The Narragansett Electric Company

Gas Long-Range Resource and Requirements Plan for the Forecast Period 2022/23 to 2026/27

June 30, 2022

Docket No. 22-06-NG

Submitted to:
Rhode Island Public Utilities Commission
Rhode Island Division of Public Utilities and Carriers

Submitted by:
Rhode Island Energy

Rhode Island Energy™
a PPL company

Filing Letter
& Motion

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Also admitted in Massachusetts

June 30, 2022

VIA ELECTRONIC MAIL & HAND DELIVERY

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

RE: Rhode Island Energy's Gas Long-Range Resource and Requirements Plan
Forecast Period 2022/23 to 2026/27
Docket No. 22-06-NG

Dear Ms. Massaro:

I have enclosed ten (10) copies of Rhode Island Energy's[1] Gas Long-Range Resource and Requirements Plan ("Long-Range Plan") for the forecast period 2022/23 to 2026/27. The Company is submitting the Long-Range Plan to the Rhode Island Public Utilities Commission ("PUC") pursuant to R.I. Gen. Laws § 39-24-2, which requires that the Company file the Long-Range Plan with the PUC on a bi-annual basis. In addition, the Company is also submitting the Long-Range Plan to the Rhode Island Division of Public Utilities and Carriers ("Division") to fulfill the purposes of the proposal contained in the February 20, 2019 Joint Memorandum of the Company and the Division in Docket No. 4816.

The Long-Range Plan consists of a long-range energy plan for the five-year period subsequent to the date of this filing and includes all assumptions and methodologies that the Company used in formulating the plan. The Long-Range Plan is designed to demonstrate that the Company's gas-resource planning process has resulted in a reliable resource portfolio to meet the combined forecasted needs of the Company's Rhode Island customers at least-cost. To make this demonstration, the Long-Range Plan includes the following information: (i) a description of the methodology the Company uses to forecast demand on its system; (ii) a discussion of the process

[1] The Narragansett Electric Company d/b/a Rhode Island Energy ("Rhode Island Energy" or the "Company").

and assumptions the Company uses to develop its resource portfolio to meet customer requirements under design-weather conditions; (iii) a complete inventory of the expected available resources in the Company's portfolio, (iv) a demonstration of the adequacy of the and (v) a discussion of Rhode Island's Act on Climate and gas decarbonization efforts.

The Long-Range Plan includes confidential gas cost pricing information and contract terms, which are provided in Exhibits 18, 19, 20, and 21. Therefore, the Company has provided a redacted and confidential version of the Long-Range Plan and has requested confidential treatment of Exhibits 18, 19, 20, and 21 pursuant to R.I. Gen. Laws § 38-2-2(4)(B) and Rule 810-RICR-00-00-1.3(H) of the PUC's Rules of Practice and Procedure.

Thank you for your attention to this matter. If you have any questions, please contact me at 401-709-3359.

Very truly yours,

Steven J. Boyajian

Enclosures

cc: Leo Wold, Esq.
Al Mancini, Division
John Bell, Division

STATE OF RHODE ISLAND
RHODE ISLAND PUBLIC UTILITIES COMMISSION

Gas Long-Range Resource and Requirements Plan for the Forecast Period 2022/23 to 2026/27	)	Docket No. 22-06-NG

RHODE ISLAND ENERGY'S MOTON FOR PROTECTIVE TREATMENT OF CONFIDENTIAL INFORMATION

Rhode Island Energy[1] respectfully requests that the Rhode Island Public Utilities Commission ("PUC") grant protection from public disclosure certain confidential, competitively sensitive, and proprietary information submitted in this proceeding, as permitted by Rule 810-RICR-00-00-1.3(H) of the PUC's Rules of Practice and procedure (Rule 1.3(H)) and R.I. Gen. Laws § 38-22(4)(B). The Company also requests that, pending entry of that finding, the PUC preliminarily grant the Company's request for confidential treatment pursuant to Rule 1.3(H)(2).

I. BACKGROUND

On June 30, 2022, the Company submitted its Gas Long-Range Resource and Requirements Plan for the Forecast Period 2022/23 to 2026/27 ("LRP") in the above-captioned docket. The LRP includes confidential gas cost pricing information and contract terms, which are provided in Exhibits 18, 19, 20, and 21. In accordance with Rule 1.3(H)(3), Rhode Island Energy has provided a redacted public version and confidential version of the LRP. Therefore, the Company requests that, pursuant to Rule 1.3(H), the PUC afford confidential treatment to the gas cost pricing information and contract terms contained in Exhibits 18, 19, 20, and 21.

[1] The Narragansett Electric Company d/b/a Rhode Island Energy (Rhode Island Energy or the Company).

II. LEGAL STANDARD

Rule 1.3(H) provides that access to public records shall be granted in accordance with the Access to Public Records Act ("APRA"), R.I. Gen. Laws § 38-2-1, *et seq.* Under the APRA, all documents and materials submitted in connection with the transaction of official business by an agency is deemed to be a "public record," unless the information contained in such documents and materials falls within one of the exceptions specifically identified in R.I. Gen. Laws § 38-2-2(4). To the extent that information provided to the PUC falls within one of the designated exceptions to the public records law, the PUC has the authority under the terms of APRA to deem such information as confidential and to protect that information from public disclosure.

In that regard, R.I. Gen. Laws § 38-2-2(4)(B) provides that the following types of records shall not be deemed public:

> "Trade secrets and commercial or financial information obtained from a person, firm, or corporation which is of a privileged or confidential nature."

The Rhode Island Supreme Court has held that this confidential information exemption applies where the disclosure of information would be likely either (1) to impair the government's ability to obtain necessary information in the future; or (2) to cause substantial harm to the competitive position of the person from whom the information was obtained. *Providence Journal*, 774 A.2d 40 (R.I. 2001).

The first prong of the test is satisfied when information is provided to the governmental agency and that information is of a kind that would customarily not be released to the public by the person from whom it was obtained. *Providence Journal*, 774 A.2d at 47.

III. BASIS FOR CONFIDENTIALITY

The gas cost pricing information and confidential contract terms – which are provided in Exhibits 18, 19, 20 and 21– are confidential and privileged information of the type that the Company would not ordinarily make public. As such, the information should be protected from public disclosure. Public disclosure of such information could impair the Company's ability to obtain advantageous pricing or other terms in the future, thereby causing substantial competitive harm. Accordingly, the Company is providing the information on a voluntary basis to assist the PUC with its decision-making in this proceeding, but respectfully requests that the PUC provide confidential treatment to the information.

IV. CONCLUSION

For the foregoing reasons, the Company respectfully requests that the PUC grant its Motion for Protective Treatment of Confidential Information.

Respectfully submitted,

THE NARRAGANSETT ELECTRIC COMPANY d/b/a RHODE ISLAND ENERGY

By its attorney,

/s/ Steven J. Boyajian

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Dated: June 30, 2022

Long-Range Plan

The Narragansett Electric Company

Gas Long-Range Resource and Requirements Plan for the Forecast Period 2022/23 to 2026/27

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Table of Contents

I. Introduction

This filing presents the Long-Range Resource and Requirements Plan (sometimes referred to as the "Long-Range Plan" or the "plan") for The Narragansett Electric Company d/b/a Rhode Island Energy (the "Company") for the gas supply forecast period November 1, 2022 through October 31, 2027. The Company is a public utility under the provisions of R.I. Gen. Laws § 39-1-2 and provides natural gas sales and transportation service to approximately 271,000 residential and commercial customers in 33 cities and towns in Rhode Island. The Company is submitting this Long-Range Plan to the Rhode Island Public Utilities Commission ("PUC") pursuant to R.I. Gen. Laws § 39-24-2, which requires that the Company file the Long-Range Plan on a bi-annual basis. The Company submitted its last statutorily required Long-Range Plan on June 30, 2020 in Docket 5043. On June 30, 2021, also in Docket 5043, the Company submitted an informational Long-Range Plan that was not statutorily required, but was submitted to the Rhode Island Division of Public Utilities and Carriers ("Division") to fulfill the purposes of the proposal contained in the February 20, 2019 Joint Memorandum of the Company and the Division in Docket No. 4816 ("Joint Memorandum") and to the PUC for informational purposes.[1]

This Long-Range Plan consists of a long-range energy plan for the five-year period subsequent to the date of this filing and includes all assumptions and methodologies that the Company used in formulating the plan. In addition, Section V of this Long-Range Plan contains a description of the information to be included in the Long-Range Plan, pursuant to the Joint Memorandum, together with a reference to the specific section of the Long-Range Plan or Exhibit where such information can be found. This plan is designed to demonstrate that the Company's gas-resource planning process has resulted in a reliable resource portfolio to meet the combined forecasted needs of the Company's Rhode Island customers at least-cost. To make this demonstration, this Long-Range Plan includes the following information: (i) a description of the methodology the Company uses to forecast demand on its system; (ii) a discussion of the process and assumptions the Company uses to develop its resource portfolio to meet customer requirements under design-weather conditions; (iii) a complete inventory of the expected available resources in the Company's portfolio, and (iv) a demonstration of the adequacy of the portfolio to meet customer demands under a range of weather.

[1] On October 30, 2018 in the Company's 2018 Gas Cost Recovery ("GCR") proceeding in Docket No. 4872, the PUC ordered the Company and the Division to submit the Joint Memorandum in Docket No. 4816 outlining each of their recommendations for improving the Long-Range Plan as it relates to the annual GCR filing. On February 20, 2019, the Parties submitted the Joint Memorandum in compliance with the PUC's October 30, 2018 order in Docket No. 4872. The Joint Memorandum provided that the annual Long-Range Plan filings would be submitted in June, as soon as practical, following the release of the Company's annual forecast, permitting the Company to base its annual forecast on the most recent customer usage data, and prior to the Company's annual GCR filing. It also stated that the annual Long-Range Plan filings will include certain information, which is summarized in more detail in Section V, *infra.*

II. Overview of Planning Results

As described in detail in this filing, the Company's planning process is based on a comprehensive methodology for forecasting customer load requirements using a series of econometric models to determine the annual growth expected for Residential Heating, Residential Non-Heating, Commercial, and Industrial markets. To determine the projected growth over the forecast period, the econometric models used historical economic, demographic, and energy price data, and weather data to determine total energy demand. The Company then analyzed load reductions it expects to achieve through the implementation of its revised energy-efficiency programs because such reductions are exogenous to the demand forecast generated by the econometric models. The Company's forecast is based on the April 2022 economic forecast from Moody's Analytics, Inc.

The results of the Company's Base Case retail demand forecast (see Exhibit 1) indicates that, over the five-year forecast period Planning Year 2023 through Planning Year 2027, the residential heating market is projected to increase by an average of 473,000 dekatherms per year, the Residential Non-Heating market is projected to decrease by an average of 8,800 dekatherms per year, and the Commercial and Industrial Sales markets are projected to grow by 211,000 dekatherms per year.

As explained below, the Company's demand forecast is then converted to supply requirements at the Company's city gates. The result of the forecasting process is that projected sendout requirements increase over the five-year forecast period, averaging 395 MDth (approximately 1.0 percent) per year under normal weather conditions (see Section III.D.2.).

To ensure that the Company maintains adequate supplies in its portfolio to meet the projected customer load requirements, the next step in the planning process involves an analysis to define the planning standards for the coldest planning year, known as the "design year", and the coldest planning day, known as the "design day". This Long-Range Plan relies on the planning standards as defined in the Company's 2018 Long-Range Plan. The Company's design year is defined as 6,250 heating degree days (HDD) with a probability of occurrence of 1 in 37.47 years, and its design day is defined as 68 HDD with a probability of occurrence of 1 in 58.92 years. The Company has also included its design hour planning standard, which represents a 5% peak-hour factor (i.e., the peak hour requirement represents 1/20th of the peak day requirement). Combining the results of the design planning standards definition and the load forecasting process, the Company is projecting its Base Case design year sendout requirements to increase over the five-year forecast period by an average of 449 MDth, or approximately 1.0 percent, per year (see Section III.F.), and design day sendout to increase by an average of 4,292 Dth, or 1.1 percent, per year. The design hour is also expected to increase over the forecast period (see Exhibits 2 and 7).

After the forecast of customer requirements are determined, the next step in the Company's planning process is to design a resource portfolio to meet those requirements in the most reliable and least-cost manner possible. To that end, the Company uses the SENDOUT® Model (a proprietary linear programming model) to determine the adequacy of the existing portfolio in meeting the forecasted requirements and to identify any shortfalls during the forecast

period. SENDOUT® allows the Company to determine the least-cost, economic dispatch of its existing resources, subject to contractual and operating constraints, and identifies the need for and type of additional resources during the forecast period, if any. To evaluate the flexibility and adequacy of the resource portfolio under a range of reasonably foreseeable conditions, the portfolio is assessed under design and normal weather conditions and a cold snap weather scenario. For the cold-snap weather scenario, the Company used a 14-day cold snap occurring in the coldest 14-day period of the Company's normal year (January 8 - January 21) by evaluating January weather data from 1977/78 to 2016/17. The Company uses the results of the cold snap scenario to test the adequacy of inventories and refill requirements. The Company also applies the peak-hour requirement to its Synergi Gas® network analysis modeling software. To meet design requirements throughout the forecast period, incremental resources are needed.

Communications regarding this Long-Range Plan should be directed as follows:

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III. Forecast Methodology

III.A. Introduction

The Company's forecast methodology supports its supply planning goal to ensure that it maintains sufficient supplies in its resource portfolio to meet customers' requirements on the design day and that it maintains sufficient supply under contract and in storage (underground storage and LNG) to meet customers' requirements over the design year. Each year, the Company employs the same process of preparing a multi-year forecast to ensure that the portfolio has sufficient resources for the upcoming winter period and sufficient time to contract for additional resources should they be required. The term "customer" as used herein means those customers for whom the Company must make capacity planning decisions.[2]

The Company develops its underlying demand forecast from econometric models of its customer billing data. This data is available by month and by rate class. The Company developed the retail forecast in this Long-Range Plan in mid-2022 and, absent unanticipated modifications, it will be the same forecast that will be used in the Company's 2022 Gas Cost Recovery filing.

The Company models its daily resources and requirements with its SENDOUT® linear programming software modeling package and, therefore, a forecast of daily customer requirements as inputs for the model.

Accordingly, the Company developed five-year forecast of customer requirements under design-weather planning conditions using the following process:

(1) Forecast Retail Demand Requirements

Retail demand requirements are based on customer billing data, which is available by rate class and by month. The Company uses a series of econometric models to develop a forecast of retail demand requirements for traditional markets (i.e., Residential Heating, Residential Non-Heating, Commercial, and Industrial customers). The forecast of retail demand requirements for traditional markets is summed to determine the total retail demand requirements over the forecast period. This forecast of retail demand is disaggregated into monthly billed and unbilled volumes and, hence, can be calendarized for supply planning purposes.

(2) Develop Reference Year Sendout Using Regression Equations

The daily values of the Company's wholesale sendout in the reference year (April 2021 – March 2022) serves as the basis of allocating the monthly retail demand forecast to the daily level. Because actual sendout data for the reference year is a function of the weather conditions experienced in that year, the Company develops this allocator for sendout using regression equations to normalize the sendout in the reference year based on normalized weather data.

[2] The Company makes capacity planning decisions for its Sales and non-Capacity Exempt Transportation (Customer Choice) customers.

(3) Normalize Forecast of Customer Requirements

The Company's monthly retail demand forecast is allocated to the daily level based on the use of its daily wholesale sendout regression equation and its normal daily heating degree day data. This step sets the Company's total normalized forecast of customer requirements over the forecast period.

(4) Determine Design Weather Planning Standards

The Company performs a determination of the appropriate design day and design year planning standards for the development of a least-cost reliable supply portfolio over the forecast period.

(5) Determine Customer Requirements Under Design Weather Conditions

Using the applicable design day and design year weather planning standards, the Company determines the design year sendout requirements and the design day sendout requirements. These design sendout requirements establish the Company's resource requirements over the forecast period.

Based on the forecast, the Company projects Base Case growth in customer requirements for its Sales and Customer Choice customers of 1,975MDth over the five-year period, or 395 MDth per year (assuming normal weather) (see Section III.D.2.). Overall, this growth in firm deliveries represents a 5.3 percent total increase in sendout requirements over the forecast period, or 1.0 percent per year on average.

The development of the Company's five-year forecast of customer sendout requirements, based on the steps set forth above, is described in the following sections.

III.B. Retail Demand Forecast

The first step in the Company's forecasting methodology is the generation of its retail demand forecast, which is prepared through econometric and statistical modeling.

III.B.1. Demand Forecast for Traditional Markets

III.B.1.a. Service Territory Specific Data Availability

The Company used its monthly customer billing data (volume and number of customers) for the period September 2010 through February 2022 to define the dependent variables in its econometric models. The billing data was modeled at the level of four major classes of customers (Residential Heating, Residential Non-Heating, Commercial, Industrial). Each of these four classes included the Sales customer sub-class, the Customer Choice customer sub-class, and the "capacity-exempt" (i.e., grandfathered Transportation) customer sub-class. The table below lists the relevant major groups and the Company's internal rate codes used in the Company's analysis.

	Internal Rate Codes
Residential Heating	400, 402
Residential Non-Heating	401, 403
Commercial	404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 425, 433, 434, 439, 440, 443, 444, Z407, Z411, Z415
Industrial	417, 418, 419, 420, 421, 422, 423, 424, 428, 437, 438, 441, 442, Z419, Z423

III.B.1.b. Econometric Models

With volume and customer data as identified above, the Company developed econometric models for the number of customers and use-per-customer (the quotient of the division of volume and number of customers) for each rate code. The Company's econometric modeling effort was to regress each of the two dependent variables against an array of possible independent variables and select the equation with the best fit.

By using historical economic, demographic, and energy price data listed in Exhibit 3 as the independent variables, the Company estimated statistically valid econometric equations for each customer class. The Company obtained the economic and demographic data from Moody's Analytics, Inc. (Moody's), using forecasts from April 2022.

The Company accounts for the impact of the COVID-19 pandemic on forecasted gas load in the econometric models. Moody's April 2022 baseline economic outlook for Rhode Island reflects the economic recovery from the COVID-19 pandemic plus the impact of the on-going Russia-Ukraine war.

Additionally, the Company tested time variables, actual Heating Degree Days, actual Billing Degree Days, and natural gas and oil prices from the U.S. Department of Energy, Energy Information Administration.

The Company then reduced the results of its statistical forecast models to account for the incremental impact of the energy efficiency programs sponsored by the Company. For 2022, the energy efficiency programs that the Company analyzed for this forecast were those submitted by the Company in Docket No. 5198 in its 2022 Energy Efficiency Program Plan, Second Revised Electric and Gas Tables dated January 27, 2022, which was the most recent data available when the Company prepared the forecast. The Company subtracted the incremental savings from the programs that are not embedded in the historical data used to derive the statistical models because such savings are exogenous to the modeling effort.

III.B.2. Final econometric models for the Company's demand forecast

The Company develops its retail demand forecast from econometric models of its customer billing data. The Company developed the retail forecast presented in this Long-Range Plan in mid-2022, which is the same forecast that will be used in the Company's 2022 Gas Cost Recovery filing. Summary charts and tables comparing this forecast with the Company's 2021 forecast are presented in Exhibits 1, 3, 4, 5 and 6.

III.B.3. The Impact of the Energy Efficiency Programs

On October 15, 2020, the Company filed its three-year Energy Efficiency Plan for the period 2021-2023. The primary goal of the Energy Efficiency plan is to create energy (both gas and electric) and economic cost savings for Rhode Island consumers as required by the least cost procurement law, R.I. Gen. Laws § 39-1-27.7. The goal of the natural gas energy efficiency programs is annual reduction in usage; there are no programs that are specifically targeted toward peak reduction.

Because the Company's econometric forecast is based on historical data, which does not fully incorporate the increasing penetration of the Company's energy efficiency programs in the Residential and Commercial and Industrial sectors, the Company reviewed its historical energy efficiency efforts to determine whether its retail demand forecast required any adjustment to reflect the increases in energy efficiency efforts. Analysis of the Company's historical energy efficiency programs shows that historical data should have embedded within annual savings of 362 MDth. These figures are based on the three-year average of 2019 through 2021 actual persistent and non-persistent energy efficiency savings. The Company uses a three-year average in lieu of the most recent year to smooth out the year-to-year fluctuations that may occur. The Company's analysis indicated that an average incremental reduction of 28 MDth/year is needed from 2022 to 2027 in order to reflect the projected energy efficiency impacts.

III.C. Translation of Retail Forecast into Customer Requirements

In the second step of the Company's forecasting methodology, the Company uses linear regression equations of total daily sendout versus daily temperature for the most recent 12 months to calculate a reference-year by division. This serves as the most accurate way for the Company to allocate its monthly demand forecast into its future daily customer requirements. This step is used to determine the Company's normal year forecast of customer requirements over the forecast period for gas cost recovery purposes and to determine the Company design year forecast of customer requirements over the forecast period for resource planning purposes. To perform its regression analysis, the Company used version 4.1.2 of the "R" statistical software package.[3]

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[3] "R is a language and environment for statistical computing and graphics. It is a GNU project, which is similar to the S language and environment, which was developed at Bell Laboratories (formerly AT&T, now Lucent Technologies). R can be considered as a different implementation of S. There are some important differences, but much code written for S runs unaltered under R. . . . R is available as Free Software under the terms of the Free Software Foundation's GNU General Public License in source code form. It compiles and runs on a wide variety of UNIX platforms and similar systems (including FreeBSD and Linux), Windows and MacOS." Source: https://www.r-project.org/about.html; (The R Project for Statistical Computing).

III.C.1. Wholesale Volume by Division

To establish normal-year springboard sendout requirements, the Company developed a linear-regression equation for each of its four divisions (formerly Providence Gas, Westerly Gas, Bristol and Warren Gas, and Valley Gas) using data for the reference-year period April 1, 2021 through March 31, 2022. The Company's regression equation uses sendout as its dependent variable and temperature as its independent variable.[4]

Through the use of the linear-regression equation, the Company is able to normalize total daily sendout. Specifically, the actual daily firm sendout is regressed against: (1) HDD data as provided by its weather service vendor Weather Services International, (2) HDD data lagged over two days, and (3) a weekend dummy variable. These data elements were selected for the regression analysis since these elements have been, and continue to be, the major explanatory variables underlying the Company's daily sendout requirements.

The Company selected the T.F. Green International Airport weather station (KPVD or T.F. Green) as the source of the weather data used as the principal explanatory variable in its regression equations. The Company selected the T.F. Green weather station because it is close to the center of the Company's service territory, on a load-weighted basis, and it is highly correlated with surrounding weather stations. Specifically, the Company used the HDD value for each 24-hour period of 10:00 a.m. to 10:00 a.m., which constitutes the gas day and, therefore, corresponds to the same daily time period of observation of the sendout data.

Based on its observations of the historical relationship between total sendout and HDD, the Company chose to develop its regression equation as a segmented model, i.e., a "regression model where the relationships between the response and one or more explanatory variables are piecewise linear, namely represented by two or more straight lines connected at unknown values: these values are usually referred as breakpoints".[5]

Since a significant portion of the Company's sendout is due to space heating usage, and space heating only occurs when average air temperatures fall below a certain level, the segmented model serves as an excellent starting point for modeling the relationship between sendout and HDD. Linear modeling of sendout is appropriate since the Company has not observed any non-linear characteristics in sendout at cold temperatures.

The Company's segmented model equation includes the following variables: Intercept is the MMBtu sendout predicted at HDD=0, Slope1 is the MMBtu/HDD usage below the Breakpoint HDD level, Slope2 is the incremental MMBtu/HDD usage above the Breakpoint HDD level, the Standard Error is expressed in MMBtus, and the Breakpoint HDD is the HDD value at which space heating equipment is observed to turn on. The signs of the Slope1 and Slope2 coefficients (positive) imply that as temperatures get colder and HDD increases in value, the sendout will increase, which agrees with what the Company typically observes.

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[4] Sendout includes both Sales and supplier service (Customer Choice) customer requirements and the Company's Capacity Exempt customers.

[5] Source: "Segmented: an R package to fit regression models with broken-line relationships," R News, Volume 8/1, May 2008, at page 20.

Based on observations of daily sendout, the Company has observed that weekday and weekend sendout requirements are different at similar HDD levels. The Company's regression equations include a second independent variable, a weekday/weekend dummy variable, set to 0 for Mondays through Thursdays, 1 on Fridays and Sundays, and 2 on Saturdays. The sign of the coefficient (negative) implies that for a given HDD level, loads will be lower on Friday through Sunday as compared to Monday through Thursday (i.e., weekend compared to the workweek).

Finally, the Company has observed a correlation between lagged temperature and the residuals of the above equation, so the Company has added a third independent variable: the difference between HDD on day *t* and mean of the HDD on day *t-1* and day *t-2*. The differences were used in lieu of the actual lagged values to avoid correlation among the independent variables. The underlying theory of this analysis is that heating requirements increase as two consecutive days of cold weather occur, which cools down structures to a greater degree than would be experienced on a single day. The introduction of the third independent variable added another incremental improvement in the adjusted R^2 of the equations. The sign of the coefficient (negative) implies that if a day is colder than the average of the previous two days, the increase in sendout will be somewhat lower than what would be forecast without the coefficient, and vice versa.

The functional form of the equation, in pseudo code, is:

```
Sendout = Intercept Coefficient +
          Weekend Dummy Coefficient * Weekend Dummy Variable +
          Slope1 Coefficient * min(HDD_t, Breakpoint HDD) +
          if(HDD_t<=Breakpoint HDD) {0} else {(Slope1 Coefficient
            + Slope2 Coefficient) *
            (HDD_t - Breakpoint HDD)} +
          Lagged Delta HDD Coefficient * (HDD_t - average(HDD_t-1, HDD_t-2)
```

These regression equations capture the observed characteristics of the Company's sendout requirements by gas division. The observed characteristics include the following: (1) sendout requirements are directly related to HDD; (2) sendout requirements are affected by HDDs that occur over a multi-day period; and (3) sendout requirements differ by day of the week. Thus, the Company has developed a set of reliable regression equations to describe wholesale gas sendout by division. Using a series of daily normal HDDs, these equations allow the Company to calculate its history of normalized wholesale gas sendout for each of its four gas divisions.

Exhibit 7, provided in Microsoft Excel format, contains the wholesale volume forecast by rate group for normal and design weather and SENDOUT forecasts (normal and design weather) for capacity planning purposes for volumes and costs.

III.C.2. Wholesale Volume by End-Use

In addition to its segmented regression equations for each gas division, the Company runs similar regression equations for the sum of its four divisions for its capacity-eligible FT-1, capacity-exempt, and non-firm sales customers to best characterize the daily usage patterns of

each of these customer groups. Subtracting the daily actual volumes for each of these groups from total daily wholesale sendout, the Company can also characterize the daily usage patterns of its remaining customers: Sales and FT-2. The Sales and FT-2 data are combined since they are not daily-metered customers and their volumes can only be inferred.

These regression equations capture the observed characteristics of the Company's sendout requirements by end-use. The observed characteristics include the following: (1) sendout requirements are directly related to HDDs; (2) sendout requirements are affected by HDDs that occur over a multi-day period; and (3) sendout requirements differ by day of the week. Thus, the Company has developed reliable regression equations to establish the basis upon which future sendout requirements can be forecast. Moreover, the Company has further developed a set of reliable regression equations to describe wholesale gas sendout by end-use. Using a series of daily normal HDDs, these equations allow the Company to calculate its history of normalized wholesale gas sendout by end-use.

Using its forecast of retail demand and an appropriate set of daily HDD values for a design year, the Company can successfully plan its operational requirements to provide a low-cost, adequate, and reliable supply of natural gas to its customers.

III.C.3. Comparison of Historical Retail and Wholesale Volumes to Determine Unaccounted For Gas

To align its historical and forecasted retail volumes to its wholesale data, the Company calculates its unaccounted-for-gas ('UFG') percentage by which the retail data will be inflated to wholesale levels. For the most recent (September 2020 – August 2021) period, the Company's monthly retail volumes match the wholesale volumes to within 3.8 percent, a value that both agrees with expected UFG and indicates that the Company has adequately captured all customer volumes.

III.D. Normalized Forecast of Customer Requirements

The third step in the Company's forecasting methodology is to develop a forecast of customer requirements under normal weather conditions for its demand forecast.

III.D.1. Defining Normal Year for Ratemaking Purposes

To establish the normal year's daily HDD data for ratemaking purposes, the Company calculated the average annual number of HDDs for the T.F. Green (KPVD) weather station for the 10-year period from April 2007 through March 2017, with an average of 5,422 HDD, as documented in its 2017 rate case (RIPUC Docket No. 4770).

The Company then prepared a "Typical Meteorological Year" by selecting, for each calendar month, the month in the T.F. Green weather database that most closely approximated the 10-year average HDD and standard deviation for each month. A summary of the monthly averages for the T.F. Green weather site is listed in the chart below.

Month	HDD	Standard Deviation
Jan	1,083	8.7
Feb	946	7.8
Mar	812	7.6
Apr	464	6.9
May	191	5.4
Jun	41	2.4
Jul	0	0
Aug	2	0.2
Sep	65	3.0
Oct	316	6.8
Nov	610	7.5
Dec	892	7.9
Total	5,422	

Average Monthly HDD and Average of Monthly Standard Deviations for the T.F. Green International Airport Weather Station

III.D.2. Defining Load Attributed to Customers Using Utility Capacity

For the third step of the Company's forecasting methodology set forth in Section III.A, above, the Company allocated the monthly retail volumes to the daily level based on the 2021/2022 reference-year regression equations, using normal year HDD, to yield the forecast of Sales, FT-2 (Customer Choice), and FT-1 (pipeline) customer requirements under normal weather conditions for its demand forecast, based on a 365-day year.

	2021/22	2022/23	2023/24	2024/25	*2025/26*	*2026/27*
Heating Season	26,393	26,727	27,140	27,456	27,674	27,854
Non-Heating Season	10,697	10,861	10,983	11,068	11,137	11,211
Total	37,091	37,588	38,124	38,524	38,811	39,066
Per-Annum Growth		497	535	400	287	254
Per-Annum Growth (%)		1.3%	1.4%	1.1%	0.7%	0.7%

Base Case Normal Year Customer Requirements for Capacity Planning (MDth)

III.E. Design Planning Standards

In the fourth step of the Company's forecasting methodology, the Company determines the appropriate design day and design year planning standards to develop a least-cost, reliable supply portfolio over the forecast period.

III.E.2. Design Year and Design Day Planning Standards

The Company's planning standards represent the defined weather conditions and consequent sendout requirement that must be met by the Company's resource portfolio. The Company's instant Long-Range Plan relies on the planning standards as defined in its 2018 Long-Range Plan. The Company's design year and design day standards are listed in the chart below.

Element	Value
Design Year HDD	6,250
Frequency of Occurrence	1 / 37.47 years
Design Day HDD	68
Frequency of Occurrence	1 / 58.92 years

Design Year and Design Day Criteria

As described below, the Company's analysis of the design year and design day standards demonstrate that these standards are appropriate.

III.E.2.a. Design Day Standard

The purpose of a design day standard is to establish the amount of system-wide throughput (interstate pipeline and underground-storage capacity plus local supplemental capacity) that is required to maintain the integrity of the distribution system. In this filing, the Company defines its design day standard at 68 HDD with a probability of occurrence of once in 58.92 years as a result of its ongoing review of planning standards.

The Company established its design day standard using a three-step process. First, the Company performed a statistical analysis of the coldest days recorded over a historical period. Second, the Company conducted a cost-benefit analysis to evaluate the cost of maintaining the resources necessary to meet design day demand versus the cost to customers of experiencing service curtailments. Third, the Company identified a design day standard that would maintain reliability at the lowest cost.

To perform the statistical analysis necessary to identify the appropriate design day standard, the Company used recorded daily HDD values based on 6,040 observations at the T.F. Green weather site for the November through March periods of 1977/78 through 2016/17. In previous long-range supply plan submissions, the Company had selected the coldest day of each of the most recent 40 heating seasons reflected in the T.F. Green weather data. The change to evaluating a larger data set was necessitated because the distribution of coldest days in the earlier methodology is trending away from a normal distribution. Using its new methodology, the Company found that these 6,040 data points fell within a normal distribution with an average coldest day of 55.00 HDD and a standard deviation of 6.13 HDD.

In its design day standard, the Company examined the cost of potential customer curtailments through a cost-benefit analysis. In the event of a service disruption, there are several types of damages that customers could experience. For example, the Company's residential customers would potentially incur re-light costs and freeze-up damages. The Company's Commercial and Industrial customers would potentially incur economic damages associated with the loss of production on the day of the event.

In the Company's design day cost-benefit analysis, the cost of maintaining adequate throughput capacity and the benefit of avoiding damage costs that would be incurred in relation to customer premises are compared. The intersection of the curves set a range for design day planning purposes from approximately 64.3 to 71.0 HDD, with a midpoint of 67.3 HDD. Thus, the Company's design day standard of 68 HDD is within the range of values based on cost and benefit. The Company's analysis indicates that the frequency of occurrence of the Company's design day standard is once in 58.92 years.

III.E.2.b. Design Year Standard

In this filing, the Company defines its design year standard as 6,250 HDD, with a probability of occurrence of once in 37.47 years.

The Company maintains a design year standard for planning purposes to identify the amount of seasonal supplies of natural gas that will be required to provide continuous service under all reasonable weather conditions. If the Company were to have a shortfall in supply during the winter season, the amount of supply in deficit can be translated into an equivalent number of customers whose service would be disrupted for more than one day. For a supply disruption of a multi-day duration, service would be curtailed on a priority basis and would likely fall on Commercial and Industrial establishments before affecting the Residential sector, since supply to the Residential sector is more likely to involve health and personal safety. To establish an estimated annual level of HDDs for which the Company should plan, the Company compared the benefit of maintaining an adequate quantity of natural gas supply under all reasonable weather conditions to the probability-weighted cost of losses that might occur if supplies are not adequate.

The Company has established its design year standard using a three-step process. First, the Company performed a statistical analysis of annual HDD data recorded over a historical period. Second, the Company conducted a cost-benefit analysis to evaluate the cost of maintaining the resources necessary to meet design year demand versus the cost to customers of experiencing service curtailments. Third, the Company identified a design year standard that would maintain reliability at the lowest cost.

As a result of this analysis, the Company has determined that a design year standard of 6,250 HDD is an appropriate level. The Company's analysis indicates that the frequency of occurrence of the Company's design year standard is once in 37.47 years.

III.E.2.c. Specification of Daily Design Year HDD

To generate the daily HDD values for its design year, the Company scaled the daily values for its normal year by the ratio of the annual normal year total to the annual design year total, making any minor adjustment necessary to ensure the peak day of the design year equaled the Company's design day standard.

III.F. Forecast of Base Case Design Year Customer Requirements

In the fifth, and final, step of the Company's forecasting methodology set forth in Section III.A., above, the Company uses the applicable design day and design year planning standards to determine the design day and design year sendout requirements. To accomplish this, the Company combines the springboard equations, which are derived from the sendout regression analysis, with its normal year daily HDD pattern and its design year daily HDD pattern to yield two springboard year estimates of normal year and design year daily customer requirements. Below are the resulting design year requirements for the demand forecast.

	2021/22	*2022/23*	*2023/24*	*2024/25*	2025/26	2026/27
Heating Season	30,437	30,823	31,300	31,667	31,918	32,128
Non-Heating Season	11,519	11,695	11,828	11,919	11,994	12,074
Total	41,957	42,518	43,128	43,586	43,913	44,202
Per-Annum Growth	-	561	610	457	327	289
Per-Annum Growth (%)	-	1.3%	1.4%	1.1%	0.8%	0.7%

Base Case Design Year Customer Requirements for Capacity Planning (MDth)

III.G. Design Hour Requirements

Once the design day sendout requirement is established, the Company converts this sendout to a design hour based on a 5% peak-hour factor (i.e., the design hour requirement represents 1/20th of the design day requirement). The Company then applies the design hour requirement to its Synergi network analysis modeling software by allocating the growth in the forecast to each zip-code. The resulting design hour Synergi models are used to perform various analyses necessary for distribution system operations (e.g., regulator pressure settings, LNG requirements) and capital planning. Because the Company's design hour is greater than the daily 1/24th and 6% combination, the Company will ensure that it has sufficient deliverability to meet the design hour requirements of all its customers.[6]

III.H. Capacity Exempt Customer Requirements

Capacity Exempt customers are firm transporters on the Company's distribution system; however, the Company does not plan for their upstream resources. Supply for capacity exempt customers is provided by third-party marketers. Additionally, the Company's capacity eligible FT-1 customers do not receive the storage and supplemental portion of their supplies from the Company's resource portfolio. These storage and supplemental volumes must also be provided by third-party marketers. The Company's forecasting process does include a forecast of these capacity exempt and FT-1 loads for distribution system planning purposes (see table below).

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[6] The Company is served by both Algonquin Gas Transmission, LLC ("AGT") and Tennessee Gas Pipeline (Tennessee). The Company's AGT contracts provide for calculated hourly flow limits of either 1/24th or 6% of the daily MDQ under each contract; Tennessee contracts provide for 1/24th hourly flows. See Exhibit 8 for the Company's daily and hourly contract quantities.

