX - M3 | N | 93,000 | \$ | 11,625.00 | \$ | 0.1250 | \$ | 11,625.00 | Tenaska |
|  | TETCO | STX-M3 | N | 486,948 | \$ | 51,129.54 | \$ | 0.1050 | \$ | 51,129.54 | Tenaska |
|  | TETCO | WLA - M3 | N | 558,000 | \$ | 227,552.40 | \$ | 0.4078 | \$ | 227,552.40 | Grays Ferry |
|  | TETCO | WLA - M3 | N | 558,000 | \$ | 227,552.40 | \$ | 0.4078 | \$ | 227,552.40 | Grays Ferry |
|  |  |  |  | 2,156,949 |  |  |  |  | \$ | 936,526.23 |  |
|  | TRANSCO | 2-6 | N | 248 | \$ | 135.78 | \$ | 0.54750 | \$ | 135.78 | Median Energy |
|  | TRANSCO | 2-6 | N | 341 | \$ | 186.62 |  | 0.54727 | \$ | 186.62 | Clearview Electric |
|  | TRANSCO | 2-6 | N | 372 | \$ | 203.36 | \$ | 0.54667 | \$ | 203.36 | South Bay |
|  | TRANSCO | 2-6 | N | 403 | \$ | 220.41 |  | 0.54692 | \$ | 220.41 | UET |
|  | TRANSCO | 2-6 | N | 558 | \$ | 305.35 | \$ | 0.54722 | \$ | 305.35 | Carbonbetter |
|  | TRANSCO | 2-6 | N | 651 | \$ | 356.19 |  | 0.54714 | \$ | 356.19 | Spring |
|  | TRANSCO | 2-6 | N | 682 | \$ | 373.24 | \$ | 0.54727 | \$ | 373.24 | Alpha Gas |
|  | TRANSCO | 2-6 | N | 1,085 | \$ | 593.65 | \$ | 0.54714 | \$ | 593.65 | New Wave Energy |
|  | TRANSCO | 2-6 | N | 1,209 | \$ | 661.54 |  | 0.54718 | \$ | 661.54 | Direct Energy |
|  | TRANSCO | 2-6 | N | 1,426 | \$ | 780.58 | \$ | 0.54739 | \$ | 780.58 | Direct Energy |
|  | TRANSCO | 2-6 | N | 1,519 | \$ | 831.42 |  | 0.54735 | \$ | 831.42 | Eligo Energy |
|  | TRANSCO | 2-6 | N | 1,581 | \$ | 865.21 |  | 0.54725 | \$ | 865.21 | Greenlight |
|  | TRANSCO | 2-6 | N | 2,449 | \$ | 1,340.13 |  | 0.54722 | \$ | 1,340.13 | Spark Energy |
|  | TRANSCO | 2-6 | N | 2,511 | \$ | 1,373.92 |  | 0.54716 | \$ | 1,373.92 | Josco Energy |
|  | TRANSCO | 2-6 | N | 2,604 | \$ | 1,424.76 |  | 0.54714 | \$ | 1,424.76 | EDF Trading |
|  | TRANSCO | 2-6 | N | 2,821 | \$ | 1,543.49 | \$ | 0.54714 | \$ | 1,543.49 | Park Power |
|  | TRANSCO | 2-6 | N | 3,007 | \$ | 1,645.48 |  | 0.54722 | \$ | 1,645.48 | Shipley |
|  | TRANSCO | 2-6 | N | 3,038 | \$ | 1,662.22 |  | 0.54714 | \$ | 1,662.22 | Nordic Energy |
|  | TRANSCO | 2-6 | N | 4,309 | \$ | 2,357.86 |  | 0.54719 | \$ | 2,357.86 | Statewise |
|  | TRANSCO | 2-6 | N | 4,650 | \$ | 2,544.48 |  | 0.54720 | \$ | 2,544.48 | American Power |
|  | TRANSCO | 2-6 | N | 6,014 | \$ | 3,290.65 |  | 0.54716 | \$ | 3,290.65 | Marathon Power |
|  | TRANSCO | 2-6 | N | 7,378 | \$ | 4,037.13 | \$ | 0.54718 | \$ | 4,037.13 | Atlantic Energy |
|  | TRANSCO | 2-6 | N | 10,726 | \$ | 5,869.23 | \$ | 0.54720 | \$ | 5,869.23 | Palmco |
|  | TRANSCO | 2-6 | N | 10,912 | \$ | 5,970.91 |  | 0.54719 | \$ | 5,970.91 | Residents |
|  | TRANSCO | 2-6 | N | 11,563 | \$ | 6,327.10 | \$ | 0.54718 | \$ | 6,327.10 | MPower |
|  | TRANSCO | 2-6 | N | 15,159 | \$ | 8,294.67 |  | 0.54718 | \$ | 8,294.67 | WGL Energy |
|  | TRANSCO | 2-6 | N | 17,701 | \$ | 9,685.64 | \$ | 0.54718 | \$ | 9,685.64 | Sprague |
|  | TRANSCO | 2-6 | N | 38,533 | \$ | 21,084.65 |  | 0.54718 | \$ | 21,084.65 | Direct Energy |
|  | TRANSCO | 2-6 | N | 47,833 | \$ | 26,173.30 | \$ | 0.54718 | \$ | 26,173.30 | SFE Energy |
|  | TRANSCO | 2-6 | N | 77,686 | \$ | 42,508.44 |  | 0.54718 | \$ | 42,508.44 | UGI Energy |
|  | TRANSCO | 2-6 | N | 77,779 | \$ | 42,559.28 |  | 0.54718 | \$ | 42,559.28 | Direct Energy |
|  | TRANSCO | 2-6 | N | 90,396 | \$ | 49,462.98 |  | 0.54718 | \$ | 49,462.98 | Constellation |
|  | TRANSCO | 2-6 | N | 13,456 | \$ | 7,362.81 | \$ | 0.54718 | \$ | 7,362.81 | Vista Energy |
|  | TRANSCO | 1-3 | N | 310,000 | \$ | 32,550.00 | \$ | 0.10500 | \$ | 32,550.00 | Vitol |
|  | TRANSCO | 1-3 | N | 310,000 | \$ | 32,550.00 | \$ | 0.10500 | \$ | 32,550.00 | Vitol |
|  | TRANSCO | 2-3 | N | 155,000 | \$ | 9,300.00 |  | 0.06000 | \$ | 9,300.00 | NJR Energy |
|  | TRANSCO | 2-3 | N | 310,000 | \$ | 18,600.00 | \$ | 0.06000 | \$ | 18,600.00 | NJR Energy |
|  | TRANSCO | 3-6 | N | 620,000 | \$ | 34,162.00 | \$ | 0.05510 | \$ | 34,162.00 | Twin Eagle |
|  | TRANSCO | 3-6 | N | 620,000 | \$ | 34,162.00 |  | 0.05510 | \$ | 34,162.00 | Twin Eagle |
|  |  |  |  | 2,785,600 |  |  |  |  | \$ | 413,356.48 |  |

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| M / YR | PIPELINE | PATH | RECALL STATUS | $\begin{gathered} \text { MONTHLY } \\ \text { VOLUME } \\ \text { DTH } \end{gathered}$ |  | TOTAL MONTHLY CREDIT |  | $\begin{aligned} & \text { CREDIT } \\ & \text { DTH } \end{aligned}$ |  | TOTAL CREDIT | REPLACEMENT SHIPPER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June-22 | TETCO | STX - M3 | N | 74,220 | \$ | 68,132.32 | \$ | 0.9180 | \$ | 68,132.32 | Direct Energy |
|  | TETCO | STX - M3 | N | 660 | \$ | 609.17 | \$ | 0.9230 | \$ | 609.17 | RPA Energy |
|  | TETCO | STX - M3 | N | 36,600 | \$ | 33,598.80 | \$ | 0.9180 | \$ | 33,598.80 | Direct Energy |
|  | TETCO | STX - M3 | N | 75,810 | \$ | 69,592.77 | \$ | 0.9180 | \$ | 69,592.77 | UGI Energy |
|  | TETCO | STX - M3 | N | 2,790 | \$ | 2,562.05 | \$ | 0.9183 | \$ | 2,562.05 | Shipley |
|  | TETCO | STX-M3 | N | 14,760 | \$ | 13,552.97 | \$ | 0.9182 | \$ | 13,552.97 | WGL Energy |
|  | TETCO | STX - M3 | N | 1,230 | \$ | 1,126.68 | \$ | 0.9160 | \$ | 1,126.68 | Direct Energy |
|  | TETCO | STX - M3 | N | 930 | \$ | 851.28 | \$ | 0.9154 | \$ | 851.28 | UET |
|  | TETCO | STX-M3 | N | 13,350 | \$ | 12,251.20 | \$ | 0.9177 | \$ | 12,251.20 | Vista Energy |
|  | TETCO | STX - M3 | N | 46,110 | \$ | 42,328.16 | \$ | 0.9180 | \$ | 42,328.16 | SFE Energy |
|  | TETCO | STX - M3 | N | 4,500 | \$ | 4,131.01 | \$ | 0.9180 | \$ | 4,131.01 | Statewise |
|  | TETCO | STX - M3 | N | 2,490 | \$ | 2,286.65 | \$ | 0.9183 | \$ | 2,286.65 | EDF Trading |
|  | TETCO | STX - M3 | N | 86,280 | \$ | 79,206.69 | \$ | 0.9180 | \$ | 79,206.69 | Constellation |
|  | TETCO | STX - M3 | N | 7,950 | \$ | 7,294.00 | \$ | 0.9175 | \$ | 7,294.00 | Nordic Energy |
|  | TETCO | STX - M3 | N | 5,670 | \$ | 5,207.53 | \$ | 0.9184 | \$ | 5,207.53 | Marathon Power |
|  | TETCO | STX - M3 | N | 1,020 | \$ | 934.72 | \$ | 0.9164 | \$ | 934.72 | New Wave Energy |
|  | TETCO | STX - M3 | N | 780 | \$ | 717.68 | \$ | 0.9201 | \$ | 717.68 | South Bay |
|  | TETCO | STX-M3 | N | 4,350 | \$ | 3,989.20 | \$ | 0.9171 | \$ | 3,989.20 | American Power |
|  | TETCO | STX - M3 | N | 6,750 | \$ | 6,192.39 | \$ | 0.9174 | \$ | 6,192.39 | Atlantic Energy |
|  | TETCO | STX-M3 | N | 9,990 | \$ | 9,171.65 | \$ | 0.9181 | \$ | 9,171.65 | Palmco |
|  | TETCO | STX - M3 | N | 1,470 | \$ | 1,351.94 | \$ | 0.9197 | \$ | 1,351.94 | Greenlight |
|  | TETCO | STX - M3 | N | 390 | \$ | 358.85 | \$ | 0.9201 | \$ | 358.85 | Clearview Electric |
|  | TETCO | STX - M3 | N | 660 | \$ | 609.17 | \$ | 0.9230 | \$ | 609.17 | Spring |
|  | TETCO | STX - M3 | N | 12,300 | \$ | 11,291.41 | \$ | 0.9180 | \$ | 11,291.41 | Residents |
|  | TETCO | STX - M3 | N | 1,350 | \$ | 1,235.20 | \$ | 0.9150 | \$ | 1,235.20 | Eligo Energy |
|  | TETCO | STX - M3 | N | 210 | \$ | 191.97 | \$ | 0.9141 | \$ | 191.97 | Median Energy |
|  | TETCO | STX - M3 | N | 2,220 | \$ | 2,036.32 | \$ | 0.9173 | \$ | 2,036.32 | Josco Energy |
|  | TETCO | STX-M3 | N | 16,530 | \$ | 15,172.08 | \$ | 0.9179 | \$ | 15,172.08 | Sprague |
|  | TETCO | STX - M3 | N | 1,440 | \$ | 1,318.63 | \$ | 0.9157 | \$ | 1,318.63 | Direct Energy |
|  | TETCO | STX-M3 | N | 1,800 | \$ | 1,652.40 | \$ | 0.9180 | \$ | 1,652.40 | Spark Energy |
|  | TETCO | STX - M3 | N | 540 | \$ | 492.44 | \$ | 0.9119 | \$ | 492.44 | Carbonbetter |
|  | TETCO | STX - M3 | N | 600 | \$ | 550.80 | \$ | 0.9180 | \$ | 550.80 | Alpha Gas |
|  | TETCO | STX - M3 | N | 12,330 | \$ | 11,316.48 | \$ | 0.9178 | \$ | 11,316.48 | MPower |
|  | TETCO | STX-M3 | N | 2,490 | \$ | 2,286.65 | \$ | 0.9183 | \$ | 2,286.65 | Park Power |
|  | TETCO | STX - M3 | N | 90,000 | \$ | 11,250.00 | \$ | 0.1250 | \$ | 11,250.00 | Tenaska |
|  | TETCO | STX - M3 | N | 471,240 | \$ | 49,480.20 | \$ | 0.1050 | \$ | 49,480.20 | Tenaska |
|  | TETCO | WLA - M3 | N | 540,000 | \$ | 218,429.98 | \$ | 0.4045 | \$ | 218,429.98 |  |
|  | TETCO | WLA - M3 | N | 540,000 | \$ | 218,429.98 | \$ | \$ 0.4045 | $\begin{array}{ll} \$ & 218,429.98 \\ \hline \$ & 911,191.42 \end{array}$ |  | Grays Ferry |
|  |  |  |  | 2,091,810 |  |  |  |  |  |  |  |
|  | TRANSCO | 2-6 | N | 210 | \$ | 114.90 | \$ | 0.54714 | \$ | 114.90 | Median Energy |
|  | TRANSCO | 2-6 | N | 390 | \$ | 213.30 | \$ | 0.54692 | \$ | 213.30 | Clearview Electric |
|  | TRANSCO | 2-6 | N | 570 | \$ | 311.70 | \$ | 0.54684 | \$ | 311.70 | Carbonbetter |
|  | TRANSCO | 2-6 | N | 600 | \$ | 328.20 | \$ | 0.54700 | \$ | 328.20 | Alpha Gas |
|  | TRANSCO | 2-6 | N | 660 | \$ | 361.20 | \$ | 0.54727 | \$ | 361.20 | Spring |
|  | TRANSCO | 2-6 | N | 690 | \$ | 377.40 | \$ | 0.54696 | \$ | 377.40 | RPA Energy |
|  | TRANSCO | 2-6 | N | 780 | \$ | 426.60 | \$ | 0.54692 | \$ | 426.60 | South Bay |
|  | TRANSCO | 2-6 | N | 960 | \$ | 525.30 | \$ | 0.54719 | \$ | 525.30 | UET |
|  | TRANSCO | 2-6 | N | 1,020 | \$ | 558.00 | \$ | 0.54706 | \$ | 558.00 | New Wave Energy |
|  | TRANSCO | 2-6 | N | 1,230 | \$ | 672.90 | \$ | 0.54707 | \$ | 672.90 | Direct Energy |
|  | TRANSCO | 2-6 | N | 1,350 | \$ | 738.60 | \$ | 0.54711 | \$ | 738.60 | Eligo Energy |
|  | TRANSCO | 2-6 | N | 1,440 | \$ | 788.10 | \$ | 0.54729 | \$ | 788.10 | Direct Energy |
|  | TRANSCO | 2-6 | N | 1,500 | \$ | 820.80 | \$ | 0.54720 | \$ | 820.80 | Greenlight |
|  | TRANSCO | 2-6 | N | 1,800 | \$ | 984.90 | \$ | 0.54717 | \$ | 984.90 | Spark Energy |
|  | TRANSCO | 2-6 | N | 2,220 | \$ | 1,214.70 | \$ | 0.54716 | \$ | 1,214.70 | Josco Energy |
|  | TRANSCO | 2-6 | N | 2,490 | \$ | 1,362.60 | \$ | 0.54723 | \$ | 1,362.60 | EDF Trading |
|  | TRANSCO | 2-6 | N | 2,490 | \$ | 1,362.60 | \$ | 0.54723 | \$ | 1,362.60 | Park Power |
|  | TRANSCO | 2-6 | N | 2,820 | \$ | 1,542.90 | \$ | 0.54713 | \$ | 1,542.90 | Shipley |
|  | TRANSCO | 2-6 | N | 4,380 | \$ | 2,396.70 | \$ | 0.54719 | \$ | 2,396.70 | American Power |
|  | TRANSCO | 2-6 | N | 4,500 | \$ | 2,462.40 | \$ | 0.54720 | \$ | 2,462.40 | Statewise |
|  | TRANSCO | 2-6 | N | 5,700 | \$ | 3,118.80 | \$ | 0.54716 | \$ | 3,118.80 | Marathon Power |
|  | TRANSCO | 2-6 | N | 6,780 | \$ | 3,709.80 | \$ | 0.54717 | \$ | 3,709.80 | Atlantic Energy |
|  | TRANSCO | 2-6 | N | 7,950 | \$ | 4,350.00 | \$ | 0.54717 | \$ | 4,350.00 | Nordic Energy |
|  | TRANSCO | 2-6 | N | 9,990 | \$ | 5,466.30 | \$ | 0.54718 | \$ | 5,466.30 | Palmco |
|  | TRANSCO | 2-6 | N | 12,330 | \$ | 6,747.00 | \$ | 0.54720 | \$ | 6,747.00 | MPower |
|  | TRANSCO | 2-6 | N | 12,330 | \$ | 6,747.00 | \$ | 0.54720 | \$ | 6,747.00 | Residents |
|  | TRANSCO | 2-6 | N | 14,790 | \$ | 8,092.80 | \$ | 0.54718 | \$ | 8,092.80 | WGL Energy |
|  | TRANSCO | 2-6 | N | 16,530 | \$ | 9,045.00 | \$ | 0.54719 | \$ | 9,045.00 | Sprague |
|  | TRANSCO | 2-6 | N | 36,630 | \$ | 20,043.00 | \$ | 0.54717 | \$ | 20,043.00 | Direct Energy |
|  | TRANSCO | 2-6 | N | 46,140 | \$ | 25,246.80 | \$ | 0.54718 | \$ | 25,246.80 | SFE Energy |
|  | TRANSCO | 2-6 | N | 74,250 | \$ | 40,628.10 | \$ | 0.54718 | \$ | 40,628.10 | Direct Energy |
|  | TRANSCO | 2-6 | N | 75,840 | \$ | 41,498.10 | \$ | 0.54718 | \$ | 41,498.10 | UGI Energy |
|  | TRANSCO | 2-6 | N | 86,310 | \$ | 47,227.20 | \$ | 0.54718 | \$ | 47,227.20 | Constellation |
|  | TRANSCO | 2-6 | N | 12,934 | \$ | 7,077.16 | \$ | 0.54717 | \$ | 7,077.16 | Vista Energy |
|  | TRANSCO | 1-3 | N | 300,000 | \$ | 31,500.00 | \$ | 0.10500 | \$ | 31,500.00 | Vitol |
|  | TRANSCO | 1-3 | N | 300,000 | \$ | 31,500.00 | \$ | 0.10500 | \$ | 31,500.00 | Vitol |
|  | TRANSCO | 2-3 | N | 150,000 | \$ | 9,000.00 | \$ | 0.06000 | \$ | 9,000.00 | NJR Energy |
|  | TRANSCO | 2-3 | N | 300,000 | \$ | 18,000.00 | \$ | 0.06000 | \$ | 18,000.00 | NJR Energy |
|  | TRANSCO | 3-6 | N | 600,000 | \$ | 33,060.00 | \$ | 0.05510 | \$ | 33,060.00 | Twin Eagle |
|  | TRANSCO | 3-6 | N | 600,000 | \$ | 33,060.00 | \$ | 0.05510 | \$ | 33,060.00 | Twin Eagle |
|  | TRANSCO | 3-6 | N | 600,000 | \$ | 141,000.00 | \$ | 0.23500 | \$ | 141,000.00 | Citadel |
|  | TRANSCO | 3-6 | N | 455,000 | \$ | 771,680.00 | \$ | 1.69600 | \$ | 771,680.00 | Citadel |
|  | TRANSCO | 4-5 | N | 39,583 | \$ | , | \$ | - | \$ | , | Tioga LNG LLC |
|  | TRANSCO | 4-5 | N | 105,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  | TRANSCO | 4-5 | N | 150,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  | TRANSCO | 4-5 | N | 650,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  |  |  |  | 4,700,1 |  |  |  |  |  | 15,360.86 |  |

