The Narragansett Electric Company
d/b/a National Grid

2015 GAS COST RECOVERY

Testimony and Attachments of:

Elizabeth D. Arangio
Ann E. Leary and
Theodore E. Poe, Jr.

September 1, 2015

Submitted to:

Rhode Island Public Utilities Commission
RIPUC Docket No. 4576

Submitted by:

nationalgrid

Filing Letter

Jennifer Brooks Hutchinson
Senior Counsel

September 1, 2015

VIA HAND DELIVERY & ELECTRONIC MAIL

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

RE: Docket 4576 - 2015 Gas Cost Recovery Filing

Dear Ms. Massaro:

Enclosed please find ten (10) copies of the National Grid's[1] Annual Gas Cost Recovery (GCR) filing, which is being submitted pursuant to the Gas Cost Recovery Clause found in the Company's tariffs at RIPUC NG-Gas No. 101, Section 2, Schedule A. The proposed rates contained in this GCR filing reflect the customer class-specific factors necessary for the Company to collect sufficient revenues to recover projected gas costs for the period November 1, 2015 through October 31, 2016.

This filing consists of the pre-filed testimony and attachments of Elizabeth D. Arangio, Ann E. Leary, Theodore E. Poe, Jr., and Stephen A. McCauley. Ms. Arangio provides testimony relative to the Company's projected gas costs and in support of the Company's proposed GCR factors. She also discusses the Company's decision to enter into a Precedent Agreement with Tennessee Gas Pipeline Company, LLC as part of the Tennessee Northeast Energy Direct Project. Ms. Leary's testimony describes the development of the GCR charges proposed for effect November 1, 2015 and provides a bill impact analysis relative to those proposed rates. Mr. Poe's testimony provides support for the underlying wholesale and retail forecasts that the Company uses to estimate gas costs in this filing. Mr. McCauley discusses the results of the Gas Procurement Incentive Plan for the period July 1, 2014 through June 30, 2015. He also discusses the results of the Natural Gas Portfolio Management Plan for the period April 1, 2014 through March 31, 2015 and the recommendation to continue with that plan for an additional year.

As described in Ms. Leary's testimony, based on the GCR rates proposed for effect November 1, 2015 through October 31, 2016, an average residential heating customer using 846 therms per year will experience a total bill decrease related to the proposed GCR and Distribution Adjustment Charge (DAC) rates of approximately $120.09, or an annual 9.6 percent decrease from the current existing rates. This decrease is comprised of a decrease of $120.54 in the GCR-related costs, an increase of $4.05 in DAC-related costs, which was filed on September 1, 2015 under separate cover in Docket No. 4573, and a decrease of $3.60 in Gross Earnings Tax.

[1] The Narragansett Electric Company d/b/a National Grid (National Grid or Company).

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This filing also contains a Motion for Protective Treatment in accordance with Rule 1.2(g) of the Commission's Rules of Practice and Procedure and R.I.G.L. § 38-2-2(4)(B). The Company seeks protection from public disclosure of certain gas-cost pricing information and forecasts, which are provided in Ms. Arangio's testimony and in Attachments EDA-1, EDA-2, and EDA-4 to her testimony, as well as in Attachments AEL-1 and AEL-2 to the testimony of Ms. Leary. Accordingly, the Company has provided the PUC with the un-redacted confidential materials for its review, and has included redacted copies of these materials in the filing.

Thank you for your attention to this filing. If you have any questions, please contact me at (401) 784-7288.

Very truly yours,

Jennifer Brooks Hutchinson

Enclosures

cc: Leo Wold, Esq.
Steve Scialabba, Division
Bruce Oliver, Division

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

RHODE ISLAND PUBLIC UTILITIES COMMISSION

Annual Gas Cost Recovery Filing 2015	)	Docket No. 4576

NATIONAL GRID'S REQUEST FOR PROTECTIVE TREATMENT OF CONFIDENTIAL INFORMATION

National Grid[1] hereby requests that the Rhode Island Public Utilities Commission (PUC) provide confidential treatment and grant protection from public disclosure of certain confidential, competitively sensitive, and proprietary information submitted in this proceeding, as permitted by PUC Rule 1.2(g) and R.I.G.L. § 38-2-2(4)(B). National Grid also hereby requests that, pending entry of that finding, the PUC preliminarily grant National Grid's request for confidential treatment pursuant to Rule 1.2 (g)(2).

I. BACKGROUND

On September 1, 2015, National Grid filed with the PUC its Annual Gas Cost Recovery filing in this docket. This filing includes information relative to certain pricing terms and costs in connection with the Company's LNG agreements with GDF Suez and Gaz Metropolitan, and the Company's Precedent Agreement with Tennessee Gas Pipeline Company, LLC, which are set forth on pages 16-18 and page 20 of the pre-filed testimony of Elizabeth D. Arangio. This filing also includes gas-cost pricing information and forecasts, which are provided in Attachments EDA-1, EDA-2, and EDA-4 to the testimony of Ms. Arangio and in Attachments AEL-1 and AEL-2 to the testimony of Ms. Leary. The Company has provided a redacted public version as well as a confidential version of these portions of the filing pursuant to Rule 1.2(g)(2).

II. LEGAL STANDARD

The Commission's Rule 1.2(g) provides that access to public records shall be granted in accordance with the Access to Public Records Act (APRA), R.I.G.L. §38-2-1, *et seq.* Under 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.G.L. §38-2-2(4). Therefore, 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 to be confidential and to protect that information from public disclosure.

In that regard, R.I.G.L. §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 disclosure of information would be likely either (1) to impair the Government's ability to obtain necessary information in the future; <u>or</u> (2) to cause substantial harm to the competitive position of the person from whom the information

[1] The Narragansett Electric Company d/b/a National Grid (National Grid or Company).

was obtained. Providence Journal Company v. Convention Center Authority, 774 A.2d 40 (R.I.2001).

The first prong of the test is satisfied when information is voluntarily 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 pricing and cost information related to the Company's LNG agreements with GDF Suez and Gaz Metropolitan and the Precedent Agreement with Tennessee Gas Pipeline Company, LLC, which are set forth on pages 16-18 and page 20 of the pre-filed testimony of Ms. Arangio, and the gas-cost pricing information and forecasts, which are provided in Attachments EDA-1, EDA-2, and EDA-4 to the testimony of Ms. Arangio and in Attachments AEL-1 and AEL-2 to the testimony of Ms. Leary are confidential and privileged information of the type that the Company would not ordinarily make public. Public disclosure of this type of information could impair the Company's ability to obtain advantageous pricing in the future.

IV. CONCLUSION

Accordingly, the Company requests that the PUC grant protective treatment to those previously identified portions of its GCR filing.

WHEREFORE, the Company respectfully requests that the PUC grant its Motion for Protective Treatment as stated herein.

Respectfully submitted,

NATIONAL GRID

By its attorney,

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Jennifer Brooks Hutchinson, Esq. (RI Bar #6176)
National Grid
280 Melrose Street
Providence, RI 02907
(401) 784-7288

Dated: September 1, 2015

Testimony of
Elizabeth D. Arangio

DIRECT TESTIMONY

OF

ELIZABETH D. ARANGIO

September 1, 2015

Table of Contents

I. <u>Introduction</u>

Q. Please state your name and business address.

A. My name is Elizabeth Danehy Arangio. My business address is 40 Sylvan Road, Waltham, Massachusetts 02451.

Q. What is your position with National Grid?

A. I am the Director of Gas Supply Planning with responsibility for the resource portfolio of the New England local gas distribution companies (LDC's) that operate as Boston Gas Company, Colonial Gas Company and The Narragansett Electric Company each d/b/a National Grid. In addition to the New England portfolios, I am also responsible for gas supply planning for the resource portfolios of The Brooklyn Union Gas Company, KeySpan Gas East Corporation and Niagara Mohawk Power Corporation, all in New York. For purposes of this testimony, references to "National Grid" or the "Company" relate solely to The Narragansett Electric Company.

Q. Please summarize your educational background and your professional experience.

A. I graduated from the University of Massachusetts in 1991 with a Bachelor of Business Administration. In 1995, I graduated from Bentley College with a Master of Business Administration. From 1991 to 1994, I worked as a Gas Accounting Analyst in the Marketing Operations Department at Algonquin Gas Transmission Company. In 1994, I joined Boston Gas Company as a Gas Supply Analyst. In 1997, I was promoted to Group Leader Transportation Services, with responsibility for managing all activities associated with the Customer-Choice program. In 1998, I was promoted to Director of Gas Acquisition and Transportation Services with responsibility for the administration of the Company's gas-resource portfolio and Customer-Choice program in Massachusetts and, as of 2000, the resource portfolio of EnergyNorth Natural Gas, Inc. in New Hampshire. In February 2004, I assumed the additional responsibility of gas supply planning for the former KeySpan Corporation New York and Long Island resource portfolios. Following the acquisition of KeySpan Corporation by National Grid, plc, I was named to my current position with the added responsibility for the National Grid gas resource portfolios in upstate New York and in Rhode Island.

Q. Are you a member of any professional organizations?

A. I am a member of the Northeast Gas Association and the New England-Canada Business Council.

Q. Have you previously testified in regulatory proceedings?

A. Yes. I have recently testified before the Rhode Island Public Utilities Commission (PUC) in support of National Grid's 2014 Gas Cost Recovery filing (GCR) (Docket No. 4520), and Gas Customer Choice Program (Docket Nos. 4520 and 4523) and the Natural Gas

Portfolio Management Plan (NGPMP (Docket No. 4038). In the past, I have testified numerous times before the Massachusetts Department of Public Utilities., and the New Hampshire Public Utilities Commission. In addition, I have also presented information to the State of New York Department of Public Service.

Q. What is the purpose of your testimony in this proceeding?

A. My testimony provides support for the estimated gas costs, assignments of pipeline capacity to marketers and other issues relating to the Company's proposed 2015 GCR factors. In addition, my testimony provides a summary of the Company's decision to enter into a Precedent Agreement (PA) with Tennessee Gas Pipeline Company, LLC (Tennessee) for interstate pipeline capacity delivered to Rhode Island as part of the Tennessee Northeast Energy Direct Project (NED).

Q. Are you sponsoring attachments to your testimony?

A. Yes. I am sponsoring the following attachments:

EDA-1 Summary of Projected Gas Costs – **CONFIDENTIAL Information**
EDA-2 Gas Cost Details – **CONFIDENTIAL Information**
EDA-3 NYMEX Strip Comparison
EDA-4 Assignment of Pipeline Capacity – **CONFIDENTIAL Information**
EDA-5 FT-2 Operational Parameters
EDA-6 FT-2 Storage Variable Costs

II. Projected Gas Costs

Q. What commodity prices were used to develop the proposed GCR factors?

A. In terms of commodity prices, the proposed GCR factors are based on the following: (1) the NYMEX strip as of the close of trading on July 31, 2015 and (2) the difference between the futures contract purchases under the Gas Procurement Incentive Plan (GPIP) as of July 31, 2015 and the July 31, 2015 NYMEX strip. The GCR factors also reflect storage and inventory costs as of July 31, 2015, as well as the projected cost of purchasing gas ratably through the remainder of the injection season, as provided for in the NGPMP. Attachment EDA-1 provides a summary of gas costs by major cost categories. Attachment EDA-2 shows the details of the calculations including the cost detail by supply source and the cost impact of financial hedges.

Q. Overall what are the NYMEX prices for gas supplies projected to be purchased in the GCR year and how do they compare to last year's prices?

A. Attachment EDA-3 is a graph that compares NYMEX pricing from July 31, 2014 utilized in the Company's filing last year to NYMEX pricing from July 31, 2015 used in this instant filing. The July 31, 2015 NYMEX strip is on average $0.950, or 23.7%, lower compared to the July 31, 2014 NYMEX strip during the peak season of November through March. During the off-peak season of April through October the July 31, 2015 NYMEX strip is on average $0.783, or 20.6%, lower compared to the July 31, 2014

NYMEX strip. Overall the July 31, 2015 NYMEX strip is an average of $0.853 or 21.9% lower compared to the July 31, 2014 NYMEX strip.

Q. Please describe how gas costs are calculated.

A. Consistent with prior filings, projected gas costs are calculated using the SENDOUT® Model to perform a dispatch optimization of the entire Rhode Island portfolio of gas supply, pipeline transportation, underground storage and peaking supplies. SENDOUT® allows the Company to determine the optimal dispatch of its existing resources subject to contractual and operating constraints to minimize the cost of supply over the year. The pricing of various pipeline services is based directly on the pipeline tariffs and the rates in effect as of August 1, 2015. For purchases at locations other than the Henry Hub, the model uses the expected basis differential to the Henry Hub prices to determine the expected difference or "basis."

Q. How did the Company categorize the projected gas cost components?

A. For the purpose of this filing Gas costs are disaggregated into two components: (1) The Supply Fixed Cost Component and (2) The Supply Variable Cost Component. Each is described below.

1. The Supply Fixed Cost Component includes all fixed costs related to the purchase, storage, or delivery of firm gas, including, but not limited to, pipeline and supplier fixed reservation costs, demand charges, and transportation fees.
2. The Supply Variable Cost Component includes all variable costs of firm gas, including, but not limited to, commodity costs, taxes on commodity and other gas supply expense incurred to transport supplies, transportation fees, storage commodity costs, taxes on storage commodity and other gas storage expense incurred to transport supplies, transportation fees, and inventory commodity costs.

A summary of gas costs included in the GCR and disaggregated into these cost components by month for the period November 2015 through October 2016 is shown on Attachment EDA-1.

Q. Please describe Attachment EDA-2, pages 1 through 17.

A. Attachment EDA-2 shows the supporting detail for gas costs included in the filing for the period November 2015 through October 2016. The first two pages show the optimized, forecasted sendout by supply source under normal weather from the SENDOUT® model, as well as the detailed makeup of supply by pipeline source, storage contract and peaking facility. The next section, pages 3 through 6, shows the calculation of the unitized delivered cost for each pipeline path based on the July 31, 2015 NYMEX strip, including both pipeline variable charges and pipeline fuel losses. Pages 7 through 9 show the calculation of the delivered cost for each path (the price times the quantity). Pages 10 through 14 show the detailed calculation of total fixed costs.

The cost details for gas injected into and withdrawn from underground storage are shown on pages 15 and 16, while all costs associated with LNG injected into and withdrawn from storage are detailed on page 17. The Company has contracted for a portion of its LNG supplies for the upcoming 2015/16 year. The pricing included in this filing reflects both actual pricing and indicative pricing and terms based on the Company's current contracts with LNG suppliers. Charges for the LNG supply contracts have been redacted in the public version of the filing in order to comply with confidentiality terms in the Company's agreements with its suppliers.

Q. Please provide an example of how you calculate the delivered cost for a particular gas supply

A. On Attachment EDA-2, page 3, the second supply source shown is gas purchased on Tennessee Pipeline in Zone 0, located in South Texas. The calculation for November begins with the $2.868 NYMEX price, which is then adjusted for basis by, in this case, subtracting $0.090. This reflects the forward basis strip for gas supply in South Texas delivered into Tennessee Pipeline. Next the price is adjusted to reflect the fuel retention percentage of the pipeline, 2.68%, to bring the price to $2.8545. That adjustment is made by dividing the price by one minus the loss factor, .9732, effectively adjusting the commodity price to incorporate the fact that only 97.32% of the supply delivered from the pipeline in South Texas will be delivered to Rhode Island. The pipeline usage fee of 37.52 cents is then added to reflect the cost of transportation on the pipeline, resulting in a delivered cost of $3.2297 per Dth.

III. Gas Supply Portfolio

Q. Have there been any changes to the way the Company purchases gas?

A. As previously described in Docket No. 4520**,** the Company continues to operate the portfolio similarly to its operations during the 2014/15 gas year. The Company's Rhode Island portfolio continues to be well positioned to take advantage of opportunities presented by the development of the Marcellus basin utilizing its economically-priced market-area transportation on existing long and short-haul capacity. On most days, the Company is able to purchase less expensive supplies at the Texas Eastern Market Area 2 (M2) and Market Area 3 (M3) points delivered to the Company's city gates on Algonquin Gas Transmission (Algonquin), as well as the Tennessee Zone 4 (Zone 4) point using existing pipeline contracts previously used to purchase Gulf of Mexico supplies. The Company can take advantage of these less-expensive supplies without incurring any additional fixed costs.

Q. How will the Company supply the Dawn, Ontario Canada capacity for the 2015/16 year?

A. The Company has a total firm capacity entitlement of 1,025 Dth/day on the Union Gas pipeline system. The capacity path originates at Dawn, Ontario in Canada and delivers into TransCanada at Parkway. In addition, the Company has firm capacity entitlements of 1,012 Dth/day on the TransCanada pipeline system. This capacity path originates at the interconnection with Union Gas at Parkway and delivers into Iroquois Gas Transmission (Iroquois) at Waddington, New York. This supply is delivered to the Company's distribution system using the Company's existing transportation contracts on Iroquois and Tennessee.

The Company issued an RFP on July 22, 2015 for an Asset Management and Gas Supply Agreement (AMA), similar to the RFP issued last year, for a term of one year effective November 1, 2015. The RFP requested a maximum daily quantity of 1,025 Dth/day of with a swing component for the months of November 2015 and March 2016 and a baseload volume for the months of December 2015, January 2016 and February 2016. Repsol Energy North America (Repsol) was awarded the bid to manage the Canadian assets and provide the Company with supply at the Canada-United States border at Waddington, New York. These supplies will then be transported on the Company's Iroquois and Tennessee transportation capacity to the Company's citygates. Subject to satisfying the gas supply requirements associated with the AMA, Repsol has the right to utilize and the assigned capacity for its own account. In exchange, Repsol pays the Company an asset management fee, which is then returned to the customers.

Q. What are the Company's plans to supply the "East-to-West" capacity for 2015/16 year?

A. The Company issued an RFP on August 14, 2015 for an AMA, similar to the RFP issued last year, for a term of one year effective November 1, 2015. Utilizing the SENDOUT® Model, the Company determined the appropriate resource mix and established the baseload and swing volumes. In the RFP, the Company requested a maximum daily quantity of 10,000 Dth/day, the contractual maximum daily quantity under the Algonquin agreement, with a baseload and swing component for the months of November 2015 through May 2016 and for the month of October 2016. Please see Table 1 below for a description of the monthly baseload and swing quantities requested.

TABLE 1

Month	Daily Base-Load Quantity (Dth/Day)	Maximum Daily Call Quantity (Dth/Day)	Maximum Monthly Quantity (Dth)
November 2015		10,000	200,000
December 2015	3,000	7,000	177,000
January 2016	3,000	7,000	226,000
February 2016	3,000	7,000	226,000
March 2016		10,000	200,000
April 2016		10,000	200,000
May 2016		0	0
June 2016		0	0
July 2016		0	0
August 2016		0	0
September 2016		0	0
October 2016		10,000	200,000

Shell Energy North America was awarded the bid to manage the assets and provide supplies for the 2015/16 season. Subject to satisfying the gas supply requirements associated with the AMA, Shell has the right to utilize the assigned capacity for its own account. In exchange, Shell pays the Company an asset management fee, which is then returned to the customers. The Company has recommended hedging the 3,000 Dt/day of base-loaded supplies in December, January and February in Docket No. 4520 as filed on August 18, 2015.

Q. What are the Company's plans to supply the Algonquin HubLine capacity for the 2015/16 year?

A. The Company issued an RFP for supply for the Algonquin HubLine path for the 2015/16 peak in order to secure the volumes needed prior to the start of the winter season. The HubLine capacity originates at a presently illiquid point, in Beverly, Massachusetts, which is the interconnection between Algonquin and the Maritimes & Northeast Pipeline. Limited supply is currently available from this point and given the need for volumes at this point in order to meet customer requirements, the Company issued an RFP on August 14, 2015 to purchase gas for a term of four months (December 2015, January 2016, February 2016 and March 2016). Utilizing the SENDOUT® Model, the Company determined the appropriate resource mix and established the required volume for the term in the event of design weather. The RFP requested a maximum daily quantity of 8,000 Dth/day, the maximum daily quantity of the Algonquin transportation agreement, with a maximum seasonal quantity 200,000 Dth. Emera Energy was awarded the bid to provide the Company with supply at Beverly.

Q. What are the Company's plans to supply the Tennessee Dracut capacity for the 2015/16 year?

A. The Company issued an RFP for supply for the Tennessee Dracut path for the 2015/16 peak season for the same reason as discussed above with Beverly, Massachusetts.

Limited supply is available from this point and given the need for volumes at Tennessee Dracut in order to meet customer requirements, the Company issued an RFP on August 14, 2015 to purchase supply at Tennessee Dracut for a term of four months (December 2015, January 2016, February 2016 and March 2016). Utilizing the SENDOUT® Model, the Company determined the appropriate resource mix and established the required volume for the term in the event of design weather. The RFP requested a maximum daily quantity of 15,000 Dth/day, the maximum daily quantity of the Tennessee transportation agreement, with a maximum seasonal quantity of 900,000 Dth. The Company accepted and awarded the bid for the total supply package. The winning bidder was BP Energy. The supply agreement with BP Energy also provides for an alternate delivery point at the Company's Tennessee city gates.

Q. Has the Company contracted for citygate supplies for the 2015/16 year?

A. Yes. For the 2015/16 season, the Company has contracted for citygate delivered supplies to meet customer requirements during the peak season above its available interstate pipeline capacity. 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, subject to a seasonal delivery limitation and are delivered to the Company's citygates on both Algonquin and Tennessee. For the

2015/16 winter season, the Company contracted for a total of 13,000 Dth/day of citygate delivered supplies.

The Company issued an RFP for an Algonquin citygate supply for the 2015/16 winter season in order to secure the volumes needed meet Customer Requirements. The Company issued an RFP on August 14, 2015 to purchase citygate volumes for a term of four months (December 2015, January 2016, February 2016 and March 2016). Utilizing the SENDOUT® Model, the Company determined the appropriate resource mix and established the required volume for the term in the event of design weather. The RFP requested an Algonquin citygate supply with a maximum daily quantity of 5,200 Dth/day, with a maximum seasonal quantity 168,000 Dth. The Company accepted and awarded the bid for the total supply package. The winning bidder was BP Energy for the Algonquin citygate supply.

The Company also issued an RFP for a Tennessee citygate supply for the 2015/16 winter season in order to secure the volumes needed to meet customer requirements. The Company issued an RFP on August 14, 2015 to purchase citygate volumes for a term of four months (December 2015, January 2016, February 2016 and March 2016). Utilizing the SENDOUT® Model, the Company determined the appropriate resource mix and established the required volume for the term in the event of design weather. The RFP requested a Tennessee citygate supply with a maximum daily quantity of 7,800 Dth/day, with a maximum seasonal quantity 252,000 Dth. The Company accepted and awarded the bid for the total supply package. The winning bidder was BP Energy for the Tennessee citygate supply.

Q. Has the Company entered into an arrangement for firm liquid service for the 2015 off-peak refill season?

A. Yes. The Company has entered into an arrangement for liquid service for the 2015 off-peak refill season with GDF Suez Gas NA LLC (GDF Suez). The agreement allows for a total 900,000 Dth, the Company's full off-peak refill requirement, to be delivered on a firm basis during the months of April 2015 through November 2015. The Company is on target to have the LNG facilities 100% full as of December 1, 2015. As it has in previous years, the Company issued an RFP on March 5, 2015 for dedicated trucking arrangements in order to guarantee the availability of both trailers and drivers to truck the LNG from the GDF Suez terminal located in Everett, Massachusetts to the Company's facilities during the off peak season. Traditionally, the Company has entered into a peak season LNG refill agreement with an annual contract quantity of 125,000 Dth. At this time, this agreement has not been secured.

Q. Given the current landscape of the natural gas in New England, what is the Company doing to address long-term portfolio risks?

A. To address the changing gas supply landscape and to ensure its ability to continue to reliably serve its existing customer requirements as well as anticipated growth, the Company has developed a two-pronged approach to address the long-term reliability of its gas supply portfolio, considering both incremental pipeline capacity and short- and long-term LNG solutions, including but not limited to liquefaction projects.

<u>Pipeline Capacity Needs</u>

The Company anticipates its capacity under the Algonquin Incremental Market Expansion (AIM Project) to be available as early as November 2016. In addition, the Company has executed a Precedent Agreement with Tennessee for their Northeast Energy Direct Project (NED), which the Company reviewed with the Division of Public Utilities and Carriers (Division) and their consultant, Bruce Oliver, on August 26, 2015.

<u>Short-Term LNG Needs</u>

To achieve the Company's short-term LNG needs, the Company executed agreements with both GDF Suez and Gaz Metropolitan (Gaz Metro). As discussed above, the Company secured off-peak refill volumes for the 2015 season. These volumes represent one component of an overall package offered by GDF Suez. GDF Suez only offered a ten-year deal, with year one beginning in the 2015 off-peak season under the terms and conditions discussed above. [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Long-Term LNG Options

As a result of the limited availability of LNG in the region, the Company continues its participation in the LNG Consortium with other New England LDCs and Municipals. The main objectives of the LNG Consortium are (1) to find more sources of liquid, and (2) to balance supply availability with price and diversity of sources. The LNG Consortium has met with a number of parties interested in serving the New England LNG market, either through existing facilities, expansion of existing facilities or construction of new facilities.

In addition to participation in the LNG Consortium, the Company is also continuing to pursue its own liquefaction opportunities. Development of on-system liquefaction will enable the Company to reduce its reliance on imported LNG. Furthermore, given access to abundant, low-cost domestic natural gas supplies, the Company will be able to liquefy summer gas volumes at costs competitive with historical LNG purchases and at or below anticipated higher future costs. LNG remains a needed resource in the portfolio, but must be utilized in a way that maintains the reliability of the resource portfolio. The Company intends to present details of its long-term LNG plan to the Division.

Q. Please provide an update on the AIM project.

A. As previously described in Docket No. 4436 and Docket No. 4520, National Grid contracted for 18,000 Dth/day of AIM capacity to replace its existing HubLine and East-to-West capacity; the Company is not acquiring incremental capacity but, rather is replacing a presently illiquid receipt point at Beverly, Massachusetts with receipts at Ramapo, New York. On March 3, 2015, FERC issued a Certificate of Public Convenience and Necessity and Algonquin has commenced construction. AIM is being built over two years and is anticipated to be fully in service by November 2016.

Q. Please provide an overview of the Tennessee Gas Pipeline Northeast Direct Project (NED)?

A. The NED Project is an infrastructure investment that expands the pipeline capacity of the existing Tennessee system from Wright, New York to Dracut, MA and beyond to major markets in Connecticut, Rhode Island, New Hampshire, and Massachusetts. The NED Project is scalable to provide new firm natural gas transportation from 0.8 cubic feet per day (Bcf/d) as initially constructed, or ultimately 2.2 Bcf/d in terms of total capability with future adjustments. The expected in-service date is November 2018. The proposed project involves the following facilities: approximately 188 miles of new and co-located 30" pipeline; approximately 75 miles of market delivery laterals and loops in Massachusetts, Connecticut, and New Hampshire; up to six new city-gates in Rensselaer Co., NY; Berkshire Co., Franklin Co., Middlesex Co., MA; Hillsborough Co., NH; and, the construction of new compressor stations and modification to existing compressor and meter stations throughout the Project area.

Q. Please summarize the Precedent Agreement with Tennessee.

A. The Company engaged in negotiations with Tennessee as part of a consortium comprised of LDCs operating across the New England states of Connecticut, Maine, Massachusetts, and Rhode Island, and entered in a Precedent Agreement with Tennessee for 35,000 Dth/day for a 20-year term beginning on the actual in-service date. The in-service date of the NED Project is anticipated to be November 1, 2018. [redacted] This negotiated rate includes the costs associated with providing incremental service to all of the Company's existing citygates.

As stated above, the Company has contracted for 35,000 Dth/day of interstate pipeline capacity from the receipt point of Wright, NY to the Company's distribution system. Of the 35,000 Dth/day of capacity, 15,000 Dth/day is replacing an existing pipeline path originating at Dracut, MA and delivering to several of the Company's city-gates. Over the duration of the Company's transportation agreement, the liquidity at Dracut has continued to deteriorate. The NED Project will provide access to more liquid supply options for not only this replacement volume, but for the total volumes procured through the Precedent Agreement. The remaining 20,000 Dth/day of pipeline capacity is needed to serve forecasted firm customer requirements, including new customers.

IV. Customer Choice Program

Q. What transportation paths will be available for assignment to marketers?

A. Attachment EDA-4, page 1, shows the paths and corresponding quantities available for assignment to marketers. In total, the Company has made available 32,758 Dth per day of capacity on six different pipeline paths. The volume allocated to the marketers remains the same as provided in the 2014/15 GCR filing.

Q. Please explain the surcharge/credit calculation for each assigned pipeline path?

A. The first step in calculating the adjustment charge for each path starts with calculating the system-average cost. The derivation of the weighted-average pipeline path cost of

$0.4219 per Dth is shown on Attachment EDA-4, Page 10. This cost is equal to the sum of the 100% load factor fixed-cost unit value, the system-average unit variable cost (including basis differential) and one (1) year of the marketer reconciliation adjustment represented as a 100% load factor per unit cost. The 100% load factor fixed-cost unit value is $0.5925 per Dth. The system-average pipeline unit variable cost is -$0.1763 per Dth. The sum of these components results in a weighted average pipeline cost of $0.4162 per Dth. The 100% load factor per unit cost of $0.0057 for the marketer reconciliation adjustment is then added to get the total weighted-average pipeline cost of $0.4219 per Dth.

Q. How are the delivered costs for each path released to marketers developed in EDA-4?

A. The calculations for the delivered cost for each path are similar to those described for the system average. For illustration, the calculation for the first path (Tennessee Zone 1, shown on Attachment EDA-4, page 6) is comprised of a single contract originating in Zone 1 and terminating in Zone 6. Total fixed costs of $2,519,651 and total variable costs of $11,631,723 are shown in the far right column of page 6 of EDA-4. Commodity gas costs of $10,516,880 are subtracted from the total variable costs to arrive at the non-gas variable costs, which include pipeline variable charges and any basis differential associated with the path. The cost of the path equals the sum of the fixed unit cost of $0.7266 per Dth at 100% load factor, plus the non-gas variable unit cost of $0.3215 per Dth, or $1.0482 per Dth. The unit cost of $1.0482 per Dth represents the direct costs incurred by the marketer, which are paid directly to the pipeline by the marketer. Since this cost is $0.6263 per Dth greater than the system-average, marketers electing this path would be credited $0.6263 per Dth per day on their monthly invoice from the Company. A summary of the individual path costs and associated credits or surcharges, for which approval is sought, is shown on Page 1 of EDA-4.

Q. Does the Company have any update to its Customer Choice program for 2015/2016?

A. Yes. On August 7, 2015, the Company filed a proposal with the PUC for modifications to the Customer Choice Program and associated changes to the Company's gas tariff that would, if approved, create a new option for Large and Extra-Large Commercial and Industrial Customers on FT-1 (daily metered) Transportation Service that are exempt from having a capacity assignment to receive firm sales service under certain conditions, as described in the filing. The Company developed this proposal after consideration of feedback from the marketers and the Division through their participation in the Collaborative Working Group that was formed following last year's modification to the Customer Choice Program in Docket No. 4523. That proposal is currently pending with the PUC.

Q. Does this conclude your testimony?

A. Yes, it does.

Attachments of
Elizabeth D. Arangio

Attachments of Elizabeth D. Arangio

Attachment EDA-1
REDACTED

Attachment EDA-1

Summary of Projected Gas Costs – **REDACTED Information**

REDACTED

SUMMARY OF ESTIMATED GAS COSTS FOR 2015-2016 GCR

07/31/2015 NYMEX

Variable Costs	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	GCR TOTAL
Total Pipeline Supply Costs	[redacted]												
Total Storage Product Costs	$412,169	$2,532,406	$2,781,527	$2,621,227	$2,315,309	$17,899	$0	$0	$0	$0	$0	$0	$10,680,538
Total Storage Delivery Costs	$29,252	$131,098	$139,238	$131,657	$118,287	$1,175	$0	$0	$0	$0	$0	$0	$550,707
Total LNG Costs	[redacted]												
Total All Variable Gas Costs	[redacted]												
Fixed Costs													
Total Pipeline Demands	[redacted]												
Total Storage Facilities													
Total Storage Delivery	$440,119	$440,119	$440,119	$440,119	$440,119	$440,119	$440,119	$440,119	$440,119	$440,119	$440,119	$440,119	$5,281,428
Total Supplier Demands	[redacted]												
Total All Fixed Costs	$3,925,671	$4,217,844	$4,216,516	$4,215,008	$4,216,516	$4,370,433	$4,371,106	$4,370,433	$4,371,106	$4,371,106	$4,370,433	$4,371,106	$51,387,276
Capacity Release Credits	$508,753	$508,753	$508,753	$508,753	$508,753	$508,753	$508,753	$508,753	$508,753	$508,753	$508,753	$508,753	$6,105,033
NGPMP Credit	$783,333	$783,333	$783,333	$783,333	$783,333	$783,333	$783,333	$783,333	$783,333	$783,333	$783,333	$783,333	$9,400,000
Net Fixed Costs	$2,633,585	$2,925,757	$2,924,430	$2,922,922	$2,924,430	$3,078,347	$3,079,020	$3,078,347	$3,079,020	$3,079,020	$3,078,347	$3,079,020	$35,882,243
Total All Gas Costs	[redacted]												$134,269,876

Attachment EDA-2
REDACTED

Attachment EDA-2

Gas Cost Details - **REDACTED Information**

REDACTED

National Grid
2015 Estimated GCR
Normal Weather Scenario

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Natural Gas Supply VS. Requirements

Units: DTH

	NOV 2015	DEC 2015	JAN 2016	FEB 2016	MAR 2016	APR 2016	MAY 2016	JUN 2016	JUL 2016	AUG 2016	SEP 2016	OCT 2016	Total/Average
Forecast Demand													
RI Sales GCR	2,378,800	4,110,700	5,038,000	4,623,600	3,817,600	2,281,700	1,374,100	950,100	744,000	674,300	709,400	1,260,000	27,962,300
Total Demand	2,378,800	4,110,700	5,038,000	4,623,600	3,817,600	2,281,700	1,374,100	950,100	744,000	674,300	709,400	1,260,000	27,962,300
Storage Injections													
TENN 501	0	0	0	0	0	64,500	60,500	60,500	60,500	60,500	108,500	60,500	475,500
GSS 300170	0	0	0	0	0	55,600	55,600	55,600	55,600	56,600	66,900	69,100	415,000
GSS 300168	0	0	0	0	0	20,000	24,500	20,000	20,000	21,900	21,200	21,900	149,500
GSS 300171	0	0	0	0	0	24,500	24,500	30,000	24,500	26,800	25,900	26,800	183,000
GSSTE 600045	0	0	0	0	0	54,700	54,700	54,700	54,700	54,700	96,700	54,700	424,900
TETCO 400515	0	0	0	0	0	7,400	7,400	7,400	7,400	7,900	8,700	8,900	55,100
TETCO 400221	0	0	0	0	0	154,400	154,400	154,400	154,400	165,000	181,800	187,800	1,152,200
TETCO 400185	0	0	0	0	0	6,800	6,800	6,800	6,800	7,200	7,900	8,200	50,500
GSS 300169	0	0	0	0	0	26,800	26,800	32,800	26,800	29,200	28,300	29,200	199,900
COL FSS 9630	0	0	0	0	0	4,300	40,800	40,800	34,700	40,800	26,500	14,300	202,200
TENN 62918	0	0	0	0	0	27,300	27,300	27,300	27,300	27,300	39,900	27,300	203,700
Total Underground Storage	0	0	0	0	0	446,300	483,300	490,300	472,700	497,900	612,300	508,700	3,511,500
LNG PROV	10,000	10,700	0	50,300	0	38,300	112,200	128,900	113,800	27,100	111,000	10,400	612,700
LNG VALLEY	3,100	3,200	0	18,100	0	8,300	0	0	10,400	1,800	4,500	3,200	52,600
LNG EXETER	4,000	9,800	0	15,800	0	82,300	21,000	0	9,000	300	13,500	4,200	159,900
Total LNG Injection	17,100	23,700	0	84,200	0	128,900	133,200	128,900	133,200	29,200	129,000	17,800	825,200
Total Injections	17,100	23,700	0	84,200	0	575,200	616,500	619,200	605,900	527,100	741,300	526,500	4,336,700

Delivered Firm Sales Supply

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	GCR Total
Sources of Supply													
TENNESSEE ZONE 0 CXN	0	0	0	0	0	0	0	0	0	0	0	0	0
TENNESSEE ZONE 0	0	0	0	0	0	0	0	0	0	0	0	0	0
TENNESSEE ZONE 1	0	0	0	0	0	0	0	0	0	0	0	0	0
TENNESSEE ZONE 4 CXN	348,000	359,600	359,600	336,400	359,600	348,000	359,600	348,000	359,600	359,600	319,700	359,600	4,217,300
TENNESSEE ZONE 4	143,700	326,800	456,300	416,700	309,700	387,300	191,300	112,200	102,500	93,900	0	172,000	2,712,400
TENNESSEE NIAGARA	0	0	4,300	3,200	0	0	0	0	0	0	0	0	7,500
TENNESSEE DRACUT	0	58,300	113,600	167,600	58,900	0	0	0	0	0	0	0	398,400
TETCO ELA	0	0	0	0	0	0	0	0	0	0	0	0	0
TETCO ETX	0	0	0	0	0	0	0	0	0	0	0	0	0
TETCO STX	0	0	0	0	0	0	0	0	0	0	0	0	0
TETCO WLA	0	0	0	0	0	0	0	0	0	0	0	0	0
TETCO M2	878,200	902,800	902,700	844,500	902,800	274,600	909,500	286,100	679,900	639,700	349,300	909,800	8,479,900
TETCO M3 DELIVERED	567,200	130,600	352,900	317,800	327,900	1,475,900	299,400	608,500	0	0	587,600	263,400	4,931,200
COLUMBIA MAUMEE	112,200	879,200	773,500	756,200	521,600	84,500	0	0	0	0	0	0	3,127,200
COLUMBIA BROADRUN	14,200	269,900	307,300	268,400	189,700	10,800	0	0	0	0	0	0	1,060,300
COLUMBIA EAGLE	38,600	47,900	74,900	82,400	99,900	45,300	44,400	40,800	34,700	40,800	26,500	14,300	590,500
COLUMBIA DOWNINGTOWN	33,600	41,900	117,800	110,200	117,800	33,400	0	0	0	0	0	0	454,700
TRANSCO LEIDY	36,900	38,100	38,100	35,600	38,100	36,800	35,600	27,700	22,400	20,500	21,400	32,000	383,200
TETCO - DTI - TETCO SCT	0	16,400	15,900	13,800	14,900	0	0	0	0	0	0	0	61,000
TETCO to B&W SCT	0	62,400	62,400	58,400	62,400	0	0	0	0	0	0	0	245,600
AGT HUBLINE	300	106,700	92,300	152,300	33,200	6,000	0	0	0	0	0	0	390,800
ANE II - DAWN-TENN	0	31,000	30,900	28,800	0	0	0	0	0	0	0	0	90,700
GAZ METRO LNG Refill	0	0	0	0	0	8,900	9,200	8,900	9,200	9,200	8,900	9,200	63,500
GDF SUEZ LNG Refill	17,100	23,600	0	84,200	0	120,000	124,000	120,000	124,000	20,000	120,000	8,500	761,400
NEWPORT LNG	0	0	0	0	0	0	0	0	0	0	0	0	0

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National Grid
2015 Estimated GCR
Normal Weather Scenario

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Natural Gas Supply VS. Requirements

Units: DTH

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
Non LNG Liquid take	2,172,900	3,271,600	3,702,500	3,592,300	3,036,500	2,702,600	1,839,800	1,423,300	1,199,100	1,154,500	1,304,500	1,751,100	27,150,700
LNG Liquid take	17,100	23,600	0	84,200	0	128,900	133,200	128,900	133,200	29,200	128,900	17,700	824,900
Total take	2,190,000	3,295,200	3,702,500	3,676,500	3,036,500	2,831,500	1,973,000	1,552,200	1,332,300	1,183,700	1,433,400	1,768,800	27,975,600
Storage Withdrawals													
TENN 501	4,200	134,200	109,700	135,000	165,500	4,000	0	0	0	0	0	0	552,600
GSS 300170	74,900	96,300	92,800	82,400	57,200	0	0	0	0	0	0	0	403,600
GSS 300168	27,800	36,600	36,600	30,400	16,600	0	0	0	0	0	0	0	148,000
GSS 300171	0	28,200	68,300	60,200	22,400	0	0	0	0	0	0	0	179,100
GSSTE 600045	81,900	84,500	84,500	79,100	84,500	0	0	0	0	0	0	0	414,500
TETCO 400515	0	13,400	13,400	13,400	11,800	0	0	0	0	0	0	0	52,000
TETCO 400221	0	285,500	285,200	285,200	251,000	0	0	0	0	0	0	0	1,106,900
TETCO 400185	0	12,500	12,500	12,500	11,000	0	0	0	0	0	0	0	48,500
GSS 300169	0	51,000	54,100	54,100	35,100	0	0	0	0	0	0	0	194,300
COL FSS 9630	0	36,600	74,000	55,400	26,300	4,200	0	0	0	0	0	0	196,500
TENN 62918	0	36,600	64,500	36,300	64,400	0	0	0	0	0	0	0	201,800
LNG PROV	10,000	10,700	350,100	142,200	28,100	10,000	10,400	10,000	10,400	10,400	10,000	10,400	612,700
LNG VALLEY	3,100	3,200	18,200	3,000	3,200	3,100	3,200	3,100	3,200	3,200	3,100	3,200	52,800
LNG EXETER	4,000	9,800	71,100	41,900	4,200	4,000	4,200	4,000	4,200	4,200	4,000	4,200	159,800
Total Withdrawal Delivered	205,900	839,100	1,335,000	1,031,100	781,300	25,300	17,800	17,100	17,800	17,800	17,100	17,800	4,323,100
Total Storage withdrawal	188,800	815,400	895,600	844,000	745,800	8,200	0	0	0	0	0	0	3,497,800
Total Peaking withdrawal	17,100	23,700	439,400	187,100	35,500	17,100	17,800	17,100	17,800	17,800	17,100	17,800	825,300
Total Supply	**2,378,800**	**4,110,700**	**5,037,500**	**4,623,400**	**3,817,800**	**2,727,900**	**1,857,600**	**1,440,400**	**1,216,900**	**1,172,300**	**1,321,600**	**1,768,900**	**31,473,800**

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
Storage withdrawals at Storage Facility													
TENN 501	4,200	135,300	110,700	136,200	167,000	4,000	0	0	0	0	0	0	557,400
GSS 300170	77,100	99,100	95,500	84,700	58,900	0	0	0	0	0	0	0	415,300
GSS 300168	28,000	37,000	37,000	30,700	16,800	0	0	0	0	0	0	0	149,500
GSS 300171	0	28,900	69,900	61,600	22,900	0	0	0	0	0	0	0	183,300
GSSTE 600045	83,900	86,700	86,700	81,100	86,700	0	0	0	0	0	0	0	425,100
TETCO 400515	0	14,200	14,200	14,200	12,500	0	0	0	0	0	0	0	55,100
TETCO 400221	0	297,000	297,000	297,000	261,400	0	0	0	0	0	0	0	1,152,400
TETCO 400185	0	13,000	13,000	13,000	11,400	0	0	0	0	0	0	0	50,400
GSS 300169	0	52,500	55,600	55,600	36,100	0	0	0	0	0	0	0	199,800
COL FSS 9630	0	37,600	76,100	57,000	27,000	4,400	0	0	0	0	0	0	202,100
TENN 62918	0	37,000	65,100	36,600	65,000	0	0	0	0	0	0	0	203,700
	193,200	838,300	920,800	867,700	765,700	8,400	0	0	0	0	0	0	3,594,100

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National Grid
2015 Estimated GCR
Normal Weather Scenario

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Natural Gas Supply VS. Requirements — Units: DTH

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
07/31/2015 NYMEX	**$2.868**	**$3.042**	**$3.152**	**$3.146**	**$3.108**	**$2.966**	**$2.965**	**$2.995**	**$3.026**	**$3.037**	**$3.031**	**$3.062**	
TENNESSEE ZONE 0 CONNEXION													
Basis	($0.090)	($0.102)	($0.120)	($0.112)	($0.102)	($0.042)	($0.050)	($0.043)	($0.020)	($0.020)	($0.025)	($0.035)	
Usage to Zn 6	$0.0613	$0.0613	$0.0613	$0.0613	$0.0613	$0.0613	$0.0613	$0.0613	$0.0613	$0.0613	$0.0613	$0.0613	
Fuel to Zn 6	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	
Total Delivered	$2.9158	$3.0823	$3.1768	$3.1789	$3.1501	$3.0658	$3.0566	$3.0946	$3.1501	$3.1614	$3.1501	$3.1717	
TENNESSEE ZONE 0													
Basis	($0.090)	($0.102)	($0.120)	($0.112)	($0.102)	($0.042)	($0.050)	($0.043)	($0.020)	($0.020)	($0.025)	($0.035)	
Usage to Zn 6	$0.3752	$0.3752	$0.3752	$0.3752	$0.3752	$0.3752	$0.3752	$0.3752	$0.3752	$0.3752	$0.3752	$0.3752	
Fuel to Zn 6	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	
Total Delivered	$3.2297	$3.3962	$3.4907	$3.4928	$3.4640	$3.3797	$3.3705	$3.4085	$3.4640	$3.4753	$3.4640	$3.4856	
TENNESSEE ZONE 1													
Basis	($0.072)	($0.080)	($0.077)	($0.046)	($0.077)	($0.080)	($0.104)	($0.083)	($0.061)	($0.067)	($0.096)	($0.078)	
Usage to Zn 6	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	
Fuel to Zn 6	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	
Total Delivered	$3.1906	$3.3606	$3.4763	$3.5019	$3.4313	$3.2828	$3.2572	$3.3094	$3.3637	$3.3688	$3.3329	$3.3831	
TENNESSEE ZONE 4 CONNEXION													
Basis	($0.802)	($0.760)	($0.729)	($0.618)	($0.668)	($0.879)	($1.199)	($1.214)	($1.198)	($1.297)	($1.430)	($1.362)	
Usage to Zn 6	$0.0162	$0.0162	$0.0162	$0.0162	$0.0162	$0.0162	$0.0162	$0.0162	$0.0162	$0.0162	$0.0162	$0.0162	
Fuel to Zn 6	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	
Total Delivered	$2.1005	$2.3185	$2.4607	$2.5666	$2.4779	$2.1217	$1.7979	$1.8130	$1.8604	$1.7716	$1.6314	$1.7313	
TENNESSEE ZONE 4													
Basis	($0.802)	($0.760)	($0.729)	($0.618)	($0.668)	($0.879)	($1.199)	($1.214)	($1.198)	($1.297)	($1.430)	($1.362)	
Usage to Zn 6	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	
Fuel to Zn 6	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	
Total Delivered	$2.2093	$2.4273	$2.5695	$2.6754	$2.5867	$2.2305	$1.9067	$1.9218	$1.9692	$1.8804	$1.7402	$1.8401	
NIAGARA TO TENNESSEE													
Basis	($0.166)	($0.078)	($0.102)	($0.019)	$0.022	($0.299)	($0.404)	($0.403)	($0.434)	($0.544)	($0.545)	($0.544)	
Tenn usage	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	
Tenn Fuel	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	
Total Delivered	$2.8153	$3.0792	$3.1658	$3.2433	$3.2464	$2.7801	$2.6734	$2.7046	$2.7046	$2.6049	$2.5978	$2.6301	
TENNESSEE DRACUT													
Basis	$2.484	$6.378	$9.308	$9.089	$4.602	$0.721	-$0.763	-$0.123	-$0.369	-$0.641	-$1.004	-$0.366	
Usage	$0.0384	$0.0384	$0.0384	$0.0384	$0.0384	$0.0384	$0.0384	$0.0384	$0.0384	$0.0384	$0.0384	$0.0384	
Fuel	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	
Total Delivered	$5.4044	$9.4830	$12.5309	$12.3053	$7.7685	$3.7350	$2.2461	$2.9179	$2.7023	$2.4406	$2.0707	$2.7414	
TETCO ELA													
Basis	($0.080)	($0.085)	($0.082)	($0.085)	($0.092)	($0.070)	($0.075)	($0.077)	($0.074)	($0.064)	($0.084)	($0.078)	
Usage to M3	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel to M3	4.64%	5.54%	5.54%	5.54%	5.54%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$3.0805	$3.2862	$3.4070	$3.3974	$3.3493	$3.1950	$3.1886	$3.2183	$3.2543	$3.2766	$3.2490	$3.2882	

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National Grid
2015 Estimated GCR
Normal Weather Scenario