Capacity Exempt and FT-1 Storage/Supplementals Load Summary
(Dth)
Base Case Forecast

Normal Year

	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
HS	2,813,951	2,777,039	2,861,125	2,875,874	2,879,336	2,881,352
NHS	2,590,939	2,670,727	2,685,079	2,688,800	2,691,189	2,695,703
Total	5,404,890	5,447,766	5,546,203	5,564,675	5,570,525	5,577,054
PA Growth		42,876	98,437	18,471	5,850	6,529
Pct Growth		0.8%	1.8%	0.3%	0.1%	0.1%

Design Year

	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
HS	3,087,369	3,048,718	3,139,410	3,155,487	3,159,348	3,161,569
NHS	2,631,740	2,712,799	2,727,280	2,731,051	2,733,473	2,738,052
Total	5,719,109	5,761,517	5,866,690	5,886,538	5,892,821	5,899,620
PA Growth		42,408	105,173	19,848	6,283	6,799
Pct Growth		0.7%	1.8%	0.3%	0.1%	0.1%
Peak Day	36,438	36,125	37,071	37,251	37,300	37,326

Capacity Exempt and FT.-1 Non-Pipeline Customer Requirements (Dth)

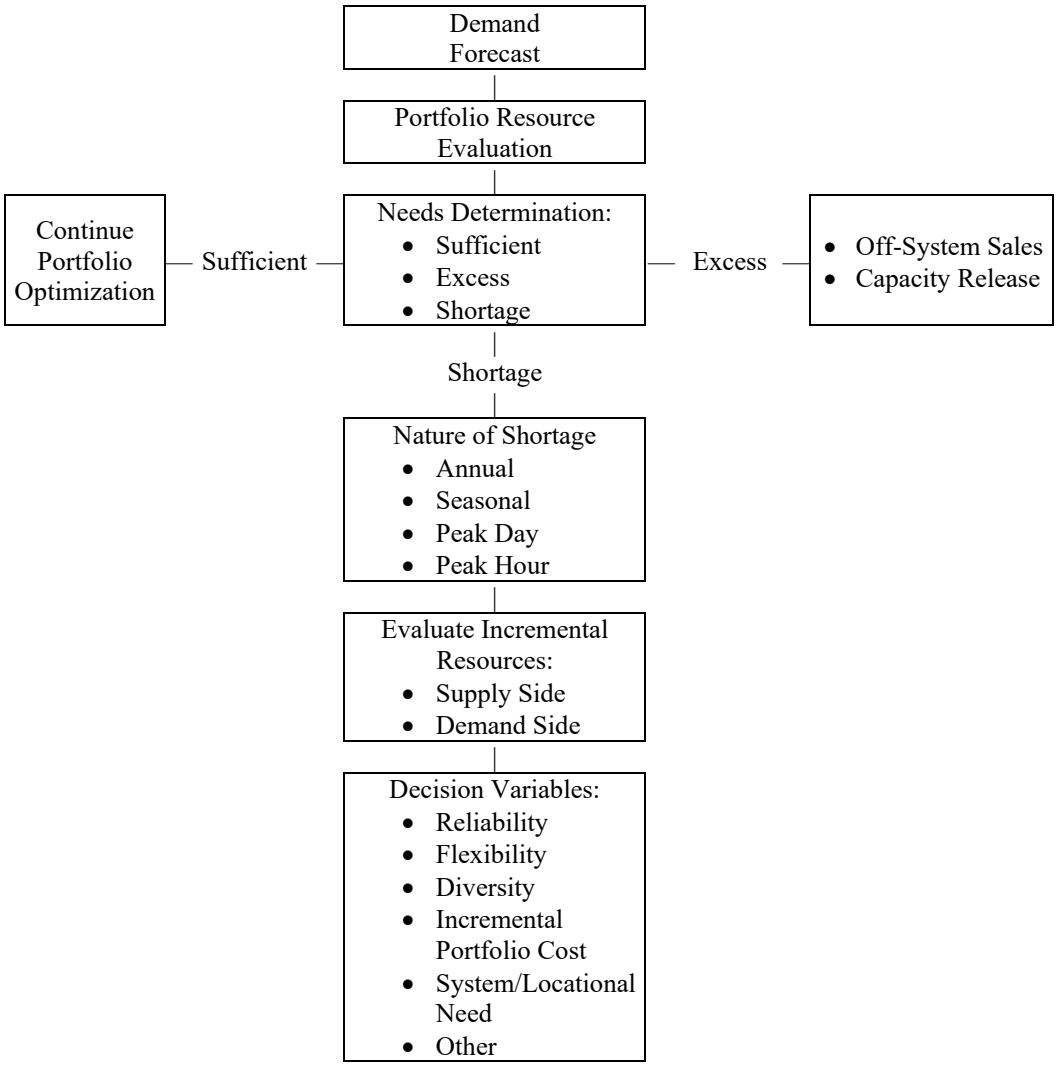
The load duration curves for FT-1 Customers, Capacity-Exempt Customers and Non-Firm Customers are presented in Exhibits 9 through 11. The Company is providing the back up for this data in Microsoft Excel format.

IV. Design of the Resource Portfolio

IV.A. Gas Resource Portfolio

The Company maintains a resource portfolio that includes pipeline transportation, underground storage, and peaking resources to meet customer requirements on the forecasted design hour, design day, design year, and normal year including a mid-winter cold snap. To meet this obligation, the Company employs an established and reliable approach to demand forecasting and resource procurement. To this end, the Company identifies, evaluates, and acquires a mix of supplies and capacity that minimizes cost while ensuring the reliability of

service to firm customers. The following figure is a schematic representation of the Company's resource evaluation and planning process.



IV.B. Analytical Process and Assumptions

To evaluate the adequacy of its portfolio relative to forecasted design day and design year customer requirements, the Company performs several analyses. The primary analysis is conducted utilizing the SENDOUT® model. The SENDOUT® model is a linear-programming optimization software tool used to assist in evaluating, selecting, and explaining long-term portfolio strategies. SENDOUT® allows the Company to model its resources in detail and to assess the adequacy and cost of its portfolio. SENDOUT® also aids the Company in evaluating options for incremental resources based on customer requirements and cost. Using the SENDOUT® model, the Company can (1) determine the least-cost portfolio that will meet forecasted customer demand, and (2) test the sensitivity of the portfolio to key inputs and assumptions, as well as its ability to meet the Company's design day and design year planning

standards and contingencies. Based on the results of this analysis, the Company can make preliminary decisions on the adequacy of the resource portfolio and its ability to meet system requirements in the near term and over the longer term.

The Company also utilizes load duration curve analysis to assess the adequacy of its supply portfolio. Load duration curve analysis allows for a visual comparison of each day's forecasted requirements for the design year with the supplies and resources available to meet those requirements. This type of analysis, coupled with SENDOUT® studies, is helpful in identifying a design heating season shortfall in the supply portfolio.

The Company identifies the expected design hour requirements at each take station utilizing its Synergi Gas® network analysis modeling software. Synergi Gas® modeling software is used to simulate natural gas transmission and distribution systems. This hydraulic modeling software identifies, predicts, and helps the Company address its operational challenges, enabling day-to-day efficiency of gas distribution and transmission networks. Synergi Gas® software provides the results needed to make design, planning, and operating decisions using robust equations. The identified take station requirements are used to assess the adequacy of the gas supply portfolio, including expected deliveries by marketers, to identify any design hour imbalances. The Company compares the forecasted flows with the supply resources delivered to the take stations which include; contractual hourly entitlements of the Company's existing transportation contracts, on-system peaking assets, and expected deliveries by marketers.

For the purpose of preparing this Long-Range Plan, the Company focused its analysis on design year forecast demand. However, the Company has also analyzed normal year forecasted demand and a cold-snap scenario using the Company's existing resource portfolio and proposed resources necessary to meet requirements. For the design year and normal year analyses, the Company compared resources and requirements for all firm planning load (i.e., firm sales and Customer Choice requirements) and also looked at resources and requirements applicable to firm sales customers only. The examination of these various scenarios enables the Company to test the adequacy and flexibility of the resource portfolio as described previously.

To perform the analysis of these scenarios, the Company incorporated several key assumptions. The Company used the NYMEX Henry Hub and basis forward curves dated June 7, 2022 as key pricing inputs to evaluate these scenarios. To model fixed and variable pipeline and storage costs, the Company relied on tariff rates effective in June 2022. Tariff rates relied upon by the Company for purposes of the analysis include rates filed by each of Texas Eastern Transmission, LP ("Tetco") and Eastern Gas Transmission and Storage ("EGTS") in each pipeline's respective general Section 4 rate case proceeding as filed by the pipeline with the Federal Energy Regulatory Commission. Such rates are subject to refund subject to the outcome of any settlement and/or litigation between each of EGTS, TETCO, its customers and the FERC. Additionally, the Company is aware that pursuant to FERC Docket No. RP19-445, rates charged by Iroquois Gas Transmission System, LP are expected to be revised effective Fall 2022, however, is unable to provide any further information at the time of this filing.

Throughout all these scenarios, the Company has assumed that there are no significant changes to the capacity releases in the Customer Choice Program since the redesigned program was implemented in November 2020. The Company has also assumed that, throughout the

forecast period, there is no change in the Company's service obligation to plan for the capacity requirements of firm, non-Capacity Exempt customers. Therefore, for the purposes of this filing, the Company has included both Firm Sales and Firm Transportation customers that utilize the Company's firm capacity in the SENDOUT® model (i.e., planning load). The Company's analysis assumes that all transportation and storage contracts expiring during the forecast period are renewed at the same cost, the same volume, and with the same operating characteristics except where explicitly discussed. Finally, the Company assumed that its LNG supply contracts and its city gate supply arrangements, will expire on the contract termination date, and will not be available after the respective date. Where solutions to resolve supply shortfalls have been identified, the Company has modeled the capabilities and costs of incremental assets required to meet design hour, design day, and design year requirements utilizing the best information available as of June 2022.

As previously stated, the Company has also examined its remaining supply portfolio after expected capacity releases to retail marketers and compared that portfolio to forecast requirements for sales customers. While the primary purpose of this analysis is to produce a forecast of gas costs for sales customers, this analysis is also useful to help the Company understand the optimal way to dispatch the assets it is likely to manage on behalf of sales customers.

IV.C. Available Resources

This section describes the Company's current resource portfolio, the Company's expected resource portfolio given certain portfolio decisions the Company has made, and decisions the Company is considering. This section also discusses any modifications that the Company anticipates making to the portfolio during the forecast period to meet sendout requirements. As discussed in more detail below, to meet design hour, design day, and design year sendout requirements, the Company's resource portfolio is composed of the following categories of available resources: (1) transportation contracts; (2) underground storage contracts; and (3) peaking resources. In addition, a discussion of the Company's Natural Gas Portfolio Management Plan is included.

The following Exhibits detail the assets in the Company's supply portfolio:

- Exhibit 8 is a table showing the daily and the hourly contract quantities at each city gate for each transportation contract that delivers to the Company's city gates in Rhode Island on both Tennessee and Algonquin, in the Company's resource portfolio as of November 1, 2022.
- Exhibit 12 is a schematic of the Company's transportation and underground storage contracts effective as of November 1, 2022.
- Exhibit 13 is a table listing and description of each transportation and storage contract in the Company's resource portfolio as of November 1, 2022.
- Exhibit 14 is a listing of portfolio assets with the corresponding path as identified by the Company to which each asset is assigned.

IV.C.1. Transportation Contracts

The Company has capacity entitlements on multiple upstream pipelines that allow for the delivery of gas to its city gates in Rhode Island. The Company has four city gate interconnects with Tennessee: Pawtucket/Cumberland, Lincoln, Smithfield and Cranston. Additionally, the Company has ten city gate interconnects with Algonquin; Dey Street, Westerly, East Providence, Portsmouth, Tiverton, Burrillville, Barrington, Bristol/Warren, Cumberland and Crary Street. The Company's transportation contracts provide access to domestic production fields, as well as liquid trading points that afford the Company a level of operational flexibility to ensure the least-cost dispatch and reliable delivery of gas supplies. For the period beginning November 1, 2022, the Company is in the process of securing an additional firm transportation contract on AGT for 5,000 Dth/day from Beverly, MA to Dey St with an option to renew in evergreen. At the time of this filing, the contract number was not yet available. This new resource is reflected in exhibits 12 and 13. The Company's transportation contracts are summarized on pages 1 through 3 of Exhibit 13.

IV.C.2. Underground Storage Services

The Company's underground storage assets are critical to allowing the Company to meet winter-season customer requirements. By using long-haul capacity to fill storage, the Company can use its transportation resources at a higher load factor. Underground storage supplies also allow the Company to serve peak-period requirements with off-peak priced gas supplies. Additionally, underground storage greatly enhances the flexibility of the Company's portfolio, allowing the Company to manage fluctuations in weather from day to day as well as to provide balancing service to transportation customers.

One underground storage service of note within the Company's portfolio is its storage swing service under Rate Schedule Firm Storage Market Area (FS-MA) on the Tennessee pipeline. This storage swing option is designed to allow a daily imbalance tolerance that is equal to the Maximum Daily Withdrawal Quantity (MDWQ), as stated in the Company's storage contract (10,920 Dth per day). The imbalance is treated as an automatic storage injection or withdrawal under the specific contract and assessed applicable charges under the FS-MA contract. The Company has elected its firm storage contract, FS-MA #501, as a storage swing option. This swing option provides vital flexibility to the Company's portfolio in order to manage daily fluctuations in load and avoid imbalance charges and/or penalties.

A summary of the Company's storage services is provided on page 4 of Exhibit 13.

IV.C.3. Peaking Resources

In addition to interstate pipeline and underground storage resources, the Company utilizes peaking resources to meet its design requirements. Peaking supplies are a critical component of the resource mix in that these supplies provide the Company with the ability to respond to fluctuations in weather, economics, and other factors driving the Company's sendout requirements on the coldest days.

IV.C.3.a. LNG Facilities

The Company maintains one permanent on-system LNG storage and vaporization facility as well as a continued interest as a storage and vaporization customer of National Grid LNG, LLC's facility at Providence, RI. Access to these facilities enhance reliability and provide a source of supply for the distribution system. Because these resources can be brought on line quickly, they are a critical resource utilized to meet hourly fluctuations in demand, maintain deliveries to customers, and balance pressures across portions of the distribution system during periods of high demand. These supplies must be available throughout the heating season to ensure service to customers when the Company has exhausted its available pipeline supplies. It is the Company's practice to have its storage inventories full as of December 1 of each year.

The Company's LNG storage and vaporization capacities are summarized in the table below:

Location	Facility Type	Maximum Vaporization (Dth per day)	Gross Storage Capacity (Dth)
Providence	LNG	95,000	600,000
Exeter	LNG	24,000	202,000
Total	**LNG**	**119,000**	**802,000**

IV.C.3.b. LNG Supply Contracts

Please see the table below for a listing of the LNG supply agreement(s) that are currently part of the Company's portfolio.

Supplier	Maximum Daily Quantity (Dth)	Annual Contract Quantity (Dth)	Term
GazMetro	279	68,000	Apr 1, 2022 – Nov. 30, 2022
UGI	410	100,000	Apr 1, 2022 – Nov. 30, 2022

LNG supply is currently transported to the LNG facilities via trucking arrangements with third parties. Deliveries from UGI for the 2022 off-peak season to Providence and Exeter are effectuated through contracts between the Company and each of Transgas Inc. and LP Transportation, Inc. For deliveries from Gaz Metro, the Company receives a bundled product whereby GazMetro contracts directly for transportation and the Company takes title to the LNG at the delivery point.

IV.C.3.c. Portable LNG Vaporization Contracts

In addition to the Company's LNG permanent storage interests at Providence and Exeter, the Company also stages portable LNG storage equipment in Cumberland, RI to support design hour system pressures and supply needs in the immediate area by utilizing the on-site vaporization capability. The Company has renewed its agreement for LNG storage services at Cumberland for the 2022/23 heating season. The Company discusses its long-term plans for the Cumberland facility in Section IV.C.10.

The Company also continues to mobilize portable LNG vaporization and storage equipment in Portsmouth to support its system on Aquidneck Island. This portable equipment provides critical pressure and supply support to Aquidneck Island should near-design day conditions arise. For the 2022/23 heating season the Company will continue to operate the site under temporary waiver; however, it filed for ongoing seasonal use of the site with the Energy Facility Siting Board (EFSB) on April 1, 2022. The Company's agreement for equipment rental continues through March 2023. [7] For the coming heating season, the Company is negotiating use of an incremental piece of equipment with the service provider that is anticipated to address noise complaints from the local community.

To support operations at its portable LNG sites at Cumberland and Portsmouth, the Company plans to contract for the following in the coming months; (1) liquid refill for the 2022/23 peak season and (2) trucking arrangements for the 2022/23 peak season.

IV.C.3.c.i. 45 HDD Planning Requirement for Aquidneck Island

The Company continues to utilize portable LNG operations on Aquidneck Island as a contingency in the event of Company or non-Company upstream issues that affect pipeline deliveries into Portsmouth. Specifically, the Company plans to have portable LNG operations fully staffed and available for vaporization at 45 HDD conditions or colder with a vaporization capacity of 650 mcfh. The vaporization capacity of 650 mcfh provides approximately 79% of the hourly customer demand on Aquidneck Island at 45 HDD conditions and approximately 55% of the hourly customer demand at 68 HDD conditions. Demand-side initiatives are also being leveraged on Aquidneck Island to offset customer load including community initiatives to increase customer participation in energy efficiency programs and the use of gas demand response pilots.

IV.C.4. Long-Term Supply Agreements

Please see the table below for the Company's long-term supply agreement that is currently part of the Company's portfolio.

[7] While the Company plans to use the Portsmouth equipment during the 2022/23 heating season, it is currently evaluating options to support Aquidneck Island in subsequent years.

Contract	Description	Maximum Daily Quantity (Dth)	Annual Contract Quantity (Dth)	Term
Constellation	Firm Supply RI AGT City gates	14,100	507,600	December 1, 2019 – March 31, 2024

IV.C.5. Citygate Delivered Supply

From time to time, the Company can also contract for city gate delivered supplies to meet customer requirements during the peak season. These supplies represent additional resources that are needed over and above the available assets in the Company's portfolio. These resources allow for a certain volume to be called upon on a daily basis, coupled with a seasonal delivery limitation, and are delivered to the Company's city gates by a third party. The purchasing of city gate delivered supplies can minimize the cost of the resource portfolio because the Company may have the opportunity to avoid annual demand charges for capacity. However, the level at which the Company can depend on such resources varies due to several factors, including, but not limited to; current market conditions, capacity availability, supply availability and overall reliability of the portfolio.

Based on the Company's current forecast requirements, it has not identified a need for additional city gate delivered supplies for the 2022/23 heating season provided the Company is able to source supplies on the east end of AGT and Tennessee to flow on its firm transportation contracts. The Company will explore the need for these supplies when it prepares the next update to its forecast.

IV.C.6. Asset Management Arrangements

At times, the Company may seek to enter into an asset management arrangement (AMA) for certain of the Company's assets. An AMA affords the Company the opportunity to place firm pipeline capacity into the control of a third party that is better able to manage the asset(s) without compromising access to liquid and reliable resources to firm gas customers. Currently, there are multiple assets being managed under AMAs. The Company issues a Request for Proposals (RFP) for AMAs for its Canadian transportation contracts on Enbridge and TransCanada each year. The third parties managing these assets are more active in the Canadian markets than the Company and are therefore able to provide value to the Company's firm customers for the opportunity to manage the assets. During the 2021/22 heating season, the Company awarded AMAs pursuant to a competitive RFP process for a portion of its Columbia pipeline capacity and its Tennessee pipeline capacity from Dracut that is not supplied from the PNGTS path. The Company will continue to assess the portfolio to determine those assets that are well positioned to be managed by a third party.

For the upcoming winter season, the Company issued RFPs for the management of its: (1) Canadian assets, including the paths feeding Tennessee via PNGTS and Iroquois, and

Tennessee capacity, (2) its IGTS capacity; (3) a portion of its Columbia capacity, (3) a portion of its Millennium capacity, and (4) a portion of its Tennessee capacity. The Company has made awards in principle for each RFP issued and is currently negotiating agreements for such asset management services.

IV.C.7. Net Need Analysis

Exhibit 15 contains a comparison of current resources and forecast requirements. This analysis considers only those contracts currently under contract in the portfolio. As of the date of this filing, the Company is in the process of issuing a Request for Proposals ("RFP") for supplies to be transported on the short-haul transportation contracts on both AGT and Tennessee originating from Beverly and Everett, respectively. In addition, the RFP will be seeking winter liquid supplies which are utilized in part, to supply the two portable LNG operations at Cumberland and Portsmouth. Exhibit 16 contains a comparison of current and proposed resources and forecast requirements. This analysis considers only those contracts currently under contract in the portfolio and assumes that the Company will secure supplies for winters 2023/24 and 2024/25 to (1) transport on the short-haul transportation contracts on both AGT and Tennessee originating from Beverly and Everett, respectively and (2) supply the two portable LNG operations at Cumberland and Portsmouth. Each exhibit contains summaries for the design day, the design heating season, the design non-heating season, and the design year. These tables demonstrate that the Company's proposed portfolio is sufficient to meet forecast customer requirements for the 2022/23 through 2023/24 gas years. In subsequent years, there is a need for incremental resources driven primarily by; (1) the expiration of the Company's long-term supply contract for city gate delivered supplies; and (2) the uncertainty of availability of supplies (both vapor and liquid) currently sourced from the Constellation facility in Everett, MA.[8]

The results of the Company's load duration curve analysis, in which design year sales and transportation customer requirements are plotted against the supply portfolio, are provided in Exhibit 17. This analysis supports the conclusion above; in the 2024/25 load duration curve the unserved area beneath the customer requirement line exceeds any surplus above the line indicating a need for incremental resources.

With respect to the design hour, the Company's Synergi analysis was completed using the Company's 2021 models with the design peak hour customer requirements adjusted to meet the 2022 forecast for the three firm customer requirement categories; Sales and FT-2, FT-1 and Capacity Exempt. Exhibit 2 shows the forecasted hourly imbalance at each take station for the five-year forecast period. This analysis indicates the need for incremental resources to meet the peak hour beginning in the 2024/25 gas year.[9]

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[8] If the Company is able to secure supplies into its Beverly and Everett capacity and secure similar levels of winter liquid as in years past, there is no design day supply/demand imbalance through at least the 2030/31 gas year.

[9] This analysis assumes all existing contracts remain in the portfolio, supplies are available to flow on transportation contracts from Beverly and Everett and winter liquid supplies are available at similar levels as procured in the past.

IV.C.7.a. Mid and Long-Term Portfolio Considerations

Given the forecasted supply/demand design day and design hour imbalances, coupled with current New England gas market dynamics, the Company has initiated a cross-functional team to evaluate options for near- and longer- term needs. The team is considering supply side options, both upstream and on-system, as well as potential demand side options. The Company will provide updates as this effort progresses.

IV.C.8. Changes and Proposed Additions to the Company's Resource Portfolio

There have been several changes and several proposed changes to the Company's gas supply portfolio since its last Long-Range Plan filing in June 2021.

(1) National Grid LNG (NGLNG)

The Company has entered into a Precedent Agreement for liquefaction services for up to 2,616 Dth per day and 507,504 Dth per refill season for a term of 20 years, commencing upon completion of facilities to add liquefaction at NGLNG's existing storage facilities located in Providence, Rhode Island. Based on the most current information from NGLNG on the construction schedule, the liquefaction facilities are now expected to be available for refill in the latter half of the 2022 off-peak season. For SENDOUT model analysis purposes, the Company is using November 2022 as the in-service date, however, the Company will be required to take service on the liquefaction contract should it be available prior to this date. To date, the Company has relied primarily on imported LNG for its refill requirements; the NGLNG facilities will allow the Company to access liquid supplies from the Marcellus Shale region and utilize its existing Algonquin capacity to transport volumes to Providence where it will use its existing storage agreement with NGLNG for LNG storage. The Company's agreement with NGLNG for liquefaction services provides for a cost capping mechanism to protect Narragansett customers in the event of project overruns during the primary term of the agreement; costs for the existing storage and vaporization services are charged pursuant to NGLNG's tariff on file with the FERC.

(2) Northeast Energy Center, LLC (Northeast Energy)

The Company has entered into a Precedent Agreement for up to 1,780 Dth per day and 380,920 Dth per refill season for a term of 15 years, commencing upon completion of the necessary facilities. The Northeast Energy project is located in central Massachusetts and is expected to be in-service by the start of the 2023 off-peak season in April. The Northeast Energy project will allow the Company to utilize its existing Tennessee capacity to transport volumes from the Zone 4 production region to the proposed liquefaction facility located in Zone 6. The LNG will be trucked from the facility to the Company's LNG facilities in Rhode Island. The Company has an option to reduce its interest in the Northeast Energy Center project prior to April 1, 2023 should certain contractual conditions be met.

(3) *Incremental Winter Liquid Volumes (LNG)*

To support the portable LNG storage operations at Cumberland and Portsmouth, the Company will need to pursue a supplemental winter-only LNG purchase agreement. For purposes of this LRP, the volumes from last year are being used for pricing and estimates for this upcoming winter; 28,500 Dth for Cumberland and 38,950 Dth for Portsmouth, totaling a portable need of 67,450 Dth.[10]

As was also contracted for last year, the Company also plans to purchase 125,000 Dth of additional winter-only liquid for the Exeter and NGLNG/Providence LNG facilities to accommodate balancing on an intraday and hourly basis throughout the 2022/23 winter season.

(4) *Constellation LNG LLC*

At this time, it remains unclear if Constellation LNG LLC will continue to operate its LNG import terminal at Everett, MA beyond 2024. Closure of the facility would impact the New England region's ability to supply winter vapor and summer liquid to firm gas customers. For SENDOUT purposes and for discussion, the Company has assumed that the facility will no longer be operational after the 2023/24 winter and any volumes previously provided by Constellation are not included in the analysis.

(5) Incremental Algonquin Capacity

The Company is in the process of securing year-round access to a firm transportation agreement with AGT that will allow for deliveries of up to 5,000 dth/day from the receipt point of Beverly, Salem for redelivery to the Company's citygate at Dey, St. to be effective November 1, 2022. The initial term of this agreement is for a period of one year; under FERC policy, as a long-term shipper paying to AGT the maximum recourse rate for this capacity, the Company will have a right of first refusal to continue service using this capacity for successive periods.[11]

IV.C.9. Future Portfolio Renewal Decisions

During the forecast period, the Company will be faced with critical decisions regarding the expiration of various transportation, underground storage, and peaking contracts in the supply portfolio. These decisions will be made based on the wholesale demand forecast, which incorporates the impact of the Company's energy efficiency as well as any future demand side management programs.

The Company will employ a two-step analysis to reach decisions on contract renewals, as well as the addition of new resources. First, depending on the type of need, the Company will canvas the marketplace to determine the availability of a replacement or new resource. Where appropriate, the Company will solicit competitive bids to determine the lowest-cost available resource.

[10] These volumes are subject to change following further system-planning modeling.

[11] Under FERC policy, a long-term shipper paying to a pipeline the maximum recourse rate will have a right of first refusal to continue service for successive periods.

The Company will evaluate non-price factors associated with the available replacement or new resource option. The Company will consider the flexibility, diversity, reliability, and contract term to determine the least-cost, most reliable option to meet the Company's resource need.

Absent the development of new incremental capacity projects or upgrades to on-system facilities that present cost-effective alternatives to the existing resource portfolio, the Company expects to renew its existing contracts for an extended time period to maintain flexibility, diversity, and reliability consistent with least-cost principles. As discussed above, pipeline rates for legacy capacity[12] are advantaged by the significant depreciation of plant and rate base associated with legacy capacity, as well as by revenue requirement recovery at average cost-based rates. Moreover, the respective interstate pipelines flow natural gas at higher load factors (with greater billing determinants), which helps to maintain the low rates associated with these pipelines. Provided however that pursuant to FERC policy, it is only long-term firm shippers paying the maximum recourse rate that will automatically have a right of first refusal to continue service at the end of a contract's primary term. For shippers paying a negotiated rate, the right of first refusal is not inherent and must be negotiated on a case-by-case basis.

In 2005, the Company signed a precedent agreement with Tennessee for firm transportation on the pipeline's ConneXion project to deliver supplies from the Gulf Coast to various city-gates in New England in the amount of 11,600 Dth/day. The corresponding contract numbers are 64025 and 64026. The project commenced service on November 1, 2007 with a primary term of twenty (20) years and was not negotiated to include any extension rights upon the end of the primary term. As a result, Narragansett does not currently have any right to continue firm service using this valuable capacity after October 31, 2027. Along with other ConneXion customers, the Company engaged Tennessee in negotiations to amend the existing service agreements beyond October 31, 2027 at the maximum recourse rate on file with the FERC. Due to the competitive market demand for additional capacity in the New England market area, the forward value of adding the right of first refusal extension and the extension to the term of the capacity path associated with these contracts, Tennessee was unwilling to offer the Company continuation of this valuable service at the recourse rate and would only offer to all ConneXion customers a right to continue service beyond the current contract expiry at a market-based rate. Rates for continuation of service on the ConneXion contracts beginning November 1, 2027 in SENDOUT are therefore reflective of the proposed terms for the extension.

IV.C.10. Long-Term Cumberland Solution

For the past several winters, the Company's interim solution to meet customer requirements in northern Rhode Island and manage system pressures has depended upon portable LNG operations at the former LNG plant on Scott Road in Cumberland, RI. The Company will continue to rely on the interim solution until a permanent solution is in service.

[12] "Legacy capacity" is defined herein as firm interstate pipeline transportation and storage service provided to the Company and other local distribution companies under FERC-approved rate schedules that were in effect upon, or soon after, the unbundling of the U.S. interstate pipeline system resulting from FERC Order No. 636.

The permanent solution for Cumberland includes two elements; (1) the LNG tank and (2) the existing take station:

1) The Company is issuing an RFP to review the multiple solution options identified in 2017. The goal is to validate past assumptions, capacity needs, peak hour requirements, and consider the potential impact of the Act on Climate initiative. Selection of a permanent solution will focus on addressing these considerations.
2) As part of the permanent solution, the Company has made the decision to rebuild the Scott Road take station. The Company needs to rebuild the Scott Road take station to address several existing integrity issues. In addition, the Company will design the rebuild to ensure the flow capacity will meet long-term forecasted customer requirements. The Company started development of this project in April 2020, with a targeted in-service date of August 2024. Once rebuilt, the Company will have the capability to receive incremental volumes from Tennessee should they be available.[13]

IV.C.11. Natural Gas Portfolio Management Plan (NGPMP)

In 2009, in Docket No. 4038, the PUC approved the Company's NGPMP, which discontinued contracting the natural gas portfolio from an external third-party asset management agreement to a portfolio managed primarily by the Company. In March 2016, also in Docket 4038, the PUC approved modifications to the management of the Company's NGPMP that were designed to provide various financial, regulatory, and risk management benefits over previous asset management arrangements. The Company uses transportation contracts, underground storage contracts, peaking supplies, and supply contracts to purchase gas supplies to economically and reliably serve its sales customers. Additional purchases and sales may be made to generate revenue by extracting value from any assets that are not required to serve customers on any day. The mix of supply, transportation, and storage contracts allows for sales customers to receive natural gas during periods of high-demand, and to optimize the value of an asset when not needed. Opportunities to optimize may be limited and are subject to prevailing market conditions, which may include: the fluctuation in the price of natural gas, the value of temporarily unused assets, the existence of excess transportation and storage capacity, and the opportunity to optimize delivered supplies as storage fill opportunities arise. Unless otherwise directed by the PUC, the Company will continue to manage the natural gas portfolio as specified in the NGPMP.

IV.D. Portfolio Costs

The Company plans its portfolio to meet the forecast design day and design annual requirements of its firm sales, FT-2, and a portion of its FT-1 customers. Detailed information regarding costs of the full portfolio are presented in Exhibits 18 through 21. Cost projections were developed using the New York Mercantile Exchange (NYMEX) Henry Hub forward curve from June 7, 2022 in conjunction with forecasted regional basis from a combination of public and internally developed forward price curves.

[13] The Company will work with Tennessee Gas Pipeline as the rebuild progresses to determine the availability of incremental upstream capacity. The Company will endeavor to optimize alignment between the rebuild of the take station and the potential capacity addition.

In Exhibit 18, the Company has provided a projection of costs for its full supply portfolio assuming design weather. This projection provides a sense of the overall variable and fixed costs for all customers, including transportation customers. By evaluating these costs assuming design weather, the variable costs of all portfolio assets are reflected, including peaking assets, which are unlikely to be needed during normal weather. This Exhibit is formatted similarly to exhibits provided in the Company's Gas Cost Reconciliation (GCR). Total annual fixed costs for the 2022/23 gas year are projected to be approximately $133 million for the Company's transportation, storage, and supply agreements. Of the $133 million, $38 million is attributable to estimated supplier fixed costs. Total annual variable costs for the same period are projected to be approximately $342 million assuming design weather. Combined fixed and variable costs are projected to be $425 million.

In Exhibit 19, the Company has provided a preliminary estimate of the fixed and variable costs that will support the GCR, to be filed in August 2022. The GCR pertains solely to sales customers and assumes normal weather. The fixed costs of pipeline capacity and storage released to marketers are not included in the GCR, nor are the variable costs attributable to transportation customers. Total annual fixed costs for the 2022/23 gas year are projected to be approximately $125 million for the Company's transportation, storage, and supply agreements for sales customers. Total annual variable costs for the same period are projected to be approximately $188 million assuming normal weather. Combined fixed and variable costs are projected to be $262 million. On a unitized basis, as shown on Page 4 of Exhibit 19, the weighted average commodity cost is estimated to be $6.606 per dekatherm. For reference, the straight average NYMEX Henry Hub forward curve for the 2022/23 gas year is $7.115 per dekatherm.

The cost projections in Exhibits 18 and 19 reflect an estimated cost of supplier fixed costs for the Company's Winter LNG, Everett and Beverly supply deal. An RFP for these supplies will be issued subsequent to the filing of this Long Range Plan. Due to the current market of global pricing as it relates to LNG, the Company has estimated the per unit cost for the referenced supplies at the Title Transfer Facility ("TTF") price for January 2023 as of the same NYMEX date, June 7, 2022.[14] The calculation reflects the projected maximum seasonal quantity (MSQ) multiplied that by the TFF price for the season. The total cost is reflected as a fixed cost, assuming that these supplies may be must-take. As such, the commodity cost of these supplies is reflected as a zero cost in the Exhibits.

Exhibit 20 provides the projected unitized costs by path for all customers and sales-only customers accounting for normal and design weather. Pages 1 through 4 of Exhibit 20 show the unitized 100% load factor cost of each path dispatched to meet customer requirements, which includes fixed costs, variable pipeline and storage costs, and commodity costs of gas supplies. Pages 5 through 8 of Exhibit 20 show the effective cost of each path at the expected load factor. These pages also include variable costs but differ from the prior pages in that the annual fixed costs for each path are unitized by the volume projected to be dispatched on each path. For paths with high load factors, the costs projected on pages 1 through 4 and on pages 5 through 8 will be relatively close; for paths with lower load factors, there will be a greater relative difference.

[14] TTF Pricing Title Transfer Facility ("TTF") is a pricing location within the Netherlands. TTF has become the most liquid pricing location in Europe, and as such, serves as a pricing proxy for the overall European LNG import market and currently reflects the expected cost of imported LNG into New England for the upcoming winter.

Exhibit 21 is an estimate of fixed costs by contract in the Company's portfolio including transportation contracts, storage contracts, and supply contracts. Pages 1 through 4 of Exhibit 21 show the unitized 100% load factor cost of each contract, which does not vary between normal and design weather. Pages 5 through 12 show the effective cost of each contract accounting for projected load factor.

IV.E. Rhode Island Act on Climate and Gas Decarbonization

The Company is committed to advancing Rhode Island's Act on Climate's (AOC) net-zero GHG emissions future by 2050 and supports the various efforts underway to further develop the plans for the implementation of Act on Climate requirements including through the PUC initiated Docket 22-01-NG related to the future of the gas distribution business, the development of the Executive Climate Change Coordinating Council's (EC4) 2022 report and the development of RIE's AOC Report (to be released early 2023) in response to the AOC requirements associated with the recent sale transaction.

The Company recognizes the AOC and the future strategies employed to decarbonize the gas and electric sectors presents implications for gas load and supply. While the current gas LRP does incorporate demand side measures that contribute to decarbonization requirements, it does not include supply-side gas decarbonization resources because they would not be available and online within the Report's 5-year forecast horizon. The Company will utilize the outcomes from Docket 22-01-NG, EC4 work, as well as additional RIE analysis associated with its AOC Report to inform future LRP reports.

The Company understands its responsibility under the AOC and is positioning itself to meet the inherent risks climate change poses for the State, its citizens, our customers, our employees, and our shareholders. As the Company works to enable net-zero, we are committed to keeping affordability and equity, safety, and reliability at the forefront of everything we do. These priorities form the foundation of the gas network decarbonization efforts in which we anticipate engaging for long-range planning purposes.