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| M / YR | PIPELINE | PATH | RECALL STATUS | $\begin{gathered} \text { MONTHLY } \\ \text { VOLUME } \\ \text { DTH } \end{gathered}$ |  | TOTAL MONTHLY CREDIT |  | $\begin{aligned} & \text { CREDIT } \\ & \text { DTH } \end{aligned}$ |  | TOTAL CREDIT | REPLACEMENT SHIPPER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| August-22 | TETCO | STX - M3 | N | 87,730 | \$ | 80,536.14 | \$ | 0.9180 | \$ | 80,536.14 | Constellation |
|  | TETCO | STX-M3 | N | 74,679 | \$ | 68,557.86 | \$ | 0.9180 | \$ | 68,557.86 | Direct Energy |
|  | TETCO | STX - M3 | N | 40,238 | \$ | 36,498.18 | \$ | 0.9071 | \$ | 36,498.18 | Direct Energy |
|  | TETCO | STX - M3 | N | 14,849 | \$ | 13,633.95 | \$ | 0.9182 | \$ | 13,633.95 | Sprague |
|  | TETCO | STX - M3 | N | 13,268 | \$ | 12,176.63 | \$ | 0.9177 | \$ | 12,176.63 | Vista Energy |
|  | TETCO | STX - M3 | N | 2,728 | \$ | 2,500.90 | \$ | 0.9168 | \$ | 2,500.90 | Shipley |
|  | TETCO | STX - M3 | N | 1,643 | \$ | 1,509.12 | \$ | 0.9185 | \$ | 1,509.12 | Direct Energy |
|  | TETCO | STX - M3 | N | 5,208 | \$ | 4,777.55 | \$ | 0.9173 | \$ | 4,777.55 | American Power |
|  | TETCO | STX - M3 | N | 2,201 | \$ | 2,017.98 | \$ | 0.9168 | \$ | 2,017.98 | Park Power |
|  | TETCO | STX - M3 | N | 48,081 | \$ | 44,135.81 | \$ | 0.9179 | \$ | 44,135.81 | SFE Energy |
|  | TETCO | STX - M3 | N | 4,712 | \$ | 4,329.01 | \$ | 0.9187 | \$ | 4,329.01 | Statewise |
|  | TETCO | STX - M3 | N | 992 | \$ | 914.05 | \$ | 0.9214 | \$ | 914.05 | South Bay |
|  | TETCO | STX - M3 | N | 527 | \$ | 482.96 | \$ | 0.9164 | \$ | 482.96 | Alpha Gas |
|  | TETCO | STX - M3 | N | 961 | \$ | 879.66 | \$ | 0.9154 | \$ | 879.66 | New Wave Energy |
|  | TETCO | STX - M3 | N | 9,331 | \$ | 8,563.31 | \$ | 0.9177 | \$ | 8,563.31 | Palmco |
|  | TETCO | STX - M3 | N | 8,277 | \$ | 7,597.45 | \$ | 0.9179 | \$ | 7,597.45 | Nordic Energy |
|  | TETCO | STX - M3 | N | 992 | \$ | 914.05 | \$ | 0.9214 | \$ | 914.05 | UET |
|  | TETCO | STX-M3 | N | 76,725 | \$ | 70,429.30 | \$ | 0.9179 | \$ | 70,429.30 | UGI Energy |
|  | TETCO | STX - M3 | N | 2,542 | \$ | 2,336.96 | \$ | 0.9193 | \$ | 2,336.96 | EDF Trading |
|  | TETCO | STX-M3 | N | 1,736 | \$ | 1,595.34 | \$ | 0.9190 | \$ | 1,595.34 | Spark Energy |
|  | TETCO | STX - M3 | N | 496 | \$ | 457.03 | \$ | 0.9214 | \$ | 457.03 | Carbonbetter |
|  | TETCO | STX-M3 | N | 1,457 | \$ | 1,336.67 | \$ | 0.9174 | \$ | 1,336.67 | Direct Energy |
|  | TETCO | STX-M3 | N | 5,642 | \$ | 5,182.76 | \$ | 0.9186 | \$ | 5,182.76 | Marathon Power |
|  | TETCO | STX-M3 | N | 14,446 | \$ | 13,263.13 | \$ | 0.9181 | \$ | 13,263.13 | WGL Energy |
|  | TETCO | STX-M3 | N | 248 | \$ | 224.26 | \$ | 0.9043 | \$ | 224.26 | Clearview Electric |
|  | TETCO | STX-M3 | N | 2,015 | \$ | 1,845.52 | \$ | 0.9159 | \$ | 1,845.52 | Josco Energy |
|  | TETCO | STX-M3 | N | 6,107 | \$ | 5,605.39 | \$ | 0.9179 | \$ | 5,605.39 | Atlantic Energy |
|  | TETCO | STX - M3 | N | 1,488 | \$ | 1,371.08 | \$ | 0.9214 | \$ | 1,371.08 | RPA Energy |
|  | TETCO | STX - M3 | N | 775 | \$ | 707.21 | \$ | 0.9125 | \$ | 707.21 | Spring |
|  | TETCO | STX - M3 | N | 16,461 | \$ | 15,108.66 | \$ | 0.9178 | \$ | 15,108.66 | Residents |
|  | TETCO | STX-M3 | N | 1,147 | \$ | 1,052.10 | \$ | 0.9173 | \$ | 1,052.10 | Eligo Energy |
|  | TETCO | STX-M3 | N | 186 | \$ | 172.45 | \$ | 0.9272 | \$ | 172.45 | Median Energy |
|  | TETCO | STX - M3 | N | 14,818 | \$ | 13,599.53 | \$ | 0.9178 | \$ | 13,599.53 | MPower |
|  | TETCO | STX - M3 | N | 1,550 | \$ | 1,422.91 | \$ | 0.9180 | \$ | 1,422.91 | Greenlight |
|  | TETCO | STX - M3 | N | 93,000 | \$ | 11,625.00 | \$ | 0.1250 | \$ | 11,625.00 | Tenaska |
|  | TETCO | STX - M3 | N | 486,948 | \$ | 51,129.54 | \$ | 0.1050 | \$ | 51,129.54 | Tenaska |
|  | TETCO | WLA - M3 | N | 558,000 | \$ | 280,729.78 | \$ | 0.5031 | \$ | 280,729.78 | Grays Ferry |
|  | TETCO | WLA - M3 | N | 558,000 | \$ | 280,729.78 | \$ | \$ 0.5031 |  | $\begin{array}{lr} \$ \quad 280,729.78 \\ \hline \$ 1,049,949.01 \end{array}$ | Grays Ferry |
|  |  |  |  | 2,160,204 |  |  |  |  |  |  |  |
|  | TRANSCO | 2-6 | N | 186 | \$ | 101.68 | \$ | 0.54667 | \$ | 101.68 | Median Energy |
|  | TRANSCO | 2-6 | N | 279 | \$ | 152.52 | \$ | 0.54667 | \$ | 152.52 | Clearview Electric |
|  | TRANSCO | 2-6 | N | 527 | \$ | 288.30 | \$ | 0.54706 | \$ | 288.30 | Carbonbetter |
|  | TRANSCO | 2-6 | N | 527 | \$ | 288.30 | \$ | 0.54706 | \$ | 288.30 | Alpha Gas |
|  | TRANSCO | 2-6 | N | 806 | \$ | 440.82 | \$ | 0.54692 | \$ | 440.82 | Spring |
|  | TRANSCO | 2-6 | N | 961 | \$ | 525.76 | \$ | 0.54710 | \$ | 525.76 | New Wave Energy |
|  | TRANSCO | 2-6 | N | 992 | \$ | 542.81 | \$ | 0.54719 | \$ | 542.81 | South Bay |
|  | TRANSCO | 2-6 | N | 1,023 | \$ | 559.55 | \$ | 0.54697 | \$ | 559.55 | UET |
|  | TRANSCO | 2-6 | N | 1,178 | \$ | 644.49 | \$ | 0.54711 | \$ | 644.49 | Eligo Energy |
|  | TRANSCO | 2-6 | N | 1,457 | \$ | 797.32 | \$ | 0.54723 | \$ | 797.32 | Direct Energy |
|  | TRANSCO | 2-6 | N | 1,519 | \$ | 831.42 | \$ | 0.54735 | \$ | 831.42 | RPA Energy |
|  | TRANSCO | 2-6 | N | 1,550 | \$ | 848.16 | \$ | 0.54720 | \$ | 848.16 | Greenlight |
|  | TRANSCO | 2-6 | N | 1,643 | \$ | 899.00 | \$ | 0.54717 | \$ | 899.00 | Direct Energy |
|  | TRANSCO | 2-6 | N | 1,736 | \$ | 950.15 | \$ | 0.54732 | \$ | 950.15 | Spark Energy |
|  | TRANSCO | 2-6 | N | 2,046 | \$ | 1,119.72 | \$ | 0.54727 | \$ | 1,119.72 | Josco Energy |
|  | TRANSCO | 2-6 | N | 2,232 | \$ | 1,221.40 | \$ | 0.54722 | \$ | 1,221.40 | Park Power |
|  | TRANSCO | 2-6 | N | 2,542 | \$ | 1,390.97 | \$ | 0.54720 | \$ | 1,390.97 | EDF Trading |
|  | TRANSCO | 2-6 | N | 2,728 | \$ | 1,492.65 | \$ | 0.54716 | \$ | 1,492.65 | Shipley |
|  | TRANSCO | 2-6 | N | 4,712 | \$ | 2,578.27 | \$ | 0.54717 | \$ | 2,578.27 | Statewise |
|  | TRANSCO | 2-6 | N | 5,239 | \$ | 2,866.57 | \$ | 0.54716 | \$ | 2,866.57 | American Power |
|  | TRANSCO | 2-6 | N | 5,642 | \$ | 3,087.29 | \$ | 0.54720 | \$ | 3,087.29 | Marathon Power |
|  | TRANSCO | 2-6 | N | 6,107 | \$ | 3,341.49 | \$ | 0.54716 | \$ | 3,341.49 | Atlantic Energy |
|  | TRANSCO | 2-6 | N | 8,277 | \$ | 4,529.10 | \$ | 0.54719 | \$ | 4,529.10 | Nordic Energy |
|  | TRANSCO | 2-6 | N | 9,331 | \$ | 5,105.70 | \$ | 0.54718 | \$ | 5,105.70 | Palmco |
|  | TRANSCO | 2-6 | N | 13,299 | \$ | 7,276.94 | \$ | 0.54718 | \$ | 7,276.94 | Vista Energy |
|  | TRANSCO | 2-6 | N | 14,446 | \$ | 7,904.38 | \$ | 0.54717 | \$ | 7,904.38 | WGL Energy |
|  | TRANSCO | 2-6 | N | 14,849 | \$ | 8,125.10 | \$ | 0.54718 | \$ | 8,125.10 | MPower |
|  | TRANSCO | 2-6 | N | 14,880 | \$ | 8,141.84 | \$ | 0.54717 | \$ | 8,141.84 | Sprague |
|  | TRANSCO | 2-6 | N | 16,461 | \$ | 9,007.05 | \$ | 0.54718 | \$ | 9,007.05 | Residents |
|  | TRANSCO | 2-6 | N | 40,238 | \$ | 22,017.44 | \$ | 0.54718 | \$ | 22,017.44 | Direct Energy |
|  | TRANSCO | 2-6 | N | 48,081 | \$ | 26,309.08 | \$ | 0.54718 | \$ | 26,309.08 | SFE Energy |
|  | TRANSCO | 2-6 | N | 74,679 | \$ | 40,862.65 | \$ | 0.54718 | \$ | 40,862.65 | Direct Energy |
|  | TRANSCO | 2-6 | N | 76,725 | \$ | 41,982.37 | \$ | 0.54718 | \$ | 41,982.37 | UGI Energy |
|  | TRANSCO | 2-6 | N | 87,730 | \$ | 48,004.12 | \$ | 0.54718 | \$ | 48,004.12 | Constellation |
|  | TRANSCO | 1-3 | N | 310,000 | \$ | 32,550.00 | \$ | 0.10500 | \$ | 32,550.00 | Vitol |
|  | TRANSCO | 1-3 | N | 310,000 | \$ | 32,550.00 | \$ | 0.10500 | \$ | 32,550.00 | Vitol |
|  | TRANSCO | 2-3 | N | 155,000 | \$ | 9,300.00 | \$ | 0.06000 | \$ | 9,300.00 | NJR Energy |
|  | TRANSCO | 2-3 | N | 310,000 | \$ | 18,600.00 | \$ | 0.06000 | \$ | 18,600.00 | NJR Energy |
|  | TRANSCO | 3-6 | N | 620,000 | \$ | 34,162.00 | \$ | 0.05510 | \$ | 34,162.00 | Twin Eagle |
|  | TRANSCO | 3-6 | N | 620,000 | \$ | 34,162.00 | \$ | 0.05510 | \$ | 34,162.00 | Twin Eagle |
|  | TRANSCO | 3-6 | N | 620,000 | \$ | 145,700.00 | \$ | 0.23500 | \$ | 145,700.00 | Citadel |
|  | TRANSCO | 3-6 | N | 1,085,000 | \$ | 379,750.00 | \$ | 0.35000 | \$ | 379,750.00 | Koch Energy |
|  | TRANSCO | 2-5 | N | 290,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
|  |  |  |  | 4,784,628 |  |  |  |  | \$ | 941,008.41 |  |

Philadelphia Gas Works
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em $53.64(C)(7)$
For the Twelve Months Ending December 31, 2022

| M / YR | PIPELINE | PATH | RECALL STATUS | MONTHLY VOLUME DTH |  | TOTAL MONTHLY CREDIT |  | CREDIT DTH |  | TOTAL CREDIT | REPLACEMENT SHIPPER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| September-22 | TETCO | STX - M3 | N | 12,960 | \$ | 11,918.86 | \$ | 0.9197 | \$ | 11,918.86 | Sprague |
|  | TETCO | STX - M3 | N | 2,580 | \$ | 2,373.73 | \$ | 0.9201 | \$ | 2,373.73 | Shipley |
|  | TETCO | STX - M3 | N | 12,630 | \$ | 11,609.68 | \$ | 0.9192 | \$ | 11,609.68 | Vista Energy |
|  | TETCO | STX - M3 | N | 38,610 | \$ | 35,497.60 | \$ | 0.9194 | \$ | 35,497.60 | Direct Energy |
|  | TETCO | STX - M3 | N | 69,750 | \$ | 64,132.99 | \$ | 0.9195 | \$ | 64,132.99 | Direct Energy |
|  | TETCO | STX - M3 | N | 960 | \$ | 885.94 | \$ | 0.9229 | \$ | 885.94 | UET |
|  | TETCO | STX - M3 | N | 6,270 | \$ | 5,767.18 | \$ | 0.9198 | \$ | 5,767.18 | Atlantic Energy |
|  | TETCO | STX - M3 | N | 111,330 | \$ | 102,355.44 | \$ | 0.9194 | \$ | 102,355.44 | UGI Energy |
|  | TETCO | STX - M3 | N | 46,830 | \$ | 43,053.49 | \$ | 0.9194 | \$ | 43,053.49 | SFE Energy |
|  | TETCO | STX - M3 | N | 4,470 | \$ | 4,112.25 | \$ | 0.9200 | \$ | 4,112.25 | Statewise |
|  | TETCO | STX - M3 | N | 13,200 | \$ | 12,136.22 | \$ | 0.9194 | \$ | 12,136.22 | WGL Energy |
|  | TETCO | STX - M3 | N | 4,290 | \$ | 3,945.10 | \$ | 0.9196 | \$ | 3,945.10 | Nordic Energy |
|  | TETCO | STX - M3 | N | 75,780 | \$ | 69,674.54 | \$ | 0.9194 | \$ | 69,674.54 | Constellation |
|  | TETCO | STX - M3 | N | 5,430 | \$ | 4,989.92 | \$ | 0.9190 | \$ | 4,989.92 | American Power |
|  | TETCO | STX - M3 | N | 690 | \$ | 635.23 | \$ | 0.9206 | \$ | 635.23 | Spring |
|  | TETCO | STX - M3 | N | 16,800 | \$ | 15,446.08 | \$ | 0.9194 | \$ | 15,446.08 | Residents |
|  | TETCO | STX - M3 | N | 1,140 | \$ | 1,044.82 | \$ | 0.9165 | \$ | 1,044.82 | Eligo Energy |
|  | TETCO | STX - M3 | N | 150 | \$ | 142.06 | \$ | 0.9471 | \$ | 142.06 | Median Energy |
|  | TETCO | STX - M3 | N | 30 | \$ | 33.38 | \$ | 1.1127 | \$ | 33.38 | Santanna |
|  | TETCO | STX - M3 | N | 5,160 | \$ | 4,747.47 | \$ | 0.9201 | \$ | 4,747.47 | Marathon Power |
|  | TETCO | STX - M3 | N | 300 | \$ | 275.82 | \$ | 0.9194 | \$ | 275.82 | Clearview Electric |
|  | TETCO | STX - M3 | N | 1,260 | \$ | 1,161.76 | \$ | 0.9220 | \$ | 1,161.76 | South Bay |
|  | TETCO | STX - M3 | N | 480 | \$ | 442.97 | \$ | 0.9229 | \$ | 442.97 | Alpha Gas |
|  | TETCO | STX - M3 | N | 1,470 | \$ | 1,354.02 | \$ | 0.9211 | \$ | 1,354.02 | Greenlight |
|  | TETCO | STX - M3 | N | 1,980 | \$ | 1,822.08 | \$ | 0.9202 | \$ | 1,822.08 | Park Power |
|  | TETCO | STX - M3 | N | 1,380 | \$ | 1,270.43 | \$ | 0.9206 | \$ | 1,270.43 | Direct Energy |
|  | TETCO | STX - M3 | N | 810 | \$ | 743.89 | \$ | 0.9184 | \$ | 743.89 | New Wave Energy |
|  | TETCO | STX - M3 | N | 1,590 | \$ | 1,462.70 | \$ | 0.9199 | \$ | 1,462.70 | Direct Energy |
|  | TETCO | STX - M3 | N | 450 | \$ | 417.88 | \$ | 0.9286 | \$ | 417.88 | Carbonbetter |
|  | TETCO | STX - M3 | N | 1,680 | \$ | 1,546.26 | \$ | 0.9204 | \$ | 1,546.26 | Spark Energy |
|  | TETCO | STX - M3 | N | 2,430 | \$ | 2,231.69 | \$ | 0.9184 | \$ | 2,231.69 | EDF Trading |
|  | TETCO | STX - M3 | N | 8,610 | \$ | 7,915.30 | \$ | 0.9193 | \$ | 7,915.30 | Palmco |
|  | TETCO | STX - M3 | N | 1,530 | \$ | 1,412.50 | \$ | 0.9232 | \$ | 1,412.50 | RPA Energy |
|  | TETCO | STX - M3 | N | 15,630 | \$ | 14,367.91 | \$ | 0.9193 | \$ | 14,367.91 | MPower |
|  | TETCO | STX - M3 | N | 1,920 | \$ | 1,763.62 | \$ | 0.9186 | \$ | 1,763.62 | Josco Energy |
|  | TETCO | STX - M3 | N | 90,000 | \$ | 11,250.00 | \$ | 0.1250 | \$ | 11,250.00 | Tenaska |
|  | TETCO | STX - M3 | N | 471,240 | \$ | 49,480.20 | \$ | 0.1050 | \$ | 49,480.20 | Tenaska |
|  | TETCO | WLA - M3 | N | 540,000 | \$ | 280,692.01 | \$ | 0.5198 | \$ | 280,692.01 | Grays Ferry |
|  | TETCO | WLA - M3 | N | 540,000 | \$ | 280,692.01 | \$ | 0.5198 | \$ | 280,692.01 | Grays Ferry |
|  |  |  |  | 2,111,820 |  |  |  |  |  | \$ 1,054,805.03 |  |
|  | TRANSCO | 2-6 | N | 30 | \$ | 16.50 | \$ | 0.55000 | \$ | 16.50 | Santanna |
|  | TRANSCO | 2-6 | N | 150 | \$ | 82.20 | \$ | 0.54800 | \$ | 82.20 | Median Energy |
|  | TRANSCO | 2-6 | N | 300 | \$ | 164.10 | \$ | 0.54700 | \$ | 164.10 | Clearview Electric |
|  | TRANSCO | 2-6 | N | 480 | \$ | 262.50 | \$ | 0.54688 | \$ | 262.50 | Alpha Gas |
|  | TRANSCO | 2-6 | $N$ | 480 | \$ | 262.50 | \$ | 0.54688 | \$ | 262.50 | Carbonbetter |
|  | TRANSCO | 2-6 | N | 720 | \$ | 393.90 | \$ | 0.54708 | \$ | 393.90 | Spring |
|  | TRANSCO | 2-6 | $N$ | 810 | \$ | 443.10 | \$ | 0.54704 | \$ | 443.10 | New Wave Energy |
|  | TRANSCO | 2-6 | N | 990 | \$ | 541.50 | \$ | 0.54697 | \$ | 541.50 | UET |
|  | TRANSCO | 2-6 | N | 1,140 | \$ | 623.70 | \$ | 0.54711 | \$ | 623.70 | Eligo Energy |
|  | TRANSCO | 2-6 | N | 1,290 | \$ | 705.60 | \$ | 0.54698 | \$ | 705.60 | South Bay |
|  | TRANSCO | 2-6 | N | 1,380 | \$ | 755.40 | \$ | 0.54739 | \$ | 755.40 | Direct Energy |
|  | TRANSCO | 2-6 | N | 1,470 | \$ | 804.60 | \$ | 0.54735 | \$ | 804.60 | Greenlight |
|  | TRANSCO | 2-6 | N | 1,560 | \$ | 853.80 | \$ | 0.54731 | \$ | 853.80 | RPA Energy |
|  | TRANSCO | 2-6 | N | 1,590 | \$ | 870.00 | \$ | 0.54717 | \$ | 870.00 | Direct Energy |
|  | TRANSCO | 2-6 | N | 1,710 | \$ | 935.70 | \$ | 0.54719 | \$ | 935.70 | Spark Energy |
|  | TRANSCO | 2-6 | $N$ | 1,920 | \$ | 1,050.60 | \$ | 0.54719 | \$ | 1,050.60 | Josco Energy |
|  | TRANSCO | 2-6 | N | 1,980 | \$ | 1,083.60 | \$ | 0.54727 | \$ | 1,083.60 | Park Power |
|  | TRANSCO | 2-6 | $N$ | 2,460 | \$ | 1,346.10 | \$ | 0.54720 | \$ | 1,346.10 | EDF Trading |
|  | TRANSCO | 2-6 | $N$ | 2,610 | \$ | 1,428.30 | \$ | 0.54724 | \$ | 1,428.30 | Shipley |
|  | TRANSCO | 2-6 | $N$ | 4,320 | \$ | 2,364.00 | \$ | 0.54722 | \$ | 2,364.00 | Nordic Energy |
|  | TRANSCO | 2-6 | N | 4,500 | \$ | 2,462.40 | \$ | 0.54720 | \$ | 2,462.40 | Statewise |
|  | TRANSCO | 2-6 | N | 5,190 | \$ | 2,839.80 | \$ | 0.54717 | \$ | 2,839.80 | Marathon Power |
|  | TRANSCO | 2-6 | $N$ | 5,460 | \$ | 2,987.70 | \$ | 0.54720 | \$ | 2,987.70 | American Power |
|  | TRANSCO | 2-6 | N | 6,270 | \$ | 3,430.80 | \$ | 0.54718 | \$ | 3,430.80 | Atlantic Energy |
|  | TRANSCO | 2-6 | N | 8,610 | \$ | 4,711.20 | \$ | 0.54718 | \$ | 4,711.20 | Palmco |
|  | TRANSCO | 2-6 | N | 12,630 | \$ | 6,911.10 | \$ | 0.54720 | \$ | 6,911.10 | Vista Energy |
|  | TRANSCO | 2-6 | N | 12,990 | \$ | 7,107.90 | \$ | 0.54718 | \$ | 7,107.90 | Sprague |
|  | TRANSCO | 2-6 | N | 13,230 | \$ | 7,239.30 | \$ | 0.54719 | \$ | 7,239.30 | WGL Energy |
|  | TRANSCO | 2-6 | N | 15,630 | \$ | 8,552.40 | \$ | 0.54718 | \$ | 8,552.40 | MPower |
|  | TRANSCO | 2-6 | N | 16,830 | \$ | 9,209.10 | \$ | 0.54718 | \$ | 9,209.10 | Residents |
|  | TRANSCO | 2-6 | N | 38,640 | \$ | 21,143.10 | \$ | 0.54718 | \$ | 21,143.10 | Direct Energy |
|  | TRANSCO | 2-6 | N | 46,860 | \$ | 25,640.70 | \$ | 0.54718 | \$ | 25,640.70 | SFE Energy |
|  | TRANSCO | 2-6 | $N$ | 69,750 | \$ | 38,166.00 | \$ | 0.54718 | \$ | 38,166.00 | Direct Energy |
|  | TRANSCO | 2-6 | N | 75,780 | \$ | 41,465.40 | \$ | 0.54718 | \$ | 41,465.40 | Constellation |
|  | TRANSCO | 2-6 | N | 111,330 | \$ | 60,917.70 | \$ | 0.54718 | \$ | 60,917.70 | UGI Energy |
|  | TRANSCO | 3-6 | $N$ | 525,000 | \$ | 71,400.00 | \$ | 0.13600 | \$ | 71,400.00 | BP |
|  | TRANSCO | 1-3 | N | 300,000 | \$ | 31,500.00 | \$ | 0.10500 | \$ | 31,500.00 | Vitol |
|  | TRANSCO | 1-3 | N | 300,000 | \$ | 31,500.00 | \$ | 0.10500 | \$ | 31,500.00 | Vitol |
|  | TRANSCO | 2-3 | N | 150,000 | \$ | 9,000.00 | \$ | 0.06000 | \$ | 9,000.00 | NJR Energy |
|  | TRANSCO | 2-3 | N | 300,000 | \$ | 18,000.00 | \$ | 0.06000 | \$ | 18,000.00 | NJR Energy |
|  | TRANSCO | 3-6 | N | 600,000 | \$ | 33,060.00 | \$ | 0.05510 | \$ | 33,060.00 | Twin Eagle |
|  | TRANSCO | 3-6 | N | 600,000 | \$ | 33,060.00 | \$ | 0.05510 | \$ | 33,060.00 | Twin Eagle |
|  | TRANSCO | 3-6 | N | 525,000 | \$ | 131,250.00 | \$ | 0.25000 | \$ | 131,250.00 | Vitol |
|  | TRANSCO | 2-5 | N | 300,000 | \$ |  | \$ | - | \$ | , | Tioga LNG LLC |
|  |  |  |  | 4,071,090 |  |  |  |  | \$ | 616,542.30 |  |