Ventyx
SENDOUT® Version 12.5.5

Natural Gas Supply VS. Requirements

Units: DTH

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
TETCO ETX													
Basis	($0.122)	($0.128)	($0.125)	($0.101)	($0.108)	($0.047)	($0.067)	($0.073)	($0.032)	($0.027)	($0.049)	($0.026)	
Usage to M3	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel to M3	4.64%	5.54%	5.54%	5.54%	5.54%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$3.0360	$3.2402	$3.3610	$3.3803	$3.3321	$3.2193	$3.1971	$3.2225	$3.2988	$3.3158	$3.2861	$3.3434	
TETCO STX													
Basis	($0.085)	($0.095)	($0.115)	($0.108)	($0.098)	($0.010)	($0.020)	($0.010)	$0.012	$0.013	$0.007	($0.002)	
Usage to M3	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel to M3	4.82%	6.09%	6.09%	6.09%	6.09%	4.82%	4.82%	4.82%	4.82%	4.82%	4.82%	4.82%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$3.0883	$3.3015	$3.3983	$3.3994	$3.3693	$3.2721	$3.2604	$3.3029	$3.3592	$3.3719	$3.3592	$3.3825	
TETCO WLA													
Basis	($0.080)	($0.085)	($0.082)	($0.085)	($0.092)	($0.038)	($0.043)	($0.034)	($0.040)	($0.037)	($0.045)	($0.045)	
Usage to M3	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel to M3	4.63%	6.03%	6.03%	6.03%	6.03%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$3.0825	$3.3050	$3.4264	$3.4167	$3.3684	$3.2309	$3.2245	$3.2659	$3.2924	$3.3072	$3.2924	$3.3252	
TETCO M2													
Basis	($0.919)	($0.880)	($0.721)	($0.660)	($0.816)	($0.937)	($1.341)	($1.333)	($1.295)	($1.401)	($1.533)	($1.579)	
Usage on Tetco	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel on Tetco	3.04%	3.65%	3.65%	3.65%	3.65%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$2.1203	$2.3542	$2.6361	$2.6938	$2.4905	$2.2037	$1.7814	$1.8211	$1.8930	$1.7940	$1.6501	$1.6345	
TETCO M3 DELIVERED													
Basis	($0.712)	$0.318	$3.618	$2.690	($0.222)	($0.858)	($1.123)	($1.207)	($0.980)	($1.083)	($1.473)	($1.290)	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$2.1919	$3.4055	$6.8489	$5.9058	$2.9269	$2.1434	$1.8745	$1.8199	$2.0807	$1.9877	$1.5875	$1.8038	
COLUMBIA MAUMEE													
Basis	($0.135)	($0.150)	($0.190)	($0.170)	($0.200)	($0.122)	($0.175)	($0.175)	($0.205)	($0.205)	($0.375)	($0.358)	
Usage on Columbia	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel on Columbia	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$2.8478	$3.0086	$3.0807	$3.0951	$3.0251	$2.9622	$2.9066	$2.9375	$2.9385	$2.9498	$2.7685	$2.8180	

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Natural Gas Supply VS. Requirements

Units: DTH

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
COLUMBIA BROADRUN													
Basis	($0.135)	($0.150)	($0.190)	($0.170)	($0.200)	($0.122)	($0.175)	($0.175)	($0.205)	($0.205)	($0.375)	($0.358)	
Usage on Columbia	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel on Columbia	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$2.8478	$3.0086	$3.0807	$3.0951	$3.0251	$2.9622	$2.9066	$2.9375	$2.9385	$2.9498	$2.7685	$2.8180	
COLUMBIA EAGLE													
Basis	($0.712)	$0.318	$3.618	$2.690	($0.222)	($0.858)	($1.123)	($1.207)	($0.980)	($1.083)	($1.473)	($1.290)	
Usage on Columbia	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel on Columbia	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$2.2534	$3.4903	$6.9998	$6.0386	$3.0024	$2.2039	$1.9299	$1.8743	$2.1401	$2.0453	$1.6373	$1.8578	
COLUMBIA DOWNINGTOWN													
Basis	($0.142)	$0.902	$4.982	$3.965	$0.058	($0.568)	($0.877)	($0.960)	($0.732)	($0.825)	($1.217)	($1.042)	
Usage on Columbia	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel on Columbia	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$2.8406	$4.0913	$8.4037	$7.3508	$3.2906	$2.5027	$2.1833	$2.1287	$2.3956	$2.3111	$1.9011	$2.1133	
TRANSCO LEIDY													
Basis	($1.459)	($1.414)	($1.380)	($1.269)	($1.320)	($1.190)	($1.514)	($1.547)	($1.511)	($1.611)	($1.745)	($1.678)	
Usage on Transco	$0.0074	$0.0074	$0.0074	$0.0074	$0.0074	$0.0074	$0.0074	$0.0074	$0.0074	$0.0074	$0.0074	$0.0074	
Usage on AGT	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	
Fuel on Transco	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Delivered to Algonquin	$1.4209	$1.6406	$1.7850	$1.8904	$1.8011	$1.7891	$1.4630	$1.4600	$1.5272	$1.4379	$1.2975	$1.3958	
Total Delivered	$1.6650	$1.8854	$2.0312	$2.1376	$2.0474	$2.0371	$1.7075	$1.7045	$1.7724	$1.6822	$1.5402	$1.6396	

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TETCO to DTI to TETCO SCT													
Basis	($0.919)	($0.880)	($0.721)	($0.660)	($0.816)	($0.937)	($1.341)	($1.333)	($1.295)	($1.401)	($1.533)	($1.579)	
Usage on Dominion	$0.0182	$0.0182	$0.0182	$0.0182	$0.0182	$0.0182	$0.0182	$0.0182	$0.0182	$0.0182	$0.0182	$0.0182	
Usage on Tetco	$0.0014	$0.0014	$0.0014	$0.0014	$0.0014	$0.0014	$0.0014	$0.0014	$0.0014	$0.0014	$0.0014	$0.0014	
Usage on AGT	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	
Fuel on Dominion	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	
Fuel on Tetco	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Delivered to Tetco	$2.0060	$2.2232	$2.4975	$2.5536	$2.3558	$2.0876	$1.6745	$1.7133	$1.7836	$1.6867	$1.5460	$1.5307	
Delivered to Algonquin	$2.0336	$2.2537	$2.5316	$2.5884	$2.3880	$2.1162	$1.6978	$1.7370	$1.8083	$1.7102	$1.5676	$1.5521	
Total Delivered	$2.2843	$2.5044	$2.7851	$2.8425	$2.6401	$2.3678	$1.9448	$1.9845	$2.0566	$1.9574	$1.8133	$1.7976	
TETCO to B&W SCT													
Basis	($0.919)	($0.880)	($0.721)	($0.660)	($0.816)	($0.937)	($1.341)	($1.333)	($1.295)	($1.401)	($1.533)	($1.579)	
Usage on Tetco	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	
Usage on AGT	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	
Fuel to M3	3.04%	3.65%	3.65%	3.65%	3.65%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$2.3364	$2.5703	$2.8522	$2.9099	$2.7066	$2.4198	$1.9975	$2.0372	$2.1091	$2.0101	$1.8662	$1.8506	
AGT HUBLINE													
Basis	$2.528	$6.415	$9.340	$9.120	$4.642	$0.748	($0.757)	($0.120)	($0.365)	($0.635)	($0.997)	($0.362)	
AGT Usage	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
AGT Fuel	0.73%	0.69%	0.69%	0.69%	0.69%	0.73%	0.73%	0.73%	0.73%	0.73%	0.73%	0.73%	
Total Delivered	$5.4483	$9.5353	$12.5914	$12.3638	$7.8164	$3.7539	$2.2368	$2.9087	$2.6932	$2.4323	$2.0616	$2.7325	
DAWN TO TENNESSEE - ANE II													
Basis	[redacted]												
Iroquois usage	$0.0044	$0.0044	$0.0044	$0.0044	$0.0044	$0.0044	$0.0044	$0.0044	$0.0044	$0.0044	$0.0044	$0.0044	
Tenn usage	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	
Fuel on Union	0.87%	0.98%	1.13%	1.07%	1.00%	0.85%	0.60%	0.50%	0.49%	0.39%	0.38%	0.73%	
Fuel on TransCanada	0.62%	0.80%	0.98%	1.20%	1.59%	1.27%	1.04%	1.21%	1.01%	0.69%	0.72%	0.85%	
Fuel on Iroquois	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Fuel on Tenn	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	
Total Delivered	[redacted]												

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Total Delivered to the City Gate Gas Supply Costs													
TENNESSEE ZONE 0 CONNEXION													
Delivered MMBtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered Price	$2.916	$3.082	$3.177	$3.179	$3.150	$3.066	$3.057	$3.095	$3.150	$3.161	$3.150	$3.172	
Total Delivered Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
TENNESSEE ZONE 0													
Delivered MMBtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered Price	$3.230	$3.396	$3.491	$3.493	$3.464	$3.380	$3.370	$3.408	$3.464	$3.475	$3.464	$3.486	
Total Delivered Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
TENNESSEE ZONE 1													
Delivered MMBtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered Price	$3.191	$3.361	$3.476	$3.502	$3.431	$3.283	$3.257	$3.309	$3.364	$3.369	$3.333	$3.383	
Total Delivered Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
TENNESSEE ZONE 4 CONNEXION													
Delivered MMBtu	348,000	359,600	359,600	336,400	359,600	348,000	359,600	348,000	359,600	359,600	319,700	359,600	
Delivered Price	$2.1005	$2.3185	$2.4607	$2.5666	$2.4779	$2.1217	$1.7979	$1.8130	$1.8604	$1.7716	$1.6314	$1.7313	
Total Delivered Cost	$730,989	$833,718	$884,872	$863,419	$891,039	$738,362	$646,517	$630,928	$669,010	$637,085	$521,563	$622,573	
TENNESSEE ZONE 4													
Delivered MMBtu	143,700	326,800	456,300	416,700	309,700	387,300	191,300	112,200	102,500	93,900	0	172,000	
Delivered Price	$2.2093	$2.4273	$2.5695	$2.6754	$2.5867	$2.2305	$1.9067	$1.9218	$1.9692	$1.8804	$1.7402	$1.8401	
Total Delivered Cost	$317,482	$793,229	$1,172,468	$1,114,857	$801,089	$863,884	$364,748	$215,627	$201,846	$176,574	$0	$316,496	
NIAGARA TO TENNESSEE													
Delivered MMBtu	0	0	4,300	3,200	0	0	0	0	0	0	0	0	
Delivered Price	$2.8153	$3.0792	$3.1658	$3.2433	$3.2464	$2.7801	$2.6734	$2.7046	$2.7046	$2.6049	$2.5978	$2.6301	
Total Delivered Cost	$0	$0	$13,613	$10,379	$0	$0	$0	$0	$0	$0	$0	$0	
TENNESSEE DRACUT													
Delivered MMBtu	0	58,300	113,600	167,600	58,900	0	0	0	0	0	0	0	
Delivered Price	$5.40	$9.48	$12.53	$12.31	$7.77	$3.74	$2.25	$2.92	$2.70	$2.44	$2.07	$2.74	
Total Delivered Cost	$0	$552,856	$1,423,508	$2,062,367	$457,565	$0	$0	$0	$0	$0	$0	$0	
TETCO ELA													
Delivered MMBtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered Price	$3.0805	$3.2862	$3.4070	$3.3974	$3.3493	$3.1950	$3.1886	$3.2183	$3.2543	$3.2766	$3.2490	$3.2882	
Total Delivered Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
TETCO ETX													
Delivered MMBtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered Price	$3.0360	$3.2402	$3.3610	$3.3803	$3.3321	$3.2193	$3.1971	$3.2225	$3.2988	$3.3158	$3.2861	$3.3434	
Total Delivered Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	

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National Grid
2015 Estimated GCR
Normal Weather Scenario

Ventyx
SENDOUT® Version 12.5.5

Natural Gas Supply VS. Requirements

Units: DTH

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
TETCO STX													
Delivered MMBtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered Price	$3.088	$3.302	$3.398	$3.399	$3.369	$3.272	$3.260	$3.303	$3.359	$3.372	$3.359	$3.383	
Total Delivered Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
TETCO WLA													
Delivered MMBtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered Price	$3.0825	$3.3050	$3.4264	$3.4167	$3.3684	$3.2309	$3.2245	$3.2659	$3.2924	$3.3072	$3.2924	$3.3252	
Total Delivered Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
TETCO M2													
Delivered MMBtu	878,200	902,800	902,700	844,500	902,800	274,600	909,500	286,100	679,900	639,700	349,300	909,800	
Delivered Price	$2.1203	$2.3542	$2.6361	$2.6938	$2.4905	$2.2037	$1.7814	$1.8211	$1.8930	$1.7940	$1.6501	$1.6345	
Total Delivered Cost	$1,862,012	$2,125,386	$2,379,645	$2,274,901	$2,248,390	$605,125	$1,620,223	$521,005	$1,287,046	$1,147,593	$576,376	$1,487,023	
TETCO M3 DELIVERED													
Delivered MMBtu	567,200	130,600	352,900	317,800	327,900	1,475,900	299,400	608,500	0	0	587,600	263,400	
Delivered Price	$2.1919	$3.4055	$6.8489	$5.9058	$2.9269	$2.1434	$1.8745	$1.8199	$2.0807	$1.9877	$1.5875	$1.8038	
Total Delivered Cost	$1,243,256	$444,760	$2,416,981	$1,876,852	$959,720	$3,163,443	$561,232	$1,107,433	$0	$0	$932,786	$475,112	
COLUMBIA MAUMEE													
Delivered MMBtu	112,200	879,200	773,500	756,200	521,600	84,500	0	0	0	0	0	0	
Delivered Price	$2.8478	$3.0086	$3.0807	$3.0951	$3.0251	$2.9622	$2.9066	$2.9375	$2.9385	$2.9498	$2.7685	$2.8180	
Total Delivered Cost	$319,528	$2,645,181	$2,382,896	$2,340,496	$1,577,887	$250,306	$0	$0	$0	$0	$0	$0	
COLUMBIA BROADRUN													
Delivered MMBtu	14,200	269,900	307,300	268,400	189,700	10,800	0	0	0	0	0	0	
Delivered Price	$2.8478	$3.0086	$3.0807	$3.0951	$3.0251	$2.9622	$2.9066	$2.9375	$2.9385	$2.9498	$2.7685	$2.8180	
Total Delivered Cost	$40,439	$812,027	$946,689	$830,718	$573,860	$31,992	$0	$0	$0	$0	$0	$0	
COLUMBIA EAGLE													
Delivered MMBtu	38,600	47,900	74,900	82,400	99,900	45,300	44,400	40,800	34,700	40,800	26,500	14,300	
Delivered Price	$2.2534	$3.4903	$6.9998	$6.0386	$3.0024	$2.2039	$1.9299	$1.8743	$2.1401	$2.0453	$1.6373	$1.8578	
Total Delivered Cost	$86,981	$167,185	$524,288	$497,579	$299,945	$99,839	$85,688	$76,470	$74,260	$83,448	$43,389	$26,566	
COLUMBIA DOWNINGTOWN													
Delivered MMBtu	33,600	41,900	117,800	110,200	117,800	33,400	0	0	0	0	0	0	
Delivered Price	$2.8406	$4.0913	$8.4037	$7.3508	$3.2906	$2.5027	$2.1833	$2.1287	$2.3956	$2.3111	$1.9011	$2.1133	
Total Delivered Cost	$95,445	$171,427	$989,952	$810,058	$387,635	$83,591	$0	$0	$0	$0	$0	$0	

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Ventyx
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Natural Gas Supply VS. Requirements

Units: DTH

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
TRANSCO LEIDY													
Delivered MMBtu	36,900	38,100	38,100	35,600	38,100	36,800	35,600	27,700	22,400	20,500	21,400	32,000	
Delivered Price	$1.6650	$1.8854	$2.0312	$2.1376	$2.0474	$2.0371	$1.7075	$1.7045	$1.7724	$1.6822	$1.5402	$1.6396	
Total Delivered Cost	$61,437	$71,832	$77,390	$76,099	$78,008	$74,966	$60,788	$47,215	$39,703	$34,485	$32,961	$52,467	
TETCO -> DTI -> TETCO SCT													
Delivered MMBtu	0	16,400	15,900	13,800	14,900	0	0	0	0	0	0	0	
Delivered Price	$2.2843	$2.5044	$2.7851	$2.8425	$2.6401	$2.3678	$1.9448	$1.9845	$2.0566	$1.9574	$1.8133	$1.7976	
Total Delivered Cost	$0	$41,073	$44,283	$39,226	$39,337	$0	$0	$0	$0	$0	$0	$0	
TETCO to B&W SCT													
Delivered MMBtu	0	62,400	62,400	58,400	62,400	0	0	0	0	0	0	0	
Delivered Price	$2.3364	$2.5703	$2.8522	$2.9099	$2.7066	$2.4198	$1.9975	$2.0372	$2.1091	$2.0101	$1.8662	$1.8506	
Total Delivered Cost	$0	$160,388	$177,980	$169,937	$168,889	$0	$0	$0	$0	$0	$0	$0	
AGT HUBLINE													
Delivered MMBtu	300	106,700	92,300	152,300	33,200	6,000	0	0	0	0	0	0	
Delivered Price	$5.4483	$9.5353	$12.5914	$12.3638	$7.8164	$3.7539	$2.2368	$2.9087	$2.6932	$2.4323	$2.0616	$2.7325	
Total Delivered Cost	$1,634	$1,017,417	$1,162,186	$1,883,010	$259,506	$22,523	$0	$0	$0	$0	$0	$0	
DAWN TO TENNESSEE - ANE II													
Delivered MMBtu	0	31,000	30,900	28,800	0	0	0	0	0	0	0	0	
Delivered Price	[redacted]												
Total Delivered Cost													

	NOV 2015	**DEC** 2015	**JAN** 2016	**FEB** 2016	**MAR** 2016	**APR** 2016	**MAY** 2016	**JUN** 2016	**JUL** 2016	**AUG** 2016	**SEP** 2016	**OCT** 2016	
Financial Hedges as of July 31, 2015													
Quantity	1,842,000	2,954,000	2,962,000	2,769,000	2,284,000	1,277,340	870,024	504,750	454,341	459,231	408,581	646,994	17,432,260
Average Price	$3.661	$4.105	$4.032	$4.085	$4.132	$3.822	$3.827	$3.736	$3.660	$3.827	$3.759	$3.762	
07/31/2015 NYMEX	$2.868	$3.042	$3.152	$3.146	$3.108	$2.966	$2.965	$2.995	$3.026	$3.037	$3.031	$3.062	
NYMEX Hedges	$1,461,509	$3,140,462	$2,605,443	$2,599,618	$2,337,938	$1,093,816	$749,769	$374,144	$288,161	$362,574	$297,574	$452,831	$15,763,840
Basis Hedges	$28,600	$12,050	$4,500	-$38,650	-$18,100	$0	$0	$0	$0	$0	$0	$0	-$11,600
Impact of Financial Hedges	**$1,490,109**	**$3,152,512**	**$2,609,943**	**$2,560,968**	**$2,319,838**	**$1,093,816**	**$749,769**	**$374,144**	**$288,161**	**$362,574**	**$297,574**	**$452,831**	**$15,752,240**
Total Pipeline Costs (Incl Inj)	[redacted]												
Total Delivered Pipeline Vol	**2,172,900**	**3,271,600**	**3,702,500**	**3,592,300**	**3,036,500**	**2,702,600**	**1,839,800**	**1,423,300**	**1,199,100**	**1,154,500**	**1,304,500**	**1,751,100**	**27,150,700**
WACOG (Cost/Volume)	[redacted]												
Injections	0	0	0	0	0	446,300	483,300	490,300	472,700	497,900	612,300	508,700	3,511,500
Cost of Injections	[redacted]												
Total GCR Cost Including Financial Hedges, Excluding Injections													
Total Pipeline Costs	[redacted]												
Total Pipeline Purchase Volumes	**2,172,900**	**3,271,600**	**3,702,500**	**3,592,300**	**3,036,500**	**2,256,300**	**1,356,500**	**933,000**	**726,400**	**656,600**	**692,200**	**1,242,400**	**23,639,200**

REDACTED

2015 GCR estimate
FIXED COST ESTIMATES
Nov 2015 - Oct 2016

2015-2016 Gas Supply Fixed Costs
UNIT PRICES

		Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16
PIPELINE FIXED COST UNIT PRICES $/Dth													
ALGONQUIN AFT-E/AFT-1 DEMAND	$/Dth	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734
ALGONQUIN AFT-3 DEMAND	$/Dth	$10.7554	$10.7554	$10.7554	$10.7554	$10.7554	$10.7554	$10.7554	$10.7554	$10.7554	$10.7554	$10.7554	$10.7554
ALGONQUIN AFT-ES/1S DEMAND	$/Dth	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294
ALGONQUIN HUBLINE DEMAND	$/Dth	$6.9958	$6.9958	$6.9958	$6.9958	$6.9958	$6.9958	$6.9958	$6.9958	$6.9958	$6.9958	$6.9958	$6.9958
ALGONQUIN HUBLINE DEMAND	$/Dth	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341
COLUMBIA FTS DEMAND	$/Dth	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310
DOMINION FTNN DEMAND	$/Dth	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564
IROQUOIS DEMAND	$/Dth	$6.5971	$6.5971	$6.5971	$6.5971	$6.5971	$6.5971	$6.5971	$6.5971	$6.5971	$6.5971	$6.5971	$6.5971
NATIONAL FUEL DEMAND	$/Dth	$3.9653	$3.9653	$3.9653	$3.9653	$3.9653	$3.9653	$3.9653	$3.9653	$3.9653	$3.9653	$3.9653	$3.9653
TENNESSEE FT-A DEMAND ZONE 0 TO 6	$/Dth	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059
TENNESSEE FT-A DEMAND ZONE 1 TO 6	$/Dth	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059
TENNESSEE FT-A DEMAND ZONE 0 TO 6	$/Dth	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022
TENNESSEE FT-A DEMAND ZONE 1 TO 6	$/Dth	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022
TENNESSEE FT-A DEMAND ZONE 0 TO 6 CXN	$/Dth	$22.7768	$22.7768	$22.7768	$22.7768	$22.7768	$22.7768	$22.7768	$22.7768	$22.7768	$22.7768	$22.7768	$22.7768
TENNESSEE FT-A DEMAND DRACUT	$/Dth	$4.9101	$4.9101	$4.9101	$4.9101	$4.9101	$4.9101	$4.9101	$4.9101	$4.9101	$4.9101	$4.9101	$4.9101
TENNESSEE FT-A DEMAND ZONE 5 TO 6	$/Dth	$7.3963	$7.3963	$7.3963	$7.3963	$7.3963	$7.3963	$7.3963	$7.3963	$7.3963	$7.3963	$7.3963	$7.3963
TEXAS EASTERN CDS STX DEMAND M3	$/Dth	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040
TEXAS EASTERN CDS WLA DEMAND M3	$/Dth	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250
TEXAS EASTERN CDS ELA DEMAND M3	$/Dth	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750
TEXAS EASTERN CDS ETX DEMAND M3	$/Dth	$2.1890	$2.1890	$2.1890	$2.1890	$2.1890	$2.1890	$2.1890	$2.1890	$2.1890	$2.1890	$2.1890	$2.1890
TEXAS EASTERN CDS 1-3 DEMAND M3	$/Dth	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960
TEXAS EASTERN FTS DEMAND	$/Dth	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510
TEXAS EASTERN SCT STX DEMAND M3	$/Dth	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220
TEXAS EASTERN SCT WLA DEMAND M3	$/Dth	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300
TEXAS EASTERN SCT ELA DEMAND M3	$/Dth	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500
TEXAS EASTERN SCT ETX DEMAND M3	$/Dth	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760
TEXAS EASTERN SCT 1-3 DEMAND M3	$/Dth	$4.2390	$4.2390	$4.2390	$4.2390	$4.2390	$4.2390	$4.2390	$4.2390	$4.2390	$4.2390	$4.2390	$4.2390
TEXAS EASTERN SCT STX DEMAND M2	$/Dth	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220
TEXAS EASTERN SCT WLA DEMAND M2	$/Dth	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300
TEXAS EASTERN SCT ELA DEMAND M2	$/Dth	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500
TEXAS EASTERN SCT ETX DEMAND M2	$/Dth	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760
TEXAS EASTERN SCT 1-2 DEMAND M2	$/Dth	$3.2400	$3.2400	$3.2400	$3.2400	$3.2400	$3.2400	$3.2400	$3.2400	$3.2400	$3.2400	$3.2400	$3.2400
TRANSCANADA DEMAND	$/Dth	$12.9945	$13.4277	$13.4277	$12.5614	$13.4277	$12.9945	$13.4277	$12.9945	$13.4277	$13.4277	$12.9945	$13.4277
TRANSCO DEMAND ZONE 6 TO 6	$/Dth	$0.1309	$0.1309	$0.1309	$0.1309	$0.1309	$0.1309	$0.1309	$0.1309	$0.1309	$0.1309	$0.1309	$0.1309
UNION DEMAND	$/Dth	$2.1150	$2.1855	$2.1855	$2.0445	$2.1855	$2.1150	$2.1855	$2.1150	$2.1855	$2.1855	$2.1150	$2.1855
STORAGE FIXED COST UNIT PRICES													
COLUMBIA FSS DEMAND	$/Dth	$1.5010	$1.5010	$1.5010	$1.5010	$1.5010	$1.5010	$1.5010	$1.5010	$1.5010	$1.5010	$1.5010	$1.5010
COLUMBIA FSS CAPACITY	$/Dth	$0.0288	$0.0288	$0.0288	$0.0288	$0.0288	$0.0288	$0.0288	$0.0288	$0.0288	$0.0288	$0.0288	$0.0288
DOMINION GSS DEMAND	$/Dth	$1.8625	$1.8625	$1.8625	$1.8625	$1.8625	$1.8625	$1.8625	$1.8625	$1.8625	$1.8625	$1.8625	$1.8625
DOMINION GSS CAPACITY	$/Dth	$0.0145	$0.0145	$0.0145	$0.0145	$0.0145	$0.0145	$0.0145	$0.0145	$0.0145	$0.0145	$0.0145	$0.0145
DOMINION GSS-TE DEMAND	$/Dth	$1.8625	$1.8625	$1.8625	$1.8625	$1.8625	$1.8625	$1.8625	$1.8625	$1.8625	$1.8625	$1.8625	$1.8625
DOMINION GSS-TE CAPACITY	$/Dth	$0.0145	$0.0145	$0.0145	$0.0145	$0.0145	$0.0145	$0.0145	$0.0145	$0.0145	$0.0145	$0.0145	$0.0145
TENNESSEE FSMA DEMAND	$/Dth	$1.5400	$1.5400	$1.5400	$1.5400	$1.5400	$1.5400	$1.5400	$1.5400	$1.5400	$1.5400	$1.5400	$1.5400
TENNESSEE FSMA CAPACITY	$/Dth	$0.0211	$0.0211	$0.0211	$0.0211	$0.0211	$0.0211	$0.0211	$0.0211	$0.0211	$0.0211	$0.0211	$0.0211
TEXAS EASTERN SS-1 DEMAND	$/Dth	$5.4210	$5.4210	$5.4210	$5.4210	$5.4210	$5.4210	$5.4210	$5.4210	$5.4210	$5.4210	$5.4210	$5.4210
TEXAS EASTERN SS-1 CAPACITY	$/Dth	$0.1293	$0.1293	$0.1293	$0.1293	$0.1293	$0.1293	$0.1293	$0.1293	$0.1293	$0.1293	$0.1293	$0.1293
TEXAS EASTERN FSS-1 DEMAND	$/Dth	$0.8960	$0.8960	$0.8960	$0.8960	$0.8960	$0.8960	$0.8960	$0.8960	$0.8960	$0.8960	$0.8960	$0.8960
TEXAS EASTERN FSS-1 CAPACITY	$/Dth	$0.1293	$0.1293	$0.1293	$0.1293	$0.1293	$0.1293	$0.1293	$0.1293	$0.1293	$0.1293	$0.1293	$0.1293

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 4576
Attachment EDA-2
Redacted
September 1, 2015

REDACTED

STORAGE DELIVERY FIXED		Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16
UNIT RATES ($/Dth)													
PATH													
ALGONQUIN FOR TETCO SS-1	$/Dth	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734
ALGONQUIN DELIVERY FOR FSS-1	$/Dth	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734
ALGONQUIN SCT FOR SS-1	$/Dth	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294
ALGONQUIN DELIVERY FOR GSS, GSS-TE,	$/Dth	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734
ALGONQUIN SCT DELIVERY FOR GSS-TE	$/Dth	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294
ALGONQUIN DELIVERY FOR GSS CONV.	$/Dth	$9.7854	$9.7854	$9.7854	$9.7854	$9.7854	$9.7854	$9.7854	$9.7854	$9.7854	$9.7854	$9.7854	$9.7854
ALGONQUIN DELIVERY FOR FSS	$/Dth	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734
COLUMBIA DELIVERY FOR FSS	$/Dth	$5.9610	$5.9610	$5.9610	$5.9610	$5.9610	$5.9610	$5.9610	$5.9610	$5.9610	$5.9610	$5.9610	$5.9610
DOMINION DELIVERY FOR GSS	$/Dth	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564
DOMINION DELIVERY FOR GSS CONV.	$/Dth	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564
TENNESSEE DELIVERY FOR GSS	$/Dth	$8.4181	$8.4181	$8.4181	$8.4181	$8.4181	$8.4181	$8.4181	$8.4181	$8.4181	$8.4181	$8.4181	$8.4181
TENNESSEE DELIVERY FOR FSMA	$/Dth	$8.4181	$8.4181	$8.4181	$8.4181	$8.4181	$8.4181	$8.4181	$8.4181	$8.4181	$8.4181	$8.4181	$8.4181
TETCO DELIVERY FOR FSS-1	$/Dth	$5.1570	$5.1570	$5.1570	$5.1570	$5.1570	$5.1570	$5.1570	$5.1570	$5.1570	$5.1570	$5.1570	$5.1570
TETCO DELIVERY FOR GSS/GSS-TE	$/Dth	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510
TETCO DELIVERY FOR GSS-TE	$/Dth	$6.5760	$6.5760	$6.5760	$6.5760	$6.5760	$6.5760	$6.5760	$6.5760	$6.5760	$6.5760	$6.5760	$6.5760
TETCO DELIVERY FOR GSS-TE	$/Dth	$6.8640	$6.8640	$6.8640	$6.8640	$6.8640	$6.8640	$6.8640	$6.8640	$6.8640	$6.8640	$6.8640	$6.8640
TETCO DELIVERY FOR GSS CONV.	$/Dth	$5.1790	$5.1790	$5.1790	$5.1790	$5.1790	$5.1790	$5.1790	$5.1790	$5.1790	$5.1790	$5.1790	$5.1790
SUPPLIER FIXED COST UNIT PRICES													
GAZ METRO DEMAND PAYMENT Summer	$/Dth	[redacted]											
GDF SUEZ DEMAND PAYMENT Summer	$/Dth												
GDF SUEZ DEMAND PAYMENT Winter	$/Dth												
PEAKING SUPPLY AT SALEM	$/Dth												
PEAKING SUPPLY AT DRACUT	$/Dth												
AGT CITYGATE SUPPLY DEAL	$/Dth												
TGP CITYGATE SUPPLY DEAL	$/Dth												
								BILLING UNITS					
PIPELINE FIXED COST BILLING UNITS													
ALGONQUIN AFT-E/AFT-1 DEMAND	Dth	87,285	87,285	87,285	87,285	87,285	87,285	87,285	87,285	87,285	87,285	87,285	87,285
ALGONQUIN AFT-3 DEMAND	Dth	11,063	11,063	11,063	11,063	11,063	11,063	11,063	11,063	11,063	11,063	11,063	11,063
ALGONQUIN AFT-ES/1S DEMAND	Dth	4,079	4,079	4,079	4,079	4,079	4,079	4,079	4,079	4,079	4,079	4,079	4,079
ALGONQUIN HUBLINE DEMAND	Dth	500	500	500	500	500	500	500	500	500	500	500	500
ALGONQUIN HUBLINE DEMAND	Dth	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500
ALGONQUIN HUBLINE DEMAND FOR PEAKING	Dth	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
COLUMBIA FTS DEMAND	Dth	47,455	47,455	47,455	47,455	47,455	47,455	47,455	47,455	47,455	47,455	47,455	47,455
DOMINION FTNN DEMAND	Dth	537	537	537	537	537	537	537	537	537	537	537	537
IROQUOIS DEMAND	Dth	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012
NATIONAL FUEL DEMAND	Dth	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177
TENNESSEE FT-A DEMAND ZONE 0 TO 6	Dth	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
TENNESSEE FT-A DEMAND ZONE 1 TO 6	Dth	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500
TENNESSEE FT-A DEMAND ZONE 0 TO 6	Dth	6,022	6,022	6,022	6,022	6,022	6,022	6,022	6,022	6,022	6,022	6,022	6,022
TENNESSEE FT-A DEMAND ZONE 1 TO 6	Dth	13,313	13,313	13,313	13,313	13,313	13,313	13,313	13,313	13,313	13,313	13,313	13,313
TENNESSEE FT-A DEMAND ZONE 0 TO 6 CXN	Dth	11,600	11,600	11,600	11,600	11,600	11,600	11,600	11,600	11,600	11,600	11,600	11,600
TENNESSEE FT-A DEMAND DRACUT	Dth	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
TENNESSEE FT-A DEMAND DRACUT FOR PEAKII	Dth	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000
TENNESSEE FT-A DEMAND ZONE 5 TO 6	Dth	2,067	2,067	2,067	2,067	2,067	2,067	2,067	2,067	2,067	2,067	2,067	2,067
TEXAS EASTERN CDS STX DEMAND M3	Dth	13,844	13,844	13,844	13,844	13,844	13,844	13,844	13,844	13,844	13,844	13,844	13,844
TEXAS EASTERN CDS WLA DEMAND M3	Dth	15,716	15,716	15,716	15,716	15,716	15,716	15,716	15,716	15,716	15,716	15,716	15,716
TEXAS EASTERN CDS ELA DEMAND M3	Dth	23,758	23,758	23,758	23,758	23,758	23,758	23,758	23,758	23,758	23,758	23,758	23,758
TEXAS EASTERN CDS ETX DEMAND M3	Dth	7,995	7,995	7,995	7,995	7,995	7,995	7,995	7,995	7,995	7,995	7,995	7,995
TEXAS EASTERN CDS 1-3 DEMAND M3	Dth	45,934	45,934	45,934	45,934	45,934	45,934	45,934	45,934	45,934	45,934	45,934	45,934
TEXAS EASTERN FTS DEMAND	Dth	537	537	537	537	537	537	537	537	537	537	537	537
TEXAS EASTERN SCT STX DEMAND M3	Dth	571	571	571	571	571	571	571	571	571	571	571	571
TEXAS EASTERN SCT WLA DEMAND M3	Dth	648	648	648	648	648	648	648	648	648	648	648	648
TEXAS EASTERN SCT ELA DEMAND M3	Dth	1,183	1,183	1,183	1,183	1,183	1,183	1,183	1,183	1,183	1,183	1,183	1,183
TEXAS EASTERN SCT ETX DEMAND M3	Dth	329	329	329	329	329	329	329	329	329	329	329	329
TEXAS EASTERN SCT 1-3 DEMAND M3	Dth	2,099	2,099	2,099	2,099	2,099	2,099	2,099	2,099	2,099	2,099	2,099	2,099
TEXAS EASTERN SCT STX DEMAND M2	Dth	401	401	401	401	401	401	401	401	401	401	401	401
TEXAS EASTERN SCT WLA DEMAND M2	Dth	455	455	455	455	455	455	455	455	455	455	455	455
TEXAS EASTERN SCT ELA DEMAND M2	Dth	831	831	831	831	831	831	831	831	831	831	831	831
TEXAS EASTERN SCT ETX DEMAND M2	Dth	231	231	231	231	231	231	231	231	231	231	231	231
TEXAS EASTERN SCT 1-2 DEMAND M2	Dth	1,474	1,474	1,474	1,474	1,474	1,474	1,474	1,474	1,474	1,474	1,474	1,474
TRANSCANADA DEMAND	Dth	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012
TRANSCO DEMAND ZONE 6 TO 6	Dth	37,200	38,440	38,440	34,720	38,440	37,200	38,440	37,200	38,440	38,440	37,200	38,440
UNION DEMAND	Dth	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025

REDACTED

		Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16
STORAGE FIXED COST BILLING UNITS													
COLUMBIA FSS DEMAND	Dth	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545
COLUMBIA FSS CAPACITY	Dth	203,957	203,957	203,957	203,957	203,957	203,957	203,957	203,957	203,957	203,957	203,957	203,957
DOMINION GSS DEMAND	Dth	11,403	11,403	11,403	11,403	11,403	11,403	11,403	11,403	11,403	11,403	11,403	11,403
DOMINION GSS CAPACITY	Dth	1,039,304	1,039,304	1,039,304	1,039,304	1,039,304	1,039,304	1,039,304	1,039,304	1,039,304	1,039,304	1,039,304	1,039,304
DOMINION GSS-TE DEMAND	Dth	14,337	14,337	14,337	14,337	14,337	14,337	14,337	14,337	14,337	14,337	14,337	14,337
DOMINION GSS-TE CAPACITY	Dth	1,376,324	1,376,324	1,376,324	1,376,324	1,376,324	1,376,324	1,376,324	1,376,324	1,376,324	1,376,324	1,376,324	1,376,324
TENNESSEE FSMA DEMAND	Dth	21,169	21,169	21,169	21,169	21,169	21,169	21,169	21,169	21,169	21,169	21,169	21,169
TENNESSEE FSMA CAPACITY	Dth	815,343	815,343	815,343	815,343	815,343	815,343	815,343	815,343	815,343	815,343	815,343	815,343
TEXAS EASTERN SS-1 DEMAND	Dth	14,802	14,802	14,802	14,802	14,802	14,802	14,802	14,802	14,802	14,802	14,802	14,802
TEXAS EASTERN SS-1 CAPACITY	Dth	103,336	103,336	103,336	103,336	103,336	103,336	103,336	103,336	103,336	103,336	103,336	103,336
TEXAS EASTERN FSS-1 DEMAND	Dth	944	944	944	944	944	944	944	944	944	944	944	944
TEXAS EASTERN FSS-1 CAPACITY	Dth	4,720	4,720	4,720	4,720	4,720	4,720	4,720	4,720	4,720	4,720	4,720	4,720
STORAGE DELIVERY BILLING UNITS (DTH)													
ALGONQUIN FOR TETCO SS-1	Dth	14,137	14,137	14,137	14,137	14,137	14,137	14,137	14,137	14,137	14,137	14,137	14,137
ALGONQUIN DELIVERY FOR FSS-1	Dth	944	944	944	944	944	944	944	944	944	944	944	944
ALGONQUIN SCT FOR SS-1	Dth	665	665	665	665	665	665	665	665	665	665	665	665
ALGONQUIN DELIVERY FOR GSS, GSS-TE,	Dth	11,739	11,739	11,739	11,739	11,739	11,739	11,739	11,739	11,739	11,739	11,739	11,739
ALGONQUIN SCT DELIVERY FOR GSS-TE	Dth	187	187	187	187	187	187	187	187	187	187	187	187
ALGONQUIN DELIVERY FOR GSS CONV	Dth	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061
ALGONQUIN DELIVERY FOR FSS	Dth	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545
COLUMBIA DELIVERY FOR FSS	Dth	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545	2,545
DOMINION DELIVERY FOR GSS	Dth	5,324	5,324	5,324	5,324	5,324	5,324	5,324	5,324	5,324	5,324	5,324	5,324
DOMINION DELIVERY FOR GSS CONV	Dth	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061
TENNESSEE DELIVERY FOR GSS	Dth	6,725	6,725	6,725	6,725	6,725	6,725	6,725	6,725	6,725	6,725	6,725	6,725
TENNESSEE DELIVERY FOR FSMA	Dth	4,111	4,111	4,111	4,111	4,111	4,111	4,111	4,111	4,111	4,111	4,111	4,111
TETCO DELIVERY FOR FSS-1	Dth	944	944	944	944	944	944	944	944	944	944	944	944
TETCO DELIVERY FOR GSS/GSS-TE	Dth	6,377	6,377	6,377	6,377	6,377	6,377	6,377	6,377	6,377	6,377	6,377	6,377
TETCO DELIVERY FOR GSS-TE	Dth	538	538	538	538	538	538	538	538	538	538	538	538
TETCO DELIVERY FOR GSS-TE	Dth	5,011	5,011	5,011	5,011	5,011	5,011	5,011	5,011	5,011	5,011	5,011	5,011
TETCO DELIVERY FOR GSS CONV	Dth	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061	2,061
SUPPLIER FIXED COST BILLING UNITS													
GAZ METRO DEMAND PAYMENT Summer	Dth	[redacted]											
GDF SUEZ DEMAND PAYMENT Summer	Dth												
GDF SUEZ DEMAND PAYMENT Winter	Dth												
PEAKING SUPPLY AT SALEM	Dth												
PEAKING SUPPLY AT DRACUT	Dth												
AGT CITYGATE SUPPLY DEAL	Dth												
TGP CITYGATE SUPPLY DEAL	Dth												

REDACTED

TOTAL COST

		Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16
PIPELINE FIXED COST DOLLARS													
ALGONQUIN AFT-E/AFT-1 DEMAND	$	$573,759	$573,759	$573,759	$573,759	$573,759	$573,759	$573,759	$573,759	$573,759	$573,759	$573,759	$573,759
ALGONQUIN AFT-3 DEMAND	$	$118,987	$118,987	$118,987	$118,987	$118,987	$118,987	$118,987	$118,987	$118,987	$118,987	$118,987	$118,987
ALGONQUIN AFT-ES/1S DEMAND	$	$10,725	$10,725	$10,725	$10,725	$10,725	$10,725	$10,725	$10,725	$10,725	$10,725	$10,725	$10,725
ALGONQUIN HUBLINE DEMAND	$	$3,498	$3,498	$3,498	$3,498	$3,498	$3,498	$3,498	$3,498	$3,498	$3,498	$3,498	$3,498
ALGONQUIN HUBLINE DEMAND	$	$46,388	$46,388	$46,388	$46,388	$46,388	$46,388	$46,388	$46,388	$46,388	$46,388	$46,388	$46,388
ALGONQUIN HUBLINE DEMAND FOR PEAKING	$	$101,209	$101,209	$101,209	$101,209	$101,209	$101,209	$101,209	$101,209	$101,209	$101,209	$101,209	$101,209
ALGONQUIN EAST TO WEST AMA FEE	$	[redacted]											
CANADIAN CAPACITY AMA FEE	$												
COLUMBIA FTS DEMAND	$	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947
DOMINION FTNN DEMAND	$	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232
IROQUOIS DEMAND	$	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676
NATIONAL FUEL DEMAND	$	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667
TENNESSEE FT-A DEMAND ZONE 0 TO 6	$	$77,721	$77,721	$77,721	$77,721	$77,721	$77,721	$77,721	$77,721	$77,721	$77,721	$77,721	$77,721
TENNESSEE FT-A DEMAND ZONE 1 TO 6	$	$144,338	$144,338	$144,338	$144,338	$144,338	$144,338	$144,338	$144,338	$144,338	$144,338	$144,338	$144,338
TENNESSEE FT-A DEMAND ZONE 0 TO 6	$	$133,099	$133,099	$133,099	$133,099	$133,099	$133,099	$133,099	$133,099	$133,099	$133,099	$133,099	$133,099
TENNESSEE FT-A DEMAND ZONE 1 TO 6	$	$294,247	$294,247	$294,247	$294,247	$294,247	$294,247	$294,247	$294,247	$294,247	$294,247	$294,247	$294,247
TENNESSEE FT-A DEMAND ZONE 0 TO 6 CXN	$	$264,211	$264,211	$264,211	$264,211	$264,211	$264,211	$264,211	$264,211	$264,211	$264,211	$264,211	$264,211
TENNESSEE FT-A DEMAND DRACUT	$	$29,461	$29,461	$29,461	$29,461	$29,461	$29,461	$29,461	$29,461	$29,461	$29,461	$29,461	$29,461
TENNESSEE FT-A DEMAND DRACUT FOR PEAKII	$	$44,191	$44,191	$44,191	$44,191	$44,191	$44,191	$44,191	$44,191	$44,191	$44,191	$44,191	$44,191
TENNESSEE FT-A DEMAND ZONE 5 TO 6	$	$15,288	$15,288	$15,288	$15,288	$15,288	$15,288	$15,288	$15,288	$15,288	$15,288	$15,288	$15,288
TEXAS EASTERN CDS STX DEMAND M3	$	$94,195	$94,195	$94,195	$94,195	$94,195	$94,195	$94,195	$94,195	$94,195	$94,195	$94,195	$94,195
TEXAS EASTERN CDS WLA DEMAND M3	$	$44,398	$44,398	$44,398	$44,398	$44,398	$44,398	$44,398	$44,398	$44,398	$44,398	$44,398	$44,398
TEXAS EASTERN CDS ELA DEMAND M3	$	$56,425	$56,425	$56,425	$56,425	$56,425	$56,425	$56,425	$56,425	$56,425	$56,425	$56,425	$56,425
TEXAS EASTERN CDS ETX DEMAND M3	$	$17,501	$17,501	$17,501	$17,501	$17,501	$17,501	$17,501	$17,501	$17,501	$17,501	$17,501	$17,501
TEXAS EASTERN CDS 1-3 DEMAND M3	$	$486,717	$486,717	$486,717	$486,717	$486,717	$486,717	$486,717	$486,717	$486,717	$486,717	$486,717	$486,717
TEXAS EASTERN FTS DEMAND	$	$2,873	$2,873	$2,873	$2,873	$2,873	$2,873	$2,873	$2,873	$2,873	$2,873	$2,873	$2,873
TEXAS EASTERN SCT STX DEMAND M3	$	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554
TEXAS EASTERN SCT WLA DEMAND M3	$	$732	$732	$732	$732	$732	$732	$732	$732	$732	$732	$732	$732
TEXAS EASTERN SCT ELA DEMAND M3	$	$1,124	$1,124	$1,124	$1,124	$1,124	$1,124	$1,124	$1,124	$1,124	$1,124	$1,124	$1,124
TEXAS EASTERN SCT ETX DEMAND M3	$	$288	$288	$288	$288	$288	$288	$288	$288	$288	$288	$288	$288
TEXAS EASTERN SCT 1-3 DEMAND M3	$	$8,898	$8,898	$8,898	$8,898	$8,898	$8,898	$8,898	$8,898	$8,898	$8,898	$8,898	$8,898
TEXAS EASTERN SCT STX DEMAND M2	$	$1,092	$1,092	$1,092	$1,092	$1,092	$1,092	$1,092	$1,092	$1,092	$1,092	$1,092	$1,092
TEXAS EASTERN SCT WLA DEMAND M2	$	$514	$514	$514	$514	$514	$514	$514	$514	$514	$514	$514	$514
TEXAS EASTERN SCT ELA DEMAND M2	$	$789	$789	$789	$789	$789	$789	$789	$789	$789	$789	$789	$789
TEXAS EASTERN SCT ETX DEMAND M2	$	$202	$202	$202	$202	$202	$202	$202	$202	$202	$202	$202	$202
TEXAS EASTERN SCT 1-2 DEMAND M2	$	$4,776	$4,776	$4,776	$4,776	$4,776	$4,776	$4,776	$4,776	$4,776	$4,776	$4,776	$4,776
TRANSCANADA DEMAND	$	$13,150	$13,589	$13,589	$12,712	$13,589	$13,150	$13,589	$13,150	$13,589	$13,589	$13,150	$13,589
TRANSCO DEMAND ZONE 6 TO 6	$	$4,869	$5,032	$5,032	$4,545	$5,032	$4,869	$5,032	$4,869	$5,032	$5,032	$4,869	$5,032
UNION DEMAND	$	$2,168	$2,240	$2,240	$2,096	$2,240	$2,168	$2,240	$2,168	$2,240	$2,240	$2,168	$2,240
WESTERLY LATERAL (Yankee)	$	[redacted]											
TOTAL PIPELINE DEMAND COSTS													
STORAGE FIXED COST DOLLARS													
COLUMBIA FSS DEMAND	$	$3,820	$3,820	$3,820	$3,820	$3,820	$3,820	$3,820	$3,820	$3,820	$3,820	$3,820	$3,820
COLUMBIA FSS CAPACITY	$	$5,874	$5,874	$5,874	$5,874	$5,874	$5,874	$5,874	$5,874	$5,874	$5,874	$5,874	$5,874
DOMINION GSS DEMAND	$	$21,238	$21,238	$21,238	$21,238	$21,238	$21,238	$21,238	$21,238	$21,238	$21,238	$21,238	$21,238
DOMINION GSS CAPACITY	$	$15,070	$15,070	$15,070	$15,070	$15,070	$15,070	$15,070	$15,070	$15,070	$15,070	$15,070	$15,070
DOMINION GSS-TE DEMAND	$	$26,703	$26,703	$26,703	$26,703	$26,703	$26,703	$26,703	$26,703	$26,703	$26,703	$26,703	$26,703
DOMINION GSS-TE CAPACITY	$	$19,957	$19,957	$19,957	$19,957	$19,957	$19,957	$19,957	$19,957	$19,957	$19,957	$19,957	$19,957
TENNESSEE FSMA DEMAND	$	$32,600	$32,600	$32,600	$32,600	$32,600	$32,600	$32,600	$32,600	$32,600	$32,600	$32,600	$32,600
TENNESSEE FSMA CAPACITY	$	$17,204	$17,204	$17,204	$17,204	$17,204	$17,204	$17,204	$17,204	$17,204	$17,204	$17,204	$17,204
TEXAS EASTERN SS-1 DEMAND	$	$80,242	$80,242	$80,242	$80,242	$80,242	$80,242	$80,242	$80,242	$80,242	$80,242	$80,242	$80,242
TEXAS EASTERN SS-1 CAPACITY	$	$13,361	$13,361	$13,361	$13,361	$13,361	$13,361	$13,361	$13,361	$13,361	$13,361	$13,361	$13,361
TEXAS EASTERN FSS-1 DEMAND	$	$846	$846	$846	$846	$846	$846	$846	$846	$846	$846	$846	$846
TEXAS EASTERN FSS-1 CAPACITY	$	$610	$610	$610	$610	$610	$610	$610	$610	$610	$610	$610	$610
NATIONAL GRID LNG TANK LEASE PAYMENTS	$	[redacted]											
TOTAL STORAGE DEMAND COSTS	$												