IV.F. Customer Choice Program

IV.F.1 Overview of the Company's Customer Choice Program

The Company's Customer Choice Program is an optional supplier choice program that allows the Company's Small, Medium, Large, and Extra Large Commercial and Industrial (C&I) customers to purchase gas supplies from sources other than the Company for transportation service by the Company. The Company continues to provide distribution and related services to all of its customers, including those that receive gas supply from a third party. Service is classified as either Firm Transportation Service FT-1 or Firm Transportation Service FT-2.

FT-1 service is available only to Large and Extra Large C&I customers. This service provides firm transportation of customer-purchased gas supplies to customers who elect to have their gas usage recorded on a daily basis at the customer's point of delivery. This service requires daily balancing of deliveries and usage by the Marketer, which includes meeting the impact of

unanticipated swings in weather and/or demand. The Company plans only for pipeline assets required to serve FT-1 customer requirements and does not plan for any storage and peaking assets required to serve these customers.

FT-2 service is available to all C&I customers. FT-2 service does not require the recording of daily gas usage at the customer's point of delivery, and as such, requires the Company to assume substantial responsibility for balancing the customer's deliveries and usage on a daily basis. Under FT-2 service, the Company informs the Marketer of the required deliveries for the upcoming gas day and is responsible for meeting any difference between the forecast and actual quantities as a result of weather or other factors, through storage and peaking services. For this reason, the Company plans for pipeline, storage, and peaking assets to meet the peak day requirements of FT-2 service.

The impact of the Customer Choice Program on portfolio planning coupled with the capacity constraints that exist on the interstate pipelines serving New England, specifically Algonquin and Tennessee, impelled the Company to re-examine its Customer Choice Program. In the Company's 2019 Long-Range Plan filing, the Company committed to considering the overall framework of the program and where appropriate seek to implement modifications to better align the program to support portfolio planning needs. Further, the review would consider several aspects of the Customer Choice Program including but not limited to; impact of customer load for which the Company is not responsible to plan for[15], capacity exempt eligibility criteria, alignment of mandatory capacity release with customer location, nomination and pooling flexibilities and balancing and cashouts. The Company committed to presenting its recommendations once the review was completed. Further, the Company's 2019/20 GCR Docket No. 4963 approved the Division's recommendation for the Company to work with the Division to evaluate the Company's cost allocation procedures for interstate pipeline firm transportation capacity assigned to firm transportation customers and to reflect modifications to the prior approach, which addressed the allocation of fixed gas supply reservation charges. In the Company's 2020 LRP filing, Docket No. 5043, the proposed plans were discussed and in Docket No. 5067, the Commission approved the change for implementation.

In November 2020, the Company successfully implemented the program changes which allowed the Company to release a pro rata share of each significant capacity path based on the Company's portfolio, thereby eliminating the previous "pick a path" approach to capacity release. Furthermore, since Marketers have access to largely the same assets as the Company, the commodity adjustment related to the "pick a path" methodology was also eliminated. Customers taking either FT-1 or FT-2 service are assigned certain pipeline assets. As discussed above, FT-2 customers are also allocated a portion of storage and peaking resources needed to meet peak day requirements. The storage and peaking resources are not physically released to customers but are instead managed by the Company and provided to customers at the city gate. Mandatory capacity assignment enables the Company to ensure that there is adequate capacity upstream of its city gates and to maintain the operational integrity of the distribution system. It also prevents certain customers from avoiding responsibility for the cost of the Company's long-term capacity commitments given these customers' ability to avail themselves of competitive options. The

[15] This load includes Capacity Exempt Customers as well as the storage and peaking load of the capacity eligible FT-1 Customers.

newest path in the portfolio, the 5,000 Dth/Day from Beverly to the Algonquin Citygate will be added to the peaking resources starting in November 2022. The Company has listed planned releases for the upcoming gas year in Exhibit 22.

Not all customers under the Company's Customer Choice Program are assigned capacity. Pursuant to the Settlement Agreement dated October 7, 1999, approved by the PUC in Docket No. 2902 (1999 Settlement Agreement), new customers who were classified as either Large or Extra-Large C&I customers and who were not previously served on firm sales service were given a one-time option to waive the Company's assignment of pipeline capacity. This one-time election is built into the Company's Tariff today.

In addition, pursuant to the 1999 Settlement Agreement, firm transportation customers transporting prior to November 1, 1997 were also given the one-time option of waiving the Company's mandatory capacity assignment shortly after the PUC's approval of the 1999 Settlement Agreement. For "grandfathered" customers who elected this waiver, those customers were thereafter ineligible to return to the Company's firm sales service.

IV.F.2 Impact of the Customer Choice Program on Portfolio Planning

In the Company's 2019 Long-Range Plan filing, the Company provided the results of its initial analysis of the impact of the Customer Choice Program on portfolio planning, looking at the total hourly supply/demand balance at each gate station on both Algonquin and Tennessee[16]. As part of total load, the Company included the load associated with all FT-1 customers, whether the Company plans on their behalf or whether or a third-party marketer provides deliveries. This FT-1 load was mapped to the gate station each of the customers is served from and the total volumes third-party marketers are expected to deliver was mapped to the gate stations to which they deliver. The results of this analysis showed an hourly imbalance at several of the Company's gate stations on both Algonquin and Tennessee. To meet the forecasted peak hour requirements for 2021/22 winter season, the Company contracted for additional resources. The results of the analysis using updated forecasted information are presented in Exhibit 2.

In Docket No. 5066, the Company, in coordination with the Division, began allocating the fixed costs of assets used to specifically meet the hourly requirements of the distribution system to all customers. The fixed costs of several supply and transportation contracts that provide critical peak hour support are included in the DAC System Pressure factor and excluded from the GCR. Due to generally mild weather experienced during the 2021/22 winter, these assets were not dispatched to meet hourly distribution system needs. Therefore, the Company is not proposing to include any variable costs associated with these assets in the System Pressure Factor. The Company will assess the need to reconcile variable costs for these assets annually in its GCR and DAC filings.

[16] The analysis was performed using the June 2018 forecast for the 2019/20 through 2023/24 gas years.

IV.F.3. Future Changes to the Customer Choice Program

As part of its review of the Customer Choice Program over the past several years, the Company considered changes to the Capacity Exempt criteria currently contained in the tariff, specifically the ability of Capacity Exempt customer to become Capacity Eligible. Because of the complexities, including operational feasibility, of such changes, the Company bifurcated this issue from the modifications to the Capacity Eligible program implemented in November 2020. The Company committed to communicating and collaborating with third-party marketers throughout the entire transition process of the Company's Customer Choice Program. At this time, the Company has not initiated further discussions with stakeholders regarding additional changes to the Customer Choice Program, including changes to the Capacity Exempt criteria.

V. Fulfilment of the Joint Memorandum of the Company and the Division Regarding the Long-Range Plan

The Joint Memorandum between the Company and the Division states that the annual Long-Range Plan filings will include certain information[17]. A listing of this information is provided in the table below along with the referenced exhibit providing such information in this filing.

[17] Pursuant to discussions with the Division, the Company and the Division have refined the list of information to be provided pursuant to the Joint Memorandum as part of the annual Long-Range Plan filings.

Item	Description	Reference
1	Retail volume forecast by rate group for normal weather	Exhibit 1 Exhibit 4
2	Retail meter count forecast by rate group for normal weather	Exhibit 5 Exhibit 6
3	Rhode Island Economic Forecast variables for normal weather	Exhibit 3
4	Wholesale volume forecast by rate group for normal and design weather	Exhibit 7
5	SENDOUT forecasts (normal and design weather) for capacity planning purposes for volumes and costs.	Exhibit 7
6	Updated portfolio information showing all changes to the portfolio (capacity/supply/LNG), including: • Updated Exhibit 12 (schematic) if any changes have occurred; • Updated Exhibit 13 (a description of the contracts within the portfolio, including expiration date and evergreen provisions); • Updated Exhibit 8 (table showing the daily and the hourly contract quantities at each city gate for each transportation contract that delivers to the Company's city gates in Rhode Island on both Tennessee and Algonquin, in the Company's resource portfolio)	Exhibit 8 Exhibit 12 Exhibit 13
7	Detailed information on needs for upcoming winter season, including SENDOUT analysis showing derivation of need.	Exhibit 15
8	Discussion of subsequent four-years and associated need and what the Company is pursuing with potential suppliers and pipelines to meet customer requirements, as well as expected costs of options.	Exhibit 15 Exhibit 16
9	Provide historic (5-10 years) and projected (out 5 years) annual wholesale load duration curves showing the following: • Stack existing supply resources (by path) against the daily wholesale load duration curve for historic period; • Stack proposed supply resources (by path) against the daily wholesale load duration curves for the projected periods; • Stack existing supply resources (by path) against the daily wholesale load duration curves for the historic November-March period; • Stack proposed supply resources (by path) against the wholesale load duration curves for the projected November-March periods; and • The Company will endeavor to develop equivalent hourly wholesale load duration curves	Exhibit 17
10	For individually metered high load factor Transportation customers, the Company will develop aggregated annual historic (5-10 years) and projected (out 5 years) load duration curves. For those customers with hourly metering, the Company will endeavor to provide the historic (5 years) aggregated hourly load duration curve	Exhibit 9 Exhibit 10 Exhibit 11
11	The Company will provide fixed cost of existing and proposed supply resources on a dollar per dekatherm (Dth) per day basis (annualized). Once individualized, then the Company will provide the same annualized information by path.	Exhibit 20 Exhibit 21
12	For each existing and proposed supply resource (by path), the Company will provide an estimated effective Fixed Cost (on a Dth per day basis) (i.e., taking into account load factor utilization) for the current period and forecasted time periods for both its normal and design weather scenario, which is the basis of the Company's decision-making.	Exhibit 20 Exhibit 21

VI. Exhibits

Exhibits are following.

Exhibit 1

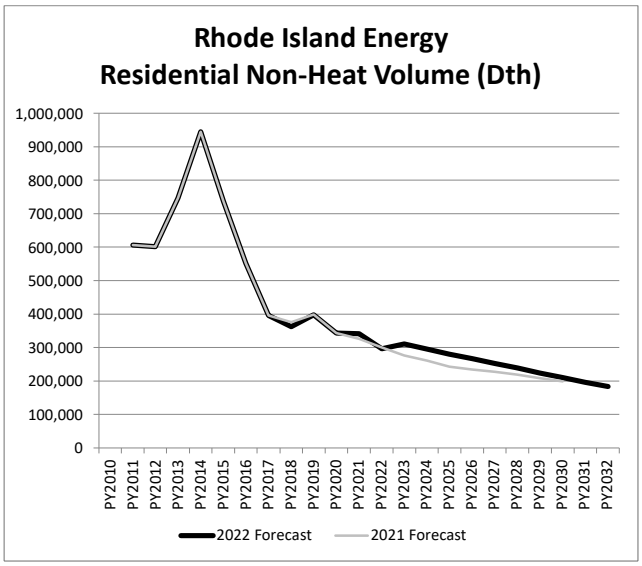
2022 Rhode Island Energy Volume Forecast (Dth) Chart III-B-1
Planning Year (Nov-Oct) Page 1 of 2

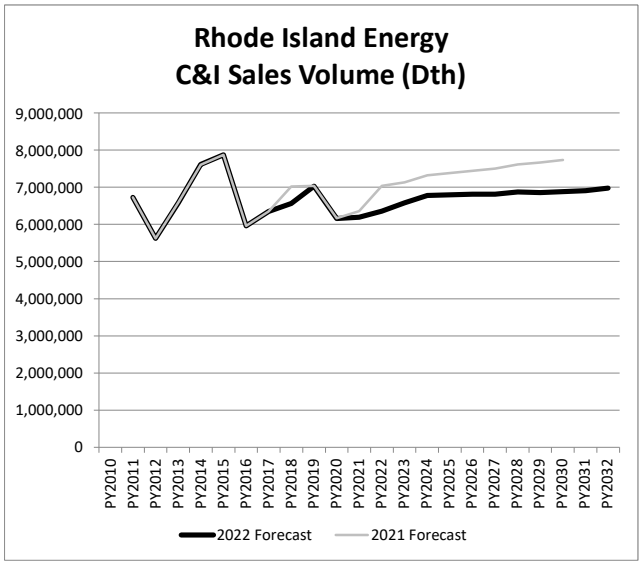
	RNH	RH	CI_Sales	FT1	FT2	Subtotal	Other	Total
PY2011	606,350	17,738,290	6,726,982	7,680,544	2,569,158	35,321,323	2,267,651	37,588,974
PY2012	601,399	14,783,757	5,621,831	7,610,425	2,333,884	30,951,297	2,195,914	33,147,211
PY2013	746,890	17,315,789	6,571,992	8,278,483	3,049,869	35,963,022	2,014,143	37,977,165
PY2014	944,175	19,573,872	7,610,946	8,563,673	3,548,382	40,241,047	1,795,342	42,036,389
PY2015	736,952	20,389,772	7,870,336	9,416,524	3,680,836	42,094,420	1,828,765	43,923,185
PY2016	551,336	16,675,372	5,959,482	8,656,944	3,569,930	35,413,063	1,865,144	37,278,207
PY2017	395,749	18,594,253	6,348,283	8,698,746	3,950,370	37,987,401	1,860,594	39,847,995
PY2018	362,687	18,694,105	6,556,966	8,875,527	4,024,743	38,514,028	1,942,194	40,456,222
PY2019	397,686	20,371,781	7,022,556	8,768,245	4,462,606	41,022,875	2,011,798	43,034,673
PY2020	343,088	19,176,946	6,157,256	8,212,992	4,303,418	38,193,700	2,068,653	40,262,352
PY2021	341,808	18,757,551	6,195,869	8,278,086	4,267,481	37,840,794	1,994,377	39,835,170
PY2022	296,073	18,672,736	6,355,910	8,222,207	4,179,500	37,726,427	1,942,020	39,668,447
PY2023	310,797	20,025,849	6,572,205	8,385,242	4,394,047	39,688,142	1,997,522	41,685,664
PY2024	295,980	20,444,274	6,776,015	8,506,662	4,464,857	40,487,788	2,016,215	42,504,003
PY2025	280,310	20,564,640	6,798,457	8,515,508	4,461,983	40,620,898	2,017,669	42,638,566
PY2026	266,198	20,807,911	6,808,711	8,528,716	4,467,870	40,879,406	2,020,862	42,900,268
PY2027	252,250	21,040,524	6,809,029	8,537,191	4,468,498	41,107,492	2,022,697	43,130,189
PY2028	239,356	21,417,131	6,864,548	8,567,158	4,498,441	41,586,633	2,030,814	43,617,448
PY2029	224,245	21,517,576	6,852,017	8,568,672	4,492,608	41,655,117	2,030,940	43,686,057
PY2030	210,247	21,758,893	6,878,647	8,586,651	4,507,929	41,942,367	2,035,754	43,978,121
PY2031	196,422	21,997,053	6,903,882	8,604,393	4,522,553	42,224,303	2,040,484	44,264,787
PY2032	183,591	22,376,858	6,969,029	8,640,009	4,558,932	42,728,419	2,050,259	44,778,678
PY27/PY22	-3.2%	2.4%	1.4%	0.8%	1.3%	1.7%	0.8%	1.7%

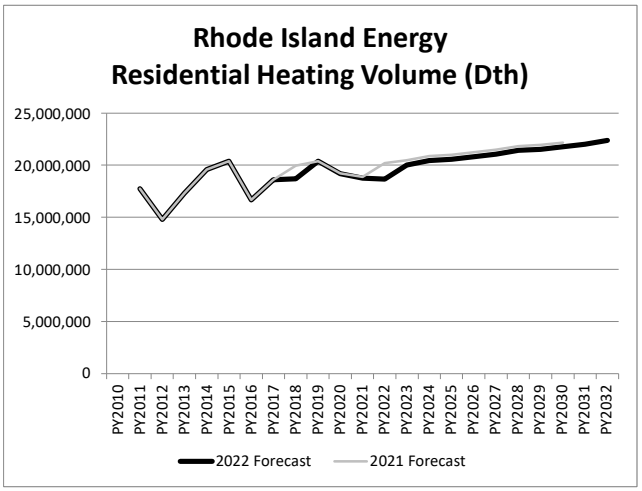
2021 Rhode Island Energy Volume Forecast (Dth)
Planning Year (Nov-Oct)

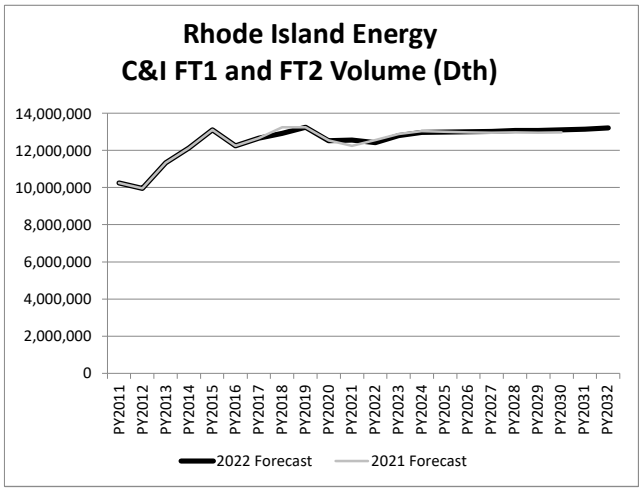
	RNH	RH	CI_Sales	FT1	FT2	Subtotal	Other	Total
PY2011	606,350	17,738,289	6,726,982	7,680,544	2,569,158	35,321,323	2,267,651	37,588,973
PY2012	601,399	14,783,757	5,621,832	7,610,425	2,333,884	30,951,297	2,195,914	33,147,211
PY2013	746,890	17,315,788	6,583,721	8,278,483	3,049,869	35,974,752	2,014,144	37,988,895
PY2014	944,174	19,573,872	7,599,237	8,563,673	3,548,382	40,229,338	1,793,702	42,023,040
PY2015	736,952	20,389,772	7,870,336	9,416,525	3,680,836	42,094,420	1,828,764	43,923,185
PY2016	551,336	16,675,372	5,959,428	8,656,943	3,569,930	35,413,008	1,865,144	37,278,152
PY2017	395,749	18,594,274	6,348,282	8,698,747	3,950,370	37,987,422	1,860,594	39,848,016
PY2018	375,502	19,943,709	7,021,050	9,022,578	4,205,501	40,568,340	1,938,339	42,506,679
PY2019	397,877	20,381,718	7,033,149	8,768,235	4,469,173	41,050,152	2,012,027	43,062,179
PY2020	343,560	19,204,168	6,161,983	8,208,510	4,313,144	38,231,365	2,067,717	40,299,082
PY2021	325,747	18,874,655	6,358,826	7,907,310	4,334,777	37,801,316	2,045,839	39,847,155
PY2022	300,785	20,203,541	7,034,186	7,779,116	4,766,925	40,084,553	2,459,542	42,544,095
PY2023	276,392	20,488,801	7,126,983	8,050,746	4,832,976	40,775,897	2,499,722	43,275,619
PY2024	260,581	20,878,142	7,319,546	8,134,775	4,898,558	41,491,601	2,511,128	44,002,729
PY2025	242,867	21,008,058	7,382,548	8,080,974	4,908,508	41,622,955	2,495,241	44,118,195
PY2026	233,703	21,239,154	7,443,635	8,034,205	4,934,251	41,884,947	2,482,684	44,367,632
PY2027	226,965	21,467,738	7,503,053	7,989,121	4,959,688	42,146,566	2,470,607	44,617,173
PY2028	218,461	21,828,142	7,607,716	7,958,767	5,010,890	42,623,977	2,463,942	45,087,919
PY2029	208,599	21,934,358	7,656,121	7,914,767	5,031,032	42,744,877	2,451,954	45,196,830
PY2030	198,661	22,170,600	7,736,384	7,885,606	5,070,235	43,061,486	2,445,121	45,506,607
PY2031	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
PY2032	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
PY27/PY22	-5.5%	1.2%	1.3%	0.5%	0.8%	1.0%	0.1%	1.0%

Chart III-B-1
Page 2 of 2









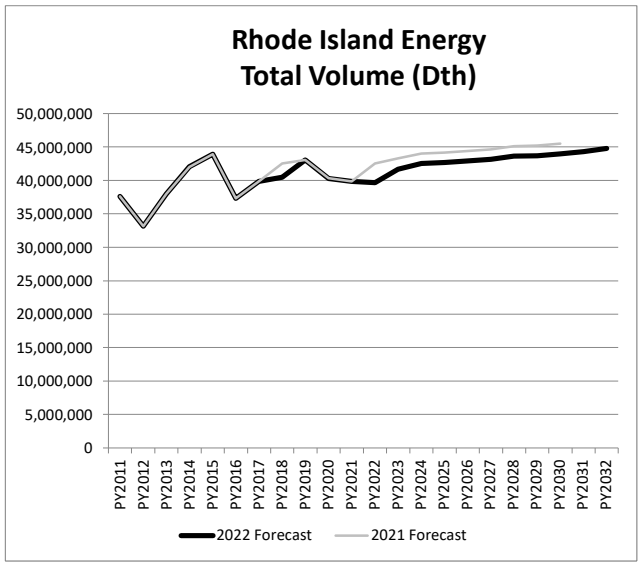


Exhibit 2

RESULTS FOR WINTER 2022/23 THROUGH 2026/27
Design Peak Hour Table

				2022/23		
Pipeline/LNG	**Lateral**	**Take Station**	**Meter No.**	**Total Supply Deliveries Company & Marketers (Dth/hr)**	**Total Firm Peak Hour Model Flow (DTH/hr)**	**Total Firm Peak Hour Balance (-) = Shortfall (+) = Surplus (DTH/hr)**
AGT	G	Barrington	00064	0	0	0
AGT	G	Warren	00012	811	737	74
AGT		Burrillville	00044	0	29	-29
AGT	G	Crary St	00842	0	3,990	-3,990
AGT	G	Dey St	00004	5,546	2,110	3,437
AGT	G	Cumberland	00083	42	24	18
AGT	G	Portsmouth	00013	1,045	1,032	13
AGT	G	Tiverton	00033	56	65	-9
AGT	G	E Providence	00010	1,698	1,152	545
AGT	E	Westerly	00008	144	121	23
AGT		Montville	00059	208	213	-5
TGP	Cranston	Cranston	420750	3,325	2,127	1,198
TGP	Cranston	Lincoln	420758	1,283	1,358	-75
TGP	Cranston	Smithfield	420910	450	1,573	-1,123
TGP		Cumberland	420135	1,343	1,343	0
PORTABLE LNG		Portsmouth		650	158	492
LNG		Exeter		1,000	750	250
LNG (incl. NGLNG)		Providence		3,958	3,958	0
PORTABLE LNG		Cumberland		750	750	0
			Total:	22,310	21,489	821
AGT	G-6 Only (Feed Prov Area)			8,055	7,988	67
AGT	G-2 (Feed Tiv & AI)			1,101	1,097	3
AGT	E			352	334	18
TGP	Cranston			5,058	5,057	1

Notes

1) Flows reflect a managed system for Northern Rhode Island.

2) Flows reflect 2021 hydraulic model with a global adjustment to have demand match sendout for Capacity Exempt, FT-1 and rest of customers (SFT2) for the June 2022 forecast for Rhode Island and the region focused June 2022 forecast for Aquidneck Island.

RESULTS FOR WINTER 2022/23 THROUGH 2026/27
Design Peak Hour Table

				2023/24		
Pipeline/LNG	**Lateral**	**Take Station**	**Meter No.**	**Total Supply Deliveries Company & Marketers (Dth/hr)**	**Total Firm Peak Hour Model Flow (DTH/hr)**	**Total Firm Peak Hour Balance (-) = Shortfall (+) = Surplus (DTH/hr)**
AGT	G	Barrington	00064	0	0	0
AGT	G	Warren	00012	770	749	20
AGT		Burrillville	00044	0	29	-29
AGT	G	Crary St	00842	0	4,172	-4,172
AGT	G	Dey St	00004	5,565	2,124	3,441
AGT	G	Cumberland	00083	42	24	18
AGT	G	Portsmouth	00013	1,045	1,035	11
AGT	G	Tiverton	00033	56	66	-10
AGT	G	E Providence	00010	1,698	1,209	489
AGT	E	Westerly	00008	144	122	22
AGT		Montville	00059	208	219	-10
TGP	Cranston	Cranston	420750	3,561	2,159	1,402
TGP	Cranston	Lincoln	420758	1,283	1,395	-111
TGP	Cranston	Smithfield	420910	450	1,566	-1,116
TGP		Cumberland	420135	1,343	1,343	0
PORTABLE LNG		Portsmouth		650	175	475
LNG		Exeter		1,000	750	250
LNG (incl. NGLNG)		Providence		3,958	3,958	0
PORTABLE LNG		Cumberland		750	750	0
			Total:	22,523	21,844	680
AGT	G-6 Only (Feed Prov Area)			8,033	8,254	-221
AGT	G-2 (Feed Tiv & Al)			1,101	1,100	0
AGT	E			352	341	11
TGP	Cranston			5,295	5,120	175

Notes

1) Flows reflect a managed system for Northern Rhode Island.

2) Flows reflect 2021 hydraulic model with a global adjustment to have demand match sendout for Capacity Exempt, FT-1 and rest of customers (SFT2) for the June 2022 forecast for Rhode Island and the region focused June 2022 forecast for Aquidneck Island.

RESULTS FOR WINTER 2022/23 THROUGH 2026/27
Design Peak Hour Table

				2024/25		
Pipeline/LNG	**Lateral**	**Take Station**	**Meter No.**	**Total Supply Deliveries Company & Marketers (Dth/hr)**	**Total Firm Peak Hour Model Flow (DTH/hr)**	**Total Firm Peak Hour Balance (-) = Shortfall (+) = Surplus (DTH/hr)**
AGT	G	Barrington	00064	0	0	0
AGT	G	Warren	00012	770	751	19
AGT		Burrillville	00044	0	29	-29
AGT	G	Crary St	00842	0	4,195	-4,195
AGT	G	Dey St	00004	5,023	2,133	2,890
AGT	G	Cumberland	00083	42	24	17
AGT	G	Portsmouth	00013	1,045	1,035	11
AGT	G	Tiverton	00033	56	66	-10
AGT	G	E Providence	00010	1,698	1,311	386
AGT	E	Westerly	00008	144	123	21
AGT		Montville	00059	208	228	-19
TGP	Cranston	Cranston	420750	3,567	2,216	1,351
TGP	Cranston	Lincoln	420758	1,283	1,401	-117
TGP	Cranston	Smithfield	420910	450	1,588	-1,138
TGP		Cumberland	420135	1,343	1,343	0
PORTABLE LNG		Portsmouth		650	189	461
LNG		Exeter		1,000	750	250
LNG (incl. NGLNG)		Providence		3,958	3,958	0
PORTABLE LNG		Cumberland		750	750	0
			Total:	21,986	22,089	-103
AGT	G-6 Only (Feed Prov Area)			7,490	8,390	-900
AGT	G-2 (Feed Tiv & AI)			1,101	1,100	1
AGT	E			352	351	1
TGP	Cranston			5,300	5,205	95

Notes

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2) Flows reflect 2021 hydraulic model with a global adjustment to have demand match sendout for Capacity Exempt, FT-1 and rest of customers (SFT2) for the June 2022 forecast for Rhode Island and the region focused June 2022 forecast for Aquidneck Island.

RESULTS FOR WINTER 2022/23 THROUGH 2026/27
Design Peak Hour Table

				2025/26		
Pipeline/LNG	**Lateral**	**Take Station**	**Meter No.**	**Total Supply Deliveries Company & Marketers (Dth/hr)**	**Total Firm Peak Hour Model Flow (DTH/hr)**	**Total Firm Peak Hour Balance (-) = Shortfall (+) = Surplus (DTH/hr)**
AGT	G	Barrington	00064	0	0	0
AGT	G	Warren	00012	770	751	19
AGT		Burrillville	00044	0	29	-29
AGT	G	Crary St	00842	0	4,115	-4,115
AGT	G	Dey St	00004	5,024	2,113	2,911
AGT	G	Cumberland	00083	42	24	17
AGT	G	Portsmouth	00013	1,045	1,035	10
AGT	G	Tiverton	00033	56	65	-10
AGT	G	E Providence	00010	1,698	1,177	521
AGT	E	Westerly	00008	144	124	20
AGT		Montville	00059	208	234	-26
TGP	Cranston	Cranston	420750	3,568	2,619	949
TGP	Cranston	Lincoln	420758	1,283	1,398	-114
TGP	Cranston	Smithfield	420910	450	1,572	-1,122
TGP		Cumberland	420135	1,343	1,343	0
PORTABLE LNG		Portsmouth		650	198	452
LNG		Exeter		1,000	750	250
LNG (incl. NGLNG)		Providence		3,958	3,958	0
PORTABLE LNG		Cumberland		750	750	0
			Total:	21,989	22,256	-267
AGT	G-6 Only (Feed Prov Area)			7,491	8,156	-665
AGT	G-2 (Feed Tiv & AI)			1,101	1,100	0
AGT	E			352	359	-6
TGP	Cranston			5,301	5,589	-287

Notes

1) Flows reflect a managed system for Northern Rhode Island.

2) Flows reflect 2021 hydraulic model with a global adjustment to have demand match sendout for Capacity Exempt, FT-1 and rest of customers (SFT2) for the June 2022 forecast for Rhode Island and the region focused June 2022 forecast for Aquidneck Island.

RESULTS FOR WINTER 2022/23 THROUGH 2026/27
Design Peak Hour Table

				2026/27		
Pipeline/LNG	**Lateral**	**Take Station**	**Meter No.**	**Total Supply Deliveries Company & Marketers (Dth/hr)**	**Total Firm Peak Hour Model Flow (DTH/hr)**	**Total Firm Peak Hour Balance (-) = Shortfall (+) = Surplus (DTH/hr)**
AGT	G	Barrington	00064	0	0	0
AGT	G	Warren	00012	770	757	13
AGT		Burrillville	00044	0	29	-29
AGT	G	Crary St	00842	0	4,138	-4,138
AGT	G	Dey St	00004	5,024	2,127	2,898
AGT	G	Cumberland	00083	42	25	17
AGT	G	Portsmouth	00013	1,045	1,034	11
AGT	G	Tiverton	00033	56	66	-10
AGT	G	E Providence	00010	1,698	1,207	490
AGT	E	Westerly	00008	144	125	19
AGT		Montville	00059	208	236	-28
TGP	Cranston	Cranston	420750	3,569	2,645	924
TGP	Cranston	Lincoln	420758	1,283	1,415	-132
TGP	Cranston	Smithfield	420910	450	1,582	-1,132
TGP		Cumberland	420135	1,343	1,343	0
PORTABLE LNG		Portsmouth		650	207	443
LNG		Exeter		1,000	750	250
LNG (incl. NGLNG)		Providence		3,958	3,958	0
PORTABLE LNG		Cumberland		750	750	0
			Total:	21,990	22,393	-403
AGT	G-6 Only (Feed Prov Area)			7,492	8,229	-737
AGT	G-2 (Feed Tiv & AI)			1,101	1,100	1
AGT	E			352	361	-9
TGP	Cranston			5,302	5,642	-340

Notes

1) Flows reflect a managed system for Northern Rhode Island.

2) Flows reflect 2021 hydraulic model with a global adjustment to have demand match sendout for Capacity Exempt, FT-1 and rest of customers (SFT2) for the June 2022 forecast for Rhode Island and the region focused June 2022 forecast for Aquidneck Island.