Philadelphia Gas Works

| M / YR | PIPELINE | PATH | RECALL STATUS | MONTHLY <br> VOLUME DTH |  | TOTAL MONTHLY CREDIT |  | CREDIT DTH |  | TOTAL CREDIT | REPLACEMENT SHIPPER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| October-22 | TETCO | STX - M3 | N | 1,302 | \$ | 1,200.49 | \$ | 0.9220 | \$ | 1,200.49 | Direct Energy |
|  | TETCO | STX - M3 | N | 589 | \$ | 544.09 | \$ | 0.9238 | \$ | 544.09 | New Wave Energy |
|  | TETCO | STX - M3 | N | 1,519 | \$ | 1,399.16 | \$ | 0.9211 | \$ | 1,399.16 | RPA Energy |
|  | TETCO | STX - M3 | N | 4,371 | \$ | 4,016.18 | \$ | 0.9188 | \$ | 4,016.18 | Nordic Energy |
|  | TETCO | STX-M3 | N | 5,549 | \$ | 5,104.37 | \$ | 0.9199 | \$ | 5,104.37 | American Power |
|  | TETCO | STX - M3 | N | 403 | \$ | 371.37 | \$ | 0.9215 | \$ | 371.37 | Clearview Electric |
|  | TETCO | STX - M3 | N | 279 | \$ | 259.08 | \$ | 0.9286 | \$ | 259.08 | Santanna |
|  | TETCO | STX - M3 | N | 2,511 | \$ | 2,306.09 | \$ | 0.9184 | \$ | 2,306.09 | EDF Trading |
|  | TETCO | STX - M3 | N | 651 | \$ | 595.96 | \$ | 0.9155 | \$ | 595.96 | Spring |
|  | TETCO | STX - M3 | N | 17,081 | \$ | 15,701.88 | \$ | 0.9193 | \$ | 15,701.88 | Residents |
|  | TETCO | STX - M3 | N | 124 | \$ | 112.30 | \$ | 0.9056 | \$ | 112.30 | Median Energy |
|  | TETCO | STX - M3 | N | 1,085 | \$ | 993.30 | \$ | 0.9155 | \$ | 993.30 | Eligo Energy |
|  | TETCO | STX - M3 | N | 12,462 | \$ | 11,461.11 | \$ | 0.9197 | \$ | 11,461.11 | Vista Energy |
|  | TETCO | STX - M3 | N | 3,751 | \$ | 3,446.14 | \$ | 0.9187 | \$ | 3,446.14 | Marathon Power |
|  | TETCO | STX - M3 | N | 47,027 | \$ | 43,236.24 | \$ | 0.9194 | \$ | 43,236.24 | SFE Energy |
|  | TETCO | STX - M3 | N | 4,247 | \$ | 3,903.88 | \$ | 0.9192 | \$ | 3,903.88 | Statewise |
|  | TETCO | STX - M3 | N | 6,045 | \$ | 5,562.10 | \$ | 0.9201 | \$ | 5,562.10 | Atlantic Energy |
|  | TETCO | STX - M3 | N | 1,860 | \$ | 1,710.10 | \$ | 0.9194 | \$ | 1,710.10 | Josco Energy |
|  | TETCO | STX-M3 | N | 1,767 | \$ | 1,623.74 | \$ | 0.9189 | \$ | 1,623.74 | Park Power |
|  | TETCO | STX - M3 | N | 465 | \$ | 431.80 | \$ | 0.9286 | \$ | 431.80 | Alpha Gas |
|  | TETCO | STX - M3 | N | 16,182 | \$ | 14,881.32 | \$ | 0.9196 | \$ | 14,881.32 | MPower |
|  | TETCO | STX - M3 | N | 1,271 | \$ | 1,166.01 | \$ | 0.9174 | \$ | 1,166.01 | South Bay |
|  | TETCO | STX-M3 | N | 7,440 | \$ | 6,840.41 | \$ | 0.9194 | \$ | 6,840.41 | Palmco |
|  | TETCO | STX - M3 | N | 2,728 | \$ | 2,504.73 | \$ | 0.9182 | \$ | 2,504.73 | UET |
|  | TETCO | STX - M3 | N | 9,827 | \$ | 9,034.20 | \$ | 0.9193 | \$ | 9,034.20 | Sprague |
|  | TETCO | STX-M3 | N | 11,656 | \$ | 10,718.35 | \$ | 0.9196 | \$ | 10,718.35 | WGL Energy |
|  | TETCO | STX - M3 | N | 2,604 | \$ | 2,392.45 | \$ | 0.9188 | \$ | 2,392.45 | Shipley |
|  | TETCO | STX - M3 | N | 70,308 | \$ | 64,638.46 | \$ | 0.9194 | \$ | 64,638.46 | Direct Energy |
|  | TETCO | STX - M3 | N | 38,502 | \$ | 35,402.54 | \$ | 0.9195 | \$ | 35,402.54 | Direct Energy |
|  | TETCO | STX - M3 | N | 1,612 | \$ | 1,485.51 | \$ | 0.9215 | \$ | 1,485.51 | Direct Energy |
|  | TETCO | STX - M3 | N | 113,584 | \$ | 104,428.55 | \$ | 0.9194 | \$ | 104,428.55 | UGI Energy |
|  | TETCO | STX - M3 | N | 1,333 | \$ | 1,226.44 | \$ | 0.9201 | \$ | 1,226.44 | Greenlight |
|  | TETCO | STX - M3 | N | 67,022 | \$ | 61,624.12 | \$ | 0.9195 | \$ | 61,624.12 | Constellation |
|  | TETCO | STX-M3 | N | 1,426 | \$ | 1,312.78 | \$ | 0.9206 | \$ | 1,312.78 | Spark Energy |
|  | TETCO | STX - M3 | N | 434 | \$ | 397.31 | \$ | 0.9155 | \$ | 397.31 | Carbonbetter |
|  | TETCO | STX - M3 | N | 93,000 | \$ | 11,625.00 | \$ | 0.1250 | \$ | 11,625.00 | Tenaska |
|  | TETCO | STX - M3 | N | 486,948 | \$ | 51,129.54 | \$ | 0.1050 | \$ | 51,129.54 | Tenaska |
|  | TETCO | WLA - M3 | N | 558,000 | \$ | 25,668.00 | \$ | 0.0460 | \$ | 25,668.00 | Twin Eagle |
|  | TETCO | WLA - M3 | N | 558,000 | \$ | 25,668.00 | \$ | \$ 0.0460 | \$ | 25,668.00 | Twin Eagle |
|  |  |  |  | 2,154,965 |  |  |  |  | \$ | 536,123.10 |  |
|  | TRANSCO | 2-6 | N | 31 | \$ | 17.05 | \$ | 0.55000 | \$ | 17.05 | Santanna |
|  | TRANSCO | 2-6 | N | 124 | \$ | 67.89 | \$ | 0.54750 | \$ | 67.89 | Median Energy |
|  | TRANSCO | 2-6 | N | 403 | \$ | 220.41 | \$ | 0.54692 | \$ | 220.41 | Clearview Electric |
|  | TRANSCO | 2-6 | N | 465 | \$ | 254.51 | \$ | 0.54733 | \$ | 254.51 | Carbonbetter |
|  | TRANSCO | 2-6 | N | 496 | \$ | 271.25 | \$ | 0.54688 | \$ | 271.25 | Alpha Gas |
|  | TRANSCO | 2-6 | N | 589 | \$ | 322.09 | \$ | 0.54684 | \$ | 322.09 | New Wave Energy |
|  | TRANSCO | 2-6 | N | 651 | \$ | 356.19 | \$ | 0.54714 | \$ | 356.19 | Spring |
|  | TRANSCO | 2-6 | N | 1,085 | \$ | 593.65 | \$ | 0.54714 | \$ | 593.65 | Eligo Energy |
|  | TRANSCO | 2-6 | N | 1,302 | \$ | 712.38 | \$ | 0.54714 | \$ | 712.38 | South Bay |
|  | TRANSCO | 2-6 | N | 1,333 | \$ | 729.12 | \$ | 0.54698 | \$ | 729.12 | Direct Energy |
|  | TRANSCO | 2-6 | N | 1,333 | \$ | 729.12 | \$ | 0.54698 | \$ | 729.12 | Greenlight |
|  | TRANSCO | 2-6 | N | 1,426 | \$ | 780.58 | \$ | 0.54739 | \$ | 780.58 | Spark Energy |
|  | TRANSCO | 2-6 | N | 1,519 | \$ | 831.42 | \$ | 0.54735 | \$ | 831.42 | RPA Energy |
|  | TRANSCO | 2-6 | N | 1,643 | \$ | 899.00 | \$ | 0.54717 | \$ | 899.00 | Direct Energy |
|  | TRANSCO | 2-6 | N | 1,767 | \$ | 966.89 | \$ | 0.54719 | \$ | 966.89 | Park Power |
|  | TRANSCO | 2-6 | N | 1,860 | \$ | 1,017.73 | \$ | 0.54717 | \$ | 1,017.73 | Josco Energy |
|  | TRANSCO | 2-6 | N | 2,542 | \$ | 1,390.97 | \$ | 0.54720 | \$ | 1,390.97 | EDF Trading |
|  | TRANSCO | 2-6 | N | 2,635 | \$ | 1,441.81 | \$ | 0.54718 | \$ | 1,441.81 | Shipley |
|  | TRANSCO | 2-6 | N | 2,759 | \$ | 1,509.70 | \$ | 0.54719 | \$ | 1,509.70 | UET |
|  | TRANSCO | 2-6 | N | 3,782 | \$ | 2,069.25 | \$ | 0.54713 | \$ | 2,069.25 | Marathon Power |
|  | TRANSCO | 2-6 | N | 4,247 | \$ | 2,324.07 | \$ | 0.54723 | \$ | 2,324.07 | Statewise |
|  | TRANSCO | 2-6 | N | 4,402 | \$ | 2,408.70 | \$ | 0.54718 | \$ | 2,408.70 | Nordic Energy |
|  | TRANSCO | 2-6 | N | 5,580 | \$ | 3,053.19 | \$ | 0.54717 | \$ | 3,053.19 | American Power |
|  | TRANSCO | 2-6 | N | 6,076 | \$ | 3,324.75 | \$ | 0.54719 | \$ | 3,324.75 | Atlantic Energy |
|  | TRANSCO | 2-6 | N | 7,440 | \$ | 4,071.23 | \$ | 0.54721 | \$ | 4,071.23 | Palmco |
|  | TRANSCO | 2-6 | N | 9,827 | \$ | 5,376.95 | \$ | 0.54716 | \$ | 5,376.95 | Sprague |
|  | TRANSCO | 2-6 | N | 11,687 | \$ | 6,394.99 | \$ | 0.54719 | \$ | 6,394.99 | WGL Energy |
|  | TRANSCO | 2-6 | N | 12,462 | \$ | 6,818.76 | \$ | 0.54716 | \$ | 6,818.76 | Vista Energy |
|  | TRANSCO | 2-6 | N | 16,213 | \$ | 8,871.58 | \$ | 0.54719 | \$ | 8,871.58 | MPower |
|  | TRANSCO | 2-6 | N | 17,081 | \$ | 9,346.50 | \$ | 0.54719 | \$ | 9,346.50 | Residents |
|  | TRANSCO | 2-6 | N | 38,533 | \$ | 21,084.65 | \$ | 0.54718 | \$ | 21,084.65 | Direct Energy |
|  | TRANSCO | 2-6 | N | 47,058 | \$ | 25,749.22 | \$ | 0.54718 | \$ | 25,749.22 | SFE Energy |
|  | TRANSCO | 2-6 | N | 67,053 | \$ | 36,690.05 | \$ | 0.54718 | \$ | 36,690.05 | Constellation |
|  | TRANSCO | 2-6 | N | 70,308 | \$ | 38,471.00 | \$ | 0.54718 | \$ | 38,471.00 | Direct Energy |
|  | TRANSCO | 2-6 | N | 113,584 | \$ | 62,150.66 | \$ | 0.54718 | \$ | 62,150.66 | UGI Energy |
|  | TRANSCO | 1-3 | N | 310,000 | \$ | 32,550.00 | \$ | 0.10500 | \$ | 32,550.00 | Vitol |
|  | TRANSCO | 1-3 | N | 310,000 | \$ | 32,550.00 | \$ | 0.10500 | \$ | 32,550.00 | Vitol |
|  | TRANSCO | 2-3 | N | 155,000 | \$ | 9,300.00 | \$ | 0.06000 | \$ | 9,300.00 | NJR Energy |
|  | TRANSCO | 2-3 | N | 310,000 | \$ | 18,600.00 | \$ | 0.06000 | \$ | 18,600.00 | NJR Energy |
|  | TRANSCO | 3-6 | N | 620,000 | \$ | 34,162.00 | \$ | 0.05510 | \$ | 34,162.00 | Twin Eagle |
|  | TRANSCO | 3-6 | N | 620,000 | \$ | 34,162.00 | \$ | 0.05510 | \$ | 34,162.00 | Twin Eagle |

Philadelphia Gas Works

| M / YR | PIPELINE | PATH | RECALL STATUS |
| :---: | :---: | :---: | :---: |
| November-22 | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX-M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | STX - M3 | N |
|  | TETCO | M3-M3 | N |
|  | TETCO | STX-M3 | N |
|  | TETCO | STX - M3 | N |


| TRANSCO | $2-6$ | N |
| :--- | :--- | :--- |
| TRANSCO | $2-6$ | N |
| TRANSCO | $2-6$ | N |
| TRANSCO | $2-6$ | N |
| TRANSCO | $2-6$ | N |
| TRANSCO | $2-6$ | N |
| TRANSCO | $2-6$ | N |
| TRANSCO | $2-6$ | N |
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| TRANSCO | $2-6$ | N |
| TRANSCO | $2-6$ | N |
| TRANSCO | $2-6$ | N |
| TRANSCO | $2-6$ | N |
| TRANSCO | $2-6$ | N |
| TRANSCO | $1-3$ | N |
| TRANSCO | $2-3$ | N |
| TRANSCO | $3-6$ | N |
| TRANSCO | $3-6$ | N |
| TRANSCO | $3-6$ | N |
|  |  |  |


| 150 | \$ | 82.20 | \$ | 0.54800 | \$ | 82.20 | Median Energy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 390 | \$ | 213.30 | \$ | 0.54692 | \$ | 213.30 | Santanna |
| 450 | \$ | 246.30 | \$ | 0.54733 | \$ | 246.30 | Alpha Gas |
| 480 | \$ | 262.50 | \$ | 0.54688 | \$ | 262.50 | Clearview Electric |
| 690 | \$ | 377.40 | \$ | 0.54696 | \$ | 377.40 | Spring |
| 1,020 | \$ | 558.00 | \$ | 0.54706 | \$ | 558.00 | Eligo Energy |
| 1,110 | \$ | 607.20 | \$ | 0.54703 | \$ | 607.20 | New Wave Energy |
| 1,200 | \$ | 656.40 | \$ | 0.54700 | \$ | 656.40 | South Bay |
| 1,290 | \$ | 705.60 | \$ | 0.54698 | \$ | 705.60 | Greenlight |
| 1,530 | \$ | 837.30 | \$ | 0.54725 | \$ | 837.30 | Direct Energy |
| 1,560 | \$ | 853.80 | \$ | 0.54731 | \$ | 853.80 | Direct Energy |
| 1,590 | \$ | 870.00 | \$ | 0.54717 | \$ | 870.00 | RPA Energy |
| 1,680 | \$ | 919.50 | \$ | 0.54732 | \$ | 919.50 | Josco Energy |
| 1,710 | \$ | 935.70 | \$ | 0.54719 | \$ | 935.70 | Spark Energy |
| 1,740 | \$ | 952.20 | \$ | 0.54724 | \$ | 952.20 | Park Power |
| 2,250 | \$ | 1,231.20 | \$ | 0.54720 | \$ | 1,231.20 | EDF Trading |
| 2,370 | \$ | 1,296.90 | \$ | 0.54722 | \$ | 1,296.90 | Shipley |
| 2,700 | \$ | 1,477.50 | \$ | 0.54722 | \$ | 1,477.50 | UET |
| 3,690 | \$ | 2,019.00 | \$ | 0.54715 | \$ | 2,019.00 | Nordic Energy |
| 3,960 | \$ | 2,166.60 | \$ | 0.54712 | \$ | 2,166.60 | Statewise |
| 4,830 | \$ | 2,643.00 | \$ | 0.54720 | \$ | 2,643.00 | Marathon Power |
| 5,670 | \$ | 3,102.60 | \$ | 0.54720 | \$ | 3,102.60 | Atlantic Energy |
| 5,970 | \$ | 3,266.70 | \$ | 0.54719 | \$ | 3,266.70 | American Power |
| 7,980 | \$ | 4,366.50 | \$ | 0.54718 | \$ | 4,366.50 | Palmco |
| 11,340 | \$ | 6,204.90 | \$ | 0.54717 | \$ | 6,204.90 | Vista Energy |
| 15,660 | \$ | 8,568.90 | \$ | 0.54718 | \$ | 8,568.90 | WGL Energy |
| 16,470 | \$ | 9,012.00 | \$ | 0.54718 | \$ | 9,012.00 | Sprague |
| 17,790 | \$ | 9,734.40 | \$ | 0.54718 | \$ | 9,734.40 | MPower |
| 18,090 | \$ | 9,898.50 | \$ | 0.54718 | \$ | 9,898.50 | Residents |
| 37,710 | \$ | 20,634.30 | \$ | 0.54718 | \$ | 20,634.30 | Direct Energy |
| 48,600 | \$ | 26,592.90 | \$ | 0.54718 | \$ | 26,592.90 | SFE Energy |
| 69,750 | \$ | 38,166.00 | \$ | 0.54718 | \$ | 38,166.00 | Direct Energy |
| 80,220 | \$ | 43,894.80 | \$ | 0.54718 | \$ | 43,894.80 | Constellation |
| 105,570 | \$ | 57,765.90 | \$ | 0.54718 | \$ | 57,765.90 | UGI Energy |
| 150,000 | \$ | 120,000.00 | \$ | 0.80000 | \$ | 120,000.00 | Tenaska |
| 150,000 | \$ | 67,500.00 | \$ | 0.45000 | \$ | 67,500.00 | Tenaska |
| 300,000 |  | 1,407,000.00 | \$ | 4.69000 | \$ | 1,407,000.00 | Pacific Summit |
| 2,250,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
| 750,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
| 4,077,210 |  |  |  |  | \$ | 1,855,620.00 |  |

Philadelphia Gas Works
$\longrightarrow$

| MONTHLY VOLUME DTH |  | TOTAL MONTHLY CREDIT | $\begin{aligned} & \text { CREDIT } \\ & \text { DTH } \end{aligned}$ |  |  | TOTAL CREDIT | REPLACEMENT SHIPPER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1,302 | \$ | 1,199.54 | \$ | 0.9213 | \$ | 1,199.54 | Spark Energy |
| 1,116 | \$ | 1,026.96 | \$ | 0.9202 | \$ | 1,026.96 | New Wave Energy |
| 107,756 | \$ | 98,994.99 | \$ | 0.9187 | \$ | 98,994.99 | UGI Energy |
| 11,563 | \$ | 10,623.56 | \$ | 0.9188 | \$ | 10,623.56 | Vista Energy |
| 6,572 | \$ | 6,040.97 | \$ | 0.9192 | \$ | 6,040.97 | American Power |
| 19,127 | \$ | 17,570.73 | \$ | 0.9186 | \$ | 17,570.73 | Sprague |
| 74,121 | \$ | 68,090.92 | \$ | 0.9186 | \$ | 68,090.92 | Direct Energy |
| 39,618 | \$ | 36,392.85 | \$ | 0.9186 | \$ | 36,392.85 | Direct Energy |
| 4,712 | \$ | 4,332.25 | \$ | 0.9194 | \$ | 4,332.25 | Marathon Power |
| 1,612 | \$ | 1,484.34 | \$ | 0.9208 | \$ | 1,484.34 | Direct Energy |
| 1,612 | \$ | 1,484.34 | \$ | 0.9208 | \$ | 1,484.34 | Direct Energy |
| 50,685 | \$ | 46,559.03 | \$ | 0.9186 | \$ | 46,559.03 | SFE Energy |
| 3,937 | \$ | 3,615.98 | \$ | 0.9185 | \$ | 3,615.98 | Statewise |
| 16,771 | \$ | 15,404.62 | \$ | 0.9185 | \$ | 15,404.62 | WGL Energy |
| 5,549 | \$ | 5,100.32 | \$ | 0.9191 | \$ | 5,100.32 | Atlantic Energy |
| 1,674 | \$ | 1,536.16 | \$ | 0.9177 | \$ | 1,536.16 | Josco Energy |
| 651 | \$ | 595.49 | \$ | 0.9147 | \$ | 595.49 | Median Energy |
| 19,871 | \$ | 18,252.53 | \$ | 0.9186 | \$ | 18,252.53 | Residents |
| 651 | \$ | 595.49 | \$ | 0.9147 | \$ | 595.49 | Spring |
| 82,987 | \$ | 76,237.64 | \$ | 0.9187 | \$ | 76,237.64 | Constellation |
| 7,998 | \$ | 7,344.18 | \$ | 0.9183 | \$ | 7,344.18 | Palmco |
| 1,705 | \$ | 1,570.63 | \$ | 0.9212 | \$ | 1,570.63 | Park Power |
| 1,302 | \$ | 1,199.54 | \$ | 0.9213 | \$ | 1,199.54 | Greenlight |
| 434 | \$ | 397.01 | \$ | 0.9148 | \$ | 397.01 | Alpha Gas |
| 1,209 | \$ | 1,113.25 | \$ | 0.9208 | \$ | 1,113.25 | South Bay |
| 3,906 | \$ | 3,590.08 | \$ | 0.9191 | \$ | 3,590.08 | Inspire |
| 31 | \$ | 34.46 | \$ | 1.1116 | \$ | 34.46 | City Power |
| 2,387 | \$ | 2,192.04 | \$ | 0.9183 | \$ | 2,192.04 | Shipley |
| 2,263 | \$ | 2,079.84 | \$ | 0.9191 | \$ | 2,079.84 | EDF Trading |
| 992 | \$ | 914.75 | \$ | 0.9221 | \$ | 914.75 | Eligo Energy |
| 3,906 | \$ | 3,590.08 | \$ | 0.9191 | \$ | 3,590.08 | Nordic Energy |
| 19,468 | \$ | 17,881.45 | \$ | 0.9185 | \$ | 17,881.45 | MPower |
| 465 | \$ | 431.46 | \$ | 0.9279 | \$ | 431.46 | Santanna |
| 1,519 | \$ | 1,398.05 | \$ | 0.9204 | \$ | 1,398.05 | RPA Energy |
| 589 | \$ | 543.66 | \$ | 0.9230 | \$ | 543.66 | Clearview Electric |
| 9,517 | \$ | 8,742.22 | \$ | 0.9186 | \$ | 8,742.22 | UET |
| 486,948 | \$ | 48,694.80 | \$ | 0.1000 | \$ | 48,694.80 | Paulsboro |
| 486,948 |  | 1,582,581.00 | \$ | 3.2500 | \$ | 1,582,581.00 | Vitol |
| 93,000 | \$ | 302,250.00 | \$ | 3.2500 | \$ | 302,250.00 | Vitol |
| 52,916 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |


| TRANSCO | 2-6 | N | 31 | \$ | 17.05 | \$ | 0.55000 | \$ | 17.05 | City Power |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TRANSCO | 2-6 | N | 434 | \$ | 237.46 | \$ | 0.54714 | \$ | 237.46 | Alpha Gas |
| TRANSCO | 2-6 | N | 496 | \$ | 271.25 | \$ | 0.54688 | \$ | 271.25 | Santanna |
| TRANSCO | 2-6 | N | 589 | \$ | 322.09 | \$ | 0.54684 | \$ | 322.09 | Clearview Electric |
| TRANSCO | 2-6 | N | 651 | \$ | 356.19 | \$ | 0.54714 | \$ | 356.19 | Median Energy |
| TRANSCO | 2-6 | N | 682 | \$ | 373.24 | \$ | 0.54727 | \$ | 373.24 | Spring |
| TRANSCO | 2-6 | N | 1,023 | \$ | 559.55 | \$ | 0.54697 | \$ | 559.55 | Eligo Energy |
| TRANSCO | 2-6 | N | 1,116 | \$ | 610.39 | \$ | 0.54694 | \$ | 610.39 | New Wave Energy |
| TRANSCO | 2-6 | N | 1,240 | \$ | 678.28 | \$ | 0.54700 | \$ | 678.28 | South Bay |
| TRANSCO | 2-6 | N | 1,302 | \$ | 712.38 | \$ | 0.54714 | \$ | 712.38 | Greenlight |
| TRANSCO | 2-6 | N | 1,333 | \$ | 729.12 | \$ | 0.54698 | \$ | 729.12 | Spark Energy |
| TRANSCO | 2-6 | N | 1,550 | \$ | 848.16 | \$ | 0.54720 | \$ | 848.16 | RPA Energy |
| TRANSCO | 2-6 | N | 1,643 | \$ | 899.00 | \$ | 0.54717 | \$ | 899.00 | Direct Energy |
| TRANSCO | 2-6 | N | 1,643 | \$ | 899.00 | \$ | 0.54717 | \$ | 899.00 | Direct Energy |
| TRANSCO | 2-6 | N | 1,674 | \$ | 916.05 | \$ | 0.54722 | \$ | 916.05 | Josco Energy |
| TRANSCO | 2-6 | N | 1,736 | \$ | 950.15 | \$ | 0.54732 | \$ | 950.15 | Park Power |
| TRANSCO | 2-6 | N | 2,294 | \$ | 1,255.19 | \$ | 0.54716 | \$ | 1,255.19 | EDF Trading |
| TRANSCO | 2-6 | N | 2,418 | \$ | 1,323.08 | \$ | 0.54718 | \$ | 1,323.08 | Shipley |
| TRANSCO | 2-6 | N | 3,937 | \$ | 2,154.19 | \$ | 0.54717 | \$ | 2,154.19 | Nordic Energy |
| TRANSCO | 2-6 | N | 3,937 | \$ | 2,154.19 | \$ | 0.54717 | \$ | 2,154.19 | Inspire |
| TRANSCO | 2-6 | N | 3,968 | \$ | 2,170.93 | \$ | 0.54711 | \$ | 2,170.93 | Statewise |
| TRANSCO | 2-6 | N | 4,743 | \$ | 2,595.32 | \$ | 0.54719 | \$ | 2,595.32 | Marathon Power |
| TRANSCO | 2-6 | N | 5,549 | \$ | 3,036.45 | \$ | 0.54721 | \$ | 3,036.45 | Atlantic Energy |
| TRANSCO | 2-6 | N | 6,603 | \$ | 3,613.05 | \$ | 0.54718 | \$ | 3,613.05 | American Power |
| TRANSCO | 2-6 | N | 8,029 | \$ | 4,393.32 | \$ | 0.54718 | \$ | 4,393.32 | Palmco |
| TRANSCO | 2-6 | N | 9,517 | \$ | 5,207.38 | \$ | 0.54717 | \$ | 5,207.38 | UET |
| TRANSCO | 2-6 | N | 11,594 | \$ | 6,343.84 | \$ | 0.54717 | \$ | 6,343.84 | Vista Energy |
| TRANSCO | 2-6 | N | 16,771 | \$ | 9,176.62 | \$ | 0.54717 | \$ | 9,176.62 | WGL Energy |
| TRANSCO | 2-6 | N | 19,158 | \$ | 10,482.96 | \$ | 0.54718 | \$ | 10,482.96 | Sprague |
| TRANSCO | 2-6 | N | 19,499 | \$ | 10,669.58 | \$ | 0.54719 | \$ | 10,669.58 | MPower |
| TRANSCO | 2-6 | N | 19,902 | \$ | 10,889.99 | \$ | 0.54718 | \$ | 10,889.99 | Residents |
| TRANSCO | 2-6 | N | 39,618 | \$ | 21,678.30 | \$ | 0.54718 | \$ | 21,678.30 | Direct Energy |
| TRANSCO | 2-6 | N | 50,685 | \$ | 27,733.84 | \$ | 0.54718 | \$ | 27,733.84 | SFE Energy |
| TRANSCO | 2-6 | N | 74,121 | \$ | 40,557.30 | \$ | 0.54718 | \$ | 40,557.30 | Direct Energy |
| TRANSCO | 2-6 | N | 83,018 | \$ | 45,425.54 | \$ | 0.54718 | \$ | 45,425.54 | Constellation |
| TRANSCO | 2-6 | N | 107,756 | \$ | 58,962.00 | \$ | 0.54718 | \$ | 58,962.00 | UGI Energy |
| TRANSCO | 1-3 | N | 155,000 | \$ | 124,000.00 | \$ | 0.80000 | \$ | 124,000.00 | Tenaska |
| TRANSCO | 2-3 | N | 155,000 | \$ | 69,750.00 | \$ | 0.45000 | \$ | 69,750.00 | Tenaska |
| TRANSCO | 3-6 | N | 310,000 | \$ 1,453,900.00 |  | \$ | 4.69000 | \$ | 1,453,900.00 | Pacific Summit |
| TRANSCO | 3-6 | N | 2,325,000 | \$ | - | \$ | - | \$ | - | Tioga LNG LLC |
| TRANSCO | 3-6 | N | 775,000 |  | - | \$ | - | \$ | - | Tioga LNG LLC |
|  |  |  | 4,230,260 |  |  |  |  | \$ 1,926,852.43 |  |  |

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.