REDACTED

		Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Total
STORAGE DELIVERY FIXED COSTS														
ALGONQUIN FOR TETCO SS-1	$	$92,928	$92,928	$92,928	$92,928	$92,928	$92,928	$92,928	$92,928	$92,928	$92,928	$92,928	$92,928	
ALGONQUIN DELIVERY FOR FSS-1	$	$6,205	$6,205	$6,205	$6,205	$6,205	$6,205	$6,205	$6,205	$6,205	$6,205	$6,205	$6,205	
ALGONQUIN SCT FOR SS-1	$	$1,749	$1,749	$1,749	$1,749	$1,749	$1,749	$1,749	$1,749	$1,749	$1,749	$1,749	$1,749	
ALGONQUIN DELIVERY FOR GSS, GSS-TE,	$	$77,165	$77,165	$77,165	$77,165	$77,165	$77,165	$77,165	$77,165	$77,165	$77,165	$77,165	$77,165	
ALGONQUIN SCT DELIVERY FOR GSS-TE	$	$492	$492	$492	$492	$492	$492	$492	$492	$492	$492	$492	$492	
ALGONQUIN DELIVERY FOR GSS CONV	$	$20,168	$20,168	$20,168	$20,168	$20,168	$20,168	$20,168	$20,168	$20,168	$20,168	$20,168	$20,168	
ALGONQUIN DELIVERY FOR FSS	$	$16,729	$16,729	$16,729	$16,729	$16,729	$16,729	$16,729	$16,729	$16,729	$16,729	$16,729	$16,729	
COLUMBIA DELIVERY FOR FSS	$	$15,171	$15,171	$15,171	$15,171	$15,171	$15,171	$15,171	$15,171	$15,171	$15,171	$15,171	$15,171	
DOMINION DELIVERY FOR GSS	$	$22,129	$22,129	$22,129	$22,129	$22,129	$22,129	$22,129	$22,129	$22,129	$22,129	$22,129	$22,129	
DOMINION DELIVERY FOR GSS CONV	$	$8,566	$8,566	$8,566	$8,566	$8,566	$8,566	$8,566	$8,566	$8,566	$8,566	$8,566	$8,566	
TENNESSEE DELIVERY FOR GSS	$	$56,612	$56,612	$56,612	$56,612	$56,612	$56,612	$56,612	$56,612	$56,612	$56,612	$56,612	$56,612	
TENNESSEE DELIVERY FOR FSMA	$	$34,607	$34,607	$34,607	$34,607	$34,607	$34,607	$34,607	$34,607	$34,607	$34,607	$34,607	$34,607	
TETCO DELIVERY FOR FSS-1	$	$4,868	$4,868	$4,868	$4,868	$4,868	$4,868	$4,868	$4,868	$4,868	$4,868	$4,868	$4,868	
TETCO DELIVERY FOR GSS/GSS-TE	$	$34,123	$34,123	$34,123	$34,123	$34,123	$34,123	$34,123	$34,123	$34,123	$34,123	$34,123	$34,123	
TETCO DELIVERY FOR GSS-TE	$	$3,538	$3,538	$3,538	$3,538	$3,538	$3,538	$3,538	$3,538	$3,538	$3,538	$3,538	$3,538	
TETCO DELIVERY FOR GSS-TE	$	$34,396	$34,396	$34,396	$34,396	$34,396	$34,396	$34,396	$34,396	$34,396	$34,396	$34,396	$34,396	
TETCO DELIVERY FOR GSS CONV	$	$10,674	$10,674	$10,674	$10,674	$10,674	$10,674	$10,674	$10,674	$10,674	$10,674	$10,674	$10,674	
TOTAL STORAGE DELIVERY DEMAND COSTS		**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$5,281,428**
GAZ METRO DEMAND PAYMENT Summer	$	[redacted]												
GDF SUEZ DEMAND PAYMENT Summer	$													
GDF SUEZ DEMAND PAYMENT Winter	$													
PEAKING SUPPLY AT SALEM	$													
PEAKING SUPPLY AT DRACUT	$													
AGT CITYGATE SUPPLY DEAL	$													
TGP CITYGATE SUPPLY DEAL	$													
TOTAL SUPPLIER DEMAND COSTS														
TOTAL ALL DEMAND COSTS	$	**$3,925,671**	**$4,217,844**	**$4,216,516**	**$4,215,008**	**$4,216,516**	**$4,370,433**	**$4,371,106**	**$4,370,433**	**$4,371,106**	**$4,371,106**	**$4,370,433**	**$4,371,106**	**$51,387,276**

		Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Total
Marketer Demand Charge Credits														
Capacity Release Volumes as of August 1, 2015														
Tennessee	Dth	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	
Algonquin	Dth	2,025	2,025	2,025	2,025	2,025	2,025	2,025	2,025	2,025	2,025	2,025	2,025	
Tetco STX/AGT	Dth	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	3,828	
Tetco WLA/AGT	Dth	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	
Tetco ELA/AGT	Dth	4,377	4,377	4,377	4,377	4,377	4,377	4,377	4,377	4,377	4,377	4,377	4,377	
Columbia/AGT	Dth	0	0	0	0	0	0	0	0	0	0	0	0	
Total		**28,230**	**28,230**	**28,230**	**28,230**	**28,230**	**28,230**	**28,230**	**28,230**	**28,230**	**28,230**	**28,230**	**28,230**	
System Weighted Average cost per MMBtu		**$18.0217**	**$18.0217**	**$18.0217**	**$18.0217**	**$18.0217**	**$18.0217**	**$18.0217**	**$18.0217**	**$18.0217**	**$18.0217**	**$18.0217**	**$18.0217**	
Total Demand Charge Credit		**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$6,105,033**
Demand Costs Net of Releases to Marketers	**$**	**$3,416,918**	**$3,709,091**	**$3,707,764**	**$3,706,255**	**$3,707,764**	**$3,861,680**	**$3,862,353**	**$3,861,680**	**$3,862,353**	**$3,862,353**	**$3,861,680**	**$3,862,353**	**$45,282,243**
TOTAL PIPELINE DEMANDS	**$**	[redacted]												
TOTAL STORAGE FACILITIES DEMANDS	**$**													
TOTAL STORAGE DELIVERY DEMANDS	**$**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$440,119**	**$5,281,428**
TOTAL SUPPLIER DEMANDS	**$**	[redacted]												
Total All Demands	**$**	**$3,925,671**	**$4,217,844**	**$4,216,516**	**$4,215,008**	**$4,216,516**	**$4,370,433**	**$4,371,106**	**$4,370,433**	**$4,371,106**	**$4,371,106**	**$4,370,433**	**$4,371,106**	**$51,387,276**
Marketer Release Credits	**$**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$508,753**	**$6,105,033**
NGPMP Credit		**$783,333**	**$783,333**	**$783,333**	**$783,333**	**$783,333**	**$783,333**	**$783,333**	**$783,333**	**$783,333**	**$783,333**	**$783,333**	**$783,333**	**$9,400,000**
Demand Net of Releases	**$**	**$2,633,585**	**$2,925,757**	**$2,924,430**	**$2,922,922**	**$2,924,430**	**$3,078,347**	**$3,079,020**	**$3,078,347**	**$3,079,020**	**$3,079,020**	**$3,078,347**	**$3,079,020**	**$35,882,243**

REDACTED

Storage Product Cost

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
WACOG INJECTIONS	$2.203	$3.044	$3.974	$4.153	$2.873	$2.196	$1.815	$1.826	$1.895	$1.801	$1.615	$1.702	
Injection cost	$0.031	$0.031	$0.031	$0.031	$0.031	$0.031	$0.031	$0.031	$0.031	$0.031	$0.031	$0.031	
Total injection cost	$2.234	$3.075	$4.005	$4.184	$2.904	$2.226	$1.846	$1.856	$1.925	$1.832	$1.646	$1.732	

COMBINED STORAGE	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	
Beginning Inv Vol	4,707,804	4,514,604	3,676,304	2,755,504	1,887,804	1,122,104	1,560,004	2,043,304	2,533,604	3,006,304	3,504,204	4,116,504	
Vol Withdrawn	193,200	838,300	920,800	867,700	765,700	8,400	0	0	0	0	0	0	3,594,100
Vol Injected	0	0	0	0	0	446,300	483,300	490,300	472,700	497,900	612,300	508,700	3,511,500
Begining Inv $ (virtual)	$10,277,607	$9,855,832	$8,025,739	$6,015,541	$4,121,265	$2,449,665	$3,424,901	$4,316,856	$5,227,041	$6,137,090	$7,049,000	$8,056,728	
$ Withdrawn (1)	$421,775	$2,582,399	$2,836,542	$2,672,966	$2,358,753	$18,338	$0	$0	$0	$0	$0	$0	$10,890,773
$ Injected	$0	$0	$0	$0	$0	$993,574	$891,955	$910,185	$910,049	$911,910	$1,007,728	$881,321	$6,506,722
Ending Vol	4,514,604	3,676,304	2,755,504	1,887,804	1,122,104	1,560,004	2,043,304	2,533,604	3,006,304	3,504,204	4,116,504	4,625,204	
Ending $	$9,855,832	$8,025,739	$6,015,541	$4,121,265	$2,449,665	$3,424,901	$4,316,856	$5,227,041	$6,137,090	$7,049,000	$8,056,728	$8,938,049	
Avg $/Mmbtu	$2.1831	$2.1831	$2.1831	$2.1831	$2.1831	$2.1954	$2.1127	$2.0631	$2.0414	$2.0116	$1.9572	$1.9325	
Withdrawal cost	**$3,774**	**$32,264**	**$33,613**	**$32,714**	**$28,207**	**$102**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$130,674**
Transportation cost	**$15,872**	**$48,841**	**$50,611**	**$47,204**	**$46,637**	**$634**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$209,798**
Costs allocated to fuel	**$9,606**	**$49,993**	**$55,014**	**$51,739**	**$43,444**	**$439**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$210,235**
Storage value Less fuel	**$412,169**	**$2,532,406**	**$2,781,527**	**$2,621,227**	**$2,315,309**	**$17,899**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$10,680,538**
Delivered Volumes	188,800	815,400	895,600	844,000	745,800	8,200	0	0	0	0	0	0	3,497,800
Hedge Amortization	$173,381	$752,306	$826,343	$778,690	$687,153	$7,538	$0	$0	$0	$0	$0	$0	$3,225,412

- amortization of hedges on injection gas
$3,225,412
(1) Includes Hedge Amortization
3,594,100 Withdrawal

REDACTED

Storage Withdrawal variable costs
2015-2016 GCR Storage estimate

Storage Withdrawals at Facility Dth	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
TENN_501	4,200	135,300	110,700	136,200	167,000	4,000	0	0	0	0	0	0	557,400
GSS 300170	77,100	99,100	95,500	84,700	58,900	0	0	0	0	0	0	0	415,300
GSS 300168	28,000	37,000	37,000	30,700	16,800	0	0	0	0	0	0	0	149,500
GSS 300171	0	28,900	69,900	61,600	22,900	0	0	0	0	0	0	0	183,300
GSS-TE 600045	83,900	86,700	86,700	81,100	86,700	0	0	0	0	0	0	0	425,100
TETCO_400515	0	14,086	14,086	14,086	12,400	0	0	0	0	0	0	0	54,659
TETCO_400221	0	288,446	288,446	288,446	253,872	0	0	0	0	0	0	0	1,119,211
TETCO 400185	0	12,626	12,626	12,626	11,072	0	0	0	0	0	0	0	48,948
GSS 300169	0	52,500	55,600	55,600	36,100	0	0	0	0	0	0	0	199,800
COL FSS 9630	0	37,600	76,100	57,000	27,000	4,400	0	0	0	0	0	0	202,100
TENN_62918	0	37,000	65,100	36,600	65,000	0	0	0	0	0	0	0	203,700
TOTAL	193,200	829,258	911,758	858,658	757,743	8,400	0	0	0	0	0	0	3,559,019

STORAGE WITHDRAWAL PRICES												
Tennessee Withdrawal	$0.0087	$0.0087	$0.0087	$0.0087	$0.0087	$0.0087	$0.0087	$0.0087	$0.0087	$0.0087	$0.0087	$0.0087
Dominion GSS Withdrawal	$0.0180	$0.0180	$0.0180	$0.0180	$0.0180	$0.0180	$0.0180	$0.0180	$0.0180	$0.0180	$0.0180	$0.0180
Dominion GSS-TE Withdrawal	$0.0220	$0.0220	$0.0220	$0.0220	$0.0220	$0.0220	$0.0220	$0.0220	$0.0220	$0.0220	$0.0220	$0.0220
Tetco SS-1 Withdrawal	$0.0789	$0.0789	$0.0789	$0.0789	$0.0789	$0.0789	$0.0789	$0.0789	$0.0789	$0.0789	$0.0789	$0.0789
Tetco FSS-1 Withdrawal	$0.0435	$0.0435	$0.0435	$0.0435	$0.0435	$0.0435	$0.0435	$0.0435	$0.0435	$0.0435	$0.0435	$0.0435
Columbia Withdrawal	$0.0153	$0.0153	$0.0153	$0.0153	$0.0153	$0.0153	$0.0153	$0.0153	$0.0153	$0.0153	$0.0153	$0.0153

Withdrawal Costs	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
Tennessee Withdrawal	$37	$1,499	$1,529	$1,503	$2,018	$35	$0	$0	$0	$0	$0	$0	$6,622
Dominion GSS Withdrawal	$1,892	$3,915	$4,644	$4,187	$2,425	$0	$0	$0	$0	$0	$0	$0	$17,062
Dominion GSS-TE Withdrawal	$1,846	$1,907	$1,907	$1,784	$1,907	$0	$0	$0	$0	$0	$0	$0	$9,352
Tetco SS-1 Withdrawal	$0	$23,755	$23,755	$23,755	$20,904	$0	$0	$0	$0	$0	$0	$0	$92,168
Tetco FSS-1 Withdrawal	$0	$613	$613	$613	$539	$0	$0	$0	$0	$0	$0	$0	$2,378
Columbia Withdrawal	$0	$575	$1,164	$872	$413	$67	$0	$0	$0	$0	$0	$0	$3,092
Total	$3,774	$32,264	$33,613	$32,714	$28,207	$102	$0	$0	$0	$0	$0	$0	$130,674

Storage Withdrawals at Gate Dth	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
TENN_501	4,200	134,200	109,700	135,000	165,500	4,000	0	0	0	0	0	0	552,600
GSS 300170	74,900	96,300	92,800	82,400	57,200	0	0	0	0	0	0	0	403,600
GSS 300168	27,800	36,600	36,600	30,400	16,600	0	0	0	0	0	0	0	148,000
GSS 300171	0	28,200	68,300	60,200	22,400	0	0	0	0	0	0	0	179,100
GSS-TE 600045	81,900	84,500	84,500	79,100	84,500	0	0	0	0	0	0	0	414,500
TETCO_400515	0	13,400	13,400	13,400	11,800	0	0	0	0	0	0	0	52,000
TETCO_400221	0	285,500	285,200	285,200	251,000	0	0	0	0	0	0	0	1,106,900
TETCO 400185	0	12,500	12,500	12,500	11,000	0	0	0	0	0	0	0	48,500
GSS 300169	0	51,000	54,100	54,100	35,100	0	0	0	0	0	0	0	194,300
COL FSS 9630	0	36,600	74,000	55,400	26,300	4,200	0	0	0	0	0	0	196,500
TENN_62918	0	36,600	64,500	36,300	64,400	0	0	0	0	0	0	0	201,800
TOTAL	188,800	815,400	895,600	844,000	745,800	8,200	0	0	0	0	0	0	3,497,800

Storage Transportation Prices												
Tennessee Transportation	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250
Dominion Trans on Tetco/AGT	$0.0140	$0.0140	$0.0140	$0.0140	$0.0140	$0.0140	$0.0140	$0.0140	$0.0140	$0.0140	$0.0140	$0.0140
Dominion Trans on DTI/Tetco/AGT	$0.0322	$0.0322	$0.0322	$0.0322	$0.0322	$0.0322	$0.0322	$0.0322	$0.0322	$0.0322	$0.0322	$0.0322
Dominion Trans on Tennessee	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250
Dominion Trans on DTI/Tennessee	$0.1432	$0.1432	$0.1432	$0.1432	$0.1432	$0.1432	$0.1432	$0.1432	$0.1432	$0.1432	$0.1432	$0.1432
Tetco SS-1 Trans	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126
Tetco FSS-1 Trans	$0.0736	$0.0736	$0.0736	$0.0736	$0.0736	$0.0736	$0.0736	$0.0736	$0.0736	$0.0736	$0.0736	$0.0736
Columbia Trans	$0.0318	$0.0318	$0.0318	$0.0318	$0.0318	$0.0318	$0.0318	$0.0318	$0.0318	$0.0318	$0.0318	$0.0318

Storage Transportation Costs	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
Tennessee Transportation	$525	$21,350	$21,775	$21,413	$28,738	$500	$0	$0	$0	$0	$0	$0	$94,300
Dominion Trans on Tetco/AGT	$1,147	$1,578	$2,139	$1,950	$1,497	$0	$0	$0	$0	$0	$0	$0	$8,310
Dominion Trans on DTI/Tetco/AGT	$0	$1,642	$1,742	$1,742	$1,130	$0	$0	$0	$0	$0	$0	$0	$6,256
Dominion Trans on Tennseess	$3,475	$4,575	$4,575	$3,800	$2,075	$0	$0	$0	$0	$0	$0	$0	$18,500
Dominion Trans on DTI/Tennessee	$10,726	$13,790	$13,289	$11,800	$8,191	$0	$0	$0	$0	$0	$0	$0	$57,796
Tetco SS-1 Trans	$0	$3,755	$3,751	$3,751	$3,301	$0	$0	$0	$0	$0	$0	$0	$14,558
Tetco FSS-1 Trans	$0	$987	$987	$987	$869	$0	$0	$0	$0	$0	$0	$0	$3,829
Columbia Trans	$0	$1,164	$2,353	$1,762	$836	$134	$0	$0	$0	$0	$0	$0	$6,249
Total	$15,872	$48,841	$50,611	$47,204	$46,637	$634	$0	$0	$0	$0	$0	$0	$209,798
Total Variable	$19,646	$81,105	$84,224	$79,918	$74,844	$736	$0	$0	$0	$0	$0	$0	$340,472

REDACTED

LNG Estimate for 2015 - 2016

NATIONAL GRID - RI SERVICE AREA
NOVEMBER 2015 - OCTOBER 2016

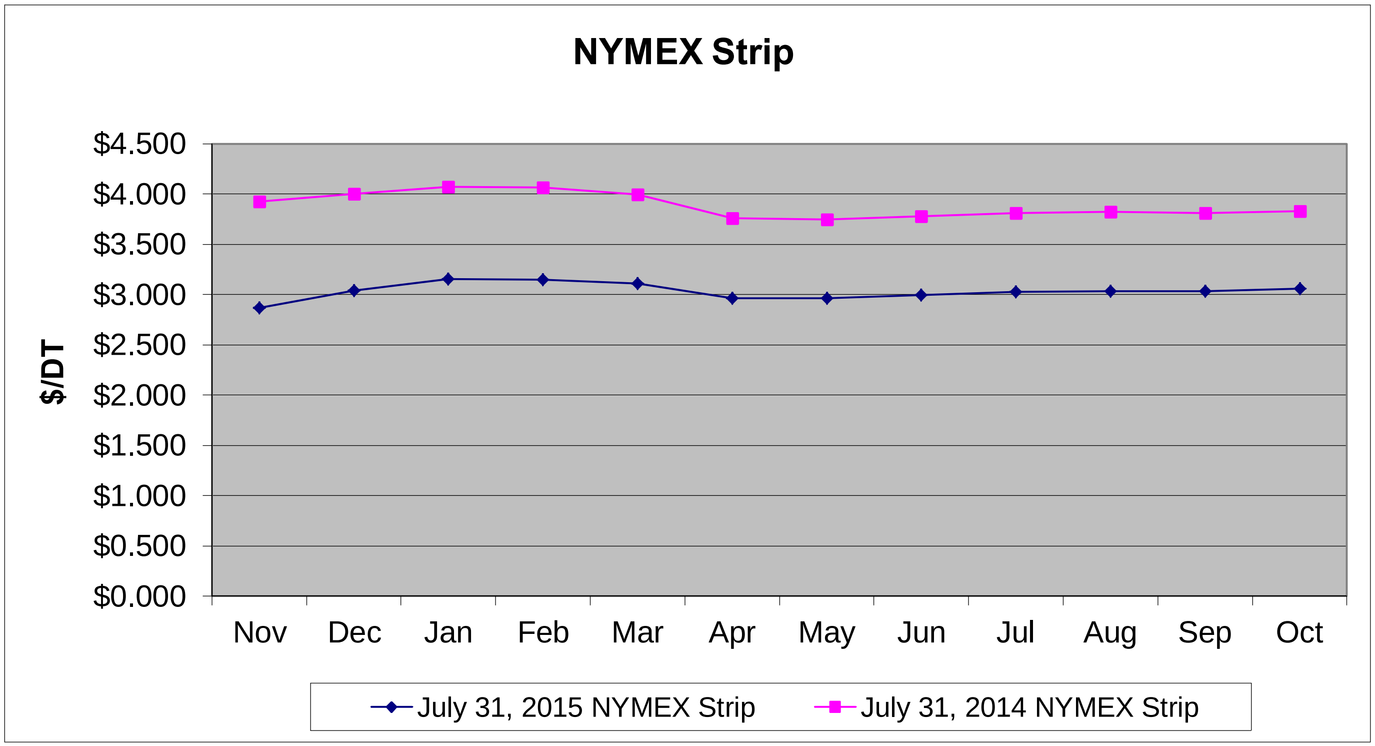
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
07/31/2015 NYMEX	$2.868	$3.042	$3.152	$3.146	$3.108	$2.966	$2.965	$2.995	$3.026	$3.037	$3.031	$3.062	
Trucking GDF Suez	[redacted]												
Basis GDF Suez Contract													
Delivered Cost GDF Suez													
Trucking Gaz Metro	[redacted]												
Gaz Metro Contract Commodity													
Delivered Cost Gaz Metro													
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
Combined LNG Inv													
Beginning Inv Vol	868,000	868,000	867,900	428,500	325,600	290,100	401,900	517,300	629,100	744,500	755,900	867,700	
Vol Injected - GDF Suez	[redacted]												
Vol Injected - Gaz Metro													
Vol Withdrawn	17,100	23,700	439,400	187,100	35,500	17,100	17,800	17,100	17,800	17,800	17,100	17,800	825,300
$ Begining Inventory	[redacted]												
$ Injected													
$ Withdrawn													
Ending Vol	868,000	867,900	428,500	325,600	290,100	401,900	517,300	629,100	744,500	755,900	867,700	867,600	
Ending $	[redacted]												
Avg $/Dth	[redacted]												
Newport													
Newport LNG Vol Vapor	0	0	0	0	0	0	0	0	0	0	0	0	
Avg $/Dth	[redacted]												
Total cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total All LNG Costs	[redacted]												

Attachment EDA-3

Attachment EDA-3

NYMEX Strip Comparison

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
July 31, 2014 NYMEX Strip	$3.925	$4.005	$4.075	$4.064	$3.995	$3.758	$3.747	$3.780	$3.814	$3.824	$3.811	$3.832
July 31, 2015 NYMEX Strip	$2.868	$3.042	$3.152	$3.146	$3.108	$2.966	$2.965	$2.995	$3.026	$3.037	$3.031	$3.062



Attachment EDA-4
REDACTED

Attachment EDA-4

Assignment of Pipeline Capacity – **REDACTED Information**

REDACTED

PRELIMINARY **PRELIMINARY**

National Grid
Summary of Transportation Capacity Release
Pipeline Path Availability and Pricing
November 2015 - October 2016

12 Month Forward Pricing

Path to City Gate	As of 8/1/15 Existing Releases	Total Available	Remaining Available	Cost per Dth	New Credit or Surcharge	Old Credit or Surcharge
Company Weighted Average				**$0.4219**		
Tennessee Zone 1	9,500	9,500	0	$1.0482	($0.6263)	($0.6040)
Algonquin @ Lambertville, NJ	2,025	2,714	689	$0.0500	$0.3719	$0.4515
Texas Eastern - South Texas Algonquin @ Lambertville, NJ	3,828	4,044	216	$1.2561	($0.8342)	($0.8010)
Texas Eastern - West La Algonquin @ Lambertville, NJ	8,500	8,500	0	$1.0025	($0.5806)	($0.5138)
Texas Eastern - East La Algonquin @ Lambertville, NJ	4,377	6,500	2,123	$0.8797	($0.4578)	($0.4178)
Columbia (Maumee/Downington) at 5:1 ratio*	0	1,500	1,500	$0.3634	$0.0585	$0.2353
Totals:	28,230	32,758	4,528			

* Note: Marketers selecting this path are assigned 5/6 of the amount selected at the Maumee, Ohio receipt point into Columbia and 1/6 at the Downington, Pa. Receipt into Columbia.

REDACTED

Gas Year 2015 - 2016
TEXAS EASTERN SOUTH TEXAS SUPPLY PATH COST MATRIX
CITY GATE DELIVERED MDQ = 4,044

		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTAL
					UNIT PRICING									
FIXED														
TETCO STX SUPPLY ZONE DEMAND	$/Dth	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	
TECCO WLA SUPPLY ZONE DEMAND	$/Dth	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	
TETCO ELA SUPPLY ZONE DEMAND	$/Dth	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	
TETCO M1 TO M3 DEMAND	$/Dth	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	
ALGONQUIN AFT-E DEMAND	$/Dth	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	
VARIABLE														
TETCO USAGE STX TO M3	$/Dth	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	
ALGONQUIN USAGE	$/Dth	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
07/31/2015 NYMEX	$/Dth	$2.8680	$3.0420	$3.1520	$3.1460	$3.1080	$2.9660	$2.9650	$2.9950	$3.0260	$3.0370	$3.0310	$3.0620	
SUPPLY AREA BASIS	$/Dth	($0.0850)	($0.0950)	($0.1150)	($0.1080)	($0.0980)	($0.0100)	($0.0200)	($0.0100)	$0.0120	$0.0130	$0.0070	($0.0020)	
NET COST AFTER BASIS	$/Dth	$2.7830	$2.9470	$3.0370	$3.0380	$3.0100	$2.9560	$2.9450	$2.9850	$3.0380	$3.0500	$3.0380	$3.0600	
					BILLING UNITS									
FIXED														
TETCO STX SUPPLY ZONE DEMAND	$/Dth	4,088	4,084	4,084	4,084	4,084	4,088	4,088	4,088	4,088	4,088	4,088	4,088	
TECCO WLA SUPPLY ZONE DEMAND	$/Dth	4,088	4,084	4,084	4,084	4,084	4,088	4,088	4,088	4,088	4,088	4,088	4,088	
TETCO ELA SUPPLY ZONE DEMAND	$/Dth	4,088	4,084	4,084	4,084	4,084	4,088	4,088	4,088	4,088	4,088	4,088	4,088	
TETCO M1 TO M3 DEMAND	$/Dth	4,088	4,084	4,084	4,084	4,084	4,088	4,088	4,088	4,088	4,088	4,088	4,088	
ALGONQUIN AFT-E DEMAND	$/Dth	4,044	4,044	4,044	4,044	4,044	4,044	4,044	4,044	4,044	4,044	4,044	4,044	48,528
VARIABLE														
PURCHASE VOLUMES	Dth	128,842	134,801	134,801	121,756	134,801	128,842	133,137	128,842	133,137	133,137	128,842	133,137	1,574,078
TETCO USAGE STX TO M3	Dth	122,632	126,592	126,592	114,341	126,592	122,632	126,720	122,632	126,720	126,720	122,632	126,720	1,491,525
ALGONQUIN USAGE	Dth	121,320	125,364	125,364	113,232	125,364	121,320	125,364	121,320	125,364	125,364	121,320	125,364	1,476,060
DELIVERED VOLUMES	Dth	121,320	125,364	125,364	113,232	125,364	121,320	125,364	121,320	125,364	125,364	121,320	125,364	1,476,060
					FUEL USE %									
TETCO STX TO M3 FUEL	%	4.82%	6.09%	6.09%	6.09%	6.09%	4.82%	4.82%	4.82%	4.82%	4.82%	4.82%	4.82%	
ALGONQUIN AFT-E FUEL	%	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
					TRANSPORTATION COST									
FIXED														
TETCO STX SUPPLY ZONE DEMAND	$	$27,813	$27,785	$27,785	$27,785	$27,785	$27,813	$27,813	$27,813	$27,813	$27,813	$27,813	$27,813	$333,643
TECCO WLA SUPPLY ZONE DEMAND	$	$11,548	$11,536	$11,536	$11,536	$11,536	$11,548	$11,548	$11,548	$11,548	$11,548	$11,548	$11,548	$138,528
TETCO ELA SUPPLY ZONE DEMAND	$	$9,708	$9,699	$9,699	$9,699	$9,699	$9,708	$9,708	$9,708	$9,708	$9,708	$9,708	$9,708	$116,461
TETCO M1 TO M3 DEMAND	$	$43,314	$43,270	$43,270	$43,270	$43,270	$43,314	$43,314	$43,314	$43,314	$43,314	$43,314	$43,314	$519,589
ALGONQUIN AFT-E DEMAND	$	$26,583	$26,583	$26,583	$26,583	$26,583	$26,583	$26,583	$26,583	$26,583	$26,583	$26,583	$26,583	$318,994
VARIABLE														
TETCO USAGE STX TO M3	$	$14,581	$15,052	$15,052	$13,595	$15,052	$14,581	$15,067	$14,581	$15,067	$15,067	$14,581	$15,067	$177,342
ALGONQUIN USAGE	$	$1,529	$1,580	$1,580	$1,427	$1,580	$1,529	$1,580	$1,529	$1,580	$1,580	$1,529	$1,580	$18,598
PURCHASE COST	$	$358,568	$397,260	$409,392	$369,895	$405,752	$380,858	$392,089	$384,594	$404,471	$406,068	$391,423	$407,400	$4,707,769
TOTAL FIXED	$	$118,966	$118,872	$118,872	$118,872	$118,872	$118,966	$118,966	$118,966	$118,966	$118,966	$118,966	$118,966	$1,427,216
TOTAL VARIABLE	$	$374,678	$413,891	$426,023	$384,917	$422,383	$396,968	$408,735	$400,704	$421,117	$422,715	$407,533	$424,046	$4,903,710
DELIVERED COST AT NYMEX	$	$347,946	$381,357	$395,147	$356,228	$389,631	$359,835	$371,704	$363,353	$379,351	$380,730	$367,721	$383,865	$4,476,870
NET NON-GAS VARIABLE COST	$	$26,732	$32,534	$30,876	$28,689	$32,752	$37,133	$37,031	$37,351	$41,766	$41,984	$39,812	$40,182	$426,840
AVERAGE NON-GAS VARIABLE COST	$/Dth	**$0.2203**	**$0.2595**	**$0.2463**	**$0.2534**	**$0.2613**	**$0.3061**	**$0.2954**	**$0.3079**	**$0.3332**	**$0.3349**	**$0.3282**	**$0.3205**	**$0.2892**
AVERAGE FIXED COST	$/Dth													$29.4101
AVERAGE COST AT 100% LOAD FACTOR	$/Dth													**$0.9669**
TOTAL PATH COST	$/Dth													**$1.2561**

REDACTED

Gas Year 2015 - 2016
TEXAS EASTERN WEST LOUISIANA SUPPLY PATH TO ALGONQUIN CITY GATE
CITY GATE DELIVERED MDQ = 8,500

		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTAL
					UNIT PRICING									
FIXED														
TETCO WLA SUPPLY ZONE DEMAND	$/Dth	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	
TETCO ELA SUPPLY ZONE DEMAND	$/Dth	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	
TETCO M1 TO M3 DEMAND	$/Dth	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	
ALGONQUIN AFT-E DEMAND	$/Dth	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	
VARIABLE														
TETCO USAGE WLA TO M3	$/Dth	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	
ALGONQUIN USAGE	$/Dth	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
07/31/2015 NYMEX	$/Dth	$2.8680	$3.0420	$3.1520	$3.1460	$3.1080	$2.9660	$2.9650	$2.9950	$3.0260	$3.0370	$3.0310	$3.0620	
SUPPLY AREA BASIS	$/Dth	($0.0800)	($0.0850)	($0.0820)	($0.0850)	($0.0920)	($0.0380)	($0.0430)	($0.0340)	($0.0400)	($0.0370)	($0.0450)	($0.0450)	
NET COST AFTER BASIS	$/Dth	$2.7880	$2.9570	$3.0700	$3.0610	$3.0160	$2.9280	$2.9220	$2.9610	$2.9860	$3.0000	$2.9860	$3.0170	
					BILLING UNITS									
FIXED														
TETCO WLA SUPPLY ZONE DEMAND	Dth	8,592	8,583	8,583	8,583	8,583	8,592	8,592	8,592	8,592	8,592	8,592	8,592	
TETCO ELA SUPPLY ZONE DEMAND	Dth	8,592	8,583	8,583	8,583	8,583	8,592	8,592	8,592	8,592	8,592	8,592	8,592	
TETCO M1 TO M3 DEMAND	Dth	8,592	8,583	8,583	8,583	8,583	8,592	8,592	8,592	8,592	8,592	8,592	8,592	
ALGONQUIN AFT-E DEMAND	Dth	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	102,000
VARIABLE														
PURCHASE VOLUMES	Dth	270,272	283,155	283,155	255,753	283,155	270,272	279,281	270,272	279,281	279,281	270,272	279,281	3,303,428
TETCO USAGE WLA TO M3	Dth	257,758	266,081	266,081	240,331	266,081	257,758	266,350	257,758	266,350	266,350	257,758	266,350	3,135,006
ALGONQUIN USAGE	Dth	255,000	263,500	263,500	238,000	263,500	255,000	263,500	255,000	263,500	263,500	255,000	263,500	3,102,500
DELIVERED VOLUMES	Dth	255,000	263,500	263,500	238,000	263,500	255,000	263,500	255,000	263,500	263,500	255,000	263,500	3,102,500
					FUEL USE %									
TETCO WLA TO M3 FUEL	%	4.63%	6.03%	6.03%	6.03%	6.03%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	
ALGONQUIN AFT-E FUEL	%	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
					TRANSPORTATION COST									
FIXED														
TETCO WLA SUPPLY ZONE DEMAND	$	$24,272	$24,248	$24,248	$24,248	$24,248	$24,272	$24,272	$24,272	$24,272	$24,272	$24,272	$24,272	$291,169
TETCO ELA SUPPLY ZONE DEMAND	$	$20,406	$20,385	$20,385	$20,385	$20,385	$20,406	$20,406	$20,406	$20,406	$20,406	$20,406	$20,406	$244,788
TETCO M1 TO M3 DEMAND	$	$91,040	$90,948	$90,948	$90,948	$90,948	$91,040	$91,040	$91,040	$91,040	$91,040	$91,040	$91,040	$1,092,114
ALGONQUIN AFT-E DEMAND	$	$55,874	$55,874	$55,874	$55,874	$55,874	$55,874	$55,874	$55,874	$55,874	$55,874	$55,874	$55,874	$670,487
VARIABLE														
TETCO USAGE WLA TO M3	$	$29,307	$30,253	$30,253	$27,326	$30,253	$29,307	$30,284	$29,307	$30,284	$30,284	$29,307	$30,284	$356,450
ALGONQUIN USAGE	$	$3,213	$3,320	$3,320	$2,999	$3,320	$3,213	$3,320	$3,213	$3,320	$3,320	$3,213	$3,320	$39,092
PURCHASE COST	$	$753,517	$837,290	$869,287	$782,860	$853,996	$791,355	$816,058	$800,274	$833,932	$837,842	$807,031	$842,590	$9,826,032
TOTAL FIXED	$	$191,592	$191,455	$191,455	$191,455	$191,455	$191,592	$191,592	$191,592	$191,592	$191,592	$191,592	$191,592	$2,298,557
TOTAL VARIABLE	$	$786,037	$870,864	$902,860	$813,185	$887,570	$823,875	$849,662	$832,794	$867,536	$871,446	$839,551	$876,194	$10,221,574
DELIVERED VOLUMES AT NYMEX	$	$731,340	$801,567	$830,552	$748,748	$818,958	$756,330	$781,278	$763,725	$797,351	$800,250	$772,905	$806,837	$9,409,840
NET NON-GAS VARIABLE COST	$	$54,697	$69,297	$72,308	$64,437	$68,612	$67,545	$68,385	$69,069	$70,185	$71,197	$66,646	$69,357	$811,734
AVERAGE NON-GAS VARIABLE COST	$/Dth	**$0.2145**	**$0.2630**	**$0.2744**	**$0.2707**	**$0.2604**	**$0.2649**	**$0.2595**	**$0.2709**	**$0.2664**	**$0.2702**	**$0.2614**	**$0.2632**	**$0.2616**
AVERAGE FIXED COST	$/Dth													$22.5349
AVERAGE COST AT 100% LOAD FACTOR	$/Dth													**$0.7409**
TOTAL PATH COST	$/Dth													**$1.0025**

REDACTED

Gas Year 2015 - 2016
TEXAS EASTERN EAST LOUISIANA SUPPLY PATH TO ALGONQUIN CITY GATE
CITY GATE DELIVERED MDQ = 6,500

		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTAL
					UNIT PRICING									
FIXED														
TETCO ELA SUPPLY ZONE DEMAND	$/Dth	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	
TETCO M1 TO M3 DEMAND	$/Dth	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	
ALGONQUIN AFT-E DEMAND	$/Dth	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	
VARIABLE														
TETCO USAGE ELA TO M3	$/Dth	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	
ALGONQUIN USAGE	$/Dth	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
07/31/2015 NYMEX	$/Dth	$2.8680	$3.0420	$3.1520	$3.1460	$3.1080	$2.9660	$2.9650	$2.9950	$3.0260	$3.0370	$3.0310	$3.0620	
SUPPLY AREA BASIS	$/Dth	($0.0800)	($0.0850)	($0.0820)	($0.0850)	($0.0920)	($0.0700)	($0.0750)	($0.0770)	($0.0740)	($0.0640)	($0.0840)	($0.0780)	
NET COST AFTER BASIS	$/Dth	$2.7880	$2.9570	$3.0700	$3.0610	$3.0160	$2.8960	$2.8900	$2.9180	$2.9520	$2.9730	$2.9470	$2.9840	
					BILLING UNITS									
FIXED														
TETCO ELA SUPPLY ZONE DEMAND	Dth	6,570	6,564	6,564	6,564	6,564	6,570	6,570	6,570	6,570	6,570	6,570	6,570	
TETCO M1 TO M3 DEMAND	Dth	6,570	6,564	6,564	6,564	6,564	6,570	6,570	6,570	6,570	6,570	6,570	6,570	
ALGONQUIN AFT-E DEMAND	Dth	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	78,000
VARIABLE														
PURCHASE VOLUMES	Dth	206,700	215,407	215,407	194,561	215,407	206,700	213,590	206,700	213,590	213,590	206,700	213,590	2,521,943
TETCO USAGE ELA TO M3	Dth	197,109	203,474	203,474	183,783	203,474	197,109	203,679	197,109	203,679	203,679	197,109	203,679	2,397,358
ALGONQUIN USAGE	Dth	195,000	201,500	201,500	182,000	201,500	195,000	201,500	195,000	201,500	201,500	195,000	201,500	2,372,500
DELIVERED VOLUMES	Dth	195,000	201,500	201,500	182,000	201,500	195,000	201,500	195,000	201,500	201,500	195,000	201,500	2,372,500
					FUEL USE %									
TETCO ELA TO M3 FUEL	%	4.64%	5.54%	5.54%	5.54%	5.54%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	
ALGONQUIN AFT-E FUEL	%	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
					TRANSPORTATION COST									
FIXED														
TETCO ELA SUPPLY ZONE DEMAND	$	$15,604	$15,589	$15,589	$15,589	$15,589	$15,604	$15,604	$15,604	$15,604	$15,604	$15,604	$15,604	$187,191
TETCO M1 TO M3 DEMAND	$	$69,619	$69,549	$69,549	$69,549	$69,549	$69,619	$69,619	$69,619	$69,619	$69,619	$69,619	$69,619	$835,146
ALGONQUIN AFT-E DEMAND	$	$42,727	$42,727	$42,727	$42,727	$42,727	$42,727	$42,727	$42,727	$42,727	$42,727	$42,727	$42,727	$512,725
VARIABLE														
TETCO USAGE ELA TO M3	$	$21,958	$22,667	$22,667	$20,473	$22,667	$21,958	$22,690	$21,958	$22,690	$22,690	$21,958	$22,690	$267,066
ALGONQUIN USAGE	$	$2,457	$2,539	$2,539	$2,293	$2,539	$2,457	$2,539	$2,457	$2,539	$2,539	$2,457	$2,539	$29,894
PURCHASE COST	$	$576,279	$636,959	$661,300	$595,552	$649,668	$598,603	$617,275	$603,150	$630,518	$635,003	$609,145	$637,352	$7,450,806
TOTAL FIXED	$	$127,950	$127,864	$127,864	$127,864	$127,864	$127,950	$127,950	$127,950	$127,950	$127,950	$127,950	$127,950	$1,535,062
TOTAL VARIABLE	$	$600,694	$662,165	$686,506	$618,319	$674,874	$623,018	$642,504	$627,565	$655,746	$660,232	$633,560	$662,581	$7,747,765
DELIVERED VOLUMES AT NYMEX	$	$559,260	$612,963	$635,128	$572,572	$626,262	$578,370	$597,448	$584,025	$609,739	$611,956	$591,045	$616,993	$7,195,760
NET NON-GAS VARIABLE COST	$	$41,434	$49,202	$51,378	$45,747	$48,612	$44,648	$45,056	$43,540	$46,007	$48,276	$42,515	$45,588	$552,005
AVERAGE NON-GAS VARIABLE COST	$/Dth	**$0.2125**	**$0.2442**	**$0.2550**	**$0.2514**	**$0.2413**	**$0.2290**	**$0.2236**	**$0.2233**	**$0.2283**	**$0.2396**	**$0.2180**	**$0.2262**	**$0.2327**
AVERAGE FIXED COST	$/Dth													$19.6803
AVERAGE COST AT 100% LOAD FACTOR	$/Dth													**$0.6470**
TOTAL PATH COST	$/Dth													**$0.8797**

REDACTED

Gas Year 2015 - 2016
MAUMEE/DOWNINGTON COLUMBIA PATH TO CITY GATE
CITY GATE DELIVERED MDQ = 1,500

		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTAL
					UNIT PRICING									
FIXED														
COLUMBIA FTS DEMAND	$/Dth	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	
ALGONQUIN DEMAND	$/Dth	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	
VARIABLE														
COLUMBIA USAGE	$/Dth	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	
ALGONQUIN USAGE	$/Dth	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
07/31/2015 NYMEX	$/Dth	$2.8680	$3.0420	$3.1520	$3.1460	$3.1080	$2.9660	$2.9650	$2.9950	$3.0260	$3.0370	$3.0310	$3.0620	
SUPPLY BASIS MAUMEE	$/Dth	($0.1350)	($0.1500)	($0.1900)	($0.1700)	($0.2000)	($0.1220)	($0.1750)	($0.1750)	($0.2050)	($0.2050)	($0.3750)	($0.3580)	
SUPPLY BASIS DOWNINGTON	$/Dth	($0.1420)	$0.9020	$4.9820	$3.9650	$0.0580	($0.5680)	($0.8770)	($0.9600)	($0.7320)	($0.8250)	($1.2170)	($1.0420)	
NET COST AFTER BASIS MAUMEE	$/Dth	$2.7330	$2.8920	$2.9620	$2.9760	$2.9080	$2.8440	$2.7900	$2.8200	$2.8210	$2.8320	$2.6560	$2.7040	
NET COST AFTER BASIS DOWNINGTON	$/Dth	$2.7260	$3.9440	$8.1340	$7.1110	$3.1660	$2.3980	$2.0880	$2.0350	$2.2940	$2.2120	$1.8140	$2.0200	
					BILLING UNITS									
FIXED														
COLUMBIA FTS DEMAND	Dth	1,529	1,529	1,529	1,529	1,529	1,529	1,529	1,529	1,529	1,529	1,529	1,529	
ALGONQUIN DEMAND	Dth	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	18,000
VARIABLE														
PURCHASE VOLUMES MAUMEE	Dth	38,634	39,130	39,130	35,343	39,130	37,906	39,169	37,906	39,169	39,169	37,906	39,169	
PURCHASE VOLUMES DOWNINGTON	Dth	7,727	7,826	7,826	7,069	7,826	7,581	7,834	7,581	7,834	7,834	7,581	7,834	
COLUMBIA USAGE	Dth	45,487	46,955	46,955	42,411	46,955	45,487	47,003	45,487	47,003	47,003	45,487	47,003	
ALGONQUIN USAGE	Dth	45,000	46,500	46,500	42,000	46,500	45,000	46,500	45,000	46,500	46,500	45,000	46,500	
DELIVERED VOLUMES MAUMEE	Dth	37,500	38,750	38,750	35,000	38,750	37,500	38,750	37,500	38,750	38,750	37,500	38,750	456,250
DELIVERED VOLUMES DOWNINGTON	Dth	7,500	7,750	7,750	7,000	7,750	7,500	7,750	7,500	7,750	7,750	7,500	7,750	91,250
					FUEL USE %									
COLUMBIA FUEL	%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	
ALGONQUIN AFT-E FUEL	%	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
					TRANSPORTATION COST									
FIXED														
COLUMBIA FTS DEMAND	$	$9,373	$9,373	$9,373	$9,373	$9,373	$9,373	$9,373	$9,373	$9,373	$9,373	$9,373	$9,373	$112,478
ALGONQUIN DEMAND	$	$9,860	$9,860	$9,860	$9,860	$9,860	$9,860	$9,860	$9,860	$9,860	$9,860	$9,860	$9,860	$118,321
VARIABLE														
COLUMBIA USAGE	$	$882	$911	$911	$823	$911	$882	$912	$882	$912	$912	$882	$912	$10,733
ALGONQUIN USAGE	$	$567	$586	$586	$529	$586	$567	$586	$567	$586	$586	$567	$586	$6,899
PURCHASE COST MAUMEE	$	$105,586	$113,163	$115,902	$105,180	$113,789	$107,803	$109,282	$106,894	$110,496	$110,927	$100,677	$105,913	$1,305,612
PURCHASE COST DOWNINGTON	$	$21,063	$30,865	$63,656	$50,265	$24,777	$18,180	$16,357	$15,428	$17,971	$17,328	$13,752	$15,824	$305,466
TOTAL FIXED	$	$19,233	$19,233	$19,233	$19,233	$19,233	$19,233	$19,233	$19,233	$19,233	$19,233	$19,233	$19,233	$230,799
TOTAL VARIABLE	$	$128,099	$145,525	$181,055	$156,797	$140,062	$127,432	$127,137	$123,771	$129,965	$129,753	$115,879	$123,235	$1,628,709
DELIVERED VOLUMES AT NYMEX	$	$129,060	$141,453	$146,568	$132,132	$144,522	$133,470	$137,873	$134,775	$140,709	$141,221	$136,395	$142,383	$1,660,560
NET NON-GAS VARIABLE COST	$	-$961	$4,072	$34,487	$24,665	-$4,460	-$6,038	-$10,736	-$11,004	-$10,744	-$11,467	-$20,516	-$19,148	-$31,851
AVERAGE NON-GAS VARIABLE COST	$/Dth	**-$0.0214**	**$0.0876**	**$0.7416**	**$0.5873**	**-$0.0959**	**-$0.1342**	**-$0.2309**	**-$0.2445**	**-$0.2311**	**-$0.2466**	**-$0.4559**	**-$0.4118**	**-$0.0582**
AVERAGE FIXED COST	$/Dth													$12.8222
AVERAGE COST AT 100% LOAD FACTOR	$/Dth													**$0.4216**
TOTAL PATH COST	$/Dth													**$0.3634**

REDACTED

Gas Year 2015 - 2016
TENNESSEE ZONE 1 TO CITY GATE
CITY GATE DELIVERED MDQ = 9,500

		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTAL
UNIT PRICING														
FIXED														
TENNESSEE ZONE 1 TO 6 DEMAND	$/Dth	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	
VARIABLE														
TENNESSE ZONE 1 TO 6 USAGE	$/Dth	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	
07/31/2015 NYMEX	$/Dth	$2.8680	$3.0420	$3.1520	$3.1460	$3.1080	$2.9660	$2.9650	$2.9950	$3.0260	$3.0370	$3.0310	$3.0620	
SUPPLY AREA BASIS	$/Dth	($0.0720)	($0.0800)	($0.0770)	($0.0460)	($0.0770)	($0.0800)	($0.1040)	($0.0830)	($0.0610)	($0.0670)	($0.0960)	($0.0780)	
NET COST AFTER BASIS	$/Dth	$2.7960	$2.9620	$3.0750	$3.1000	$3.0310	$2.8860	$2.8610	$2.9120	$2.9650	$2.9700	$2.9350	$2.9840	
BILLING UNITS														
FIXED														
TENNESSEE ZONE 1 TO 6 DEMAND	Dth	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	114,000
VARIABLE														
PURCHASE VOLUMES	Dth	291,889	301,618	301,618	272,429	301,618	291,889	301,618	291,889	301,618	301,618	291,889	301,618	3,551,311
TENNESSE ZONE 1 TO 6 USAGE	Dth	285,000	294,500	294,500	266,000	294,500	285,000	294,500	285,000	294,500	294,500	285,000	294,500	3,467,500
DELIVERED VOLUMES	Dth	285,000	294,500	294,500	266,000	294,500	285,000	294,500	285,000	294,500	294,500	285,000	294,500	3,467,500
FUEL USE %														
TENNESSEE ZONE 1 TO 6 FUEL	%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	
TRANSPORTATION COST														
FIXED														
TENNESSEE ZONE 1 TO 6 DEMAND	$	$209,971	$209,971	$209,971	$209,971	$209,971	$209,971	$209,971	$209,971	$209,971	$209,971	$209,971	$209,971	$2,519,651
VARIABLE														
TENNESSE ZONE 1 TO 6 USAGE	$	$93,195	$96,302	$96,302	$86,982	$96,302	$93,195	$96,302	$93,195	$96,302	$96,302	$93,195	$96,302	$1,133,873
PURCHASE COST	$	$816,120	$893,393	$927,476	$844,531	$914,205	$842,390	$862,930	$849,980	$894,298	$895,806	$856,693	$900,029	$10,497,850
TOTAL FIXED	$	$209,971	$209,971	$209,971	$209,971	$209,971	$209,971	$209,971	$209,971	$209,971	$209,971	$209,971	$209,971	$2,519,651
TOTAL VARIABLE	$	$909,315	$989,695	$1,023,777	$931,513	$1,010,506	$935,585	$959,231	$943,175	$990,599	$992,108	$949,888	$996,330	$11,631,723
DELIVERED VOLUMES AT NYMEX	$	$817,380	$895,869	$928,264	$836,836	$915,306	$845,310	$873,193	$853,575	$891,157	$894,397	$863,835	$901,759	$10,516,880
NET NON-GAS VARIABLE COST	$	$91,935	$93,826	$95,513	$94,677	$95,200	$90,275	$86,039	$89,600	$99,442	$97,711	$86,053	$94,571	$1,114,843
AVERAGE NON-GAS VARIABLE COST	$/Dth	**$0.3226**	**$0.3186**	**$0.3243**	**$0.3559**	**$0.3233**	**$0.3168**	**$0.2922**	**$0.3144**	**$0.3377**	**$0.3318**	**$0.3019**	**$0.3211**	**$0.3215**
AVERAGE FIXED COST	$/Dth													$22.1022
AVERAGE COST AT 100% LOAD FACTOR	$/Dth													**$0.7266**
TOTAL PATH COST	$/Dth													**$1.0482**