Exhibit 3

2022 Rhode Island Energy Economic Data
(Prices in 2022 $/Dth)

Chart III-B-3
Page 1 of 3

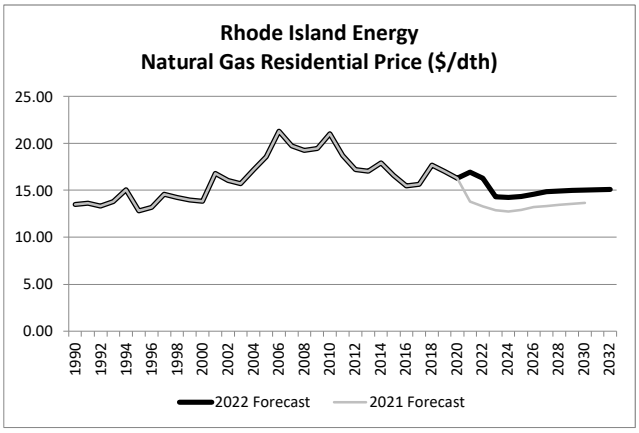
Year	NGPRCR Natural Gas Residential Price	OILPRCR No 2 Distillate Residential Price by All Sellers	*GORR* *Residential Gas-to-Oil Price Ratio*	GDP GDP (2009 Millions of $)	HH Households (thousands)	EMPL Non-Farm Employment (thousands)
1990	*13.50*	16.41	*0.82*	36853	377	457
1991	*13.62*	14.97	*0.91*	35521	381	427
1992	*13.33*	13.13	*1.01*	36136	384	427
1993	*13.77*	12.58	*1.09*	36705	387	432
1994	*15.06*	11.91	*1.26*	36774	391	436
1995	*12.79*	11.58	*1.11*	37358	395	441
1996	*13.18*	12.63	*1.04*	37946	401	443
1997	*14.58*	12.58	*1.16*	40140	405	452
1998	*14.24*	10.89	*1.31*	41910	411	460
1999	*13.96*	10.17	*1.37*	43141	411	468
2000	*13.82*	14.50	*0.95*	45177	410	480
2001	*16.81*	14.16	*1.19*	45748	407	481
2002	*16.03*	12.55	*1.28*	47221	410	482
2003	*15.68*	14.97	*1.05*	48567	411	487
2004	*17.18*	15.86	*1.08*	50512	412	491
2005	*18.56*	20.23	*0.92*	51367	411	494
2006	*21.29*	23.78	*0.90*	52899	411	496
2007	*19.70*	24.80	*0.79*	51473	412	495
2008	*19.25*	31.05	*0.62*	50576	414	484
2009	*19.45*	21.90	*0.89*	50004	414	463
2010	21.00	26.76	*0.78*	51330	415	462
2011	18.69	33.15	*0.56*	51280	417	464
2012	17.20	35.29	*0.49*	51582	421	469
2013	17.05	34.67	*0.49*	51910	425	475
2014	17.89	33.40	*0.54*	52292	428	482
2015	16.56	23.33	*0.71*	52818	428	489
2016	15.48	18.52	*0.84*	52903	428	494
2017	15.63	21.35	*0.73*	52610	426	497
2018	17.69	23.64	*0.75*	52492	426	501
2019	16.99	22.67	*0.75*	53227	429	504
2020	16.29	17.90	*0.91*	51415	427	462
2021	16.94	22.02	*0.77*	54509	429	480
2022	16.29	31.54	*0.52*	57593	431	493
2023	14.29	29.77	*0.48*	59430	434	500
2024	14.22	31.65	*0.45*	61045	436	503
2025	14.34	32.41	*0.44*	62516	437	504
2026	14.58	33.23	*0.44*	63863	437	504
2027	14.86	34.23	*0.43*	64988	438	504
2028	14.92	34.61	*0.43*	66070	438	505
2029	14.98	34.88	*0.43*	67194	438	505
2030	15.03	34.90	*0.43*	68265	439	505
2031	15.08	35.33	*0.43*	69333	439	505
2032	15.09	35.49	*0.43*	70439	439	505
PY27/PY22	-1.8%	1.7%	-3.4%	2.4%	0.3%	0.4%

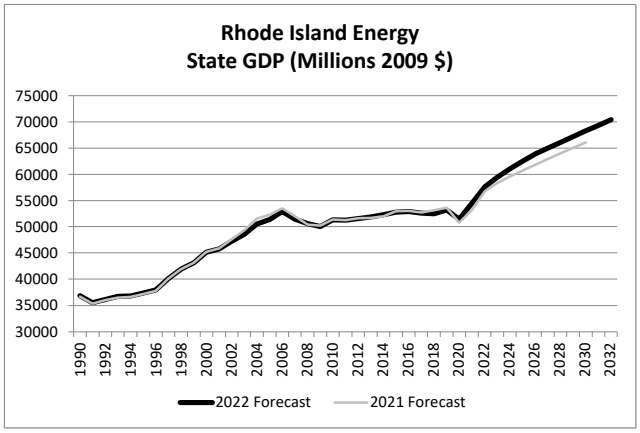
2021 Rhode Island Energy Economic Data
(Prices in 2021 $/Dth)

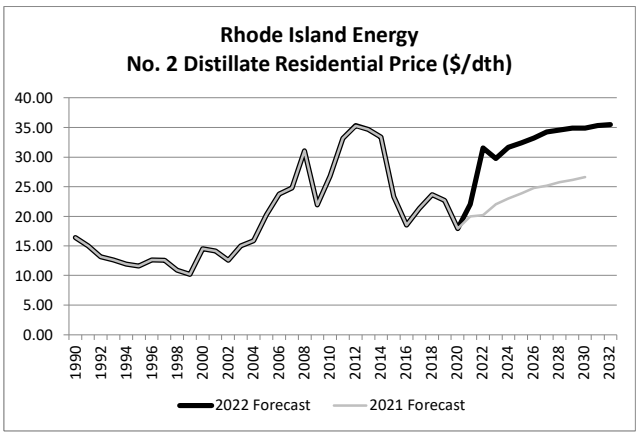
Chart III-B-3
Page 2 of 3

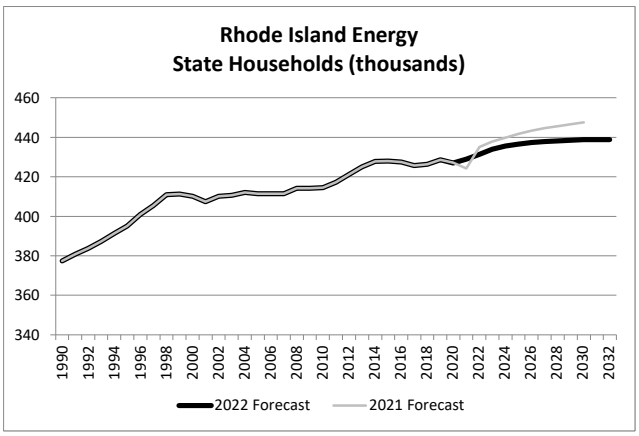
Year	NGPRCR Natural Gas Residential Price	OILPRCR No 2 Distillate Residential Price by All Sellers	*GORR*	GDP (2005 Millions of $)	Households (thousands)	Non-Farm Employment (thousands)
1990	*13.50*	*16.41*	*0.82*	*36680*	*377*	*457*
1991	*13.62*	*14.97*	*0.91*	*35355*	*381*	*427*
1992	*13.33*	*13.13*	*1.01*	*35967*	*384*	*427*
1993	*13.77*	*12.58*	*1.09*	*36534*	*387*	*432*
1994	*15.06*	*11.91*	*1.26*	*36605*	*391*	*436*
1995	*12.79*	*11.58*	*1.11*	*37187*	*395*	*441*
1996	*13.18*	*12.63*	*1.04*	*37773*	*401*	*443*
1997	*14.58*	*12.58*	*1.16*	*40135*	*405*	*452*
1998	*14.24*	*10.89*	*1.31*	*41918*	*411*	*460*
1999	*13.96*	*10.17*	*1.37*	*43157*	*411*	*468*
2000	*13.82*	*14.50*	*0.95*	*45250*	*410*	*480*
2001	*16.81*	*14.16*	*1.19*	*45903*	*407*	*481*
2002	*16.03*	*12.55*	*1.28*	*47581*	*410*	*482*
2003	*15.68*	*14.97*	*1.05*	*49344*	*411*	*487*
2004	*17.18*	*15.86*	*1.08*	*51552*	*412*	*491*
2005	*18.56*	*20.23*	*0.92*	*52284*	*411*	*494*
2006	*21.29*	*23.78*	*0.90*	*53492*	*411*	*496*
2007	*19.70*	*24.80*	*0.79*	*51999*	*412*	*495*
2008	*19.25*	*31.05*	*0.62*	*50413*	*414*	*484*
2009	*19.45*	*21.90*	*0.89*	*50216*	*414*	*463*
2010	*21.00*	*26.76*	*0.78*	*51363*	*415*	*462*
2011	*18.69*	*33.15*	*0.56*	*51263*	*417*	*464*
2012	*17.20*	*35.29*	*0.49*	*51607*	*421*	*469*
2013	*17.05*	*34.67*	*0.49*	*51679*	*425*	*475*
2014	*17.89*	*33.40*	*0.54*	*52004*	*428*	*482*
2015	*16.56*	*23.33*	*0.71*	*52956*	*428*	*489*
2016	*15.48*	*18.52*	*0.84*	*53031*	*428*	*494*
2017	*15.63*	*21.35*	*0.73*	*52728*	*426*	*497*
2018	*17.69*	*23.64*	*0.75*	*53133*	*426*	*500*
2019	*16.99*	*22.67*	*0.75*	*53671*	*429*	*504*
2020	*16.29*	*17.90*	*0.91*	50796	*427*	*465*
2021	13.79	19.99	*0.69*	53216	424	476
2022	13.28	20.19	*0.66*	56770	435	490
2023	12.86	22.03	*0.58*	58328	438	498
2024	12.73	23.01	*0.55*	59566	440	502
2025	12.91	23.87	*0.54*	60747	442	504
2026	13.21	24.77	*0.53*	61800	443	506
2027	13.32	25.17	*0.53*	62899	445	507
2028	13.45	25.76	*0.52*	63982	446	509
2029	13.56	26.11	*0.52*	65056	447	510
2030	13.65	26.63	*0.51*	66078	448	512
2031	#N/A	#N/A	*#N/A*	#N/A	#N/A	#N/A
2032	#N/A	#N/A	*#N/A*	#N/A	#N/A	#N/A
PY27/PY22	0.0%	4.5%	-4.3%	2.1%	0.4%	0.7%

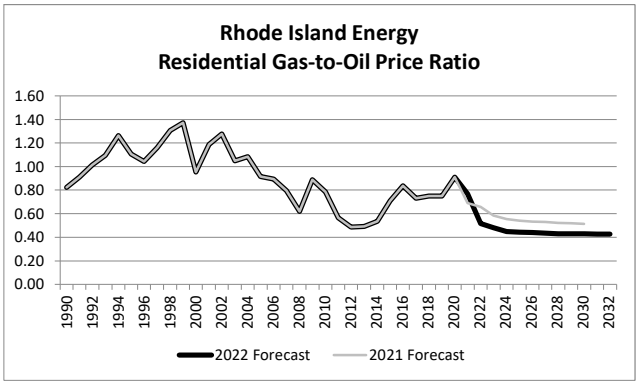
Chart III-B-3
Page 3 of 3











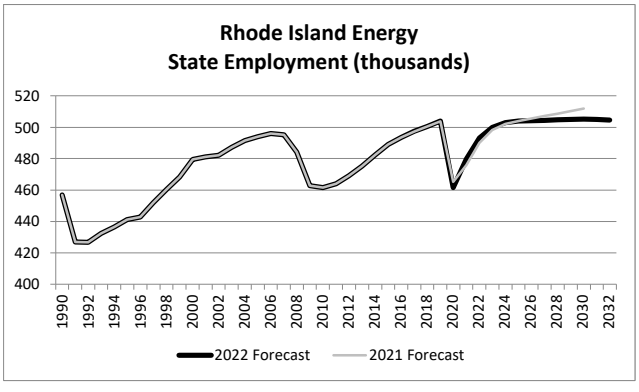
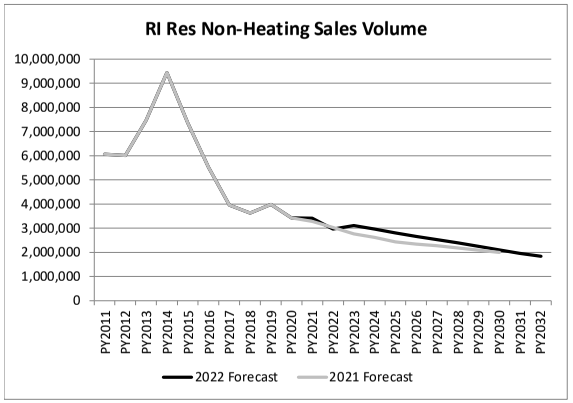
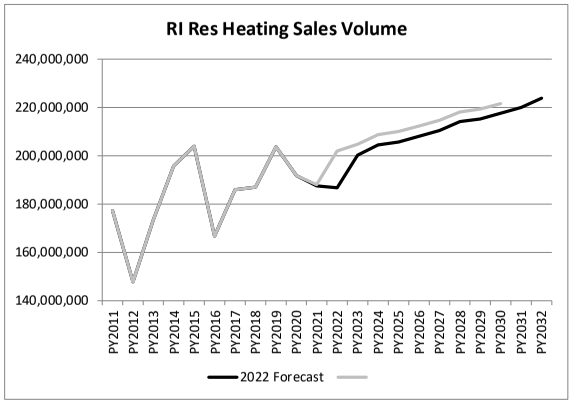
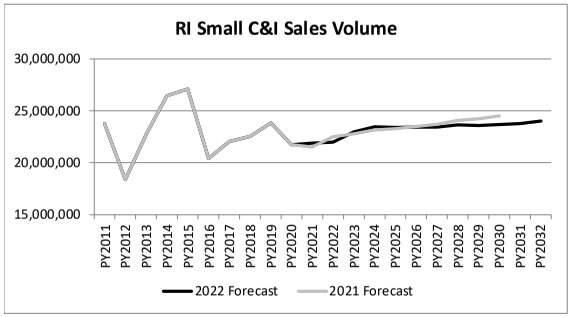


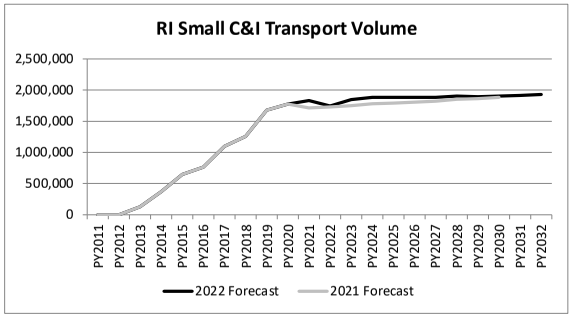
Exhibit 4

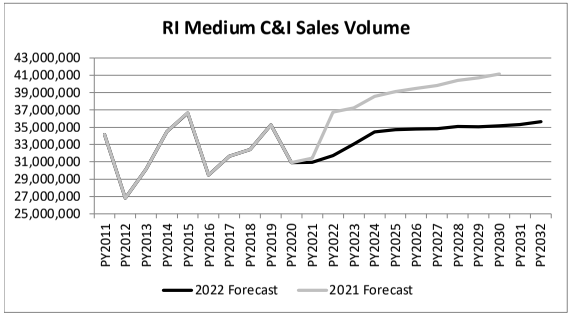
Rhode Island Energy
2022 and 2021 Volume Forecasts by Rate Class
(Therms; Planning Year)

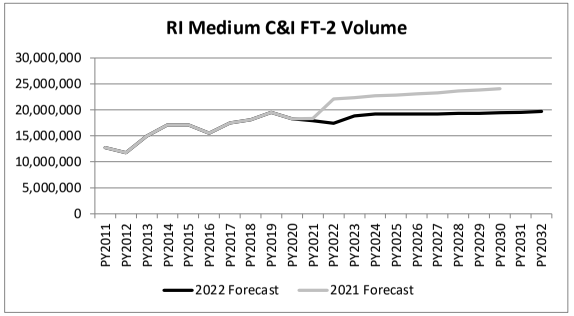


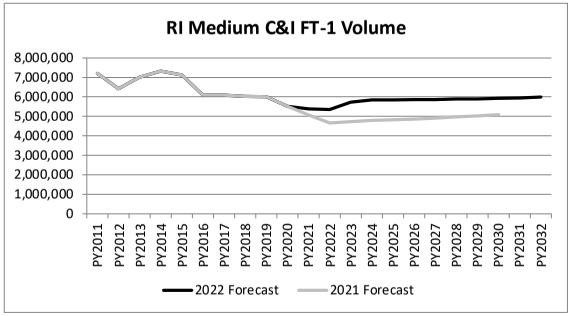




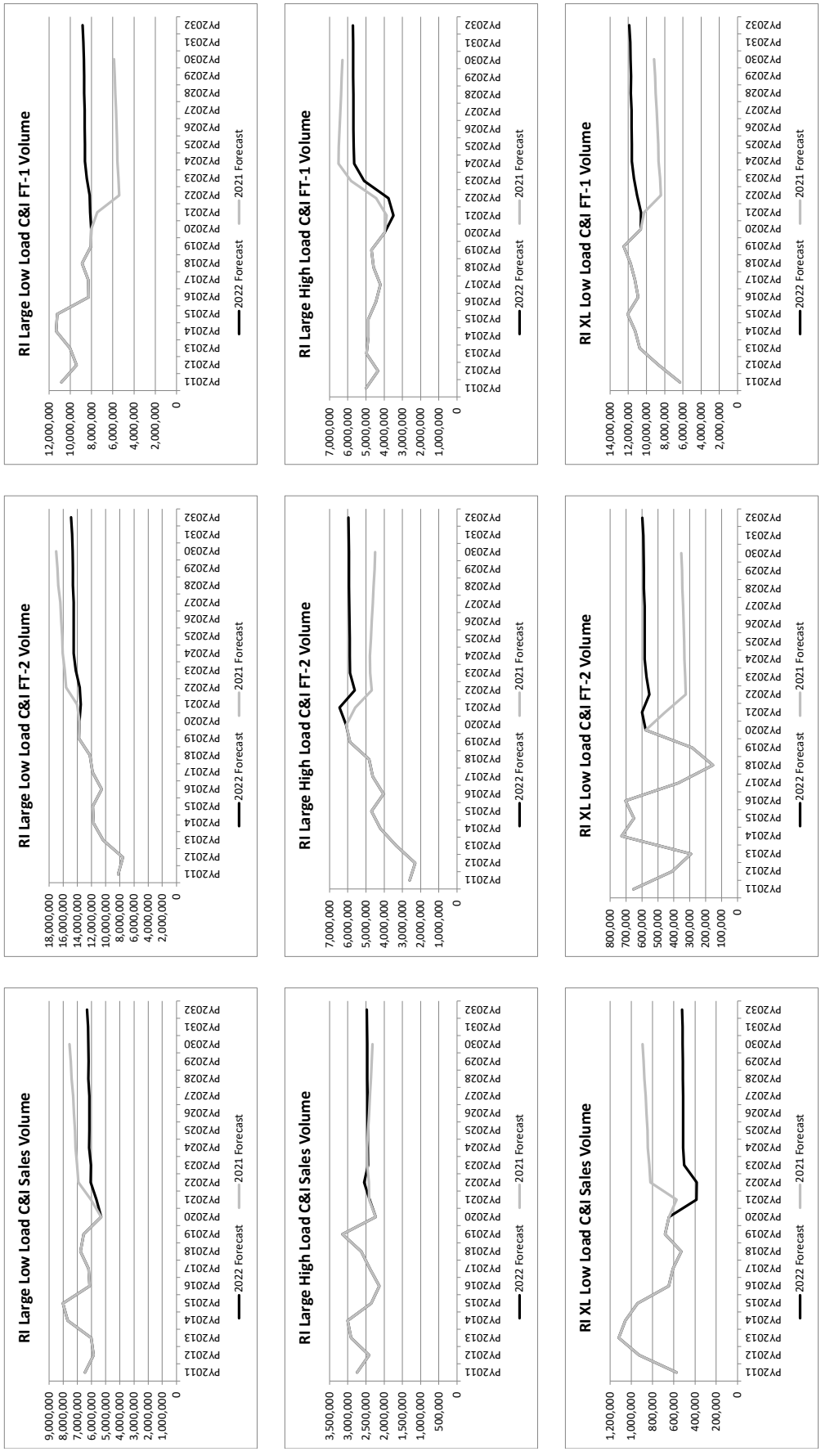




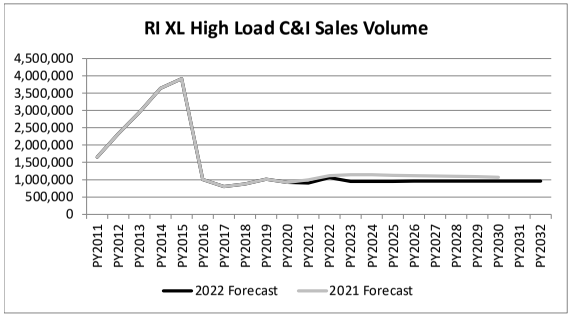


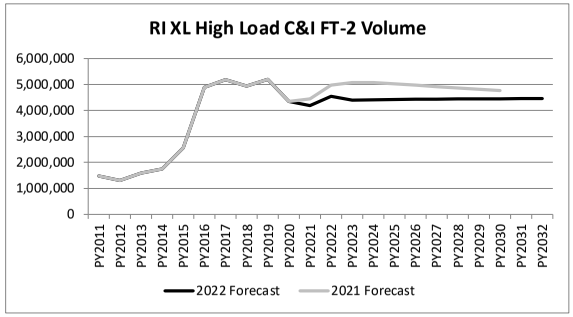


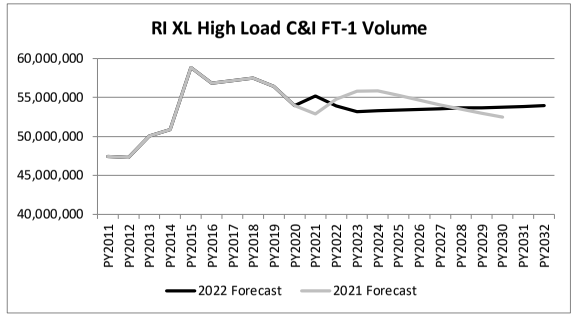
Rhode Island Energy
2022 and 2021 Volume Forecasts by Rate Class
(Therms; Planning Year)



Rhode Island Energy
2022 and 2021 Volume Forecasts by Rate Class
(Therms; Planning Year)







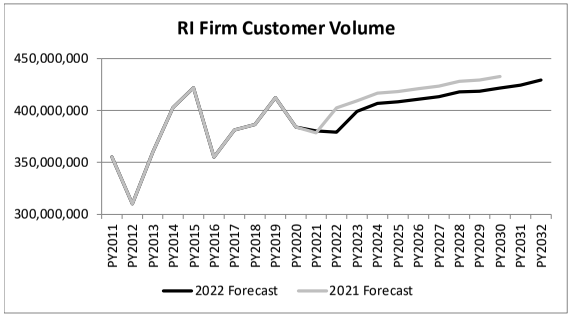


Exhibit 5

2022 Rhode Island Energy Meter Count Forecast
End of Planning Year (Nov-Oct)

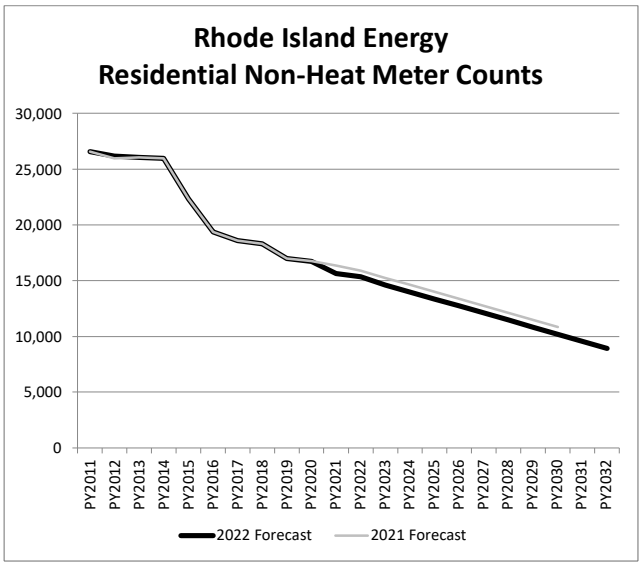
Chart III-B-2
Page 1 of 2

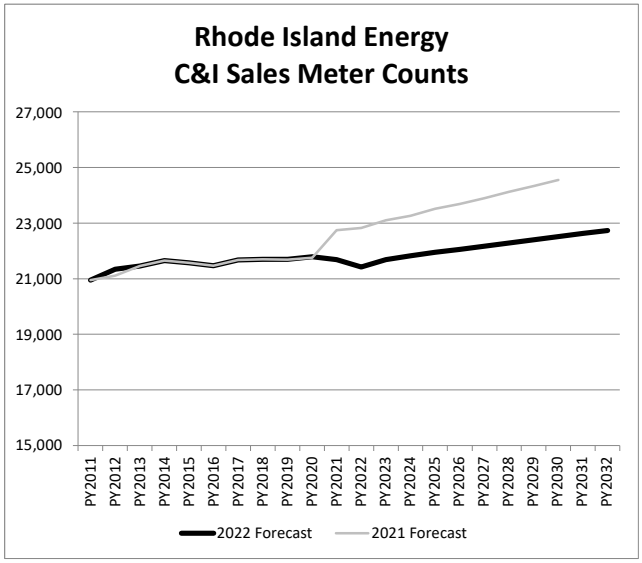
	RNH	RH	CI_Sales	FT1	FT2	Subtotal	Other	Total
PY2011	26,570	196,414	20,950	747	1,244	*245,925*	54	*245,979*
PY2012	26,165	202,192	21,338	744	1,413	*251,852*	69	*251,921*
PY2013	26,042	204,521	21,451	721	1,499	*254,234*	159	*254,393*
PY2014	25,958	206,568	21,651	699	1,486	*256,362*	178	*256,540*
PY2015	22,313	212,900	21,567	684	1,552	*259,016*	326	*259,342*
PY2016	19,351	218,314	21,467	674	1,680	*261,486*	488	*261,974*
PY2017	18,591	222,124	21,670	636	1,758	*264,779*	577	*265,356*
PY2018	18,298	225,211	21,694	624	1,776	*267,603*	637	*268,240*
PY2019	16,977	228,476	21,691	609	1,865	*269,618*	812	*270,430*
PY2020	16,729	230,436	21,786	595	1,828	*271,374*	870	*272,244*
PY2021	15,623	230,913	21,689	586	1,821	*270,632*	835	*271,467*
PY2022	15,340	231,149	21,417	564	1,730	*270,200*	768	*270,968*
PY2023	14,600	234,761	21,688	573	1,752	*273,374*	777	*274,151*
PY2024	13,966	237,936	21,826	576	1,762	*276,066*	782	*276,848*
PY2025	13,339	241,012	21,951	579	1,771	*278,652*	786	*279,438*
PY2026	12,725	243,953	22,055	580	1,779	*281,092*	790	*281,882*
PY2027	12,100	246,808	22,168	583	1,787	*283,446*	794	*284,240*
PY2028	11,468	249,641	22,285	584	1,797	*285,775*	798	*286,573*
PY2029	10,825	252,468	22,405	588	1,806	*288,092*	802	*288,894*
PY2030	10,185	255,280	22,518	591	1,814	*290,388*	806	*291,194*
PY2031	9,545	258,031	22,627	594	1,822	*292,619*	809	*293,428*
PY2032	8,904	260,744	22,733	597	1,832	*294,810*	813	*295,623*
PY27/PY22	-4.6%	1.3%	0.7%	0.7%	0.7%	1.0%	0.7%	1.0%

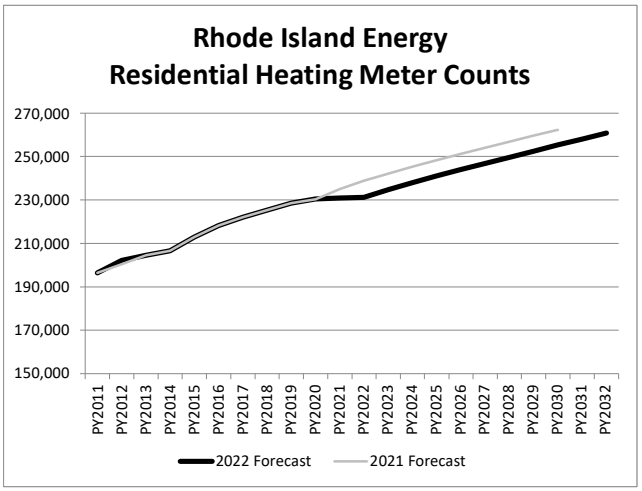
2021 Rhode Island Energy Meter Count Forecast
End of Planning Year (Nov-Oct)

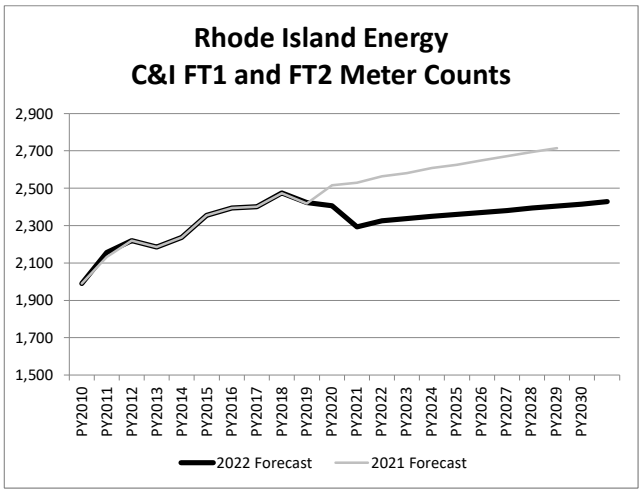
	RNH	RH	CI_Sales	FT1	FT2	Subtotal	Other	Total
PY2011	26,570	196,414	20,950	747	1,244	245,925	54	245,979
PY2012	25,955	200,463	21,105	734	1,399	249,656	65	249,721
PY2013	26,042	204,521	21,451	721	1,499	254,234	159	254,393
PY2014	25,958	206,568	21,651	699	1,486	256,362	178	256,540
PY2015	22,313	212,900	21,567	684	1,552	259,016	326	259,342
PY2016	19,351	218,314	21,467	674	1,680	261,486	488	261,974
PY2017	18,591	222,124	21,670	636	1,758	264,779	577	265,356
PY2018	18,299	225,211	21,693	624	1,776	267,603	637	268,240
PY2019	16,978	228,468	21,685	609	1,865	269,605	812	270,417
PY2020	16,750	230,384	21,757	595	1,823	271,309	870	272,179
PY2021	16,329	235,062	22,745	614	1,902	276,652	876	277,528
PY2022	15,883	238,872	22,826	619	1,911	280,111	880	280,991
PY2023	15,215	242,148	23,110	628	1,935	283,036	891	283,927
PY2024	14,617	245,378	23,268	634	1,947	285,844	896	286,740
PY2025	13,996	248,385	23,513	640	1,967	288,501	905	289,406
PY2026	13,372	251,226	23,689	645	1,981	290,913	912	291,825
PY2027	12,738	254,023	23,900	650	1,998	293,309	920	294,229
PY2028	12,105	256,778	24,132	655	2,017	295,687	928	296,615
PY2029	11,476	259,550	24,342	660	2,034	298,062	936	298,998
PY2030	10,852	262,321	24,556	664	2,050	300,443	944	301,387
PY2031	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
PY2032	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
PY27/PY22	-4.3%	1.2%	0.9%	1.0%	0.9%	0.9%	0.9%	0.9%

Chart III-B-2
Page 2 of 2









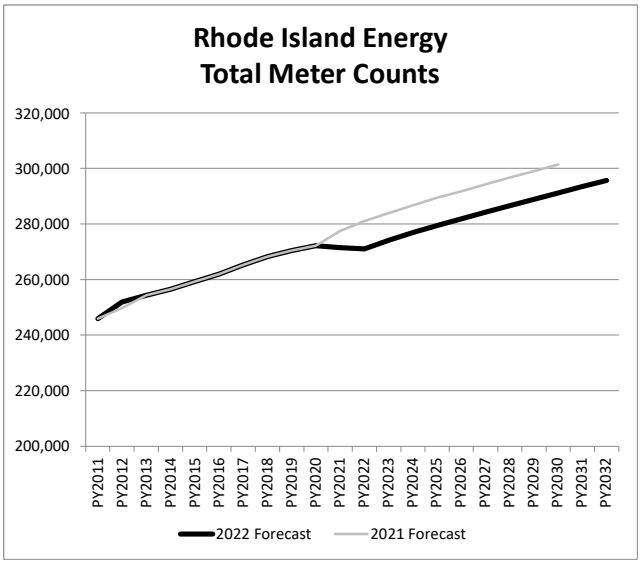
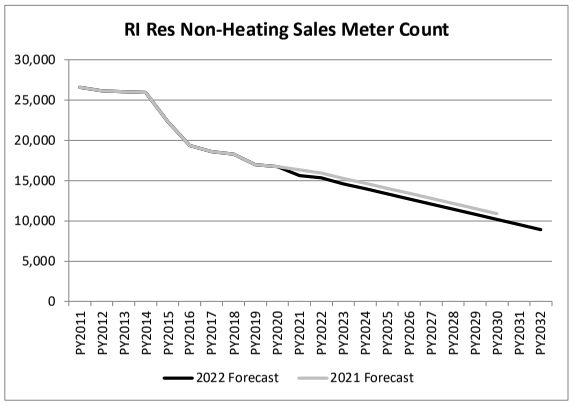
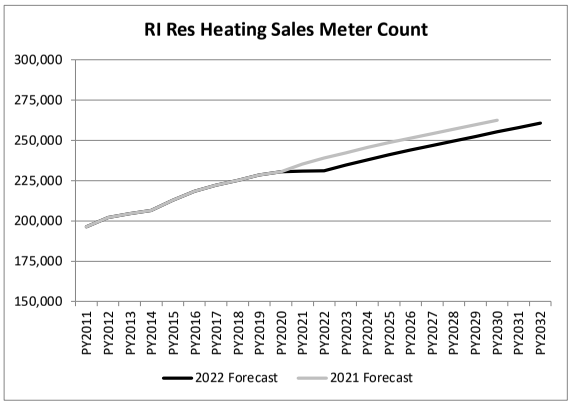
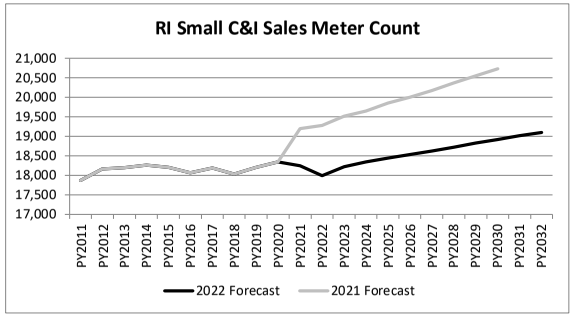


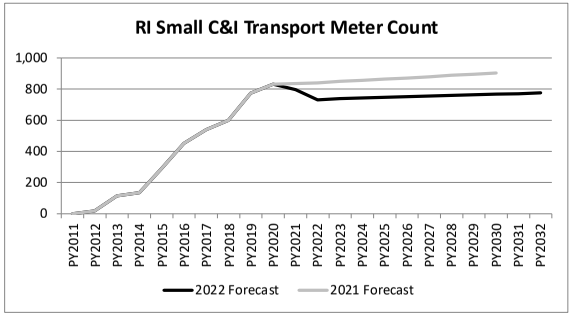
Exhibit 6

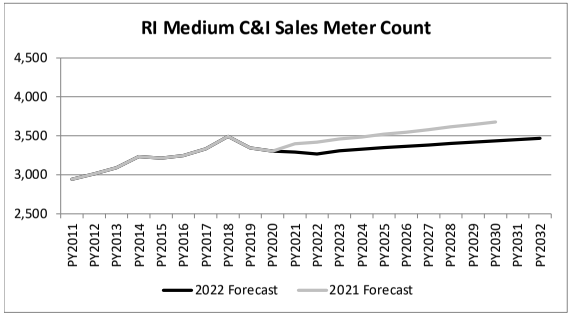
Rhode Island Energy
2022 and 2021 Meter Count Forecasts by Rate Class
(end of Planning Year)

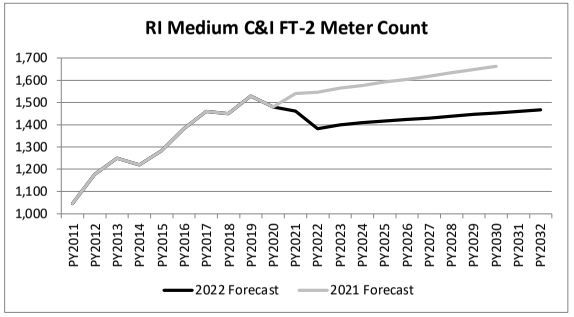


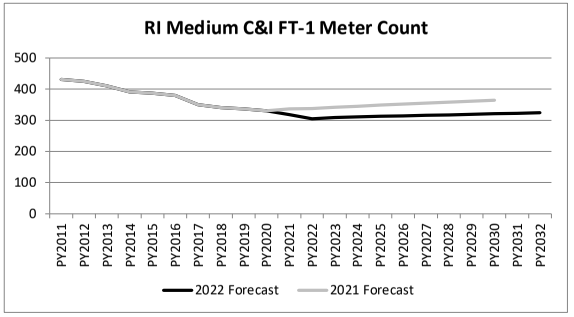




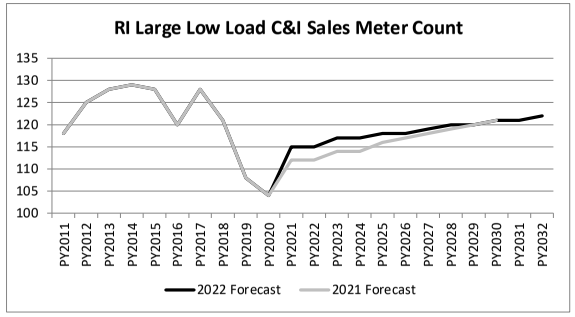


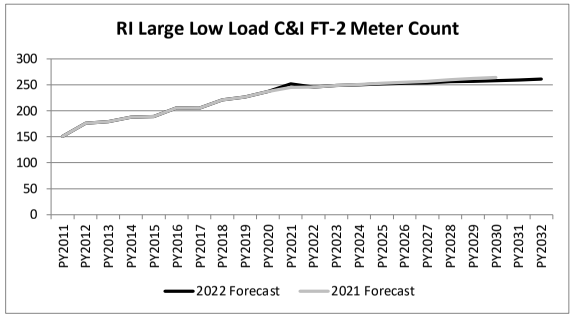


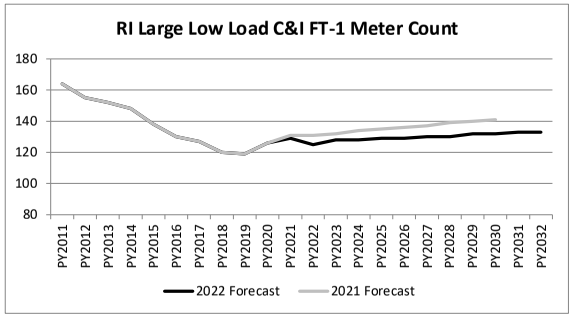


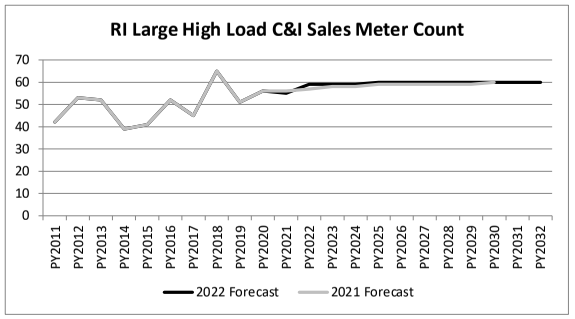


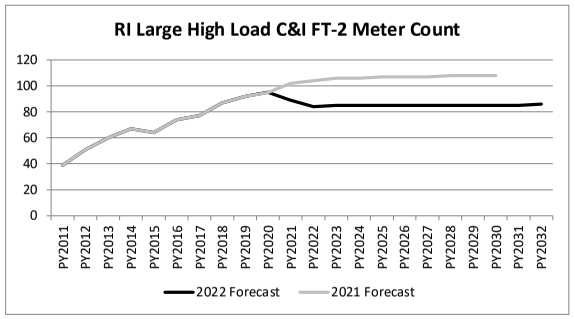
Rhode Island Energy
2022 and 2021 Meter Count Forecasts by Rate Class
(end of Planning Year)

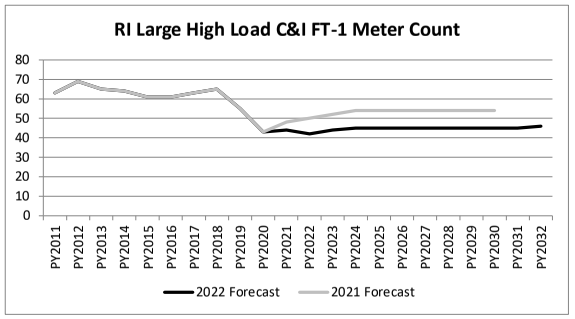


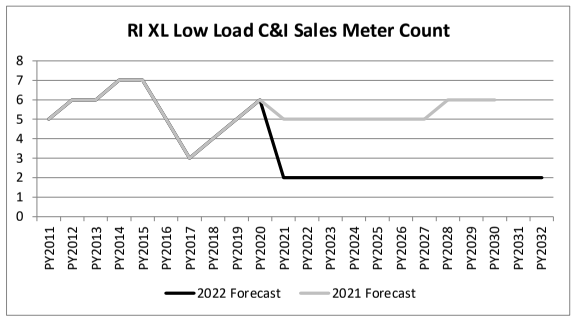


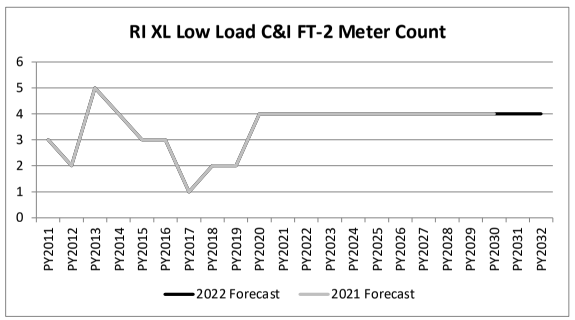


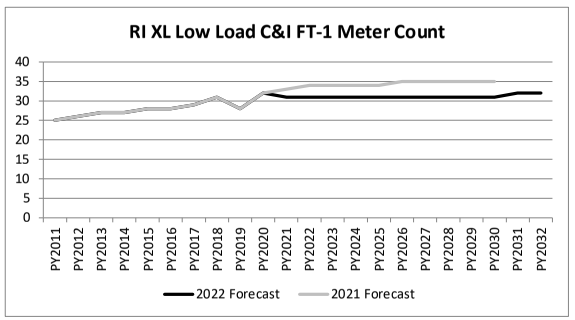




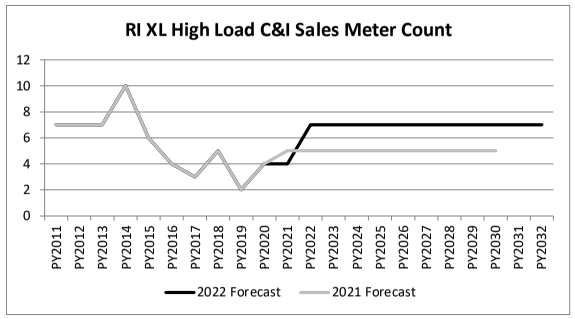


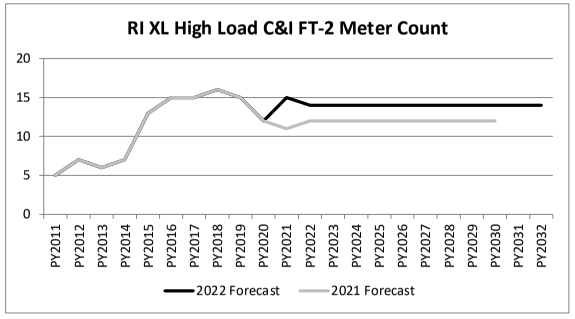


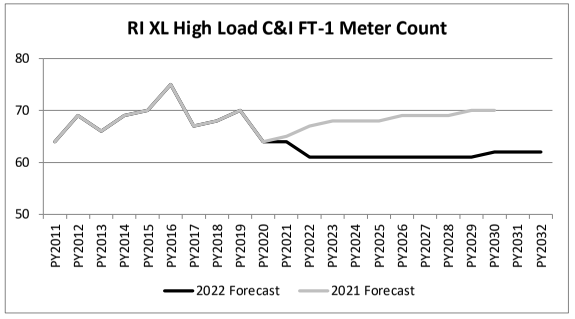




Rhode Island Energy
2022 and 2021 Meter Count Forecasts by Rate Class
(end of Planning Year)







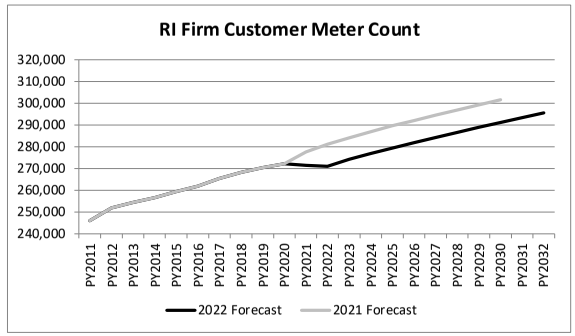


Exhibit 7

Exhibit 7

Please see the attached Excel document for the Company Wholesale Forecast by Rate.