Calendar 2022

| 1594769 | - | - | - | - | - | - | - | - | 207 | - | - | - | 207 | 3,300 | 3,188 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1611015 | - | - | - | 44,554 | 62,299 | 68,770 | 51,992 | 30,473 | 34,283 | 33,273 | 18,907 | 9,545 | 354,096 | 750 | 725 |
| 1611016 | 1,320,668 | 1,062,552 | 1,254,056 | 1,224,469 | 1,173,299 | 916,732 | 1,134,447 | 1,026,166 | 429,431 | 1,103,158 | 1,189,357 | 1,152,948 | 12,987,283 | 17,957 | 17,367 |
| 1621317 | 464,722 | 361,537 | 334,152 | 274,177 | 280,599 | 300,047 | 326,382 | 323,884 | 309,460 | 244,269 | 295,687 | 385,535 | 3,900,450 | 1,300 | 1,256 |
| 1658878 | 64,434 | 45,346 | 33,891 | 16,384 | 1,044 | - | - | - | - | 9,795 | 27,268 | 56,610 | 254,774 | 733 | 708 |
| 1658879 | 13,374 | 9,719 | 7,354 | 4,955 | 1,413 | 650 | 486 | 599 | 681 | 2,563 | 5,599 | 10,609 | 58,003 | 269 | 260 |
| 1658883 | 56,381 | 37,567 | 22,773 | 5,262 | - | - | - | - | - | 4,113 | 18,884 | 40,422 | 185,402 | 521 | 504 |
| 1658884 | 85,182 | 78,628 | 77,159 | 54,514 | 9,279 | - | - | - | 1,757 | 32,976 | 60,634 | 99,544 | 499,673 | 1,400 | 1,354 |
| 1658885 | 208 | - | 2,068 | 1,241 | 516 | 12,281 | 40,953 | 30,499 | 7,847 | 516 | 1,965 | 44,351 | 142,446 | 1,311 | 1,268 |
| 1658886 | - | - | - | - | - | - | - | - | - | - | - | - |  | 1,311 | 1,268 |
| 1685273 | 23,826 | 18,008 | 14,327 | 10,196 | 3,369 | 1,327 | 1,107 | 1,134 | 1,327 | 4,596 | 12,014 | 20,760 | 111,992 | 559 | 540 |
| 1685277 | 43,908 | 22,880 | 12,083 | 3,353 | - | - | - | - | - | - | 9,071 | 26,199 | 117,495 | 417 | 403 |
| 1685278 | 43,478 | 26,653 | 20,423 | 13,692 | 4,219 | 2,206 | 2,252 | 3,034 | 2,591 | 7,684 | 15,565 | 32,657 | 174,455 | 703 | 680 |
| 1685280 | 59,253 | 51,536 | 58,966 | 49,918 | 50,284 | 52,364 | 51,011 | 50,853 | 54,110 | 57,174 | 57,425 | - | 592,892 | 605 | 585 |
| 1722906 | 20,041 | 20,839 | 20,518 | 12,273 | 811 | - | - | - | - | 7,569 | 10,821 | 16,628 | 109,500 | 341 | 330 |
| 1723873 | 6,344 | 3,473 | 2,527 | 1,651 | 269 | - | - | - | 57 | 551 | 1,829 | 3,847 | 20,548 | 120 | 116 |
| 1723876 | - | - | - | 3,605 | 727 | - | - | - | 1 | 3,540 | 5,601 | 9,276 | 22,750 | 241 | 233 |
| 1723898 | 55,914 | 44,760 | 32,115 | 13,864 | - | - | - | - | - | 6,410 | 28,992 | - | 182,056 | 601 | 581 |
| 1723901 | 54,314 | 45,194 | 44,834 | 16,230 | 1,404 | - | - | - | - | 12,563 | 24,819 | 46,478 | 245,835 | 355 | 343 |
| 1724001 | 20,248 | 15,075 | 9,962 | 7,520 | 1,350 | - | - | - | 52 | 5,482 | 9,785 | - | 69,473 | 503 | 486 |
| 1724008 | 41,530 | 38,111 | 37,997 | 33,039 | 25,678 | 25,878 | 27,433 | 23,215 | 22,202 | 27,567 | 32,560 | 40,651 | 375,862 | 418 | 404 |
| 1724010 | 22,054 | 17,791 | 20,640 | 18,688 | 18,059 | 18,417 | 16,788 | 18,497 | 18,582 | 19,707 | 20,208 | 23,082 | 232,516 | 495 | 478 |
| 1724011 | 12,451 | 5,866 | 3,450 | 1,303 | 21 | - | - | - | - | 548 | 5,829 | - | 29,467 | 469 | 454 |
| 1724230 | 13,325 | 9,395 | 7,229 | 4,781 | 3,173 | 2,248 | 2,112 | 2,127 | 2,095 | - | - | - | 46,485 | 346 | 335 |
| 1724240 | 14,244 | 9,565 | 6,564 | 3,369 | 662 | - | - | - | - | 2,063 | 6,126 | 13,536 | 56,130 | 231 | 223 |
| 1724851 | 94,927 | 76,148 | 71,448 | 62,361 | 50,427 | 40,790 | 40,106 | 40,191 | 43,785 | 55,921 | 65,155 | 80,515 | 721,775 | 731 | 706 |
| 1724852 | 112,357 | 90,342 | 84,702 | 74,254 | 59,913 | 47,813 | 47,032 | 47,011 | 51,634 | 66,671 | 77,566 | 95,683 | 854,977 | 731 | 706 |
| 1724853 | 55,065 | 40,947 | 29,540 | 12,158 | - | - | - | - | 110 | 3,424 | 25,436 | 38,165 | 204,844 | 541 | 523 |
| 1724854 | 76,447 | 53,560 | 59,323 | 57,597 | 49,601 | 41,099 | 37,522 | 27,483 | 32,736 | 52,198 | 69,602 | - | 557,168 | 1,046 | 1,012 |
| 1724856 | 32,680 | 21,554 | 15,437 | 830 | - | - | - | - | - | 5,788 | 14,287 | 24,832 | 115,408 | 927 | 897 |
| 1756663 | 79,237 | 52,436 | 39,653 | 23,482 | 4,337 | - | - | - | 42 | 21,125 | 33,806 | 63,592 | 317,709 | 316 | 306 |
| 1756664 | 41,550 | 26,806 | 16,587 | 8,260 | 1,611 | - | - | - | - | 5,252 | 15,862 | 33,053 | 148,982 | 101 | 98 |
| 1771898 | - | - | 4,033 | 41,040 | 51,774 | 65,493 | 83,113 | 77,579 | 82,301 | 63,549 | 25,814 | 29,675 | 524,371 | 750 | 725 |
| 1786008 | 368,695 | 307,888 | 303,291 | 243,658 | 199,229 | 169,145 | 158,771 | 164,693 | 171,529 | 223,372 | 268,997 | 353,455 | 2,932,722 | 2,318 | 2,242 |
| 1786009 | 342,345 | 285,822 | 281,546 | 226,181 | 184,689 | 156,753 | 147,504 | 152,708 | 159,033 | 208,385 | 250,484 | 329,247 | 2,724,695 | 2,317 | 2,241 |
| 1806076 | 71,809 | 48,601 | 39,254 | 28,137 | 16,914 | 12,185 | 11,577 | 12,502 | 14,767 | 17,988 | 39,321 | 60,065 | 373,120 | 1,692 | 1,635 |
| 1806077 | - | - | - | - | - | 1,652 | 1,551 | 1,446 | 1,549 | 38,663 | 51,088 | 70,345 | 166,294 | 151 | 146 |
| 1806079 | 19,283 | 13,527 | 12,105 | 8,740 | 6,200 | - | - | - | 1,328 | 10,035 | 10,318 | 15,677 | 97,213 | 605 | 585 |
| 1806080 | 16,207 | 11,471 | 8,659 | 6,972 | 4,476 | - | - | - | - | 6,441 | 8,947 | 12,456 | 75,629 | 277 | 268 |
| 1806092 | 40,989 | 37,404 | 41,792 | 31,463 | 27,405 | 30,355 | 23,853 | 27,350 | 24,055 | 28,682 | 27,280 | 24,215 | 364,843 | 63 | 60 |
| 1826616 | 8,592 | 6,461 | 5,526 | 3,904 | 1,028 | - | - | - | - | 3,780 | 4,941 | 8,080 | 42,313 | 87 | 84 |
| 1826674 | 23,957 | 20,796 | 23,036 | 21,457 | 19,520 | 18,197 | 15,759 | 15,295 | 15,865 | 17,060 | 18,384 | 19,061 | 228,386 | 114 | 110 |
| 1884506 | 11,111 | 6,826 | 3,635 | 1,513 | 321 | - | - | - | - | 752 | 3,649 | 7,476 | 35,283 | 245 | 237 |
| 1884510 | 34,823 | 25,570 | 20,295 | 11,274 | 6,966 | 4,800 | 3,756 | 3,711 | 3,786 | 11,738 | 17,085 | 27,900 | 171,705 | 676 | 654 |


| 1884573 | 35,995 | 25,696 | 17,200 | 7,767 | - | - | - | - | 103 | 3,412 | 16,673 | 26,594 | 133,440 | 368 | 356 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1884576 | 35,582 | 24,558 | 21,688 | 17,022 | 9,439 | - | - | - | - | 11,769 | 18,427 | 28,279 | 166,763 | 301 | 291 |
| 1884577 | 43,253 | 23,057 | 16,940 | 11,302 | 1,716 | - | - | - | - | 3,012 | 14,224 | 28,758 | 142,262 | 240 | 232 |
| 1884579 | 8,776 | 3,213 | 1,648 | 197 | - | - | - | - | - | 31 | 901 | 2,661 | 17,427 | 202 | 195 |
| 1906625 | 2,010 | 1,543 | 1,628 | 607 | - | - | - | - | - | - | - | - | 5,788 | 30 | 29 |
| 1906628 | 12,758 | 7,845 | 5,055 | 2,211 | 577 | - | - | - | - | 1,301 | 4,415 | 7,685 | 41,847 | 222 | 214 |
| 1906630 | 10,717 | 6,552 | 3,583 | 1,142 | 36 | - | - | - | - | 913 | 3,015 | 4,917 | 30,876 | 215 | 208 |
| 1909300 | 216,083 | 186,825 | 53,176 | 53,743 | 83,215 | 15,679 | 11,470 | 27,501 | 101,349 | 156,743 | 88,927 | 188,417 | 1,183,128 | - | - |
| 1909301 | 1,318,431 | 1,143,877 | 1,315,139 | 1,124,601 | 845,638 | 1,010,121 | 1,109,781 | 1,116,073 | 993,959 | 1,004,511 | 1,187,758 | 1,276,229 | 13,446,118 | - | - |
| 1909334 | 6,362 | 4,876 | 4,457 | 3,776 | 2,399 | 900 | 824 | 1,009 | 1,045 | 2,943 | 3,665 | 5,216 | 37,472 | 130 | 126 |
| 1909351 | 7,914 | 5,583 | 4,507 | 2,622 | 455 | 2 | 4 | 2 | 2 | 2,053 | 3,897 | 6,548 | 33,588 | 110 | 106 |
| 1921575 | 16,503 | 9,852 | 7,779 | 3,420 | 321 | - | - | - | - | 2,572 | 8,602 | 15,361 | 64,410 | 160 | 155 |
| 1921578 | 9,995 | 5,646 | 4,567 | 2,544 | 1,845 | 1,701 | 1,042 | 3,144 | 2,031 | - | 2,199 | 7,404 | 42,117 | 183 | 177 |
| 1921700 | 45,382 | 34,713 | 28,078 | 25,009 | 1,555 | - | - | 34 | - | 8,466 | 21,373 | 37,371 | 201,981 | 831 | 804 |
| 1921701 | 34,301 | 25,027 | 24,031 | 18,821 | 15,473 | 13,323 | 12,022 | 11,751 | 10,091 | 12,332 | 18,062 | 22,772 | 218,005 | 504 | 487 |
| 1921703 | 38,072 | 30,573 | 26,441 | 20,205 | 4,517 | - | - | - | - | 11,507 | 22,337 | 33,550 | 187,202 | 354 | 342 |
| 1954681 | 62,139 | 45,069 | 39,766 | 29,479 | 22,687 | 18,690 | 17,366 | 18,288 | 18,691 | 28,116 | 37,765 | 51,942 | 389,998 | 907 | 877 |
| 1954683 | 48,967 | 42,062 | 32,208 | 22,133 | 15,159 | 13,114 | 15,505 | 16,945 | 14,147 | 16,951 | 28,862 | 46,644 | 312,698 | 728 | 704 |
| 1954684 | 75,996 | 50,367 | 38,425 | 22,449 | 3,180 | - | - | - | - | 9,966 | 38,809 | 58,304 | 297,496 | 1,565 | 1,514 |
| 1986382 | 31,195 | 27,881 | 21,868 | 10,711 | 4,341 | 6 | 2 | 1 | 2 | 7 | 20,838 | 42,269 | 159,121 | 547 | 529 |
| 1986388 | 7,951 | 5,322 | 4,200 | 2,096 | 214 | - | - | - | 6 | 1,740 | 3,397 | 6,519 | 31,444 | 400 | 387 |
| 1987272 | 11,573 | 8,895 | 8,809 | 3,403 | - | - | - | - | 43 | 2,200 | 9,291 | 14,210 | 58,424 | 123 | 118 |
| 1987495 | 14,548 | 13,090 | 14,824 | 12,056 | 11,342 | 10,286 | 5,139 | 11,913 | 12,246 | 12,589 | 11,617 | 8,880 | 138,530 | 313 | 303 |
| 1987496 | 18,735 | 14,295 | 12,664 | 8,949 | 2,053 | - | 10 | - | - | 2,244 | 8,634 | 15,027 | 82,612 | 263 | 254 |
| 1987500 | 58,779 | 49,254 | 22,358 | 7,359 | - | - | - | - | - | 341 | 15,330 | 44,974 | 198,395 | 432 | 418 |
| 1987633 | 4,835 | 3,566 | 2,643 | 976 | - | - | - | - | - | 594 | 2,175 | 3,606 | 18,395 | 348 | 337 |
| 1987683 | 1,978 | 1,517 | 894 | 468 | 34 | - | - | - | - | 391 | 988 | 1,786 | 8,055 | 348 | 337 |
| 1987743 | 1,928 | 1,663 | 1,323 | 815 | 328 | 52 | - | 5 | 3 | 689 | 1,089 | 1,846 | 9,741 | 414 | 400 |
| 1987777 | 9,151 | 8,834 | 9,565 | 8,245 | 7,594 | 6,954 | 6,232 | 6,857 | 6,780 | 7,675 | 8,308 | 8,649 | 94,843 | 202 | 195 |
| 1987786 | 10,913 | 5,837 | 3,619 | 1,206 | - | - | - | - | - | 1,383 | 3,439 | 7,202 | 33,600 | 212 | 205 |
| 1987797 | 14,484 | 11,829 | 11,903 | 8,963 | 7,895 | 7,755 | 6,385 | 7,133 | 7,359 | 8,812 | 10,095 | 13,644 | 116,256 | 281 | 272 |
| 1987801 | 30,765 | 22,888 | 19,015 | 14,747 | 5,867 | 17,849 | 24,427 | 23,697 | 8,059 | 11,879 | 16,199 | - | 195,392 | 1,774 | 1,716 |
| 1987803 | 68,365 | 53,052 | 49,270 | 38,675 | 48,526 | 61,923 | 81,832 | 82,398 | 60,994 | 53,302 | 57,018 | 62,275 | 717,631 | 456 | 441 |
| 1987805 | 17,574 | 11,754 | 8,590 | 5,593 | 1,544 | 168 | 164 | 173 | 281 | 3,992 | 7,032 | 12,571 | 69,436 | 237 | 229 |
| 1987812 | 17,368 | 12,911 | 11,127 | 3,477 | - | 10 | - | - | - | - | 6,946 | 10,109 | 61,949 | 272 | 263 |
| 1987812 | 17,368 | 12,911 | 11,127 | 3,477 | - | 10 | - | - | - | - | 6,946 | 10,109 | 61,949 | 279 | 263 |
| 1987814 | 506,052 | 476,163 | 527,630 | 504,868 | 489,572 | 524,680 | 442,943 | 499,718 | 475,617 | 466,017 | 292,232 | 351,161 | 5,556,654 | 3,432 | 3,319 |
| 1987815 | 81,382 | 69,219 | 64,885 | 51,238 | 29,962 | 22,537 | 24,083 | 23,104 | 26,134 | 44,155 | 59,280 | - | 495,978 | 2,169 | 2,098 |
| 1989421 | 26,802 | 24,464 | 10,908 | 2,039 | - | - | - | - | - | 1,017 | 10,210 | 17,067 | 92,507 | 251 | 243 |
| 1989426 | 30,841 | 23,294 | 18,595 | 11,601 | 2,943 | 2,621 | 2,380 | 2,336 | 2,514 | 10,481 | 16,640 | 27,147 | 151,393 | 320 | 309 |
| 1989428 | 81,546 | 59,551 | 51,739 | 42,515 | 31,858 | 24,854 | 20,513 | 20,717 | 22,429 | 33,973 | 49,702 | 72,499 | 511,897 | 720 | 696 |
| 2012845 | - | - | 6,651 | 7,092 | 7,033 | 5,631 | 5,636 | 5,114 | 4,965 | 8,637 | 10,693 | 14,915 | 76,367 | 804 | 778 |
| 2012851 | 3,036 | 2,723 | 2,581 | 2,116 | 811 | 103 | 84 | 441 | 723 | 1,320 | 2,096 | 3,135 | 19,170 | 49 | 47 |
| 2012853 | 3,980 | 3,785 | 2,983 | 2,202 | 589 | - | 36 | 160 | 333 | 1,578 | 2,057 | 3,181 | 20,884 | 39 | 38 |
| 2012857 | 3,212 | 2,739 | 2,097 | 1,698 | 623 | 144 | 139 | 227 | 378 | 1,478 | 1,906 | 3,014 | 17,656 | 39 | 38 |
| 2012880 | 14,074 | 11,232 | 11,762 | 10,727 | 7,878 | 7,963 | 7,591 | 6,936 | 7,418 | 9,958 | 11,152 | 13,882 | 120,572 | 104 | 101 |


| 2023812 | 15,076 | 10,683 | 8,946 | 6,408 | 2,657 | 1,917 | 1,889 | 1,803 | 1,987 | 3,745 | 6,595 | 11,327 | 73,032 | 131 | 127 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2023825 | 10,344 | 5,952 | 3,098 | 1,459 | 137 | 115 | 117 | 115 | 130 | 642 | 2,713 | 6,223 | 31,045 | 76 | 74 |
| 2023831 | 3,630 | 2,598 | 1,765 | 1,815 | 1,887 | 1,758 | 1,424 | 1,676 | 1,429 | 1,860 | 1,813 | 1,637 | 23,292 | 132 | 128 |
| 2023840 | 6,642 | 5,426 | 5,012 | 3,814 | 1,236 | 576 | 536 | 541 | 575 | 2,945 | 3,761 | 5,964 | 37,029 | 112 | 108 |
| 2023947 | 9,935 | 7,827 | 6,870 | 5,428 | 3,596 | 2,663 | 2,689 | 2,641 | 2,475 | 4,768 | 6,485 | 8,451 | 63,827 | 325 | 314 |
| 2023948 | 21,452 | 17,205 | 15,848 | 13,011 | 4,922 | 2,128 | 1,998 | 1,986 | 2,073 | 10,544 | 13,243 | 18,322 | 122,731 | 360 | 348 |
| 2023952 | 30,386 | 28,298 | 9,247 | 6,777 | 5,104 | 5,463 | 4,548 | 5,083 | 5,143 | 5,261 | 13,665 | 35,673 | 154,647 | 549 | 531 |
| 2023953 | 88,731 | 66,338 | 62,130 | 59,189 | 42,303 | 30,605 | 25,938 | 24,788 | 29,857 | 48,697 | 55,483 | 74,117 | 608,178 | 576 | 557 |
| 2023955 | 42,166 | 33,118 | 26,116 | 17,688 | 772 | - | - | - | - | 4,004 | 18,067 | 31,802 | 173,734 | 958 | 925 |
| 2023958 | 30,704 | 27,469 | 15,538 | 5,405 | - | - | - | - | 1,935 | 7,890 | 18,572 | 25,724 | 133,237 | 843 | 814 |
| 2023960 | 33,747 | 28,846 | 29,941 | 22,982 | 20,711 | 17,008 | 14,532 | 18,538 | 16,450 | 16,885 | 16,605 | 23,084 | 259,329 | 1,362 | 1,317 |
| 2024285 | 7,200 | 5,484 | 4,440 | 3,779 | 1,434 | 489 | 405 | 387 | 463 | 3,196 | 4,439 | 6,996 | 38,713 | 83 | 80 |
| 2024290 | 10,274 | 7,843 | 6,233 | 4,206 | 1,351 | 508 | 241 | 296 | 422 | 3,067 | 4,900 | 8,337 | 47,677 | 83 | 80 |
| 2024299 | 7,260 | 5,388 | 4,016 | 2,830 | 1,111 | 479 | 452 | 438 | 671 | 2,239 | 3,515 | 5,875 | 34,272 | 83 | 80 |
| 2024307 | 15,062 | 11,574 | 7,940 | 3,378 | 652 | - | - | - | - | 4,506 | 6,441 | 12,863 | 62,416 | 111 | 107 |
| 2024367 | - | - | 125,818 | 1,323 | 31 | - | - | - | - | 548 | 3,080 | 6,083 | 136,883 | 888 | 859 |
| 2024389 | 5,856 | 4,574 | 4,077 | - | 3,585 | 13 | - | - | 30 | 1,279 | 2,909 | 4,126 | 26,450 | 341 | 330 |
| 2024604 | 6,565 | 5,661 | 6,350 | 6,494 | 7,983 | 7,464 | 6,254 | 6,953 | 8,155 | 9,301 | 7,322 | 6,637 | 85,139 | 78 | 75 |
| 2024644 | 8,186 | 6,401 | 5,485 | 3,828 | 1,207 | 985 | 866 | 872 | 933 | 3,628 | 5,080 | 6,900 | 44,371 | 480 | 464 |
| 2024645 | 12,268 | 11,417 | 11,085 | 7,494 | 3,429 | 1,620 | 1,462 | 1,503 | 1,714 | 4,353 | 350 | 7,305 | 63,999 | 289 | 279 |
| 2024648 | 29,600 | 23,951 | 23,860 | 20,628 | 18,750 | 16,391 | 14,066 | 14,759 | - | 28,484 | 18,561 | 22,801 | 231,852 | 394 | 381 |
| 2024675 | 721 | - | - | - | - | - | - | - | - | - | 5,878 | - | 6,599 | 140 | 135 |
| 2024683 | 27,561 | 22,655 | 20,051 | 13,830 | 2,578 | 1,857 | 1,643 | 1,610 | 1,721 | 11,220 | 15,778 | 23,375 | 143,878 | 291 | 281 |
| 2024684 | 10,258 | 5,376 | 5,741 | 2,120 | 142 | - | - | - | - | 1,892 | 4,704 | 10,011 | 40,245 | 211 | 204 |
| 2024694 | 18,319 | 13,578 | 9,617 | 4,938 | 337 | - | - | - | - | 2,267 | 8,122 | 15,363 | 72,541 | 245 | 237 |
| 2024698 | 8,825 | 7,352 | 5,958 | 4,661 | 1,499 | - | - | - | 151 | 2,062 | 3,286 | 7,033 | 40,827 | 272 | 263 |
| 2024702 | 27,716 | 20,342 | 21,965 | 15,113 | 275 | - | - | - | 46 | 1,848 | 11,165 | 18,434 | 116,906 | 573 | 554 |
| 2024703 | 21,553 | 18,837 | 12,906 | 8,455 | - | - | - | - | - | 5,307 | 12,607 | 19,128 | 98,793 | 1,252 | 1,211 |
| 2024704 | 14,861 | 9,961 | 6,513 | 3,617 | 587 | - | - | - | 225 | 2,865 | 4,928 | 11,973 | 55,529 | 257 | 249 |
| 2024705 | 19,805 | 15,108 | 10,898 | 6,921 | 3,131 | 3,167 | 2,768 | 3,294 | 3,146 | 5,385 | 9,849 | 15,336 | 98,808 | 278 | 269 |
| 2024706 | 11,035 | 7,904 | 5,347 | 2,385 | 176 | - | - | - | 29 | 1,152 | 5,198 | 8,026 | 41,251 | 240 | 232 |
| 2024712 | 16,619 | 11,088 | 6,548 | 5,189 | 920 | - | 1 | 1 | 14 | 1,818 | 7,281 | 12,276 | 61,755 | 235 | 227 |
| 2024714 | 11,329 | 8,525 | 6,809 | 2,687 | 25 | 1 | - | 16 | 49 | 470 | 3,835 | 8,287 | 42,035 | 167 | 162 |
| 2024715 | 42,824 | 31,205 | 23,775 | 3,989 | - | - | - | - | - | 3,865 | 14,946 | 34,649 | 155,253 | 410 | 397 |
| 2024719 | 9,817 | 7,420 | 5,397 | 2,743 | 2,213 | 1,884 | 2,084 | 3,147 | 1,436 | 1,433 | 4,342 | 9,029 | 50,944 | 170 | 164 |
| 2024851 | 16,632 | 11,188 | 7,998 | 5,120 | 759 | - | - | - | 71 | 4,469 | 10,338 | 16,183 | 72,758 | 100 | 97 |
| 2024992 | 1,814 | 1,238 | 940 | 544 | 98 | - | - | - | - | 274 | 684 | 1,450 | 7,042 | 400 | 387 |
| 2025049 | 5,971 | 3,753 | 2,503 | 1,304 | 474 | 291 | 267 | - | - | - | - | - | 14,563 | 65 | 63 |
| 2025099 | 7,720 | 4,530 | 2,616 | 899 | 173 | - | - | - | - | 298 | 2,124 | 5,281 | 23,641 | 400 | 387 |
| 2025107 | 12,257 | 8,607 | 7,248 | 2,278 | - | - | - | - | - | - | 4,578 | 10,467 | 45,436 | 209 | 202 |
| 2025146 | 7,366 | 6,167 | 4,454 | 1,286 | 1 | - | - | - | - | 809 | 2,405 | 4,882 | 27,369 | 270 | 261 |
| 2025149 | 3,988 | 3,404 | 1,349 | 946 | 1,028 | 825 | 1,121 | 979 | 1,630 | 2,201 | 2,725 | 4,537 | 24,733 | 336 | 325 |
| 2025150 | 8,989 | 7,188 | 5,290 | 2,650 | 717 | - | - | - | 1 | 2,527 | 4,666 | 7,744 | 39,772 | 115 | 111 |
| 2025156 | 7,758 | 6,219 | 5,099 | 1,879 | - | - | - | - | - | 3 | 3,216 | 6,068 | 30,242 | 120 | 116 |
| 2025158 | 17,911 | 14,119 | 6,976 | 4,362 | - | - | 1 | - | - | 2,859 | 8,756 | 13,528 | 68,511 | 171 | 165 |
| 2025166 | 5,396 | 3,733 | 2,736 | 1,017 | - | - | - | - | 4 | - | 3,787 | 4,704 | 21,377 | 254 | 246 |