REDACTED

Gas Year 2015 - 2016
ALGONQUIN LAMBERTVILLE TO CITY GATE
CITY GATE DELIVERED MDQ = 2,714

		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTAL
					UNIT PRICING									
FIXED														
ALGONQUIN AFT-E DEMAND	$/Dth	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	
VARIABLE														
ALGONQUIN AFT-E USAGE	$/Dth	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
07/31/2015 NYMEX	$/Dth	$2.8680	$3.0420	$3.1520	$3.1460	$3.1080	$2.9660	$2.9650	$2.9950	$3.0260	$3.0370	$3.0310	$3.0620	
SUPPLY AREA BASIS	$/Dth	($0.7120)	$0.3180	$3.6180	$2.6900	($0.2220)	($0.8580)	($1.1230)	($1.2070)	($0.9800)	($1.0830)	($1.4730)	($1.2900)	
NET COST AFTER BASIS	$/Dth	$2.1560	$3.3600	$6.7700	$5.8360	$2.8860	$2.1080	$1.8420	$1.7880	$2.0460	$1.9540	$1.5580	$1.7720	
					BILLING UNITS									
FIXED														
ALGONQUIN AFT-E DEMAND	Dth	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	32,568
VARIABLE														
PURCHASE VOLUMES	Dth	82,301	84,958	84,958	76,736	84,958	82,301	85,044	82,301	85,044	85,044	82,301	85,044	1,000,989
ALGONQUIN AFT-E USAGE	Dth	81,420	84,134	84,134	75,992	84,134	81,420	84,134	81,420	84,134	84,134	81,420	84,134	990,610
DELIVERED VOLUMES	Dth	81,420	84,134	84,134	75,992	84,134	81,420	84,134	81,420	84,134	84,134	81,420	84,134	990,610
					FUEL USE %									
ALGONQUIN AFT-E FUEL	%	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
					TRANSPORTATION COST									
FIXED														
ALGONQUIN AFT-E DEMAND	$	$17,840	$17,840	$17,840	$17,840	$17,840	$17,840	$17,840	$17,840	$17,840	$17,840	$17,840	$17,840	$214,082
VARIABLE														
ALGONQUIN AFT-E USAGE	$	$1,026	$1,060	$1,060	$957	$1,060	$1,026	$1,060	$1,026	$1,060	$1,060	$1,026	$1,060	$12,482
PURCHASE COST	$	$177,440	$285,459	$575,166	$447,833	$245,189	$173,490	$156,651	$147,154	$174,000	$166,176	$128,224	$150,698	$2,827,480
TOTAL FIXED	$	$17,840	$17,840	$17,840	$17,840	$17,840	$17,840	$17,840	$17,840	$17,840	$17,840	$17,840	$17,840	$214,082
TOTAL VARIABLE	$	$178,466	$286,519	$576,226	$448,791	$246,249	$174,516	$157,711	$148,179	$175,060	$167,236	$129,250	$151,758	$2,839,962
DELIVERED VOLUMES AT NYMEX	$	$233,513	$255,936	$265,190	$239,071	$261,488	$241,492	$249,457	$243,853	$254,589	$255,515	$246,784	$257,618	$3,004,507
NET NON-GAS VARIABLE COST	$	-$55,047	$30,584	$311,036	$209,720	-$15,239	-$66,976	-$91,746	-$95,674	-$79,529	-$88,279	-$117,534	-$105,860	-$164,545
AVERAGE NON-GAS VARIABLE COST	$/Dth	**-$0.6761**	**$0.3635**	**$3.6969**	**$2.7598**	**-$0.1811**	**-$0.8226**	**-$1.0905**	**-$1.1751**	**-$0.9453**	**-$1.0493**	**-$1.4435**	**-$1.2582**	**-$0.1661**
AVERAGE FIXED COST	$/Dth													$6.5734
AVERAGE COST AT 100% LOAD FACTOR	$/Dth													**$0.2161**
TOTAL PATH COST	$/Dth													**$0.0500**

REDACTED

CALCULATION OF SYSTEM WEIGHTED AVERAGE DEMAND COSTS **2015 - 2016 GCR PROJECTED PRICES**

August 1, 2015 **UNIT PRICES**

PIPELINE FIXED COST UNIT PRICES $/Dth		NOV 2015	DEC	JAN 2016	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
ALGONQUIN AFT-E/AFT-1 DEMAND	$/Dth	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734	$6.5734
ALGONQUIN AFT-3 DEMAND	$/Dth	$10.7554	$10.7554	$10.7554	$10.7554	$10.7554	$10.7554	$10.7554	$10.7554	$10.7554	$10.7554	$10.7554	$10.7554
ALGONQUIN AFT-ES/1S DEMAND	$/Dth	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294	$2.6294
ALGONQUIN HUBLINE DEMAND	$/Dth	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341
ALGONQUIN HUBLINE DEMAND	$/Dth	$6.9958	$6.9958	$6.9958	$6.9958	$6.9958	$6.9958	$6.9958	$6.9958	$6.9958	$6.9958	$6.9958	$6.9958
ALGONQUIN HUBLINE DEMAND	$/Dth	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341
ALGONQUIN EAST TO WEST DEMAND	$/Dth	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341	$8.4341
COLUMBIA FTS DEMAND	$/Dth	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310	$6.1310
DOMINION FTNN DEMAND	$/Dth	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564	$4.1564
IROQUOIS DEMAND	$/Dth	$6.5971	$6.5971	$6.5971	$6.5971	$6.5971	$6.5971	$6.5971	$6.5971	$6.5971	$6.5971	$6.5971	$6.5971
NATIONAL FUEL DEMAND	$/Dth	$3.9653	$3.9653	$3.9653	$3.9653	$3.9653	$3.9653	$3.9653	$3.9653	$3.9653	$3.9653	$3.9653	$3.9653
TENNESSEE FT-A DEMAND ZONE 0 TO 6	$/Dth	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059
TENNESSEE FT-A DEMAND ZONE 1 TO 6	$/Dth	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059	$22.2059
TENNESSEE FT-A DEMAND ZONE 0 TO 6	$/Dth	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022
TENNESSEE FT-A DEMAND ZONE 1 TO 6	$/Dth	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022	$22.1022
TENNESSEE FT-A DEMAND ZONE 0 TO 6 CXN	$/Dth	$22.7768	$22.7768	$22.7768	$22.7768	$22.7768	$22.7768	$22.7768	$22.7768	$22.7768	$22.7768	$22.7768	$22.7768
TENNESSEE FT-A DEMAND DRACUT	$/Dth	$4.9101	$4.9101	$4.9101	$4.9101	$4.9101	$4.9101	$4.9101	$4.9101	$4.9101	$4.9101	$4.9101	$4.9101
TENNESSEE FT-A DEMAND ZONE 5 TO 6	$/Dth	$7.3963	$7.3963	$7.3963	$7.3963	$7.3963	$7.3963	$7.3963	$7.3963	$7.3963	$7.3963	$7.3963	$7.3963
TEXAS EASTERN CDS STX DEMAND M3	$/Dth	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040	$6.8040
TEXAS EASTERN CDS WLA DEMAND M3	$/Dth	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250	$2.8250
TEXAS EASTERN CDS ELA DEMAND M3	$/Dth	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750	$2.3750
TEXAS EASTERN CDS ETX DEMAND M3	$/Dth	$2.1890	$2.1890	$2.1890	$2.1890	$2.1890	$2.1890	$2.1890	$2.1890	$2.1890	$2.1890	$2.1890	$2.1890
TEXAS EASTERN CDS 1-3 DEMAND M3	$/Dth	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960	$10.5960
TEXAS EASTERN FTS DEMAND	$/Dth	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510	$5.3510
TEXAS EASTERN SCT STX DEMAND M3	$/Dth	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220
TEXAS EASTERN SCT WLA DEMAND M3	$/Dth	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300
TEXAS EASTERN SCT ELA DEMAND M3	$/Dth	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500
TEXAS EASTERN SCT ETX DEMAND M3	$/Dth	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760
TEXAS EASTERN SCT 1-3 DEMAND M3	$/Dth	$4.2390	$4.2390	$4.2390	$4.2390	$4.2390	$4.2390	$4.2390	$4.2390	$4.2390	$4.2390	$4.2390	$4.2390
TEXAS EASTERN SCT STX DEMAND M2	$/Dth	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220	$2.7220
TEXAS EASTERN SCT WLA DEMAND M2	$/Dth	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300	$1.1300
TEXAS EASTERN SCT ELA DEMAND M2	$/Dth	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500	$0.9500
TEXAS EASTERN SCT ETX DEMAND M2	$/Dth	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760	$0.8760
TEXAS EASTERN SCT 1-2 DEMAND M2	$/Dth	$3.2400	$3.2400	$3.2400	$3.2400	$3.2400	$3.2400	$3.2400	$3.2400	$3.2400	$3.2400	$3.2400	$3.2400
TRANSCANADA DEMAND	$/Dth	$12.9945	$12.0060	$12.0060	$11.2314	$12.0060	$11.6187	$12.0060	$11.6187	$12.0060	$12.0060	$11.6187	$12.0060
TRANSCO DEMAND ZONE 6 TO 6	$/Dth	$0.1309	$0.1309	$0.1309	$0.1309	$0.1309	$0.1309	$0.1309	$0.1309	$0.1309	$0.1309	$0.1309	$0.1309
UNION DEMAND	$/Dth	$2.1150	$2.1855	$2.1855	$1.9740	$2.1855	$2.1150	$2.1855	$2.1150	$2.1855	$2.1855	$2.1150	$2.1855

REDACTED

CALCULATION OF SYSTEM WEIGHTED AVERAGE DEMAND COSTS **2015 - 2016 GCR PROJECTED PRICES**

August 1, 2015

		UNIT PRICES											
		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
PIPELINE FIXED COST BILLING UNITS													
ALGONQUIN AFT-E/AFT-1 DEMAND	DTH	87,285	87,285	87,285	87,285	87,285	87,285	87,285	87,285	87,285	87,285	87,285	87,285
ALGONQUIN AFT-3 DEMAND	DTH	11,063	11,063	11,063	11,063	11,063	11,063	11,063	11,063	11,063	11,063	11,063	11,063
ALGONQUIN AFT-ES/1S DEMAND	DTH	4,079	4,079	4,079	4,079	4,079	4,079	4,079	4,079	4,079	4,079	4,079	4,079
ALGONQUIN HUBLINE DEMAND	DTH	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
ALGONQUIN HUBLINE DEMAND	DTH	500	500	500	500	500	500	500	500	500	500	500	500
ALGONQUIN HUBLINE DEMAND	DTH	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
ALGONQUIN EAST TO WEST DEMAND	DTH	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
COLUMBIA FTS DEMAND	DTH	47,455	47,455	47,455	47,455	47,455	47,455	47,455	47,455	47,455	47,455	47,455	47,455
DOMINION FTNN DEMAND	DTH	537	537	537	537	537	537	537	537	537	537	537	537
IROQUOIS DEMAND	DTH	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012
NATIONAL FUEL DEMAND	DTH	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177	1,177
TENNESSEE FT-A DEMAND ZONE 0 TO 6	DTH	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
TENNESSEE FT-A DEMAND ZONE 1 TO 6	DTH	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500
TENNESSEE FT-A DEMAND ZONE 0 TO 6	DTH	6,022	6,022	6,022	6,022	6,022	6,022	6,022	6,022	6,022	6,022	6,022	6,022
TENNESSEE FT-A DEMAND ZONE 1 TO 6	DTH	13,313	13,313	13,313	13,313	13,313	13,313	13,313	13,313	13,313	13,313	13,313	13,313
TENNESSEE FT-A DEMAND ZONE 0 TO 6 CXN	DTH	11,600	11,600	11,600	11,600	11,600	11,600	11,600	11,600	11,600	11,600	11,600	11,600
TENNESSEE FT-A DEMAND DRACUT	DTH	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
TENNESSEE FT-A DEMAND ZONE 5 TO 6	DTH	2,067	2,067	2,067	2,067	2,067	2,067	2,067	2,067	2,067	2,067	2,067	2,067
TEXAS EASTERN CDS STX DEMAND M3	DTH	13,844	13,844	13,844	13,844	13,844	13,844	13,844	13,844	13,844	13,844	13,844	13,844
TEXAS EASTERN CDS WLA DEMAND M3	DTH	15,716	15,716	15,716	15,716	15,716	15,716	15,716	15,716	15,716	15,716	15,716	15,716
TEXAS EASTERN CDS ELA DEMAND M3	DTH	23,758	23,758	23,758	23,758	23,758	23,758	23,758	23,758	23,758	23,758	23,758	23,758
TEXAS EASTERN CDS ETX DEMAND M3	DTH	7,995	7,995	7,995	7,995	7,995	7,995	7,995	7,995	7,995	7,995	7,995	7,995
TEXAS EASTERN CDS 1-3 DEMAND M3	DTH	45,934	45,934	45,934	45,934	45,934	45,934	45,934	45,934	45,934	45,934	45,934	45,934
TEXAS EASTERN FTS DEMAND	DTH	537	537	537	537	537	537	537	537	537	537	537	537
TEXAS EASTERN SCT STX DEMAND M3	DTH	571	571	571	571	571	571	571	571	571	571	571	571
TEXAS EASTERN SCT WLA DEMAND M3	DTH	648	648	648	648	648	648	648	648	648	648	648	648
TEXAS EASTERN SCT ELA DEMAND M3	DTH	1,183	1,183	1,183	1,183	1,183	1,183	1,183	1,183	1,183	1,183	1,183	1,183
TEXAS EASTERN SCT ETX DEMAND M3	DTH	329	329	329	329	329	329	329	329	329	329	329	329
TEXAS EASTERN SCT 1-3 DEMAND M3	DTH	2,099	2,099	2,099	2,099	2,099	2,099	2,099	2,099	2,099	2,099	2,099	2,099
TEXAS EASTERN SCT STX DEMAND M2	DTH	401	401	401	401	401	401	401	401	401	401	401	401
TEXAS EASTERN SCT WLA DEMAND M2	DTH	455	455	455	455	455	455	455	455	455	455	455	455
TEXAS EASTERN SCT ELA DEMAND M2	DTH	831	831	831	831	831	831	831	831	831	831	831	831
TEXAS EASTERN SCT ETX DEMAND M2	DTH	231	231	231	231	231	231	231	231	231	231	231	231
TEXAS EASTERN SCT 1-2 DEMAND M2	DTH	1,474	1,474	1,474	1,474	1,474	1,474	1,474	1,474	1,474	1,474	1,474	1,474
TRANSCANADA DEMAND	DTH	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012	1,012
TRANSCO DEMAND ZONE 6 TO 6	DTH	37,200	38,440	38,440	34,720	38,440	37,200	38,440	37,200	38,440	38,440	37,200	38,440
UNION DEMAND	DTH	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025
PIPELINE ALLOCATED TO PEAKING													
ALGONQUIN HUBLINE DEMAND	DTH	(4,500)	(4,500)	(4,500)	(4,500)	(4,500)	(4,500)	(4,500)	(4,500)	(4,500)	(4,500)	(4,500)	(4,500)
TENNESSEE FT-A DEMAND DRACUT	DTH	(9,500)	(9,500)	(9,500)	(9,500)	(9,500)	(9,500)	(9,500)	(9,500)	(9,500)	(9,500)	(9,500)	(9,500)

REDACTED

CALCULATION OF SYSTEM WEIGHTED AVERAGE DEMAND COSTS **2015 - 2016 GCR PROJECTED PRICES**

August 1, 2015

		UNIT PRICES												
		NOV	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	
PIPELINE FIXED COST DOLLARS														
ALGONQUIN AFT-E/AFT-1 DEMAND	$	$573,759	$573,759	$573,759	$573,759	$573,759	$573,759	$573,759	$573,759	$573,759	$573,759	$573,759	$573,759	
ALGONQUIN AFT-3 DEMAND	$	$118,987	$118,987	$118,987	$118,987	$118,987	$118,987	$118,987	$118,987	$118,987	$118,987	$118,987	$118,987	
ALGONQUIN AFT-ES/1S DEMAND	$	$10,725	$10,725	$10,725	$10,725	$10,725	$10,725	$10,725	$10,725	$10,725	$10,725	$10,725	$10,725	
ALGONQUIN HUBLINE DEMAND	$	$33,736	$33,736	$33,736	$33,736	$33,736	$33,736	$33,736	$33,736	$33,736	$33,736	$33,736	$33,736	
ALGONQUIN HUBLINE DEMAND	$	$3,498	$3,498	$3,498	$3,498	$3,498	$3,498	$3,498	$3,498	$3,498	$3,498	$3,498	$3,498	
ALGONQUIN HUBLINE DEMAND	$	$29,519	$29,519	$29,519	$29,519	$29,519	$29,519	$29,519	$29,519	$29,519	$29,519	$29,519	$29,519	
ALGONQUIN EAST TO WEST DEMAND	$	$84,341	$84,341	$84,341	$84,341	$84,341	$84,341	$84,341	$84,341	$84,341	$84,341	$84,341	$84,341	
COLUMBIA FTS DEMAND	$	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	
DOMINION FTNN DEMAND	$	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	
IROQUOIS DEMAND	$	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	
NATIONAL FUEL DEMAND	$	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	
TENNESSEE FT-A DEMAND ZONE 0 TO 6	$	$77,721	$77,721	$77,721	$77,721	$77,721	$77,721	$77,721	$77,721	$77,721	$77,721	$77,721	$77,721	
TENNESSEE FT-A DEMAND ZONE 1 TO 6	$	$144,338	$144,338	$144,338	$144,338	$144,338	$144,338	$144,338	$144,338	$144,338	$144,338	$144,338	$144,338	
TENNESSEE FT-A DEMAND ZONE 0 TO 6	$	$133,099	$133,099	$133,099	$133,099	$133,099	$133,099	$133,099	$133,099	$133,099	$133,099	$133,099	$133,099	
TENNESSEE FT-A DEMAND ZONE 1 TO 6	$	$294,247	$294,247	$294,247	$294,247	$294,247	$294,247	$294,247	$294,247	$294,247	$294,247	$294,247	$294,247	
TENNESSEE FT-A DEMAND ZONE 0 TO 6 CXN	$	$264,211	$73,652	$73,652	$73,652	$73,652	$73,652	$73,652	$73,652	$73,652	$73,652	$73,652	$73,652	
TENNESSEE FT-A DEMAND DRACUT	$	$73,652	$15,288	$15,288	$15,288	$15,288	$15,288	$15,288	$15,288	$15,288	$15,288	$15,288	$15,288	
TENNESSEE FT-A DEMAND ZONE 5 TO 6	$	$15,288	$264,211	$264,211	$264,211	$264,211	$264,211	$264,211	$264,211	$264,211	$264,211	$264,211	$264,211	
TEXAS EASTERN CDS STX DEMAND M3	$	$94,195	$94,195	$94,195	$94,195	$94,195	$94,195	$94,195	$94,195	$94,195	$94,195	$94,195	$94,195	
TEXAS EASTERN CDS WLA DEMAND M3	$	$44,398	$44,398	$44,398	$44,398	$44,398	$44,398	$44,398	$44,398	$44,398	$44,398	$44,398	$44,398	
TEXAS EASTERN CDS ELA DEMAND M3	$	$56,425	$56,425	$56,425	$56,425	$56,425	$56,425	$56,425	$56,425	$56,425	$56,425	$56,425	$56,425	
TEXAS EASTERN CDS ETX DEMAND M3	$	$17,501	$17,501	$17,501	$17,501	$17,501	$17,501	$17,501	$17,501	$17,501	$17,501	$17,501	$17,501	
TEXAS EASTERN CDS 1-3 DEMAND M3	$	$486,717	$2,873	$2,873	$2,873	$2,873	$2,873	$2,873	$2,873	$2,873	$2,873	$2,873	$2,873	
TEXAS EASTERN FTS DEMAND	$	$2,873	$486,717	$486,717	$486,717	$486,717	$486,717	$486,717	$486,717	$486,717	$486,717	$486,717	$486,717	
TEXAS EASTERN SCT STX DEMAND M3	$	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554	
TEXAS EASTERN SCT WLA DEMAND M3	$	$732	$732	$732	$732	$732	$732	$732	$732	$732	$732	$732	$732	
TEXAS EASTERN SCT ELA DEMAND M3	$	$1,124	$1,124	$1,124	$1,124	$1,124	$1,124	$1,124	$1,124	$1,124	$1,124	$1,124	$1,124	
TEXAS EASTERN SCT ETX DEMAND M3	$	$288	$288	$288	$288	$288	$288	$288	$288	$288	$288	$288	$288	
TEXAS EASTERN SCT 1-3 DEMAND M3	$	$8,898	$8,898	$8,898	$8,898	$8,898	$8,898	$8,898	$8,898	$8,898	$8,898	$8,898	$8,898	
TEXAS EASTERN SCT STX DEMAND M2	$	$1,092	$1,092	$1,092	$1,092	$1,092	$1,092	$1,092	$1,092	$1,092	$1,092	$1,092	$1,092	
TEXAS EASTERN SCT WLA DEMAND M2	$	$514	$514	$514	$514	$514	$514	$514	$514	$514	$514	$514	$514	
TEXAS EASTERN SCT ELA DEMAND M2	$	$789	$789	$789	$789	$789	$789	$789	$789	$789	$789	$789	$789	
TEXAS EASTERN SCT ETX DEMAND M2	$	$202	$202	$202	$202	$202	$202	$202	$202	$202	$202	$202	$202	
TEXAS EASTERN SCT 1-2 DEMAND M2	$	$4,776	$4,776	$4,776	$4,776	$4,776	$4,776	$4,776	$4,776	$4,776	$4,776	$4,776	$4,776	
TRANSCANADA DEMAND	$	$13,150	$12,150	$12,150	$11,366	$12,150	$11,758	$12,150	$11,758	$12,150	$12,150	$11,758	$12,150	
TRANSCO DEMAND ZONE 6 TO 6	$	$4,869	$5,032	$5,032	$4,545	$5,032	$4,869	$5,032	$4,869	$5,032	$5,032	$4,869	$5,032	
UNION DEMAND	$	$2,168	$2,240	$2,240	$2,023	$2,240	$2,168	$2,240	$2,168	$2,240	$2,240	$2,168	$2,240	
WESTERLY LATERAL (Yankee)	$	[redacted]												
	$	[redacted]												[redacted]
PIPELINE ALLOCATED TO PEAKING														
ALGONQUIN HUBLINE DEMAND	$	($37,953)	($37,953)	($37,953)	($37,953)	($37,953)	($37,953)	($37,953)	($37,953)	($37,953)	($37,953)	($37,953)	($37,953)	
TENNESSEE FT-A DEMAND DRACUT	$	($46,646)	($46,646)	($46,646)	($46,646)	($46,646)	($46,646)	($46,646)	($46,646)	($46,646)	($46,646)	($46,646)	($46,646)	
		($84,599)	**($84,599)**	**($84,599)**	**($84,599)**	**($84,599)**	**($84,599)**	**($84,599)**	**($84,599)**	**($84,599)**	**($84,599)**	**($84,599)**	**($84,599)**	**($1,015,193)**
TOTAL PIPELINE FIXED DEMAND CHARGES		[redacted]												
TOTAL DEMAND UNITS DTH		4,920,810	5,117,015	5,117,015	4,786,885	5,117,015	4,920,810	5,052,659	4,434,210	4,582,017	4,582,017	4,434,210	5,052,659	58,117,322
100% LOAD FACTOR UNIT VALUE $/DTH														[redacted]
Average rate per unit per month														
AVERAGE SYSTEM VARIABLE UNIT VALUE $/DTH														
Marketer Reconciliation 2014/15														$58,533
Marketer Demand Units DTH		846,900	875,130	875,130	818,670	875,130	846,900	875,130	846,900	875,130	875,130	846,900	875,130	10,332,180
100% LOAD FACTOR UNIT VALUE $/DTH														**0.0057**
TOTAL AVERAGE SYSTEM UNIT VALUE $/DTH														**$ 0.4219**

REDACTED

National Grid
2015 Estimated GCR
Normal Weather Scenario

Ventyx
SENDOUT® Version 12.5.5

Natural Gas Supply VS. Requirements

Units: DTH

	NOV 2015	DEC 2015	JAN 2016	FEB 2016	MAR 2016	APR 2016	MAY 2016	JUN 2016	JUL 2016	AUG 2016	SEP 2016	OCT 2016	Total/Average
Forecast Demand													
RI Sales GCR	2,378,800	4,110,700	5,038,000	4,623,600	3,817,600	2,281,700	1,374,100	950,100	744,000	674,300	709,400	1,260,000	27,962,300
Total Demand	2,378,800	4,110,700	5,038,000	4,623,600	3,817,600	2,281,700	1,374,100	950,100	744,000	674,300	709,400	1,260,000	27,962,300
Storage Injections													
TENN 501	0	0	0	0	0	64,500	60,500	60,500	60,500	60,500	108,500	60,500	475,500
GSS 300170	0	0	0	0	0	55,600	55,600	55,600	55,600	56,600	66,900	69,100	415,000
GSS 300168	0	0	0	0	0	20,000	24,500	20,000	20,000	21,900	21,200	21,900	149,500
GSS 300171	0	0	0	0	0	24,500	24,500	30,000	24,500	26,800	25,900	26,800	183,000
GSSTE 600045	0	0	0	0	0	54,700	54,700	54,700	54,700	54,700	96,700	54,700	424,900
TETCO 400515	0	0	0	0	0	7,400	7,400	7,400	7,400	7,900	8,700	8,900	55,100
TETCO 400221	0	0	0	0	0	154,400	154,400	154,400	154,400	165,000	181,800	187,800	1,152,200
TETCO 400185	0	0	0	0	0	6,800	6,800	6,800	6,800	7,200	7,900	8,200	50,500
GSS 300169	0	0	0	0	0	26,800	26,800	32,800	26,800	29,200	28,300	29,200	199,900
COL FSS 9630	0	0	0	0	0	4,300	40,800	40,800	34,700	40,800	26,500	14,300	202,200
TENN 62918	0	0	0	0	0	27,300	27,300	27,300	27,300	27,300	39,900	27,300	203,700
Total Underground Storage	0	0	0	0	0	446,300	483,300	490,300	472,700	497,900	612,300	508,700	3,511,500
LNG PROV	10,000	10,700	0	50,300	0	38,300	112,200	128,900	113,800	27,100	111,000	10,400	612,700
LNG VALLEY	3,100	3,200	0	18,100	0	8,300	0	0	10,400	1,800	4,500	3,200	52,600
LNG EXETER	4,000	9,800	0	15,800	0	82,300	21,000	0	9,000	300	13,500	4,200	159,900
Total LNG Injection	17,100	23,700	0	84,200	0	128,900	133,200	128,900	133,200	29,200	129,000	17,800	825,200
Total Injections	17,100	23,700	0	84,200	0	575,200	616,500	619,200	605,900	527,100	741,300	526,500	4,336,700

Delivered Firm Sales Supply

.	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	GCR Total
Sources of Supply													
TENNESSEE ZONE 0 CXN	0	0	0	0	0	0	0	0	0	0	0	0	0
TENNESSEE ZONE 0	0	0	0	0	0	0	0	0	0	0	0	0	0
TENNESSEE ZONE 1	0	0	0	0	0	0	0	0	0	0	0	0	0
TENNESSEE ZONE 4 CXN	348,000	359,600	359,600	336,400	359,600	348,000	359,600	348,000	359,600	359,600	319,700	359,600	4,217,300
TENNESSEE ZONE 4	143,700	326,800	456,300	416,700	309,700	387,300	191,300	112,200	102,500	93,900	0	172,000	2,712,400
TENNESSEE NIAGARA	0	0	4,300	3,200	0	0	0	0	0	0	0	0	7,500
TENNESSEE DRACUT	0	58,300	113,600	167,600	58,900	0	0	0	0	0	0	0	398,400
TETCO ELA	0	0	0	0	0	0	0	0	0	0	0	0	0
TETCO ETX	0	0	0	0	0	0	0	0	0	0	0	0	0
TETCO STX	0	0	0	0	0	0	0	0	0	0	0	0	0
TETCO WLA	0	0	0	0	0	0	0	0	0	0	0	0	0
TETCO M2	878,200	902,800	902,700	844,500	902,800	274,600	909,500	286,100	679,900	639,700	349,300	909,800	8,479,900
TETCO M3 DELIVERED	567,200	130,600	352,900	317,800	327,900	1,475,900	299,400	608,500	0	0	587,600	263,400	4,931,200
COLUMBIA MAUMEE	112,200	879,200	773,500	756,200	521,600	84,500	0	0	0	0	0	0	3,127,200
COLUMBIA BROADRUN	14,200	269,900	307,300	268,400	189,700	10,800	0	0	0	0	0	0	1,060,300
COLUMBIA EAGLE	38,600	47,900	74,900	82,400	99,900	45,300	44,400	40,800	34,700	40,800	26,500	14,300	590,500
COLUMBIA DOWNINGTOWN	33,600	41,900	117,800	110,200	117,800	33,400	0	0	0	0	0	0	454,700
TRANSCO LEIDY	36,900	38,100	38,100	35,600	38,100	36,800	35,600	27,700	22,400	20,500	21,400	32,000	383,200
TETCO - DTI - TETCO SCT	0	16,400	15,900	13,800	14,900	0	0	0	0	0	0	0	61,000
TETCO to B&W SCT	0	62,400	62,400	58,400	62,400	0	0	0	0	0	0	0	245,600
AGT HUBLINE	300	106,700	92,300	152,300	33,200	6,000	0	0	0	0	0	0	390,800
ANE II - DAWN-TENN	0	31,000	30,900	28,800	0	0	0	0	0	0	0	0	90,700
GAZ METRO LNG Refill	0	0	0	0	0	8,900	9,200	8,900	9,200	9,200	8,900	9,200	63,500
GDF SUEZ LNG Refill	17,100	23,600	0	84,200	0	120,000	124,000	120,000	124,000	20,000	120,000	8,500	761,400
NEWPORT LNG	0	0	0	0	0	0	0	0	0	0	0	0	0

REDACTED

National Grid
2015 Estimated GCR
Normal Weather Scenario

Ventyx
SENDOUT® Version 12.5.5

Natural Gas Supply VS. Requirements

Units: DTH

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
Non LNG Liquid take	2,172,900	3,271,600	3,702,500	3,592,300	3,036,500	2,702,600	1,839,800	1,423,300	1,199,100	1,154,500	1,304,500	1,751,100	27,150,700
LNG Liquid take	17,100	23,600	0	84,200	0	128,900	133,200	128,900	133,200	29,200	128,900	17,700	824,900
Total take	2,190,000	3,295,200	3,702,500	3,676,500	3,036,500	2,831,500	1,973,000	1,552,200	1,332,300	1,183,700	1,433,400	1,768,800	27,975,600
Storage Withdrawals													
TENN 501	4,200	134,200	109,700	135,000	165,500	4,000	0	0	0	0	0	0	552,600
GSS 300170	74,900	96,300	92,800	82,400	57,200	0	0	0	0	0	0	0	403,600
GSS 300168	27,800	36,600	36,600	30,400	16,600	0	0	0	0	0	0	0	148,000
GSS 300171	0	28,200	68,300	60,200	22,400	0	0	0	0	0	0	0	179,100
GSSTE 600045	81,900	84,500	84,500	79,100	84,500	0	0	0	0	0	0	0	414,500
TETCO 400515	0	13,400	13,400	13,400	11,800	0	0	0	0	0	0	0	52,000
TETCO 400221	0	285,500	285,200	285,200	251,000	0	0	0	0	0	0	0	1,106,900
TETCO 400185	0	12,500	12,500	12,500	11,000	0	0	0	0	0	0	0	48,500
GSS 300169	0	51,000	54,100	54,100	35,100	0	0	0	0	0	0	0	194,300
COL FSS 9630	0	36,600	74,000	55,400	26,300	4,200	0	0	0	0	0	0	196,500
TENN 62918	0	36,600	64,500	36,300	64,400	0	0	0	0	0	0	0	201,800
LNG PROV	10,000	10,700	350,100	142,200	28,100	10,000	10,400	10,000	10,400	10,400	10,000	10,400	612,700
LNG VALLEY	3,100	3,200	18,200	3,000	3,200	3,100	3,200	3,100	3,200	3,200	3,100	3,200	52,800
LNG EXETER	4,000	9,800	71,100	41,900	4,200	4,000	4,200	4,000	4,200	4,200	4,000	4,200	159,800
Total Withdrawal Delivered	205,900	839,100	1,335,000	1,031,100	781,300	25,300	17,800	17,100	17,800	17,800	17,100	17,800	4,323,100
Total Storage withdrawal	188,800	815,400	895,600	844,000	745,800	8,200	0	0	0	0	0	0	3,497,800
Total Peaking withdrawal	17,100	23,700	439,400	187,100	35,500	17,100	17,800	17,100	17,800	17,800	17,100	17,800	825,300
Total Supply	**2,378,800**	**4,110,700**	**5,037,500**	**4,623,400**	**3,817,800**	**2,727,900**	**1,857,600**	**1,440,400**	**1,216,900**	**1,172,300**	**1,321,600**	**1,768,900**	**31,473,800**
Storage withdrawals at Storage Facilty													
TENN 501	4,200	135,300	110,700	136,200	167,000	4,000	0	0	0	0	0	0	557,400
GSS 300170	77,100	99,100	95,500	84,700	58,900	0	0	0	0	0	0	0	415,300
GSS 300168	28,000	37,000	37,000	30,700	16,800	0	0	0	0	0	0	0	149,500
GSS 300171	0	28,900	69,900	61,600	22,900	0	0	0	0	0	0	0	183,300
GSSTE 600045	83,900	86,700	86,700	81,100	86,700	0	0	0	0	0	0	0	425,100
TETCO 400515	0	14,200	14,200	14,200	12,500	0	0	0	0	0	0	0	55,100
TETCO 400221	0	297,000	297,000	297,000	261,400	0	0	0	0	0	0	0	1,152,400
TETCO 400185	0	13,000	13,000	13,000	11,400	0	0	0	0	0	0	0	50,400
GSS 300169	0	52,500	55,600	55,600	36,100	0	0	0	0	0	0	0	199,800
COL FSS 9630	0	37,600	76,100	57,000	27,000	4,400	0	0	0	0	0	0	202,100
TENN 62918	0	37,000	65,100	36,600	65,000	0	0	0	0	0	0	0	203,700
	193,200	838,300	920,800	867,700	765,700	8,400	0	0	0	0	0	0	3,594,100

REDACTED

National Grid
2015 Estimated GCR
Normal Weather Scenario

Ventyx
SENDOUT® Version 12.5.5

Natural Gas Supply VS. Requirements

Units: DTH

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
07/31/2015 NYMEX	**$2.868**	**$3.042**	**$3.152**	**$3.146**	**$3.108**	**$2.966**	**$2.965**	**$2.995**	**$3.026**	**$3.037**	**$3.031**	**$3.062**	
TENNESSEE ZONE 0 CONNEXION													
Basis	($0.090)	($0.102)	($0.120)	($0.112)	($0.102)	($0.042)	($0.050)	($0.043)	($0.020)	($0.020)	($0.025)	($0.035)	
Usage to Zn 6	$0.0613	$0.0613	$0.0613	$0.0613	$0.0613	$0.0613	$0.0613	$0.0613	$0.0613	$0.0613	$0.0613	$0.0613	
Fuel to Zn 6	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	
Total Delivered	$2.9158	$3.0823	$3.1768	$3.1789	$3.1501	$3.0658	$3.0566	$3.0946	$3.1501	$3.1614	$3.1501	$3.1717	
TENNESSEE ZONE 0													
Basis	($0.090)	($0.102)	($0.120)	($0.112)	($0.102)	($0.042)	($0.050)	($0.043)	($0.020)	($0.020)	($0.025)	($0.035)	
Usage to Zn 6	$0.3752	$0.3752	$0.3752	$0.3752	$0.3752	$0.3752	$0.3752	$0.3752	$0.3752	$0.3752	$0.3752	$0.3752	
Fuel to Zn 6	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	2.68%	
Total Delivered	$3.2297	$3.3962	$3.4907	$3.4928	$3.4640	$3.3797	$3.3705	$3.4085	$3.4640	$3.4753	$3.4640	$3.4856	
TENNESSEE ZONE 1													
Basis	($0.072)	($0.080)	($0.077)	($0.046)	($0.077)	($0.080)	($0.104)	($0.083)	($0.061)	($0.067)	($0.096)	($0.078)	
Usage to Zn 6	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	$0.3270	
Fuel to Zn 6	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	
Total Delivered	$3.1906	$3.3606	$3.4763	$3.5019	$3.4313	$3.2828	$3.2572	$3.3094	$3.3637	$3.3688	$3.3329	$3.3831	
TENNESSEE ZONE 4 CONNEXION													
Basis	($0.802)	($0.760)	($0.729)	($0.618)	($0.668)	($0.879)	($1.199)	($1.214)	($1.198)	($1.297)	($1.430)	($1.362)	
Usage to Zn 6	$0.0162	$0.0162	$0.0162	$0.0162	$0.0162	$0.0162	$0.0162	$0.0162	$0.0162	$0.0162	$0.0162	$0.0162	
Fuel to Zn 6	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	
Total Delivered	$2.1005	$2.3185	$2.4607	$2.5666	$2.4779	$2.1217	$1.7979	$1.8130	$1.8604	$1.7716	$1.6314	$1.7313	
TENNESSEE ZONE 4													
Basis	($0.802)	($0.760)	($0.729)	($0.618)	($0.668)	($0.879)	($1.199)	($1.214)	($1.198)	($1.297)	($1.430)	($1.362)	
Usage to Zn 6	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	$0.1250	
Fuel to Zn 6	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	0.88%	
Total Delivered	$2.2093	$2.4273	$2.5695	$2.6754	$2.5867	$2.2305	$1.9067	$1.9218	$1.9692	$1.8804	$1.7402	$1.8401	
NIAGARA TO TENNESSEE													
Basis	($0.166)	($0.078)	($0.102)	($0.019)	$0.022	($0.299)	($0.404)	($0.403)	($0.434)	($0.544)	($0.545)	($0.544)	
Tenn usage	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	
Tenn Fuel	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	
Total Delivered	$2.8153	$3.0792	$3.1658	$3.2433	$3.2464	$2.7801	$2.6734	$2.7046	$2.7046	$2.6049	$2.5978	$2.6301	
TENNESSEE DRACUT													
Basis	$2.484	$6.378	$9.308	$9.089	$4.602	$0.721	-$0.763	-$0.123	-$0.369	-$0.641	-$1.004	-$0.366	
Usage	$0.0384	$0.0384	$0.0384	$0.0384	$0.0384	$0.0384	$0.0384	$0.0384	$0.0384	$0.0384	$0.0384	$0.0384	
Fuel	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	0.26%	
Total Delivered	$5.4044	$9.4830	$12.5309	$12.3053	$7.7685	$3.7350	$2.2461	$2.9179	$2.7023	$2.4406	$2.0707	$2.7414	
TETCO ELA													
Basis	($0.080)	($0.085)	($0.082)	($0.085)	($0.092)	($0.070)	($0.075)	($0.077)	($0.074)	($0.064)	($0.084)	($0.078)	
Usage to M3	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel to M3	4.64%	5.54%	5.54%	5.54%	5.54%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$3.0805	$3.2862	$3.4070	$3.3974	$3.3493	$3.1950	$3.1886	$3.2183	$3.2543	$3.2766	$3.2490	$3.2882	
TETCO ETX													
Basis	($0.122)	($0.128)	($0.125)	($0.101)	($0.108)	($0.047)	($0.067)	($0.073)	($0.032)	($0.027)	($0.049)	($0.026)	
Usage to M3	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	$0.1114	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel to M3	4.64%	5.54%	5.54%	5.54%	5.54%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$3.0360	$3.2402	$3.3610	$3.3803	$3.3321	$3.2193	$3.1971	$3.2225	$3.2988	$3.3158	$3.2861	$3.3434	

REDACTED

National Grid
2015 Estimated GCR
Normal Weather Scenario

Ventyx
SENDOUT® Version 12.5.5

Natural Gas Supply VS. Requirements

Units: DTH

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
TETCO STX													
Basis	($0.085)	($0.095)	($0.115)	($0.108)	($0.098)	($0.010)	($0.020)	($0.010)	$0.012	$0.013	$0.007	($0.002)	
Usage to M3	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	$0.1189	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel to M3	4.82%	6.09%	6.09%	6.09%	6.09%	4.82%	4.82%	4.82%	4.82%	4.82%	4.82%	4.82%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$3.0883	$3.3015	$3.3983	$3.3994	$3.3693	$3.2721	$3.2604	$3.3029	$3.3592	$3.3719	$3.3592	$3.3825	
TETCO WLA													
Basis	($0.080)	($0.085)	($0.082)	($0.085)	($0.092)	($0.038)	($0.043)	($0.034)	($0.040)	($0.037)	($0.045)	($0.045)	
Usage to M3	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	$0.1137	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel to M3	4.63%	6.03%	6.03%	6.03%	6.03%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	4.63%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$3.0825	$3.3050	$3.4264	$3.4167	$3.3684	$3.2309	$3.2245	$3.2659	$3.2924	$3.3072	$3.2924	$3.3252	
TETCO M2													
Basis	($0.919)	($0.880)	($0.721)	($0.660)	($0.816)	($0.937)	($1.341)	($1.333)	($1.295)	($1.401)	($1.533)	($1.579)	
Usage on Tetco	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel on Tetco	3.04%	3.65%	3.65%	3.65%	3.65%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$2.1203	$2.3542	$2.6361	$2.6938	$2.4905	$2.2037	$1.7814	$1.8211	$1.8930	$1.7940	$1.6501	$1.6345	
TETCO M3 DELIVERED													
Basis	($0.712)	$0.318	$3.618	$2.690	($0.222)	($0.858)	($1.123)	($1.207)	($0.980)	($1.083)	($1.473)	($1.290)	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$2.1919	$3.4055	$6.8489	$5.9058	$2.9269	$2.1434	$1.8745	$1.8199	$2.0807	$1.9877	$1.5875	$1.8038	
COLUMBIA MAUMEE													
Basis	($0.135)	($0.150)	($0.190)	($0.170)	($0.200)	($0.122)	($0.175)	($0.175)	($0.205)	($0.205)	($0.375)	($0.358)	
Usage on Columbia	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel on Columbia	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$2.8478	$3.0086	$3.0807	$3.0951	$3.0251	$2.9622	$2.9066	$2.9375	$2.9385	$2.9498	$2.7685	$2.8180	
COLUMBIA BROADRUN													
Basis	($0.135)	($0.150)	($0.190)	($0.170)	($0.200)	($0.122)	($0.175)	($0.175)	($0.205)	($0.205)	($0.375)	($0.358)	
Usage on Columbia	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel on Columbia	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$2.8478	$3.0086	$3.0807	$3.0951	$3.0251	$2.9622	$2.9066	$2.9375	$2.9385	$2.9498	$2.7685	$2.8180	
COLUMBIA EAGLE													
Basis	($0.712)	$0.318	$3.618	$2.690	($0.222)	($0.858)	($1.123)	($1.207)	($0.980)	($1.083)	($1.473)	($1.290)	
Usage on Columbia	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel on Columbia	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$2.2534	$3.4903	$6.9998	$6.0386	$3.0024	$2.2039	$1.9299	$1.8743	$2.1401	$2.0453	$1.6373	$1.8578	

REDACTED

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Ventyx
SENDOUT® Version 12.5.5

Natural Gas Supply VS. Requirements

Units: DTH

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
COLUMBIA DOWNINGTOWN													
Basis	($0.142)	$0.902	$4.982	$3.965	$0.058	($0.568)	($0.877)	($0.960)	($0.732)	($0.825)	($1.217)	($1.042)	
Usage on Columbia	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	$0.0194	
Usage on AGT	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
Fuel on Columbia	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	1.885%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$2.8406	$4.0913	$8.4037	$7.3508	$3.2906	$2.5027	$2.1833	$2.1287	$2.3956	$2.3111	$1.9011	$2.1133	
TRANSCO LEIDY													
Basis	($1.459)	($1.414)	($1.380)	($1.269)	($1.320)	($1.190)	($1.514)	($1.547)	($1.511)	($1.611)	($1.745)	($1.678)	
Usage on Transco	$0.0074	$0.0074	$0.0074	$0.0074	$0.0074	$0.0074	$0.0074	$0.0074	$0.0074	$0.0074	$0.0074	$0.0074	
Usage on AGT	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	
Fuel on Transco	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Delivered to Algonquin	$1.4209	$1.6406	$1.7850	$1.8904	$1.8011	$1.7891	$1.4630	$1.4600	$1.5272	$1.4379	$1.2975	$1.3958	
Total Delivered	$1.6650	$1.8854	$2.0312	$2.1376	$2.0474	$2.0371	$1.7075	$1.7045	$1.7724	$1.6822	$1.5402	$1.6396	
TETCO to DTI to TETCO SCT													
Basis	($0.919)	($0.880)	($0.721)	($0.660)	($0.816)	($0.937)	($1.341)	($1.333)	($1.295)	($1.401)	($1.533)	($1.579)	
Usage on Dominion	$0.0182	$0.0182	$0.0182	$0.0182	$0.0182	$0.0182	$0.0182	$0.0182	$0.0182	$0.0182	$0.0182	$0.0182	
Usage on Tetco	$0.0014	$0.0014	$0.0014	$0.0014	$0.0014	$0.0014	$0.0014	$0.0014	$0.0014	$0.0014	$0.0014	$0.0014	
Usage on AGT	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	
Fuel on Dominion	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	
Fuel on Tetco	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Delivered to Tetco	$2.0060	$2.2232	$2.4975	$2.5536	$2.3558	$2.0876	$1.6745	$1.7133	$1.7836	$1.6867	$1.5460	$1.5307	
Delivered to Algonquin	$2.0336	$2.2537	$2.5316	$2.5884	$2.3880	$2.1162	$1.6978	$1.7370	$1.8083	$1.7102	$1.5676	$1.5521	
Total Delivered	$2.2843	$2.5044	$2.7851	$2.8425	$2.6401	$2.3678	$1.9448	$1.9845	$2.0566	$1.9574	$1.8133	$1.7976	
TETCO to B&W SCT													
Basis	($0.919)	($0.880)	($0.721)	($0.660)	($0.816)	($0.937)	($1.341)	($1.333)	($1.295)	($1.401)	($1.533)	($1.579)	
Usage on Tetco	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	$0.0750	
Usage on AGT	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	$0.2287	
Fuel to M3	3.04%	3.65%	3.65%	3.65%	3.65%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%	
Fuel on AGT	1.07%	0.97%	0.97%	0.97%	0.97%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	
Total Delivered	$2.3364	$2.5703	$2.8522	$2.9099	$2.7066	$2.4198	$1.9975	$2.0372	$2.1091	$2.0101	$1.8662	$1.8506	
AGT HUBLINE													
Basis	$2.528	$6.415	$9.340	$9.120	$4.642	$0.748	($0.757)	($0.120)	($0.365)	($0.635)	($0.997)	($0.362)	
AGT Usage	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	$0.0126	
AGT Fuel	0.73%	0.69%	0.69%	0.69%	0.69%	0.73%	0.73%	0.73%	0.73%	0.73%	0.73%	0.73%	
Total Delivered	$5.4483	$9.5353	$12.5914	$12.3638	$7.8164	$3.7539	$2.2368	$2.9087	$2.6932	$2.4323	$2.0616	$2.7325	
DAWN TO TENNESSEE - ANE II													
Basis	[redacted]												
Iroquois usage	$0.0044	$0.0044	$0.0044	$0.0044	$0.0044	$0.0044	$0.0044	$0.0044	$0.0044	$0.0044	$0.0044	$0.0044	
Tenn usage	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	$0.0943	
Fuel on Union	0.87%	0.98%	1.13%	1.07%	1.00%	0.85%	0.60%	0.50%	0.49%	0.39%	0.38%	0.73%	
Fuel on TransCanada	0.62%	0.80%	0.98%	1.20%	1.59%	1.27%	1.04%	1.21%	1.01%	0.69%	0.72%	0.85%	
Fuel on Iroquois	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Fuel on Tenn	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	
Total Delivered	[redacted]												

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National Grid
2015 Estimated GCR
Normal Weather Scenario

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Natural Gas Supply VS. Requirements