Exhibit 8

The Narragansett Electric Company -Take Station Contract Quantities (MMBtu)

* = Peak MDQ

^ = Not incremental city gate capacity

ALGONQUIN DAILY VOLUMES	9001	90106	90107 *	933005	93001ESC *	93011E *	93401S	96004SC	9B105 *	9S100S *	9W009E *	510801	Constellation CG Supply NSB19_ 24-42-20	510985 ^	Beverly	Total
1/24th or 6% Hourly:	1/24th	1/24th	6%	1/24th	6%	6%	1/24th	1/24th	1/24th	1/24th	6%	1/24th	1/24th	1/24th	1/24th	
Contract MDTQ:	11,063	19,465	26,129	2,061	2,384	56,035	335	1,695	8,539	187	6,812	18,000	14,100	96,000	5,000	171,805
Dey St. (#00004)	11,063	9,223	19,514	---	---	25,137	---	---	4,258	---	6,234	---	13,100	---	5,000	93,529
Westerly (#00008)	---	474	---	248	---	1,221	---	---	79	---	273	500	---	---	---	2,795
Wampanoag Trail [E. Prov] (#00010)	---	4,092	6,615	---	---	48,147	---	---	---	---	---	---	---	---	---	58,854
Portsmouth (#00013)	---	5,078	---	---	---	6,504	---	---	4,202	---	305	6,000	---	---	---	22,089
Tiverton (#00033)	---	598	---	---	---	163	---	---	---	---	---	500	---	---	---	1,261
Burrillville (#00044)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0
Barrington (#00064)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0
Bristol/Warren (#00012)	---	---	---	813	2,384	4,173	335	1,695	---	187	---	6,000	1,000	---	---	16,587
Cumberland (#00083)	---	---	---	1,000	---	---	---	---	---	---	---	---	---	---	---	1,000
Crary St. (#00842)	---	---	---	---	---	---	---	---	---	---	---	---	---	96,000	---	96,000
Montville (#00059)[Yankee Gas]	---	---	---	---	---	---	---	---	---	---	---	5,000	---	---	---	5,000
													Take Station Total:			297,115

ALGONQUIN HOURLY VOLUMES	9001	90106	90107	933005	93001ESC	93011E	93401S	96004SC	9B105	9S100S	9W009E	510801	Constellation CG Supply NSB19_ 24-42-20	510985	Beverly	Total
1/24th or 6% Hourly:	1/24th	1/24th	6%	1/24th	6%	6%	1/24th	1/24th	1/24th	1/24th	6%	1/24th	1/24th	1/24th	1/24th	
Contract MDTQ:	461	811	1,568	86	143	3,362	14	71	356	8	409	750	588	4,000	208	8,833
Dey St. (#00004)	461	384	1,171	---	---	1,508	---	---	177	---	374	---	546	---	208	4,830
Westerly (#00008)	---	20	---	10	---	73	---	---	3	---	16	21	---	---	---	144
Wampanoag Trail [E. Prov] (#00010)	---	171	397	---	---	2,889	---	---	---	---	---	---	---	---	---	3,456
Portsmouth (#00013)	---	212	---	---	---	390	---	---	175	---	18	250	---	---	---	1,045
Tiverton (#00033)	---	25	---	---	---	10	---	---	---	---	---	21	---	---	---	56
Burrillville (#00044)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0
Barrington (#00064)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0
Bristol/Warren (#00012)	---	---	---	34	143	250	14	71	---	8	---	250	42	---	---	811
Cumberland (#00083)	---	---	---	42	---	---	---	---	---	---	---	---	---	---	---	42
Crary St. (#00842)	---	---	---	---	---	---	---	---	---	---	---	---	---	4,000	---	4,000
Montville (#00059)[Yankee Gas]	---	---	---	---	---	---	---	---	---	---	---	208	---	---	---	208
													Take Station Total:			14,592

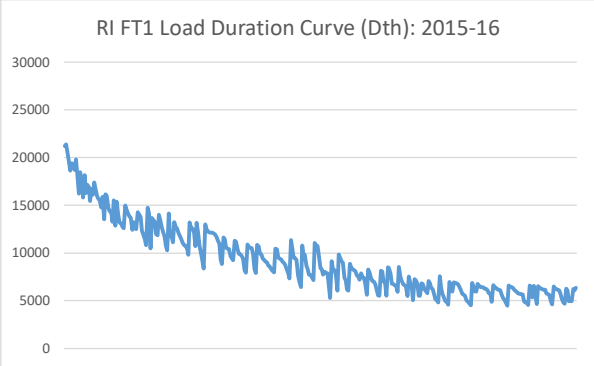
TENNESSEE DAILY VOLUMES	10807	95345	39173	62930	1597	64025	64026	330580	330581	349449	Total
All 1/24th:	1/24th	1/24th	1/24th	1/24th	1/24th	1/24th	1/24th	1/24th	1/24th	1/24th	
Contract MDTQ:	10,836	1,000	1,067	15,000	29,335	5,220	6,380	24,000	15,000	20,000	127,838
Cranston (#420750)	---	---	---	9,000	10,000	---	---	---	15,000	20,000	54,000
Smithfield (#420910)	---	---	---	---	5,000	2,610	3,190	---	---	---	10,800
Pawtucket (#420135)	10,836	---	1,067	6,000	14,335	---	---	---	---	---	32,238
Lincoln (#420758)	---	1,000	---	---	---	2,610	3,190	24,000	---	---	30,800
										Take Station Total:	127,838

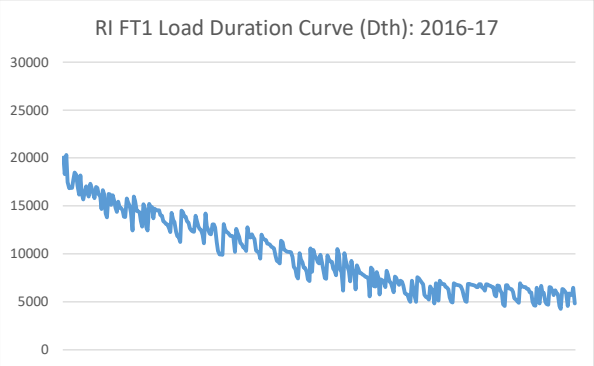
TENNESSEE HOURLY VOLUMES	10807	95345	39173	62930	1597	64025	64026	330580	330581	349449	Total
All 1/24th:	1/24th	1/24th	1/24th	1/24th	1/24th	1/24th	1/24th	1/24th	1/24th	1/24th	
Contract MDTQ:	452	42	44	625	1,222	218	266	1,000	625	833	5,327
Cranston (#420750)	---	---	---	375	417	---	---	---	625	833	2,250
Smithfield (#420910)	---	---	---	---	208	109	133	---	---	---	450
Pawtucket (#420135)	452	---	44	250	597	---	---	---	---	---	1,343
Lincoln (#420758)	---	42	---	---	---	109	133	1,000	---	---	1,283
										Take Station Total:	5,327

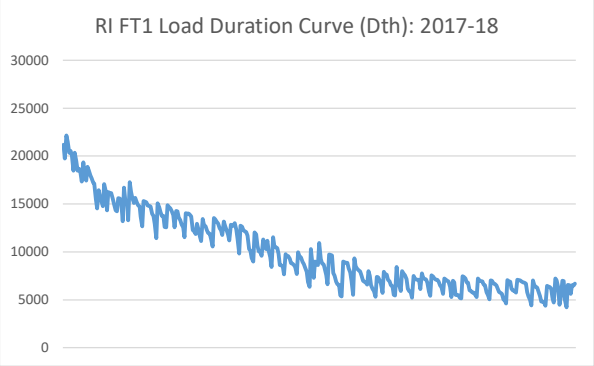
Exhibit 9

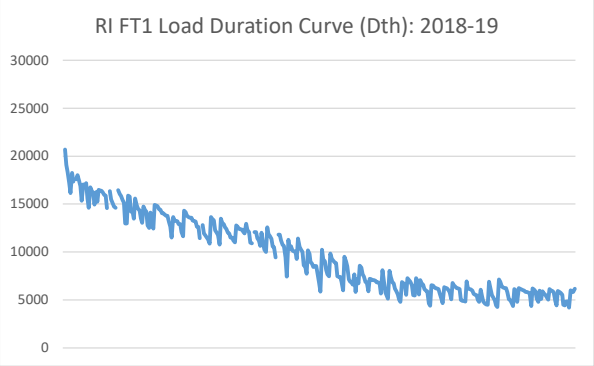
Load Duration Curves for FT1 Customers
Historical Actuals and Forecasted Design Weather

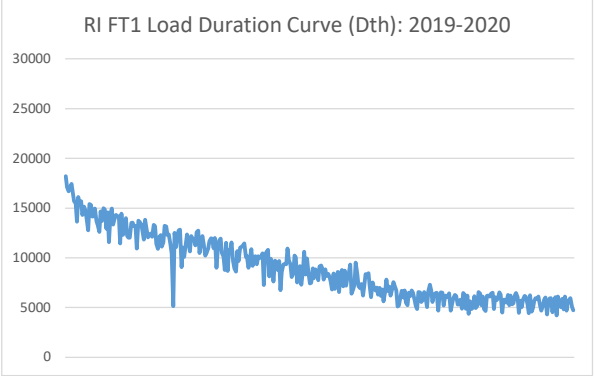
Chart VI-B-1
Page 1 of 2

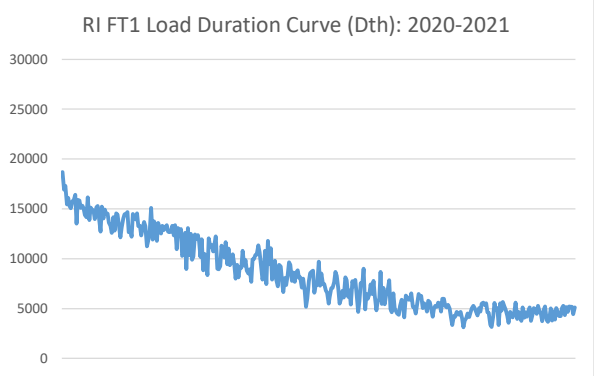






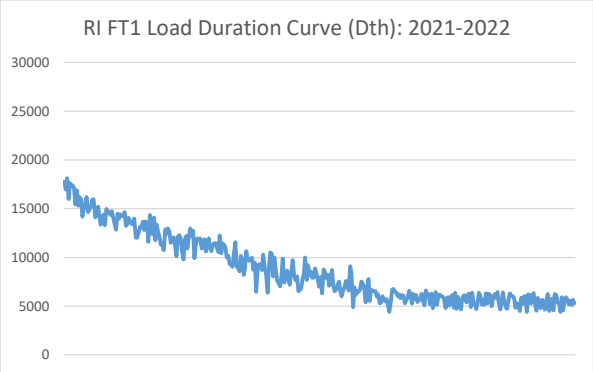






Load Duration Curves for FT1 Customers
Historical Actuals and Forecasted Design Weather

Chart VI-B-1
Page 2 of 2



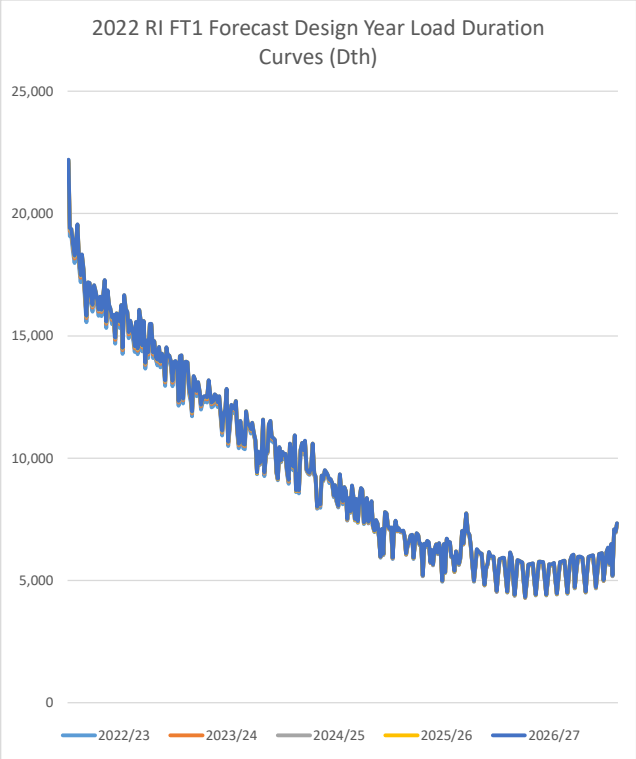
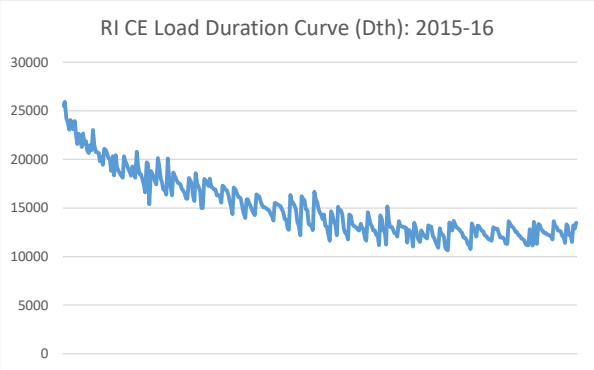
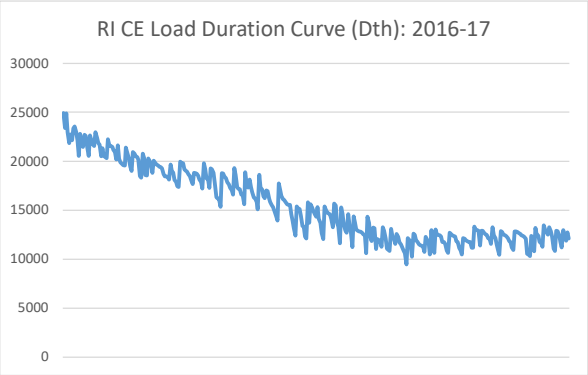


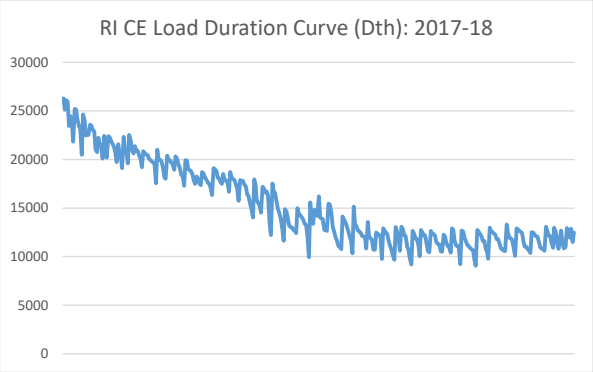
Exhibit 10

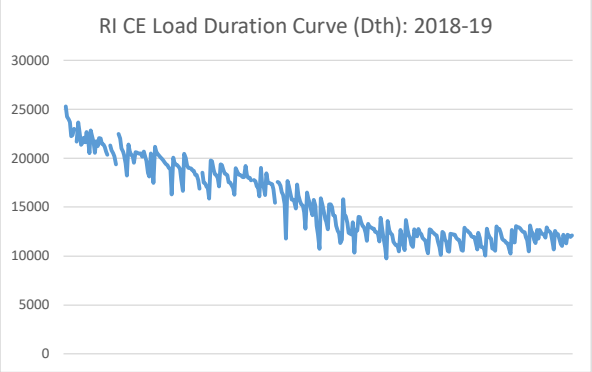
Load Duration Curves for Capacity Exempt Customers
Historical Actuals and Forecasted Design Weather

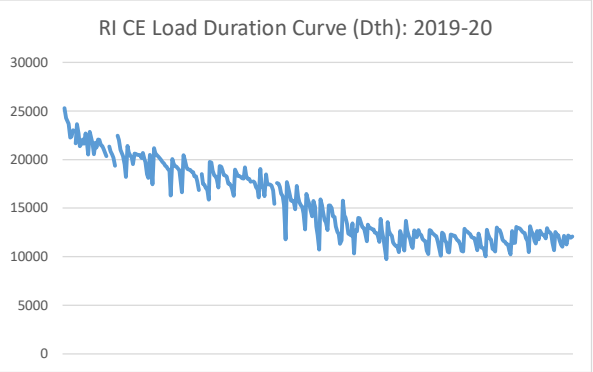
Chart VI-B-2
Page 1 of 2

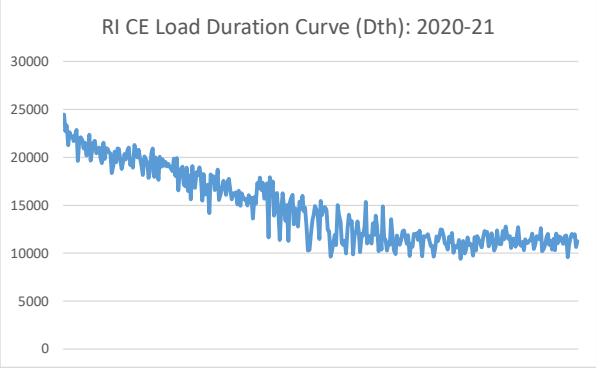






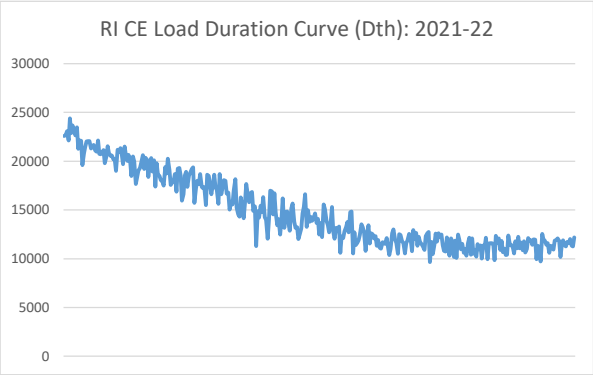






Load Duration Curves for Capacity Exempt Customers
Historical Actuals and Forecasted Design Weather

Chart VI-B-2
Page 2 of 2



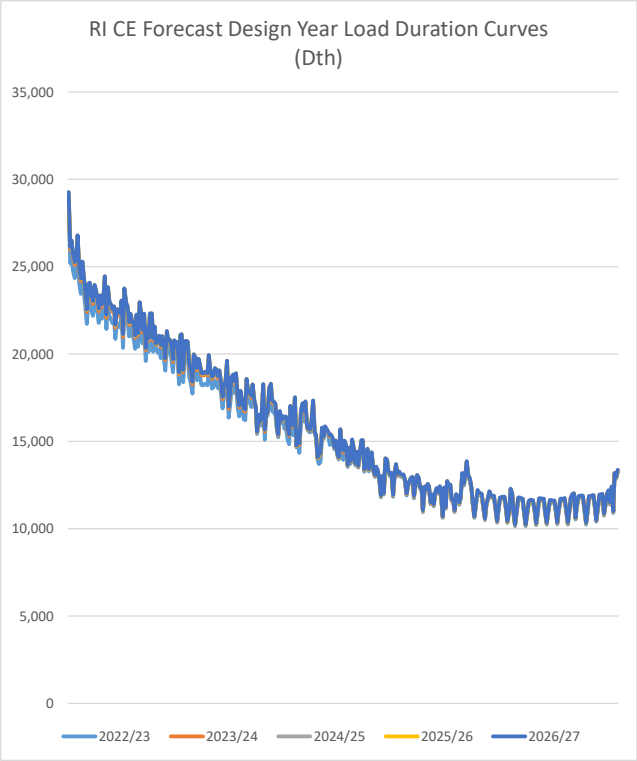
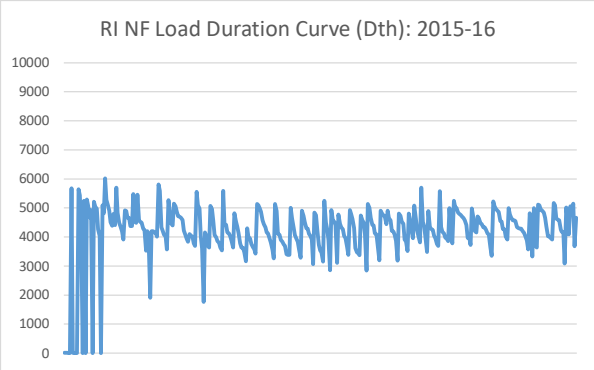
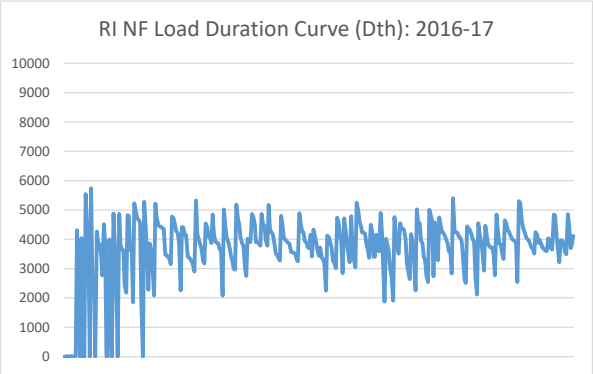


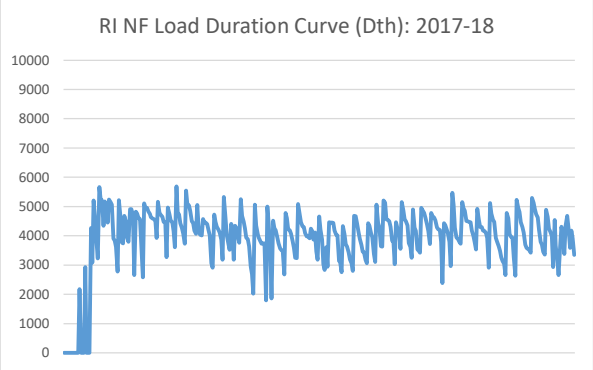
Exhibit 11

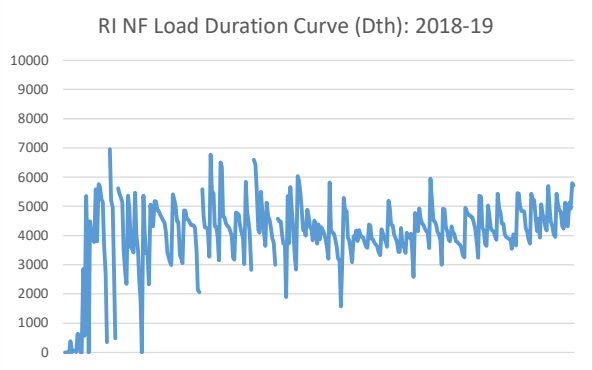
Load Duration Curves for Non-Firm Customers
Historical Actuals and Forecasted Design Weather

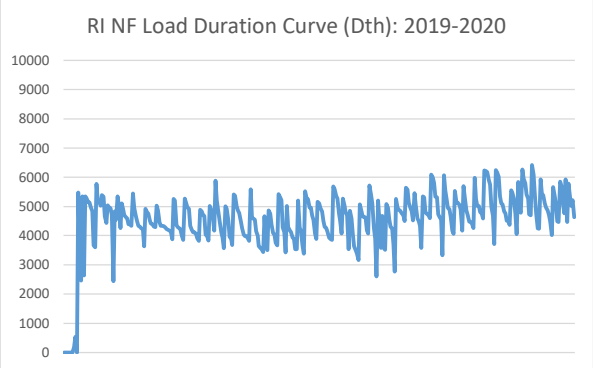
Chart VI-B-3
Page 1 of 2

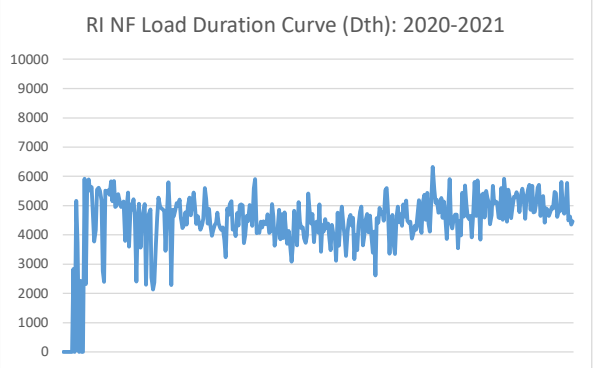






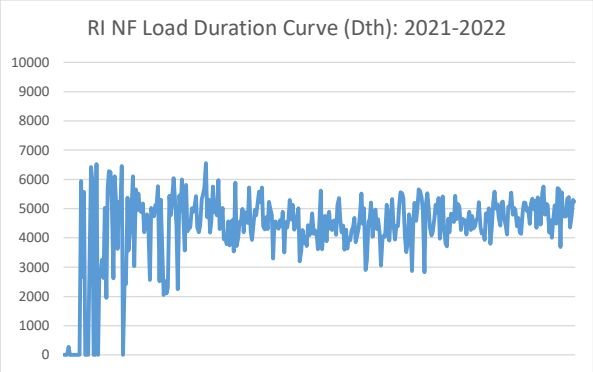






Load Duration Curves for Non-Firm Customers
Historical Actuals and Forecasted Design Weather

Chart VI-B-3
Page 2 of 2



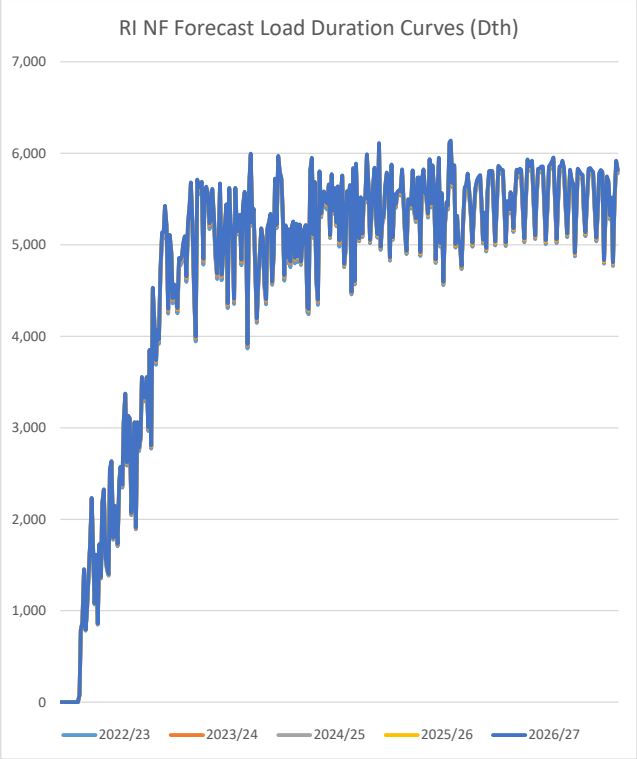


Exhibit 12

RHODE ISLAND COMPANIES - CONSOLIDATED PORTFOLIO SCHEMATIC

Peak Season Volumes

As of November 1, 2022

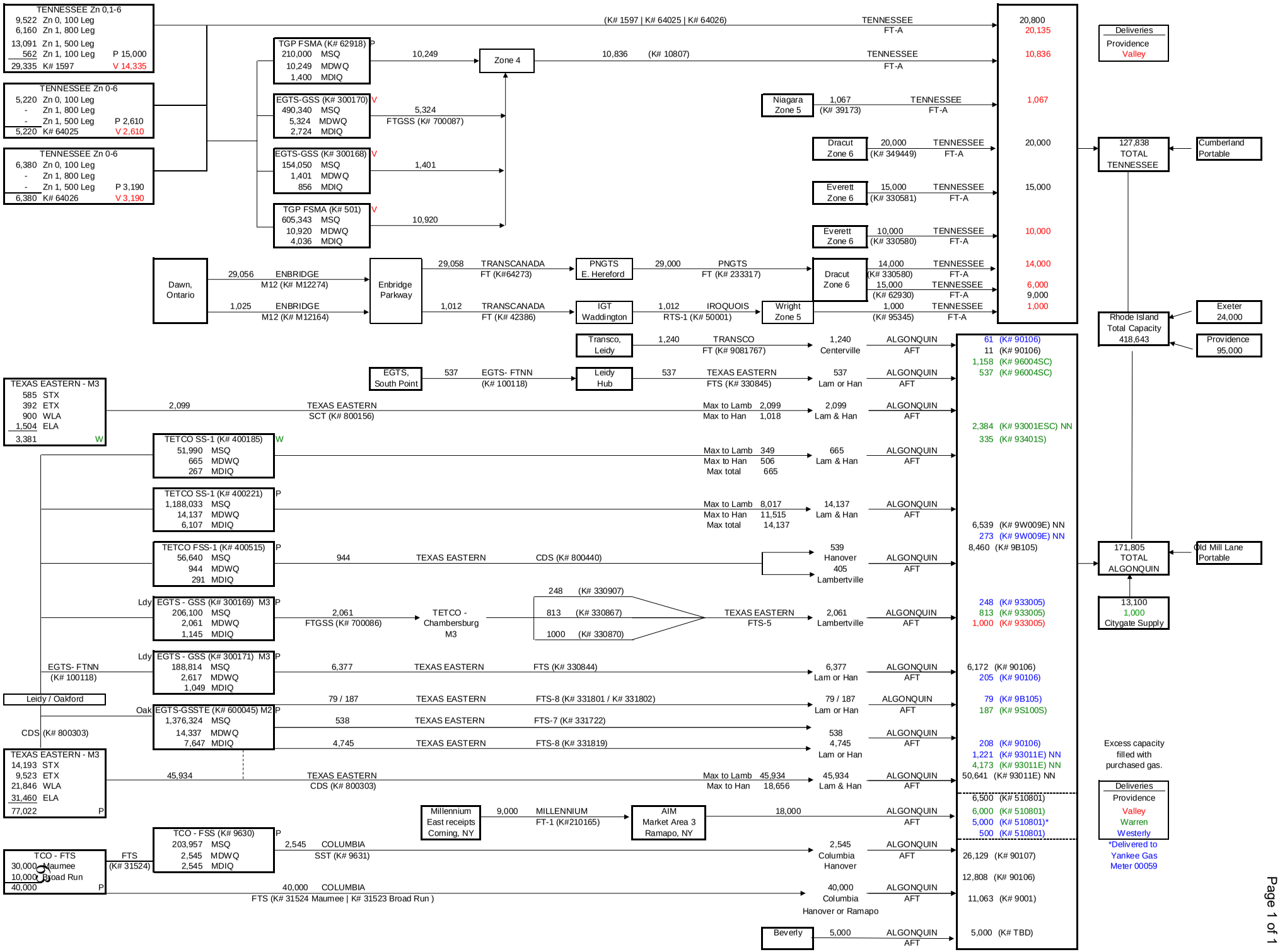


Exhibit 12
Page 1 of 1

Exhibit 13

RHODE ISLAND ENERGY- RHODE ISLAND ASSETS
Transportation Contracts

Shipper	Pipeline Company	Contract No.	Rate Schedule	City Gate MDQ	Annual Quantity	Expiration Date	Currently In Evergreen	Notes
Narragansett Electric Co.	Algonquin	TBD	AFT-1H	5,000	1,825,000	10/31/2023	No	Part-284 transportation service (365-day) used to transport gas from Salem Essex, MA (5,000 MMBtu) to Rhode Island Energy - Dey St (5,000 MMBtu).
Narragansett Electric Co.	Algonquin	9001	AFT1FT3	11,063	4,037,995	12/31/2023	Yes	Part-284 transportation service (365-day) used to transport gas from the Columbia interconnect at Hanover, NJ (11,063 MMBtu) to Rhode Island Energy - Dey St (11,063 MMBtu).
Narragansett Electric Co.	Algonquin	90106	AFT-14	19,465	7,104,725	10/31/2023	Yes	Part-284 transportation service (365-day) used to transport gas from the Columbia interconnect at Hanover, NJ (12,808 MMBtu), TETCO interconnect at Lamberville (6,585 MMBtu) and Transco interconnect at Centerville (72 MMBtu) to Rhode Island Energy - Dey St (9,223 MMBtu), Rhode Island Energy - Tiverton (598 MMBtu), Rhode Island Energy - Westerly (474 MMBtu), Rhode Island Energy - E. Providence (4,092 Mmbtu), and Rhode Island Energy - Portsmouth (5,078 MMBtu).
Narragansett Electric Co.	Algonquin	90107	AFT-1W	26,129	3,945,479	10/31/2023	Yes	Part-284 service with a seasonally adjusted MDQ of (26,129 MMBtu), used to transport gas from the Columbia interconnect at Hanover, NJ (18,674 MMBtu) or Ramapo, NY (7,455 MMBtu) to Rhode Island Energy - Dey St (19,514 MMBtu) and Rhode Island Energy - E. Providence (6,615 MMBtu).
Narragansett Electric Co.	Algonquin	933005	AFT-1P	2,061	752,265	3/31/2024	Yes	Part-284 transportation service (365-day) used to transport gas from the TETCO interconnect at Lamberville, NJ (2,061 MMBtu) to Rhode Island Energy - Cumberland (1,000 MMBtu), Rhode Island Energy - Westerly (248 MMBtu), and Rhode Island Energy - Warren (813 MMBtu).
Narragansett Electric Co.	Algonquin	93001ESC	AFT-ES1	2,384	771,904	10/31/2023	Yes	Part-284 NO NOTICE service with a seasonally adjusted MDQ of (2,384 MMBtu), used to transport gas from the TETCO interconnect at Lambertville, NJ (1,377 MMBtu) and Hanover, NJ (1,007 MMBtu) to Rhode Island Energy - Warren (2,384 MMBtu).
Narragansett Electric Co.	Algonquin	93011E	AFT-E1	56035	19,446,885	10/31/2023	Yes	Part-284 NO NOTICE service with a seasonally adjusted MDQ of (56,035 MMBtu), used to transport gas from the TETCO interconnect at Lambertville, NJ (34,668 MMBtu) and Hanover, NJ (21,367 MMBtu) to Rhode Island Energy - Dey St (25,137 MMBtu), Rhode Island Energy - Westerly (1,221 MMBtu), Rhode Island Energy - E. Providence (48,147 MMBtu), Rhode Island Energy - Warren (4,173 MMBtu), Rhode Island Energy - Portsmouth (6,504 MMBtu), and Rhode Island Energy - Tiverton (163 MMBtu).
Narragansett Electric Co.	Algonquin	93401S	AFT-1S4	335	122,275	10/31/2023	Yes	Part-284 transportation service (365-day) used to transport gas from the TETCO interconnect at Lambertville, NJ (335 MMBtu) to Rhode Island Energy - Warren (335 MMBtu).
Narragansett Electric Co.	Algonquin	96004SC	AFT-1S3	1,695	618,675	10/31/2023	Yes	Part-284 firm transportation service (365-day) used to transport gas from the TETCO interconnect at Lambertville, NJ (537 MMBtu) and Centerville, NJ (1,158 MMBtu) to Rhode Island Energy - Warren (1,695 MMBtu).
Narragansett Electric Co.	Algonquin	9B105	AFT-1B	8539	1,813,145	10/31/2023	Yes	Part-284 service with a seasonally adjusted MDQ of (8,539 MMBtu), used to transport gas from the TETCO interconnect at Lambertville, NJ to Rhode Island Energy - Dey St (4,258 MMBtu), Rhode Island Energy - Portsmouth (4,202 MMBtu) and Rhode Island Energy - Westerly (79 MMBtu).
Narragansett Electric Co.	Algonquin	9S100S	AFT-1SX	187	39,737	10/31/2023	Yes	Part-284 service with a seasonally adjusted MDQ of (187 MMBtu), used to transport gas from the TETCO interconnect at Lambertville, NJ to Rhode Island Energy - Warren (187 MMBtu).
Narragansett Electric Co.	Algonquin	9W009E	AFT-EW	6,812	1,446,384	10/31/2023	Yes	Part-284 NO NOTICE service with a seasonally adjusted MDQ of (6,812 MMBtu), used to transport gas from the TETCO interconnect at Hanover, NJ (4,222 MMBtu) and Lamberville, NJ (2,590 MMBtu) to Rhode Island Energy - Dey St (6,234 MMBtu), Rhode Island Energy - Westerly (273 MMBtu), and Rhode Island Energy - Portsmouth (305 MMBtu).