| 2025172 | 6,634 | 5,479 | 4,114 | 1,245 | - | - | - | - | - | 710 | 2,065 | 4,374 | 24,620 | 208 | 201 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2025178 | 17,991 | 14,349 | 12,875 | 11,087 | 6,513 | 5,902 | 5,956 | 6,005 | 6,039 | 9,772 | 11,673 | 15,630 | 123,793 | 296 | 286 |
| 2026737 | 10,027 | 7,891 | 5,279 | 2,885 | 578 | - | - | - | - | 2,367 | 4,517 | 8,790 | 42,334 | 235 | 227 |
| 2026784 | 9,247 | 6,745 | 6,663 | 4,560 | 2,798 | 571 | 525 | 540 | 691 | 3,908 | 5,318 | 6,969 | 48,534 | 72 | 70 |
| 2026819 | 19,233 | 15,628 | 19,589 | 20,897 | 5,198 | - | - | - | - | 2 | - | 1,574 | 82,122 | 67 | 65 |
| 2026820 | 19,625 | 17,472 | 18,554 | 17,061 | 17,139 | 15,561 | 13,706 | 15,795 | 16,030 | 17,340 | 18,616 | 20,360 | 207,258 | 60 | 58 |
| 2026838 | 18,520 | 13,399 | 11,565 | 2,404 | - | - | - | - | - | 4,482 | 9,954 | 16,321 | 76,647 | 72 | 70 |
| 2026849 | 6,843 | 5,232 | 4,278 | 2,471 | 421 | 1 | - | - | 21 | 1,774 | 3,918 | 6,351 | 31,310 | 341 | 330 |
| 2026874 | 5,205 | 3,925 | 3,002 | 2,037 | 43 | - | - | - | 67 | 1,319 | 2,809 | 4,925 | 23,333 | 54 | 52 |
| 2027243 | 17,565 | 14,605 | 13,409 | 17,152 | 12,898 | 11,214 | 3,909 | 7,347 | 9,011 | 15,375 | 16,896 | 17,335 | 156,715 | 69 | 67 |
| 2027375 | 24,788 | 19,228 | 16,678 | 12,776 | 6,532 | 3,634 | 3,082 | 2,949 | 3,702 | 9,467 | 13,716 | 20,135 | 136,686 | 189 | 183 |
| 2027381 | 5,211 | 4,345 | 4,155 | 3,114 | 1,801 | 878 | 805 | 911 | 879 | 1,269 | 3,059 | 4,762 | 31,189 | 402 | 389 |
| 2027383 | 11,908 | 8,967 | 6,203 | 3,501 | 598 | - | - | - | - | 1,284 | 4,063 | 8,860 | 45,384 | 54 | 52 |
| 2027386 | 10,590 | 9,370 | 10,328 | 10,096 | 8,507 | 8,245 | 8,375 | 3,261 | 3,316 | 2,697 | 2,031 | 6,107 | 82,922 | 141 | 136 |
| 2027387 | 19,257 | 14,424 | 10,832 | 8,536 | 7,305 | 5,953 | - | 6,087 | 11,998 | 8,789 | 12,001 | 17,724 | 122,907 | 224 | 217 |
| 2027387 | 19,257 | 14,424 | 10,832 | 8,536 | 7,305 | 5,953 | - | 6,087 | 11,998 | 8,789 | 12,001 | 17,724 | 122,907 | 224 | 216 |
| 2027392 | 9,068 | 7,895 | 8,257 | 6,279 | 3,861 | 3,409 | 2,538 | 3,287 | 2,726 | 4,108 | 5,716 | 8,471 | 65,616 | 576 | 557 |
| 2027401 | 9,513 | 7,107 | 5,363 | 4,246 | 2,824 | 2,331 | 2,124 | 2,668 | 2,789 | 3,511 | 4,809 | 8,567 | 55,849 | 50 | 48 |
| 2027402 | 11,329 | 8,430 | 6,399 | 4,983 | 3,352 | 2,864 | 1,899 | 3,292 | 3,485 | 4,242 | 5,761 | 10,194 | 66,229 | 50 | 48 |
| 2027403 | 25,558 | 18,697 | 14,731 | 10,312 | 5,578 | 3,394 | 3,210 | 3,289 | 4,233 | 8,621 | 12,604 | 20,044 | 130,271 | 250 | 242 |
| 2027406 | 41,199 | 33,729 | 36,731 | 30,645 | 26,355 | 20,944 | 17,507 | 19,825 | 20,844 | 25,859 | 27,108 | 32,023 | 332,768 | 600 | 580 |
| 2027423 | 6,360 | 4,597 | 3,802 | 2,479 | 632 | - | - | - | - | 1,941 | 2,988 | 4,592 | 27,392 | 86 | 83 |
| 2027430 | 5,229 | 4,341 | 4,157 | 3,111 | 1,799 | 877 | 810 | 908 | 875 | 1,270 | 3,058 | 4,769 | 31,205 | 402 | 389 |
| 2027433 | 9,390 | 6,416 | 4,338 | 2,108 | - | - | - | - | - | 641 | 3,275 | - | 26,167 | 144 | 139 |
| 2027434 | 8,546 | 6,009 | 4,476 | 1,999 | - | - | - | - | 1 | 570 | 3,096 | - | 24,697 | 144 | 139 |
| 2027443 | 26,218 | 19,150 | 15,040 | 8,237 | 3,526 | 3,132 | 2,978 | 3,027 | 3,845 | 7,010 | 12,925 | 21,697 | 126,784 | 180 | 174 |
| 2027454 | - | - | - | 1 | - | - | - | - | - | 2,326 | 5,256 | 7,578 | 15,161 | 187 | 181 |
| 2027464 | 14,150 | 11,489 | 6,868 | 3,399 | 441 | - | - | 1 | - | 3,121 | 7,183 | 13,580 | 60,232 | 200 | 193 |
| 2027476 | 12,564 | 10,597 | 9,781 | 7,545 | 6,840 | 5,907 | 4,308 | 4,107 | 4,507 | 6,242 | 6,717 | 8,501 | 87,616 | 144 | 139 |
| 2027483 | 17,268 | 13,322 | 9,395 | 6,631 | 571 | 1 | 1 | - | 118 | 3,616 | 7,454 | 13,656 | 72,034 | 192 | 186 |
| 2027484 | 12,121 | 9,182 | 7,144 | 2,918 | 112 | - | - | - | - | 2,371 | 5,115 | 9,167 | 48,131 | 232 | 224 |
| 2027485 | 43,669 | 37,482 | 28,580 | 18,606 | 4,946 | 3,767 | 2,686 | 3,132 | 4,063 | 11,527 | 25,651 | 39,400 | 223,508 | 392 | 379 |
| 2027494 | 23,811 | 19,161 | 11,813 | 11,792 | 2,625 | - | - | - | - | 5,243 | 12,625 | 20,243 | 107,313 | 100 | 97 |
| 2027498 | 24,563 | 36,808 | 37,769 | 37,707 | 35,491 | 35,322 | 34,936 | 34,935 | 25,519 | 27,706 | 30,385 | 31,495 | 392,636 | 168 | 162 |
| 2027510 | 11,378 | 9,013 | 9,989 | 8,822 | 8,542 | 9,184 | 8,501 | 9,767 | 8,820 | 8,594 | 8,069 | 7,995 | 108,675 | 235 | 227 |
| 2027520 | 16,261 | 12,762 | 10,278 | 3,899 | - | - | - | - | 7 | 4,182 | 9,304 | 14,006 | 70,699 | 927 | 897 |
| 2027524 | 33,128 | 24,609 | 20,699 | 16,127 | 7,341 | 19,852 | 26,608 | 25,795 | 9,089 | 13,390 | 17,933 | - | 214,571 | 1,774 | 1,716 |
| 2027527 | 14,261 | 7,586 | 9,601 | 2,586 | 784 | 1,966 | 3,129 | 484 | 442 | 5,259 | 10,472 | - | 56,570 | 240 | 232 |
| 2027529 | 65,903 | 47,180 | 36,339 | 23,966 | 9,582 | 6,794 | 6,037 | 3,712 | 6,634 | 16,064 | 27,858 | 47,922 | 297,990 | 706 | 683 |
| 2027531 | - | 17,611 | - | - | - | - | - | - | - | - | - | - | 17,611 | 80 | 77 |
| 2027533 | 16,493 | 12,862 | 10,351 | 6,983 | 92 | 2 | 3 | 2 | 2 | 3,307 | 7,682 | 13,062 | 70,843 | 185 | 179 |
| 2027536 | 8,281 | 5,922 | 4,158 | 2,251 | 289 | - | - | 5 | - | 1,106 | 3,181 | 6,874 | 32,067 | 83 | 80 |
| 2027544 | 35,388 | 28,733 | 31,335 | 26,252 | 22,507 | 17,870 | 14,943 | 16,932 | 17,783 | 22,276 | 23,239 | 27,556 | 284,814 | 600 | 580 |
| 2027560 | 4,667 | 4,394 | 3,790 | 2,642 | 1,002 | 456 | 442 | 499 | 552 | 2,233 | 3,025 | 3,566 | 27,269 | 8 | 8 |
| 2027563 | 7,526 | 5,246 | 3,543 | 1,601 | 189 | - | - | - | - | 946 | 2,979 | 6,196 | 28,226 | 75 | 73 |
| 2027581 | 17,895 | 11,466 | 7,706 | 4,340 | 480 | - | - | - | 4 | 2,435 | 7,631 | 13,639 | 65,597 | 202 | 195 |


| 2027583 | 32,863 | 29,082 | 31,849 | 30,108 | 29,332 | 26,722 | 27,564 | 27,309 | 26,372 | 27,182 | 25,389 | 25,124 | 338,898 | 725 | 701 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2027589 | 13,900 | 9,709 | 6,453 | 3,891 | 378 | - | - | - | 145 | 2,686 | 3,757 | 7,557 | 48,475 | 130 | 126 |
| 2027599 | 9,789 | 7,053 | 8,578 | 7,696 | 4,016 | 3,097 | 2,383 | 2,508 | 2,891 | 5,325 | 5,840 | 6,602 | 65,778 | 228 | 221 |
| 2027605 | 4,853 | 3,789 | 3,285 | 1,788 | 401 | - | - | - | - | 654 | 2,386 | 3,848 | 21,005 | 259 | 250 |
| 2027612 | 4,113 | 3,240 | 2,825 | 1,550 | 334 | - | - | - | - | 554 | 2,117 | 3,319 | 18,053 | 259 | 250 |
| 2027620 | 18,715 | 14,296 | 12,596 | 7,269 | 1,319 | - | - | 3 | 35 | 4,127 | 8,826 | 15,537 | 82,723 | 235 | 227 |
| 2027635 | 6,932 | 5,120 | 4,975 | 4,282 | 6,296 | 5,603 | 5,223 | 5,403 | 5,447 | 5,276 | 5,314 | 6,163 | 66,036 | 154 | 149 |
| 2027641 | 18,943 | 12,626 | 10,485 | 4,789 | 219 | - | - | - | 52 | 4,942 | 7,212 | - | 59,267 | 186 | 180 |
| 2035356 | 2,663 | 2,103 | 1,747 | 1,079 | 186 | - | - | - | 64 | 781 | 1,479 | 2,379 | 12,481 | 41 | 40 |
| 2035554 | 4,942 | 3,717 | 3,100 | 2,285 | 902 | 424 | 386 | 368 | 424 | 1,801 | 2,753 | 4,306 | 25,407 | 48 | 46 |
| 2035694 | 1,945 | 1,715 | 1,120 | 602 | 110 | - | - | - | 2 | 277 | 804 | 1,806 | 8,382 | 348 | 337 |
| 2035839 | 7,650 | 5,276 | 4,331 | 3,061 | 1,746 | 1,501 | 1,391 | 1,433 | 1,422 | 2,293 | 3,243 | 6,003 | 39,348 | 156 | 151 |
| 2035943 | 7,200 | 6,002 | 4,110 | 2,823 | 2,499 | 3,001 | 3,189 | 3,221 | 2,823 | 2,786 | 3,815 | 5,692 | 47,162 | 72 | 70 |
| 2035967 | 5,651 | 5,336 | 6,700 | 6,913 | 7,982 | 7,289 | 6,210 | 7,046 | 7,208 | 9,390 | 9,327 | 9,257 | 88,310 | 168 | 162 |
| 2035975 | 11,294 | 9,706 | 9,914 | 8,842 | 8,332 | 8,032 | 7,309 | 7,333 | 7,363 | 9,119 | 9,807 | 11,034 | 108,085 | 174 | 168 |
| 2035986 | 3,806 | 3,265 | 3,701 | 2,579 | 2,670 | 2,452 | 1,916 | 1,969 | 2,041 | 2,460 | 1,799 | 1,213 | 29,868 | 126 | 122 |
| 2036046 | 4,537 | 3,316 | 2,743 | 1,625 | - | - | - | - | 1 | 1,467 | 2,031 | 3,899 | 19,619 | 414 | 400 |
| 2036145 | 11,178 | 9,994 | 8,496 | 6,938 | 206 | - | - | 2,373 | 1,709 | 5,662 | 7,683 | 10,817 | 65,055 | 163 | 158 |
| 2036147 | 7,019 | 5,113 | 3,337 | 1,928 | 662 | 143 | 30 | 45 | 234 | 1,524 | 2,887 | 5,902 | 28,823 | 223 | 216 |
| 2036151 | 11,243 | 8,323 | 6,307 | 3,859 | 27 | - | - | - | - | 759 | 5,159 | 8,932 | 44,609 | 72 | 70 |
| 2036167 | - | 33,739 | - | 15,861 | 823 | - | - | - | 10 | 4,967 | 8,434 | 14,124 | 77,958 | 626 | 605 |
| 2036180 | 44,146 | 45,084 | 42,047 | 25,544 | 18,880 | 18,953 | 13,933 | 16,407 | 20,436 | 24,789 | 30,551 | 35,925 | 336,694 | 748 | 723 |
| 2036185 | 24,620 | 17,760 | 16,130 | 8,473 | 505 | - | - | - | 5,235 | 6,855 | 14,442 | 25,789 | 119,808 | 341 | 330 |
| 2036186 | 127,366 | 88,105 | 62,368 | 37,756 | 6,350 | - | - | - | 21 | 11,134 | 44,956 | 89,382 | 467,438 | 2,087 | 2,018 |
| 2036189 | 21,128 | 15,818 | 11,358 | 3,276 | 206 | - | - | - | - | 2,229 | 11,536 | 18,338 | 83,890 | 397 | 384 |
| 2036191 | 75,520 | 79,878 | 54,834 | 113,772 | 111,869 | 58,666 | 183,191 | 216,194 | 25,926 | 1,174 | 17,638 | 66,424 | 1,005,086 | 2,203 | 2,131 |
| 2036192 | 69,459 | 43,982 | 43,114 | 40,565 | 40,594 | 35,121 | 34,602 | 31,819 | 31,940 | 33,217 | 35,996 | 44,516 | 484,925 | 2,317 | 2,241 |
| 2036193 | 29,882 | 20,726 | 14,298 | 6,004 | - | - | - | - | - | 1,551 | 13,361 | 22,754 | 108,577 | 598 | 578 |
| 2036194 | 339,590 | 344,958 | 409,870 | 416,320 | 379,913 | 328,866 | 353,209 | 411,363 | 336,401 | 366,575 | 304,602 | 314,898 | 4,306,564 | 2,365 | 2,287 |
| 2036195 | 42,126 | 27,777 | 21,238 | 5,379 | 722 | - | - | - | - | 2,999 | 20,717 | 39,393 | 160,351 | 701 | 678 |
| 2064820 | 3,871 | 2,182 | 1,176 | 544 | 73 | - | - | - | 119 | 785 | 1,829 | 2,815 | 13,394 | 58 | 56 |
| 2064880 | 4,683 | 4,094 | 3,976 | 3,683 | 3,470 | 3,156 | 3,144 | 3,130 | 2,989 | 2,881 | 3,208 | 3,792 | 42,206 | 90 | 87 |
| 2064920 | 18,439 | 20,540 | 6,505 | 7,009 | 6,980 | 5,656 | 5,544 | 5,507 | 5,885 | 7,330 | 7,585 | 4,088 | 101,070 | 804 | 778 |
| 2064954 | 12,143 | 11,838 | 15,226 | 12,132 | 10,542 | 9,691 | 8,559 | 9,546 | 8,986 | 10,103 | 12,280 | 13,803 | 134,848 | 750 | 725 |
| 2064957 | 6,510 | 6,293 | 8,170 | 6,359 | 5,745 | 5,655 | 5,029 | 5,534 | 5,229 | 5,995 | 7,337 | 8,056 | 75,911 | 750 | 725 |
| 2064973 | 193,455 | 147,289 | 137,459 | 114,767 | 100,532 | 94,083 | 85,908 | 85,673 | 89,307 | 111,447 | 126,340 | 165,714 | 1,451,972 | 8,479 | 8,192 |
| 2064974 | 37,186 | 20,588 | 12,910 | 4,937 | 134 | - | - | - | - | 1,044 | 11,432 | 24,918 | 113,149 | 417 | 403 |
| 2064975 | 20,002 | 21,188 | 23,180 | 20,999 | 22,376 | 22,749 | 19,184 | 19,507 | 22,004 | 25,147 | 24,813 | 26,167 | 267,315 | 250 | 242 |
| 2064976 | 20,353 | 15,840 | 14,414 | 10,469 | 3,330 | 10 | - | - | - | 7,557 | 11,831 | 17,570 | 101,373 | 377 | 365 |
| 2064977 | 12,231 | 9,988 | 7,241 | 5,307 | 1,206 | - | - | - | - | 2,782 | 7,246 | 11,480 | 57,480 | 229 | 221 |
| 2064978 | 19,701 | - | 45,522 | 94,177 | 65,888 | 92,727 | 73,286 | 73,370 | 63,607 | 87,740 | 82,343 | 49,583 | 747,942 | 2,400 | 2,321 |
| 2064979 | 34,308 | 7,633 | - | 19,928 | 15,456 | 4,430 | - | - | 10,788 | 16,750 | 13,982 | 16,806 | 140,080 | 1,400 | 1,354 |
| 2064980 | 94,279 | 71,703 | 50,232 | 22,542 | 3,745 | - | - | - | - | 13,695 | 39,367 | 77,121 | 372,683 | 1,269 | 1,227 |
| 2064981 | - | - | - | - | - | - | - | - | 310 | - | - | - | 310 | 2,317 | 2,241 |
| 2064982 | 898,474 | 696,955 | 592,643 | 481,938 | 359,785 | 280,259 | 262,757 | 293,013 | 313,108 | 437,854 | 526,775 | 736,479 | 5,880,041 | 2,317 | 2,241 |
| 2070242 | 2,859 | 2,119 | 1,591 | 786 | - | - | - | - | - | 1,100 | 1,853 | 3,171 | 13,480 | 64 | 62 |