Units: DTH

Total Delivered to the City Gate Gas Supply Costs

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
TENNESSEE ZONE 0 CONNEXION													
Delivered MMBtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered Price	$2.916	$3.082	$3.177	$3.179	$3.150	$3.066	$3.057	$3.095	$3.150	$3.161	$3.150	$3.172	
Total Delivered Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
TENNESSEE ZONE 0													
Delivered MMBtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered Price	$3.230	$3.396	$3.491	$3.493	$3.464	$3.380	$3.370	$3.408	$3.464	$3.475	$3.464	$3.486	
Total Delivered Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
TENNESSEE ZONE 1													
Delivered MMBtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered Price	$3.191	$3.361	$3.476	$3.502	$3.431	$3.283	$3.257	$3.309	$3.364	$3.369	$3.333	$3.383	
Total Delivered Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
TENNESSEE ZONE 4 CONNEXION													
Delivered MMBtu	348,000	359,600	359,600	336,400	359,600	348,000	359,600	348,000	359,600	359,600	319,700	359,600	
Delivered Price	$2.1005	$2.3185	$2.4607	$2.5666	$2.4779	$2.1217	$1.7979	$1.8130	$1.8604	$1.7716	$1.6314	$1.7313	
Total Delivered Cost	$730,989	$833,718	$884,872	$863,419	$891,039	$738,362	$646,517	$630,928	$669,010	$637,085	$521,563	$622,573	
TENNESSEE ZONE 4													
Delivered MMBtu	143,700	326,800	456,300	416,700	309,700	387,300	191,300	112,200	102,500	93,900	0	172,000	
Delivered Price	$2.2093	$2.4273	$2.5695	$2.6754	$2.5867	$2.2305	$1.9067	$1.9218	$1.9692	$1.8804	$1.7402	$1.8401	
Total Delivered Cost	$317,482	$793,229	$1,172,468	$1,114,857	$801,089	$863,884	$364,748	$215,627	$201,846	$176,574	$0	$316,496	
NIAGARA TO TENNESSEE													
Delivered MMBtu	0	0	4,300	3,200	0	0	0	0	0	0	0	0	
Delivered Price	$2.8153	$3.0792	$3.1658	$3.2433	$3.2464	$2.7801	$2.6734	$2.7046	$2.7046	$2.6049	$2.5978	$2.6301	
Total Delivered Cost	$0	$0	$13,613	$10,379	$0	$0	$0	$0	$0	$0	$0	$0	
TENNESSEE DRACUT													
Delivered MMBtu	0	58,300	113,600	167,600	58,900	0	0	0	0	0	0	0	
Delivered Price	$5.40	$9.48	$12.53	$12.31	$7.77	$3.74	$2.25	$2.92	$2.70	$2.44	$2.07	$2.74	
Total Delivered Cost	$0	$552,856	$1,423,508	$2,062,367	$457,565	$0	$0	$0	$0	$0	$0	$0	
TETCO ELA													
Delivered MMBtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered Price	$3.0805	$3.2862	$3.4070	$3.3974	$3.3493	$3.1950	$3.1886	$3.2183	$3.2543	$3.2766	$3.2490	$3.2882	
Total Delivered Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	

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National Grid
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Normal Weather Scenario

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Natural Gas Supply VS. Requirements

Units: DTH

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
TETCO ETX													
Delivered MMBtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered Price	$3.0360	$3.2402	$3.3610	$3.3803	$3.3321	$3.2193	$3.1971	$3.2225	$3.2988	$3.3158	$3.2861	$3.3434	
Total Delivered Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
TETCO STX													
Delivered MMBtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered Price	$3.088	$3.302	$3.398	$3.399	$3.369	$3.272	$3.260	$3.303	$3.359	$3.372	$3.359	$3.383	
Total Delivered Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
TETCO WLA													
Delivered MMBtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered Price	$3.0825	$3.3050	$3.4264	$3.4167	$3.3684	$3.2309	$3.2245	$3.2659	$3.2924	$3.3072	$3.2924	$3.3252	
Total Delivered Cost	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
TETCO M2													
Delivered MMBtu	878,200	902,800	902,700	844,500	902,800	274,600	909,500	286,100	679,900	639,700	349,300	909,800	
Delivered Price	$2.1203	$2.3542	$2.6361	$2.6938	$2.4905	$2.2037	$1.7814	$1.8211	$1.8930	$1.7940	$1.6501	$1.6345	
Total Delivered Cost	$1,862,012	$2,125,386	$2,379,645	$2,274,901	$2,248,390	$605,125	$1,620,223	$521,005	$1,287,046	$1,147,593	$576,376	$1,487,023	
TETCO M3 DELIVERED													
Delivered MMBtu	567,200	130,600	352,900	317,800	327,900	1,475,900	299,400	608,500	0	0	587,600	263,400	
Delivered Price	$2.1919	$3.4055	$6.8489	$5.9058	$2.9269	$2.1434	$1.8745	$1.8199	$2.0807	$1.9877	$1.5875	$1.8038	
Total Delivered Cost	$1,243,256	$444,760	$2,416,981	$1,876,852	$959,720	$3,163,443	$561,232	$1,107,433	$0	$0	$932,786	$475,112	
COLUMBIA MAUMEE													
Delivered MMBtu	112,200	879,200	773,500	756,200	521,600	84,500	0	0	0	0	0	0	
Delivered Price	$2.8478	$3.0086	$3.0807	$3.0951	$3.0251	$2.9622	$2.9066	$2.9375	$2.9385	$2.9498	$2.7685	$2.8180	
Total Delivered Cost	$319,528	$2,645,181	$2,382,896	$2,340,496	$1,577,887	$250,306	$0	$0	$0	$0	$0	$0	
COLUMBIA BROADRUN													
Delivered MMBtu	14,200	269,900	307,300	268,400	189,700	10,800	0	0	0	0	0	0	
Delivered Price	$2.8478	$3.0086	$3.0807	$3.0951	$3.0251	$2.9622	$2.9066	$2.9375	$2.9385	$2.9498	$2.7685	$2.8180	
Total Delivered Cost	$40,439	$812,027	$946,689	$830,718	$573,860	$31,992	$0	$0	$0	$0	$0	$0	
COLUMBIA EAGLE													
Delivered MMBtu	38,600	47,900	74,900	82,400	99,900	45,300	44,400	40,800	34,700	40,800	26,500	14,300	
Delivered Price	$2.2534	$3.4903	$6.9998	$6.0386	$3.0024	$2.2039	$1.9299	$1.8743	$2.1401	$2.0453	$1.6373	$1.8578	
Total Delivered Cost	$86,981	$167,185	$524,288	$497,579	$299,945	$99,839	$85,688	$76,470	$74,260	$83,448	$43,389	$26,566	
COLUMBIA DOWNINGTOWN													
Delivered MMBtu	33,600	41,900	117,800	110,200	117,800	33,400	0	0	0	0	0	0	
Delivered Price	$2.8406	$4.0913	$8.4037	$7.3508	$3.2906	$2.5027	$2.1833	$2.1287	$2.3956	$2.3111	$1.9011	$2.1133	
Total Delivered Cost	$95,445	$171,427	$989,952	$810,058	$387,635	$83,591	$0	$0	$0	$0	$0	$0	

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Normal Weather Scenario

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Natural Gas Supply VS. Requirements

Units: DTH

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
TRANSCO LEIDY													
Delivered MMBtu	36,900	38,100	38,100	35,600	38,100	36,800	35,600	27,700	22,400	20,500	21,400	32,000	
Delivered Price	$1.6650	$1.8854	$2.0312	$2.1376	$2.0474	$2.0371	$1.7075	$1.7045	$1.7724	$1.6822	$1.5402	$1.6396	
Total Delivered Cost	$61,437	$71,832	$77,390	$76,099	$78,008	$74,966	$60,788	$47,215	$39,703	$34,485	$32,961	$52,467	
TETCO -> DTI -> TETCO SCT													
Delivered MMBtu	0	16,400	15,900	13,800	14,900	0	0	0	0	0	0	0	
Delivered Price	$2.2843	$2.5044	$2.7851	$2.8425	$2.6401	$2.3678	$1.9448	$1.9845	$2.0566	$1.9574	$1.8133	$1.7976	
Total Delivered Cost	$0	$41,073	$44,283	$39,226	$39,337	$0	$0	$0	$0	$0	$0	$0	
TETCO to B&W SCT													
Delivered MMBtu	0	62,400	62,400	58,400	62,400	0	0	0	0	0	0	0	
Delivered Price	$2.3364	$2.5703	$2.8522	$2.9099	$2.7066	$2.4198	$1.9975	$2.0372	$2.1091	$2.0101	$1.8662	$1.8506	
Total Delivered Cost	$0	$160,388	$177,980	$169,937	$168,889	$0	$0	$0	$0	$0	$0	$0	
AGT HUBLINE													
Delivered MMBtu	300	106,700	92,300	152,300	33,200	6,000	0	0	0	0	0	0	
Delivered Price	$5.4483	$9.5353	$12.5914	$12.3638	$7.8164	$3.7539	$2.2368	$2.9087	$2.6932	$2.4323	$2.0616	$2.7325	
Total Delivered Cost	$1,634	$1,017,417	$1,162,186	$1,883,010	$259,506	$22,523	$0	$0	$0	$0	$0	$0	
DAWN TO TENNESSEE - ANE II													
Delivered MMBtu	0	31,000	30,900	28,800	0	0	0	0	0	0	0	0	
Delivered Price	[redacted]												
Total Delivered Cost													

	NOV	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	
Total Pipeline Costs	[redacted]												
Total Pipeline Volumes	2,172,900	3,271,600	3,702,500	3,592,300	3,036,500	2,702,600	1,839,800	1,423,300	1,199,100	1,154,500	1,304,500	1,751,100	27,150,700
WACOG	[redacted]												
Injections	0	0	0	0	0	446,300	483,300	490,300	472,700	497,900	612,300	508,700	3,511,500
Value at WACOG	[redacted]												
Pipeline Costs less Injections	[redacted]												
Pipeline Volumes less injections	2,172,900	3,271,600	3,702,500	3,592,300	3,036,500	2,256,300	1,356,500	933,000	726,400	656,600	692,200	1,242,400	23,639,200
NYMEX cost of Supplies	[redacted]												
Non-gas cost of delivered supplies													[redacted]

Attachment EDA-5

Attachment EDA-5

FT-2 Operational Parameters

Operational Parameters
Non-Daily Metered FT-2 Storage and Peaking Resources

The following Operational Parameters are pursuant to RIPUC NG No. 101, Section 6, Schedule C:

Effective Period: November 1, 2015 through October 31, 2016

Underground Storage:

Maximum Inventory Level at any time is 100% of MSQ-U
Injections are not allowed.
Minimum Inventory Levels:

November 1	97%
November 15	95%
December 1	93%
December 15	83%
January 1	72%
January 15	62%
February 1	50%
February 15	40%
March 1	30%
March 15	22%
April 1	12%

Peaking Inventory:

Inventory Level allocated on November 1, 2015 = MSQ-P
Injections are not allowed.
Minimum Inventory Levels:

November 1	97%
January 1	92%
February 1	34%
March 1	8%
April 1	0%

MSQ-U	Maximum Storage Quantity - Underground
MDQ-U	Maximum Daily Quantity - Underground
MSQ-P	Maximum Storage Quantity - Peaking
MDQ-P	Maximum Daily Quantity - Peaking

Attachment EDA-6

Attachment EDA-6

FT-2 Storage Variable Costs

FT-2 Storage Variable Costs

SLF - Weighted Average Loss Factor on Storage Withdrawals

Storage	Withdrawals	Fuel %	Fuel Vol.	Fuel Avg.
TENN 501	557,400	0.00%	0	
GSS 300170	415,300	0.00%	0	
GSS 300168	149,500	0.00%	0	
GSS 300171	183,300	0.00%	0	
GSS-TE 600045	425,100	0.00%	0	
TETCO 400515	55,100	0.80%	441	
TETCO 400221	1,152,400	2.88%	33,189	
TETCO 400185	50,400	2.88%	1,452	
GSS 300169	199,800	0.00%	0	
COL FSS 9630	202,100	0.00%	0	
TENN 62918	203,700	0.00%	0	
	3,594,100		35,081	**0.9761%**

WWCC - Weighted Average Commodity Cost of Storage Withdrawals

Storage	Withdrawals	Unit Cost	Cost	Average
TENN 501	557,400	$0.0087	$4,849	
GSS 300170	415,300	$0.0180	$7,475	
GSS 300168	149,500	$0.0180	$2,691	
GSS 300171	183,300	$0.0180	$3,299	
GSS-TE 600045	425,100	$0.0220	$9,352	
TETCO 400515	54,659	$0.0435	$2,378	
TETCO 400221	1,119,211	$0.0789	$88,306	
TETCO 400185	48,948	$0.0789	$3,862	
GSS 300169	199,800	$0.0180	$3,596	
COL FSS 9630	202,100	$0.0153	$3,092	
TENN 62918	203,700	$0.0087	$1,772	
	3,559,019		$130,674	**$0.0367**

PLF - Weighted Average Loss Factor on Pipeline Contracts Used to Deliver Storage Withdrawals

Storage	Transported		Fuel %		Fuel Vol.	Fuel Avg.
TENN 501	557,400			0.88%	4,905	
GSS 300170	415,300		1.95%	0.88%	11,682	
GSS 300168	149,500			0.88%	1,316	
GSS 300171	183,300		1.29%	0.97%	4,120	
GSS-TE 600045	425,100		1.50%	0.97%	10,438	
TETCO 400515	54,659		3.09%	0.97%	2,201	
TETCO 400221	1,119,211			0.97%	10,856	
TETCO 400185	48,948			0.97%	475	
GSS 300169	199,800	1.95%	0.00%	0.97%	5,796	
COL FSS 9630	202,100		1.885%	0.97%	5,733	
TENN 62918	203,700			0.88%	1,793	
	3,559,019				59,314	**1.6666%**

PCC - Weighted Average Commodity Cost on Pipeline Contracts Used to Deliver Storage Withdrawals

Storage	Withdrawals		Unit Cost		Cost	Average
TENN 501	552,600			$0.1250	$69,075	
GSS 300170	403,600		$0.0182	$0.1250	$57,796	
GSS 300168	148,000			$0.1250	$18,500	
GSS 300171	179,100		$0.0014	$0.0126	$2,507	
GSS-TE 600045	414,500		$0.0014	$0.0126	$5,803	
TETCO 400515	52,000		$0.0610	$0.0126	$3,829	
TETCO 400221	1,106,900			$0.0126	$13,947	
TETCO 400185	48,500			$0.0126	$611	
GSS 300169	194,300	$0.0182	$0.0014	$0.0126	$6,256	
COL FSS 9630	196,500		$0.0192	$0.0126	$6,249	
TENN 62918	201,800			$0.1250	$25,225	
	3,497,800				$209,798	**$0.0600**

Testimony of
Ann E. Leary

DIRECT TESTIMONY

OF

ANN E. LEARY

September 1, 2015

Table of Contents

I. Introduction

Q. Please state your name and business address.

A. My name is Ann E. Leary. My business address is 40 Sylvan Road, Waltham, Massachusetts, 02451.

Q. What is your position and responsibilities?

A. I am the Manager of New England Gas Pricing for National Grid USA Service Company, Inc. As such, I am responsible for preparing and submitting various regulatory filings with the Rhode Island Public Utilities Commission (PUC) on behalf of The Narragansett Electric Company d/b/a National Grid (Company), and the Massachusetts Department of Public Utilities on behalf of Boston Gas Company and Colonial Gas Company each d/b/a National Grid.

Q. Please describe your educational and professional background.

A. I received a Bachelor of Science in Mechanical Engineering from Cornell University in 1983. In 1985, I joined the Essex County Gas Company as Staff Engineer. In 1987, I became a planning analyst and later accepted the position of Manager of Rates. Following the merger with Eastern Enterprises in 1998, I became Manager of Pricing for Boston Gas Company. After the merger with KeySpan Energy Delivery, subsequently National Grid, I became the Manager of New England Gas Pricing, the position I hold today.

Q. Have you previously testified or appeared before the PUC?

A. Yes I have. I have testified before the PUC regarding the Company's Gas Cost Recovery (GCR) Filing, Docket Nos. 4520, 4436 and 4346. I also submitted pre-filed testimony in the Company's 2012 Rate Case Filing, Docket No. 4323. In addition, I have testified extensively in several ratemaking and regulatory proceedings before the Massachusetts Department of Public Utilities and the New Hampshire Public Utilities Commission.

Q. What is the purpose of your testimony?

A. The purpose of this testimony is to propose the GCR factors to become effective on November 1, 2015 for the following services: (1) Firm sales service to customers in the Residential Non-Heating and Heating rate classes as well as Commercial and Industrial (C&I) firm sales customers in the Small, Medium, Large, and Extra Large rate classes and (2) transportation services provided to Gas Marketers and the associated Gas Marketer Fixed Charges and factors.

Q. How is your testimony organized?

A. My testimony is composed of four general sections:

I. Introduction; II. GCR Rate Development; III. Historical Sales Adjustment; and IV. Bill Impacts.

Q. Are you including any Attachments with your testimony?

A. Yes. I am sponsoring the following Attachments:

Attachment AEL-1	Gas Cost Recovery Factors
Attachment AEL-2	Annual GCR Reconciliation Filing
Attachment AEL-3	Projected Gas Cost Balances
Attachment AEL-4	Bill Impact Analysis
Attachment AEL-5	FT-2 Demand Rate
Attachment AEL-6	FT-2 Capacity Allocator Percentages
Attachment AEL-7	Marketer Reconciliation
Attachment AEL-8	Restatement of Historical Throughput

II. <u>GCR Rate Development</u>

Q. Please provide an overview of the development of the proposed GCR factors.

A. The proposed GCR factors reflect the load specific (high load and low load) factors necessary for the Company to recover the projected gas costs allocated to firm sales customers for the period November 1, 2015 through October 31, 2016. As shown in the testimony of Company witness Ms. Elizabeth D. Arangio on Attachment EDA-1, firm sales customers' gas costs for the period are projected to be approximately $134.3 million for the twelve months ended October 2016. In addition to these projected costs, the GCR factors also include recovery of working capital costs, inventory financing costs, prior period reconciliations, LNG operation and maintenance (O&M) costs, as well as credits for FT-2 Market Storage Demand and LNG costs allocated to the Distribution

Adjustment Clause (DAC) factors. The table below summarizes the costs and credits included in the 2015-2016 GCR factors:

GCR Component	Amount (millions)	Reference
Firm Gas Costs	$134.3	EDA-1
Working Capital Costs	$0.8	AEL-1, page 2, line 9 and page 3, line 5
Inventory Financing Costs	$0.9	AEL-1, page 3, lines 8-9
Prior Period Deferred Balance (Includes the Marketer Fixed Costs Reconciliation)	$8.2	AEL-1, page 2, lines 10-11 and page 3, line 6
LNG O&M Costs	$1.1	Docket No. 4323, AEL-1, page 2, line 8 and page 3, line 7
FT-2 Marketer Storage Demand Costs	$(1.7)	AEL-1, page 2, line 4
LNG Costs collected via the DAC Factors	$(1.5)	AEL-1, page 2, line 5
Total	$142.1	AEL-1, page 2, line 13 + AEL-1, page 3 line 11

Thus, the GCR factors are intended to recover approximately $142.1 million in net costs over the period November 2015 through October 2016.

Q. At a high level, please explain how the proposed GCR factors were derived.

A. The proposed GCR factors were developed based upon the fixed and variable cost components as defined in the GCR clause of the Company's tariff. Attachment AEL-1 provides a summary of the GCR fixed and variable gas cost components used to derive the rates for which the Company seeks approval in this filing.

Q. Please describe how the fixed cost component of the proposed GCR factors was developed.

A. The fixed cost component includes all of the fixed costs related to the purchase, storage, and delivery of firm gas for both high load factor and low load factor customers. As shown on Attachment AEL-1, Page 2, the fixed cost component is derived by taking the total fixed costs, which are already reduced by Capacity Release credits, less any credits such as Natural Gas Portfolio Management Plan (NGPMP) customer credits, LNG demand costs allocated to the DAC mechanism, and storage demand costs billed to FT-2 Marketers. The FT-2 storage demand costs are calculated by multiplying the FT-2 Demand Charge rate by the forecast of storage and peaking Maximum Daily Quantity (MDQ) to be billed to FT-2 Marketers. Adjustments are also made for supply-related LNG costs, working capital costs, and prior period deferred fixed gas costs under/over-collection balances, including an adjustment for the Marketer fixed cost reconciliation as stipulated in the Settlement Agreement between the Company and the Division in Docket No. 4199. This results in total fixed gas costs of $30.7 million that are to be recovered over the period November 2015 through October 2016. Finally, because the Company's gas-supply resources are planned so that there is sufficient capacity to meet the needs of firm customers (excluding firm customers with capacity exempt status) under design winter conditions, the total fixed gas cost to be recovered from customers is allocated between high load factor and low load factor customers. The allocation is based on the proportion of design-winter use of these two groups of customers. The high load and low load GCR factor for each group is derived using the allocated fixed gas cost and dividing each amount by each group's projected throughput for the upcoming year. Accordingly, the proposed GCR fixed low load factor is $1.1469 per dekatherm while the proposed GCR fixed high load factor is $0.8833 per dekatherm.

Q. Please describe how the Company calculated the Marketer fixed cost reconciliation balance?

A. In accordance with the Settlement Agreement approved in Docket No. 4199, the Company includes an annual reconciliation of Marketer fixed costs. The Company calculated the Marketer reconciliation by updating the 2014/2015 pipeline surcharge/credit for each path that the Company filed last year and basing this update on actual, instead of projected, pipeline capacity costs. The Company then compared the pipeline surcharge/credit approved in Docket No. 4520 for each path with the updated actual pipeline surcharge/credit. The difference was multiplied by the Marketer's actual monthly capacity for the months of November 2014 through July 2015 and forecasted monthly capacity for the months of August 2015 through October 2015. This results in a Marketer surcharge of $39,670.

The Company also finalized the 2013/2014 Marketer reconciliation that if filed last year in Docket No. 4520 to replace the Marketers' forecasted monthly capacity for the months of August 2014 through October 2014 with their actual monthly capacity. In addition, the Company reconciled the actual revenues billed to Marketers during the period November 2014 through October 2015 with the actual 2013/2014 Marketer reconciliation. This results in a Marketer surcharge of $28,028 for the 2013/2014 period.

Therefore, the overall total Marketer reconciliation for the two year period totals $58,533. Attachment AEL-7 shows the calculation of the Marketer reconciliation adjustment for both the 2013/2014 and 2014/2015 periods. In addition to crediting firm sales customers fixed costs for this amount, the Company included this reconciliation in its calculation of the 2015/2016 pipeline surcharge/credits, as detailed in Ms. Arangio's testimony and shown on Attachment EDA-4.

Q. How did the Company develop its design winter calculations?

A. In Docket 4520, Mr. Oliver raised concern over the Company's design winter sales forecast which was the basis for the design winter sales percentage used to allocate the fixed costs to the High Load and Low Load rate classifications**.** Mr. Oliver noted that during certain winter months the design sales were less than the normal sales, which he believed was counter-intuitive since design weather is colder than normal weather. During that proceeding the Company agreed to review the calculation and include any necessary adjustments in future GCR filings. Therefore, as part of this filing, the Company has reviewed the calculation of its monthly design sales and has included minor changes to the calculation. As a result of these changes, design sales now exceed normal sales for each month during the period November 2015 through March 2016 thereby addressing the issue described by Mr. Oliver in Docket 4520.

Q. Please describe the change in the calculation of the design sales forecast.

A. In Docket 4520, the Company calculated the monthly design sales by applying a seasonal heat factor to the monthly design degree days. This seasonal heat factor was computed by dividing the heating component of the normal sales (normal sales less monthly base use) by normal degree days for the period November 2014 through March 2015. To compute the monthly design sales, the Company summed the monthly base use and the product of the seasonal heat factor multiplied by the monthly design degree days. In this filing, the Company has replaced the seasonal heat factor with a monthly specific heat factor in its calculation of the monthly design sales. In Attachment AEL-1, pages 13-15, the Company has provided detailed calculations showing the derivation of the monthly design sales.

Q. Please describe how the variable cost component was derived.

A. The variable cost component includes all variable costs of gas such as commodity costs, supply-related LNG O&M, working capital, inventory finance costs, pipeline refunds, and deferred cost balances. As shown on Attachment AEL-1, page 3, line 11, the total variable cost for the period November 2015 through October 2016 is $111,456,578. The variable costs are divided by the projected throughput of 27,009,852 dekatherms to obtain a variable cost factor of $4.1265 per dekatherm.

Q. What is the Company's estimate of the deferred gas cost balance at the end of the current GCR period?

A. Based on actual data through July 2015 and forecasted data for the months of August through October 2015, the total estimated deferred balance at October 31, 2015 is an under collection of $8,227,655 as shown in Attachment AEL-1, page 6. This balance is incorporated into the development of the proposed GCR factors for the period November 1, 2015 to October 31, 2016. In addition, the Company shows the projected deferred gas cost balances for November 2015 through October 2016 in Attachment AEL-3.

Q. Is the Company proposing any changes to the GCR deferral balance for the period April 2014 through March 2015 filed with the Commission on June 30, 2015?

A. Yes. In Attachment AEL-2 the Company has updated its 2014/2015 Annual Deferred Gas Cost report to reflect a revision to Non-Firm gas costs. As described in the Company's Supplemental 2015 Annual Gas Cost Recovery Reconciliation Filing in Docket 4520, the Company discovered that some curtailment penalty charges incurred by Non-Firm customers were omitted from that schedule. Attachment AEL-2 reflects the revision of the additional $23,399 in Non-Firm gas credits.

Q. Are there other rates the Company is proposing in this filing?

A. Yes. Consistent with the modifications in Docket No. 4270, the Company is submitting for approval its FT-2 Marketer Demand rate of $8.8817 per MDQ in dekatherm/month as shown in Attachment AEL-5 as well as the Storage and Peaking charge of $0.0694 per therm for FT-1 firm transportation customers returning to Transitional Sale Service. The Company is also submitting for approval the capacity assignment percentages for the high load and low load factors to be used in the determination of pipeline, underground storage, and peaking capacity for Marketers. These percentages are set forth in Attachment AEL-6.

Q. Please describe how the proposed FT-2 Marketer Demand rate is calculated.

A. It is worth noting that the FT-2 rate design approved in Docket No. 4270 separates storage costs into two components: (1) the FT-2 Demand rate designed to recover the fixed costs associated with storage and peaking, which the Company is submitting for approval in this filing, and (2) the FT-2 Variable rate that is designed to recover variable underground storage costs, as well as the associated commodity costs and loss factors associated with pipeline contracts to bring the gas from storage to the city gate. In addition, Marketers may purchase peaking inventory at the Company's cost of LNG inventory.

The FT-2 Demand rate is derived by first totaling the fixed storage costs, associated inventory finance, working capital charges, and supply-related LNG O&M costs less any LNG demand credits assigned to the DAC factors and any refunds, if applicable. That total is then divided by the total storage and peaking MDQ for the year to derive a monthly per dekatherm rate to be charged to Marketers. As shown in Attachment AEL-5, the proposed FT-2 Marketer Demand rate is $8.8817 per dekatherm and will be applied to the Marketers' storage and peaking MDQ.

III. <u>Historical Sales Review</u>

Q. In last year's GCR filing (Docket 4520), the Division's consultant, Mr. Oliver, raised concern over the negative actual sales reported for the period April 2013 through March 2014 in Attachment AEL-2 Page 8. Did the Company experience negative monthly sales for the historical period April 2014 through March 2015?

A. Yes. As shown in Attachment AEL-2, Page 6 of this filing, the Company experienced negative sales during the months of April 2014 through November 2014 for its Extra-Large High Load Factor Commercial and Industrial customer classes (lines 11 and 19) as well as its FT-1 Transportation customer classes (line 34 through line 39). The negative sales totaled 274,368 dekatherms equating to 0.7% of total annual sales.

Q. Has the Company investigated these negative sales?

A. Yes it has. Before describing the results of the Company investigation, it might be helpful to first describe how the Company prepares the schedule of sales that is presented in Attachment AEL-2, Page 8. Most of the Company's customers are billed on a cycle billing basis, meaning they are billed throughout the month. The usage that the Company bills for these customers generally spans from the meter read date of the prior month to the meter read date of the current month. Therefore, the sales reflect the usage billed during the month. However, for our largest customers who receive FT-1 Transportation Service, the Company bills these customers on a calendar month basis. Because of this, it cannot issue a bill for these customers until the following month. In order to reflect the usage of these customers for the applicable calendar month, the Company "accrues", or estimates, based on their metered data for the month, each customer's usage and includes this in its internal revenue reports and ultimately in Attachment AEL-2, Page 8. In the following month, this estimate is replaced with the actual usage billed for the previous month and, after the month has ended, another estimate for the month. This process is repeated each month, with the prior month's estimated usage replaced by the actual billed usage for that month, plus the new month's estimated usage.

The negative sales for the period April 2014 through November 2014 were due to the Company including the sales associated with the accrual of service provided to the FT-1 Firm Transportation customers for each month. The subsequent month's replacement (also referred to as a reversal) of those accruals, which are a result of the customers being billed through the Company's billing system in the subsequent month, also contributed to the negative sales. In addition, there were some cancellations and rebilling of Extra

Large High Load Factor customer's accounts over multiple months. In Attachment AEL-8 of this filing, the Company has provided the historical throughput for the period April 2014 through March 2015 reflecting the elimination of these accruals/reversals and billing adjustments. With the exclusion of these accruals/reversals and billing adjustments, the negative sales have been eliminated.

Q. Can you please explain how accruals and reversals can result in negative volumes for FT-1 Transportation Service customers?

A. Yes I can. As noted above, the Company estimates usage for FT-1 Transportation Service customers. The Company bases the current month's estimate, or accrual, on the prior month's actual usage. When there is a difference between this estimate and the actual month's usage, there is the potential for a large difference between accrual and actual that will appear in the following month (when the accrual is reversed and replaced with the actual usage), which can lead to negative sales volumes in the following month. In Attachment AEL-8, the Company eliminated the monthly accruals and reversals reported each month which eliminates all negative sales for the FT-1 Transportation Service customers.

Q. Can you please describe the billing adjustments which resulted in negative sales for the Extra Large High Load factor rate class?

A. Yes I can. There were four billing adjustments which resulted in the reporting of negative sales for the Extra Large High Load factor rate class during the months of April 2014, August 2014, September 2014, and November 2014 (AEL-8, Lines 255 and 263).

First, in April 2014, the Company cancelled the bills of an Extra Large High Load factor customer for the period December 2014 through March 2015 for 11,060 dekatherms and rebilled that customer on Default Transportation Service. Second, in August 2014, the Company cancelled and rebilled a customer for the period February 2012 through July 2014 resulting in a net reduction in volume of 20,921 dekatherms. Third, in September 2014, the Company cancelled the bill of an Extra Large High Load factor customer for the period April 2013 through June 2014 for 76,811 dekatherms and rebilled that customer on Default Transportation Service in October 2014. Finally, in November 2014, the Company cancelled the bills totaling 192,903 dekatherms of an Extra Large High Load factor customer for the period of February 2012 through September 2014 and rebilled that customer at a slightly different amount of 195,256 dekatherms during the months of December 2014 and January 2015. In Attachment AEL-8, the Company eliminated these billing adjustments described above which in turn eliminated all negative sales for the Extra Large High Load factor Rate classifications.

Ultimately, the GCR revenues will reflect the correct revenue since the Company cancels customers' bills at the rates they were billed and rebills customers based upon rates in effect at the time of the customer's use of gas (and not based upon the rates in effect during the month in which the rebilling was processed).

IV. <u>Bill Impacts</u>

Q. What is the combined bill impact of the proposed DAC and GCR factors on customer bills as compared to bills over the past year?

A. An average residential heating customer using 846 therms per year will experience a total annual bill of $1,129.60 related to the proposed GCR and DAC factors, a decrease of $120.09, or 9.6% over last year's bills. This decrease of $120.09 is comprised of a decrease of $120.54 in GCR charges, an increase of $4.05 in DAC charges, for which the Company submitted a supplemental filing on September 1, 2015 in Docket No. 4573, and a decrease of $3.60 in Gross Earnings Tax. A summary of annual bill impacts for customers with various levels of usage is provided in Attachment AEL-4.

Q. Does this conclude your testimony?

A. Yes.

Attachment of
Ann E. Leary

Attachments of Ann E. Leary

Attachment AEL-1	Gas Cost Recovery Factors
Attachment AEL-2	Annual GCR Reconciliation Filing
Attachment AEL-3	Projected Gas Cost Balances
Attachment AEL-4	Bill Impact Analysis
Attachment AEL-5	FT-2 Demand Rate
Attachment AEL-6	FT-2 Capacity Allocator Percentages
Attachment AEL-7	Marketer Reconciliation
Attachment AEL-8	Restatement of Historical Throughput

Attachment AEL-1
REDACTED

Attachment AEL-1
Gas Cost Recovery Factors

REDACTED

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Factors Effective November 1, 2015

Line No.	Description (a)	Source: Reference (b)	Source: Line # (c)	High Load[1] (d)	Low Load[2] (e)	FT-2 Mkter[3] (f)
(1)	Fixed Cost Factor - $/dktherm	AEL-1 pg 2	Line (17)	$0.8833	$1.1469	
(2)	Variable Cost Factor -$/dktherm	AEL-1 pg 3	Line (13)	$4.1265	$4.1265	
(3)	Total Gas Cost Recovery Charge- $/dktherm	(1) + (2)		$5.0098	$5.2734	
(4)	Uncollectible %	Docket 4323		3.18%	3.18%	
(5)	Total GCR Charge adjusted for Uncollectibles- $/dkdtherm	(3) / [1 - (4)]		$5.1743	$5.4466	
(6)	**GCR Charge on a per therm basis**	(5) / 10		**$0.5174**	**$0.5446**	
(7)	Current rate effective 11/01/14* - $/therm			$0.6692	$0.6871	
(8)	Decrease- $/therm	(6) - (7)		($0.1518)	($0.1425)	
(9)	Percent Decrease	(8) / (7)		-22.7%	-20.7%	

* GCR rates approved with the Supplemental GCR filing per Dkt 4520 filed on September 16, 2014

[1] Includes: Residential Non Heating, Large High Load and Extra Large High Load

[2] Includes: Residential Heating, Small C&I, Medium C&I, Large Low Load, Extra Large Low Load

[3] See AEL-5 for calculation of FT-2 rate

REDACTED

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Fixed Cost Calculation ($ per Dth)

Line No.	Description (a)	Source: Reference (b)	Source: Line # (c)	Amount (d)	High Load Factor Total (e)	Low Load Factor Total (f)
(1)	Fixed Costs (net of Cap Rel to marketers)	AEL-1 pg 4	Line (65)	$45,282,243		
	Less:					
(2)	NGPMP Customer Benefit	EDA-1		($9,400,000)		
(3)	Interruptible Costs			$0		
(4)	FT-2 Storage Demand Costs	AEL-5 pg 2	Line (26)	($1,734,509)		
(5)	LNG Demand to DAC[1]			($1,488,790)		
(6)	Refunds			$0		
(7)	Total Credits	sum[(2):(6)]		($12,623,298)		
	Plus:					
(8)	Supply Related LNG O&M Costs	Dkt 4323	Compliance Attachment 6 Schedule MDL-3-GAS	$575,581		
(9)	Working Capital Requirement	AEL-1 pg 8	Line (16)	$252,146		
(10)	Deferred Fixed Cost Over-recovered	AEL-1 pg 6	Line (17)	($2,761,661)		
(11)	Reconciliation Amount from Fixed costs- Marketers	AEL-7 pg 2	Line (50)	($58,533)		
(12)	Total Additions	sum[(8):(11)]		($1,992,468)		
(13)	Total Fixed Costs	(1) + (7) + (12)		$30,666,476		
(14)	Design Winter Sales Percentage	AEL-1 pg 12	Lines (10) & (11)		3.41%	96.59%
(15)	Allocated Supply Fixed Costs	(13) x (14)			$1,044,769	$29,621,707
(16)	Sales (Dt) Nov 2015 - Oct 2016	AEL-1 pg 11	Line (9)	27,009,852	1,182,745	25,827,107
(17)	**Fixed Factor**	(15) / (16)			**$0.8833**	**$1.1469**

[1] System Balancing Factor (Dkt 4339)
Line (16)
Col (e): AEL-1, page 11, Sum of Lines (1), (6), (8)
Col (f): AEL-1, page 11, Sum of Lines (2):(5) and (7)

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National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Variable Cost Calculation ($ per Dth)

Line No.	Description	Source: Reference	Source: Line #	Amount
	(a)	(b)	(c)	(d)
(1)	Variable Costs, excluding Refunds	AEL-1 pg 5	Line (96) - Line (90)	$98,387,634
	Less:			
(2)	Non-Firm Sales			$0
(3)	Refunds	AEL-1 pg 5	Line (90)	$0
(4)	Total Credits	sum [(2):(3)]		$0
	Plus:			
(5)	Working Capital	AEL-1 pg 8	Line (32)	$566,477
(6)	Deferred Variable Cost Under-recovered	AEL-1 pg 6	Line (34)	$10,989,316
(7)	Supply Related LNG O&M	Docket 4323	Compliance Attachment 6 Schedule MDL-3-GAS	$572,694
(8)	Inventory Financing - LNG	AEL-1 pg 10	Line (22)	$341,086
(9)	Inventory Financing - Storage	AEL-1 pg 10	Line (12)	$599,371
(10)	Total Additions	sum [(5):(9)]		$13,068,944
(11)	Total Variable Supply Costs	(1) + (4) + (10)		$111,456,578
(12)	Sales (Dt) Nov 2015 - Oct 2016	AEL-1 pg 11	Line (9)	27,009,852
(13)	**Variable Cost Factor**	(11) / (12)		**$4.1265**

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National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Gas Cost Estimate

Line No.	Description (a)	Reference (b)	Nov-15 (c)	Dec-15 (d)	Jan-16 (e)	Feb-16 (f)	Mar-16 (g)	Apr-16 (h)	May-16 (i)	Jun-16 (j)	Jul-16 (k)	Aug-16 (l)	Sep-16 (m)	Oct-16 (n)	Nov-Oct (o)
	SUPPLY FIXED COSTS - Pipeline Delivery														
(1)	Algonquin	EDA-2	$703,472	$703,472	$703,472	$703,472	$703,472	$703,472	$703,472	$703,472	$703,472	$703,472	$703,472	$703,472	$8,441,658
(2)	Texas Eastern	EDA-2	$212,519	$212,519	$212,519	$212,519	$212,519	$212,519	$212,519	$212,519	$212,519	$212,519	$212,519	$212,519	$2,550,223
(3)	TETCO	EDA-2	$509,560	$509,560	$509,560	$509,560	$509,560	$509,560	$509,560	$509,560	$509,560	$509,560	$509,560	$509,560	$6,114,715
(4)	Tennessee	EDA-2	$958,365	$958,365	$958,365	$958,365	$958,365	$958,365	$958,365	$958,365	$958,365	$958,365	$958,365	$958,365	$11,500,376
(5)	Tennessee Dracut for peaking	EDA-2	$44,191	$44,191	$44,191	$44,191	$44,191	$44,191	$44,191	$44,191	$44,191	$44,191	$44,191	$44,191	$530,291
(6)	NETNE	EDA-2	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(7)	Iroquois	EDA-2	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$80,115
(8)	Union	EDA-2	$2,168	$2,240	$2,240	$2,096	$2,240	$2,168	$2,240	$2,168	$2,240	$2,240	$2,168	$2,240	$26,448
(9)	Transcanada	EDA-2	$13,150	$13,589	$13,589	$12,712	$13,589	$13,150	$13,589	$13,150	$13,589	$13,589	$13,150	$13,589	$160,435
(10)	Dominion	EDA-2	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$2,232	$26,784
(11)	Transco	EDA-2	$4,869	$5,032	$5,032	$4,545	$5,032	$4,869	$5,032	$4,869	$5,032	$5,032	$4,869	$5,032	$59,245
(12)	National Fuel	EDA-2	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$4,667	$56,006
(13)	AMA Credits	EDA-2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
(14)	Columbia	EDA-2	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$290,947	$3,491,359
(15)	Hubline	EDA-2	$49,885	$49,885	$49,885	$49,885	$49,885	$49,885	$49,885	$49,885	$49,885	$49,885	$49,885	$49,885	$598,625
(16)	Algonquin Hubline for peaking	EDA-2	$101,209	$101,209	$101,209	$101,209	$101,209	$101,209	$101,209	$101,209	$101,209	$101,209	$101,209	$101,209	$1,214,510
(17)	Westerly Lateral	EDA-2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
(18)	East to West	EDA-2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
(19)	Less Credits from Mkter Releases	EDA-2	($508,753)	($508,753)	($508,753)	($508,753)	($508,753)	($508,753)	($508,753)	($508,753)	($508,753)	($508,753)	($508,753)	($508,753)	($6,105,033)
(20)	**TOTAL SUPPLY FIXED COSTS - Pipeline**	sum[(1):(19)]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	Supply Fixed - Supplier														
(21)	Distrigas FCS	EDA-2	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(22)	**Total**	(21)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(23)	**Total Supply Fixed (Pipeline & Supplier)**	(20) + (22)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	STORAGE FIXED COSTS - Facilities														
(24)	Texas Eastern SS-1 Demand	EDA-2	$80,242	$80,242	$80,242	$80,242	$80,242	$80,242	$80,242	$80,242	$80,242	$80,242	$80,242	$80,242	$962,900
(25)	Texas Eastern SS-1 Capacity	EDA-2	$13,361	$13,361	$13,361	$13,361	$13,361	$13,361	$13,361	$13,361	$13,361	$13,361	$13,361	$13,361	$160,336
(26)	Texas Eastern FSS-1 Demand	EDA-2	$846	$846	$846	$846	$846	$846	$846	$846	$846	$846	$846	$846	$10,150
(27)	Texas Eastern FSS-1 Capacity	EDA-2	$610	$610	$610	$610	$610	$610	$610	$610	$610	$610	$610	$610	$7,324
(28)	Dominion GSS Demand	EDA-2	$21,238	$21,238	$21,238	$21,238	$21,238	$21,238	$21,238	$21,238	$21,238	$21,238	$21,238	$21,238	$254,857
(29)	Dominion GSS Capacity	EDA-2	$15,070	$15,070	$15,070	$15,070	$15,070	$15,070	$15,070	$15,070	$15,070	$15,070	$15,070	$15,070	$180,839
(30)	Dominion GSS-TE Demand	EDA-2	$26,703	$26,703	$26,703	$26,703	$26,703	$26,703	$26,703	$26,703	$26,703	$26,703	$26,703	$26,703	$320,432
(31)	Dominion GSS-TE Capacity	EDA-2	$19,957	$19,957	$19,957	$19,957	$19,957	$19,957	$19,957	$19,957	$19,957	$19,957	$19,957	$19,957	$239,480
(32)	Tennessee FSMA Demand	EDA-2	$32,600	$32,600	$32,600	$32,600	$32,600	$32,600	$32,600	$32,600	$32,600	$32,600	$32,600	$32,600	$391,203
(33)	Tennessee FSMA Capacity	EDA-2	$17,204	$17,204	$17,204	$17,204	$17,204	$17,204	$17,204	$17,204	$17,204	$17,204	$17,204	$17,204	$206,445
(34)	Columbia FSS Demand	EDA-2	$3,820	$3,820	$3,820	$3,820	$3,820	$3,820	$3,820	$3,820	$3,820	$3,820	$3,820	$3,820	$45,841
(35)	Columbia FSS Capacity	EDA-2	$5,874	$5,874	$5,874	$5,874	$5,874	$5,874	$5,874	$5,874	$5,874	$5,874	$5,874	$5,874	$70,488
(36)	Keyspan LNG Tank Lease Payment	EDA-2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
(37)	**TOTAL FIXED STORAGE COSTS**	sum[(24):(36)]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	STORAGE FIXED COSTS - Delivery														
(38)	Algonquin for TETCO SS-1	EDA-2	$92,928	$92,928	$92,928	$92,928	$92,928	$92,928	$92,928	$92,928	$92,928	$92,928	$92,928	$92,928	$1,115,138
(39)	Algonquin delivery for FSS	EDA-2	$6,205	$6,205	$6,205	$6,205	$6,205	$6,205	$6,205	$6,205	$6,205	$6,205	$6,205	$6,205	$74,463
(40)	TETCO delivery for FSS	EDA-2	$4,868	$4,868	$4,868	$4,868	$4,868	$4,868	$4,868	$4,868	$4,868	$4,868	$4,868	$4,868	$58,418
(41)	Algonquin SCT for SS-1	EDA-2	$1,749	$1,749	$1,749	$1,749	$1,749	$1,749	$1,749	$1,749	$1,749	$1,749	$1,749	$1,749	$20,983
(42)	Algonquin delivery for GSS, GSS-TE	EDA-2	$77,165	$77,165	$77,165	$77,165	$77,165	$77,165	$77,165	$77,165	$77,165	$77,165	$77,165	$77,165	$925,982
(43)	Algonquin SCT delivery for GSS-TE	EDA-2	$492	$492	$492	$492	$492	$492	$492	$492	$492	$492	$492	$492	$5,900
(44)	Algonquin delivery for GSS Conv	EDA-2	$20,168	$20,168	$20,168	$20,168	$20,168	$20,168	$20,168	$20,168	$20,168	$20,168	$20,168	$20,168	$242,013
(45)	Tennessee delivery for GSS	EDA-2	$56,612	$56,612	$56,612	$56,612	$56,612	$56,612	$56,612	$56,612	$56,612	$56,612	$56,612	$56,612	$679,341
(46)	Tennessee delivery for FSMA	EDA-2	$34,607	$34,607	$34,607	$34,607	$34,607	$34,607	$34,607	$34,607	$34,607	$34,607	$34,607	$34,607	$415,282
(47)	TETCO delivery for GSS/GSS-TE	EDA-2	$34,123	$34,123	$34,123	$34,123	$34,123	$34,123	$34,123	$34,123	$34,123	$34,123	$34,123	$34,123	$409,480
(48)	TETCO delivery for GSS-TE	EDA-2	$3,538	$3,538	$3,538	$3,538	$3,538	$3,538	$3,538	$3,538	$3,538	$3,538	$3,538	$3,538	$42,455
(49)	TETCO delivery for GSS-TE	EDA-2	$34,396	$34,396	$34,396	$34,396	$34,396	$34,396	$34,396	$34,396	$34,396	$34,396	$34,396	$34,396	$412,746
(50)	TETCO delivery for GSS Conv	EDA-2	$10,674	$10,674	$10,674	$10,674	$10,674	$10,674	$10,674	$10,674	$10,674	$10,674	$10,674	$10,674	$128,087
(51)	Dominion delivery for GSS Conv	EDA-2	$8,566	$8,566	$8,566	$8,566	$8,566	$8,566	$8,566	$8,566	$8,566	$8,566	$8,566	$8,566	$102,796
(52)	Dominion delivery for GSS	EDA-2	$22,129	$22,129	$22,129	$22,129	$22,129	$22,129	$22,129	$22,129	$22,129	$22,129	$22,129	$22,129	$265,544
(53)	Algonquin delivery for FSS	EDA-2	$16,729	$16,729	$16,729	$16,729	$16,729	$16,729	$16,729	$16,729	$16,729	$16,729	$16,729	$16,729	$200,752
(54)	Columbia Delivery for FSS	EDA-2	$15,171	$15,171	$15,171	$15,171	$15,171	$15,171	$15,171	$15,171	$15,171	$15,171	$15,171	$15,171	$182,049
(55)	Gaz Metro Demand Payment	EDA-2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
(56)	GCF Suez Demand Payment	EDA-2													
(57)	PEAKING SUPPLY AT SALEM	EDA-2													
(58)	PEAKING SUPPLY AT DRACUT	EDA-2													
(59)	Repsol Peaking Supply at Dracut	EDA-2													$0
(60)	AGT Citygate Supply	EDA-2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
(61)	TGP CITYGATE SUPPLY	EDA-2													
(62)	Less Credits from Mkter Releases	EDA-2													
(63)	**STORAGE DELIVERY FIXED COST**	sum[(38):(61)]	$602,619	$894,119	$894,119	$894,119	$894,119	$1,044,708	$1,044,708	$1,044,708	$1,044,708	$1,044,708	$1,044,708	$1,044,708	$11,492,053
(64)	**TOTAL STORAGE FIXED**	(37) + (63)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
(65)	**TOTAL FIXED COSTS**	(23) + (37) + (63)	$3,416,918	$3,709,091	$3,707,764	$3,706,255	$3,707,764	$3,861,680	$3,862,353	$3,861,680	$3,862,353	$3,862,353	$3,861,680	$3,862,353	$45,282,243