Shipper	Pipeline Company	Contract No.	Rate Schedule	City Gate MDQ	Annual Quantity	Expiration Date	Currently In Evergreen	Notes
Narragansett Electric Co.	Algonquin	510801	AFT1AIM	18,000	6,570,000	1/6/2032	No	Part-284 transportation service used to transport gas from Ramapo, NY (18,000 MMBtu) to Rhode Island Energy - Westerly (500 MMBtu), Rhode Island Energy - Warren (6,000 MMBtu), Rhode Island Energy - Portsmouth (6,000 MMBtu), Rhode Island Energy - Tiverton (500 MMBtu), and Yankee Gas - Montville (5,000 MMBtu).
Narragansett Electric Co.	Algonquin	510985	AFTCLMS	96,000	35,040,000	7/16/2032	No	Part-284 transportation service used to transport gas from Manchester Street Lateral on the G-12 System (Meter No. 80070) to Rhode Island Energy - Crary Street-Providence, RI (96,000 MMBtu).
Narragansett Electric Co.	Columbia	31523	FTS	10,000	3,650,000	10/31/2025	No	Part-284 transportation service used to transport gas from Broad Run-19 (10,000 MMBtu) to Columbia interconnect at Hanover, NJ (10,000 MMBtu).
Narragansett Electric Co.	Columbia	31524	FTS	30,000	10,950,000	10/31/2025	No	Part-284 transportation service used to transport gas from Maumee-1 (30,000 MMBtu) to Columbia interconnect at Hanover, NJ (30,000 MMBtu).
Narragansett Electric Co.	Columbia	9631	SST	2545	695,966	4/1/2040	No	Part-284 transportation service used to transport gas from RP Strorage Point TCO-FSS #9630 (2,545 MMBtu) to Columbia interconnect at Hanover, NJ (2,545 MMBtu). MDQ Seasonally adjusted to be 1,272 MDQ from Apr - Sep.
Narragansett Electric Co.	Eastern	100118	FTNN	537	196,005	3/31/2027	No	Part-284 transportation service used to transport gas from the TETCO interconnect at Oakford (537 MMBtu) or Dominion South Point (537 MMBtu) to the Leidy Group Meter (537 MMBtu).
Narragansett Electric Co.	Eastern	700086	FTGSS	2,061	311,211	3/31/2027	No	Transportation contract used to transport gas from EGTS-GSS #300169 (2,061MMBtu) to the TETCO interconnect at Chambersburg, PA (2,061 MMBtu).
Narragansett Electric Co.	Eastern	700087	FTGSS	5,324	803,924	3/31/2025	No	Transportation contract used to transport gas from EGTS-GSS #300170 (5,324MMBtu) to Ellisburg, PA (5,324 MMBtu).
Narragansett Electric Co.	Iroquois	50001	RTS-1	1,012	369,380	11/1/2027	No	Transportation contract used to transport gas from Waddington (1,012 MMBtu) to the IGTS interconnect with TGP at Wright, NY.
Narragansett Electric Co.	Millennium	210165	FT-1	9,000	3,285,000	3/31/2034	No	Transportation service used to transport gas from Corning, NY to the interconnect with Algonquin Gas Transmission at Ramapo, NY (9,000 MMBtu).
Narragansett Electric Co.	PNGTS	233317	FT	29,000	10,585,000	10/31/2040	No	Transportation service used to transport gas from East Hereford to the interconnect with Tennessee Gas Pipeline at Dracut (29,000 MMBtu).
Narragansett Electric Co.	Tennessee	10807	FT-A	10,836	3,955,140	3/31/2027	No	Transportation service used to transport gas from Ellisburg (6,581 MMBtu) and Nothern Storage (4,255 MMBtu) to Rhode Island Energy city gates at Pawtucket, RI (10,836 MMBtu).
Narragansett Electric Co.	Tennessee	39173	FT-A	1,067	389,455	10/31/2024	No	Transportation service (365-day) used to transport gas from Niagara River (1,067 MMBtu) to Rhode Island Energy city gates at Pawtucket, RI (1,067 MMBtu).
Narragansett Electric Co.	Tennessee	1597	FT-A	29,335	10,707,275	10/31/2024	No	Transportation service used to transport gas from Zn1 800 Leg (6,160 MMBtu), Zn1 500 Leg (13,091 MMBtu), Zn0 100 Leg (9,522 MMBtu), and Zn1 100 Leg (562 MMBtu) to Rhode Island Energy city gates at Pawtucket, RI (14,335 MMBtu), Cranston (10,000 MMBtu), and Smithfield (5,000 MMBtu).
Narragansett Electric Co.	Tennessee	62930	FT-A	15,000	5,475,000	8/31/2027	No	Transportstion service used to transport gas from the interconnect at Dracut (15,000 MMBtu) to Rhode Island Energy city gate - Cranston (9,000) and Rhode Island Energy city gate - Pawtucket, RI (6,000 MMBtu).
Narragansett Electric Co.	Tennessee	64025	FT-A	5,220	1,905,300	10/31/2027	No	TGP ConneXion - Transportation service used to transport gas from Tx Zone 0 (5,220 MMBtu) to Rhode Island Energy city gates at Lincoln, RI (2,610 MMBtu) and Smithfield, RI (2,610). If volumes transported to points other than primary points as listed on the contract, maximum commodity rate per TGP's tariff apply.
Narragansett Electric Co.	Tennessee	64026	FT-A	6,380	2,328,700	10/31/2027	No	TGP ConneXion - Transportation service used to transport gas from Tx Zone 0 (6,380 MMBtu) to Rhode Island Energy city gates at Lincoln, RI (3,190 MMBtu) and Smithfield, RI (3,190). If volumes transported to points other than primary points as listed on the contract, maximum commodity rate per TGP's tariff apply.
Narragansett Electric Co.	Tennessee	95345	FT-A	1,000	365,000	10/31/2027	No	Transportation service used to transport gas from interconnect at Wright, NY (1,000 MMBtu) to Rhode Island Energy city gates at Lincoln (1,000 MMBtu).
Narragansett Electric Co.	Tennessee	330580	FT-A	24,000	8,760,000	10/31/2038	No	Transportstion service used to transport gas from the interconnects at Dracut (14,000 MMBtu) and at Distrigas (10,000 MMBtu) to Rhode Island Energy city gate - Lincoln (24,000).

Shipper	Pipeline Company	Contract No.	Rate Schedule	City Gate MDQ	Annual Quantity	Expiration Date	Currently In Evergreen	Notes
Narragansett Electric Co.	Tennessee	330581	FT-A	15,000	5,475,000	10/31/2038	No	Transportstion service used to transport gas from the interconnect at Distrigas (15,000 MMBtu) to Rhode Island Energy city gate - Cranston (15,000).
Narragansett Electric Co.	Tennessee	349449	FT-A	20,000	7,300,000	10/31/2025	No	Transportstion service used to transport gas from the interconnect at Dracut (20,000 MMBtu) to Rhode Island Energy city gate - Cranston (20,000).
Narragansett Electric Co.	Texas Eastern	330844	FTS	6377	2,327,605	10/31/2023	Yes	Part-157 (7C) transportation service used to transport gas from Leidy, PA (6,377 MMBtu) to interconnect with AGT at Lambertville, NJ or Hanover, NJ (6,377 MMBtu).
Narragansett Electric Co.	Texas Eastern	330845	FTS	537	196,005	10/31/2023	Yes	Part-157 (7C) transportation service used to transport gas from Leidy, PA (537 MMBtu) to interconnect with AGT at Lambertville, NJ or Hanover, NJ (537 MMBtu).
Narragansett Electric Co.	Texas Eastern	330867	FTS-5	813	296,745	3/31/2024	Yes	Part-157 (7C) transportation service used to transport gas from Chambersburg, PA (813 MMBtu) to Lambertville, NJ (813 MMBtu).
Narragansett Electric Co.	Texas Eastern	330870	FTS-5	1,000	365,000	3/31/2024	Yes	Part-157 (7C) transportation service used to transport gas from Chambersburg, PA (1,000 MMBtu) to Lambertville, NJ (1,000 MMBtu).
Narragansett Electric Co.	Texas Eastern	330907	FTS-5	248	90,520	3/31/2024	Yes	Part-157 (7C) transportation service used to transport gas from Chambersburg, PA (248 MMBtu) to Lambertville, NJ (248 MMBtu).
Narragansett Electric Co.	Texas Eastern	331722	FTS-7	538	196,370	3/31/2024	Yes	Part- 157 (7C) transportation service used to transport gas from Oakford, PA (538 MMBtu) to either interconnects at Lambertville or Hanover, NJ (538 MMBtu).
Narragansett Electric Co.	Texas Eastern	331801	FTS-8	79	28,835	3/31/2024	Yes	Part-157 (7C) transportation service used to transport gas from Leidy, PA (38 MMBtu) to either interconnects at Lambertville or Hanover, NJ. In addition, Oakford, PA (41 MMBtu) to either interconnects at Lamberville or Hanover, NJ.
Narragansett Electric Co.	Texas Eastern	331802	FTS-8	187	68,255	3/31/2024	Yes	Part-157 (7C) transportation service used to transport gas from Leidy, PA (89 MMBtu) to either interconnects at Lambertville or Hanover, NJ. In addition, Oakford, PA (98 MMBtu) to either interconnects at Lamberville or Hanover, NJ.
Narragansett Electric Co.	Texas Eastern	331819	FTS-8	4,745	1,731,925	3/31/2024	Yes	Part- 157 (7C) transportation service used to transport gas from Oakford, PA (4,745 MMBtu) to either interconnects at Lambertville or Hanover, NJ (4,745 MMBtu).
Narragansett Electric Co.	Texas Eastern	800156	SCT	2,099	766,135	10/31/2023	Yes	Part-284 transportation contract used to transport gas from the access areas at STX (585 MMBtu oper. entitle.), ETX (392 MMBtu oper. entitle.), WLA (900 MMBtu oper. entitle.), and ELA (1,504 MMBtu oper. entitle.) to the TETCO interconnect with AGT at Lambertville, NJ (2,099 MMBtu).
Narragansett Electric Co.	Texas Eastern	800303	CDS	45934	16,765,910	10/31/2023	Yes	Part-284 transportation contract used to transport gas from the access areas at STX (14,193 MMBtu oper. entitle.), ETX (9,523 MMBtu oper. entitle.), WLA (21,846 MMBtu oper. entitle.), and ELA (31,460 MMBtu oper. entitle.) to the TETCO interconnect with AGT at Lambertville, NJ (45,934 MMBtu) or Hanover, NJ (18,656 MMBtu) or Zone M3 Storage Point (6,665 MMBtu).
Narragansett Electric Co.	Texas Eastern	800440	CDS	944	344,560	10/31/2023	Yes	Part-284 transportation contract used to transport gas from TETCO FSS-1 #400515 to the TETCO interconnects at Lambertville, NJ (405 MMBtu) and Hanover, NJ (539 MMBtu).
Narragansett Electric Co.	TransCanada	42386	FT	1,012	369,380	10/31/2026	No	Transportation service used to transport gas from the Enbridge Gas interconnect at Parkway to the interconnect with Iroquois Gas Transmission at Waddington (1,012 MMBtu).
Narragansett Electric Co.	TransCanada	64273	FT	29,058	10,606,170	10/31/2040	No	Transportation service used to transport gas from the Enbridge Gas interconnect at Parkway to the interconnect with Portland Natural Gas Transmission System at East Hereford (29,058 MMBtu).
Narragansett Electric Co.	Transco	9081767	FT	1,240	452,600	3/31/2023	Yes	Part-284 transportation service used to transport gas from Transco Leidy (1,240 MMBtu) to the Algonquin interconnect at Centerville, NJ (1,240 MMBtu).
Narragansett Electric Co.	Enbridge	M12164	M12	1,025	374,125	10/31/2023	No	Transportation service used to transport gas from Dawn, Ontario to the interconnect with TransCanada Pipeline at Parkway (1,025 MMBtu).
Narragansett Electric Co.	Enbridge	M12274	M12	29,056	10,605,440	10/31/2040	No	Transportation service used to transport gas from Dawn, Ontario to the interconnect with TransCanada Pipeline at Parkway (29,056 MMBtu).

RHODE ISLAND ENERGY - RHODE ISLAND ASSETS
Storage Contracts

Shipper	Pipeline Company	Contract No.	Rate Schedule	MDWQ	Annual Quantity	Expiration Date	Currently In Evergreen	Notes
Narragansett Electric	Columbia	9630	FSS	2,545	203,957	4/1/2040	No	Part-284 storage service that provides storage capacity with an injection rate of 2,545 MMBtu/day.
Narragansett Electric	Eastern	300168	GSS	1,401	154,050	3/31/2025	No	Part-284 storage service that provides storage capacity with an injection rate of 856 MMBtu/day.
Narragansett Electric	Eastern	300169	GSS	2,061	206,100	3/31/2027	No	Part-284 storage service that provides storage capacity with an injection rate of 1,145 MMBtu/day.
Narragansett Electric	Eastern	300170	GSS	5,324	490,340	3/31/2025	No	Part-284 storage service that provides storage capacity with an injection rate of 2,724 MMBtu/day.
Narragansett Electric	Eastern	300171	GSS	2,617	188,814	3/31/2027	No	Part-284 storage service that provides storage capacity with an injection rate of 1,049 MMBtu/day.
Narragansett Electric	Eastern	600045	GSS-TE	14,337	1,376,324	3/31/2027	No	Part-157 (7C) storage service that provides storage capacity with an injection rate of 7,647 MMBtu/day.
Narragansett Electric	Tennessee	501	FSMA	10,920	605,343	10/31/2025	No	Storage service that provides storage capacity at an injection rate of 4,036 MMBtu/day.
Narragansett Electric	Tennessee	62918	FSMA	10,249	210,000	10/31/2025	No	Storage service that provides storage capacity at an injection rate of 1,400 MMBtu/day.
Narragansett Electric	Texas Eastern	400185	SS-1	665	51,990	4/30/2024	Yes	Part-284 storage service that provides storage capacity with an injection rate of 267 MMBtu/day. [from Oakford and Leidy storage fields to interconnect at Lambertville, NJ (349 MMBtu) and interconnect at Hanover, NJ (506 MMBtu).]
Narragansett Electric	Texas Eastern	400221	SS-1	14,137	1,188,033	4/30/2024	Yes	Part-284 storage service that provides storage capacity with an injection rate of 6,107 MMBtu/day. [from Oakford and Leidy storage fields to interconnect at Lambertville, NJ (8,017 MMBtu) and interconnect at Hanover, NJ (11,515 MMBtu).]
Narragansett Electric	Texas Eastern	400515	FSS-1	944	56,640	4/30/2024	Yes	Part-284 storage service that provides storage capacity with an injection rate of 291 MMBtu/day.

Exhibit 14

Rhode Island Energy
Contract Path Mapping

Contract Name	Path	Contract Name	Path
AGT 510801	AIM	TCPL 42386	Dawn via Waddington
AGT 9001	TCO (Pool)	TCPL 58577	Dawn via PNGTS
AGT 90106	Transco	TET 330844	Storage Delivery
AGT 90106	Storage Delivery	TET 330845	Dominion
AGT 90107	AGT M3	TET 330867	Storage Delivery
AGT 93001ESC	AGT M3	TET 330870	Storage Delivery
AGT 93001ESC	TETCO SCT Long Haul	TET 330907	Storage Delivery
AGT 93011E	TETCO CDS Long Haul	TET 331722	Storage Delivery
AGT 93011E	AGT M3	TET 331801	Storage Delivery
AGT 93011E	TETCO CDS Long Haul	TET 331802	Storage Delivery
AGT 933005	Storage Delivery	TET 331819	Storage Delivery
AGT 93401S	Storage Delivery	TET 400185	Model Segment
AGT 96004SC	Transco	TET 400185	Storage
AGT 96004SC	Dominion	TET 400221	Model Segment
AGT 9B105	Storage Delivery	TET 400221	Storage
AGT 9S100S	Storage Delivery	TET 400515	Storage
AGT 9W009E	Storage Delivery	TET 800156	TETCO SCT Long Haul
AGT 9W009E	Storage Delivery	TET 800303	TETCO CDS Long Haul
AGT Citygate	Citygate Peaking	TET 800440	Storage Delivery
Beverly	Beverly	Tetco M2 CDS	TETCO CDS Long Haul
IGT 50001	Dawn via Waddington	Tetco M2 SCT	TETCO SCT Long Haul
LNG	LNG	Tetco M3	AGT M3
LNG_Exeter	LNG	TGP 10807	Storage Delivery
LNG_Prov	LNG	TGP 1597	TGP Long Haul
Manchester Lateral	Manchester Lateral	TGP 330580	Dawn via PNGTS
Millenium East	AIM	TGP 330580	Everett
ModelSegment	Model Segment	TGP 330581	Everett
MPL 214129	AIM	TGP 349449	Dracut
Niagara	Niagara	TGP 39173	Niagara
PNGTS 210203	Dawn via PNGTS	TGP 501	Storage
Portable LNG	Portable LNG	TGP 62918	Storage
Proposed Beverly Supply	Beverly	TGP 62930	Dawn via PNGTS
Proposed Everett Supply Deal	Everett	TGP 64025	TGP ConneXion
Proposed Summer Liquid	LNG	TGP 64026	TGP ConneXion
Proposed Summer Trucking	LNG	TGP 95345	Dawn via Waddington
Ramapo	AIM	TGP Z4 CnX	TGP ConneXion
TCO 31523	TCO (Pool)	TGP Z4 LH	TGP Long Haul
TCO 31524	Storage Delivery	TRA 9081767	Transco
TCO 31524	TCO (Pool)	Transco Leidy	Transco
TCO 9630	Storage	Trucking	LNG
TCO 9631	Storage Delivery	UN M12164	Dawn via Waddington
TCO Appalachia	TCO (Pool)	UN M12274	Dawn via PNGTS
TCO M3	TCO (M3 ish)	Yankee Interconnect	Yankee Interconnect

Exhibit 15

Rhode Island Energy
Comparison of Resources and Requirements
Design Year (Sales and Customer Choice)
(BBtu)

		Design Day with Existing Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	64	65	66	66	67
	Providence	311	316	320	322	325
	Warren	11	12	12	12	12
	Westerly	7	7	7	7	7
Fuel Reimbursement		5	6	6	6	6
Underground Storage Refill		0	0	0	0	0
LNG Refill		0	0	0	0	0
TOTAL		399	405	410	413	416
RESOURCES						
TGP	Dawn PNGTS	29	29	29	29	29
	Dawn Iroquois	1	1	1	1	1
	Niagara	1	1	1	1	1
	Zone 4	34	34	34	34	34
	Dracut	20	20	20	20	20
	TGP Citygate	0	0	0	0	0
	Everett Swing	0	0	0	0	0
	Storage	11	11	11	11	11
TET/AGT	M2	40	40	40	40	40
	EGTS South Point	1	1	1	1	1
	TCO Appalachia	33	33	33	33	33
	Transco Leidy	1	1	1	1	1
	AIM (Ramapo)	9	9	9	9	9
	AIM (Millennium)	9	9	9	9	9
	M3	26	25	26	26	25
	AGT Citygate	14	14	0	0	0
	Beverly	0	0	0	0	0
	Storage	28	29	28	28	29
Liquid for Portables and Refill		0	0	0	0	0
LNG From Storage		119	119	1	95	119
Unserved	Valley	0	0	12	12	13
	Providence	23	26	152	60	38
	Warren	0	2	3	3	3
	Westerly	0	0	0	0	0
		23	29	166	75	54
TOTAL		399	405	410	413	416

Rhode Island Energy
Comparison of Resources and Requirements
Design Year (Sales and Customer Choice)
(BBtu)

		Design Heating Season (Nov-Mar) with Existing Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	4,996	5,116	5,133	5,174	5,208
	Providence	24,375	24,958	25,042	25,241	25,407
	Warren	894	916	919	926	932
	Westerly	558	571	573	578	582
Fuel Reimbursement		659	689	686	689	691
Underground Storage Refill		0	0	0	0	0
LNG Refill		21	0	0	0	0
TOTAL		31,503	32,250	32,353	32,608	32,820
RESOURCES						
TGP	Dawn PNGTS	2,976	3,390	3,409	3,409	3,431
	Dawn Iroquois	90	114	117	127	128
	Niagara	116	130	138	137	137
	Zone 4	5,037	5,302	5,281	5,249	5,257
	Dracut	1,066	1,141	1,172	1,207	1,230
	TGP Citygate	0	0	0	0	0
	Everett Swing	0	0	0	0	0
	Storage	1,334	1,334	1,335	1,339	1,339
TET/AGT	M2	5,960	6,001	5,926	6,015	6,015
	EGTS South Point	82	83	82	82	82
	TCO Appalachia	4,820	4,650	4,648	4,659	4,668
	Transco Leidy	187	185	188	186	186
	AIM (Ramapo)	533	535	541	550	555
	AIM (Millennium)	1,367	1,376	1,367	1,367	1,367
	M3	2,842	2,632	2,652	2,666	2,700
	AGT Citygate	508	508	0	0	0
	Beverly	0	0	0	0	0
	Storage	2,644	2,670	2,646	2,642	2,644
Liquid for Portables and Refill		0	0	0	0	0
LNG From Storage		774	753	753	753	753
Unserved	Valley	2	4	42	28	27
	Providence	1,164	1,437	2,047	2,185	2,292
	Warren	2	5	8	8	9
	Westerly	0	0	0	0	0
		1,168	1,445	2,098	2,221	2,328
TOTAL		31,503	32,250	32,353	32,608	32,820

Rhode Island Energy
Comparison of Resources and Requirements
Design Year (Sales and Customer Choice)
(BBtu)

		Design Non-Heating Season (Apr-Oct) with Existing Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	1,896	1,917	1,932	1,944	1,957
	Providence	9,249	9,354	9,425	9,485	9,548
	Warren	339	343	346	348	350
	Westerly	212	214	216	217	219
Fuel Reimbursement		429	384	386	430	431
Underground Storage Refill		3,978	4,004	3,985	3,981	3,997
LNG Refill		888	888	888	888	888
TOTAL		16,991	17,105	17,179	17,295	17,391
RESOURCES						
TGP	Dawn PNGTS	50	23	23	24	26
	Dawn Iroquois	0	3	2	2	2
	Niagara	32	33	32	33	3
	Zone 4	3,461	3,189	3,423	3,145	3,409
	Dracut	219	579	379	596	402
	TGP Citygate	0	0	0	0	0
	Everett Swing	0	0	0	0	0
	Storage	0	0	0	0	0
TET/AGT	M2	7,792	6,137	3,943	4,574	4,619
	EGTS South Point	83	50	50	67	84
	TCO Appalachia	645	557	1,727	3,983	3,446
	Transco Leidy	114	82	83	84	84
	AIM (Ramapo)	95	321	180	172	104
	AIM (Millennium)	1,926	833	1,114	1,154	1,486
	M3	2,434	5,155	6,079	3,316	3,581
	AGT Citygate	0	0	0	0	0
	Beverly	0	0	0	0	0
	Storage	0	0	0	0	0
Liquid for Portables and Refill		0	0	0	0	0
LNG From Storage		135	135	135	135	135
Unserved	Valley	0	0	0	0	0
	Providence	5	7	8	10	11
	Warren	0	0	0	0	0
	Westerly	0	0	0	0	0
		5	7	8	10	11
TOTAL		16,991	17,105	17,179	17,295	17,391

Rhode Island Energy
Comparison of Resources and Requirements
Design Year (Sales and Customer Choice)
(BBtu)

		Design Annual with Existing Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	6,892	7,033	7,065	7,118	7,165
	Providence	33,623	34,311	34,467	34,726	34,955
	Warren	1,234	1,259	1,265	1,274	1,282
	Westerly	770	785	789	795	800
Fuel Reimbursement		1,088	1,073	1,072	1,120	1,122
Underground Storage Refill		3,978	4,004	3,985	3,981	3,997
LNG Refill		910	888	888	888	888
TOTAL		48,494	49,355	49,532	49,903	50,211
RESOURCES						
TGP	Dawn PNGTS	3,026	3,413	3,432	3,434	3,457
	Dawn Iroquois	90	117	119	129	130
	Niagara	148	164	170	170	140
	Zone 4	8,498	8,491	8,704	8,394	8,666
	Dracut	1,285	1,720	1,551	1,803	1,631
	TGP Citygate	0	0	0	0	0
	Everett Swing	0	0	0	0	0
	Storage	1,334	1,334	1,335	1,339	1,339
TET/AGT	M2	13,752	12,138	9,869	10,589	10,634
	EGTS South Point	165	133	133	150	166
	TCO Appalachia	5,465	5,207	6,375	8,642	8,114
	Transco Leidy	301	268	272	270	270
	AIM (Ramapo)	628	857	721	721	659
	AIM (Millennium)	3,293	2,209	2,481	2,521	2,853
	M3	5,276	7,787	8,731	5,981	6,281
	AGT Citygate	508	508	0	0	0
	Beverly	0	0	0	0	0
	Storage	2,644	2,670	2,646	2,642	2,644
Liquid for Portables and Refill		0	0	0	0	0
LNG From Storage		910	888	888	888	888
Unserved	Valley	2	4	42	28	27
	Providence	1,169	1,444	2,056	2,195	2,303
	Warren	2	5	8	8	9
	Westerly	0	0	0	0	0
		1,173	1,452	2,106	2,231	2,339
TOTAL		48,494	49,355	49,532	49,903	50,211

Rhode Island Energy
Comparison of Resources and Requirements
Cold Snap (Sales and Customer Choice)
(BBtu)

		Cold Snap Heating Season (Nov-Mar) with Existing Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	4,529	4,635	4,652	4,689	4,720
	Providence	22,178	22,698	22,785	22,965	23,116
	Warren	806	825	828	835	841
	Westerly	469	480	482	486	489
Fuel Reimbursement		625	653	650	654	656
Underground Storage Refill		0	0	0	0	0
LNG Refill		21	0	0	0	0
TOTAL		28,629	29,291	29,397	29,630	29,821
RESOURCES						
TGP	Dawn PNGTS	2,476	2,807	2,845	2,831	2,859
	Dawn Iroquois	75	91	94	108	109
	Niagara	98	112	128	123	126
	Zone 4	4,698	5,098	5,125	5,070	5,085
	Dracut	630	731	776	801	822
	TGP Citygate	0	0	0	0	0
	Everett Swing	0	0	0	0	0
	Storage	1,334	1,334	1,335	1,339	1,339
TET/AGT	M2	5,925	5,970	5,846	5,983	5,983
	EGTS South Point	82	83	82	82	82
	TCO Appalachia	4,790	4,499	4,502	4,512	4,521
	Transco Leidy	187	180	188	182	183
	AIM (Ramapo)	357	358	371	384	389
	AIM (Millennium)	1,367	1,376	1,367	1,367	1,367
	M3	2,139	2,043	2,080	2,100	2,130
	AGT Citygate	508	508	0	0	0
	Beverly	0	0	0	0	0
	Storage	2,637	2,663	2,611	2,608	2,608
Liquid for Portables and Refill		0	0	0	0	0
LNG From Storage		774	753	753	753	753
Unserved	Valley	0	0	45	56	42
	Providence	547	684	1,241	1,319	1,410
	Warren	4	1	10	11	12
	Westerly	0	0	0	0	0
		551	685	1,295	1,385	1,463
TOTAL		28,629	29,291	29,397	29,630	29,821

Rhode Island Energy
Comparison of Resources and Requirements
Cold Snap (Sales and Customer Choice)
(BBtu)

		Cold Snap Heating Season (Nov-Mar) with Existing Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	1,756	1,776	1,789	1,801	1,813
	Providence	8,599	8,696	8,763	8,818	8,877
	Warren	313	316	319	321	323
	Westerly	182	184	185	187	188
Fuel Reimbursement		415	370	374	417	419
Underground Storage Refill		3,971	3,997	3,950	3,947	3,962
LNG Refill		887	887	887	887	887
TOTAL		16,123	16,227	16,267	16,378	16,468
RESOURCES						
TGP	Dawn PNGTS	29	12	13	15	16
	Dawn Iroquois	0	1	1	1	1
	Niagara	32	32	32	32	2
	Zone 4	3,283	2,978	3,192	2,965	3,224
	Dracut	163	513	324	519	324
	TGP Citygate	0	0	0	0	0
	Everett Swing	0	0	0	0	0
	Storage	0	0	0	0	0
TET/AGT	M2	7,766	6,120	3,920	4,513	4,598
	EGTS South Point	82	50	50	67	84
	TCO Appalachia	487	425	1,664	3,855	3,347
	Transco Leidy	110	81	82	82	83
	AIM (Ramapo)	53	216	130	121	69
	AIM (Millennium)	1,926	833	1,114	1,153	1,485
	M3	2,057	4,833	5,611	2,920	3,099
	AGT Citygate	0	0	0	0	0
	Beverly	0	0	0	0	0
	Storage	0	0	0	0	0
Liquid for Portables and Refill		0	0	0	0	0
LNG From Storage		134	134	134	134	134
Unserved	Valley	0	0	0	0	0
	Providence	0	0	0	0	0
	Warren	0	0	0	0	0
	Westerly	0	0	0	0	0
		0	0	0	0	0
TOTAL		16,123	16,227	16,267	16,378	16,468

Rhode Island Energy
Comparison of Resources and Requirements
Cold Snap (Sales and Customer Choice)
(BBtu)

		Cold Snap Heating Season (Nov-Mar) with Existing Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	6,285	6,410	6,442	6,490	6,533
	Providence	30,778	31,394	31,548	31,784	31,993
	Warren	1,119	1,142	1,147	1,156	1,163
	Westerly	651	664	668	673	677
Fuel Reimbursement		1,040	1,023	1,023	1,070	1,074
Underground Storage Refill		3,971	3,997	3,950	3,947	3,962
LNG Refill		908	887	887	887	887
TOTAL		44,752	45,517	45,665	46,007	46,289
RESOURCES						
TGP	Dawn PNGTS	2,505	2,819	2,859	2,846	2,876
	Dawn Iroquois	75	92	95	109	110
	Niagara	130	144	160	156	128
	Zone 4	7,981	8,076	8,317	8,034	8,310
	Dracut	793	1,244	1,100	1,320	1,146
	TGP Citygate	0	0	0	0	0
	Everett Swing	0	0	0	0	0
	Storage	1,334	1,334	1,335	1,339	1,339
TET/AGT	M2	13,691	12,090	9,766	10,496	10,581
	EGTS South Point	165	133	133	150	166
	TCO Appalachia	5,277	4,924	6,166	8,367	7,868
	Transco Leidy	298	261	270	264	265
	AIM (Ramapo)	410	574	501	505	458
	AIM (Millennium)	3,293	2,209	2,481	2,520	2,852
	M3	4,197	6,875	7,691	5,021	5,230
	AGT Citygate	508	508	0	0	0
	Beverly	0	0	0	0	0
	Storage	2,637	2,663	2,611	2,608	2,608
Liquid for Portables and Refill		0	0	0	0	0
LNG From Storage		908	887	887	887	887
Unserved	Valley	0	0	45	56	42
	Providence	547	684	1,241	1,319	1,410
	Warren	4	1	10	11	12
	Westerly	0	0	0	0	0
		551	685	1,295	1,385	1,463
TOTAL		44,752	45,517	45,665	46,007	46,289

Exhibit 16

Rhode Island Energy
Comparison of Resources and Requirements
Design Year (Sales and Customer Choice)
(BBtu)

		Design Day with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	64	65	66	66	67
	Providence	311	316	320	322	325
	Warren	11	12	12	12	12
	Westerly	7	7	7	7	7
Fuel Reimbursement		6	6	6	6	6
Underground Storage Refill		0	0	0	0	0
LNG Refill		0	0	0	0	0
TOTAL		399	405	410	413	416
RESOURCES						
TGP	Dawn PNGTS	29	29	29	29	29
	Dawn Iroquois	1	1	1	1	1
	Niagara	1	1	1	1	1
	Zone 4	34	34	34	34	34
	Dracut	20	20	20	20	20
	TGP Citygate	0	0	0	0	0
	Everett Swing	25	30	0	0	0
	Storage	11	11	11	11	11
TET/AGT	M2	40	40	40	40	40
	EGTS South Point	1	1	1	1	1
	TCO Appalachia	33	33	33	33	33
	Transco Leidy	1	1	1	1	1
	AIM (Ramapo)	9	9	9	9	9
	AIM (Millennium)	9	9	9	9	9
	M3	26	27	26	26	25
	AGT Citygate	14	14	0	0	0
	Beverly	5	5	5	5	5
	Storage	28	27	28	28	29
Liquid for Portables and Refill		6	6	0	0	0
LNG From Storage		106	107	24	95	1
Unserved	Valley	0	0	12	12	13
	Providence	0	0	123	55	152
	Warren	0	0	3	3	3
	Westerly	0	0	0	0	0
		0	0	137	70	167
TOTAL		399	405	410	413	416

Rhode Island Energy
Comparison of Resources and Requirements
Design Year (Sales and Customer Choice)
(BBtu)

		Design Heating Season (Nov-Mar) with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	4,996	5,116	5,133	5,174	5,208
	Providence	24,375	24,958	25,042	25,241	25,407
	Warren	894	916	919	926	932
	Westerly	558	571	573	578	582
Fuel Reimbursement		663	695	687	691	692
Underground Storage Refill		0	0	0	0	0
LNG Refill		54	41	0	0	0
TOTAL		31,540	32,296	32,354	32,610	32,821
RESOURCES						
TGP	Dawn PNGTS	2,977	3,382	3,409	3,409	3,431
	Dawn Iroquois	90	114	117	127	128
	Niagara	116	130	138	137	137
	Zone 4	5,033	5,299	5,281	5,249	5,257
	Dracut	1,061	1,133	1,172	1,207	1,230
	TGP Citygate	0	0	0	0	0
	Everett Swing	890	1,164	0	0	0
	Storage	1,334	1,334	1,335	1,339	1,339
TET/AGT	M2	5,960	6,001	5,926	6,015	6,015
	EGTS South Point	82	83	82	82	82
	TCO Appalachia	4,820	4,650	4,648	4,659	4,668
	Transco Leidy	187	185	188	186	186
	AIM (Ramapo)	528	535	541	550	555
	AIM (Millennium)	1,367	1,376	1,367	1,367	1,367
	M3	2,836	2,632	2,652	2,666	2,700
	AGT Citygate	508	508	0	0	0
	Beverly	100	105	108	108	104
	Storage	2,657	2,686	2,646	2,642	2,644
Liquid for Portables and Refill		192	192	0	0	0
LNG From Storage		802	787	753	753	753
Unserved	Valley	0	0	24	31	39
	Providence	0	0	1,959	2,075	2,177
	Warren	0	0	8	8	9
	Westerly	0	0	0	0	0
		0	0	1,991	2,114	2,225
TOTAL		31,540	32,296	32,354	32,610	32,821