| 2070249 | 3,325 | 2,467 | 2,010 | 1,023 | 70 | - | - | - | 11 | 677 | 1,308 | 2,633 | 13,525 | 64 | 62 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2070260 | 3,146 | 2,212 | 1,778 | 1,253 | 78 | - | - | - | 61 | 887 | 1,397 | 2,424 | 13,236 | 64 | 62 |
| 2070271 | 3,817 | 3,213 | 2,721 | 1,826 | 160 | - | - | - | 116 | 1,535 | 1,931 | 3,110 | 18,427 | 64 | 62 |
| 2090400 | 459,303 | 331,131 | 307,147 | 251,620 | 215,750 | 241,074 | 254,895 | 325,575 | 261,975 | 192,667 | 249,383 | 343,634 | 3,434,154 | 3,300 | 3,188 |
| 2115136 | 10,722 | 7,140 | 5,037 | 2,694 | - | - | - | 1 | - | - | - | - | 25,594 | 202 | 195 |
| 2115137 | 20,866 | 12,224 | 9,816 | 4,407 | - | - | 25 | - | 33 | 10,291 | 10,640 | 16,268 | 84,569 | 452 | 437 |
| 2115141 | 10,674 | 6,471 | 4,053 | 1,495 | 202 | - | - | - | - | 1,162 | 3,248 | 5,886 | 33,192 | 212 | 205 |
| 2115143 | 14,829 | 12,075 | 6,671 | 2,271 | 35 | - | - | 13 | - | 383 | 5,403 | 11,923 | 53,603 | 797 | 771 |
| 2115434 | 963 | 679 | 484 | 270 | 62 | - | - | - | - | 182 | 419 | 764 | 3,821 | 348 | 337 |
| 2115543 | 5,604 | 4,276 | 3,219 | 2,210 | 669 | 51 | - | - | 153 | 1,753 | 3,305 | 5,597 | 26,837 | 98 | 95 |
| 2115588 | 10,867 | 7,302 | 5,423 | 2,669 | 1,750 | 1,424 | 1,511 | 1,577 | 1,580 | 2,827 | 4,480 | 8,198 | 49,608 | 385 | 372 |
| 2115589 | 9,765 | 6,576 | 5,024 | 2,550 | 1,614 | 1,301 | 1,375 | 1,448 | 1,466 | 2,622 | 4,162 | 7,341 | 45,244 | 385 | 372 |
| 2115593 | 16,920 | 13,214 | 11,693 | 7,492 | 6,286 | 5,354 | 4,412 | 5,739 | 4,999 | 8,332 | 8,854 | 12,602 | 105,898 | 388 | 375 |
| 2115831 | 35,751 | 30,280 | 25,510 | 2,124 | - | - | - | - | - | 152 | 17,892 | 33,432 | 145,140 | 2,203 | 2,131 |
| 2115832 | 20,839 | 15,918 | 10,030 | 2,442 | 743 | - | 2,140 | 930 | 52 | 1,096 | 4,380 | 11,842 | 70,412 | 69 | 67 |
| 2115837 | 25,411 | 21,559 | 19,975 | 17,676 | 13,700 | 10,793 | 10,566 | 10,244 | 11,787 | 18,065 | 19,848 | 26,383 | 206,006 | 240 | 232 |
| 2115838 | 94,659 | 85,125 | 101,254 | 83,639 | 75,167 | 77,393 | 71,422 | 80,213 | 74,764 | 87,998 | 82,828 | 86,736 | 1,001,199 | 437 | 422 |
| 2115841 | 50,438 | 37,911 | 34,076 | 36,603 | 39,042 | 41,099 | 38,727 | 40,207 | 36,637 | 42,444 | 45,894 | 53,792 | 496,870 | 1,851 | 1,790 |
| 2115842 | 12,395 | 8,791 | 4,368 | 1,504 | 383 | - | - | - | 13 | 1,006 | 3,960 | 9,240 | 41,661 | 278 | 269 |
| 2115844 | 60,122 | 46,648 | 44,311 | 48,199 | 51,439 | 52,752 | 50,800 | 51,721 | 46,616 | 52,246 | 55,452 | 63,036 | 623,344 | 1,851 | 1,790 |
| 2115901 | 772 | 527 | 415 | 265 | 70 | - | - | - | - | 175 | 332 | 630 | 3,185 | 348 | 337 |
| 2116004 | 6,197 | 3,866 | 2,997 | 1,686 | 453 | - | - | - | 65 | 564 | 3,032 | 5,778 | 24,638 | 38 | 37 |
| 2116016 | 4,659 | 3,423 | 2,721 | 1,765 | 354 | - | - | - | - | 807 | 2,373 | 4,023 | 20,126 | 43 | 42 |
| 2116023 | 3,438 | 2,127 | 1,662 | 1,478 | 1,838 | 1,602 | 1,337 | 393 | 1,470 | 1,358 | 2,148 | 2,519 | 21,370 | 414 | 400 |
| 2116148 | 11,329 | 8,744 | 7,922 | 6,227 | 1,103 | 991 | 909 | 899 | 1,053 | 5,747 | 6,290 | - | 51,215 | 523 | 506 |
| 2116149 | 10,225 | 6,808 | 3,854 | 1,086 | 31 | - | 10 | - | - | 476 | 4,513 | 9,029 | 36,033 | 242 | 234 |
| 2116150 | 15,655 | 12,224 | 7,872 | 2,299 | - | 10 | - | - | 10 | 2,935 | 7,845 | - | 48,851 | 302 | 292 |
| 2116151 | 22,261 | 15,173 | 10,996 | 7,181 | 2,489 | 99 | - | - | 243 | 3,698 | 8,389 | 14,990 | 85,519 | 396 | 383 |
| 2116152 | 12,637 | 10,251 | 4,269 | 1,531 | - | - | - | - | 41 | 558 | 4,838 | 9,712 | 43,838 | 161 | 156 |
| 2116153 | 31,011 | 23,477 | 20,307 | 15,710 | 12,282 | 10,295 | 9,861 | 8,142 | 10,027 | 14,626 | 18,578 | 27,794 | 202,110 | 628 | 607 |
| 2116156 | 20,907 | 15,678 | 13,092 | 8,906 | 4,363 | 2,503 | 1,730 | 2,116 | 3,111 | 9,232 | 11,701 | 9,577 | 102,916 | 883 | 854 |
| 2116157 | 48,777 | 40,336 | 41,806 | 37,982 | 28,645 | 24,288 | 23,609 | 23,495 | 24,547 | 31,104 | 36,623 | 42,918 | 404,128 | 432 | 418 |
| 2116158 | 68,581 | 57,387 | 48,434 | 36,024 | 2,982 | - | - | - | - | 36,629 | 40,022 | 79,051 | 369,111 | 424 | 410 |
| 2116159 | 25,462 | 10,567 | 8,678 | 3,443 | - | - | - | - | - | 941 | 6,863 | 19,590 | 75,546 | 424 | 410 |
| 2116161 | 174,170 | 162,312 | 168,553 | 50,948 | - | - | - | - | - | - | 39,893 | 151,380 | 747,256 | 1,225 | 1,185 |
| 2116162 | 178,450 | 141,517 | 139,884 | 129,057 | 109,614 | 105,639 | 106,055 | 99,706 | 107,500 | 126,932 | 134,635 | 169,046 | 1,548,036 | 2,549 | 2,465 |
| 2116171 | 39,432 | 28,085 | 20,943 | 14,291 | 1,568 | - | - | - | - | 4,807 | 16,656 | 30,204 | 155,986 | 626 | 605 |
| 2116174 | 70,544 | 51,073 | 38,220 | 26,388 | 2,786 | - | 103 | - | 103 | 8,994 | 30,951 | 55,379 | 284,541 | 626 | 605 |
| 2123295 | 5,146 | 4,677 | 5,432 | 5,063 | 5,289 | 4,004 | 5,391 | 5,062 | 5,073 | 5,197 | 5,158 | 5,414 | 60,906 | 22 | 21 |
| 2123460 | 8,233 | 4,408 | 2,141 | 946 | 188 | - | - | - | - | 239 | 2,310 | 5,128 | 23,593 | 135 | 131 |
| 2123463 | 6,408 | 4,229 | 3,096 | 2,383 | 2,178 | 1,564 | 1,239 | 1,335 | 1,584 | 1,886 | 2,451 | 4,595 | 32,949 | 119 | 115 |
| 2123467 | 7,915 | 6,082 | 4,862 | 2,966 | 727 | 538 | 505 | 498 | 559 | 2,311 | 3,964 | 6,188 | 37,116 | 80 | 77 |
| 2123484 | 6,022 | 3,940 | 2,849 | 2,157 | 1,968 | 1,392 | 1,090 | 1,167 | 1,417 | 1,712 | 2,265 | 4,229 | 30,208 | 119 | 115 |
| 2123489 | 17,214 | 11,367 | 7,043 | 3,541 | 200 | 1 | 1 | 1 | 3 | 869 | 4,010 | 8,541 | 52,792 | 225 | 218 |
| 2123490 | 9,659 | 6,420 | 4,375 | 904 | 730 | 3,956 | 5,239 | 6,894 | 2,306 | 1,065 | 3,585 | - | 45,132 | 400 | 387 |
| 2123495 | 16,184 | 11,303 | 9,927 | 8,259 | 5,036 | 3,379 | 3,065 | 3,162 | 3,618 | 6,055 | 7,640 | 11,818 | 89,446 | 139 | 134 |


| MTR NBR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | Total CCF | MDQ <br> (DTH) | MDQ <br> (MCF) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2123504 | 30,468 | 21,118 | 16,780 | 9,796 | 2,632 | 1,362 | 1,137 | 1,070 | 1,291 | 4,848 | 13,401 | 22,482 | 126,387 | 322 | 311 |
| 2123509 | 29,493 | 22,021 | 13,481 | 1,932 | - | - | - | 1 | - | 194 | 8,739 | - | 75,861 | 252 | 244 |
| 2123510 | 10,307 | 6,685 | 4,676 | 2,448 | 338 | - | - | 1 | - | 1,303 | 4,567 | 7,433 | 37,759 | 173 | 167 |
| 2123512 | 22,862 | 19,374 | 14,468 | 11,555 | 5,827 | 4,327 | 3,680 | 2,810 | 3,160 | 8,694 | 13,131 | 17,932 | 127,818 | 414 | 400 |
| 2123513 | 28,028 | 18,911 | 10,794 | 8,046 | 701 | - | - | - | 21 | 3,783 | 10,673 | 22,397 | 103,354 | 374 | 362 |
| 2123514 | 21,000 | 37,748 | 10,602 | 1,127 | 59 | 59 | 23 | 35 | 47 | 1,938 | 7,057 | 19,825 | 99,519 | 804 | 778 |
| 2123515 | 50,796 | 20,700 | 10,039 | 235 | 141 | 352 | 294 | 516 | 762 | 1,562 | 5,751 | 12,517 | 103,666 | 804 | 778 |
| 2123516 | 23,221 | 17,313 | 14,477 | 11,098 | 5,124 | 1,311 | 1,044 | 992 | 1,260 | 7,009 | 12,621 | 20,097 | 115,565 | 360 | 348 |
| 2123517 | 27,924 | 24,415 | 20,150 | 16,734 | 5,578 | 1,208 | 1,902 | 1,674 | 2,210 | 8,085 | 18,165 | 25,722 | 153,766 | 180 | 174 |
| 2123519 | - | - | - | 28 | - | - | - | 14 | 7,152 | - | - | - | 7,193 | 240 | 232 |
| 2123520 | 30,713 | 23,184 | 12,790 | 3,135 | 11 | 22 | - | - | - | 4,244 | 10,105 | - | 84,204 | 322 | 311 |
| 2123521 | 26,696 | 19,971 | 14,040 | 8,130 | 1,695 | 7,250 | 8,786 | 6,421 | 9,651 | 6,799 | 11,280 | 16,252 | 136,972 | 351 | 339 |
| 2123523 | 11,361 | 9,645 | 7,118 | 3,091 | 175 | - | - | - | - | 2,512 | 5,500 | 12,778 | 52,180 | 782 | 756 |
| 2123525 | 31,057 | 25,555 | 24,311 | 14,743 | 10 | - | - | - | - | - | 15,448 | 24,985 | 136,110 | 81 | 78 |
| 2123527 | 19,508 | 16,021 | 11,519 | 6,188 | 682 | - | - | - | - | 2,181 | 10,693 | 18,882 | 85,674 | 454 | 439 |
| 2123528 | 27,966 | 22,916 | 20,527 | 18,357 | 5,104 | - | - | - | 2,211 | 16,177 | 20,615 | 24,266 | 158,138 | 336 | 325 |
| 2132737 | 60,838 | 48,995 | 39,614 | 31,631 | 20,808 | 18,559 | 14,339 | 11,510 | 16,187 | 29,466 | 35,701 | 52,234 | 379,883 | 697 | 674 |
| 2132738 | 62,040 | 46,932 | 45,042 | 37,437 | 32,792 | 49,787 | 75,160 | 61,878 | 81,581 | 38,452 | 41,572 | 54,236 | 626,909 | 1,011 | 976 |
| 2132941 | 2,005 | 1,427 | 6,857 | 6,664 | 6,300 | 5,835 | 5,658 | 5,711 | 5,820 | 6,531 | 6,646 | 5,490 | 64,944 | 750 | 725 |
| 2132966 | 6,913 | 5,256 | 4,327 | 3,101 | 1,321 | 731 | 658 | 650 | 681 | 1,856 | 3,414 | 5,512 | 34,421 | 43 | 42 |
| 2133065 | 12,227 | 8,857 | 7,140 | 2,711 | 308 | - | - | - | - | 2,527 | 6,301 | 12,272 | 52,342 | 131 | 127 |
| 2133071 | 25,711 | 19,147 | 15,288 | 10,865 | 6,423 | 4,275 | 3,532 | 3,332 | 3,927 | 8,336 | 12,447 | 20,098 | 133,381 | 250 | 242 |
| 2133093 | 35,870 | 27,011 | 22,611 | 11,942 | 838 | 112 | 1 | 1 | 48 | 4,860 | 15,359 | 30,991 | 149,645 | 150 | 145 |
| 2155650 | 9,278 | 6,857 | 5,779 | 3,911 | 1,815 | 147 | - | - | 46 | 978 | 1,350 | 6,016 | 36,176 | 113 | 109 |
| 2157680 | 64,321 | 51,188 | 48,386 | 44,034 | 34,380 | 30,696 | 29,619 | 30,989 | 33,186 | 41,520 | 43,058 | 55,512 | 506,889 | 267 | 258 |
| 2157683 | 47,598 | 43,969 | 49,470 | 43,108 | 43,476 | 44,032 | 38,712 | 41,650 | 41,747 | 38,569 | 45,666 | 38,806 | 516,802 | 1,465 | 1,417 |
| 2157685 | 40,071 | 32,784 | 24,340 | 12,371 | 5,045 | 2,788 | 2,574 | 2,345 | 909 | 12,365 | 16,826 | 28,535 | 180,952 | 496 | 480 |
| 2157686 | 17,109 | 10,105 | 7,439 | 2,763 | - | - | - | - | 21 | 796 | 5,468 | 12,791 | 56,491 | 314 | 304 |
| 2157687 | 38,491 | 28,785 | 23,407 | 17,699 | 6,203 | - | - | - | - | 16,505 | 22,271 | 34,294 | 187,655 | 240 | 232 |
| 2157690 | 19,930 | 15,321 | 13,001 | 5,133 | 1,013 | - | - | - | 21 | - | 11,035 | 12,687 | 78,140 | 494 | 478 |
| 2157693 | 14,388 | 10,165 | 3,874 | 2,288 | 206 | - | - | - | - | 1,251 | 4,877 | 11,213 | 48,263 | 172 | 166 |
| 2157694 | 15,388 | 12,784 | 9,825 | 10,165 | 2,009 | - | - | - | - | 2,873 | 8,165 | - | 61,210 | 110 | 106 |
| 2157695 | 33,150 | 24,866 | 22,650 | 14,739 | 845 | - | - | - | - | 6,705 | 18,504 | 31,667 | 153,126 | 31 | 30 |
| 2157696 | 55,540 | 40,739 | 37,860 | 26,717 | 16,377 | 13,218 | 11,990 | 11,644 | 12,382 | 23,280 | 30,540 | - | 280,286 | 417 | 403 |
| 2157697 | 39,018 | 31,502 | 26,470 | 20,573 | 12,714 | 6,433 | 5,757 | 5,445 | 5,927 | 16,023 | 22,447 | 32,457 | 224,767 | 720 | 696 |
| 2157699 | 73,351 | 40,102 | 22,898 | 4,294 | 415 | - | - | - | - | - | - | - | 141,060 | 1,269 | 1,227 |
| 2157700 | 83,701 | 78,000 | 71,443 | 61,737 | 51,045 | 41,926 | 38,142 | 38,641 | 40,172 | 56,748 | 63,400 | 76,758 | 701,712 | 803 | 777 |
| 2157702 | 46,542 | 36,073 | 30,920 | 27,973 | - | 25,404 | 18,612 | 40,438 | 20,219 | - | 60,316 | 39,924 | 346,421 | 43 | 42 |
| 2157702 | 46,542 | 36,073 | 30,920 | 27,973 | - | 25,404 | 18,612 | 40,438 | 20,219 | - | 60,316 | 39,924 | 346,421 | 43 | 42 |
| 2171219 | 109,460 | 78,126 | 64,310 | 41,483 | 15,570 | 12,598 | 9,303 | - | 207 | 36,595 | 59,475 | 89,872 | 516,999 | 1,424 | 1,377 |
| 2171220 | 66,956 | 50,211 | 44,368 | 31,016 | 28,858 | 28,897 | 24,359 | 28,914 | 28,343 | 35,846 | 48,186 | 58,962 | 474,916 | 407 | 394 |
| 2171221 | 28,006 | 23,563 | 22,932 | 20,850 | 22,621 | 19,432 | 17,122 | 17,324 | 18,915 | 21,405 | 22,355 | 23,922 | 258,448 | 150 | 145 |
| 2171222 | 17,015 | 10,469 | 6,412 | 3,383 | 371 | - | - | - | 10 | 2,161 | 5,123 | 11,795 | 56,739 | 157 | 152 |
| 2171227 | 17,795 | 9,453 | 3,616 | 2,089 | 134 | - | - | - | - | 951 | 5,450 | 13,908 | 53,396 | 92 | 89 |
| 2171228 | 64,317 | 53,252 | 46,809 | 38,370 | 30,935 | 28,088 | 26,565 | 19,528 | 32,529 | 41,554 | 47,879 | 60,458 | 490,285 | 400 | 387 |
| 2171229 | 34,819 | 22,673 | 16,237 | 7,834 | 1,409 | - | - | - | - | 4,568 | 13,071 | 19,987 | 120,598 | 888 | 859 |


| MTR NBR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | Total CCF | MDQ <br> (DTH) | MDQ <br> (MCF) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2171230 | 57,046 | 51,393 | 33,668 | - | 7,965 | - | - | - | - | 6,202 | 25,047 | 55,803 | 237,124 | 614 | 594 |
| 2171231 | 63,281 | 46,516 | 43,488 | 35,575 | 24,955 | 19,725 | 19,330 | 19,321 | 21,170 | - | 80,035 | 59,533 | 432,929 | 994 | 961 |
| 2171232 | 39,315 | 30,877 | 21,233 | 8,589 | 1,340 | - | - | - | - | 8,169 | 19,568 | 33,565 | 162,657 | 255 | 247 |
| 2171234 | 97,798 | 80,597 | 69,460 | 62,446 | 56,475 | 57,107 | 58,546 | 62,393 | 57,798 | 58,269 | 69,376 | 81,657 | 811,922 | 1,308 | 1,264 |
| 2171235 | 40,660 | 37,195 | 21,965 | - | 7,241 | - | - | - | - | 8,893 | 21,953 | 36,880 | 174,786 | 412 | 398 |
| 2188211 | 17,906 | 12,237 | 9,019 | 4,922 | 821 | - | 663 | - | - | - | - | - | 45,568 | 162 | 157 |
| 2188212 | 20,579 | 18,324 | 15,764 | 13,385 | 82 | - | - | - | - | - | - | - | 68,134 | 302 | 292 |
| 2188213 | 9,193 | 5,430 | 3,149 | 1,852 | 52 | - | - | - | - | 744 | 3,147 | 5,714 | 29,281 | 223 | 216 |
| 2188214 | 27,433 | 20,707 | 20,036 | 15,429 | 7,648 | 3,096 | 1,494 | 1,169 | 4,079 | 11,437 | 13,587 | 25,712 | 151,829 | 172 | 166 |
| 2188215 | 33,249 | 25,235 | 16,355 | 9,400 | - | - | - | - | - | 2,079 | 9,553 | 23,668 | 119,539 | 346 | 335 |
| 2188218 | 17,037 | 11,472 | 10,141 | 5,997 | 527 | - | - | - | - | 4,008 | 8,142 | 16,208 | 73,533 | 264 | 255 |
| 2188219 | 55,052 | 43,450 | 35,484 | 26,259 | 14,292 | 13,631 | 12,455 | 12,522 | 12,444 | 30,050 | 37,169 | 50,451 | 343,259 | 419 | 405 |
| 2188222 | 41,796 | 34,850 | 31,250 | 20,711 | 1,123 | 857 | 703 | 630 | 1,652 | 7,486 | 20,420 | 31,425 | 192,902 | 611 | 591 |
| 2188223 | 52,083 | 39,982 | 31,717 | 23,074 | 10,467 | - | - | - | 4,205 | 21,039 | 25,799 | 44,387 | 252,754 | 725 | 701 |
| 2188225 | 19,120 | 15,311 | 15,697 | 11,543 | 4,176 | 2,860 | 3,401 | 3,378 | 2,902 | 5,665 | 12,227 | 16,592 | 112,872 | 419 | 405 |
| 2188227 | 21,602 | 14,771 | 12,224 | 6,847 | 1,119 | - | - | - | - | 8,909 | 10,826 | 19,567 | 95,865 | 336 | 325 |
| 2198739 | 15,343 | 10,178 | 5,525 | 1,356 | 287 | - | - | - | 10 | 80 | 1,708 | 8,557 | 43,046 | 240 | 232 |
| 2198741 | - | 2 | - | - | - | 21 | - | - | - | - | - | - | 23 | 254 | 246 |
| 2198752 | 10,992 | 8,400 | 6,843 | 3,490 | 516 | 1 | - | - | - | 2,995 | 5,683 | 9,074 | 47,993 | 232 | 224 |
| 2198753 | 6,760 | 5,813 | 3,992 | 2,185 | 292 | - | - | - | - | 641 | 3,163 | 5,188 | 28,033 | 197 | 191 |
| 2198756 | 9,618 | 8,595 | 7,480 | 2,684 | 98 | - | 21 | - | - | 3,602 | 5,429 | 10,573 | 48,100 | 234 | 226 |
| 2211319 | 13,263 | 15,048 | 7,048 | 14,510 | 15,893 | 10,239 | 4,535 | 19,759 | 19,072 | 6,935 | 596 | - | 126,898 | 34 | 33 |
| 2211334 | 22,953 | 18,003 | 20,863 | 18,225 | 13,283 | 9,287 | 1,997 | 3,465 | 1,680 | 5,609 | 10,962 | 12,955 | 139,282 | 449 | 434 |
| 2211338 | 83,817 | 72,992 | 75,154 | 65,542 | 65,544 | 60,887 | 61,132 | 60,385 | 50,669 | 68,342 | 73,406 | 77,559 | 815,430 | 1,268 | 1,226 |
| 2211341 | 14,790 | 11,381 | 9,801 | 5,077 | 762 | - | - | - | 35 | 5,909 | 7,280 | 12,736 | 67,771 | 956 | 925 |
| 2227843 | 52,577 | 40,677 | 27,540 | 45,076 | 47,503 | 42,183 | 45,106 | 41,116 | 14,116 | 46,122 | 47,951 | 48,203 | 498,171 | 17,957 | 17,367 |
| 2227846 | 47,811 | 37,200 | 24,973 | 40,468 | 43,135 | 38,275 | 40,926 | 37,345 | 12,779 | 40,630 | 42,284 | 41,898 | 447,723 | 17,957 | 17,367 |
| 2227850 | 31,725 | 23,951 | 20,238 | 10,859 | 1,665 | - | - | - | 82 | 12,253 | 15,712 | 27,551 | 144,037 | 956 | 925 |
| 2239836 | 12,091 | 8,945 | 5,169 | 1,852 | - | - | - | - | 31 | 1,334 | 5,333 | 12,172 | 46,926 | 340 | 329 |
| 2239838 | 19,838 | 15,438 | 12,616 | 8,202 | 5,167 | 3,996 | 3,514 | 3,761 | 4,740 | 8,093 | 13,162 | 20,520 | 119,048 | 313 | 303 |
| 2239839 | 23,165 | 19,196 | 16,675 | 12,577 | 360 | - | - | - | - | 8,015 | 12,194 | 19,078 | 111,260 | 120 | 116 |
| 2239840 | 131,914 | 98,403 | 80,953 | 61,207 | 18,073 | - | - | - | - | 20,136 | 69,379 | 111,935 | 592,001 | 2,191 | 2,119 |
| 2239841 | 66,686 | 53,249 | 53,031 | 45,461 | 37,032 | 30,917 | 30,103 | 28,845 | 31,264 | 41,550 | 48,521 | 62,684 | 529,344 | 1,043 | 1,009 |
| 2239845 | 45,372 | 44,396 | 45,399 | 39,079 | 38,566 | 31,873 | 33,790 | 35,037 | 33,717 | 36,404 | 34,654 | 32,789 | 451,076 | 517 | 500 |
| 2245126 | 62,090 | 55,067 | 41,602 | 36,596 | 6,091 | - | - | - | - | 14,184 | 33,569 | 57,103 | 306,300 | 859 | 831 |
| 2245129 | 15,582 | 10,984 | 6,952 | 2,166 | - | - | - | - | - | 2,553 | 4,792 | 9,031 | 52,060 | 377 | 365 |
| 2245170 | 12,679 | 9,232 | 5,863 | - | 1,262 | - | - | - | - | 890 | 3,687 | 8,794 | 42,406 | 304 | 294 |
| 2245376 | 14,021 | 10,794 | 10,039 | 7,330 | 3,603 | 1,747 | 1,266 | 1,269 | 1,798 | 5,434 | 8,466 | 10,873 | 76,638 | 204 | 197 |
| 2250841 | 66,749 | 51,585 | 33,315 | 16,546 | 3,733 | 1,853 | 1,799 | 1,600 | 1,709 | 10,323 | 20,161 | 56,537 | 265,909 | 490 | 474 |
| 2250842 | 28,282 | 22,307 | 19,483 | 12,925 | 2,333 | - | - | - | 31 | 5,770 | 13,448 | 22,611 | 127,190 | 209 | 202 |
| 2250843 | 15,602 | 12,534 | 12,290 | 10,992 | 4,999 | 878 | 682 | 1,023 | 1,621 | 7,856 | 11,033 | 13,765 | 93,276 | 266 | 257 |
| 2250845 | 17,015 | 11,789 | 7,630 | 2,847 | 96 | - | - | - | - | 845 | 8,836 | 10,970 | 60,027 | 281 | 272 |
| 2250846 | 8,361 | 6,351 | 4,082 | 1,636 | 21 | - | - | - | - | 300 | 3,923 | 7,159 | 31,833 | 213 | 206 |
| 2250849 | 31,474 | 29,086 | 26,461 | 9,799 | - | - | - | 14 | - | 2,546 | 9,984 | 23,900 | 133,264 | 522 | 505 |
| 2250851 | 11,856 | 6,529 | 4,185 | 1,034 | 237 | - | - | - | - | 341 | 3,925 | 10,529 | 38,637 | 152 | 147 |
| 2250854 | 101,132 | 75,038 | 60,282 | 41,810 | 1,116 |  |  |  |  | 17,860 | 52,776 | 91,907 | 441,919 | 784 | 758 |