REDACTED

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Gas Cost Estimate

Line No.	Description (a)	Reference (b)	Nov-15 (c)	Dec-15 (d)	Jan-16 (e)	Feb-16 (f)	Mar-16 (g)	Apr-16 (h)	May-16 (i)	Jun-16 (j)	Jul-16 (k)	Aug-16 (l)	Sep-16 (m)	Oct-16 (n)	Nov-Oct (o)
	VARIABLE SUPPLY COSTS (Includes Injections)														
(66)	Tennessee Zone 0	EDA-2	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(67)	Tennessee Zone 4	EDA-2	$317,482	$793,229	$1,172,468	$1,114,857	$801,089	$863,884	$364,748	$215,627	$201,846	$176,574	$0	$316,496	$6,338,301
(68)	Tennessee Connexion	EDA-2	$730,989	$833,718	$884,872	$863,419	$891,039	$738,362	$646,517	$630,928	$669,010	$637,085	$521,563	$622,573	$8,670,075
(69)	Tennessee Dracut	EDA-2	$0	$552,856	$1,423,508	$2,062,367	$457,565	$0	$0	$0	$0	$0	$0	$0	$4,496,296
(70)	TETCO STX	EDA-2	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(71)	TETCO ELA	EDA-2	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(72)	TETCO WLA	EDA-2	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(73)	TETCO ETX	EDA-2	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(74)	TRANSCO LEIDY	EDA-2	$61,437	$71,832	$77,390	$76,099	$78,008	$74,966	$60,788	$47,215	$39,703	$34,485	$32,961	$52,467	$707,349
(75)	M3 Delivered	EDA-2	$1,243,256	$444,760	$2,416,981	$1,876,852	$959,720	$3,163,443	$561,232	$1,107,433	$0	$0	$932,786	$475,112	$13,181,575
(76)	Maumee	EDA-2	$319,528	$2,645,181	$2,382,896	$2,340,496	$1,577,887	$250,306	$0	$0	$0	$0	$0	$0	$9,516,294
(77)	Broadrun Col	EDA-2	$40,439	$812,027	$946,689	$830,718	$573,860	$31,992	$0	$0	$0	$0	$0	$0	$3,235,725
(78)	Columbia Eagle and Downingtown	EDA-2	$182,426	$338,612	$1,514,240	$1,307,636	$687,580	$183,429	$85,688	$76,470	$74,260	$83,448	$43,389	$26,566	$4,603,745
(79)	TETCO M2	EDA-2	$1,862,012	$2,125,386	$2,379,645	$2,274,901	$2,248,390	$605,125	$1,620,223	$521,005	$1,287,046	$1,147,593	$576,376	$1,487,023	$18,134,723
(80)	Dominion to TETCO FTS	EDA-2	$0	$41,073	$44,283	$39,226	$39,337	$0	$0	$0	$0	$0	$0	$0	$163,918
(81)	Transco Zone 3	EDA-2													$0
(82)	ANE to Tennessee	EDA-2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
(83)	Niagara to Tennessee	EDA-2	$0	$0	$13,613	$10,379	$0	$0	$0	$0	$0	$0	$0	$0	$23,992
(84)	TETCO to B & W	EDA-2	$0	$160,388	$177,980	$169,937	$168,889	$0	$0	$0	$0	$0	$0	$0	$677,194
(85)	DistriGas FCS	EDA-2													$0
(86)	Hubline	EDA-2	$1,634	$1,017,417	$1,162,186	$1,883,010	$259,506	$22,523	$0	$0	$0	$0	$0	$0	$4,346,277
(87)	Total Pipeline Commodity Charges	sum[(66):(86)]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
(88)	Hedging EDA-2		$1,490,109	$3,152,512	$2,609,943	$2,560,968	$2,319,838	$1,093,816	$749,769	$374,144	$288,161	$362,574	$297,574	$452,831	$15,752,240
(89)	Costs of Injections	EDA-2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
(90)	Refunds														
(91)	**TOTAL VARIABLE SUPPLY COSTS**	sum[(87):(90)]	$6,249,313	$13,099,857	$17,320,579	$17,519,230	$11,062,707	$5,867,287	$3,014,829	$1,948,741	$1,550,832	$1,388,704	$1,275,966	$2,435,751	$82,733,795
(92)	Underground Storage	EDA-2	$412,169	$2,532,406	$2,781,527	$2,621,227	$2,315,309	$17,899	$0	$0	$0	$0	$0	$0	$10,680,538
(93)	LNG Withdrawals and Trucking	EDA-2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
(94)	Storage Delivery Costs	EDA-2	$29,252	$131,098	$139,238	$131,657	$118,287	$1,175	$0	$0	$0	$0	$0	$0	$550,707
(95)	**TOTAL VARIABLE STORAGE COSTS**	sum[(92):(94)]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
(96)	**TOTAL VARIABLE COSTS**	(91) + (95)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
(97)	**TOTAL SUPPLY COSTS**	(65) + (96)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	Storage Costs for FT-2 Calculation														
(98)	**Storage Fixed Costs - Facilities**	(37)	$401,264	$401,264	$401,264	$401,264	$401,264	$401,264	$401,264	$401,264	$401,264	$401,264	$401,264	$401,264	$4,815,174
(99)	**Storage Fixed Costs - Deliveries**	(63)	$602,619	$894,119	$894,119	$894,119	$894,119	$1,044,708	$1,044,708	$1,044,708	$1,044,708	$1,044,708	$1,044,708	$1,044,708	$11,492,053
(100)	**Total Storage Costs**	sum[(98):(99)]	$1,003,883	$1,295,383	$1,295,383	$1,295,383	$1,295,383	$1,445,973	$1,445,973	$1,445,973	$1,445,973	$1,445,973	$1,445,973	$1,445,973	$16,307,226

REDACTED

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
GCR Deferred Balances

Line No.	Description	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-Oct
		actual	actual	actual	actual	actual	actual	actual	actual	actual	forecast	forecast	forecast	
(1)	# of Days in Month	30	31	31	28	31	30	31	30	31	31	30	31	365
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
(2)	I. Fixed Cost Deferred													
(3)	Beginning Balance	($7,512,514)	($5,401,759)	($5,180,202)	($8,401,939)	($11,113,267)	($16,586,201)	($17,196,199)	($15,222,687)	($13,386,753)	($10,482,178)	($7,571,510)	($5,555,704)	($7,512,514)
(4)														
(5)	Supply Fixed Costs (net of cap rel)	$3,821,620	$4,035,580	$3,316,828	$3,788,859	$3,372,291	$3,639,523	$3,922,456	$3,906,255	$3,897,003	$3,886,886	$3,886,236	$3,886,886	$45,360,424
(6)	LNG Demand to DAC	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($1,488,790)
(7)	Supply Related LNG O & M	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$575,581
(8)	NGPMP Credits	($83,333)	($83,333)	($1,558,333)	($83,333)	($2,748,980)	($83,333)	($83,333)	($963,010)	($83,333)	($83,333)	($963,010)	($83,333)	($6,900,000)
(9)	Working Capital	$21,289	$22,521	$18,383	$21,100	$18,702	$20,241	$21,870	$21,776	$21,723	$21,665	$21,661	$21,665	$252,596
(10)	Total Supply Fixed Costs	$3,683,475	$3,898,667	$1,700,776	$3,650,526	$565,912	$3,500,330	$3,784,892	$2,888,921	$3,759,292	$3,749,117	$2,868,787	$3,749,117	$37,799,811
(11)	Supply Fixed - Revenue	$1,486,014	$3,671,495	$4,915,307	$6,352,502	$6,024,150	$4,092,983	$1,794,180	$1,038,298	$842,054	$828,870	$846,241	$950,661	$32,842,756
(12)	Prelim. Ending Balance	($5,315,053)	($5,174,588)	($8,394,733)	($11,103,915)	($16,571,506)	($17,178,854)	($15,205,487)	($13,372,064)	($10,469,515)	($7,561,932)	($5,548,964)	($2,757,249)	($2,555,459)
(13)	Month's Average Balance	($6,413,783)	($5,288,174)	($6,787,467)	($9,752,927)	($13,842,386)	($16,882,528)	($16,200,843)	($14,297,376)	($11,928,134)	($9,022,055)	($6,560,237)	($4,156,476)	
(14)	Interest Rate (BOA Prime minus 200 bps)	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	
(15)	Interest Applied	($6,590)	($5,614)	($7,206)	($9,352)	($14,696)	($17,345)	($17,200)	($14,689)	($12,663)	($9,578)	($6,740)	($4,413)	($126,085)
(16)	Marketer Reconciliation	($80,117)	$0	$0	$0	$0								($80,117)
(17)	Fixed Ending Balance	($5,401,759)	($5,180,202)	($8,401,939)	($11,113,267)	($16,586,201)	($17,196,199)	($15,222,687)	($13,386,753)	($10,482,178)	($7,571,510)	($5,555,704)	($2,761,661)	($2,761,661)
(18)	II. Variable Cost Deferred													
(19)	Beginning Balance	$33,264,125	$35,002,943	$32,356,883	$35,797,057	$47,190,223	$38,999,965	$25,699,657	$20,892,063	$18,688,869	$17,196,988	$14,962,885	$12,638,861	$33,264,125
(20)														
(21)	Variable Supply Costs	$11,252,746	$16,365,997	$28,887,903	$44,042,978	$21,652,522	$6,879,185	$3,813,569	$2,449,655	$2,087,361	$1,374,663	$1,366,134	$2,575,510	$142,748,224
(22)	Supply Related LNG to DAC	($599)	($113,742)	($923)	($496,944)	($4,929)	$0	$0	$0	$0	$0	$0	$0	($617,137)
(23)	Supply Related LNG O & M	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$572,694
(24)	Inventory Financing - LNG	$41,542	$41,387	$23,617	$13,283	$11,805	$13,336	$14,270	$17,352	$20,776	$23,833	$28,132	$32,953	$282,285
(25)	Inventory Financing - UG	$113,748	$102,613	$73,713	$54,137	$48,072	$56,504	$67,668	$76,291	$84,861	$88,552	$99,894	$110,356	$976,408
(26)	Working Capital	$64,785	$93,574	$166,320	$250,721	$124,638	$39,608	$21,957	$14,104	$12,018	$7,915	$7,866	$14,829	$818,335
(27)	Total Supply Variable Costs	$11,519,948	$16,537,553	$29,198,355	$43,911,899	$21,879,833	$7,036,357	$3,965,188	$2,605,126	$2,252,741	$1,542,687	$1,549,751	$2,781,372	$144,780,810
(28)	Supply Variable - Revenue	$9,816,180	$19,219,351	$25,794,339	$32,558,502	$30,175,864	$20,369,885	$8,797,501	$4,828,643	$3,763,661	$3,793,852	$3,887,946	$4,443,453	$167,449,176
(29)	Prelim. Ending Balance	$34,967,892	$32,321,145	$35,760,898	$47,150,454	$38,894,192	$25,666,438	$20,867,344	$18,668,547	$17,177,949	$14,945,823	$12,624,689	$10,976,780	$10,595,758
(30)	Month's Average Balance	$34,116,009	$33,662,044	$34,058,890	$41,473,755	$43,042,207	$32,333,202	$23,283,500	$19,780,305	$17,933,409	$16,071,405	$13,793,787	$11,807,821	
(31)	Interest Rate (BOA Prime minus 200 bps)	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	
(32)	Interest Applied	$35,051	$35,737	$36,158	$39,769	$45,695	$33,219	$24,719	$20,322	$19,039	$17,062	$14,172	$12,536	$333,480
(33)	Gas Procurement Incentive/(penalty)	$0	$0	$0	$0	$60,078	$0	$0	$0	$0	$0	$0	$0	$60,078
(34)	Variable Ending Balance	$35,002,943	$32,356,883	$35,797,057	$47,190,223	$38,999,965	$25,699,657	$20,892,063	$18,688,869	$17,196,988	$14,962,885	$12,638,861	$10,989,316	$10,989,316
(35)	**GCR Deferred Summary**													
(36)	Beginning Balance	$25,751,611	$29,601,184	$27,176,681	$27,395,118	$36,076,956	$22,413,764	$8,503,458	$5,669,376	$5,302,116	$6,714,809	$7,391,375	$7,083,157	$25,751,611
(37)	Gas Costs	$14,965,275	$20,259,458	$32,175,432	$47,306,517	$24,991,508	$10,490,332	$7,707,649	$6,327,534	$5,955,988	$5,233,173	$5,223,995	$6,434,020	$187,070,880
(38)	Inventory Finance	$155,290	$144,000	$97,331	$67,419	$59,877	$69,840	$81,938	$93,643	$105,637	$112,384	$128,026	$143,309	$1,258,693
(39)	Working Capital	$86,075	$116,095	$184,703	$271,821	$143,340	$59,848	$43,827	$35,881	$33,741	$29,580	$29,527	$36,494	$1,070,931
(40)	NGPMP Credits	($83,333)	($83,333)	($1,558,333)	($83,333)	($2,748,980)	($83,333)	($83,333)	($963,010)	($83,333)	($83,333)	($963,010)	($83,333)	($6,900,000)
(41)	Total Costs	$15,123,306	$20,436,220	$30,899,132	$47,562,424	$22,445,745	$10,536,687	$7,750,080	$5,494,047	$6,012,034	$5,291,804	$4,418,538	$6,530,489	$182,500,504
(42)	Revenue	$11,302,194	$22,890,846	$30,709,647	$38,911,004	$36,200,014	$24,462,868	$10,591,681	$5,866,941	$4,605,715	$4,622,722	$4,734,187	$5,394,114	$200,291,932
(43)	Prelim. Ending Balance	$29,572,723	$27,146,558	$27,366,166	$36,046,539	$22,322,686	$8,487,584	$5,661,857	$5,296,482	$6,708,434	$7,383,891	$7,075,725	$8,219,532	$7,960,183
(44)	Month's Average Balance	$27,662,167	$28,373,871	$27,271,423	$31,720,829	$29,199,821	$15,450,674	$7,082,657	$5,482,929	$6,005,275	$7,049,350	$7,233,550	$7,651,344	
(45)	Interest Rate (BOA Prime minus 200 bps)	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	
(46)	Interest Applied	$28,461	$30,123	$28,953	$30,417	$31,000	$15,874	$7,519	$5,633	$6,375	$7,484	$7,432	$8,123	$207,394
(47)	Gas Purchase Plan Incentives/(Penalties)	$0	$0	$0	$0	$60,078	$0	$0	$0	$0	$0	$0	$0	$60,078
(48)														
(49)	**Ending Bal. W/ Interest**	**$29,601,184**	**$27,176,681**	**$27,395,118**	**$36,076,956**	**$22,413,764**	**$8,503,458**	**$5,669,376**	**$5,302,116**	**$6,714,809**	**$7,391,375**	**$7,083,157**	$\boxed{\textbf{\$8,227,655}}$	$8,227,655

REDACTED

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
GCR - Gas Cost Revenue

Line No.	Description (a)	Reference (b)	Nov-15 fcst (c)	Dec-15 fcst (d)	Jan-16 fcst (e)	Feb-16 fcst (f)	Mar-16 fcst (g)	Apr-16 fcst (h)	May-16 fcst (i)	Jun-16 fcst (j)	Jul-16 fcst (k)	Aug-16 fcst (l)	Sep-16 fcst (m)	Oct-16 fcst (n)	Total Nov-Oct (o)
(1)	**I. Fixed Cost Revenue --**														
(2)	(a) Low Load dth	AEL-1 pg 11, sum [Line (2):(5), (7)]	1,896,039	3,310,220	4,342,169	4,338,370	3,905,629	2,869,508	1,700,670	1,007,693	606,903	503,149	561,628	785,129	25,827,107
(3)	Fixed Cost Factor	AEL-1 pg 1, (e)1	$1.1469	$1.1469	$1.1469	$1.1469	$1.1469	$1.1469	$1.1469	$1.1469	$1.1469	$1.1469	$1.1469	$1.1469	
(4)	Low Load Revenue	(2) * (3)	$2,174,567	$3,796,491	$4,980,033	$4,975,676	$4,479,366	$3,291,039	$1,950,499	$1,155,723	$696,057	$577,062	$644,131	$900,464	$29,621,108
(5)	(b) High Load dth	AEL-1 pg 11, sum [Line (1), (6), (8)]	91,507	126,701	141,824	146,199	142,837	121,275	81,665	68,449	59,695	60,049	70,588	71,955	1,182,745
(6)	Fixed Cost Factor	AEL-1 pg 1, (d)1	$0.8833	$0.8833	$0.8833	$0.8833	$0.8833	$0.8833	$0.8833	$0.8833	$0.8833	$0.8833	$0.8833	$0.8833	
(7)	High Load Revenue	(5) * (6)	$80,828	$111,915	$125,273	$129,137	$126,168	$107,122	$72,135	$60,461	$52,729	$53,041	$62,350	$63,558	$1,044,717
(8)	sub-total Dth	(2) + (5)	1,987,546	3,436,921	4,483,993	4,484,568	4,048,466	2,990,783	1,782,336	1,076,142	666,599	563,198	632,216	857,084	27,009,852
(9)	FT-2 Storage Revenue from i	[AEL-5 pg 2, Line (26)] / 12	$144,542	$144,542	$144,542	$144,542	$144,542	$144,542	$144,542	$144,542	$144,542	$144,542	$144,542	$144,542	$1,734,509
(10)	**TOTAL Fixed Revenue**	(4) + (7) + (9)	**$2,399,937**	**$4,052,948**	**$5,249,848**	**$5,249,355**	**$4,750,076**	**$3,542,703**	**$2,167,176**	**$1,360,726**	**$893,328**	**$774,645**	**$851,023**	**$1,108,564**	**$32,400,334**
(11)	**II. Variable Cost Revenue --**														
(12)	(a) Firm Sales dth	(8)	1,987,546	3,436,921	4,483,993	4,484,568	4,048,466	2,990,783	1,782,336	1,076,142	666,599	563,198	632,216	857,084	27,009,852
(13)	Variable Cost Factor	AEL-1 pg 1, Line (2)	$4.1265	$4.1265	$4.1265	$4.1265	$4.1265	$4.1265	$4.1265	$4.1265	$4.1265	$4.1265	$4.1265	$4.1265	
(14)	Variable Revenue	(12) * (13)	$8,201,610	$14,182,455	$18,503,196	$18,505,571	$16,705,995	$12,341,465	$7,354,807	$4,440,702	$2,750,719	$2,324,036	$2,608,841	$3,536,755	$111,456,152
(15)	**TOTAL Variable Revenue**	(14)	**$8,201,610**	**$14,182,455**	**$18,503,196**	**$18,505,571**	**$16,705,995**	**$12,341,465**	**$7,354,807**	**$4,440,702**	**$2,750,719**	**$2,324,036**	**$2,608,841**	**$3,536,755**	**$111,456,152**
(16)	**Total Gas Cost Revenue**	(10) + (15)	**$10,601,547**	**$18,235,403**	**$23,753,044**	**$23,754,926**	**$21,456,071**	**$15,884,168**	**$9,521,983**	**$5,801,428**	**$3,644,047**	**$3,098,681**	**$3,459,864**	**$4,645,319**	**$143,856,486**

REDACTED

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Working Capital Estimate

Line No.	Description (a)	Source (b)	Nov-15 (c)	Dec-15 (d)	Jan-16 (e)	Feb-16 (f)	Mar-16 (g)	Apr-16 (h)	May-16 (i)	Jun-16 (j)	Jul-16 (k)	Aug-16 (l)	Sep-16 (m)	Oct-16 (n)	Total (o)
(1)	**Fixed Costs**	AEL-3, Line (4)	$3,416,918	$3,709,091	$3,707,764	$3,706,255	$3,707,764	$3,861,680	$3,862,353	$3,861,680	$3,862,353	$3,862,353	$3,861,680	$3,862,353	$45,282,243
(2)	Capacity Release Revenue		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(3)	Less: LNG Demand to DAC	Dkt 4514	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($1,488,790)
(4)	Less: Credits		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(5)	Plus: Supply Related LNG O&M Costs	Dkt 4323	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(6)	Allowable Working Capital Costs	sum[(1):(5)]	$3,292,852	$3,585,025	$3,583,698	$3,582,190	$3,583,698	$3,737,614	$3,738,287	$3,737,614	$3,738,287	$3,738,287	$3,737,614	$3,738,287	$43,793,453
(7)	Number of Days Lag	Dkt 4323	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	
(8)	Working Capital Requirement	[(6) * (7)] / 365	$194,053	$211,271	$211,193	$211,104	$211,193	$220,263	$220,303	$220,263	$220,303	$220,303	$220,263	$220,303	
(9)	Cost of Capital	Dkt 4323	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	
(10)	Return on Working Capital Requirement	(8) * (9)	$14,069	$15,317	$15,311	$15,305	$15,311	$15,969	$15,972	$15,969	$15,972	$15,972	$15,969	$15,972	
(11)	Weighted Cost of Debt	Dkt 4323	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	
(12)	Interest Expense	(8) * (11)	$4,987	$5,430	$5,428	$5,425	$5,428	$5,661	$5,662	$5,661	$5,662	$5,662	$5,661	$5,662	
(13)	Taxable Income	(10) - (12)	$9,082	$9,887	$9,884	$9,880	$9,884	$10,308	$10,310	$10,308	$10,310	$10,310	$10,308	$10,310	
(14)	1 - Combined Tax Rate	Dkt 4323	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	
(15)	Return and Tax Requirement	(13) / (14)	$13,972	$15,212	$15,206	$15,199	$15,206	$15,859	$15,862	$15,859	$15,862	$15,862	$15,859	$15,862	
(16)	**Fixed Working Capital Requirement**	(12) + (15)	$18,959	$20,641	$20,634	$20,625	$20,634	$21,520	$21,524	$21,520	$21,524	$21,524	$21,520	$21,524	$252,146
(17)	**Variable Costs**	AEL-3, Line (19)	$6,777,796	$15,883,979	$22,525,042	$21,244,530	$13,742,029	$6,004,724	$3,125,329	$2,048,234	$1,650,418	$1,485,632	$1,369,060	$2,530,861	$98,387,634
(18)	Less: Non-firm Sales														$0
(19)	Less: Supply Refunds														$0
(20)	Less: Balancing Related LNG Commodity to DAC	Dkt 4514	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(21)	Plus: Supply Related LNG O&M Costs	Dkt 4323	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(22)	Allowable Working Capital Costs	sum[(17):(21)]	$6,777,796	$15,883,979	$22,525,042	$21,244,530	$13,742,029	$6,004,724	$3,125,329	$2,048,234	$1,650,418	$1,485,632	$1,369,060	$2,530,861	$98,387,634
(23)	Number of Days Lag	Dkt 4323	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	
(24)	Working Capital Requirement	[(22) * (23)] / 365	$399,426	$936,067	$1,327,435	$1,251,972	$809,838	$353,867	$184,180	$120,706	$97,262	$87,551	$80,681	$149,147	
(25)	Cost of Capital	Dkt 4323	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	
(26)	Return on Working Capital Requirement	(24) * (25)	$28,958	$67,865	$96,239	$90,768	$58,713	$25,655	$13,353	$8,751	$7,051	$6,347	$5,849	$10,813	
(27)	Weighted Cost of Debt	Dkt 4323	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	
(28)	Interest Expense	(24) * (27)	$10,265	$24,057	$34,115	$32,176	$20,813	$9,094	$4,733	$3,102	$2,500	$2,250	$2,073	$3,833	
(29)	Taxable Income	(26) - (28)	$18,693	$43,808	$62,124	$58,592	$37,900	$16,561	$8,620	$5,649	$4,552	$4,097	$3,776	$6,980	
(30)	1 - Combined Tax Rate	Dkt 4323	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	
(31)	Return and Tax Requirement	(29) / (30)	$28,759	$67,397	$95,575	$90,142	$58,308	$25,478	$13,261	$8,691	$7,003	$6,304	$5,809	$10,739	
(32)	**Variable Working Capital Requirement**	(28) + (31)	$39,024	$91,454	$129,690	$122,318	$79,121	$34,573	$17,994	$11,793	$9,502	$8,554	$7,883	$14,572	$566,477

REDACTED

Storage Fixed Cost Working Capital Calculation for FT-2 Demand Rate (see AEL-5 pg 2)

Line No.	Description	Source	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Total
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
(33)	**Storage Fixed Costs**	AEL-1 pg 4, Line (64)	$1,003,883	$1,295,383	$1,295,383	$1,295,383	$1,295,383	$1,445,973	$1,445,973	$1,445,973	$1,445,973	$1,445,973	$1,445,973	$1,445,973	$16,307,226
(34)	Less: LNG Demand to DAC	Dkt 4514	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($1,488,790)
(35)	Less: Credits		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(36)	Plus: Supply Related LNG O&M Costs	Dkt 4323	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(37)	Allowable Working Capital Costs	sum[(33):(36)]	$879,818	$1,171,318	$1,171,318	$1,171,318	$1,171,318	$1,321,907	$1,321,907	$1,321,907	$1,321,907	$1,321,907	$1,321,907	$1,321,907	$14,818,437
(38)	Number of Days Lag	Dkt 4323	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	
(39)	Working Capital Requirement	[(37) * (38)] / 365	$51,849	$69,028	$69,028	$69,028	$69,028	$77,902	$77,902	$77,902	$77,902	$77,902	$77,902	$77,902	
(40)	Cost of Capital	Dkt 4323	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	
(41)	Return on Working Capital Requirement	(39) * (40)	$3,759	$5,004	$5,004	$5,004	$5,004	$5,648	$5,648	$5,648	$5,648	$5,648	$5,648	$5,648	
(42)	Weighted Cost of Debt	Dkt 4323	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	
(43)	Interest Expense	(39) * (42)	$1,333	$1,774	$1,774	$1,774	$1,774	$2,002	$2,002	$2,002	$2,002	$2,002	$2,002	$2,002	
(44)	Taxable Income	(41) - (43)	$2,427	$3,230	$3,230	$3,230	$3,230	$3,646	$3,646	$3,646	$3,646	$3,646	$3,646	$3,646	
(45)	1 - Combined Tax Rate	Dkt 4323	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	
(46)	Return and Tax Requirement	(44) / (45)	$3,733	$4,970	$4,970	$4,970	$4,970	$5,609	$5,609	$5,609	$5,609	$5,609	$5,609	$5,609	
(47)	**Storage Fixed Working Capital Requirement**	(43) + (46)	$5,066	$6,744	$6,744	$6,744	$6,744	$7,611	$7,611	$7,611	$7,611	$7,611	$7,611	$7,611	$85,319

REDACTED

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Inventory Finance Estimate

Line No.	Description (a)	Source (b)	Nov-15 (c)	Dec-15 (d)	Jan-16 (e)	Feb-16 (f)	Mar-16 (g)	Apr-16 (h)	May-16 (i)	Jun-16 (j)	Jul-16 (k)	Aug-16 (l)	Sep-16 (m)	Oct-16 (n)	Total (o)
(1)	**Storage Inventory Balance**	EDA-2 pg 15	$9,855,832	$8,025,739	$6,015,541	$4,121,265	$2,449,665	$3,424,901	$4,316,856	$5,227,041	$6,137,090	$7,049,000	$8,056,728	$8,938,049	
(2)	Hedging														
(3)	Subtotal	(1) + (2)	$9,855,832	$8,025,739	$6,015,541	$4,121,265	$2,449,665	$3,424,901	$4,316,856	$5,227,041	$6,137,090	$7,049,000	$8,056,728	$8,938,049	
(4)	Cost of Capital	Dkt 4323	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	
(5)	Return on Working Capital Requirement	(3) * (4)	$714,548	$581,866	$436,127	$298,792	$177,601	$248,305	$312,972	$378,961	$444,939	$511,052	$584,113	$648,009	$5,337,284
(6)	Weighted Cost of Debt	Dkt 4323	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	
(7)	Interest Charges Financed	(3) * (6)	$253,295	$206,261	$154,599	$105,917	$62,956	$88,020	$110,943	$134,335	$157,723	$181,159	$207,058	$229,708	$1,891,975
(8)	Taxable Income	(5) - (7)	$461,253	$375,605	$281,527	$192,875	$114,644	$160,285	$202,029	$244,626	$287,216	$329,893	$377,055	$418,301	
(9)	1 - Combined Tax Rate	Dkt 4323	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	
(10)	Return and Tax Requirement	(8) / (9)	$709,620	$577,853	$433,119	$296,731	$176,376	$246,593	$310,814	$376,347	$441,871	$507,528	$580,084	$643,540	$5,300,475
(11)	Working Capital Requirement	(7) + (10)	$962,915	$784,115	$587,718	$402,648	$239,332	$334,613	$421,757	$510,682	$599,594	$688,687	$787,142	$873,247	$7,192,450
(12)	Storage-Related Inventory Costs	(11) / 12	$80,243	$65,343	$48,977	$33,554	$19,944	$27,884	$35,146	$42,557	$49,966	$57,391	$65,595	$72,771	$599,371
(13)	**LNG Inventory Balance**	EDA-2 pg 17	$4,417,619	$4,510,745	$2,227,047	$2,253,748	$2,008,023	$2,494,958	$3,009,815	$3,519,622	$4,054,092	$4,115,164	$4,636,339	$4,646,658	
(14)	Cost of Capital	Dkt 4323	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	
(15)	Return on Working Capital Requirement	(13) * (14)	$320,277	$327,029	$161,461	$163,397	$145,582	$180,884	$218,212	$255,173	$293,922	$298,349	$336,135	$336,883	$3,037,303
(16)	Weighted Cost of Debt	Dkt 4323	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	
(17)	Interest Charges Financed	(13) * (16)	$113,533	$115,926	$57,235	$57,921	$51,606	$64,120	$77,352	$90,454	$104,190	$105,760	$119,154	$119,419	$1,076,671
(18)	Taxable Income	(15) - (17)	$206,745	$211,103	$104,226	$105,475	$93,975	$116,764	$140,859	$164,718	$189,732	$192,590	$216,981	$217,464	
(19)	1 - Combined Tax Rate	Dkt 4323	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	0.6500	
(20)	Return and Tax Requirement	(18) / (19)	$318,069	$324,774	$160,347	$162,270	$144,578	$179,637	$216,707	$253,413	$291,895	$296,292	$333,816	$334,559	$3,016,356
(21)	Working Capital Requirement	(17) + (20)	$431,601	$440,700	$217,582	$220,191	$196,184	$243,757	$294,059	$343,867	$396,085	$402,051	$452,970	$453,979	$4,093,027
(22)	LNG-Related Inventory Costs	(21) / 12	$35,967	$36,725	$18,132	$18,349	$16,349	$20,313	$24,505	$28,656	$33,007	$33,504	$37,748	$37,832	$341,086
(23)	Total Inventory Financing Costs	(12) + (22)	$116,210	$102,068	$67,108	$51,903	$36,293	$48,198	$59,651	$71,212	$82,973	$90,895	$103,343	$110,602	$940,456

REDACTED

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Forecasted Throughput (Dth)

Line No.	Rate Class (a)	Nov-15 (b)	Dec-15 (c)	Jan-16 (d)	Feb-16 (e)	Mar-16 (f)	Apr-16 (g)	May-16 (h)	Jun-16 (i)	Jul-16 (j)	Aug-16 (k)	Sep-16 (l)	Oct-16 (m)	Nov-Oct (n)
	SALES													
(1)	Residential Non-Heating	48,049	71,423	92,942	107,427	113,117	87,291	46,799	31,200	24,471	22,307	24,221	28,799	698,046
(2)	Residential Heating	1,462,287	2,349,767	3,119,896	3,107,497	2,828,266	2,124,881	1,241,085	751,389	425,245	352,061	402,675	561,110	18,726,158
(3)	Small C&I	150,098	412,467	502,968	445,399	395,993	275,911	177,969	95,230	57,312	44,037	46,985	68,102	2,672,471
(4)	Medium C&I	226,941	423,681	566,157	652,912	564,095	387,529	229,766	134,838	110,007	97,621	98,729	129,347	3,621,622
(5)	Large LLF	52,508	109,572	132,377	117,870	103,702	71,427	44,582	22,548	12,314	8,822	12,359	21,893	709,974
(6)	Large HLF	14,538	19,318	23,722	22,322	14,405	15,209	13,872	14,726	14,458	19,582	13,117	14,091	199,360
(7)	Extra Large LLF	4,205	14,733	20,770	14,692	13,574	9,759	7,268	3,689	2,026	608	880	4,676	96,881
(8)	Extra Large HLF	28,920	35,960	25,159	16,451	15,315	18,775	20,994	22,523	20,767	18,159	33,250	29,065	285,339
(9)	**Total Sales**	1,987,546	3,436,921	4,483,993	4,484,568	4,048,466	2,990,783	1,782,336	1,076,142	666,599	563,198	632,216	857,084	27,009,852
	TRANSPORTATION													
(10)	FT- Small	5,363	8,696	11,591	10,934	10,410	8,175	5,238	3,493	2,396	1,784	1,955	3,346	73,379
(11)	FT- Medium	193,275	303,653	384,203	409,058	350,625	258,521	165,741	108,354	92,475	80,448	81,394	117,046	2,544,794
(12)	FT- Large LLF	193,833	339,407	399,879	355,152	309,381	206,353	132,733	67,827	44,989	38,807	50,460	111,317	2,250,138
(13)	FT- Large HLF	78,709	105,298	118,838	117,330	111,436	91,120	73,563	66,700	62,218	57,547	61,167	68,286	1,012,211
(14)	FT- Extra Large LLF	116,250	179,379	208,355	171,056	151,292	100,183	69,941	37,280	26,627	19,847	24,917	84,065	1,189,192
(15)	FT- Extra Large HLF	533,656	588,830	624,359	560,165	522,493	446,653	405,972	390,417	390,118	438,007	440,474	476,331	5,817,476
(16)	**Total FT Transportation**	1,121,086	1,525,264	1,747,225	1,623,694	1,455,637	1,111,005	853,188	674,071	618,824	636,439	660,367	860,391	12,887,190
	Total THROUGHPUT													
(17)	Residential Non-Heating	48,049	71,423	92,942	107,427	113,117	87,291	46,799	31,200	24,471	22,307	24,221	28,799	698,046
(18)	Residential Heating	1,462,287	2,349,767	3,119,896	3,107,497	2,828,266	2,124,881	1,241,085	751,389	425,245	352,061	402,675	561,110	18,726,158
(19)	Small C&I	155,461	421,162	514,559	456,333	406,402	284,086	183,207	98,723	59,708	45,820	48,939	71,448	2,745,850
(20)	Medium C&I	420,216	727,334	950,359	1,061,970	914,719	646,050	395,507	243,192	202,482	178,069	180,123	246,393	6,166,416
(21)	Large LLF	246,341	448,979	532,256	473,022	413,083	277,780	177,316	90,375	57,303	47,629	62,819	133,210	2,960,112
(22)	Large HLF	93,247	124,616	142,561	139,651	125,841	106,329	87,434	81,426	76,676	77,128	74,285	82,377	1,211,571
(23)	Extra Large LLF	120,455	194,113	229,125	185,747	164,866	109,943	77,210	40,969	28,653	20,455	25,797	88,741	1,286,074
(24)	Extra Large HLF	562,576	624,790	649,519	576,616	537,808	465,429	426,966	412,940	410,885	456,167	473,724	505,396	6,102,814
(25)	**Total Throughput**	3,108,633	4,962,185	6,231,217	6,108,262	5,504,103	4,101,788	2,635,524	1,750,213	1,285,422	1,199,637	1,292,583	1,717,475	39,897,042

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National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Design Winter Period and Design Day Throughput (Dth)

Line No.	Rate Class (a)	Reference	Line #	Nov-15 (b)	Dec-15 (c)	Jan-16 (d)	Feb-16 (e)	Mar-16 (f)	Total (g)	% (h)
	SALES (dth)									
(1)	Residential Non-Heating	AEL-1 pg 15	Line (70)	53,941	77,188	98,971	115,968	126,115	472,183	2.32%
(2)	Residential Heating	AEL-1 pg 15	Line (71)	1,717,242	2,586,711	3,357,695	3,382,220	3,182,483	14,226,351	69.95%
(3)	Small C&I	AEL-1 pg 15	Line (72)	174,169	456,463	542,538	485,434	446,417	2,105,021	10.35%
(4)	Medium C&I	AEL-1 pg 15	Line (74)	257,001	462,575	606,594	708,784	631,256	2,666,211	13.11%
(5)	Large LLF	AEL-1 pg 15	Line (76)	62,348	121,502	142,955	128,647	117,169	572,620	2.82%
(6)	Large HLF	AEL-1 pg 15	Line (78)	14,538	19,734	24,407	23,071	14,405	96,154	0.47%
(7)	Extra Large LLF	AEL-1 pg 15	Line (80)	4,929	16,378	22,481	16,056	15,379	75,223	0.37%
(8)	Extra Large HLF	AEL-1 pg 15	Line (82)	30,194	37,373	25,233	16,451	15,315	124,565	0.61%
(9)	Total Sales			2,314,361	3,777,924	4,820,873	4,876,630	4,548,539	20,338,327	100.00%
(10)	Low Load Factor	sum[(2:5),(7)]		2,215,688	3,643,629	4,672,263	4,721,141	4,392,704	19,645,425	96.59%
(11)	High Load Factor	sum[(1),(6),(8)]		98,672	134,295	148,610	155,489	155,835	692,902	3.41%

2015/2016 Design Day Send Out

Line No.			
(12)	Pipeline	165,065	Dktherm
(13)	Underground Storage	42,478	Dktherm
(14)	LNG	133,548	Dktherm
(15)	Total Projected 2015/2016 Design Day	341,091	Dktherm

REDACTED

Derivation of Monthly Design Sales

Normal Volumes (Dth)

		Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-Oct
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
(1)	Residential Non-Heating	48,049	71,423	92,942	107,427	113,117	87,291	46,799	31,200	24,471	22,307	24,221	28,799	698,046
(2)	Residential Heating	1,462,287	2,349,767	3,119,896	3,107,497	2,828,266	2,124,881	1,241,085	751,389	425,245	352,061	402,675	561,110	18,726,158
(3)	Small C&I	150,098	412,467	502,968	445,399	395,993	275,911	177,969	95,230	57,312	44,037	46,985	68,102	2,672,471
(4)	Small Transport	5,363	8,696	11,591	10,934	10,410	8,175	5,238	3,493	2,396	1,784	1,955	3,346	73,379
(5)	Medium C&I	226,941	423,681	566,157	652,912	564,095	387,529	229,766	134,838	110,007	97,621	98,729	129,347	3,621,622
(6)	Med Transport	193,275	303,653	384,203	409,058	350,625	258,521	165,741	108,354	92,475	80,448	81,394	117,046	2,544,794
(7)	Large Low Load	52,508	109,572	132,377	117,870	103,702	71,427	44,582	22,548	12,314	8,822	12,359	21,893	709,974
(8)	Large Low Load- Transport	193,833	339,407	399,879	355,152	309,381	206,353	132,733	67,827	44,989	38,807	50,460	111,317	2,250,138
(9)	Large High Load	14,538	19,318	23,722	22,322	14,405	15,209	13,872	14,726	14,458	19,582	13,117	14,091	199,360
(10)	Large High Load- Transport	78,709	105,298	118,838	117,330	111,436	91,120	73,563	66,700	62,218	57,547	61,167	68,286	1,012,211
(11)	XL Low Load	4,205	14,733	20,770	14,692	13,574	9,759	7,268	3,689	2,026	608	880	4,676	96,881
(12)	XL Low Load-Transport	116,250	179,379	208,355	171,056	151,292	100,183	69,941	37,280	26,627	19,847	24,917	84,065	1,189,192
(13)	XL High Load	28,920	35,960	25,159	16,451	15,315	18,775	20,994	22,523	20,767	18,159	33,250	29,065	285,339
(14)	XL High Load-Transport	533,656	588,830	624,359	560,165	522,493	446,653	405,972	390,417	390,118	438,007	440,474	476,331	5,817,476
(15)	**Total**	3,108,633	4,962,185	6,231,217	6,108,262	5,504,103	4,101,788	2,635,524	1,750,213	1,285,422	1,199,637	1,292,583	1,717,475	39,897,042
(16)	HLF	703,872	820,829	885,022	823,693	776,766	659,048	561,200	525,566	512,032	555,602	572,229	616,572	8,012,431
(17)	LLF	2,404,760	4,141,356	5,346,196	5,284,569	4,727,337	3,442,740	2,074,324	1,224,648	773,391	644,035	720,354	1,100,903	31,884,610

Baseload

		Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-Oct
		30	31	31	29	31	30	31	30	31	31	30	31	
(18)	Residential Non-Heating	23,152	23,923	23,923	22,380	23,923	23,152	23,923	23,152	23,923	22,307	23,152	23,923	280,835
(19)	Residential Heating	384,776	397,602	397,602	371,950	397,602	384,776	397,602	384,776	397,602	352,061	384,776	397,602	4,648,728
(20)	Small C&I	48,370	49,982	49,982	46,757	49,982	48,370	49,982	48,370	49,982	44,037	46,985	49,982	582,779
(21)	Small Transport	2,000	2,067	2,067	1,934	2,067	2,000	2,067	2,000	2,067	1,784	1,955	2,067	24,075
(22)	Medium C&I	99,899	103,229	103,229	96,569	103,229	99,899	103,229	99,899	103,229	97,621	98,729	103,229	1,211,991
(23)	Med Transport	82,930	85,694	85,694	80,165	85,694	82,930	85,694	82,930	85,694	80,448	81,394	85,694	1,004,960
(24)	Large Low Load	10,922	11,287	11,287	10,558	11,287	10,922	11,287	10,922	11,287	8,822	10,922	11,287	130,790
(25)	Large Low Load- Transport	43,779	45,238	45,238	42,320	45,238	43,779	45,238	43,779	44,989	38,807	43,779	45,238	527,422
(26)	Large High Load	14,538	15,890	15,890	14,865	14,405	15,209	13,872	14,726	14,458	15,890	13,117	14,091	176,950
(27)	Large High Load- Transport	59,000	60,966	60,966	57,033	60,966	59,000	60,966	59,000	60,966	57,547	59,000	60,966	716,375
(28)	XL Low Load	1,146	1,184	1,184	1,108	1,184	1,146	1,184	1,146	1,184	608	880	1,184	13,139
(29)	XL Low Load-Transport	23,280	24,056	24,056	22,504	24,056	23,280	24,056	23,280	24,056	19,847	23,280	24,056	279,804
(30)	XL High Load	23,536	24,320	24,320	16,451	15,315	18,775	20,994	22,523	20,767	18,159	23,536	24,320	253,017
(31)	XL High Load-Transport	413,674	427,463	427,463	399,885	427,463	413,674	405,972	390,417	390,118	427,463	413,674	427,463	4,964,726
(32)	Total	1,231,001	1,272,901	1,272,901	1,184,478	1,262,411	1,226,911	1,246,066	1,206,919	1,230,322	1,185,401	1,225,178	1,271,103	14,815,592
(33)	HLF	533,899	552,563	552,563	510,613	542,072	529,809	525,727	509,817	510,233	541,366	532,478	550,764	6,391,904
(34)	LLF	697,102	720,339	720,339	673,865	720,339	697,102	720,339	697,102	720,089	644,035	692,700	720,339	8,423,688

REDACTED

Derivation of Monthly Design Sales

Heat Volumes

		Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-Oct
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
(35)	Residential Non-Heating	24,898	47,500	69,019	85,046	89,194	64,139	22,876	8,048	547	0	1,069	4,876	417,211
(36)	Residential Heating	1,077,511	1,952,165	2,722,294	2,735,546	2,430,664	1,740,105	843,483	366,613	27,643	0	17,899	163,508	14,077,429
(37)	Small C&I	101,729	362,485	452,987	398,642	346,011	227,542	127,987	46,860	7,330	0	0	18,120	2,089,693
(38)	Small Transport	3,363	6,629	9,524	9,000	8,342	6,174	3,171	1,493	329	0	0	1,279	49,304
(39)	Medium C&I	127,042	320,452	462,927	556,343	460,865	287,630	126,537	34,938	6,778	0	0	26,118	2,409,631
(40)	Med Transport	110,345	217,960	298,509	328,893	264,931	175,591	80,047	25,425	6,781	0	0	31,352	1,539,834
(41)	Large Low Load	41,585	98,286	121,091	107,312	92,415	60,505	33,296	11,625	1,027	0	1,437	10,607	579,185
(42)	Large Low Load- Transport	150,054	294,169	354,641	312,832	264,143	162,574	87,495	24,048	0	0	6,681	66,079	1,722,716
(43)	Large High Load	0	3,428	7,833	7,457	0	0	0	0	0	3,692	0	0	22,409
(44)	Large High Load- Transport	19,709	44,332	57,872	60,297	50,470	32,121	12,596	7,700	1,252	0	2,168	7,320	295,836
(45)	XL Low Load	3,059	13,549	19,586	13,584	12,390	8,613	6,084	2,543	841	0	0	3,492	83,742
(46)	XL Low Load-Transport	92,970	155,324	184,299	148,552	127,236	76,904	45,886	14,000	2,572	0	1,637	60,009	909,389
(47)	XL High Load	5,384	11,640	839	0	0	0	0	0	0	0	9,714	4,744	32,321
(48)	XL High Load-Transport	119,983	161,367	196,896	160,280	95,031	32,980	0	0	0	10,544	26,800	48,868	852,750
(49)	Total	1,877,632	3,689,283	4,958,316	4,923,784	4,241,692	2,874,877	1,389,458	543,294	55,100	14,236	67,405	446,372	25,081,450
(50)	HLF	169,974	268,266	332,459	313,080	234,694	129,239	35,472	15,748	1,799	14,236	39,751	65,808	1,620,528
(51)	LLF	1,707,658	3,421,017	4,625,857	4,610,704	4,006,998	2,745,638	1,353,986	527,546	53,301	0	27,653	380,564	23,460,922
(52)	**Normal Billing DD**	**579**	**931**	**1099**	**936**	**796**	**453**	**227**	**44**	**1**	**1**	**52**	**339**	**5458**

Heat Factors

		Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-Oct
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	
(53)	Residential Non-Heating	43	51	63	91	112	142	101	183	547	-	21	14	76
(54)	Residential Heating	1,861	2,097	2,477	2,923	3,054	3,841	3,716	8,332	27,643	-	344	482	2,579
(55)	Small C&I	176	389	412	426	435	502	564	1,065	7,330	-	-	53	383
(56)	Small Transport	6	7	9	10	10	14	14	34	329	-	-	4	9
(57)	Medium C&I	219	344	421	594	579	635	557	794	6,778	-	-	77	441
(58)	Med Transport	191	234	272	351	333	388	353	578	6,781	-	-	92	282
(59)	Large Low Load	72	106	110	115	116	134	147	264	1,027	-	28	31	106
(60)	Large Low Load- Transport	259	316	323	334	332	359	385	547	-	-	128	195	316
(61)	Large High Load	-	4	7	8	-	-	-	-	-	3,692	-	-	4
(62)	Large High Load- Transport	34	48	53	64	63	71	55	175	1,252	-	42	22	54
(63)	XL Low Load	5	15	18	15	16	19	27	58	841	-	-	10	15
(64)	XL Low Load-Transport	161	167	168	159	160	170	202	318	2,572	-	31	177	167
(65)	XL High Load	9	13	1	-	-	-	-	-	-	-	187	14	6
(66)	XL High Load-Transport	207	173	179	171	119	73	-	-	-	10,544	515	144	156
(67)	Total	3,243	3,963	4,512	5,260	5,329	6,346	6,121	12,348	55,100	14,236	1,296	1,317	4,595
(68)	**NormalBilling DD**	**579**	**931**	**1099**	**936**	**796**	**453**	**227**	**44**	**1**	**1**	**52**	**339**	**5458**
(69)	**DesignBilling DD**	**716**	**1044**	**1195**	**1030**	**912**	**546**	**217**	**35**	**5**	**10**	**88**	**370**	**6168**

REDACTED

Derivation of Monthly Design Sales

Design Sales

		Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-Oct
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	
(70)	Residential Non-Heating	53,941	77,188	98,971	115,968	126,115	100,458	45,792	29,554	23,923	22,307	24,961	29,245	748,423
(71)	Residential Heating	1,717,242	2,586,711	3,357,695	3,382,220	3,182,483	2,482,121	1,203,927	676,400	397,602	352,061	415,066	576,062	20,329,590
(72)	Small C&I	174,169	456,463	542,538	485,434	446,417	322,625	172,330	85,645	49,982	44,037	46,985	69,759	2,896,384
(73)	Small Transport	6,159	9,500	12,423	11,837	11,625	9,442	5,098	3,188	2,067	1,784	1,955	3,463	78,541
(74)	Medium C&I	257,001	462,575	606,594	708,784	631,256	446,579	224,192	127,691	103,229	97,621	98,729	131,736	3,895,988
(75)	Med Transport	219,384	330,108	410,278	442,088	389,233	294,570	162,215	103,154	85,694	80,448	81,394	119,913	2,718,479
(76)	Large Low Load	62,348	121,502	142,955	128,647	117,169	83,848	43,115	20,170	11,287	8,822	13,354	22,863	776,079
(77)	Large Low Load- Transport	229,338	375,112	430,858	386,569	347,874	239,729	128,879	62,908	44,989	38,807	55,085	117,360	2,457,507
(78)	Large High Load	14,538	19,734	24,407	23,071	14,405	15,209	13,872	14,726	14,458	15,890	13,117	14,091	197,517
(79)	Large High Load- Transport	83,372	110,679	123,894	123,385	118,791	97,714	73,008	65,125	60,966	57,547	62,668	68,956	1,046,104
(80)	XL Low Load	4,929	16,378	22,481	16,056	15,379	11,528	7,000	3,169	1,184	608	880	4,996	104,588
(81)	XL Low Load-Transport	138,248	198,232	224,454	185,975	169,834	115,971	67,920	34,416	24,056	19,847	26,051	89,552	1,294,555
(82)	XL High Load	30,194	37,373	25,233	16,451	15,315	18,775	20,994	22,523	20,767	18,159	39,975	29,499	295,258
(83)	XL High Load-Transport	562,046	608,416	641,559	576,261	536,342	453,424	405,972	390,417	390,118	427,463	459,028	480,800	5,931,845
(84)	Total	3,552,908	5,409,971	6,664,337	6,602,744	6,122,239	4,691,995	2,574,314	1,639,085	1,230,322	1,185,401	1,339,248	1,758,294	42,770,857
(85)	HLF	744,091	853,390	914,063	855,135	810,968	685,581	559,637	522,344	510,233	541,366	599,749	622,590	8,219,146
(86)	LLF	2,808,818	4,556,581	5,750,274	5,747,609	5,311,271	4,006,414	2,014,677	1,116,740	720,089	644,035	739,499	1,135,703	34,551,711