Rhode Island Energy
Comparison of Resources and Requirements
Design Year (Sales and Customer Choice)
(BBtu)

		Design Non-Heating Season (Apr-Oct) with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	1,896	1,917	1,932	1,944	1,957
	Providence	9,249	9,354	9,425	9,485	9,548
	Warren	339	343	346	348	350
	Westerly	212	214	216	217	219
Fuel Reimbursement		429	385	386	430	431
Underground Storage Refill		3,991	4,020	3,985	3,981	3,997
LNG Refill		888	888	888	888	888
TOTAL		17,004	17,121	17,179	17,295	17,391
RESOURCES						
TGP	Dawn PNGTS	50	23	23	24	26
	Dawn Iroquois	0	3	2	2	2
	Niagara	32	33	32	33	3
	Zone 4	3,461	3,189	3,423	3,145	3,409
	Dracut	219	579	379	596	402
	TGP Citygate	0	0	0	0	0
	Everett Swing	0	0	0	0	0
	Storage	0	0	0	0	0
TET/AGT	M2	7,792	6,137	3,943	4,574	4,619
	EGTS South Point	83	50	50	67	84
	TCO Appalachia	658	573	1,727	3,983	3,446
	Transco Leidy	114	82	83	84	84
	AIM (Ramapo)	95	321	180	172	104
	AIM (Millennium)	1,926	833	1,114	1,154	1,486
	M3	2,434	5,155	6,079	3,316	3,581
	AGT Citygate	0	0	0	0	0
	Beverly	0	0	0	0	0
	Storage	0	0	0	0	0
Liquid for Portables and Refill		0	0	0	0	0
LNG From Storage		140	142	135	135	135
Unserved	Valley	0	0	0	0	0
	Providence	0	0	8	10	11
	Warren	0	0	0	0	0
	Westerly	0	0	0	0	0
		0	0	8	10	11
TOTAL		17,004	17,121	17,179	17,295	17,391

Rhode Island Energy
Comparison of Resources and Requirements
Design Year (Sales and Customer Choice)
(BBtu)

		Design Annual with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	6,892	7,033	7,065	7,118	7,165
	Providence	33,623	34,311	34,467	34,726	34,955
	Warren	1,234	1,259	1,265	1,274	1,282
	Westerly	770	785	789	795	800
Fuel Reimbursement		1,092	1,079	1,073	1,121	1,123
Underground Storage Refill		3,991	4,020	3,985	3,981	3,997
LNG Refill		943	930	888	888	888
TOTAL		48,544	49,418	49,534	49,904	50,212
RESOURCES						
TGP	Dawn PNGTS	3,026	3,404	3,432	3,434	3,457
	Dawn Iroquois	90	117	119	129	130
	Niagara	149	164	170	170	140
	Zone 4	8,493	8,488	8,704	8,394	8,666
	Dracut	1,280	1,712	1,551	1,803	1,631
	TGP Citygate	0	0	0	0	0
	Everett Swing	890	1,164	0	0	0
	Storage	1,334	1,334	1,335	1,339	1,339
TET/AGT	M2	13,752	12,138	9,869	10,589	10,634
	EGTS South Point	165	133	133	150	166
	TCO Appalachia	5,478	5,223	6,375	8,642	8,114
	Transco Leidy	301	268	272	270	270
	AIM (Ramapo)	623	857	721	721	659
	AIM (Millennium)	3,293	2,209	2,481	2,521	2,853
	M3	5,271	7,787	8,731	5,981	6,281
	AGT Citygate	508	508	0	0	0
	Beverly	100	105	108	108	104
	Storage	2,657	2,686	2,646	2,642	2,644
Liquid for Portables and Refill		192	192	0	0	0
LNG From Storage		943	930	888	888	888
Unserved	Valley	0	0	24	31	39
	Providence	0	0	1,967	2,085	2,188
	Warren	0	0	8	8	9
	Westerly	0	0	0	0	0
		0	0	1,999	2,124	2,236
TOTAL		48,544	49,418	49,534	49,904	50,212

Rhode Island Energy
Comparison of Resources and Requirements
Normal Year (Sales and Customer Choice)
(BBtu)

		Normal Heating Season (Nov-Mar) with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	4,325	4,428	4,444	4,479	4,508
	Providence	21,183	21,687	21,761	21,934	22,077
	Warren	770	789	791	798	803
	Westerly	448	459	460	464	467
Fuel Reimbursement		612	639	648	652	654
Underground Storage Refill		0	0	0	0	0
LNG Refill		21	0	0	0	0
TOTAL		27,360	28,002	28,104	28,326	28,509
RESOURCES						
TGP	Dawn PNGTS	2,474	2,807	2,845	2,831	2,859
	Dawn Iroquois	75	91	94	108	109
	Niagara	98	112	128	123	126
	Zone 4	4,700	5,100	5,125	5,070	5,085
	Dracut	55	68	661	692	716
	TGP Citygate	0	0	0	0	0
	Everett Swing	890	1,164	0	0	0
	Storage	1,334	1,334	1,335	1,339	1,339
TET/AGT	M2	5,922	5,971	5,846	5,983	5,983
	EGTS South Point	82	83	82	82	82
	TCO Appalachia	4,790	4,499	4,502	4,512	4,521
	Transco Leidy	187	180	188	182	183
	AIM (Ramapo)	122	109	339	352	358
	AIM (Millennium)	1,367	1,376	1,367	1,367	1,367
	M3	1,486	1,306	1,959	1,982	2,015
	AGT Citygate	75	82	0	0	0
	Beverly	100	105	108	108	104
	Storage	2,634	2,670	2,611	2,608	2,608
Liquid for Portables and Refill		192	192	0	0	0
LNG From Storage		774	753	753	753	753
Unserved	Valley	0	0	0	0	1
	Providence	0	0	160	232	297
	Warren	0	0	0	1	1
	Westerly	0	0	0	0	0
		0	0	161	232	299
TOTAL		27,360	28,002	28,104	28,326	28,509

Rhode Island Energy
Comparison of Resources and Requirements
Normal Year (Sales and Customer Choice)
(BBtu)

		Normal Non-Heating Season (Apr-Oct) with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	1,758	1,778	1,791	1,803	1,814
	Providence	8,608	8,706	8,772	8,827	8,886
	Warren	313	317	319	321	323
	Westerly	182	184	186	187	188
Fuel Reimbursement		415	370	374	417	419
Underground Storage Refill		3,968	4,004	3,950	3,947	3,962
LNG Refill		887	887	887	887	887
TOTAL		16,132	16,246	16,279	16,389	16,479
RESOURCES						
TGP	Dawn PNGTS	29	12	13	15	16
	Dawn Iroquois	0	1	1	1	1
	Niagara	32	32	32	32	2
	Zone 4	3,283	2,979	3,193	2,965	3,225
	Dracut	164	514	325	520	326
	TGP Citygate	0	0	0	0	0
	Everett Swing	0	0	0	0	0
	Storage	0	0	0	0	0
TET/AGT	M2	7,770	6,120	3,920	4,518	4,598
	EGTS South Point	82	50	50	67	84
	TCO Appalachia	488	432	1,664	3,856	3,348
	Transco Leidy	110	81	82	82	83
	AIM (Ramapo)	53	216	130	121	69
	AIM (Millennium)	1,926	833	1,114	1,153	1,485
	M3	2,058	4,842	5,620	2,924	3,109
	AGT Citygate	0	0	0	0	0
	Beverly	0	0	0	0	0
	Storage	0	0	0	0	0
Liquid for Portables and Refill		0	0	0	0	0
LNG From Storage		134	134	134	134	134
Unserved	Valley	0	0	0	0	0
	Providence	0	0	0	0	0
	Warren	0	0	0	0	0
	Westerly	0	0	0	0	0
		0	0	0	0	0
TOTAL		16,132	16,246	16,279	16,389	16,479

Rhode Island Energy
Comparison of Resources and Requirements
Normal Year (Sales and Customer Choice)
(BBtu)

		Normal Annual with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	6,083	6,206	6,235	6,281	6,322
	Providence	29,792	30,392	30,534	30,761	30,963
	Warren	1,083	1,105	1,110	1,119	1,126
	Westerly	630	643	646	651	655
Fuel Reimbursement		1,027	1,010	1,021	1,069	1,072
Underground Storage Refill		3,968	4,004	3,950	3,947	3,962
LNG Refill		908	887	887	887	887
TOTAL		43,492	44,247	44,383	44,715	44,988
RESOURCES						
TGP	Dawn PNGTS	2,503	2,818	2,859	2,846	2,876
	Dawn Iroquois	75	92	95	109	110
	Niagara	130	144	160	156	128
	Zone 4	7,983	8,078	8,318	8,035	8,310
	Dracut	219	582	986	1,212	1,042
	TGP Citygate	0	0	0	0	0
	Everett Swing	890	1,164	0	0	0
	Storage	1,334	1,334	1,335	1,339	1,339
TET/AGT	M2	13,692	12,091	9,766	10,501	10,581
	EGTS South Point	165	133	133	150	166
	TCO Appalachia	5,278	4,931	6,166	8,368	7,868
	Transco Leidy	298	261	270	264	265
	AIM (Ramapo)	175	325	469	473	427
	AIM (Millennium)	3,293	2,209	2,481	2,520	2,852
	M3	3,545	6,148	7,580	4,906	5,124
	AGT Citygate	75	82	0	0	0
	Beverly	100	105	108	108	104
	Storage	2,634	2,670	2,611	2,608	2,608
Liquid for Portables and Refill		192	192	0	0	0
LNG From Storage		908	887	887	887	887
Unserved	Valley	0	0	0	0	1
	Providence	0	0	160	232	297
	Warren	0	0	0	1	1
	Westerly	0	0	0	0	0
		0	0	161	232	299
TOTAL		43,492	44,247	44,383	44,715	44,988

Rhode Island Energy
Comparison of Resources and Requirements
Cold Snap (Sales and Customer Choice)
(BBtu)

		Cold Snap Heating Season (Nov-Mar) with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	4,529	4,635	4,652	4,689	4,720
	Providence	22,178	22,698	22,785	22,965	23,116
	Warren	806	825	828	835	841
	Westerly	469	480	482	486	489
Fuel Reimbursement		627	655	651	655	657
Underground Storage Refill		0	0	0	0	0
LNG Refill		115	95	0	0	0
TOTAL		28,725	29,388	29,398	29,631	29,822
RESOURCES						
TGP	Dawn PNGTS	2,476	2,807	2,845	2,831	2,859
	Dawn Iroquois	75	91	94	108	109
	Niagara	98	112	128	123	126
	Zone 4	4,698	5,101	5,125	5,070	5,085
	Dracut	193	225	776	801	822
	TGP Citygate	0	0	0	0	0
	Everett Swing	890	1,164	0	0	0
	Storage	1,334	1,334	1,335	1,339	1,339
TET/AGT	M2	5,925	5,971	5,846	5,983	5,983
	EGTS South Point	82	83	82	82	82
	TCO Appalachia	4,790	4,499	4,502	4,512	4,521
	Transco Leidy	187	180	188	182	183
	AIM (Ramapo)	338	337	371	384	389
	AIM (Millennium)	1,367	1,376	1,367	1,367	1,367
	M3	2,100	1,923	2,080	2,100	2,130
	AGT Citygate	372	369	0	0	0
	Beverly	100	105	108	108	104
	Storage	2,639	2,670	2,611	2,608	2,608
Liquid for Portables and Refill		192	192	0	0	0
LNG From Storage		868	848	753	753	753
Unserved	Valley	0	0	42	52	47
	Providence	0	0	1,136	1,216	1,301
	Warren	0	0	10	11	12
	Westerly	0	0	0	0	0
		0	0	1,188	1,278	1,360
TOTAL		28,725	29,388	29,398	29,631	29,822

Rhode Island Energy
Comparison of Resources and Requirements
Cold Snap (Sales and Customer Choice)
(BBtu)

		Cold Snap Non-Heating Season (Apr-Oct) with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	1,756	1,776	1,789	1,801	1,813
	Providence	8,599	8,696	8,763	8,818	8,877
	Warren	313	316	319	321	323
	Westerly	182	184	185	187	188
Fuel Reimbursement		415	370	374	417	419
Underground Storage Refill		3,973	4,004	3,950	3,947	3,962
LNG Refill		887	887	887	887	887
TOTAL		16,125	16,234	16,267	16,378	16,468
RESOURCES						
TGP	Dawn PNGTS	29	12	13	15	16
	Dawn Iroquois	0	1	1	1	1
	Niagara	32	32	32	32	2
	Zone 4	3,283	2,978	3,192	2,965	3,224
	Dracut	163	513	324	519	324
	TGP Citygate	0	0	0	0	0
	Everett Swing	0	0	0	0	0
	Storage	0	0	0	0	0
TET/AGT	M2	7,766	6,120	3,920	4,513	4,598
	EGTS South Point	82	50	50	67	84
	TCO Appalachia	488	432	1,664	3,855	3,347
	Transco Leidy	110	81	82	82	83
	AIM (Ramapo)	53	216	130	121	69
	AIM (Millennium)	1,926	833	1,114	1,153	1,485
	M3	2,058	4,833	5,611	2,920	3,099
	AGT Citygate	0	0	0	0	0
	Beverly	0	0	0	0	0
	Storage	0	0	0	0	0
Liquid for Portables and Refill		0	0	0	0	0
LNG From Storage		134	134	134	134	134
Unserved	Valley	0	0	0	0	0
	Providence	0	0	0	0	0
	Warren	0	0	0	0	0
	Westerly	0	0	0	0	0
		0	0	0	0	0
TOTAL		16,125	16,234	16,267	16,378	16,468

Rhode Island Energy
Comparison of Resources and Requirements
Cold Snap (Sales and Customer Choice)
(BBtu)

		Cold Snap Annual with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	6,285	6,410	6,442	6,490	6,533
	Providence	30,778	31,394	31,548	31,784	31,993
	Warren	1,119	1,142	1,147	1,156	1,163
	Westerly	651	664	668	673	677
Fuel Reimbursement		1,042	1,026	1,024	1,072	1,075
Underground Storage Refill		3,973	4,004	3,950	3,947	3,962
LNG Refill		1,002	982	887	887	887
TOTAL		44,850	45,623	45,666	46,008	46,290
RESOURCES						
TGP	Dawn PNGTS	2,505	2,819	2,859	2,846	2,876
	Dawn Iroquois	75	92	95	109	110
	Niagara	130	144	160	156	128
	Zone 4	7,981	8,079	8,317	8,034	8,310
	Dracut	356	738	1,100	1,320	1,146
	TGP Citygate	0	0	0	0	0
	Everett Swing	890	1,164	0	0	0
	Storage	1,334	1,334	1,335	1,339	1,339
TET/AGT	M2	13,690	12,091	9,766	10,496	10,581
	EGTS South Point	165	133	133	150	166
	TCO Appalachia	5,278	4,931	6,166	8,367	7,868
	Transco Leidy	298	261	270	264	265
	AIM (Ramapo)	392	553	501	505	458
	AIM (Millennium)	3,293	2,209	2,481	2,520	2,852
	M3	4,158	6,755	7,691	5,021	5,230
	AGT Citygate	372	369	0	0	0
	Beverly	100	105	108	108	104
	Storage	2,639	2,670	2,611	2,608	2,608
Liquid for Portables and Refill		192	192	0	0	0
LNG From Storage		1,002	982	887	887	887
Unserved	Valley	0	0	42	52	47
	Providence	0	0	1,136	1,216	1,301
	Warren	0	0	10	11	12
	Westerly	0	0	0	0	0
		0	0	1,188	1,278	1,360
TOTAL		44,850	45,623	45,666	46,008	46,290

Rhode Island Energy
Comparison of Resources and Requirements
Design Year (Sales Only)
(BBtu)

		Design Day with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	53	54	54	54	55
	Providence	258	261	264	266	268
	Warren	9	10	10	10	10
	Westerly	6	6	6	6	6
Fuel Reimbursement		5	5	5	5	5
Underground Storage Refill		0	0	0	0	0
LNG Refill		0	0	0	0	0
TOTAL		331	335	338	341	344
RESOURCES						
TGP	Dawn PNGTS	24	24	24	24	24
	Dawn Iroquois	1	1	1	1	1
	Niagara	1	1	1	1	1
	Zone 4	34	34	34	34	34
	Dracut	0	0	17	17	17
	TGP Citygate	0	0	0	0	0
	Everett Swing	25	30	0	0	0
	Storage	11	11	11	11	11
TET/AGT	M2	40	40	40	40	40
	EGTS South Point	1	1	1	1	1
	TCO Appalachia	33	33	33	33	33
	Transco Leidy	1	1	1	1	1
	AIM (Ramapo)	0	0	7	7	7
	AIM (Millennium)	7	7	7	7	7
	M3	0	0	17	17	17
	AGT Citygate	1	1	0	0	0
	Beverly	5	5	5	2	5
	Storage	29	29	29	29	29
Liquid for Portables and Refill		6	6	0	0	0
LNG From Storage		112	112	102	107	107
Unserved	Valley	0	0	7	7	8
	Providence	0	0	0	0	0
	Warren	0	0	1	1	1
	Westerly	0	0	0	0	0
		0	0	8	9	9
TOTAL		331	335	338	341	344

Rhode Island Energy
Comparison of Resources and Requirements
Design Year (Sales Only)
(BBtu)

		Design Heating Season (Nov-Mar) with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	3,994	4,081	4,084	4,117	4,151
	Providence	19,485	19,908	19,926	20,085	20,253
	Warren	715	730	731	737	743
	Westerly	446	456	456	460	464
Fuel Reimbursement		569	596	600	605	607
Underground Storage Refill		0	0	0	0	0
LNG Refill		21	0	0	0	0
TOTAL		25,229	25,770	25,797	26,004	26,217
RESOURCES						
TGP	Dawn PNGTS	1,908	2,151	2,173	2,165	2,191
	Dawn Iroquois	64	69	69	89	92
	Niagara	74	87	107	105	101
	Zone 4	4,259	4,594	4,691	4,563	4,594
	Dracut	31	38	387	404	421
	TGP Citygate	0	0	0	0	0
	Everett Swing	890	1,164	0	0	0
	Storage	1,334	1,334	1,335	1,339	1,339
TET/AGT	M2	5,855	5,903	5,712	5,918	5,917
	EGTS South Point	82	83	82	82	82
	TCO Appalachia	4,636	4,465	4,450	4,458	4,472
	Transco Leidy	187	177	185	173	174
	AIM (Ramapo)	97	88	265	271	280
	AIM (Millennium)	1,124	1,131	1,124	1,124	1,124
	M3	905	713	1,304	1,327	1,361
	AGT Citygate	74	82	0	0	0
	Beverly	100	105	108	108	104
	Storage	2,642	2,642	2,593	2,588	2,591
Liquid for Portables and Refill		192	192	0	0	0
LNG From Storage		774	753	753	753	753
Unserved	Valley	0	0	7	8	9
	Providence	0	0	451	526	611
	Warren	0	0	1	2	2
	Westerly	0	0	0	0	0
		0	0	459	536	622
TOTAL		25,229	25,770	25,797	26,004	26,217

Rhode Island Energy
Comparison of Resources and Requirements
Design Year (Sales Only)
(BBtu)

		Design Non-Heating Season (Apr-Oct) with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	1,356	1,369	1,380	1,392	1,404
	Providence	6,613	6,677	6,732	6,789	6,849
	Warren	243	245	247	249	251
	Westerly	151	153	154	155	157
Fuel Reimbursement		361	330	329	361	364
Underground Storage Refill		3,977	3,976	3,932	3,927	3,942
LNG Refill		887	887	887	887	887
TOTAL		13,587	13,637	13,661	13,760	13,854
RESOURCES						
TGP	Dawn PNGTS	11	0	0	0	0
	Dawn Iroquois	0	1	0	0	0
	Niagara	29	29	29	32	1
	Zone 4	2,907	2,636	2,791	2,636	2,835
	Dracut	105	385	254	396	261
	TGP Citygate	0	0	0	0	0
	Everett Swing	0	0	0	0	0
	Storage	0	0	0	0	0
TET/AGT	M2	6,970	5,727	3,704	4,146	4,367
	EGTS South Point	54	45	50	67	84
	TCO Appalachia	396	371	1,320	2,961	2,499
	Transco Leidy	73	44	44	42	42
	AIM (Ramapo)	37	157	75	73	38
	AIM (Millennium)	1,445	685	898	890	1,190
	M3	1,426	3,424	4,361	2,382	2,403
	AGT Citygate	0	0	0	0	0
	Beverly	0	0	0	0	0
	Storage	0	0	0	0	0
Liquid for Portables and Refill		0	0	0	0	0
LNG From Storage		134	134	134	134	134
Unserved	Valley	0	0	0	0	0
	Providence	0	0	0	0	0
	Warren	0	0	0	0	0
	Westerly	0	0	0	0	0
		0	0	0	0	0
TOTAL		13,587	13,637	13,661	13,760	13,854

Rhode Island Energy
Comparison of Resources and Requirements
Design Year (Sales Only)
(BBtu)

		Design Annual with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	5,350	5,449	5,464	5,509	5,555
	Providence	26,098	26,585	26,658	26,874	27,102
	Warren	958	975	978	986	994
	Westerly	597	608	610	615	620
Fuel Reimbursement		930	926	929	965	970
Underground Storage Refill		3,977	3,976	3,932	3,927	3,942
LNG Refill		908	887	887	887	887
TOTAL		38,817	39,407	39,459	39,764	40,072
RESOURCES						
TGP	Dawn PNGTS	1,919	2,151	2,173	2,165	2,191
	Dawn Iroquois	64	70	69	89	92
	Niagara	102	116	136	137	102
	Zone 4	7,167	7,230	7,482	7,199	7,428
	Dracut	137	423	641	800	683
	TGP Citygate	0	0	0	0	0
	Everett Swing	890	1,164	0	0	0
	Storage	1,334	1,334	1,335	1,339	1,339
TET/AGT	M2	12,825	11,629	9,416	10,064	10,284
	EGTS South Point	136	128	133	150	166
	TCO Appalachia	5,032	4,836	5,770	7,419	6,971
	Transco Leidy	259	220	229	216	216
	AIM (Ramapo)	134	245	339	344	318
	AIM (Millennium)	2,569	1,816	2,022	2,014	2,314
	M3	2,331	4,137	5,666	3,709	3,765
	AGT Citygate	74	82	0	0	0
	Beverly	100	105	108	108	104
	Storage	2,642	2,642	2,593	2,588	2,591
Liquid for Portables and Refill		192	192	0	0	0
LNG From Storage		908	887	887	887	887
Unserved	Valley	0	0	7	8	9
	Providence	0	0	451	526	611
	Warren	0	0	1	2	2
	Westerly	0	0	0	0	0
		0	0	459	536	622
TOTAL		38,817	39,407	39,459	39,764	40,072

Rhode Island Energy
Comparison of Resources and Requirements
Normal Year (Sales Only)
(BBtu)

		Normal Heating Season (Nov-Mar) with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	3,382	3,464	3,481	3,514	3,542
	Providence	16,562	16,965	17,048	17,207	17,345
	Warren	602	617	620	626	631
	Westerly	350	359	361	364	367
Fuel Reimbursement		514	522	540	552	555
Underground Storage Refill		0	0	0	0	0
LNG Refill		0	0	0	0	0
TOTAL		21,411	21,927	22,050	22,262	22,439
RESOURCES						
TGP	Dawn PNGTS	109	367	1,527	1,572	1,601
	Dawn Iroquois	0	7	43	60	63
	Niagara	43	63	93	83	73
	Zone 4	3,510	3,896	4,252	3,963	4,026
	Dracut	0	0	2	3	5
	TGP Citygate	0	0	0	0	0
	Everett Swing	890	1,164	0	0	0
	Storage	1,334	1,334	1,335	1,339	1,339
TET/AGT	M2	5,639	5,702	5,424	5,857	5,804
	EGTS South Point	81	83	82	82	82
	TCO Appalachia	4,404	4,230	4,203	4,296	4,366
	Transco Leidy	185	159	178	155	155
	AIM (Ramapo)	28	13	17	34	34
	AIM (Millennium)	1,124	1,131	1,124	1,124	1,124
	M3	340	220	294	331	399
	AGT Citygate	0	0	0	0	0
	Beverly	100	105	108	108	104
	Storage	2,678	2,684	2,617	2,501	2,510
Liquid for Portables and Refill		192	192	0	0	0
LNG From Storage		753	577	753	753	753
Unserved	Valley	0	0	0	0	0
	Providence	0	0	0	0	0
	Warren	0	0	0	0	0
	Westerly	0	0	0	0	0
		0	0	0	0	0
TOTAL		21,411	21,927	22,050	22,262	22,439

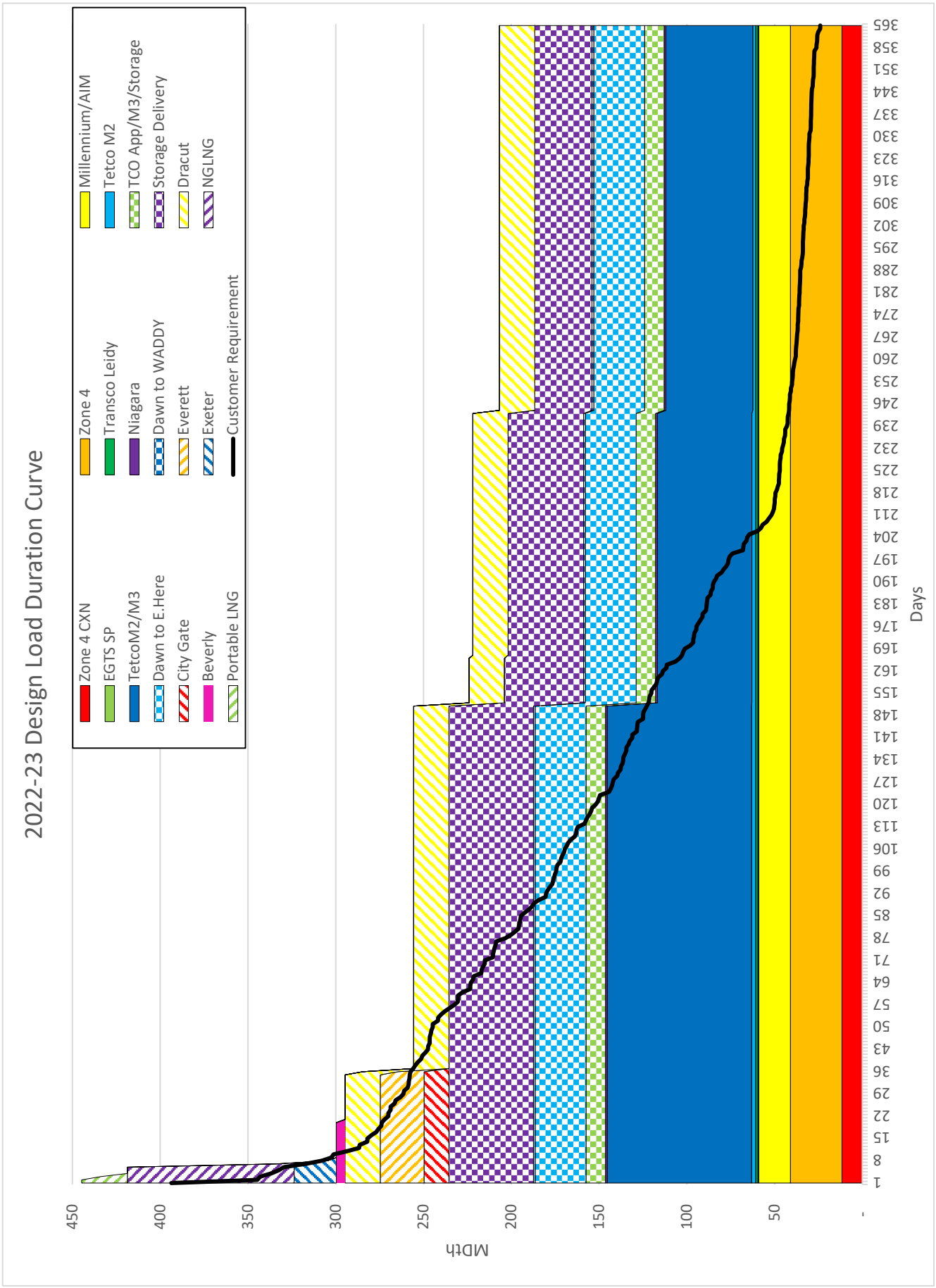
Rhode Island Energy
Comparison of Resources and Requirements
Normal Year (Sales Only)
(BBtu)

		Normal Non-Heating Season (Apr-Oct) with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	1,230	1,247	1,260	1,270	1,281
	Providence	6,022	6,109	6,169	6,219	6,272
	Warren	219	222	224	226	228
	Westerly	127	129	131	132	133
Fuel Reimbursement		349	290	320	348	351
Underground Storage Refill		4,012	4,024	3,956	3,840	3,861
LNG Refill		887	712	887	887	887
TOTAL		12,847	12,734	12,946	12,922	13,014
RESOURCES						
TGP	Dawn PNGTS	0	0	0	0	0
	Dawn Iroquois	0	0	0	0	0
	Niagara	28	28	28	32	0
	Zone 4	2,782	2,314	2,654	2,517	2,708
	Dracut	93	333	219	356	225
	TGP Citygate	0	0	0	0	0
	Everett Swing	0	0	0	0	0
	Storage	0	0	0	0	0
TET/AGT	M2	6,865	5,701	3,672	3,937	4,201
	EGTS South Point	53	40	50	67	84
	TCO Appalachia	298	296	1,341	2,966	2,492
	Transco Leidy	69	41	41	40	38
	AIM (Ramapo)	19	93	30	33	11
	AIM (Millennium)	1,430	685	897	878	1,183
	M3	1,077	3,069	3,878	1,962	1,938
	AGT Citygate	0	0	0	0	0
	Beverly	0	0	0	0	0
	Storage	0	0	0	0	0
Liquid for Portables and Refill		0	0	0	0	0
LNG From Storage		134	134	134	134	134
Unserved	Valley	0	0	0	0	0
	Providence	0	0	0	0	0
	Warren	0	0	0	0	0
	Westerly	0	0	0	0	0
		0	0	0	0	0
TOTAL		12,847	12,734	12,946	12,922	13,014

Rhode Island Energy
Comparison of Resources and Requirements
Normal Year (Sales Only)
(BBtu)

		Normal Annual with Proposed Resources				
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
REQUIREMENTS						
Firm Sendout	Valley	4,612	4,712	4,741	4,783	4,822
	Providence	22,585	23,074	23,216	23,426	23,617
	Warren	821	839	844	852	859
	Westerly	478	488	491	496	500
Fuel Reimbursement		863	813	860	900	906
Underground Storage Refill		4,012	4,024	3,956	3,840	3,861
LNG Refill		887	712	887	887	887
TOTAL		34,258	34,661	34,996	35,184	35,452
RESOURCES						
TGP	Dawn PNGTS	109	367	1,527	1,572	1,601
	Dawn Iroquois	0	7	43	60	63
	Niagara	71	91	121	115	73
	Zone 4	6,292	6,209	6,906	6,480	6,734
	Dracut	93	333	221	359	229
	TGP Citygate	0	0	0	0	0
	Everett Swing	890	1,164	0	0	0
	Storage	1,334	1,334	1,335	1,339	1,339
TET/AGT	M2	12,504	11,403	9,096	9,794	10,005
	EGTS South Point	134	123	133	150	166
	TCO Appalachia	4,703	4,526	5,544	7,262	6,858
	Transco Leidy	254	200	219	195	193
	AIM (Ramapo)	47	106	47	67	45
	AIM (Millennium)	2,553	1,816	2,021	2,002	2,306
	M3	1,416	3,290	4,172	2,293	2,338
	AGT Citygate	0	0	0	0	0
	Beverly	100	105	108	108	104
	Storage	2,678	2,684	2,617	2,501	2,510
Liquid for Portables and Refill		192	192	0	0	0
LNG From Storage		887	712	887	887	887
Unserved	Valley	0	0	0	0	0
	Providence	0	0	0	0	0
	Warren	0	0	0	0	0
	Westerly	0	0	0	0	0
		0	0	0	0	0
TOTAL		34,258	34,661	34,996	35,184	35,452

Exhibit 17


2022-23 Design Load Duration Curve
Zone 4 CXN
EGTS SP
TetcoM2/M3
Dawn to E.Here
City Gate
Beverly
Portable LNG
Zone 4
Transco Leidy
Niagara
Dawn to WADDY
Everett
Exeter
Customer Requirement
Millennium/AIM
Tetco M2
TCO App/M3/Storage
Storage Delivery
Dracut
NGLNG
MDth
450
400
350
300
250
200
150
100
50
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Days
1
8
15
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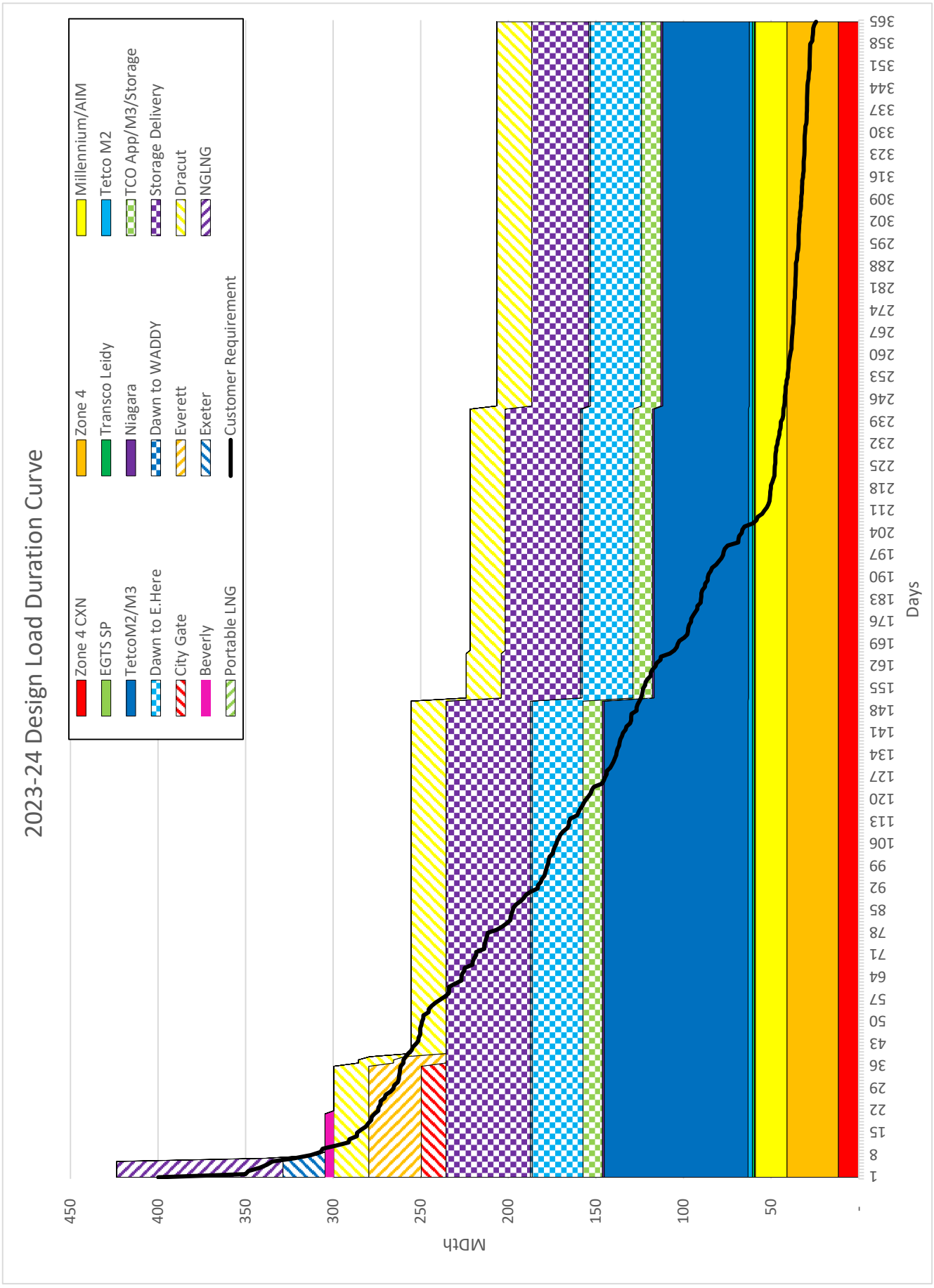
365