| 2250855 | 35,158 | 21,871 | 15,572 | 4,220 | - | - | 21 | - | 10 | 2,563 | 11,224 | - | 90,640 | 843 | 815 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2250857 | 63,517 | 45,900 | 40,479 | 30,873 | 9,986 | 4,753 | 4,394 | 4,403 | 4,599 | 23,329 | 33,408 | 51,041 | 316,682 | 479 | 463 |
| 2250858 | 15,355 | 11,595 | 9,093 | 6,734 | 154 | - | - | - | - | 2,656 | 6,417 | 11,638 | 63,642 | 272 | 263 |
| 2250859 | 22,333 | 15,261 | 10,841 | 7,932 | 5,978 | 5,258 | 4,589 | - | - | - | - | - | 72,190 | 346 | 335 |
| 2250860 | - | 16,021 | - | - | - | - | - | - | - | - | - | - | 16,021 | 375 | 363 |
| 2250862 | 52,840 | 44,490 | 41,828 | 26,273 | 900 | - | - | - | 141 | 34,824 | 38,239 | 54,851 | 294,386 | 663 | 641 |
| 2250863 | 82,233 | 57,814 | 44,716 | 30,164 | 13,563 | 7,517 | 7,057 | 6,815 | 7,540 | 22,739 | 36,598 | 63,166 | 379,923 | 173 | 167 |
| 2250864 | 20,911 | 13,634 | 8,453 | 6,145 | 5,100 | - | - | - | - | 1,735 | 7,244 | 15,089 | 78,311 | 591 | 572 |
| 2250865 | 102,190 | 81,017 | 76,416 | 67,119 | 52,796 | 45,850 | 42,484 | 46,699 | 52,151 | 59,642 | 67,010 | 88,215 | 781,587 | 1,325 | 1,281 |
| 2253387 | 96,440 | 37,452 | 19,103 | 61,223 | 48,541 | 78,858 | 100,686 | 110,349 | 650 | 3,986 | 97 | 4,571 | 561,954 | 1,752 | 1,693 |
| 2253388 | 75,230 | 29,234 | 15,593 | 49,523 | 39,797 | 62,951 | 81,072 | 88,531 | 512 | 3,169 | 83 | 3,442 | 449,137 | 1,752 | 1,693 |
| 2269417 | 17,759 | 15,592 | 17,614 | 16,594 | 14,339 | 13,564 | 12,516 | - | - | - | 51,546 | 13,717 | 173,242 | 178 | 172 |
| 2269419 | 23,482 | 20,370 | 23,349 | 21,843 | 18,912 | 17,891 | 16,610 | 16,539 | 14,247 | 18,352 | 19,364 | 18,253 | 229,213 | 178 | 172 |
| 2269422 | 24,627 | 19,805 | 17,765 | 14,031 | 9,371 | 8,416 | 8,803 | 9,419 | 9,488 | 11,853 | 16,858 | 19,573 | 170,007 | 1,325 | 1,281 |
| 2269427 | 7,998 | 5,775 | 3,413 | 1,119 | - | - | - | - | - | 297 | 2,391 | 6,254 | 27,247 | 269 | 260 |
| 2282358 | 11,601 | 9,360 | 8,491 | 4,240 | 950 | 1,332 | 1,422 | 1,306 | 1,476 | 7,621 | 8,267 | 10,132 | 66,198 | 96 | 93 |
| 2282382 | 13,244 | 8,718 | 6,399 | 3,598 | 474 | - | - | - | - | 2,966 | 6,091 | 10,019 | 51,509 | 163 | 158 |
| 2284988 | 1,542,573 | 1,245,276 | 1,451,219 | 1,426,131 | 1,366,535 | 1,097,948 | 1,320,893 | 1,204,968 | 515,504 | 1,295,276 | 1,380,261 | 1,349,508 | 15,196,093 | 17,957 | 17,367 |
| 2290189 | 9,547 | 14,729 | 11,223 | 6,696 | 297 | 1 | 2 | - | 1 | 112 | 5,428 | 11,804 | 59,842 | 309 | 299 |
| 2290191 | 42,418 | 32,836 | 31,338 | 22,993 | 20,752 | 19,174 | 16,820 | 17,851 | 18,730 | 26,391 | 35,320 | 45,928 | 330,552 | 254 | 245 |
| 2290193 | 14,584 | 10,869 | 6,901 | 3,484 | 30 | 4 | 4 | 5 | 3 | 2,200 | 6,138 | 11,387 | 55,608 | 383 | 370 |
| 2290197 | 95,600 | 87,577 | 57,600 | 89,958 | 81,421 | 83,666 | 76,914 | 76,132 | 84,602 | 82,364 | 86,161 | 91,735 | 993,727 | 1,151 | 1,113 |
| 2290202 | 46,700 | 51,563 | 49,644 | 48,729 | 44,838 | 39,283 | 22,798 | 33,065 | 38,620 | 45,216 | 46,991 | 41,525 | 508,973 | 503 | 486 |
| 2290203 | - | - | - | - | - | - | 1,354 | 9,516 | 11,256 | 2,822 | - | - | 24,947 | 1,424 | 1,377 |
| 2290204 | 28,349 | 25,691 | 17,433 | 7,794 | - | - | - | - | 10 | 2,295 | 11,201 | 24,233 | 117,008 | 461 | 446 |
| 2290205 | 31,329 | 27,599 | 21,980 | 15,511 | - | - | - | - | 174 | 6,864 | 15,921 | 30,629 | 150,007 | 573 | 554 |
| 2290206 | 18,007 | 11,644 | 6,989 | 4,644 | 1,567 | - | - | - | - | 3,071 | 5,229 | 12,283 | 63,435 | 280 | 271 |
| 2290210 | 12,410 | 16,320 | - | - | 45,680 | 18,610 | 16,910 | 18,070 | 16,710 | 17,380 | 14,580 | 14,550 | 191,220 | - | - |
| 2290211 | 50,697 | 38,113 | - | - | - | - | - | - | - | - | - | - | 88,810 | 1,046 | 1,012 |
| 2290212 | 30,651 | 20,680 | 14,024 | 3,169 | 139 | - | - | - | - | 1,988 | 12,868 | 23,175 | 106,695 | 384 | 371 |
| 2290213 | 59,059 | 37,904 | 28,042 | 9,910 | 1,112 | - | - | - | 552 | 5,797 | 22,066 | 44,759 | 209,199 | 472 | 456 |
| 2290214 | 19,919 | 18,288 | 20,063 | 17,360 | 17,572 | 15,510 | 13,303 | 15,427 | 14,858 | 18,574 | 17,696 | 17,516 | 206,084 | 626 | 605 |
| 2290218 | 34,252 | 21,736 | 22,984 | 16,139 | 7,487 | 5,617 | 5,974 | 6,127 | 5,762 | 11,206 | 19,485 | 29,447 | 186,217 | 565 | 545 |
| 2290220 | 66,088 | 50,337 | 39,139 | 33,088 | 19,354 | 16,264 | 12,590 | 13,235 | 13,497 | 26,248 | 32,552 | 54,492 | 376,884 | 400 | 386 |
| 2291727 | 8,013 | 5,443 | 6,106 | 5,354 | 1,490 | - | - | - | 7 | - | - | - | 26,414 | 130 | 126 |
| 2294826 | 27,477 | 21,360 | 14,272 | 5,303 | 661 | - | - | - | - | 2,318 | 13,259 | 25,406 | 110,056 | 524 | 507 |
| 2297254 | 4,752 | 3,886 | 5,517 | 5,529 | 5,979 | 5,541 | 5,436 | 5,973 | 5,695 | 5,431 | 5,453 | 5,335 | 64,527 | 132 | 128 |
| 2297258 | 33,660 | 22,516 | 16,024 | 8,969 | 7,248 | 6,113 | 4,863 | 4,610 | 4,939 | - | 21,101 | 25,860 | 155,903 | 215 | 208 |
| 2311892 | 4,539 | 3,689 | 3,365 | 2,641 | 2,048 | 759 | 595 | 619 | 871 | 1,273 | 2,034 | 3,127 | 25,561 | 73 | 71 |
| 2311911 | 9,189 | 6,806 | 5,486 | 3,855 | 1,378 | 735 | 647 | 619 | 931 | 2,678 | 4,340 | 7,549 | 44,214 | 31 | 30 |
| 2311918 | 13,465 | 11,673 | 8,605 | 1,576 | - | - | - | - | - | 2,628 | 4,798 | 9,985 | 52,729 | 251 | 243 |
| 2322195 | - | - | - | 28,642 | 21,484 | 13,730 | 12,885 | 12,908 | 12,514 | 18,468 | 36,646 | 57,653 | 214,929 | 980 | 947 |

## 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 schedule attached to the response to 53.64(c)(8), Tab \#7, which also provides the monthly end-user transportation through-put by customer.

Tab 9

## Philadelphia Gas Works

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

Item 53.64(c)
Thirty days prior to the filing of a tariff reflecting an increase or decrease in natural gas costs, each Section 1307(f) gas utility seeking recovery of purchased gas costs under that section shall provide notice to the public, under § 53.68 (relating to notice requirements), and shall file the following supporting information with the Commission, with a copy to the Consumer Advocate, Small Business Advocate and to intervenors upon request:
(10) A schematic system map, locating and identifying by name, the pressure and capacity of all interstate or intrastate transmission pipeline connections, compressor stations, utility transmission or distribution mains 6 inches or larger in size, storage facilities, including maximum daily injection and withdrawal rates, production fields, and each individual supply or transportation customer which represents $5 \%$ or more of total system throughput in a month. Each customer or account shall be identified solely by a unique alphanumeric code, the key to which may be provided subject to § 5.423.

## Response:

Following the lead of the industry, as well as federal policy guidelines regarding the security of information relating to energy transmission sites, PGW will no longer provide this data to the general public. However, upon request PGW will provide this information to the Commission and will also provide access to this information at a PGW facility of the Company's choosing, 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 1307(f) March 1, 2023 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 the most recent 5-years covering Winters 2017-2018 through 2021-2022.

Schedule 2 - Identifies a listing of gas interruptions for the most recent 5years covering Winters 2017-2018 through 2021-2022, their duration and the high, low and average temperatures for each day that the interruption was in effect.

## 3 DAY PEAK ANALYSIS

| Winter |  | Average | Hi | Low | Total | Firm | Cogen | IT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Peak Season | Date | Temp. | Temp. | Temp. | Sendout (mcfs) | Sendout | Sendout Sendout |  |


| 2017-2018 | Jan 5 | 15 | 19 | 10 | 625,642 | 547,239 | 44 | 78,359 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2017-2018 | Jan 6 | 13 | 16 | 8 | 639,043 | 565,130 | 44 | 73,869 |
| 2017-2018 | Jan 7 | 20 | 27 | 9 | 582,222 | 516,455 | 44 | 65,723 |
| 2018-2019 | Jan 30 | 16 | 37 | 7 | 584,172 | 500,209 | 43 | 83,920 |
| 2018-2019 | Jan 31 | 17 | 20 | 11 | 609,241 | 522,948 | 43 | 86,250 |
| 2018-2019 | Feb 1 | 18 | 25 | 15 | 586,904 | 503,748 | 43 | 83,113 |
| 2019-2020 | Dec 18 | 31 | 42 | 23 | 435,785 | 374,997 | 45 | 60,743 |
| 2019-2020 | Dec 19 | 30 | 33 | 25 | 461,382 | 398,876 | 45 | 62,461 |
| 2019-2020 | Dec 20 | 33 | 37 | 29 | 417,993 | 362,084 | 45 | 55,864 |
| 2020-2021 | Jan 28 | 29 | 36 | 25 | 455,995 | 397,133 | 45 | 58,817 |
| 2020-2021 | Jan 29 | 26 | 31 | 22 | 495,584 | 435,311 | 45 | 60,228 |
| 2020-2021 | Jan 30 | 32 | 36 | 27 | 426,177 | 372,796 | 45 | 53,336 |
| 2021-2022 | Jan 29 | 16 | 24 | 11 | 531,582 | 474,039 | 42 | 57,501 |
| 2021-2022 | Jan 30 | 23 | 27 | 17 | 490,112 | 434,209 | 42 | 55,861 |
| 2021-2022 | Jan 31 | 27 | 34 | 23 | 454,674 | 397,965 | 42 | 56,667 |

## GAS INTERRUPTIONS

| Winter <br> Peak Season | Date | Average Temp. | $\begin{gathered} \mathrm{Hi} \\ \text { Temp. } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Low } \\ \text { Temp. } \\ \hline \end{gathered}$ | Total <br> Sendout (mcfs) | Firm <br> Sendout | Cogen <br> Sendout | LBS Sendout | BPS <br> Sendout | GTS <br> Sendout | $\begin{gathered} \text { IT } \\ \text { Sendout } \\ \hline \end{gathered}$ | GRAYS <br> FERRY <br> Sendout (mcfs) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

No interruptions occurred between September 1, 2017 and January 1, 2023

Tab 12

## 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 to Item 53.64(c)(14) is Siemans Peak Day Regression Model Review dated January 14, 2019, 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 17-18 through FY 21-22 which would reflect the most current consumption behaviors of its customers. This period yielded 46 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 $\mathrm{R}^{2}$ (Correlation Coefficient) indicates a 67.3 \% correlation between firm sendout and degree-days. The multiple regression correlation co-efficient, $\mathrm{R}^{2}$, is a measure of the proportion of variability explained by, or due to the regression (linear relationship) in a sample of paired data. It is a number between zero and one and a value close to zero suggests a poor model.

To verify the level of confidence we can ascribe to the model, we developed the attached Linear Regression Confidence Level Table. Essentially, this table compares the actual versus projected sendout to determine the level of variance expressed as a standard deviation. A standard deviation represents the positive square root of the variance where the variance simply represents the dispersion about the mean. In this analysis the sample standard deviation is 35,151 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 65 data points and there were 63 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 685,131 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 18-22 Data for Daily Temperatures <= 32 Degrees Fahrenheit
W/O Holidays, Weekends

|  |  | Daily | Degree Days |
| :---: | :---: | :---: | :---: |
| Day | Date | Temp | $\underline{\text { x }}$ |
| Wednesday | 12/13/2017 | 31 | 34 |
| Thursday | 12/14/2017 | 31 | 34 |
| Friday | 12/15/2017 | 28 | 37 |
| Tuesday | 12/26/2017 | 29 | 36 |
| Wednesday | 12/27/2017 | 23 | 42 |
| Thursday | 12/28/2017 | 19 | 46 |
| Friday | 12/29/2017 | 22 | 43 |
| Tuesday | 1/2/2018 | 23 | 42 |
| Wednesday | 1/3/2018 | 28 | 37 |
| Thursday | 1/4/2018 | 21 | 44 |
| Friday | 1/5/2018 | 15 | 50 |
| Monday | 1/15/2018 | 31 | 34 |
| Wednesday | 1/17/2018 | 26 | 39 |
| Thursday | 1/18/2018 | 32 | 33 |
| Tuesday | 1/30/2018 | 30 | 35 |
| Wednesday | 1/31/2018 | 32 | 33 |
| Friday | 2/2/2018 | 25 | 40 |
| Monday | 2/5/2018 | 32 | 33 |
| Thursday | 2/8/2018 | 31 | 34 |
| Thursday | 12/20/2018 | 32 | 33 |
| Friday | 1/11/2019 | 30 | 35 |
| Monday | 1/14/2019 | 32 | 33 |
| Tuesday | 1/22/2019 | 32 | 33 |
| Monday | 1/28/2019 | 31 | 34 |
| Wednesday | 1/30/2019 | 16 | 49 |
| Thursday | 1/31/2019 | 17 | 48 |
| Friday | 2/1/2019 | 18 | 47 |
| Monday | 3/4/2019 | 32 | 33 |
| Tuesday | 3/5/2019 | 28 | 37 |
| Wednesday | 3/6/2019 | 26 | 39 |
| Wednesday | 12/18/2019 | 31 | 34 |
| Thursday | 12/19/2019 | 30 | 35 |
| Friday | 1/17/2020 | 30 | 35 |
| Monday | 1/20/2020 | 30 | 35 |
| Tuesday | 1/21/2020 | 30 | 35 |
| Friday | 2/14/2020 | 28 | 37 |
| Wednesday | 12/16/2020 | 32 | 33 |
| Thursday | 12/17/2020 | 32 | 33 |
| Friday | 12/18/2020 | 31 | 34 |
| Thursday | 1/28/2021 | 29 | 36 |
| Friday | 1/29/2021 | 26 | 39 |
| Monday | 2/8/2021 | 31 | 34 |
| Thursday | 2/11/2021 | 31 | 34 |
| Friday | 2/12/2021 | 32 | 33 |
| Wednesday | 2/17/2021 | 32 | 33 |
| Thursday | 2/18/2021 | 31 | 34 |
| Friday | 11/19/2021 | 30 | 35 |
| Monday | 12/20/2021 | 32 | 33 |


| $\underline{\times \wedge}$ | Actual Firm Sendout (Mcf) | Firm Sendout Per DD (Mcf) |
| :---: | :---: | :---: |
| 39,304 | 356,549 | 10,487 |
| 39,304 | 354,093 | 10,415 |
| 50,653 | 375,049 | 10,136 |
| 46,656 | 373,407 | 10,372 |
| 74,088 | 436,899 | 10,402 |
| 97,336 | 475,927 | 10,346 |
| 79,507 | 451,955 | 10,511 |
| 74,088 | 481,485 | 11,464 |
| 50,653 | 412,195 | 11,140 |
| 85,184 | 490,882 | 11,156 |
| 125,000 | 544,956 | 10,899 |
| 39,304 | 394,810 | 11,612 |
| 59,319 | 411,626 | 10,555 |
| 35,937 | 379,044 | 11,486 |
| 42,875 | 383,370 | 10,953 |
| 35,937 | 358,262 | 10,856 |
| 64,000 | 418,656 | 10,466 |
| 35,937 | 344,431 | 10,437 |
| 39,304 | 354,509 | 10,427 |
| 35,937 | 201,788 | 6,115 |
| 42,875 | 373,059 | 10,659 |
| 35,937 | 359,888 | 10,906 |
| 35,937 | 411,860 | 12,481 |
| 39,304 | 359,583 | 10,576 |
| 117,649 | 500,210 | 10,208 |
| 110,592 | 522,949 | 10,895 |
| 103,823 | 503,750 | 10,718 |
| 35,937 | 344,300 | 10,433 |
| 50,653 | 374,021 | 10,109 |
| 59,319 | 424,011 | 10,872 |
| 39,304 | 374,998 | 11,029 |
| 42,875 | 398,878 | 11,397 |
| 42,875 | 376,010 | 10,743 |
| 42,875 | 392,770 | 11,222 |
| 42,875 | 368,945 | 10,541 |
| 50,653 | 379,882 | 10,267 |
| 35,937 | 350,544 | 10,623 |
| 35,937 | 340,535 | 10,319 |
| 39,304 | 351,024 | 10,324 |
| 46,656 | 397,132 | 11,031 |
| 59,319 | 435,311 | 11,162 |
| 39,304 | 369,099 | 10,856 |
| 39,304 | 372,372 | 10,952 |
| 35,937 | 382,510 | 11,591 |
| 35,937 | 361,205 | 10,946 |
| 39,304 | 378,931 | 11,145 |
| 42,875 | 216,017 | 6,172 |
| 35,937 | 306,660 | 9,293 |

SDS 5

|  | $\begin{aligned} & \text { SDS } 5 \\ & 1 \text { of } 6 \end{aligned}$ |  |
| :---: | :---: | :---: |
| inear | Quadratic | Cubic |
| Projected | Projected | Projected |
| Firm Sendou | Firm Sendout | irm Sendout |
| (Mcf) | (Mcf) | M |
| 353,389 | 354,435 | 354,496 |
| 353,389 | 354,435 | 354,496 |
| 385,493 | 382,701 | 383,129 |
| 374,792 | 372,985 | 373,420 |
| 439,000 | 435,684 | 435,199 |
| 481,805 | 483,356 | 482,685 |
| 449,701 | 447,161 | 446,505 |
| 439,000 | 435,684 | 435,199 |
| 385,493 | 382,701 | 383,129 |
| 460,402 | 458,932 | 458,170 |
| 524,610 | 535,726 | 537,200 |
| 353,389 | 354,435 | 354,496 |
| 406,896 | 403,013 | 403,171 |
| 342,687 | 345,600 | 345,226 |
| 364,090 | 363,563 | 363,885 |
| 342,687 | 345,600 | 345,226 |
| 417,597 | 413,610 | 413,559 |
| 342,687 | 345,600 | 345,226 |
| 353,389 | 354,435 | 354,496 |
| 342,687 | 345,600 | 345,226 |
| 364,090 | 363,563 | 363,885 |
| 342,687 | 345,600 | 345,226 |
| 342,687 | 345,600 | 345,226 |
| 353,389 | 354,435 | 354,496 |
| 513,909 | 522,193 | 522,819 |
| 503,208 | 508,954 | 508,958 |
| 492,506 | 496,008 | 495,588 |
| 342,687 | 345,600 | 345,226 |
| 385,493 | 382,701 | 383,129 |
| 406,896 | 403,013 | 403,171 |
| 353,389 | 354,435 | 354,496 |
| 364,090 | 363,563 | 363,885 |
| 364,090 | 363,563 | 363,885 |
| 364,090 | 363,563 | 363,885 |
| 364,090 | 363,563 | 363,885 |
| 385,493 | 382,701 | 383,129 |
| 342,687 | 345,600 | 345,226 |
| 342,687 | 345,600 | 345,226 |
| 353,389 | 354,435 | 354,496 |
| 374,792 | 372,985 | 373,420 |
| 406,896 | 403,013 | 403,171 |
| 353,389 | 354,435 | 354,496 |
| 353,389 | 354,435 | 354,496 |
| 342,687 | 345,600 | 345,226 |
| 342,687 | 345,600 | 345,226 |
| 353,389 | 354,435 | 354,496 |
| 364,090 | 363,563 | 363,885 |
| 342,687 | 345,600 | 345,226 |


| Monday | 1/3/2022 | 26 | 39 | 1,521 | 59,319 | 365,358 | 9,368 | 406,896 | 403,013 | 403,171 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tuesday | 1/4/2022 | 30 | 35 | 1,225 | 42,875 | 339,526 | 9,701 | 364,090 | 363,563 | 363,885 |
| Friday | 1/7/2022 | 26 | 39 | 1,521 | 59,319 | 382,125 | 9,798 | 406,896 | 403,013 | 403,171 |
| Monday | 1/10/2022 | 25 | 40 | 1,600 | 64,000 | 395,917 | 9,898 | 417,597 | 413,610 | 413,559 |
| Tuesday | 1/11/2022 | 22 | 43 | 1,849 | 79,507 | 430,736 | 10,017 | 449,701 | 447,161 | 446,505 |
| Friday | 1/14/2022 | 30 | 35 | 1,225 | 42,875 | 347,603 | 9,932 | 364,090 | 363,563 | 363,885 |
| Thursday | 1/20/2022 | 26 | 39 | 1,521 | 59,319 | 401,778 | 10,302 | 406,896 | 403,013 | 403,171 |
| Friday | 1/21/2022 | 20 | 45 | 2,025 | 91,125 | 452,113 | 10,047 | 471,104 | 470,997 | 470,221 |
| Tuesday | 1/25/2022 | 32 | 33 | 1,089 | 35,937 | 335,127 | 10,155 | 342,687 | 345,600 | 345,226 |
| Wednesday | 1/26/2022 | 23 | 42 | 1,764 | 74,088 | 408,142 | 9,718 | 439,000 | 435,684 | 435,199 |
| Thursday | 1/27/2022 | 29 | 36 | 1,296 | 46,656 | 370,394 | 10,289 | 374,792 | 372,985 | 373,420 |
| Friday | 1/28/2022 | 29 | 36 | 1,296 | 46,656 | 358,284 | 9,952 | 374,792 | 372,985 | 373,420 |
| Monday | 1/31/2022 | 27 | 38 | 1,444 | 54,872 | 397,965 | 10,473 | 396,194 | 392,710 | 393,037 |
| Monday | 2/14/2022 | 23 | 42 | 1,764 | 74,088 | 415,935 | 9,903 | 439,000 | 435,684 | 435,199 |
| Tuesday | 2/15/2022 | 29 | 36 | 1,296 | 46,656 | 376,714 | 10,464 | 374,792 | 372,985 | 373,420 |
| Thursday | 2/24/2022 | 32 | 33 | 1,089 | 35,937 | 306,964 | 9,302 | 342,687 | 345,600 | 345,226 |
| Monday | 3/28/2022 | 29 | 36 | 1,296 | 46,656 | 363,722 | 10,103 | 374,792 | 372,985 | 373,420 |
|  |  |  | 65 | 4,225 | 274,625 | 387,304 | 10,417 | 685,131 | 773,959 | 833,309 |
|  |  |  | Count | 65 |  |  |  |  |  |  |

## Firm Sendout Projection Based Data From 18-22 Data for Daily Temperatures <= 32 Degrees Fahrenheit

R Squared
0.673398
0.676192
0.676243

| Change | Student's T |
| ---: | ---: | ---: |
| 0.673398 | 11.397174 |
| 0.002794 | 0.731370 |
| 0.000051 | 0.097933 |


|  |  | SDS 5 <br> 2of 6 |
| :---: | :---: | :---: |
| Degrees of |  |  |
| Freedom |  |  |$\quad$| Critical |
| :---: | :---: | :---: |
| Value |$\quad$| @ 97.5\% |
| :---: |
| Significant |

685,131
524,610
"s $T=$ Square Root[(Increase * Degrees of Freedom)/(1-R Squared)]

$$
\text { Linear SO }=\text { Constant }+(X * X \text { Coefficient })
$$

dratic SO $=$ Constant $+\left(X^{*} X\right.$ Coeff $)+(X 1 u 2 \star X 1 u 2$ Coeff $)$
:tant + ( $X^{*}$ X Coeff) + (X1u2』 X1u2 Coeff) $+(X 1 u 3 \star$ X1u3Coeff $)$


## Regression Results

Winter 18-22
Based On Data for Daily Temperatures $<=32$ Degrees Fahrenheit

| Regression Output: |  | Quadratic |  | Cubic |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Regression Output: |  | Regression Output: |  | Regression Output: |  |  |  |  |
| Constant | $(10,457)$ | Constant |  | 218,789 | Constant |  | $(67,697)$ |  |
| Std Err of Y Est | 35,151 | Std Err of Y Est |  | 315,427 | Std Err of Y Est |  | 2,942,548 |  |
| R Squared | 0.6734 | R Squared |  | 1 | R Squared |  |  |  |
| No. of Observations | 65 | No. of Observations |  | 65 | No. of Observations |  | 65 |  |
| Degrees of Freedom | 63 | Degrees of Freedom |  | 62 | Degrees of Freedom |  | 61 |  |
|  |  |  | X | X^2 |  | X | $\mathrm{x}^{\wedge} 2$ | X^3 |
| X Coefficient(s) 10,701 |  | X Coefficient(s) | -1002.3958 | 147 | X Coefficient(s) | 20,639 | (393) | 4 |
| Std Err of Coef. $\quad 939$ |  | Std Err of Coef. | 16030.2247 | 201 | Std Err of Coef. | 221,574 | 5,513 | 45 |
| Zero Degree Temp Sendout | 685,131 |  |  | 773,959 |  |  | 833,309 |  |
| DD 65 |  |  |  |  |  |  |  |  |

Regression Chart Analysis
Based Upon Data For Temperatures Of <=32 Degrees F.
Winters 19-22




## Linear Regression Output

| Constant |  | $(10,457)$ |
| :--- | ---: | ---: |
| Std. Error of Y Estimate |  | 35,151 |
| R Squared |  | 0.673 |
| Number of Observations |  | 65 |
| Degrees of Freedom |  | 63 |
|  | 10701 |  |
| X Coefficient | 939 |  |
| Std. Err. Of Coefficeint |  |  |
|  |  |  |

Quadratic Regression Output
Constant
218,789
315,427
0.676

65
R Squared
Number of Observations 62
Degrees of Freedom
X Coefficient
Std. Err. Of Coefficeint
X
$(1,002)$ 16,030
$x^{\wedge} 2$
147
201

## Cubic Regression Output

Constant
$(67,697)$
Std. Error of Y Estimate
R Squared 2,942,548
0.676

Number of Observations 65
Degrees of Freedom
X Coefficient Std. Err. Of Coefficeint

221574
$x^{\wedge} 3$
X ^ 2
(393)

5513

4
45


Acceptance Range @ 1 Standard Deviation

| Regression Squared | $1,108,400,091$ |
| :--- | ---: |
| Regression | 33,293 |
|  |  |
| Upper Range 1sd | 420,597 |
| Lower Range 1sd | 354,011 |



## Acceptance Range @ 2 Standard Deviation

| Regression Squared | $1,108,400,091$ |
| :--- | ---: |
| Regression | 33,293 |
|  |  |
| Upper Range 2sd | 453,889 |
| Lower Range 2sd | 320,719 |



Confidence Interval: 97.5\%

| Regression Squared | $1,108,400,091$ |
| :--- | ---: |
| Standard error of sendout projection | 33,817 |
|  | 37 |
| X Mean | 2.01 |

Tab 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:
(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 Siemans Peak Day Regression Model Review dated January 14, 2019.