Source: Forecast per Ted Poe

Attachment AEL-2
REDACTED

Attachment AEL-2
Annual GCR Reconciliation Filing

REDACTED

Deferred Gas Cost Balances

Line No.	Description	Reference	Apr Actual	May Actual	Jun Actual	Jul Actual	Aug Actual	Sep Actual	Oct Actual	Nov Actual	Dec Actual	Jan Actual	Feb Actual	Mar Actual	Apr-Mar
1	# of Days in Month		30	31	30	31	31	30	31	30	31	31	28	31	**365**
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
2	I. Fixed Cost Deferred														
3	Beginning Balance	Dkt 4520, Sch. AEL-2, pg. 1, line 17, col. m	($16,517,674)	($17,077,221)	($16,061,355)	($15,854,316)	($13,270,644)	($10,576,867)	($10,024,331)	($7,512,514)	($5,401,759)	($5,180,202)	($8,401,939)	($11,113,267)	($16,517,674)
4															
5	Supply Fixed Costs (net of cap rel)	Sch. 2, line 49	$3,639,171	$3,672,635	$3,699,902	$3,634,903	$3,679,599	$3,694,784	$3,681,501	$3,821,620	$4,035,580	$3,316,828	$3,788,859	$3,372,291	$44,037,672
6	LNG Demand to DAC	Dkt 4339	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($1,488,790)
7	Supply Related LNG O & M	Dkt 4323	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$575,581
8	NGPMP Credits		($83,333)	($83,333)	($2,232,073)	($83,333)	($83,333)	($2,232,073)	($83,333)	($83,333)	($83,333)	($1,558,333)	($83,333)	($2,748,980)	($9,438,126)
9	Working Capital	Sch. 4, line 15	$20,839	$21,038	$21,199	$20,814	$21,079	$21,169	$21,090	$21,289	$22,521	$18,383	$21,100	$18,702	$249,224
10	Total Supply Fixed Costs	sum[(5):(9)]	$3,500,577	$3,534,239	$1,412,928	$3,496,283	$3,541,244	$1,407,780	$3,543,157	$3,683,475	$3,898,667	$1,700,776	$3,650,526	$565,912	$33,935,562
11	Supply Fixed - Revenue	Sch. 3, line 10	$4,042,875	$2,500,791	$1,189,503	$897,159	$834,814	$844,667	$1,022,036	$1,486,014	$3,671,495	$4,915,307	$6,352,502	$6,024,150	$33,781,313
12	Prelim. Ending Balance	(3) + (10) - (11)	($17,059,972)	($16,043,774)	($15,837,930)	($13,255,192)	($10,564,215)	($10,013,754)	($7,503,210)	($5,315,053)	($5,174,588)	($8,394,733)	($11,103,915)	($16,571,506)	($16,363,424)
13	Month's Average Balance	[(3) + (12)] / 2	($16,788,823)	($16,560,497)	($15,949,642)	($14,554,754)	($11,917,430)	($10,295,310)	($8,763,770)	($6,413,783)	($5,288,174)	($6,787,467)	($9,752,927)	($13,842,386)	
14	Interest Rate (BOA Prime minus 200 bps)		1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	
15	Interest Applied	[(13) * (14)] / 365 * (1)	($17,249)	($17,581)	($16,387)	($15,452)	($12,652)	($10,577)	($9,304)	($6,590)	($5,614)	($7,206)	($9,352)	($14,696)	($142,660)
16	Marketer Reconcilation	Dkt 4520	$0	$0	$0	$0	$0	$0	$0	($80,117)	$0	$0	$0	$0	($80,117)
17	Fixed Ending Balance	(12) + (15) + (16)	($17,077,221)	($16,061,355)	($15,854,316)	($13,270,644)	($10,576,867)	($10,024,331)	($7,512,514)	($5,401,759)	($5,180,202)	($8,401,939)	($11,113,267)	($16,586,201)	($16,586,201)
18	II. Variable Cost Deferred														
19	Beginning Balance	Dkt 4520, Sch. AEL-2, pg. 1, line 34, col. m	$69,979,022	$57,721,957	$49,075,508	$42,952,930	$41,735,907	$39,390,886	$36,786,352	$33,264,125	$35,002,943	$32,356,883	$35,797,057	$47,190,223	$69,979,022
20															
21	Variable Supply Costs	Sch. 2, line 108	$9,056,537	$3,906,129	$1,909,168	$2,770,549	$1,946,415	$1,669,097	$3,042,550	$11,252,746	$16,365,997	$28,887,903	$44,042,978	$21,652,522	$146,502,592
22	Supply Related LNG to DAC	Dkt 4339	$0	$0	$0	$0	$0	$0	$0	($599)	($113,742)	($923)	($496,944)	($4,929)	($617,137)
23	Supply Related LNG O & M	Dkt 4323	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$572,694
24	Inventory Financing - LNG	Sch. 5, line 22	$24,413	$40,118	$39,550	$38,253	$37,137	$36,434	$39,973	$41,542	$41,387	$23,617	$13,283	$11,805	$387,511
25	Inventory Financing - UG	Sch. 5, line 12	$57,244	$68,031	$79,156	$92,816	$104,473	$115,412	$122,433	$113,748	$102,613	$73,713	$54,137	$48,072	$1,031,848
26	Working Capital	Sch. 4, line 30	$53,692	$23,158	$11,319	$16,425	$11,539	$9,895	$18,038	$64,785	$93,574	$166,320	$250,721	$124,638	$844,104
27	Total Supply Variable Costs	sum[(21):(26)]	$9,239,610	$4,085,160	$2,086,917	$2,965,769	$2,147,289	$1,878,562	$3,270,718	$11,519,948	$16,537,553	$29,198,355	$43,911,899	$21,879,833	$148,721,612
28	Supply Variable - Revenue	Sch. 3, line 24	$21,562,241	$12,788,269	$8,256,746	$4,227,723	$4,535,350	$4,522,208	$6,830,110	$9,816,180	$19,219,351	$25,794,339	$32,558,502	$30,175,864	$180,286,884
29	Prelim. Ending Balance	(19) + (27) - (28)	$57,656,391	$49,018,848	$42,905,679	$41,690,976	$39,347,845	$36,747,240	$33,226,960	$34,967,893	$32,321,146	$35,760,899	$47,150,454	$38,894,192	$38,413,751
30	Month's Average Balance	[(19) + (29)] / 2	$63,817,707	$53,370,402	$45,990,594	$42,321,953	$40,541,876	$38,069,063	$35,006,656	$34,116,009	$33,662,044	$34,058,891	$41,473,755	$43,042,208	
31	Interest Rate (BOA Prime minus 200 bps)		1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	
32	Interest Applied	[(30) * (31)] / 365 * (1)	$65,566	$56,660	$47,251	$44,931	$43,041	$39,112	$37,165	$35,051	$35,737	$36,158	$39,769	$45,695	$526,137
33	Gas Procurement Incentive/(penalty)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$60,078	$60,078
34	Variable Ending Balance	(29) + (32) + (33)	$57,721,957	$49,075,508	$42,952,930	$41,735,907	$39,390,886	$36,786,352	$33,264,125	$35,002,943	$32,356,883	$35,797,057	$47,190,223	$38,999,966	$38,999,966
35	**GCR Deferred Summary**														
36	Beginning Balance	(3) + (19)	$53,461,348	$40,644,736	$33,014,153	$27,098,614	$28,465,262	$28,814,020	$26,762,021	$25,751,611	$29,601,184	$27,176,681	$27,395,118	$36,076,956	$53,461,348
37	Gas Costs	sum[(4):(7),(16),(20):(23)]	$12,667,332	$7,550,388	$5,580,694	$6,377,075	$5,597,637	$5,335,505	$6,695,675	$14,965,275	$20,259,458	$32,175,432	$47,306,517	$24,991,508	$189,502,496
38	Inventory Finance	(24) + (25)	$81,657	$108,149	$118,706	$131,070	$141,610	$151,845	$162,405	$155,290	$144,000	$97,331	$67,419	$59,877	$1,419,359
39	Working Capital	(9) + (26)	$74,531	$44,195	$32,518	$37,239	$32,618	$31,064	$39,128	$86,075	$116,095	$184,703	$271,821	$143,340	$1,093,328
40	NGPMP Credits	(8)	($83,333)	($83,333)	($2,232,073)	($83,333)	($83,333)	($2,232,073)	($83,333)	($83,333)	($83,333)	($1,558,333)	($83,333)	($2,748,980)	($9,438,126)
41	Total Costs	sum[(37):(40)]	$12,740,187	$7,619,399	$3,499,845	$6,462,051	$5,688,532	$3,286,342	$6,813,875	$15,123,306	$20,436,220	$30,899,132	$47,562,424	$22,445,745	$182,577,058
42	Revenue	(11) + (28)	$25,605,116	$15,289,061	$9,446,249	$5,124,882	$5,370,164	$5,366,875	$7,852,146	$11,302,194	$22,890,846	$30,709,647	$38,911,004	$36,200,014	$214,068,196
43	Prelim. Ending Balance	(36) + (41) - (42)	$40,596,419	$32,975,074	$27,067,750	$28,435,783	$28,783,630	$26,733,487	$25,723,751	$29,572,723	$27,146,558	$27,366,166	$36,046,539	$22,322,687	
44	Month's Average Balance	[(36) + (43)] / 2	$47,028,884	$36,809,905	$30,040,951	$27,767,199	$28,624,446	$27,773,753	$26,242,886	$27,662,167	$28,373,871	$27,271,423	$31,720,829	$29,199,821	
45	Interest Rate (BOA Prime minus 200 bps)		1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	
46	Interest Applied	(15) + (32)	$48,317	$39,079	$30,864	$29,479	$30,389	$28,535	$27,861	$28,461	$30,123	$28,953	$30,417	$31,000	$383,477
47	Gas Purchase Plan Incentives/(Penalties)	(33)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$60,078	$60,078
48															
49	**Ending Bal. W/ Interest**	(43) + (46) + (47)	**$40,644,736**	**$33,014,153**	**$27,098,614**	**$28,465,262**	**$28,814,020**	**$26,762,021**	**$25,751,611**	**$29,601,184**	**$27,176,681**	**$27,395,118**	**$36,076,956**	**$22,413,765**	$22,413,764

REDACTED

Supply Estimate and Actuals for Filing

Line No.	Description	Reference	Apr Actual (a)	May Actual (b)	Jun Actual (c)	Jul Actual (d)	Aug Actual (e)	Sep Actual (f)	Oct Actual (g)	Nov Actual (h)	Dec Actual (i)	Jan Actual (j)	Feb Actual (k)	Mar Actual (l)	Apr-Mar (m)
1	**SUPPLY FIXED COSTS - Pipeline Delivery**														
2	Algonquin (includes East to West, Hubline, AMA credits)		$822,516	$822,516	$822,516	$822,516	$822,516	$822,542	$822,516	$855,339	$862,237	$854,036	$866,048	$860,386	$10,055,683
3	TETCO/Texas Eastern		$699,042	$707,686	$707,679	$707,729	$706,305	$706,290	$706,290	$706,290	$695,027	$696,795	$725,745	$724,892	$8,489,771
4	Tennessee		$979,459	$999,007	$999,007	$994,846	$999,007	$1,010,345	$999,007	$1,002,525	$1,014,199	$1,002,620	$1,050,989	$1,060,237	$12,111,250
5	NETNE		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
6	Iroquois		$6,676	$6,676	$6,676	$6,666	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$6,676	$80,105
7	Union		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	Transcanada		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	Dominion		($28,796)	($28,796)	($28,796)	($33,188)	($28,796)	($28,796)	($28,796)	$2,232	$1,730	$1,981	$1,981	$1,981	($196,061)
10	Transco		$6,011	$7,159	$7,159	$6,926	$7,158	$6,927	$7,158	$6,927	$5,088	$2,880	$4,533	$5,019	$72,947
11	National Fuel		$4,667	$4,664	$4,664	$4,671	$4,664	$4,667	$4,667	$4,664	$4,667	$4,667	$4,667	$4,667	$55,994
12	Columbia		$271,012	$281,118	$281,314	$280,275	$281,314	$281,787	$288,822	$287,957	$278,134	$277,080	$274,807	$307,407	$3,391,028
13	Alberta Northeast		$417	$526	$514	$576	$514	$803	$514	$514	$435	$406	$418	$128	$5,765
14	Emera Energy		($950)	($950)	($950)	($950)	($950)	($950)	($950)	($21,500)	($21,500)	($21,500)	($21,500)	($21,500)	($114,150)
15	Cargill Ltd.		$0	$0	$0	$0	$0	$0	$0	($1,534)	($1,534)	$9,195	$19,551	$15,397	$41,075
16	Shell Energy		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
17	Coral Energy		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
18	DB Energy Trading		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19	Westerly Lateral		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
20	Less Credits from Mkter Releases		($620,785)	($640,706)	($611,851)	($659,118)	($631,178)	($618,916)	($636,774)	($540,578)	($559,686)	($563,119)	($534,564)	($578,159)	($7,195,433)
21			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
22															
23															
24	**Supply Fixed - Supplier**														
25	Distrigas FCS		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
26			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
27															
28	**STORAGE FIXED COSTS - Facilities**														
29	Texas Eastern		$93,860	$93,756	$93,756	$84,912	$93,742	$84,781	$93,742	$93,742	$93,741	$93,741	$85,681	$85,672	$1,091,126
30	Dominion $70,197			$82,782	$82,782	$82,782	$82,782	$82,782	$82,782	$82,967	$82,967	$82,967	$82,967	$82,967	$981,726
31	Tennessee		$49,804	$49,804	$49,804	$49,804	$49,804	$49,804	$49,804	$49,804	$49,804	$49,804	$49,804	$49,804	$597,648
32	Columbia		$9,735	$9,735	$9,735	$9,735	$9,735	$9,735	$9,735	$9,735	$9,735	$9,735	$9,694	$11,866	$118,908
33	Keyspan LNG Tank Lease Payment		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
34			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
35	**STORAGE FIXED COSTS - Delivery**														
36	Algonquin		$210,918	$210,918	$210,918	$210,918	$210,918	$210,918	$210,918	$210,918	$210,918	$210,918	$210,918	$210,918	$2,531,011
37	TETCO		$87,499	$87,499	$87,499	$87,499	$87,499	$87,499	$87,499	$87,499	$87,499	$87,499	$87,499	$87,499	$1,049,985
38	Tennessee		$91,993	$91,993	$91,993	$91,993	$91,993	$91,993	$91,993	$90,782	$90,782	$90,782	$90,782	$90,782	$1,097,862
39	Dominion		$31,047	$31,047	$31,047	$31,047	$31,047	$31,047	$31,047	$30,946	$30,946	$30,946	$30,946	$30,946	$372,056
40	Columbia		$14,145	$14,145	$14,145	$14,145	$14,145	$14,145	$14,145	$15,010	$15,010	$15,010	$15,010	$15,010	$174,068
41	Distrigas FLS call payment		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
42	Hess Peaking Supply at Salem		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
43	Hess Peaking Supply at Dracut		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
44	Repsol Peaking Supply at Dracut		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
45	EMERA Peaking Supply at Salem		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
46	BP Peaking Supply at Dracut		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
47															
48															
49	**TOTAL FIXED COSTS**	sum[(2):(48)]	$3,639,171	$3,672,635	$3,699,902	$3,634,903	$3,679,599	$3,694,784	$3,681,501	$3,821,620	$4,035,580	$3,316,828	$3,788,859	$3,372,291	$44,037,672

REDACTED

Supply Estimate and Actuals for Filing

Line No.	Description	Reference	Apr Actual (a)	May Actual (b)	Jun Actual (c)	Jul Actual (d)	Aug Actual (e)	Sep Actual (f)	Oct Actual (g)	Nov Actual (h)	Dec Actual (i)	Jan Actual (j)	Feb Actual (k)	Mar Actual (l)	Apr-Mar (m)
50	**VARIABLE SUPPLY COSTS (Includes Injections)**														
51	Tennessee Zone 0														
52	Tennessee Zone 4														
53	Tennessee Connexion														
54	Tennessee Dracut														
55	TETCO STX														
56	TETCO ELA														
57	TETCO WLA														
58	TETCO ETX														
59	TETCO NF														
60	M3 Delivered														
61	Maumee														
62	Broadrun Col														
63	Columbia Eagle and Downingtown														
64	TETCO M2														
65	Dominion to TETCO FTS														
66	Transco Zone 3														
67	ANE to Tennessee														
68	Niagara to Tennessee														
69	TETCO to B & W														
70	DistriGas FCS														
71	Hubline														
72	Hess Peaking Supply at Salem														
73	Hess Peaking Supply at Dracut														
74	Repsol Peaking Supply at Dracut														
75	Total Pipeline Commodity Charges	sum[(51):(74)]	$9,584,881	$4,342,935	$2,095,313	$2,661,433	$1,735,655	$1,480,726	$2,666,529	$9,202,984	$13,099,738	$17,253,140	$33,817,381	$13,497,416	$111,438,129
76	Hedging Settlements and Amortization		($1,432,972)	($1,143,521)	($609,613)	($236,488)	$121,172	$9,107	$114,161	$791,460	$460,848	$5,227,292	$5,025,737	$5,068,034	$13,395,216
77	Hedging Contracts - Commission & Other Fees		$1,099	$1,304	$1,033	$1,496	$1,976	$2,839	$2,403	($47,803)	($226,636)	($256,901)	($236,641)	($217,486)	($973,319)
78	Hedging Contracts - Net Carry of Collateral		($363)	($20)	($52)	$1,113	$1,310	$1,166	$1,446	$1,519	$2,740	$6,327	$9,918	$10,046	$35,151
79	Refunds		$0	$0	$0	$0	$0	$0	$0	($87)	$0	$0	$0	$0	($87)
80	Less: Costs of Injections		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
81	**TOTAL VARIABLE SUPPLY COSTS**	sum[(75):(80)]	$8,152,645	$3,200,698	$1,486,680	$2,427,554	$1,860,112	$1,493,838	$2,784,539	$9,948,073	$13,336,690	$22,229,859	$38,616,395	$18,358,008	$123,895,090
82	Underground Storage		$467,691	$219,604	$37,243	$37,234	$14,851	$47,246	$205,975	$1,040,025	$2,384,731	$4,099,848	$2,966,943	$1,759,100	$13,280,491
83	LNG Withdrawals and Trucking		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
84	Storage Delivery Costs		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
85	**TOTAL VARIABLE STORAGE COSTS**	sum[(82):(84)]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
86	**TOTAL VARIABLE COSTS**	(81) + (85)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
87	**TOTAL SUPPLY COSTS**	(49) + (86)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	$187,449,669

REDACTED

Supply Estimate and Actuals for Filing

Line No.	Description	Reference	Apr Actual (a)	May Actual (b)	Jun Actual (c)	Jul Actual (d)	Aug Actual (e)	Sep Actual (f)	Oct Actual (g)	Nov Actual (h)	Dec Actual (i)	Jan Actual (j)	Feb Actual (k)	Mar Actual (l)	Apr-Mar (m)
88	**Storage Costs for FT-2 Calculation**														
89	**Storage Fixed Costs - Facilities**		$387,336	$399,817	$399,817	$390,973	$399,803	$390,842	$399,803	$399,988	$399,987	$399,988	$391,886	$394,049	$4,754,289
90	**Storage Fixed Costs - Deliveries**		$1,058,933	$1,058,933	$1,058,933	$1,058,933	$1,058,933	$1,058,933	$1,058,933	$1,058,487	$1,567,320	$862,323	$1,214,821	$540,155	$12,655,639
91	**sub-total Storage Costs**	sum[(89):(90)]	$1,446,269	$1,458,751	$1,458,751	$1,449,906	$1,458,736	$1,449,776	$1,458,736	$1,458,475	$1,967,307	$1,262,310	$1,606,708	$934,204	$17,409,928
92	**LNG Demand to DAC**		($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($1,488,790)
93	**Inventory Financing**		$81,657	$108,149	$118,706	$131,070	$141,610	$151,845	$162,405	$155,290	$144,000	$97,331	$67,419	$59,877	$1,419,359
94	**Supply related LNG O&M Costs**		$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$575,581
95	**Working Capital Requirement**		$20,839	$21,038	$21,199	$20,814	$21,079	$21,169	$21,090	$21,289	$22,521	$18,383	$21,100	$18,702	$249,224
96	**Total FT-2 Storage Fixed Costs**	sum[(91):(95)]	$1,472,665	$1,511,836	$1,522,556	$1,525,689	$1,545,324	$1,546,689	$1,566,131	$1,558,953	$2,057,727	$1,301,923	$1,619,127	$936,682	$18,165,302
97	**System Storage MDQ (Dth)**		143,184	144,201	143,819	143,273	141,721	143,597	143,395	143,443	174,049	174,226	175,597	177,637	$1,848,142
98	**FT-2 Storage Cost per MDQ (Dth)**	(96) / (97)	$10.2851	$10.4843	$10.5866	$10.6488	$10.9040	$10.7711	$10.9218	$10.8681	$11.8227	$7.4726	$9.2207	$5.2730	$9.83
99	Pipeline Variable	(86)	$8,816,191	$3,707,141	$1,720,705	$2,628,130	$2,007,427	$1,658,457	$3,127,313	$11,103,245	$16,047,215	$28,818,340	$43,509,377	$20,268,457	$143,411,997
100	Less Non-firm Gas Costs		($125,416)	$5,728	($33,631)	($29,629)	$8,464	($7,424)	($202,634)	($43,846)	($286,045)	($492,747)	($103,835)	$121,115	($1,189,900)
101	Less Company Use		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
102	Less Manchester St Balancing		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
103	Plus Cashout		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
104	Less Mkter W/drawals/Injections		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
105	Mkter Over-takes/Undertakes		$192,745	$146,785	$161,644	$94,172	($142,867)	($50,019)	$68,063	$151,304	$135,712	$224,143	$143,957	$660,828	$1,786,468
106	Plus Pipeline Srchg/Credit		$66,742	$63,626	$66,567	$71,792	$73,391	$70,228	$66,750	$63,793	$407,317	$421,307	$422,953	$383,560	$2,178,026
107	Less Mkter FT-2 Daily weather true-up		$106,274	($17,151)	($6,117)	$6,085	$0	($2,145)	($16,942)	($21,749)	$61,798	($83,139)	$70,525	$218,562	$316,001
108	**TOTAL FIRM COMMODITY COSTS**	sum[(99):(107)]	$9,056,537	$3,906,129	$1,909,168	$2,770,549	$1,946,415	$1,669,096	$3,042,550	$11,252,746	$16,365,997	$28,887,903	$44,042,978	$21,652,522	$146,502,592

REDACTED

GCR Revenue

Line No.	Description	Reference	Apr Actual (a)	May Actual (b)	Jun Actual (c)	Jul Actual (d)	Aug Actual (e)	Sep Actual (f)	Oct Actual (g)	Nov Actual (h)	Dec Actual (i)	Jan Actual (j)	Feb Actual (k)	Mar Actual (l)	Apr-Mar (m)
1	**I. Fixed Cost Revenue --**														
2	(a) Low Load dth	Sch. 6, lines sum[(24:28), 30]	3,132,288	1,677,792	750,541	562,115	522,735	553,038	660,115	1,398,242	3,144,673	4,295,793	5,562,992	5,137,927	27,398,250
3	Fixed Cost Factor	(4) / (2)	$1.1443	$1.2160	$1.2321	$1.2230	$1.2241	$1.2145	$1.2260	$0.9887	$1.0538	$1.0481	$1.0483	$1.0480	
4	Low Load Revenue		$3,584,429	$2,040,183	$924,744	$687,485	$639,859	$671,676	$809,333	$1,382,374	$3,313,789	$4,502,354	$5,831,792	$5,384,689	$29,772,707
5	(b) High Load dth	Sch. 6, lines sum(22, 23, 29, 31)	189,860	98,763	137,958	75,684	57,872	19,645	78,672	(74,749)	259,760	239,726	214,922	204,923	1,503,036
6	Fixed Cost Factor	(7) / (5)	$0.9070	$1.0339	$0.9365	$0.9860	$1.0605	$1.9161	$0.9857	$0.4223	$0.8237	$0.9125	$0.8845	$0.8888	
7	High Load Revenue		$172,205	$102,113	$129,199	$74,628	$61,373	$37,641	$77,543	($31,566)	$213,966	$218,740	$190,098	$182,132	$1,428,072
8	sub-total throughput Dth	(2) + (5)	3,322,148	1,776,556	888,499	637,799	580,607	572,682	738,787	1,323,493	3,404,433	4,535,518	5,777,914	5,342,849	28,901,286
9	FT-2 Storage Revenue from marketers		$286,242	$358,495	$135,560	$135,045	$133,582	$135,350	$135,160	$135,206	$143,740	$194,213	$330,611	$457,330	$2,580,533
10	**TOTAL Fixed Revenue**	(4) + (7) + (9)	**$4,042,875**	**$2,500,791**	**$1,189,503**	**$897,159**	**$834,814**	**$844,667**	**$1,022,036**	**$1,486,014**	**$3,671,495**	**$4,915,307**	**$6,352,502**	**$6,024,150**	**$33,781,313**
11	**II. Variable Cost Revenue --**														
12	(a) Firm Sales dth	(8)	3,322,148	1,776,556	888,499	637,799	580,607	572,682	738,787	1,323,493	3,404,433	4,535,518	5,777,914	5,342,849	28,901,286
13	Variable Supply Cost Factor	(14) / (12)	$6.0197	$7.6683	$7.6778	$7.6896	$7.7532	$7.8865	$7.7061	$7.2707	$5.6266	$5.6195	$5.6103	$5.6099	
14	Variable Supply Revenue		$19,998,219	$13,623,177	$6,821,753	$4,904,391	$4,501,559	$4,516,452	$5,693,185	$9,622,772	$19,155,252	$25,487,489	$32,415,893	$29,973,022	$176,713,165
15	(b) TSS Sales dth	Sch. 6, line 20	3,823	17,061	7,672	8,015	7,244	7,643	8,829	15,052	31,258	42,532	57,995	51,330	258,454
16	TSS Surcharge Factor	Company's website	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	
17	TSS Surcharge Revenue	(15) * (16)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
18	(c) Default Sales dth	Sch. 6, line 60	65,503	(12,974)	71,604	(37,929)	1,961	646	79,279	19,277	5,635	11,253	12,896	13,353	230,503
19	Variable Supply Cost Factor	(20) / (18)	$23.8772	$66.5759	$20.0406	$19.2687	$8.9151	$8.9129	$13.8058	$8.9154	$6.1191	$25.1198	$11.9524	$13.4591	
20	Variable Supply Revenue		$1,564,022	($863,769)	$1,434,993	($730,834)	$17,485	$5,756	$1,094,503	$171,860	$34,482	$282,666	$154,132	$179,722	$3,345,018
21	(d) Peaking Gas Revenue		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
22	(e) Deferred Responsibility $		0	$28,861	$0	$54,166	$16,306	$0	$42,423	$21,547	$23,909	$24,184	($11,523)	$23,120	$222,993
23	(f) FT-1 Storage and Peaking										$5,708				
24	**TOTAL Variable Revenue**	(14)+(17)+(20)+(21)+(22)+(23)	**$21,562,241**	**$12,788,269**	**$8,256,746**	**$4,227,723**	**$4,535,350**	**$4,522,208**	**$6,830,110**	**$9,816,180**	**$19,219,351**	**$25,794,339**	**$32,558,502**	**$30,175,864**	**$180,286,884**
25	**Total Gas Cost Revenue (w/o FT-2)**	(10) + (24)	**$25,605,116**	**$15,289,061**	**$9,446,249**	**$5,124,882**	**$5,370,164**	**$5,366,875**	**$7,852,146**	**$11,302,194**	**$22,890,846**	**$30,709,647**	**$38,911,004**	**$36,200,014**	**$214,068,196**

REDACTED

WORKING CAPITAL

Line No.	Description	Reference	Apr Actual (a)	May Actual (b)	Jun Actual (c)	Jul Actual (d)	Aug Actual (e)	Sep Actual (f)	Oct Actual (g)	Nov Actual (h)	Dec Actual (i)	Jan Actual (j)	Feb Actual (k)	Mar Actual (l)	Apr-Mar (m)
1	**Supply Fixed Costs**	Sch. 1, line 5	$3,639,171	$3,672,635	$3,699,902	$3,634,903	$3,679,599	$3,694,784	$3,681,501	$3,821,620	$4,035,580	$3,316,828	$3,788,859	$3,372,291	$44,037,672
2	Less: LNG Demand to DAC	Sch. 1, line 6	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($1,488,790)
3	Plus: Supply Related LNG O&M Costs	Dkt 4323	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
4	Total Adjustments	(2) + (3)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($1,488,790)
5	Allowable Working Capital Costs	(1) + (4)	$3,515,106	$3,548,569	$3,575,836	$3,510,837	$3,555,533	$3,570,718	$3,557,435	$3,697,554	$3,911,514	$3,192,762	$3,664,793	$3,248,225	$42,548,883
6	Number of Days Lag	Dkt 4323	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	
7	Working Capital Requirement	[(5) * (6)] / 365	$207,150	$209,123	$210,729	$206,899	$209,533	$210,428	$209,645	$217,902	$230,511	$188,154	$215,972	$191,423	
8	Cost of Capital	Dkt 4339	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.25%	7.25%	7.25%	7.25%	7.25%	
9	Return on Working Capital Requirement	(7) * (8)	$15,619	$15,768	$15,889	$15,600	$15,799	$15,866	$15,807	$15,798	$16,712	$13,641	$15,658	$13,878	
10	Weighted Cost of Debt	Dkt 4339	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.57%	2.57%	2.57%	2.57%	2.57%	
11	Interest Expense	(7) * (10)	$5,925	$5,981	$6,027	$5,917	$5,993	$6,018	$5,996	$5,600	$5,924	$4,836	$5,550	$4,920	
12	Taxable Income	(9) - (11)	$9,695	$9,787	$9,862	$9,683	$9,806	$9,848	$9,811	$10,198	$10,788	$8,806	$10,107	$8,959	
13	1 - Combined Tax Rate	Dkt 4323	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	
14	Return and Tax Requirement	(12) / (13)	$14,915	$15,057	$15,173	$14,897	$15,086	$15,151	$15,094	$15,689	$16,597	$13,547	$15,550	$13,782	
15	**Supply Fixed Working Capital Requirement**	(11) + (14)	$20,839	$21,038	$21,199	$20,814	$21,079	$21,169	$21,090	$21,289	$22,521	$18,383	$21,100	$18,702	$249,224
16	**Supply Variable Costs**	Sch. 1, line 21	$9,056,537	$3,906,129	$1,909,168	$2,770,549	$1,946,415	$1,669,097	$3,042,550	$11,252,746	$16,365,997	$28,887,903	$44,042,978	$21,652,522	$146,502,592
17	Less: Balancing Related LNG Commodity (to DAC	Sch. 1, line 22	$0	$0	$0	$0	$0	$0	$0	($599)	($113,742)	($923)	($496,944)	($4,929)	($617,137)
18	Plus: Supply Related LNG O&M Costs	Dkt 4323	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
19	Total Adjustments	(17) + (18)	$0	$0	$0	$0	$0	$0	$0	($599)	($113,742)	($923)	($496,944)	($4,929)	($617,137)
20	Allowable Working Capital Costs	(16) + (19)	$9,056,537	$3,906,129	$1,909,168	$2,770,549	$1,946,415	$1,669,097	$3,042,550	$11,252,148	$16,252,255	$28,886,980	$43,546,034	$21,647,593	$145,885,455
21	Number of Days Lag	Dkt 4323	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	21.51	
22	Working Capital Requirement	[(20) * (21)] / 365	$533,715	$230,194	$112,510	$163,273	$114,705	$98,362	$179,302	$663,106	$957,770	$1,702,353	$2,566,233	$1,275,725	
23	Cost of Capital	Dkt 4339	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.25%	7.25%	7.25%	7.25%	7.25%	
24	Return on Working Capital Requirement	(22) * (23)	$40,242	$17,357	$8,483	$12,311	$8,649	$7,417	$13,519	$48,075	$69,438	$123,421	$186,052	$92,490	
25	Weighted Cost of Debt	Dkt 4339	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.57%	2.57%	2.57%	2.57%	2.57%	
26	Interest Expense	(22) * (25)	$15,264	$6,584	$3,218	$4,670	$3,281	$2,813	$5,128	$17,042	$24,615	$43,750	$65,952	$32,786	
27	Taxable Income	(24) - (26)	$24,978	$10,773	$5,265	$7,641	$5,368	$4,603	$8,391	$31,033	$44,824	$79,670	$120,100	$59,704	
28	1 - Combined Tax Rate	Dkt 4323	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	
29	Return and Tax Requirement	(27) / (28)	$38,428	$16,574	$8,101	$11,756	$8,259	$7,082	$12,910	$47,744	$68,959	$122,569	$184,769	$91,852	
30	**Supply Variable Working Capital Requirement**	(26) + (29)	$53,692	$23,158	$11,319	$16,425	$11,539	$9,895	$18,038	$64,785	$93,574	$166,320	$250,721	$124,638	$844,104

REDACTED

INVENTORY FINANCE

Line No.	Description	Reference	Apr Actual (a)	May Actual (b)	Jun Actual (c)	Jul Actual (d)	Aug Actual (e)	Sep Actual (f)	Oct Actual (g)	Nov Actual (h)	Dec Actual (i)	Jan Actual (j)	Feb Actual (k)	Mar Actual (l)	Apr-Mar (m)
1	**Storage Inventory Balance**		$7,247,553	$8,933,170	$10,441,504	$12,156,982	$13,472,512	$14,775,906	$15,599,159	$14,916,162	$13,319,725	$9,511,474	$6,868,185	$5,904,442	
2	Monthly Storage Deferral/Amortization		($419,185)	($818,194)	($999,401)	($1,085,433)	($1,010,545)	($1,009,122)	($994,848)	($945,105)	($716,290)	($457,630)	($218,866)	$1	
3	**Subtotal**	(1) + (2)	**$6,828,367**	**$8,114,976**	**$9,442,103**	**$11,071,548**	**$12,461,966**	**$13,766,783**	**$14,604,311**	**$13,971,057**	**$12,603,435**	**$9,053,844**	**$6,649,319**	**$5,904,443**	
4	Cost of Capital	Dkt 4339	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.25%	7.25%	7.25%	7.25%	7.25%	
5	Return on Working Capital Requirement	(3) * (4)	$514,859	$611,869	$711,935	$834,795	$939,632	$1,038,015	$1,101,165	$1,012,902	$913,749	$656,404	$482,076	$428,072	$9,245,472
6	Weighted Cost of Debt	Dkt 4339	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.57%	2.57%	2.57%	2.57%	2.57%	
7	Interest Charges Financed	(3) * (6)	$195,291	$232,088	$270,044	$316,646	$356,412	$393,730	$417,683	$359,056	$323,908	$232,684	$170,888	$151,744	$3,420,175
8	Taxable Income	(5) - (7)	$319,568	$379,781	$441,890	$518,148	$583,220	$644,285	$683,482	$653,845	$589,841	$423,720	$311,188	$276,328	
9	1 - Combined Tax Rate	Dkt 4323	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	
10	Return and Tax Requirement	(8) / (9)	$491,642	$584,278	$679,831	$797,151	$897,262	$991,208	$1,051,510	$1,005,916	$907,447	$651,877	$478,751	$425,120	$8,961,995
11	Working Capital Requirement	(7) + (10)	$686,934	$816,367	$949,876	$1,113,798	$1,253,674	$1,384,938	$1,469,194	$1,364,972	$1,231,356	$884,561	$649,639	$576,864	$12,382,170
12	Monthly Average	(11) / 12	$57,244	$68,031	$79,156	$92,816	$104,473	$115,412	$122,433	$113,748	$102,613	$73,713	$54,137	$48,072	$1,031,848
13	**LNG Inventory Balance**		$2,912,042	$4,785,446	$4,717,672	$4,563,038	$4,429,872	$4,345,993	$4,768,098	$5,102,406	$5,083,349	$2,900,789	$1,631,457	$1,449,914	
14	Cost of Capital	Dkt 4339	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.54%	7.25%	7.25%	7.25%	7.25%	7.25%	
15	Return on Working Capital Requirement	(13) * (14)	$219,568	$360,823	$355,712	$344,053	$334,012	$327,688	$359,515	$369,924	$368,543	$210,307	$118,281	$105,119	$3,473,545
16	Weighted Cost of Debt	Dkt 4339	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.57%	2.57%	2.57%	2.57%	2.57%	
17	Interest Charges Financed	(13) * (16)	$83,284	$136,864	$134,925	$130,503	$126,694	$124,295	$136,368	$131,132	$130,642	$74,550	$41,928	$37,263	$1,288,449
18	Taxable Income	(15) - (17)	$136,284	$223,959	$220,787	$213,550	$207,318	$203,392	$223,147	$238,793	$237,901	$135,757	$76,352	$67,856	
19	1 - Combined Tax Rate	Dkt 4323	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	
20	Return and Tax Requirement	(18) / (19)	$209,667	$344,552	$339,672	$328,539	$318,951	$312,911	$343,303	$367,373	$366,001	$208,857	$117,465	$104,394	$3,361,686
21	Working Capital Requirement	(17) + (20)	$292,951	$481,416	$474,598	$459,042	$445,645	$437,207	$479,671	$498,505	$496,643	$283,407	$159,393	$141,657	$4,650,135
22	Monthly Average	(21) / 12	$24,413	$40,118	$39,550	$38,253	$37,137	$36,434	$39,973	$41,542	$41,387	$23,617	$13,283	$11,805	$387,511
23	TOTAL GCR Inventory Financing Costs	(12) + (22)	**$81,657**	**$108,149**	**$118,706**	**$131,070**	**$141,610**	**$151,845**	**$162,405**	**$155,290**	**$144,000**	**$97,331**	**$67,419**	**$59,877**	**$1,419,359**

REDACTED

Actual Dth Usage for Filing

Line No.	THROUGHPUT (Dth) Rate Class	Apr Actual (a)	May Actual (b)	Jun Actual (c)	Jul Actual (d)	Aug Actual (e)	Sep Actual (f)	Oct Actual (g)	Nov Actual (h)	Dec Actual (i)	Jan Actual (j)	Feb Actual (k)	Mar Actual (l)	Apr-Mar (m)
1	**SALES**													
2	Residential Non-Heating	103,094	65,116	37,167	29,077	27,531	27,601	33,761	56,635	74,913	97,349	123,153	116,760	**792,157**
3	Residential Non-Heating Low Income	4,678	3,213	1,508	1,202	1,113	1,130	1,382	2,753	2,976	4,006	4,900	4,353	**33,215**
4	Residential Heating	2,122,865	1,108,093	513,737	372,360	344,157	355,647	438,073	954,909	2,132,202	2,877,504	3,747,011	3,449,650	**18,416,207**
5	Residential Heating Low Income	210,481	123,623	57,730	44,605	41,177	41,359	48,984	100,792	213,885	282,745	352,717	318,259	**1,836,355**
6	Small C&I	308,906	139,479	57,631	43,238	40,478	42,588	54,725	113,249	292,468	439,525	597,057	549,888	**2,679,230**
7	Medium C&I	379,968	227,082	97,341	85,387	82,462	87,012	98,547	178,359	381,774	521,529	651,611	613,387	**3,404,460**
8	Large LLF	82,868	56,261	14,785	8,870	7,554	19,020	11,305	33,489	86,758	120,493	141,284	147,542	**730,228**
9	Large HLF	10,855	20,995	19,839	20,687	29,173	13,685	13,411	15,270	18,169	24,633	22,930	25,819	**235,465**
10	Extra Large LLF	12,862	7,699	3,015	1,510	728	1,034	1,137	5,189	9,565	16,279	19,829	11,954	**90,801**
11	Extra Large HLF	81,748	7,934	78,073	22,848	(1,011)	(24,036)	28,636	(152,203)	160,465	108,923	59,429	53,908	**424,714**
12	**Total Sales**	3,318,325	1,759,495	880,827	629,784	573,363	565,040	729,958	1,308,441	3,373,175	4,492,986	5,719,920	5,291,519	**28,642,832**
13	**TSS**													
14	Small	99	254	159	150	142	142	174	301	854	1,327	1,920	2,089	**7,611**
15	Medium	13,614	12,072	5,507	5,215	5,213	5,366	6,351	9,178	21,446	29,294	38,027	37,104	**188,385**
16	Large LLF	624	3,228	636	781	823	870	821	2,777	5,722	7,098	13,537	8,055	**44,972**
17	Large HLF	545	1,210	1,168	1,734	950	1,136	1,301	2,532	2,704	4,072	3,674	3,313	**24,337**
18	Extra Large LLF	0	0	0	0	0	0	0	0	0	0	0	0	**0**
19	Extra Large HLF	(11,060)	297	202	136	116	129	182	264	532	743	837	769	**(6,853)**
20	**Total TSS**	3,823	17,061	7,672	8,015	7,244	7,643	8,829	15,052	31,258	42,532	57,995	51,330	**258,454**
21	**Sales & TSS THROUGHPUT**													
22	Residential Non-Heating	103,094	65,116	37,167	29,077	27,531	27,601	33,761	56,635	74,913	97,349	123,153	116,760	**792,157**
23	Residential Non-Heating Low Income	4,678	3,213	1,508	1,202	1,113	1,130	1,382	2,753	2,976	4,006	4,900	4,353	**33,215**
24	Residential Heating	2,122,865	1,108,093	513,737	372,360	344,157	355,647	438,073	954,909	2,132,202	2,877,504	3,747,011	3,449,650	**18,416,207**
25	Residential Heating Low Income	210,481	123,623	57,730	44,605	41,177	41,359	48,984	100,792	213,885	282,745	352,717	318,259	**1,836,355**
26	Small C&I	309,005	139,734	57,790	43,388	40,620	42,731	54,899	113,550	293,321	440,852	598,976	551,977	**2,686,842**
27	Medium C&I	393,583	239,155	102,848	90,602	87,675	92,378	104,897	187,537	403,220	550,823	689,638	650,491	**3,592,845**
28	Large LLF	83,492	59,488	15,421	9,651	8,378	19,890	12,126	36,266	92,480	127,590	154,821	155,597	**775,200**
29	Large HLF	11,400	22,205	21,008	22,421	30,123	14,821	14,711	17,802	20,873	28,704	26,603	29,132	**259,802**
30	Extra Large LLF	12,862	7,699	3,015	1,510	728	1,034	1,137	5,189	9,565	16,279	19,829	11,954	**90,801**
31	Extra Large HLF	70,688	8,230	78,275	22,984	(895)	(23,907)	28,818	(151,939)	160,997	109,666	60,266	54,678	**417,862**
32	**Total Sales & TSS Throughput**	3,322,148	1,776,556	888,499	637,799	580,607	572,682	738,787	1,323,493	3,404,433	4,535,518	5,777,914	5,342,849	**28,901,286**
33	**FT-1 TRANSPORTATION**													
34	FT-1 Medium	88,081	24,514	13,269	26,505	20,561	26,489	29,148	57,966	96,104	100,233	135,188	122,498	**740,555**
35	FT-1 Large LLF	165,760	8,557	(13,996)	1,290	50,803	6,040	29,538	85,682	189,184	184,327	260,376	215,382	**1,182,943**
36	FT-1 Large HLF	39,805	30,449	25,977	24,752	37,888	36,007	35,867	44,200	22,241	61,570	68,016	59,201	**485,972**
37	FT-1 Extra Large LLF	169,520	26,881	(4,254)	(16,905)	16,994	16,678	23,232	90,099	219,158	190,733	271,669	157,146	**1,160,953**
38	FT-1 Extra Large HLF	487,284	300,478	313,334	337,476	341,166	319,437	595,816	387,524	526,905	485,557	1,114,383	199,614	**5,408,972**
39	Default	65,503	(12,974)	71,604	(37,929)	1,961	646	79,279	19,277	5,635	11,253	12,896	13,353	**230,503**
40	**Total FT-1 Transportation**	1,015,953	377,905	405,934	335,189	469,373	405,296	792,880	684,748	1,059,227	1,033,672	1,862,528	767,194	**9,209,898**
41	**FT-2 TRANSPORTATION**													
42	FT-2 Small	4,462	2,107	1,133	854	849	1,134	1,188	2,128	4,905	8,211	16,127	14,606	**57,703**
43	FT-2 Medium	191,727	115,891	61,308	46,526	45,760	45,472	52,278	112,126	178,320	249,026	302,723	291,842	**1,692,996**
44	FT-2 Large LLF	149,702	76,307	30,153	15,811	14,450	16,083	23,970	77,258	143,077	207,088	238,144	233,339	**1,225,381**
45	FT-2 Large HLF	37,293	34,841	31,199	22,842	24,171	25,804	26,342	32,198	45,275	50,064	52,770	67,514	**450,311**
46	FT-2 Extra Large LLF	9,118	3,302	2,781	1,011	706	947	1,817	5,357	4,119	11,008	13,007	15,952	**69,124**
47	FT-2 Extra Large HLF	17,166	12,497	9,999	6,674	13,392	9,823	11,460	13,412	16,035	16,606	16,189	21,989	**165,241**
48	**Total FT-2 Transportation**	409,467	244,945	136,571	93,716	99,327	99,262	117,055	242,480	391,730	542,002	638,960	645,241	**3,660,756**
49	**Total THROUGHPUT**													
50	Residential Non-Heating	103,094	65,116	37,167	29,077	27,531	27,601	33,761	56,635	74,913	97,349	123,153	116,760	**792,157**
51	Residential Non-Heating Low Income	4,678	3,213	1,508	1,202	1,113	1,130	1,382	2,753	2,976	4,006	4,900	4,353	**33,215**
52	Residential Heating	2,122,865	1,108,093	513,737	372,360	344,157	355,647	438,073	954,909	2,132,202	2,877,504	3,747,011	3,449,650	**18,416,207**
53	Residential Heating Low Income	210,481	123,623	57,730	44,605	41,177	41,359	48,984	100,792	213,885	282,745	352,717	318,259	**1,836,355**
54	Small C&I	313,467	141,840	58,923	44,241	41,469	43,864	56,088	115,678	298,227	449,062	615,104	566,582	**2,744,544**
55	Medium C&I	673,391	379,559	177,424	163,633	153,996	164,338	186,323	357,629	677,643	900,081	1,127,548	1,064,830	**6,026,396**
56	Large LLF	398,954	144,352	31,578	26,751	73,631	42,013	65,634	199,207	424,741	519,005	653,341	604,318	**3,183,524**
57	Large HLF	88,497	87,495	78,183	70,014	92,182	76,632	76,920	94,200	88,389	140,338	147,390	155,847	**1,196,085**
58	Extra Large LLF	191,500	37,882	1,542	(14,385)	18,428	18,660	26,186	100,645	232,842	218,020	304,505	185,051	**1,320,878**
59	Extra Large HLF	575,138	321,206	401,607	367,134	353,663	305,353	636,093	248,997	703,937	611,829	1,190,838	276,281	**5,992,075**
60	Default	65,503	(12,974)	71,604	(37,929)	1,961	646	79,279	19,277	5,635	11,253	12,896	13,353	**230,503**
61	**Total Throughput**	4,747,568	2,399,405	1,431,004	1,066,704	1,149,307	1,077,241	1,648,721	2,250,721	4,855,391	6,111,192	8,279,403	6,755,284	**41,771,940**

Attachment AEL-3

Attachment AEL-3
Projected Gas Cost Balances

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Projected Gas Cost Deferred Balances