2023-24 Design Load Duration Curve
Zone 4 CXN
EGTS SP
TetcoM2/M3
Dawn to E.Here
City Gate
Beverly
Portable LNG
Zone 4
Transco Leidy
Niagara
Dawn to WADDY
Everett
Exeter
Customer Requirement
Millennium/AIM
Tetco M2
TCO App/M3/Storage
Storage Delivery
Dracut
NGLNG
MDth
450
400
350
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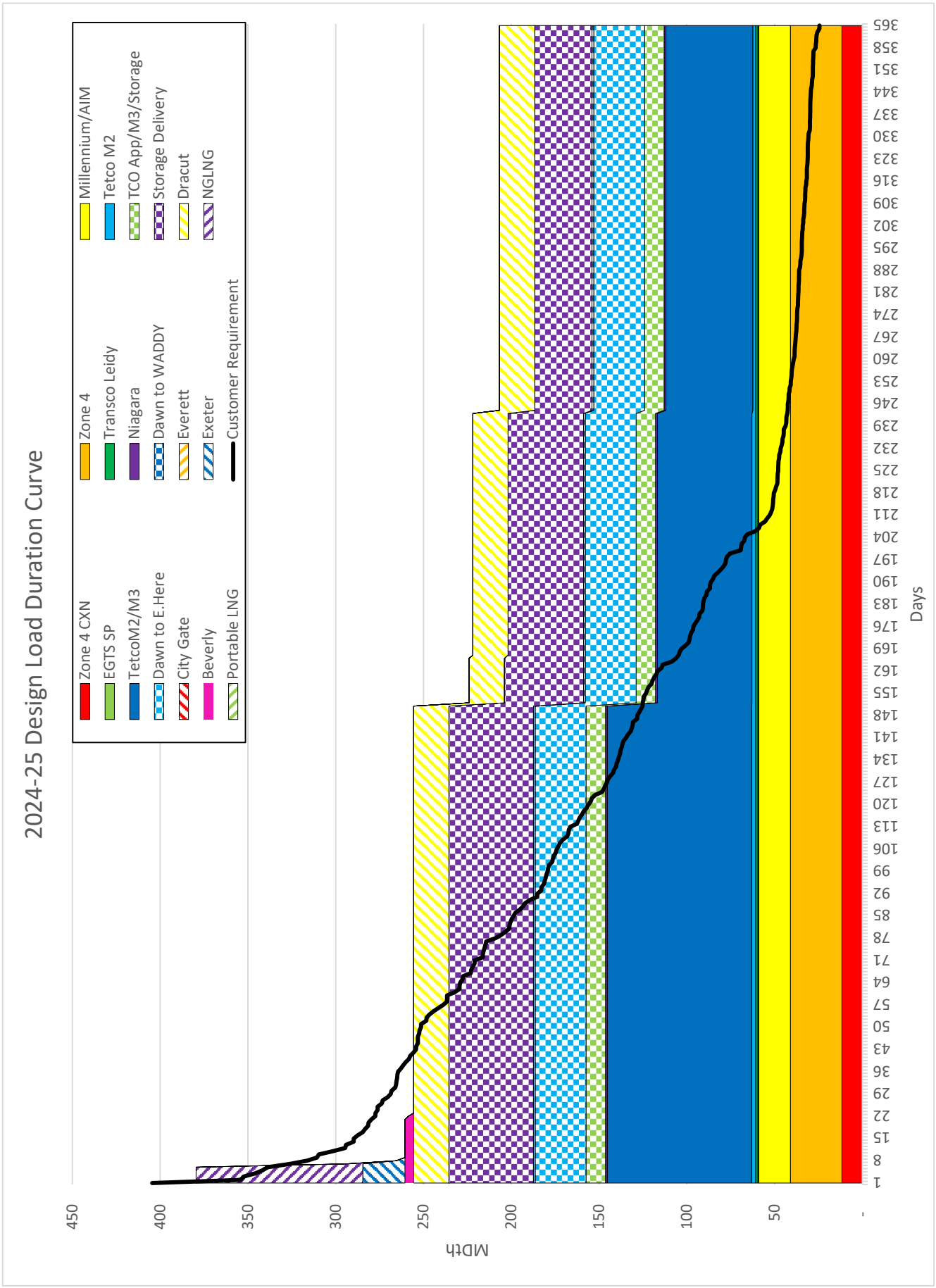
2024-25 Design Load Duration Curve
Zone 4 CXN
EGTS SP
TetcoM2/M3
Dawn to E.Here
City Gate
Beverly
Portable LNG
Zone 4
Transco Leidy
Niagara
Dawn to WADDY
Everett
Exeter
Customer Requirement
Millennium/AIM
Tetco M2
TCO App/M3/Storage
Storage Delivery
Dracut
NGLNG
MDth
450
400
350
300
250
200
150
100
50
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Days
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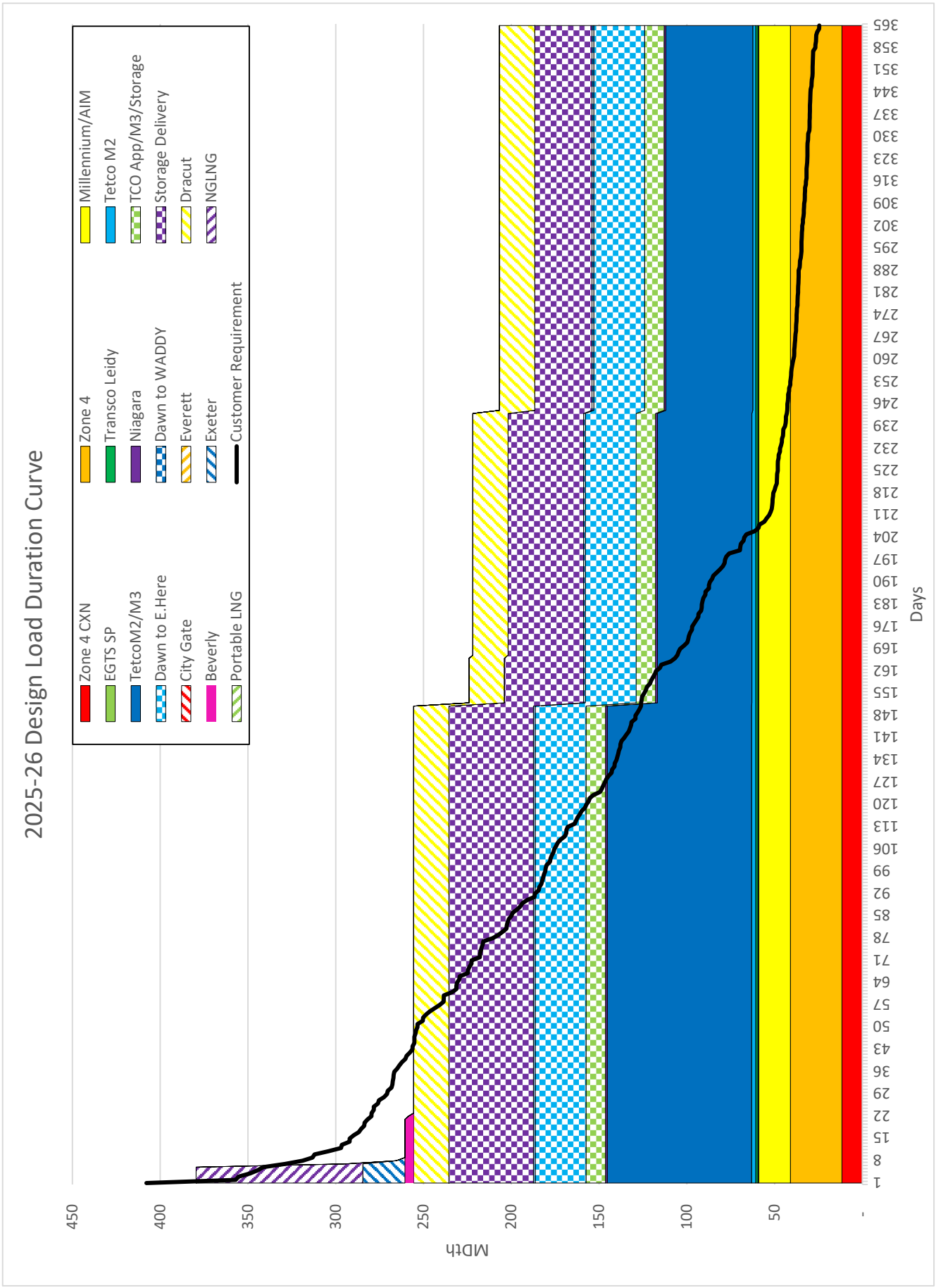
358
365


2025-26 Design Load Duration Curve
Zone 4 CXN
EGTS SP
TetcoM2/M3
Dawn to E.Here
City Gate
Beverly
Portable LNG
Zone 4
Transco Leidy
Niagara
Dawn to WADDY
Everett
Exeter
Customer Requirement
Millennium/AIM
Tetco M2
TCO App/M3/Storage
Storage Delivery
Dracut
NGLNG
MDth
450
400
350
300
250
200
150
100
50
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Days
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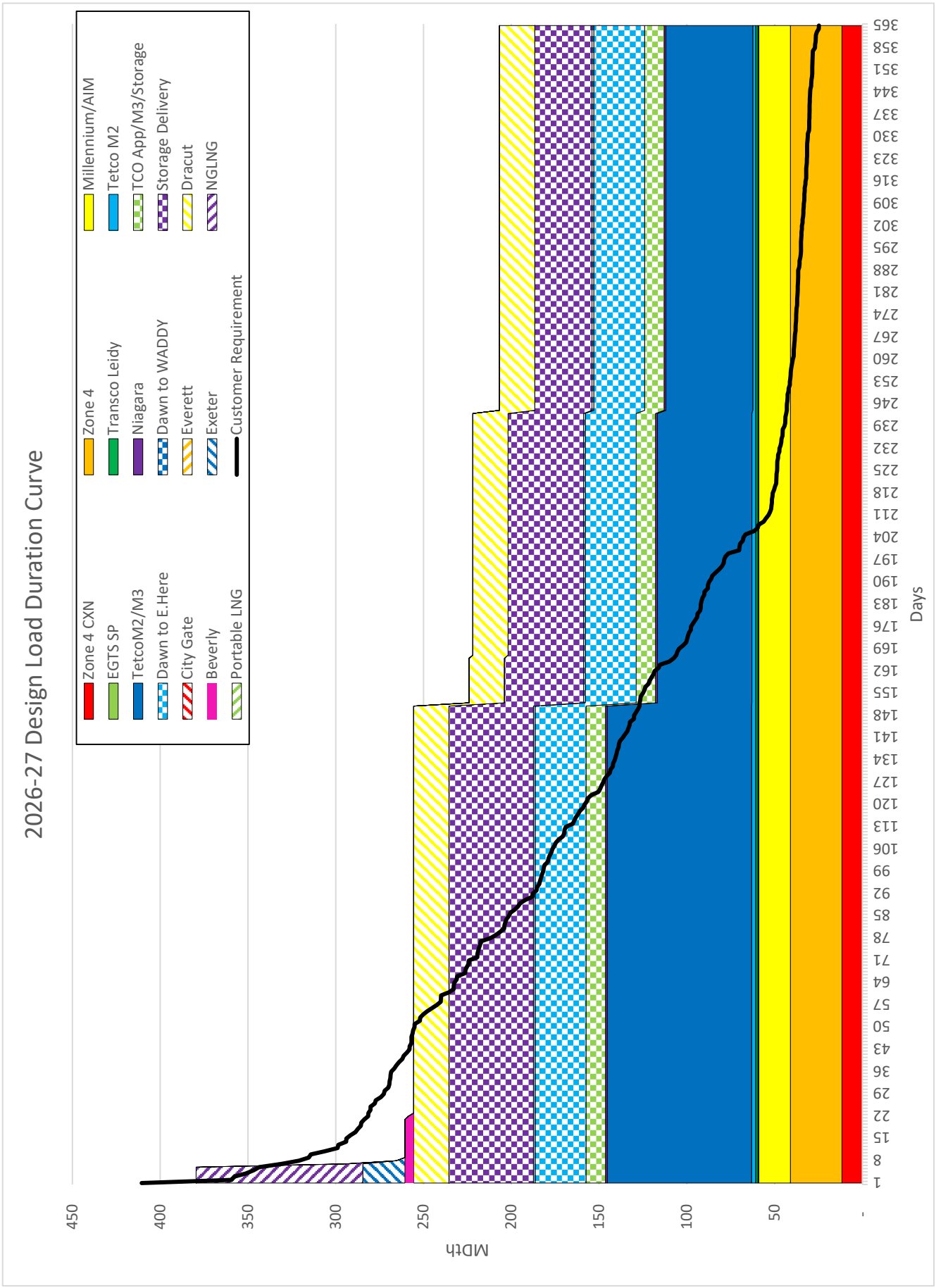
358
365


2026-27 Design Load Duration Curve
Zone 4 CXN
EGTS SP
TetcoM2/M3
Dawn to E.Here
City Gate
Beverly
Portable LNG
Zone 4
Transco Leidy
Niagara
Dawn to WADDY
Everett
Exeter
Customer Requirement
Millennium/AIM
Tetco M2
TCO App/M3/Storage
Storage Delivery
Dracut
NGLNG
MDth
450
400
350
300
250
200
150
100
50
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Days
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323
330
337
344
351
358
365

Exhibit 18

The Narragansett Electric Company
Gas Cost Recovery
Cost of Gas ($000)

Design Weather Scenario - SCC Adj FT1

	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Total
FIXED COSTS													
Total Transportation Fixed Costs	[redacted]												
Total Storage Delivery Fixed Costs													
Total Storage Fixed Costs													
Total Liquefaction Fixed Costs													
Total Supplier Fixed Costs													
LESS:													
AMA Credits	[redacted]												
Hourly Peaking Fixed Costs													
TOTAL FIXED COSTS	[redacted]												$ 94,349.4
VARIABLE COSTS													
Commodity													
Commodity for Purchases to City Gate	[redacted]												
Commodity for Purchases to Injections													
Total Commodity Costs	[redacted]												$ 335,770.8
Withdrawal													
Underground Storage Withdrawal Value	[redacted]												
LNG Storage Withdrawal Value													
Total Storage Withdrawal Value	[redacted]												$ 24,544.7
Transportation													
Variable Costs for Purchases to City Gate	[redacted]												
Variable Costs for Storage Withdrawal													
Variable Costs for Storage Injection													
Total Transportation Variable Costs													
Total Storage Variable Costs													
LESS:													
LNG Trucking	[redacted]												
Storage Refill													
Liquefaction													
Total Storage and Liquefaction													$ 24,109.2
TOTAL VARIABLE COSTS													$ 341,978.1
TOTAL FIXED AND VARIABLE COSTS													$ 436,327.4
NGPMP Credit													$ 11,646.7
TOTAL GAS COSTS													424,680.7

REDACTED

Narragansett Electric Company
Volume & Cost Summary
Sendout Volumes (MDth)

Design Weather Scenario - SCC Adj FT1

	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Total
Algonquin													
TETCO CDS Long Haul	1,105	1,141	1,141	1,030	1,146	1,116	1,153	1,115	901	1,064	1,101	1,145	13,158
TETCO SCT Long Haul	-	45	61	52	58	-	-	-	-	-	-	-	216
AIM	316	359	415	382	350	333	284	253	271	271	263	284	3,782
AGT M3	222	418	680	621	861	984	386	127	-	3	102	806	5,209
TCO Appalachia	795	994	994	898	994	259	67	2	50	50	32	180	5,315
Storage	393	534	550	522	207	-	-	-	-	-	-	-	2,207
Total Algonquin	2,831	3,491	3,841	3,505	3,616	2,691	1,890	1,497	1,223	1,389	1,497	2,414	29,885
Tennessee													
TGP Long Haul	601	733	734	666	822	340	11	190	4	154	189	498	4,942
TGP ConneXion	261	292	292	264	292	275	291	274	283	283	274	284	3,366
Storage	117	409	469	413	282	-	-	-	-	-	-	-	1,691
Total Tennessee	979	1,434	1,496	1,343	1,397	615	302	465	287	438	463	782	9,999
Other													
Dawn via PNGTS	180	781	855	752	343	49	-	-	-	-	-	-	2,959
Dracut	59	195	364	308	135	14	182	4	-	-	-	11	1,270
Dawn / Niagara / Waddington	15	48	62	53	26	32	-	-	-	-	-	-	235
Dominion / Transco Leidy	51	54	54	49	54	50	20	2	19	5	42	54	454
Everett	-	160	334	279	114	-	-	-	-	-	-	-	887
LNG Vapor	143	126	326	174	33	25	19	19	19	19	19	19	943
LNG Truck	21	-	99	46	48	-	-	-	-	-	-	-	214
Beverly	-	25	40	23	12	-	-	-	-	-	-	-	99
City Gate	-	80	171	178	79	-	-	-	-	-	-	-	508
Total Other	469	1,469	2,304	1,860	843	170	221	25	38	24	61	85	7,568
Total Purchases	4,279	6,394	7,640	6,708	5,856	3,476	2,412	1,986	1,548	1,851	2,020	3,282	47,452
LESS:													
Liquefaction	-	-	(99)	(41)	(20)	132	136	132	136	136	132	84	729
LNG Truck	21	-	99	46	48	-	-	-	-	-	-	-	214
AGT Storage Refill	-	-	-	-	-	42	330	473	376	514	467	453	2,657
TGP Storage Refill	-	-	-	-	-	42	155	264	113	261	248	251	1,334
Total	21	-	0	5	28	216	622	869	626	912	846	788	4,933
Total Sendout	4,258	6,394	7,640	6,703	5,828	3,260	1,791	1,117	923	939	1,174	2,493	42,519
Datacheck	4,258	6,394	7,640	6,703	5,828	3,260	1,791	1,117	923	939	1,174	2,493	42,519
Delta	-	-	-	-	-	-	-	-	-	-	-	-	0

REDACTED

Narragansett Electric Company
Volume & Cost Summary
Cost of Gas ($000)

	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Total
DEMAND													
[redacted]													
Total Demand													$ 133,440
Datacheck													$ 133,440
Delta													$ -

	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Total
COMMODITY													
[redacted]													
TOTAL COMMODITY													$ 366,087
Datacheck													$ 366,087
Delta													$ -

REDACTED

	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Total
TOTAL DC+CC	[redacted]												$ 499,528
LESS:													
Liquefaction													[redacted]
LNG Truck													
AGT Storage Refill													
TGP Storage Refill													
Total Liquefaction & Storage													$ 24,109
TOTAL GAS COST													$ 475,418
Commodity to Sendout													$ 341,978
Days/month	30	31	31	28	31	30	31	30	31	31	30	31	365
Unit Commodity Cost ($/MMBtu)	[redacted]												$8.043
NYMEX (06/07/2022)	$9.246	$9.318	$9.395	$9.061	$7.966	$5.916	$5.698	$5.737	$5.775	$5.758	$5.727	$5.784	

REDACTED

Exhibit 19

The Narragansett Electric Company Gas Cost Recovery Cost of Gas ($000)	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Total
Normal Weather Scenario - Sales													
FIXED COSTS													
Total Transportation Fixed Costs	[redacted]												[redacted]
Total Storage Delivery Fixed Costs													
Total Storage Fixed Costs													
Total Liquefaction Fixed Costs													
Total Supplier Fixed Costs													38,003.8
LESS:													
AMA Credits	[redacted]												[redacted]
Hourly Peaking Fixed Costs													
TOTAL FIXED COSTS													85,415.1
VARIABLE COSTS													
Commodity													
Commodity for Purchases to City Gate	[redacted]												[redacted]
Commodity for Purchases to Injections													
Total Commodity Costs													183,086.5
Withdrawal													
Underground Storage Withdrawal Value	[redacted]												[redacted]
LNG Storage Withdrawal Value													
Total Storage Withdrawal Value													24,343.2
Transportation													
Variable Costs for Purchases to City Gate	[redacted]												[redacted]
Variable Costs for Storage Withdrawal													
Variable Costs for Storage Injection													
Total Transportation Variable Costs													
Total Storage Variable Costs													
LESS:													
LNG Trucking	[redacted]												[redacted]
Storage Refill													
Liquefaction													
Total Storage and Liquefaction													23,926.7
TOTAL VARIABLE COSTS	[redacted]												188,240.6
TOTAL FIXED AND VARIABLE COSTS													273,655.7
NGPMP Credit													11,646.7
TOTAL GAS COSTS													262,009.0

REDACTED

Narragansett Electric Company
Volume & Cost Summary
Sendout Volumes (MDth)

Normal Weather Scenario - Sales

	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Total
Algonquin													
TETCO CDS Long Haul	1,093	1,141	1,141	999	1,071	1,094	1,025	1,099	605	846	929	1,094	12,137
TETCO SCT Long Haul	-	-	-	-	22	-	-	-	-	-	-	-	22
AIM	222	221	221	200	242	235	224	59	223	223	216	223	2,510
AGT M3	48	-	-	-	288	527	122	-	-	-	10	405	1,401
TCO Appalachia	435	964	980	898	994	80	50	3	50	50	32	24	4,561
Storage	420	548	562	516	183	-	-	-	-	-	-	-	2,228
Total Algonquin	2,218	2,874	2,904	2,613	2,800	1,936	1,422	1,161	878	1,120	1,187	1,747	22,859
Tennessee													
TGP Long Haul	225	378	632	559	448	169	-	130	-	102	120	300	3,062
TGP ConneXion	179	232	292	264	249	240	228	274	279	283	274	284	3,077
Storage	125	423	465	406	272	-	-	-	-	-	-	-	1,690
Total Tennessee	529	1,033	1,389	1,228	969	410	228	404	279	385	394	583	7,830
Other													
Dawn via PNGTS	16	21	3	-	67	-	-	-	-	-	-	-	107
Dracut	-	-	-	-	-	-	85	-	-	-	-	-	85
Dawn / Niagara / Waddington	1	5	19	14	4	27	-	-	-	-	-	-	70
Dominion / Transco Leidy	48	54	54	49	54	42	7	2	19	2	6	40	378
Everett	-	164	388	335	-	-	-	-	-	-	-	-	887
LNG Vapor	19	105	391	219	19	19	19	19	19	19	19	19	887
LNG Truck	-	-	98	94	-	-	-	-	-	-	-	-	192
Beverly	-	28	18	54	-	-	-	-	-	-	-	-	99
City Gate	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Other	84	377	971	765	145	89	112	21	38	22	24	60	2,706
Total Purchases	2,831	4,283	5,264	4,606	3,913	2,435	1,762	1,586	1,195	1,526	1,605	2,390	33,395
LESS:													
Liquefaction	-	-	(98)	(94)	-	131	136	132	136	136	132	84	695
LNG Truck	-	-	98	94	-	-	-	-	-	-	-	-	192
AGT Storage Refill	-	-	-	-	-	58	404	470	311	515	467	454	2,678
TGP Storage Refill	-	-	-	-	-	42	109	264	159	261	248	251	1,334
Total	-	-	(0)	0	-	230	650	866	606	912	847	789	4,899
Total Sendout	2,831	4,283	5,264	4,606	3,913	2,205	1,112	720	589	614	758	1,602	28,496
Datacheck	2,831	4,283	5,264	4,606	3,913	2,205	1,112	720	589	614	758	1,602	28,496
Delta	-	-	-	-	-	-	-	-	-	-	-	-	-

REDACTED

Narragansett Electric Company
Volume & Cost Summary
Cost of Gas ($000)

DEMAND

	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Total
[redacted]													
Total Demand	$ 7,031	$ 16,863	$ 16,863	$ 16,863	$ 16,863	$ 7,146	$ 7,146	$ 7,146	$ 7,146	$ 7,146	$ 7,146	$ 7,146	$ 124,506
Datacheck	$ 7,031	$ 16,863	$ 16,863	$ 16,863	$ 16,863	$ 7,146	$ 7,146	$ 7,146	$ 7,146	$ 7,146	$ 7,146	$ 7,146	$ 124,506
Delta	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

COMMODITY

	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Total
[redacted]													
TOTAL COMMODITY	$ 21,831	$ 31,910	$ 37,503	$ 32,204	$ 29,146	$ 12,892	$ 8,506	$ 7,663	$ 5,926	$ 7,311	$ 6,913	$ 10,363	$ 212,167
Datacheck	$ 21,831	$ 31,910	$ 37,503	$ 32,204	$ 29,146	$ 12,892	$ 8,506	$ 7,663	$ 5,926	$ 7,311	$ 6,913	$ 10,363	$ 212,167
Delta	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

REDACTED

	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Total
TOTAL DC+CC	[redacted]												$ 336,673
LESS:													
Liquefaction	[redacted]												
LNG Truck													
AGT Storage Refill													
TGP Storage Refill													
Total Liquefaction & Storage	[redacted]												$ 23,927
TOTAL GAS COST	[redacted]												$ 312,747
Commodity to Sendout	[redacted]												$ 188,241
Days/month	30	31	31	28	31	30	31	30	31	31	30	31	365
Unit Commodity Cost ($/MMBtu)	[redacted]												$6.606
NYMEX (06/07/2022)	$9.246	$9.318	$9.395	$9.061	$7.966	$5.916	$5.698	$5.737	$5.775	$5.758	$5.727	$5.784	

REDACTED

Exhibit 20

Rhode Island Energy
Design Year
Fixed + Variable + Commodity Cost per Dth per Day by Path (100% Load Factor)
SCC Adj FT1
Existing and Proposed Assets

	Dollars per Dth per Day				
Gas Year	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
[redacted]					

Rhode Island Energy
Normal Year
Fixed + Variable + Commodity Cost per Dth per Day by Path (100% Load Factor)
SCC Adj FT1
Existing and Proposed Assets

	Dollars per Dth per Day				
Gas Year	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
[redacted]					

Rhode Island Energy
Design Year
Fixed + Variable + Commodity Cost per Dth per Day by Path (100% Load Factor)
Sales
Existing and Proposed Assets

	Dollars per Dth per Day				
Gas Year	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
[redacted]					

Rhode Island Energy
Normal Year
Fixed + Variable + Commodity Cost per Dth per Day by Path (100% Load Factor)
Sales
Existing and Proposed Assets

Gas Year	Dollars per Dth per Day				
Path	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
[redacted]					

Rhode Island Energy
Design Year
Effective Fixed + Variable + Commodity Cost per Dth per Day by Path
SCC Adj FT1
Existing and Proposed Assets

Dollars per Dth per Day

Gas Year Path	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
[redacted]					

Rhode Island Energy
Normal Year
Effective Fixed + Variable + Commodity Cost per Dth per Day by Path
SCC Adj FT1
Existing and Proposed Assets

Gas Year	Dollars per Dth per Day				
Path	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
[redacted]					

Rhode Island Energy
Design Year
Effective Fixed + Variable + Commodity Cost per Dth per Day by Path
Sales
Existing and Proposed Assets

Gas Year		Dollars per Dth per Day				
Path	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
[redacted]					

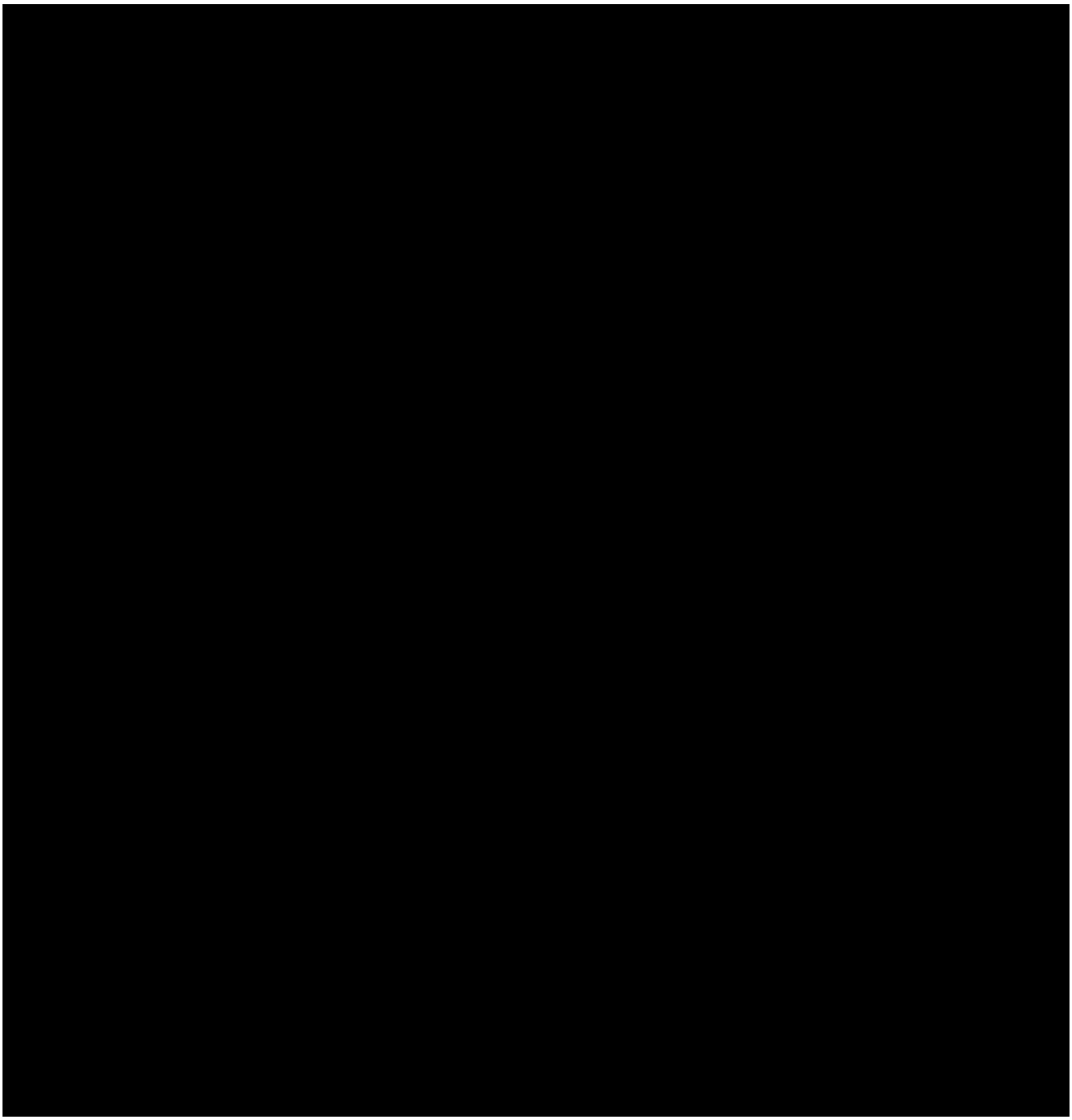
Rhode Island Energy
Normal Year
Effective Fixed + Variable + Commodity Cost per Dth per Day by Path
Sales
Existing and Proposed Assets

	Dollars per Dth per Day				
Gas Year	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
Path					
[redacted]					

Exhibit 21

Rhode Island Energy
SCC Adj FT1
Fixed Cost per Dth per Day by Contract (100% Load Factor)
Existing and Proposed Assets

Gas Year	Dollars per Dth per Day				
Contract	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
[redacted]					

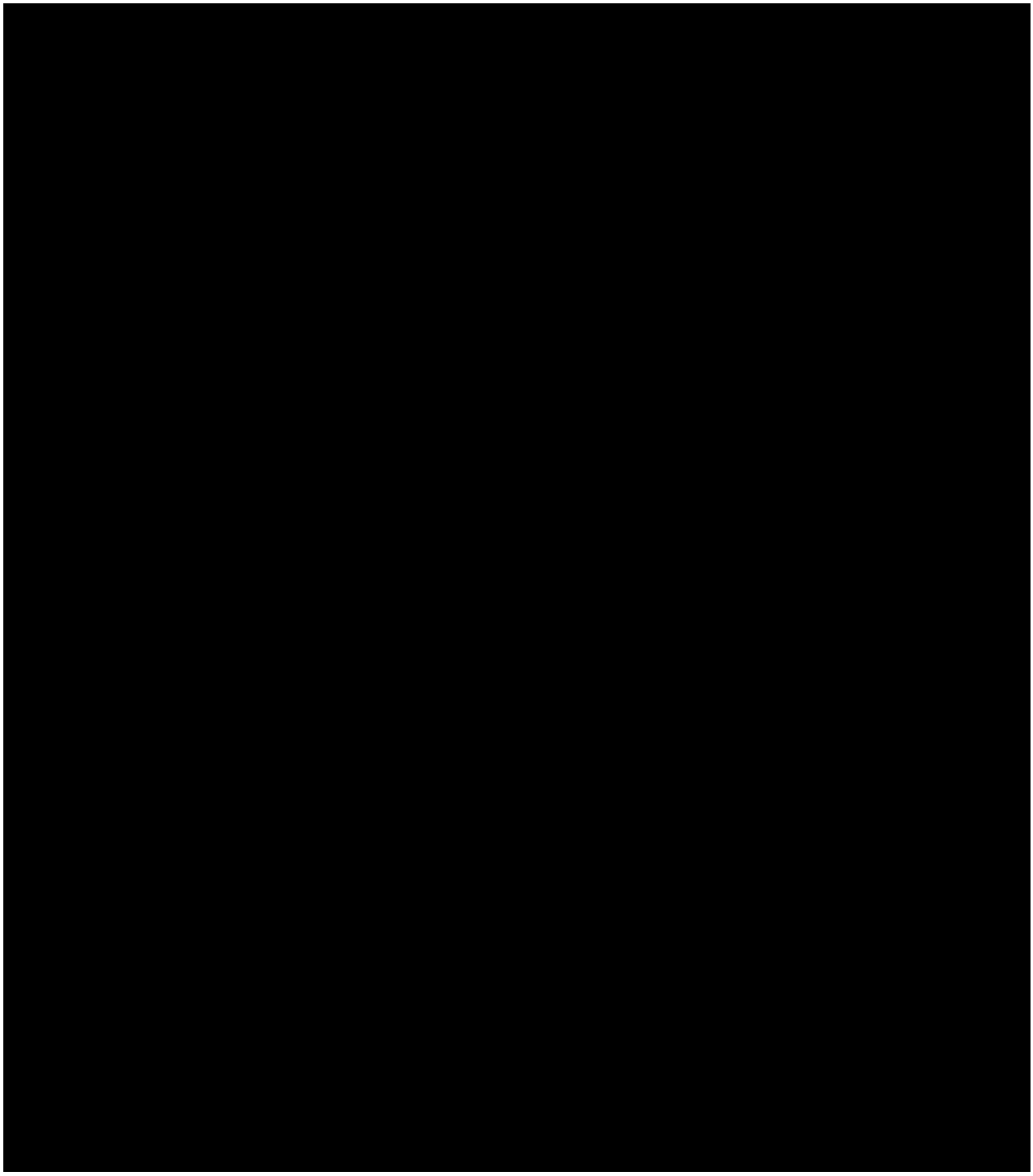


Rhode Island Energy
Design Sales
Fixed Cost per Dth per Day by Contract (100% Load Factor)
Existing and Proposed Assets

Gas Year Contract	Dollars per Dth per Day 2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
[redacted]					

Rhode Island Energy
Design Year
Effective Fixed Cost per Dth per Day by Contract
SCC Adj FT1
Existing and Proposed Assets

	Dollars per Dth per Day				
Gas Year	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
Contract					
[redacted]					



Rhode Island Energy
Normal Year
Effective Fixed Cost per Dth per Day by Contract
SCC Adj FT1
Existing and Proposed Assets

Gas Year Contract	Dollars per Dth per Day 2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
[redacted]					

Rhode Island Energy
Design Year
Effective Fixed Cost per Dth per Day by Contract
Sales
Existing and Proposed Assets

	Dollars per Dth per Day				
Gas Year	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
Contract					
[redacted]					

Rhode Island Energy
Normal Year
Effective Fixed Cost per Dth per Day by Contract
Sales
Existing and Proposed Assets

Gas Year Contract	Dollars per Dth per Day 2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
[redacted]					

Rhode Island Energy
Customer Choice Proposed Releases
2022/23

Paths	Peak Day City Gate MDQ (Dth/day)	Contract	Release % of Design Day Quantity	Release Volume (Dth/day)	City Gate Release (Dth/day)
TGP Long Haul	29,335	TGP 1597	13.7%	5,215	5,215
TGP ConneXion	11,600	TGP 64026	5.4%	2,062	2,062
Dawn via PNGTS	29,000	PNGTS 233317	13.5%	5,156	
		TCPL 64273	13.6%	5,166	
		Enbridge M12274	13.6%	5,166	
		TGP 62930	13.5%	5,156	5,156
AIM	18,000	MPL 210165	4.2%	1,600	
		AGT 510801	8.4%	3,200	3,200
TETCO CDS Long Haul	45,934	TETCO 800303	21.5%	8,166	
		AGT 93011E	21.5%	8,166	8,166
		AGT 510985	21.5%	8,166	
TCO Appalachia	40,000	TCO 31524	18.7%	7,111	
		AGT 90106	18.7%	7,111	7,111
		AGT 510985	18.7%	7,111	
AGT M3	18,099	AGT 93011E	6.7%	2,540	2,540
		AGT 510985	8.5%	3,218	
		AGT 90107	1.8%	678	678
Dracut	20,000	TGP 62930	9.3%	3,556	3,556
TETCO SCT Long Haul	2,099	TETCO 800156	1.0%	373	
		AGT 93001ESC	1.0%	373	373

Customer Choice Design Day Transportation Requirement **38,058**

*Based on June 2022 Pools