## SIEMENS

## Ingenuity for life

## Memo to: Philadelphia Gas Work (PGW)

From: Holt Bradshaw, Amit Gohil
DATE: $\quad 1 / 14 / 2019$
Subject: PGW's Peak Day Regression Model Review
This memorandum describes Siemens' assessment of the PGWs peak day regression analysis, and an evaluation of the regression models developed by PGW.

## Executive Summary

We carried out the evaluation of the three regression models provided by PGW in two steps - the first step was the preliminary (or intuitive) evaluation; and the second step was the more rigorous evaluation to test the statistical validity of the regression parameters and the overall model. We also carried out an independent regression analysis using MS Excel based on the weather and send out data provided by PGW and verified the completeness and accuracy of the regression parameters and the associated statistical results for each of the three regression models developed by PGW.

We also believe that the selection of the zero degree day condition for planning purposes is prudent given that the probability of the actual system send out exceeding the capacity as predicted by the zero degree day condition is extremely low (once in 80 years).

In our preliminary evaluation, we concluded that the Linear model confirms the intuitive positive relationship between severity of weather, as measured by HDDs, and natural gas demand. It also explains over $75 \%$ of the historical variability observed in peak send outs. Adding polynomials of higher orders to the liner model does not improve the "goodness of fit" as measured by Adjusted $R^{2}$. So, we conclude that the Linear model is preferred based on our preliminary evaluation.

Next, we conducted tests for statistical significance of the regression coefficients and the overall regression model. The Linear, Quadratic, and Cubic regression models that PGW developed are progressively nested. While comparing nested models, where an additional independent variable is added to the regression model, the t-test performs better than the overall F-test. The t-tests indicated that the regression coefficients of independent variables such as HDD ${ }^{2}$ and HDD ${ }^{3}$ (see Table 1) in the Quadratic and Cubic models cannot be statistically claimed to be different from zero.

A good, parsimonious regression model is preferred over complicated models with multiple independent variables, especially when these variables do not add to the explanatory or predictive value of the model. In the light of the statistical tests, we recommend that PGW use the Linear regression model specified in Table 1.

## SIEMENS <br> Ingenuity for life

In summary, after our evaluation of PGW's regression models, we conclude that the Linear Model developed by PGW is fit for the purpose it is required to serve, which is to reliably predict the peak requirements that PGW's system should be prepared to serve during a design winter scenario.

## PGW's Peak Day Analysis

PGW performs a peak day analysis on an annual basis to determine its projected send out requirements during peak conditions. Essentially this process is completed by collecting send out 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 send out to arrive at firm send out on a daily basis.

For this analysis, PGW utilized data from the period winter of FY 15-16 through FY 18-19 which would reflect the most current consumption behaviors of its customers. This period yielded 51 data points where the average temperature was at or below 32 degrees Fahrenheit. A standard linear regression was performed on the data using the calculated Heating Degree-Days (HDDs) and the actual firm daily send out 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. The resulting models are presented in the following table.

Table 1: PGW's Regression Models

| Linear | $\mathrm{y}=-20,428.25+11,020.93 x$ | where $\mathrm{y}=$ actual <br> firm send out in |
| :--- | :---: | :--- |
| Quadratic | $\mathrm{y}=-17,841.06+10,889.99 x+1.63 x^{2}$ | Mcf; $x=H D D ;$ |
| Cubic | $\mathrm{y}=-302,369.81+32,332.30 x-531.69 x^{2}+4.38 x^{3}$ | $x^{2}=H D D^{2} ;$ and <br> $x^{3}=H D D^{3}$ |

## Source: PGW

PGW performs its capacity planning using the "Design Day" methodology, which assumes that peak demand for planning purposes occurs on the day(s) when the average daily temperature is 0 degree Fahrenheit - this is equivalent to a winter day with 65 heating degree days (HDDs). As can be seen from Exhibit 1, the probability of meeting design day conditions remains approximately once in 80 years based on the data from National Oceanic and Atmospheric Administration (NOAA). This probability may even be lower given the historical data only consider data from the past 80 years. Selection of such a low probability event, to determine the largest amount of gas that PGW must deliver to meet system requirements and maintain system integrity, is prudent in our opinion.

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Exhibit 1: Coldest Days in Philadelphia By Year


Source: National Climatic Data Center (NCDC), National Oceanic and Atmospheric Administration (NOAA)

In the following sections, we review the underlying methodology of PGW's Linear, Quadratic, and Cubic models, evaluate their relative statistical significance and present our observations and recommendations.

We carry out the evaluation of the regression model in two steps - the first step is the preliminary (or sometimes referred to as intuitive) evaluation; and the second step is the more rigorous evaluation to test the statistical validity of the regression parameters and the overall model.

## Preliminary Evaluation

In our preliminary evaluation, we are testing if the dependent variable can be intuitively explained by the independent variable(s) considered in the regression model(s). In the Peak Day Analysis, PGW's actual firm send out on the peak day is the explained (or dependent) variable, whereas the HDDs representing the number of degrees that a day's average temperature is below $65^{\circ}$ Fahrenheit, which is the temperature below which buildings need to be heated, is the independent variable. The scatter plot presented in Exhibit 2 provides reasonable visual evidence of a linear relationship between the 2 variables. In addition to the linear relationship, PGW has considered a quadratic and cubic relationship between the firm send out and HDDs.

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Exhibit 2: Scatter Plot


Source: PGW
In our preliminary evaluation, we also examine the Coefficient of Determination or commonly known as the $R^{2}$. For the Quadratic and Cubic models, we use the $R^{2}$ adjusted for the number of terms in the model. The $R^{2}$ or the Adjusted $R^{2}$ measures the percentage of variation in the dependent variable that can be explained by the variation in the independent variables in the regression model. We also examine the magnitude and sign of each regression coefficient and the results are presented in the table below.

Table 2: Preliminary Evaluation Results

| Regression <br> Model | $\%$ Variation Explained | Effect on Explained Variable |
| :--- | :--- | :--- |
| Linear | $75.44 \%$ of variation in send out explained by <br> $H D D S$ | Send out positively affected by $H D D$ |
| Quadratic | $74.41 \%$ of variation in send out explained by a <br> combination of $H D D$, and $H D D^{2}$ variables | Send out positively affected by $H D D$ <br> and $H D D^{2}$ variables |
| Cubic | $73.88 \%$ of variation in send out explained by a <br> combination of $H D D, H D D^{2}$, and $H D D^{3}$ variables | Send out positively affected by $H D D$, <br> negatively affected by $H D D^{2}$, and <br> positively affected by $H D D^{3}$ <br> variables |

## Source: PGW

As can be seen from Table 2, adding polynomials of higher orders to the regression equation does not improve the "goodness of fit" as measured by Adjusted $\mathrm{R}^{2}$. The Linear model confirms the intuitive positive relationship between severity of weather, as measured by HDDs, and

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natural gas load. It also explains a large portion of the historical variability observed in peak send outs, so it is the preferred model based on our preliminary evaluation.

Next, we perform a more rigorous statistical evaluation of the 3 models.

## Statistical Evaluation

## Testing for Statistical Significance of Slope Coefficients

The second step in our evaluation is to test for statistical significance of the coefficients of the independent variables in the regression models. It should be noted that the regression analysis only provides point estimates of these regression coefficients, so it becomes important to statistically test how representative are these of the true coefficients. This is achieved by computing confidence intervals for the regression coefficients and conducting hypothesis testing using p -values.

## Confidence Intervals

To determine whether the independent variable(s) truly have an effect on the explained variable, we find a confidence interval around the point estimates of each of the coefficients of the independent variables in the regression. If the confidence interval contains 0 , then we have significant statistical evidence to believe that the independent variable in question has no effect on the dependent variable. The $97.5 \%$ confidence intervals displayed in Table 3 are calculated using:

$$
(\text { point estimate }) \pm(t-\text { critical value }) \times(\text { standard error })
$$

with $n-k$ degrees of freedom, where $k$ is the number of parameters that are being estimated (number of regression coefficients in this case).

Table 3: Confidence Intervals Surrounding the Regression Coefficients

| Model | HDD |  | HDD $^{2}$ |  | HDD $^{3}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Lower <br> Endpoint | Upper <br> Endpoint | Lower <br> Endpoint | Upper <br> Endpoint | Lower <br> Endpoint | Upper <br> Endpoint |
| Linear | $8,943.68$ | $13,098,19$ | N/A | N/A | N/A | N/A |
| Quadratic | $-23,964.40$ | $45,744.39$ | -431.44 | 434.70 | N/A | N/A |
| Cubic | $-455,118.95$ | $519,783.54$ | $-12,631.93$ | $11,568.55$ | -94.86 | 103.61 |

## Source: PGW

As can be clearly seen from Table 3, with $97.5 \%$ confidence, we cannot rule out that the coefficients of the independent variables in the Quadratic and Cubic models will not assume a value of 0 . In this instance, only the Linear model has a statistically significant coefficient which is not zero. We can be $97.5 \%$ confident, that using the Linear model a unit increase in HDD will lead to an increase in send out ranging between 8,944 and 13,098 Mcf.

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## Hypothesis Testing

In addition to the confidence intervals, we also use Hypothesis Testing to determine whether the independent variable(s) truly have an effect on the explained variable. If there is no relationship between these variables, the coefficients of the independent variables will be 0 and vice versa. In order to statistically test the relationship, we construct a hypothesis as follows:

Determine if there is overwhelming evidence at the 0.05 significance level ( $\alpha=0.05$ ) of a linear relationship between the peak day send out and the HDDs observed on that day (or HDD² or HDD3).

$$
\begin{gathered}
H_{0}: \beta_{i}=0 \\
H_{\alpha}: \beta_{i} \neq 0 \\
\alpha=0.05
\end{gathered}
$$

We will use a $t$-test with $n$-k degrees of freedom, where $k$ is the number of parameters that are being estimated (number of regression coefficients in this case). Our sample test statistic is given in the " Stat" column in Table 4. We will use the $p$-value method to test the above hypothesis. The P-value is the probability of observing a test statistic more extreme than what was observed during the regression analysis assuming that the null hypothesis is true. Thus, at a 0.05 significance level, if the p -value is less than 0.05 , we reject the null hypothesis $H_{0}$ that $\beta_{i}=0$.

Table 4: Hypothesis Testing Results

| Model | HDD |  | HDD ${ }^{2}$ |  | $\mathrm{HDD}^{3}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | t Stat | P-value | t Stat | P -value | t Stat | $\mathbf{P}$-value |
| Linear | 12.27 | - $1.4915 \mathrm{E}-16$ | N/A | N/A | N/A | N/A |
| Quadratic | 0.72 | 0.47 | 0.01 | 0.99 | N/A | N/A |
| Cubic | 0.15 | 0.88 | -0.10 | 0.92 | 0.10 | 0.92 |

Source: PGW
From the $p$-values in Table 4, it is evident that at 0.05 significance level we cannot reject the null hypothesis that the coefficient of $\mathrm{HDD}^{2}$ and $\mathrm{HDD}^{3}$ in the Quadratic and Cubic models is zero. Only the HDD coefficient in the Linear model can be concluded to be non-zero at the 0.05 significance level.

## Overall Test of Significance of the Regression Model

The F-test of overall significance indicates whether the given linear regression model provides a better fit to the data than a model that contains no independent variables (i.e. an "intercept-only" model). The $p$-values for all the three models are significantly lower than the 0.05 significance level and indicate that all the three models are statistically significant.

It should be noted that the Linear, Quadratic, and Cubic models that PGW has considered are progressively nested - the Linear model is nested within Quadratic and Cubic; the Quadratic model is nested within the Cubic model. While comparing nested models, where an additional independent variable is added to the regression model to test if the more complex model has a better fit of the given data, the $t$-test performs better than the overall F-test. As we discussed
earlier, the F-test assesses the overall significance of all the regression coefficients jointly, whereas the t-test examines each coefficient individually.

As we saw in the previous section, the t-tests have indicated that the regression coefficients of independent variables such as $\mathrm{HDD}^{2}$ and $\mathrm{HDD}^{3}$ cannot be statistically claimed to different from zero. It is always recommended that a good, parsimonious regression model is preferred over complicated models with multiple independent variables, especially when these variables do not add to the explanatory or predictive value of the model. In the light of the t-tests, we recommend that PGW use the Linear model specified in Table 1.

## Summary

As noted above, our preliminary evaluation concluded that the Linear model explains over $75 \%$ of the historical variability observed in peak send outs. Further, we noted that adding polynomials of higher orders to the liner model does not improve the "goodness of fit" as measured by Adjusted $\mathrm{R}^{2}$.

In our second analysis, we tested the statistical significance of the regression coefficients and model using the t-tests. The t-tests revealed that the regression coefficients of independent variables in the Quadratic and Cubic models cannot be statistically claimed to be different from zero. Since the analysis indicates that adding variable would not improve the statistical results, we recommend that PGW continue to use the Linear regression model specified in Table 1.

## 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 $66 \mathrm{Pa.C.S}$. (relating to determination of just and reasonable natural gas rates).

## Response:

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

CALENDAR YEAR 2022

## PHILADELPHIA GAS WORKS

C-FACTOR RECONCILIATION

| total |  |  | total |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | GCR |  | C FACTOR |  |  | C FACTOR |  | OVERI |
| NET COST | revenue | C FACTOR | revenue | LOAD BALANCING | LNG SALES GCR | Revenue | NATURAL GAS | (UNDER) |
| of fuel | BILLED | \% of GCR | BILLED | revenue | billed revenue | BILLED | REFUNDS | RECOVERY |
| 1 | 2 | 3 | 4 = ( 2 * 3) | 5 | 6 | $7=(4+5+6)$ | 8 | $9=(7+8-1)$ |
| (\$) | (\$) |  | (\$) | (\$) | (\$) | (\$) | (\$) | (\$) |

MONTH

| JANUARY 2022 | 40,605,254 | 45,391,847 | 106.3\% | 48,229,404 | 205,700 | 0 | 48,435,104 | 244 | 7,830,094 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FEBRUARY | 37,800,462 | 47,376,566 | 106.3\% | 50,338,192 | 208,528 | 0 | 50,546,720 | 0 | 12,746,258 |
| MARCH | 30,767,726 | 32,056,069 | 104.8\% | 33,591,256 | 208,725 | 0 | 33,799,981 | 0 | 3,032,254 |
| APRIL | 16,537,542 | 21,393,379 | 103.2\% | 22,082,947 | 221,239 | 0 | 22,304,187 | 0 | 5,766,645 |
| MAY | 16,333,422 | 11,286,047 | 103.2\% | 11,649,828 | 218,826 | 0 | 11,868,654 | 0 | $(4,464,769)$ |
| JUNE | 13,474,984 | 8,040,028 | 102.3\% | 8,227,416 | 196,649 | 0 | 8,424,066 | 1,971 | $(5,048,948)$ |
| JULY | 12,663,812 | 7,763,620 | 101.8\% | 7,901,380 | 212,239 | 0 | 8,113,618 | 130,858 | $(4,419,336)$ |
| AUGUST | 12,227,979 | 6,967,453 | 101.8\% | 7,091,086 | 213,544 | 0 | 7,304,630 | $(6,382)$ | $(4,929,731)$ |
| SEPTEMBER | 12,033,418 | 7,201,117 | 100.2\% | 7,214,709 | 147,057 | 0 | 7,361,766 | 0 | $(4,671,652)$ |
| OCTOBER | 18,542,581 | 12,613,579 | 98.5\% | 12,428,839 | 72,928 | 0 | 12,501,767 | 3,358 | $(6,037,456)$ |
| NOVEMBER | 24,273,210 | 21,520,311 | 98.5\% | 21,205,122 | 527,633 | 0 | 21,732,755 | 666 | $(2,539,790)$ |
| DECEMBER | 55,268,925 | 44,447,241 | 98.5\% | 43,772,315 | 232,289 | $\underline{0}$ | 44,004,603 | $\underline{0}$ | $(11,264,322)$ |
| Total | 290,529,317 | 266,057,258 |  | 273,732,494 | 2,665,356 | 0 | 276,397,850 | 130,714 | $(14,000,753)$ |

## STATEMENT OF RECONCILIATION

UNIVERSAL SERVICES \& ENERGY CONSERVATION SURCHARGE


| CRP Participation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rate Case Participation Rate |  | 80,000 |  | 80,000 |  | 80,000 |  | 80,000 |  | 80,000 |  | 80,000 |  | 80,000 |  | 80,000 |  | 80,000 |  | 80,000 |  | 80,000 |  | 80,000 |
| Actual Participation Rate* |  | 52,631 |  | 53,135 |  | 53,535 |  | 53,940 |  | 53,671 |  | 52,342 |  | 53,849 |  | 51,019 |  | 50,723 |  | 50,981 |  | 50,598 |  | 50,412 |
| CRP Under(Over) Participation |  | 27,369 |  | 26,865 |  | 26,465 |  | 26,060 |  | 26,329 |  | 27,658 |  | 26,151 |  | 28,981 |  | 29,277 |  | 29,019 |  | 29,402 |  | 29,588 |
| Average Shortfall Per CRP Participant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRP Discount | \$ | 14,374,148 | \$ | 14,937,519 | \$ | 10,869,039 | \$ | 6,467,487 | \$ | 2,084,060 | \$ | 1,347,274 | \$ | $(2,553,943)$ | \$ | $(945,850)$ | \$ | $(824,439)$ | \$ | 1,018,285 | \$ | 4,314,039 | \$ | 10,578,706 |
| Actual Participation Rate |  | 52,631 |  | 53,135 |  | 53,535 |  | 53,940 |  | 53,671 |  | 52,342 |  | 53,849 |  | 51,019 |  | 50,723 |  | 50,981 |  | 50,598 |  | 50,412 |
| Average Shorfall per CRP Participant | \$ | 273 | \$ | 281 | \$ | 203 | \$ | 120 | \$ | 39 | \$ | 26 | \$ | (47) | \$ | (19) | \$ | (16) | \$ | 20 | \$ | 85 | \$ | 210 |
| Shortfall\|* | \$ | - | \$ | - |  | - | \$ |  | \$ |  | \$ |  | \$ |  | \$ |  | \$ |  | \$ |  | \$ |  | \$ | - |
| Bad Debt Expense Offset* 5.75\% | \$ | - | \$ | - | \$ | - | \$ | - | \$ |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| *Bad Debt Expense Offset Applicable When Actual CRP Participation Exceeds 80,000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Tab 15

## 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

## Philadelphia Gas Works

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

Item 53.65(2)
Estimates of the quantity of gas, transportation or storage available to the utility from all sources.

## Response:

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

## Tab 17

## Philadelphia Gas Works

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

Item 53.65(3)
Efforts made by the utility to obtain gas, transportation or storage from nonaffiliated interests.

## Response:

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

## Tab 18

## 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 nonaffiliated interests. Also, see the response to 53.64(c)(6) outlining PGW's current least cost fuel procurement practices.

Tab 19

## Philadelphia Gas Works

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

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

## Response:

PGW has no affiliates.
PGW operates two LNG Peak shaving facilities with a total usable storage capacity of 3.9 Bcf, 18.63 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 $1,104,677 \mathrm{Mcf}$ of LNG to meet city sendout requirements during fiscal year 2022.

Tab 20

## Philadelphia Gas Works

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

## Item 1317(a)

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

## Philadelphia Gas Works

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

Item 1317(a)
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

## Philadelphia Gas Works

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

## Item 1317(a)

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

## Philadelphia Gas Works

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

## Item 1317(a)

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

## Philadelphia Gas Works

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

Item 1317(b)
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

## Philadelphia Gas Works

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

Item 1317(b)
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

## Philadelphia Gas Works

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

Item 1317(b)
Integrated gas companies.--In the case of a natural gas distribution utility which purchases all or part of its gas supplies from an affiliated interest, as that term is defined in section 2101 (relating to definition of affiliated interest), such utility shall, in addition to the materials required in subsection(a), be required to provide to the commission such information, to be established by commission regulation within 120 days of the passage of this section, that will permit the commission to make specific findings as to whether any purchases of gas from an affiliated interest are consistent with a least cost fuel procurement policy, consistent with the utility's obligation to provide safe, adequate and reliable service to its customers. Such information shall include, but need not be limited to, statements regarding:
(3) The sources and amounts of all gas supplies which have been withheld from the market by the utility or any affiliated interest and the reasons why such gas is not being utilized.

## Response:

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

Tab 27

## Philadelphia Gas Works

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

## Item 1317(c)

Reliability plans.--As part of its filing under section 1307(f) or if it is not required to make such a filing on an annual basis, a natural gas distribution company, as defined in section 2202 (relating to definitions), shall file a proposed reliability plan with the commission which shall, at a minimum, identify the following:
(1) The projected peak day and seasonal requirements of the firm customers utilizing the distribution system of the natural gas distribution company during the 12-month projected period specified in section 1307(f)(1). Where operationally required, the design peak day requirements shall be specified for discrete segments of each natural gas distribution system.

## Response:

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

Tab 28

## Philadelphia Gas Works

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

## Item 1317(c)

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

## Philadelphia Gas Works

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

## Item 1317(d)

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

## Response:

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

## Tab 30

## Philadelphia Gas Works

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

## Item 1318(a)

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)

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)

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

## Response:

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

Tab 33

## Philadelphia Gas Works

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

## Item 1318(a)

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

## Response:

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

## Tab 34

## Philadelphia Gas Works

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

## Item 1318(b)

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

## Response:

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

## Tab 35

## Philadelphia Gas Works

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

## Item 1318(b)

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

## Philadelphia Gas Works

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

## Item 1318(b)

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

## 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.


[^0]:    ${ }^{(1)}$ Peak Day is forecasted at a 2 degree temperature.
    ${ }^{(2)}$ Current Year Peak Day is forecasted at a 5 degree temperature.