Line No.	Description	Reference	Nov-15 forecast	Dec-15 forecast	Jan-16 forecast	Feb-16 forecast	Mar-16 forecast	Apr-16 forecast	May-16 forecast	Jun-16 forecast	Jul-16 forecast	Aug-16 forecast	Sep-16 forecast	Oct-16 forecast	Nov - Oct
(1)	# of Days in Month		30	31	31	28	31	30	31	30	31	31	30	31	365
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
(2)	I. Fixed Cost Deferred														
(3)	Beginning Balance	Nov-14: AEL-1 pg 6, Col m, Line (17); Dec 14 - Oct 15: Previous month Line (16)	($2,761,661)	($2,646,436)	($3,832,524)	($6,218,742)	($8,607,756)	($10,499,006)	($11,028,997)	($10,182,985)	($8,529,553)	($6,406,363)	($4,162,173)	($1,992,591)	($2,761,661)
(4)	Fixed Costs (net of cap rel)	AEL-1 pg 4, Line (65)	$3,416,918	$3,709,091	$3,707,764	$3,706,255	$3,707,764	$3,861,680	$3,862,353	$3,861,680	$3,862,353	$3,862,353	$3,861,680	$3,862,353	$45,282,243
(5)	NGPMP Credits	EDA-1	($783,333)	($783,333)	($783,333)	($783,333)	($783,333)	($783,333)	($783,333)	($783,333)	($783,333)	($783,333)	($783,333)	($783,333)	($9,400,000)
(6)	Working Capital	AEL-1 pg 8, Line (16)	$18,959	$20,641	$20,634	$20,625	$20,634	$21,520	$21,524	$21,520	$21,524	$21,524	$21,520	$21,524	$252,146
(7)	LNG Demand to DAC	Dkt 4339	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($124,066)	($1,488,790)
(8)	Supply Related LNG O & M	Dkt 4323	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$47,965	$575,581
(9)	Total Supply Fixed Costs	sum[(4):(8)]	$2,576,443	$2,870,298	$2,868,963	$2,867,446	$2,868,963	$3,023,766	$3,024,442	$3,023,766	$3,024,442	$3,024,442	$3,023,766	$3,024,442	$35,221,180
(10)	Fixed - Revenue	AEL-1 pg 7, Line (10)	($2,399,937)	($4,052,948)	($5,249,848)	($5,249,355)	($4,750,076)	($3,542,703)	($2,167,176)	($1,360,726)	($893,328)	($774,645)	($851,023)	($1,108,564)	($32,400,334)
(11)	Prelim. Ending Balance	(3) + (9) + (10)	($2,585,156)	($3,829,086)	($6,213,409)	($8,600,651)	($10,488,869)	($11,017,944)	($10,171,731)	($8,519,946)	($6,398,439)	($4,156,566)	($1,989,431)	($76,713)	
(12)	Month's Average Balance	[(3) + (11)] / 2	($2,673,409)	($3,237,761)	($5,022,966)	($7,409,696)	($9,548,313)	($10,758,475)	($10,600,364)	($9,351,465)	($7,463,996)	($5,281,465)	($3,075,802)	($1,034,652)	
(13)	Interest Rate (BOA Prime minus 200 bps)		1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	
(14)	Interest Applied	[(12) * (13)] / 365 * (1)	($2,747)	($3,437)	($5,333)	($7,105)	($10,137)	($11,053)	($11,254)	($9,608)	($7,924)	($5,607)	($3,160)	($1,098)	($78,463)
(15)	Marketer Reconciliation	AEL-7, Line (50)	($58,533)												($58,533)
(16)	Fixed Ending Balance	(11) + (14) + (15)	($2,646,436)	($3,832,524)	($6,218,742)	($8,607,756)	($10,499,006)	($11,028,997)	($10,182,985)	($8,529,553)	($6,406,363)	($4,162,173)	($1,992,591)	($77,812)	($77,812)
(17)	II. Variable Cost Deferred														
(18)	Beginning Balance	Nov-14: AEL-1 pg 6, Col m, Line (34); Dec 14 - Oct 15: Previous month line (32)	$10,989,316	$9,779,123	$11,733,307	$16,014,397	$18,992,077	$16,209,926	$10,017,146	$5,921,495	$3,664,678	$2,707,958	$2,019,235	$939,923	$10,989,316
(19)	Variable Costs	AEL-1 pg 5, Line (96)	$6,777,796	$15,883,979	$22,525,042	$21,244,530	$13,742,029	$6,004,724	$3,125,329	$2,048,234	$1,650,418	$1,485,632	$1,369,060	$2,530,861	$98,387,634
(20)	Supply Related LNG to DAC	Dkt 4339	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(21)	Supply Related LNG O & M	Dkt 4323	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$47,725	$572,694
(22)	Inventory Financing - LNG	AEL-1 pg 10, Line (22)	$35,967	$36,725	$18,132	$18,349	$16,349	$20,313	$24,505	$28,656	$33,007	$33,504	$37,748	$37,832	$341,086
(23)	Inventory Financing - UG	AEL-1 pg 10, Line (12)	$80,243	$65,343	$48,977	$33,554	$19,944	$27,884	$35,146	$42,557	$49,966	$57,391	$65,595	$72,771	$599,371
(24)	Working Capital	AEL-1 pg 8, Line (32)	$39,024	$91,454	$129,690	$122,318	$79,121	$34,573	$17,994	$11,793	$9,502	$8,554	$7,883	$14,572	$566,477
(25)	Total Variable Costs	sum[(19):(24)]	$6,980,754	$16,125,225	$22,769,565	$21,466,475	$13,905,168	$6,135,219	$3,250,700	$2,178,964	$1,790,618	$1,632,805	$1,528,009	$2,703,759	$100,467,261
(26)	Variable - Revenue	AEL-1 pg 7, Line (15)	($8,201,610)	($14,182,455)	($18,503,196)	($18,505,571)	($16,705,995)	($12,341,465)	($7,354,807)	($4,440,702)	($2,750,719)	($2,324,036)	($2,608,841)	($3,536,755)	($111,456,152)
(27)	Prelim. Ending Balance	(18) + (25) + (26)	$9,768,460	$11,721,893	$15,999,676	$18,975,301	$16,191,250	$10,003,680	$5,913,039	$3,659,757	$2,704,577	$2,016,727	$938,403	$106,927	
(28)	Month's Average Balance	[(18) + (27)] / 2	$10,378,888	$10,750,508	$13,866,491	$17,494,849	$17,591,664	$13,106,803	$7,965,092	$4,790,626	$3,184,628	$2,362,343	$1,478,819	$523,425	
(29)	Interest Rate (BOA Prime minus 200 bps)		1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	
(30)	Interest Applied	[(28) * (29)] / 365 * (1)	$10,663	$11,413	$14,721	$16,776	$18,676	$13,466	$8,456	$4,922	$3,381	$2,508	$1,519	$556	$107,057
(31)	Gas Procurement Incentive/(penalty)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
(32)	Variable Ending Balance	(27) + (30) + (31)	$9,779,123	$11,733,307	$16,014,397	$18,992,077	$16,209,926	$10,017,146	$5,921,495	$3,664,678	$2,707,958	$2,019,235	$939,923	$107,483	$107,483
(33)	**GCR Deferred Summary**														
(34)	Beginning Balance	(3) + (18)	$8,227,655	$7,132,687	$7,900,783	$9,795,655	$10,384,321	$5,710,920	($1,011,851)	($4,261,490)	($4,864,875)	($3,698,405)	($2,142,938)	($1,052,668)	$8,227,655
(35)	Gas Costs	sum[(4),(7):(8),(15),(19):(21)]	$10,107,804	$19,564,694	$26,204,429	$24,922,409	$17,421,417	$9,838,028	$6,959,306	$5,881,538	$5,484,395	$5,319,608	$5,202,363	$6,364,838	$143,270,829
(36)	Inventory Finance	(22) + (23)	$116,210	$102,068	$67,108	$51,903	$36,293	$48,198	$59,651	$71,212	$82,973	$90,895	$103,343	$110,602	$940,456
(37)	Working Capital	(6) + (24)	$57,983	$112,095	$150,324	$142,943	$99,755	$56,093	$39,518	$33,313	$31,026	$30,077	$29,402	$36,095	$818,623
(38)	NGPMP Credits	(5)	($783,333)	($783,333)	($783,333)	($783,333)	($783,333)	($783,333)	($783,333)	($783,333)	($783,333)	($783,333)	($783,333)	($783,333)	($9,400,000)
(39)	Total Costs	sum[(35):(38)]	$9,498,663	$18,995,523	$25,638,528	$24,333,922	$16,774,131	$9,158,984	$6,275,142	$5,202,730	$4,815,060	$4,657,247	$4,551,775	$5,728,202	$135,629,908
(40)	Revenue	(10) + (26)	($10,601,547)	($18,235,403)	($23,753,044)	($23,754,926)	($21,456,071)	($15,884,168)	($9,521,983)	($5,801,428)	($3,644,047)	($3,098,681)	($3,459,864)	($4,645,319)	($143,856,486)
(41)	Prelim. Ending Balance	(34) + (39) + (40)	$7,124,771	$7,892,807	$9,786,267	$10,374,651	$5,702,381	($1,014,264)	($4,258,693)	($4,860,189)	($3,693,862)	($2,139,839)	($1,051,028)	$30,214	$1,077
(42)	Month's Average Balance	[(34) + (41)] / 2	$7,676,213	$7,512,747	$8,843,525	$10,085,153	$8,043,351	$2,348,328	($2,635,272)	($4,560,840)	($4,279,368)	($2,919,122)	($1,596,983)	($511,227)	
(43)	Interest Rate (BOA Prime minus 200 bps)		1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	
(44)	Interest Applied	(14) + (30)	$7,917	$7,976	$9,389	$9,671	$8,539	$2,413	($2,798)	($4,686)	($4,543)	($3,099)	($1,641)	($543)	$28,594
(45)	Gas Purchase Plan Incentives/(Penalties)	(31)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
(46)	**Ending Bal. W/ Interest**	(41) + (44) + (45)	$7,132,687	$7,900,783	$9,795,655	$10,384,321	$5,710,920	($1,011,851)	($4,261,490)	($4,864,875)	($3,698,405)	($2,142,938)	($1,052,668)	$\boxed{\textbf{\$29,671}}$	$29,671

Attachment AEL-4

Attachment AEL-4
Bill Impact Analysis

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Bill Impact Analysis with Various Levels of Consumption:

Line No.		Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Difference due to: GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
	Residential Heating:											
(5)		550	$802.46	$880.52	($78.06)	-8.9%	($78.36)	$2.64	$0.00	$0.00	$0.00	($2.34)
(6)		608	$868.64	$954.96	($86.32)	-9.0%	($86.64)	$2.91	$0.00	$0.00	$0.00	($2.59)
(7)		667	$935.92	$1,030.58	($94.66)	-9.2%	($95.02)	$3.20	$0.00	$0.00	$0.00	($2.84)
(8)		727	$1,003.28	$1,106.46	($103.18)	-9.3%	($103.58)	$3.50	$0.00	$0.00	$0.00	($3.10)
(9)		788	$1,068.70	$1,180.59	($111.89)	-9.5%	($112.30)	$3.77	$0.00	$0.00	$0.00	($3.36)
(10)	**Average Customer**	**846**	**$1,129.60**	**$1,249.69**	**($120.09)**	**-9.6%**	($120.54)	$4.05	$0.00	$0.00	$0.00	($3.60)
(11)		904	$1,190.61	$1,318.93	($128.32)	-9.7%	($128.81)	$4.34	$0.00	$0.00	$0.00	($3.85)
(12)		966	$1,255.66	$1,392.79	($137.13)	-9.8%	($137.65)	$4.63	$0.00	$0.00	$0.00	($4.11)
(13)		1,023	$1,315.31	$1,460.55	($145.24)	-9.9%	($145.79)	$4.91	$0.00	$0.00	$0.00	($4.36)
(14)		1,081	$1,375.17	$1,528.64	($153.47)	-10.0%	($154.05)	$5.18	$0.00	$0.00	$0.00	($4.60)
(15)		1,145	$1,440.34	$1,602.87	($162.53)	-10.1%	($163.17)	$5.52	$0.00	$0.00	$0.00	($4.88)

Line No.		Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Difference due to: GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
	Residential Heating Low Income:											
(20)		550	$759.97	$838.03	($78.06)	-9.3%	($78.36)	$2.64	$0.00	$0.00	$0.00	($2.34)
(21)		608	$823.41	$909.73	($86.32)	-9.5%	($86.64)	$2.91	$0.00	$0.00	$0.00	($2.59)
(22)		667	$887.92	$982.58	($94.66)	-9.6%	($95.02)	$3.20	$0.00	$0.00	$0.00	($2.84)
(23)		727	$952.56	$1,055.73	($103.18)	-9.8%	($103.58)	$3.50	$0.00	$0.00	$0.00	($3.10)
(24)		788	$1,015.52	$1,127.41	($111.89)	-9.9%	($112.30)	$3.77	$0.00	$0.00	$0.00	($3.36)
(25)	**Average Customer**	**846**	**$1,074.20**	**$1,194.29**	**($120.09)**	**-10.1%**	($120.54)	$4.05	$0.00	$0.00	$0.00	($3.60)
(26)		904	$1,133.01	$1,261.33	($128.32)	-10.2%	($128.81)	$4.34	$0.00	$0.00	$0.00	($3.85)
(27)		966	$1,195.71	$1,332.84	($137.13)	-10.3%	($137.65)	$4.63	$0.00	$0.00	$0.00	($4.11)
(28)		1,023	$1,253.21	$1,398.45	($145.24)	-10.4%	($145.79)	$4.91	$0.00	$0.00	$0.00	($4.36)
(29)		1,081	$1,310.96	$1,464.44	($153.47)	-10.5%	($154.05)	$5.18	$0.00	$0.00	$0.00	($4.60)
(30)		1,145	$1,373.91	$1,536.44	($162.53)	-10.6%	($163.17)	$5.52	$0.00	$0.00	$0.00	($4.88)

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Bill Impact Analysis with Various Levels of Consumption:

Residential Non-Heating:

							Difference due to:					
(31)		Annual	Proposed	Current								
(32)		Consumption (Therms)	Rates	Rates	Difference	% Chg	GCR	DAC		EE	LIHEAP	GET
(33)								Base DAC	ISR			
(34)			------------	------------	------------	------------	------------	------------	------------	------------	------------	------------
(35)		140	$329.60	$348.76	($19.15)	-5.5%	($21.27)	$2.69	$0.00	$0.00	$0.00	($0.57)
(36)		155	$346.76	$367.94	($21.19)	-5.8%	($23.50)	$2.95	$0.00	$0.00	$0.00	($0.64)
(37)		171	$365.03	$388.41	($23.38)	-6.0%	($25.95)	$3.27	$0.00	$0.00	$0.00	($0.70)
(38)		184	$379.88	$404.97	($25.09)	-6.2%	($27.89)	$3.55	$0.00	$0.00	$0.00	($0.75)
(39)		198	$395.86	$422.91	($27.05)	-6.4%	($30.04)	$3.80	$0.00	$0.00	$0.00	($0.81)
(40)	**Average Customer**	**214**	**$413.76**	**$442.99**	**($29.23)**	**-6.6%**	($32.43)	$4.08	$0.00	$0.00	$0.00	($0.88)
(41)		228	$430.09	$461.29	($31.20)	-6.8%	($34.62)	$4.36	$0.00	$0.00	$0.00	($0.94)
(42)		244	$448.35	$481.76	($33.41)	-6.9%	($37.06)	$4.65	$0.00	$0.00	$0.00	($1.00)
(43)		258	$464.37	$499.64	($35.27)	-7.1%	($39.16)	$4.95	$0.00	$0.00	$0.00	($1.06)
(44)		275	$483.75	$521.36	($37.61)	-7.2%	($41.76)	$5.28	$0.00	$0.00	$0.00	($1.13)
(45)		288	$498.60	$538.00	($39.39)	-7.3%	($43.73)	$5.52	$0.00	$0.00	$0.00	($1.18)

Residential Non-Heating Low Income:

							Difference due to:					
(46)		Annual	Proposed	Current								
(47)		Consumption (Therms)	Rates	Rates	Difference	% Chg	GCR	DAC		EE	LIHEAP	GET
(48)								Base DAC	ISR			
(49)			------------	------------	------------	------------	------------	------------	------------	------------	------------	------------
(50)		140	$307.18	$326.34	($19.15)	-5.9%	($21.27)	$2.69	$0.00	$0.00	$0.00	($0.57)
(51)		155	$323.66	$344.84	($21.19)	-6.1%	($23.50)	$2.95	$0.00	$0.00	$0.00	($0.64)
(52)		171	$341.21	$364.59	($23.38)	-6.4%	($25.95)	$3.27	$0.00	$0.00	$0.00	($0.70)
(53)		184	$355.47	$380.56	($25.09)	-6.6%	($27.89)	$3.55	$0.00	$0.00	$0.00	($0.75)
(54)		198	$370.82	$397.87	($27.05)	-6.8%	($30.04)	$3.80	$0.00	$0.00	$0.00	($0.81)
(55)	**Average Customer**	**214**	**$388.01**	**$417.23**	**($29.23)**	**-7.0%**	($32.43)	$4.08	$0.00	$0.00	$0.00	($0.88)
(56)		228	$403.69	$434.89	($31.20)	-7.2%	($34.62)	$4.36	$0.00	$0.00	$0.00	($0.94)
(57)		244	$421.22	$454.64	($33.41)	-7.3%	($37.06)	$4.65	$0.00	$0.00	$0.00	($1.00)
(58)		258	$436.61	$471.88	($35.27)	-7.5%	($39.16)	$4.95	$0.00	$0.00	$0.00	($1.06)
(59)		275	$455.22	$492.83	($37.61)	-7.6%	($41.76)	$5.28	$0.00	$0.00	$0.00	($1.13)
(60)		288	$469.49	$508.88	($39.39)	-7.7%	($43.73)	$5.52	$0.00	$0.00	$0.00	($1.18)

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Bill Impact Analysis with Various Levels of Consumption:

C & I Small:

Line		Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Difference due to: GCR	DAC: Base DAC	DAC: ISR	EE	LIHEAP	GET
(65)		880	$1,302.48	$1,430.54	($128.06)	-9.0%	($125.40)	$1.18	$0.00	$0.00	$0.00	($3.84)
(66)		973	$1,396.60	$1,538.20	($141.60)	-9.2%	($138.64)	$1.29	$0.00	$0.00	$0.00	($4.25)
(67)		1,067	$1,490.94	$1,646.23	($155.29)	-9.4%	($152.06)	$1.43	$0.00	$0.00	$0.00	($4.66)
(68)		1,162	$1,583.93	$1,753.07	($169.14)	-9.6%	($165.60)	$1.53	$0.00	$0.00	$0.00	($5.07)
(69)		1,258	$1,672.15	$1,855.28	($183.12)	-9.9%	($179.27)	$1.64	$0.00	$0.00	$0.00	($5.49)
(70)	**Average Customer**	**1,352**	**$1,757.41**	**$1,954.22**	**($196.81)**	**-10.1%**	($192.65)	$1.74	$0.00	$0.00	$0.00	($5.90)
(71)		1,446	$1,843.44	$2,053.91	($210.46)	-10.2%	($206.05)	$1.90	$0.00	$0.00	$0.00	($6.31)
(72)		1,542	$1,930.69	$2,155.15	($224.46)	-10.4%	($219.74)	$2.01	$0.00	$0.00	$0.00	($6.73)
(73)		1,635	$2,015.30	$2,253.29	($237.99)	-10.6%	($232.98)	$2.13	$0.00	$0.00	$0.00	($7.14)
(74)		1,730	$2,100.67	$2,352.50	($251.82)	-10.7%	($246.53)	$2.26	$0.00	$0.00	$0.00	($7.55)
(75)		1,825	$2,186.02	$2,451.71	($265.68)	-10.8%	($260.09)	$2.38	$0.00	$0.00	$0.00	($7.97)

C & I Medium:

Line		Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Difference due to: GCR	DAC: Base DAC	DAC: ISR	EE	LIHEAP	GET
(80)		7,941	$8,169.74	$9,376.42	($1,206.68)	-12.9%	($1,131.60)	($38.88)	$0.00	$0.00	$0.00	($36.20)
(81)		8,796	$8,955.52	$10,292.14	($1,336.62)	-13.0%	($1,253.44)	($43.08)	$0.00	$0.00	$0.00	($40.10)
(82)		9,650	$9,739.89	$11,206.31	($1,466.42)	-13.1%	($1,375.13)	($47.30)	$0.00	$0.00	$0.00	($43.99)
(83)		10,505	$10,525.67	$12,122.01	($1,596.34)	-13.2%	($1,496.97)	($51.48)	$0.00	$0.00	$0.00	($47.89)
(84)		11,361	$11,311.74	$13,038.14	($1,726.39)	-13.2%	($1,618.93)	($55.67)	$0.00	$0.00	$0.00	($51.79)
(85)	**Average Customer**	**12,217**	**$12,098.06**	**$13,954.51**	**($1,856.45)**	**-13.3%**	($1,740.90)	($59.86)	$0.00	$0.00	$0.00	($55.69)
(86)		13,073	$12,884.35	$14,870.94	($1,986.59)	-13.4%	($1,862.92)	($64.07)	$0.00	$0.00	$0.00	($59.60)
(87)		13,928	$13,669.58	$15,786.03	($2,116.45)	-13.4%	($1,984.73)	($68.23)	$0.00	$0.00	$0.00	($63.49)
(88)		14,782	$14,454.55	$16,700.81	($2,246.26)	-13.4%	($2,106.45)	($72.42)	$0.00	$0.00	$0.00	($67.39)
(89)		15,637	$15,239.74	$17,615.93	($2,376.19)	-13.5%	($2,228.29)	($76.61)	$0.00	$0.00	$0.00	($71.29)
(90)		16,492	$16,025.58	$18,531.67	($2,506.09)	-13.5%	($2,350.11)	($80.80)	$0.00	$0.00	$0.00	($75.18)

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Bill Impact Analysis with Various Levels of Consumption:

C & I LLF Large:

		Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Difference due to: GCR	DAC: Base DAC	DAC: ISR	EE	LIHEAP	GET
(95)		41,066	$41,255.43	$46,941.15	($5,685.72)	-12.1%	($5,851.90)	$336.75	$0.00	$0.00	$0.00	($170.57)
(96)		45,488	$45,463.70	$51,761.69	($6,297.99)	-12.2%	($6,482.04)	$372.99	$0.00	$0.00	$0.00	($188.94)
(97)		49,910	$49,672.07	$56,582.31	($6,910.24)	-12.2%	($7,112.17)	$409.24	$0.00	$0.00	$0.00	($207.31)
(98)		54,334	$53,882.09	$61,404.83	($7,522.73)	-12.3%	($7,742.60)	$445.55	$0.00	$0.00	$0.00	($225.68)
(99)		58,757	$58,091.22	$66,226.36	($8,135.13)	-12.3%	($8,372.88)	$481.80	$0.00	$0.00	$0.00	($244.05)
(100)	**Average Customer**	**63,179**	**$62,299.72**	**$71,047.03**	**($8,747.32)**	**-12.3%**	($9,002.98)	$518.08	$0.00	$0.00	$0.00	($262.42)
(101)		67,600	$66,507.05	$75,866.50	($9,359.45)	-12.3%	($9,633.01)	$554.34	$0.00	$0.00	$0.00	($280.78)
(102)		72,023	$70,716.20	$80,688.06	($9,971.86)	-12.4%	($10,263.27)	$590.57	$0.00	$0.00	$0.00	($299.16)
(103)		76,447	$74,926.77	$85,511.14	($10,584.36)	-12.4%	($10,893.68)	$626.85	$0.00	$0.00	$0.00	($317.53)
(104)		80,870	$79,135.94	$90,332.66	($11,196.72)	-12.4%	($11,523.95)	$663.13	$0.00	$0.00	$0.00	($335.90)
(105)		85,292	$83,344.24	$95,153.24	($11,809.00)	-12.4%	($12,154.13)	$699.40	$0.00	$0.00	$0.00	($354.27)

(91) (92) (93) (94)

C & I HLF Large:

		Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Difference due to: GCR	DAC: Base DAC	DAC: ISR	EE	LIHEAP	GET
(110)		50,411	$44,307.31	$51,790.99	($7,483.68)	-14.4%	($7,652.39)	$393.22	$0.00	$0.00	$0.00	($224.51)
(111)		55,841	$48,845.60	$57,135.43	($8,289.82)	-14.5%	($8,476.67)	$435.54	$0.00	$0.00	$0.00	($248.69)
(112)		61,273	$53,385.45	$62,481.67	($9,096.22)	-14.6%	($9,301.26)	$477.93	$0.00	$0.00	$0.00	($272.89)
(113)		66,699	$57,920.88	$67,822.58	($9,901.70)	-14.6%	($10,124.92)	$520.27	$0.00	$0.00	$0.00	($297.05)
(114)		72,129	$62,459.20	$73,167.00	($10,707.79)	-14.6%	($10,949.19)	$562.63	$0.00	$0.00	$0.00	($321.23)
(115)	**Average Customer**	**77,558**	**$66,996.77**	**$78,510.58**	**($11,513.81)**	**-14.7%**	($11,773.37)	$604.97	$0.00	$0.00	$0.00	($345.41)
(116)		82,989	$71,535.13	$83,855.13	($12,320.00)	-14.7%	($12,597.71)	$647.31	$0.00	$0.00	$0.00	($369.60)
(117)		88,416	$76,071.28	$89,196.97	($13,125.69)	-14.7%	($13,421.57)	$689.65	$0.00	$0.00	$0.00	($393.77)
(118)		93,847	$80,610.34	$94,542.28	($13,931.94)	-14.7%	($14,245.98)	$732.00	$0.00	$0.00	$0.00	($417.96)
(119)		99,275	$85,147.22	$99,884.97	($14,737.74)	-14.8%	($15,069.97)	$774.36	$0.00	$0.00	$0.00	($442.13)
(120)		104,705	$89,685.55	$105,229.38	($15,543.84)	-14.8%	($15,894.21)	$816.69	$0.00	$0.00	$0.00	($466.32)

(106) (107) (108) (109)

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Bill Impact Analysis with Various Levels of Consumption:

C & I LLF Extra-Large:

Line		Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Difference due to: GCR	DAC: Base DAC	DAC: ISR	EE	LIHEAP	GET
(121)												
(122)												
(123)												
(124)												
(125)		174,357	$139,014.11	$165,077.80	($26,063.69)	-15.8%	($24,845.89)	($435.89)	$0.00	$0.00	$0.00	($781.91)
(126)		193,136	$153,418.92	$182,289.74	($28,870.82)	-15.8%	($27,521.86)	($482.84)	$0.00	$0.00	$0.00	($866.12)
(127)		211,912	$167,821.65	$199,499.25	($31,677.60)	-15.9%	($30,197.48)	($529.79)	$0.00	$0.00	$0.00	($950.33)
(128)		230,688	$182,225.07	$216,709.31	($34,484.25)	-15.9%	($32,873.02)	($576.70)	$0.00	$0.00	$0.00	($1,034.53)
(129)		249,466	$196,629.16	$233,920.49	($37,291.33)	-15.9%	($35,548.90)	($623.69)	$0.00	$0.00	$0.00	($1,118.74)
(130)	**Average Customer**	**268,243**	**$211,032.55**	**$251,130.71**	**($40,098.15)**	**-16.0%**	($38,224.59)	($670.62)	$0.00	$0.00	$0.00	($1,202.94)
(131)		287,018	$225,434.74	$268,339.48	($42,904.74)	-16.0%	($40,900.07)	($717.53)	$0.00	$0.00	$0.00	($1,287.14)
(132)		305,796	$239,839.51	$285,551.28	($45,711.77)	-16.0%	($43,575.93)	($764.49)	$0.00	$0.00	$0.00	($1,371.35)
(133)		324,573	$254,242.96	$302,761.62	($48,518.66)	-16.0%	($46,251.66)	($811.44)	$0.00	$0.00	$0.00	($1,455.56)
(134)		343,350	$268,646.38	$319,971.89	($51,325.51)	-16.0%	($48,927.37)	($858.37)	$0.00	$0.00	$0.00	($1,539.77)
(135)		362,127	$283,049.87	$337,182.25	($54,132.38)	-16.1%	($51,603.10)	($905.31)	$0.00	$0.00	$0.00	($1,623.97)

C & I HLF Extra-Large:

Line		Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Difference due to: GCR	DAC: Base DAC	DAC: ISR	EE	LIHEAP	GET
(136)												
(137)												
(138)												
(139)												
(140)		447,421	$324,658.04	$396,199.27	($71,541.23)	-18.1%	($67,918.51)	($1,476.48)	$0.00	$0.00	$0.00	($2,146.24)
(141)		495,605	$359,053.83	$438,299.54	($79,245.71)	-18.1%	($75,232.86)	($1,635.48)	$0.00	$0.00	$0.00	($2,377.37)
(142)		543,789	$393,450.45	$480,400.61	($86,950.16)	-18.1%	($82,547.16)	($1,794.50)	$0.00	$0.00	$0.00	($2,608.50)
(143)		591,972	$427,845.59	$522,500.12	($94,654.53)	-18.1%	($89,861.36)	($1,953.53)	$0.00	$0.00	$0.00	($2,839.64)
(144)		640,155	$462,240.78	$564,599.60	($102,358.81)	-18.1%	($97,175.53)	($2,112.52)	$0.00	$0.00	$0.00	($3,070.76)
(145)	**Average Customer**	**688,340**	**$496,637.69**	**$606,701.10**	**($110,063.41)**	**-18.1%**	($104,489.99)	($2,271.52)	$0.00	$0.00	$0.00	($3,301.90)
(146)		736,523	$531,033.18	$648,800.92	($117,767.74)	-18.2%	($111,804.18)	($2,430.53)	$0.00	$0.00	$0.00	($3,533.03)
(147)		784,708	$565,429.62	$690,902.02	($125,472.40)	-18.2%	($119,118.68)	($2,589.55)	$0.00	$0.00	$0.00	($3,764.17)
(148)		832,891	$599,825.59	$733,002.30	($133,176.71)	-18.2%	($126,432.86)	($2,748.55)	$0.00	$0.00	$0.00	($3,995.30)
(149)		881,074	$634,220.75	$775,101.74	($140,880.99)	-18.2%	($133,747.03)	($2,907.53)	$0.00	$0.00	$0.00	($4,226.43)
(150)		929,259	$668,617.98	$817,203.64	($148,585.66)	-18.2%	($141,061.54)	($3,066.55)	$0.00	$0.00	$0.00	($4,457.57)

Attachment AEL-5

Attachment AEL-5
FT-2 Demand Rate

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Summary of Marketer Transportation Factors

Line No.	Item	Reference	Proposed	Billing Units
	(a)	(b)	(c)	(d)
(1)	FT-2 Demand	Pg 2, Line (22)	**$8.8817**	Dth/Mth
(2)	Weighted Average Upstream Pipeline Transportation Cost	EDA - 4	**$0.4219**	Per Dth of capacity
(3)	Storage and Peaking charge for FT-1 firm transportation Customers eligible for TSS	Pg 3, Line (5)	**$0.6945**	Per Dth

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Calculation of FT- 2 Demand Rate (per Dth)

Line No.	Description	Source Reference	Source Line #	Amount	
	(a)	(b)	(c)	(d)	
(1)	Storage Fixed Costs	AEL-1 pg 4	Line (64)	$16,307,226	
	Less:				
(2)	LNG Demand to DAC	AEL-1 pg 2	Line (5)	($1,488,790)	
(3)	Credits			$0	
(4)	Refunds			$0	
(5)	Total Credits	sum [(2):(4)]		($1,488,790)	
	Plus:				
(6)	Supply Related LNG O&M Costs	Dkt 4323		$575,581	
(7)	Working Capital Requirement	AEL-1 pg 9	Line (47)	$85,319	
(8)	Tennessee Dracut for peaking	AEL-1 pg 4	Line (5)	$530,291	
(9)	Algonquin Hubline for peaking	AEL-1 pg 4	Line (16)	$1,214,510	
(10)	Total Additions	sum [(6):(9)]		$2,405,701	
(11)	Total Storage Fixed Costs	(1) + (5) + (10)		$17,224,138	
	Inventory Financing				
(12)	Underground	AEL-1 pg 10	Line (12)	$599,371	
(13)	LNG	AEL-1 pg 10	Line (22)	$341,086	
(14)	Total Storage Fixed Costs	(11) + (12) + (13)		$18,164,594	
(15)	LNG Storage MDQ (Dth)	AEL-1 pg 12	Line (14)	133,548	
(16)	AGT	EDA-4		31,642	
(17)	TENN	EDA-4		10,836	
(18)	Total Storage MDQ	sum [(15):(17)]		176,026	
(19)	Storage MDQ X 12 Months	(18) *12		2,112,312	MDCQ Dth
(20)	FT- 2 Demand Rate	(14) / (19)		$8.5993	per MDCQ Dth
(21)	Uncollectible %	Docket 4323		3.18%	
(22)	Total FT-2 Demand Rate adjusted for Uncollectibles	(20) / [(1 - (21)]		$8.8817	per MDCQ Dth
(23)	MDQ-U	Mkter MDQ Forecast		4,040	
(24)	MDQ-P	Mkter MDQ Forecast		12,768	
(25)	Marketer MDQs	(23) + (24)		16,809	Dth/Mth
(26)	**FT-2 Storage Costs**	(20) x (25) x 12 Months		**$1,734,509**	

National Grid - RI Gas
Gas Cost Recovery (GCR) Filing
Calculation of FT-1 Storage and Peaking Charge Applied to Firm Transportation Customers Eligible for TSS

Line No.	Description	Source Reference	Source Line #	Amount	
	(a)	(b)	(c)	(d)	
(1)	Total Storage Fixed Costs	Pg 2	Line (14)	$18,164,594	
(2)	Usage (Dt) Nov 2015 - Oct 2016	AEL-1 pg 2	Line (16)	27,009,852	
(3)	Volumetric Rate	(6) / (7)		$0.6725	
(4)	Uncollectible %	Docket 4323		3.18%	
(5)	Volumetric Rate Including Uncollectible	(8) / [1 - (9)]		$0.6945	per dth
(6)	**Storage and Peaking charge applied to FT-1 firm transportation Customers eligible for TSS**			$0.0694	per therm

Attachment AEL-6

Attachment AEL-6
FT-2 Capacity Allocator Percentages

RI Gas Company
Capacity Assignment Table

			% of Peak Day Requirement				% of Total Capacity		
Line	Load	Rate Class	Pipeline	Storage	Peaking	Total	Pipeline	Storage	Peaking
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
(1)	HLF	Res - Non-Heating	63.0%	9.0%	28.0%	100.0%	1.9%	1.6%	1.6%
(2)	HLF	Res - Non-Heating LI	63.0%	9.0%	28.0%	100.0%			
(3)	LLF	Res - Heating	50.0%	12.0%	38.0%	100.0%	56.9%	59.0%	59.0%
(4)	LLF	Res - Heating LI	50.0%	12.0%	38.0%	100.0%			
(5)	LLF	Small	50.0%	12.0%	38.0%	100.0%	8.2%	8.8%	8.8%
(6)	LLF	Med	50.0%	12.0%	38.0%	100.0%	9.7%	9.6%	9.6%
(7)	LLF	Large Low Load	50.0%	12.0%	38.0%	100.0%	2.1%	2.3%	2.3%
(8)	HLF	Large High Load	63.0%	9.0%	28.0%	100.0%	0.4%	0.1%	0.1%
(9)	LLF	XL Low Load	50.0%	12.0%	38.0%	100.0%	0.3%	0.3%	0.3%
(10)	HLF	XL High Load	63.0%	9.0%	28.0%	100.0%	0.9%	0.5%	0.5%
(11)	HLF	High Load Factor	63.0%	9.0%	28.0%	100.0%	7.8%	4.7%	4.7%
(12)	LLF	Low Load Factor	50.0%	12.0%	38.0%	100.0%	92.2%	95.3%	95.3%
(13)		Total	51.0%	12.0%	37.0%	100.0%	100.0%	100.0%	100.0%

Attachment AEL-7

Attachment AEL-7
Marketer Reconciliation

2013-14 & 2014-15 Annual Marketer Reconciliation

	(a)	# of days (b)	Reference (c)	Tetco ELA/Algonquin (d)	Tetco WLA/Algonquin (e)	Tennessee Zone 1 to NEGC (f)	Tetco STX/Algonquin (g)	Algonquin @ Lambertville, NJ (h)	Columbia (Maumee/Downington) (i)	Total (j)
	2014-2015 Marketer Reconciliation									
	Month of activity									
(1)	**Nov-14**	30		86,610	255,000	285,000	112,380	61,590	0	800,580
(2)	**Dec-14**	31		91,109	263,500	294,500	115,754	63,581	0	828,444
(3)	**Jan-15**	31		93,837	263,438	294,469	115,909	62,651	0	830,304
(4)	**Feb-15**	28		88,284	237,972	266,000	104,916	56,980	0	754,152
(5)	**Mar-15**	31		108,097	263,500	294,500	116,932	63,736	0	846,765
(6)	**Apr-15**	30		116,550	255,000	285,000	113,340	61,350	0	831,240
(7)	**May-15**	31		120,869	263,500	294,500	117,025	63,643	0	859,537
(8)	**Jun-15**	30		118,500	255,000	285,000	113,520	61,530	0	833,550
(9)	**Jul-15**	31		134,664	263,500	294,469	118,544	62,837	0	874,014
(10)	**Aug-15**	31		135,687	263,500	294,500	118,668	62,775	0	875,130
(11)	**Sep-15**	30		131,310	255,000	285,000	114,840	60,750	0	846,900
(12)	**Oct-15**	31		135,687	263,500	294,500	118,668	62,775	0	875,130
(13)	**Total**		sum[(1):(12)]	1,361,204	3,102,410	3,467,438	1,380,496	744,198	0	10,055,746
	Approved									
(14)	System Average		Dkt 4520 EDA-4	$0.5039	$0.5039	$0.5039	$0.5039	$0.5039	$0.5039	
(15)	Path		Dkt 4520 EDA-4	$0.9217	$1.0177	$1.1079	$1.3049	$0.0524	$0.2686	
(16)	Credit/Surcharge		(14) - (15)	($0.4178)	($0.5138)	($0.6040)	($0.8010)	$0.4515	$0.2353	
	Revised									
(17)	System Average			$0.5116	$0.5116	$0.5116	$0.5116	$0.5116	$0.5116	
(18)	Path			$0.9267	$1.0228	$1.1092	$1.3099	$0.0574	$0.2736	
(19)	Credit/Surcharge		(17) - (18)	($0.4151)	($0.5112)	($0.5976)	($0.7983)	$0.4542	$0.2380	
(20)	Variance- approved Surcharge/Credit vs. Revised Surcharge/Credit		(19) - (16)	$0.0027	$0.0026	$0.0064	$0.0027	$0.0027	$0.0027	
(21)	Annual MDCQ		(13)	1,361,204	3,102,410	3,467,438	1,380,496	744,198	0	10,055,746
(22)	Updated 2014-15 Marketer Reconciliation Adjustment		(20) * (21)	$3,675	$8,066	$22,192	$3,727	$2,009	$0	$39,670

2013-14 & 2014-15 Annual Marketer Reconciliation

	(a)	# of days (b)	Reference (c)	Tetco ELA/Algonquin (d)	Tetco WLA/Algonquin (e)	Tennessee Zone 1 to NEGC (f)	Tetco STX/Algonquin (g)	Algonquin @ Lambertville, NJ (h)	Columbia (Maumee/Downington) (i)	Total (j)
	2013-2014 Marketer Reconciliation									
	Month of activity									
(23)	**Nov-13**	30		194,970	254,970	284,970	110,940	70,710	4,920	921,480
(24)	**Dec-13**	31		201,500	263,500	294,500	115,227	73,718	5,053	953,498
(25)	**Jan-14**	31		201,500	263,500	294,500	119,598	82,460	4,991	966,549
(26)	**Feb-14**	28		182,000	238,000	266,000	107,548	73,080	4,424	871,052
(27)	**Mar-14**	31		201,469	263,469	294,500	117,893	78,337	4,836	960,504
(28)	**Apr-14**	30		195,000	255,000	285,000	114,990	77,700	4,620	932,310
(29)	**May-14**	31		201,500	263,500	294,500	118,296	78,802	4,805	961,403
(30)	**Jun-14**	30		195,000	255,000	285,000	106,710	61,890	4,590	908,190
(31)	**Jul-14**	31		201,500	263,500	294,500	110,639	65,441	4,588	940,168
(32)	**Aug-14**	31		201,500	263,500	294,469	114,142	71,796	4,464	949,871
(33)	**Sep-14**	30		195,000	255,000	285,000	111,720	71,880	4,290	922,890
(34)	**Oct-14**	31		201,500	263,500	294,500	118,885	83,607	4,371	966,363
(35)	**Total**		sum[(23):(34)]	2,372,439	3,102,439	3,467,439	1,366,588	889,421	55,952	11,254,278
	Approved									
(36)	System Average		Dkt 4436 EDA-4	$0.9383	$0.9383	$0.9383	$0.9383	$0.9383	$0.9383	
(37)	Path		Dkt 4436 EDA-4	$0.9245	$1.0264	$1.1663	$1.2195	$0.2744	$0.3702	
(38)	Credit/Surcharge		(36) - (37)	$0.0138	($0.0881)	($0.2280)	($0.2812)	$0.6639	$0.5681	
	Revised									
(39)	System Average			$0.9362	$0.9362	$0.9362	$0.9362	$0.9362	$0.9362	
(40)	Path			$0.9251	$1.0269	$1.1502	$1.2201	$0.2744	$0.3768	
(41)	Credit/Surcharge		(39) - (40)	$0.0111	($0.0907)	($0.2140)	($0.2839)	$0.6618	$0.5594	
(42)	Variance- approved Surcharge/Credit vs. Revised Surcharge/Credit		(41) - (38)	($0.0027)	($0.0026)	$0.0140	($0.0027)	($0.0021)	($0.0087)	
(43)	Annual MDCQ		(35)	2,372,439	3,102,439	3,467,439	1,366,588	889,421	55,952	11,254,278
(44)	Updated 2013-14 Marketer Reconciliation Adjustment		(42) * (43)	($6,406)	($8,066)	$48,544	($3,690)	($1,868)	($487)	$28,028
(45)	Under/(Over)-collections for 2011-12 & 2012-13 Marketer Reconciliation[1]									$57,022
(46)	Total 2011-14 amount subject to Marketer Reconciliation		(44) + (45)							$85,050
(47)	Already Collected from Marketers[2]									$66,187
(48)	Under/(Over)-collections for 2012-13 & 2013-14 Marketer Reconciliation		(46) - (47)							$18,863
(49)	**Total 2013-14 & 2014-15 Marketer Reconciliation- Surcharge to Marketers**		(22) + (48)							$58,533
(50)	**Total 2013-14 & 2014-15 Marketer Reconciliation- Surcharge Credited to Firm Sales Customers**		- (49)							**($58,533)**

[1] Docket No. 4520 Attachment AEL-7, Line 48, filed on September 2, 2014

[2] Nov. 2014 -July 2015 as reflected in GCR Monthly Deferred Report filed on August 20, 2015 Schedule 2, Line 104. Aug. 2015-Oct. 2015 are projected collections.

Attachment AEL-8

Attachment AEL-8
Restatement of Historical Throughput

Adjusted Actual Dth Usage (Removal of Accruals and Large Billing Adjustments from Actual Usage)

Line No.	THROUGHPUT (Dth) Rate Class	Reference	Apr Actual (a)	May Actual (b)	Jun Actual (c)	Jul Actual (d)	Aug Actual (e)	Sep Actual (f)	Oct Actual (g)	Nov Actual (h)	Dec Actual (i)	Jan Actual (j)	Feb Actual (k)	Mar Actual (l)	Apr-Mar (m)
1	**SALES**														
2	Residential Non-Heating	Ln 368	103,094	65,116	37,167	29,077	27,531	27,601	33,761	56,635	74,913	97,349	123,153	116,760	792,157
3	Residential Non-Heating Low Income	Ln 369	4,678	3,213	1,508	1,202	1,113	1,130	1,382	2,753	2,976	4,006	4,900	4,353	33,215
4	Residential Heating	Ln 370	2,122,865	1,108,093	513,737	372,360	344,157	355,647	438,073	954,909	2,132,202	2,877,504	3,747,011	3,449,650	18,416,207
5	Residential Heating Low Income	Ln 371	210,481	123,623	57,730	44,605	41,177	41,359	48,984	100,792	213,885	282,745	352,717	318,259	1,836,355
6	Small C&I	Ln 372	308,906	139,479	57,631	43,238	40,478	42,588	54,725	113,249	292,468	439,525	597,057	549,888	2,679,230
7	Medium C&I	Ln 373	379,968	227,082	97,341	85,387	82,462	87,012	98,547	178,359	381,774	521,529	651,611	613,387	3,404,460
8	Large LLF	Ln 374	82,868	56,261	14,785	8,870	7,554	19,020	11,305	33,489	86,758	120,493	141,284	147,542	730,228
9	Large HLF	Ln 375	10,855	20,995	19,839	20,687	29,173	13,685	13,411	15,270	18,169	24,633	22,930	25,819	235,465
10	Extra Large LLF	Ln 376	12,862	7,699	3,015	1,510	728	1,034	1,137	5,189	9,565	16,279	19,829	11,954	90,801
11	Extra Large HLF	Ln 377	81,748	7,934	78,073	22,848	19,910	52,774	28,636	40,701	41,031	33,101	59,429	53,908	520,093
12	**Total Sales**		3,318,325	1,759,495	880,827	629,784	594,284	641,850	729,958	1,501,345	3,253,741	4,417,164	5,719,920	5,291,519	28,738,211
13	**TSS**														
14	Small	Ln 380	99	254	159	150	142	142	174	301	854	1,327	1,920	2,089	7,611
15	Medium	Ln 381	13,614	12,072	5,507	5,215	5,213	5,366	6,351	9,178	21,446	29,294	38,027	37,104	188,385
16	Large LLF	Ln 382	624	3,228	636	781	823	870	821	2,777	5,722	7,098	13,537	8,055	44,972
17	Large HLF	Ln 383	545	1,210	1,168	1,734	950	1,136	1,301	2,532	2,704	4,072	3,674	3,313	24,337
18	Extra Large LLF	Ln 384	0	0	0	0	0	0	0	0	0	0	0	0	0
19	Extra Large HLF	Ln 385	0	297	202	136	116	129	182	264	532	743	837	769	4,207
20	**Total TSS**		14,883	17,061	7,672	8,015	7,244	7,643	8,829	15,052	31,258	42,532	57,995	51,330	269,513
21	**Sales & TSS THROUGHPUT**														
22	Residential Non-Heating	Ln 2	103,094	65,116	37,167	29,077	27,531	27,601	33,761	56,635	74,913	97,349	123,153	116,760	792,157
23	Residential Non-Heating Low Income	Ln 3	4,678	3,213	1,508	1,202	1,113	1,130	1,382	2,753	2,976	4,006	4,900	4,353	33,215
24	Residential Heating	Ln 4	2,122,865	1,108,093	513,737	372,360	344,157	355,647	438,073	954,909	2,132,202	2,877,504	3,747,011	3,449,650	18,416,207
25	Residential Heating Low Income	Ln 5	210,481	123,623	57,730	44,605	41,177	41,359	48,984	100,792	213,885	282,745	352,717	318,259	1,836,355
26	Small C&I	Ln 6 + Ln 14	309,005	139,734	57,790	43,388	40,620	42,731	54,899	113,550	293,321	440,852	598,976	551,977	2,686,842
27	Medium C&I	Ln 7 + Ln 15	393,583	239,155	102,848	90,602	87,675	92,378	104,897	187,537	403,220	550,823	689,638	650,491	3,592,845
28	Large LLF	Ln 8 + Ln 16	83,492	59,488	15,421	9,651	8,378	19,890	12,126	36,266	92,480	127,590	154,821	155,597	775,200
29	Large HLF	Ln 9 + Ln 17	11,400	22,205	21,008	22,421	30,123	14,821	14,711	17,802	20,873	28,704	26,603	29,132	259,802
30	Extra Large LLF	Ln 10 + Ln 18	12,862	7,699	3,015	1,510	728	1,034	1,137	5,189	9,565	16,279	19,829	11,954	90,801
31	Extra Large HLF	Ln 11 + Ln 19	81,748	8,230	78,275	22,984	20,026	52,903	28,818	40,965	41,563	33,843	60,266	54,678	524,300
32	**Total Sales & TSS Throughput**		3,333,208	1,776,556	888,499	637,799	601,528	649,493	738,787	1,516,397	3,284,999	4,459,696	5,777,914	5,342,849	29,007,724
33	**FT-1 TRANSPORTATION**														
34	FT-1 Medium	Ln 400	96,115	60,315	36,792	31,648	26,105	26,297	27,722	42,844	69,474	84,853	110,021	116,259	728,445
35	FT-1 Large LLF	Ln 401	173,220	90,888	38,446	19,868	35,336	20,688	25,113	55,398	122,291	153,309	206,842	211,112	1,152,510
36	FT-1 Large HLF	Ln 402	49,680	40,065	33,021	28,886	33,387	34,697	35,282	39,741	30,991	46,281	57,148	58,175	487,354
37	FT-1 Extra Large LLF	Ln 403	171,702	99,292	47,519	15,307	16,151	16,414	19,823	54,961	137,060	163,896	217,783	187,464	1,147,373
38	FT-1 Extra Large HLF	Ln 404	484,878	392,678	353,006	345,241	343,203	331,320	463,568	425,546	476,225	742,262	405,580	563,968	5,327,476
39	Default	Ln 405	29,459	13,772	42,688	2,380	2,171	1,408	1,494	854	18,079	8,732	10,814	12,084	143,935
40	**Total FT-1 Transportation**		1,005,055	697,010	551,472	443,330	456,352	430,824	573,003	619,344	854,120	1,199,333	1,008,188	1,149,062	8,987,092
41	**FT-2 TRANSPORTATION**														
42	FT-2 Small	Ln 408	4,462	2,107	1,133	854	849	1,134	1,188	2,128	4,905	8,211	16,127	14,606	57,703
43	FT-2 Medium	Ln 409	191,727	115,891	61,308	46,526	45,760	45,472	52,278	112,126	178,320	249,026	302,723	291,842	1,692,996
44	FT-2 Large LLF	Ln 410	149,702	76,307	30,153	15,811	14,450	16,083	23,970	77,258	143,077	207,088	238,144	233,339	1,225,381
45	FT-2 Large HLF	Ln 411	37,293	34,841	31,199	22,842	24,171	25,804	26,342	32,198	45,275	50,064	52,770	67,514	450,311
46	FT-2 Extra Large LLF	Ln 412	9,118	3,302	2,781	1,011	706	947	1,817	5,357	4,119	11,008	13,007	15,952	69,124
47	FT-2 Extra Large HLF	Ln 413	17,166	12,497	9,999	6,674	13,392	9,823	11,460	13,412	16,035	16,606	16,189	21,989	165,241
48	**Total FT-2 Transportation**		409,467	244,945	136,571	93,716	99,327	99,262	117,055	242,480	391,730	542,002	638,960	645,241	3,660,756
49	**Total THROUGHPUT**														
50	Residential Non-Heating	Ln 22	103,094	65,116	37,167	29,077	27,531	27,601	33,761	56,635	74,913	97,349	123,153	116,760	792,157
51	Residential Non-Heating Low Income	Ln 23	4,678	3,213	1,508	1,202	1,113	1,130	1,382	2,753	2,976	4,006	4,900	4,353	33,215
52	Residential Heating	Ln 24	2,122,865	1,108,093	513,737	372,360	344,157	355,647	438,073	954,909	2,132,202	2,877,504	3,747,011	3,449,650	18,416,207
53	Residential Heating Low Income	Ln 25	210,481	123,623	57,730	44,605	41,177	41,359	48,984	100,792	213,885	282,745	352,717	318,259	1,836,355
54	Small C&I	Ln 26 + Ln 42	313,467	141,840	58,923	44,241	41,469	43,864	56,088	115,678	298,227	449,062	615,104	566,582	2,744,544
55	Medium C&I	Ln 27 + Ln 34 + Ln 43	681,426	415,360	200,947	168,776	159,539	164,146	184,897	342,507	651,013	884,702	1,102,381	1,058,592	6,014,286
56	Large LLF	Ln 28 + Ln 35 + Ln 44	406,413	226,684	84,020	45,329	58,163	56,661	61,209	168,922	357,848	487,987	599,807	600,048	3,153,092
57	Large HLF	Ln 29 + Ln 36 + Ln 45	98,373	97,111	85,227	74,148	87,681	75,322	76,335	89,741	97,139	125,048	136,522	154,821	1,197,467
58	Extra Large LLF	Ln 30 + Ln 37 + Ln 46	193,682	110,293	53,315	17,827	17,585	18,396	22,777	65,508	150,744	191,183	250,619	215,370	1,307,298
59	Extra Large HLF	Ln 31 + Ln 38 + Ln 47	583,792	413,406	441,280	374,899	376,621	394,047	503,845	479,922	533,824	792,712	482,035	640,635	6,017,017
60	Default	Ln 39	29,459	13,772	42,688	2,380	2,171	1,408	1,494	854	18,079	8,732	10,814	12,084	143,935
61	**Total Throughput**		4,747,730	2,718,510	1,576,542	1,174,845	1,157,207	1,179,579	1,428,844	2,378,220	4,530,849	6,201,032	7,425,062	7,137,152	41,655,573

THROUGHPUT (Dth)

Actual Dkt Usage reported in Docket No. 4520, Annual GCR Reconciliation filed June 30, 2015

Line No.	Rate Class	Reference	Apr Actual (a)	May Actual (b)	Jun Actual (c)	Jul Actual (d)	Aug Actual (e)	Sep Actual (f)	Oct Actual (g)	Nov Actual (h)	Dec Actual (i)	Jan Actual (j)	Feb Actual (k)	Mar Actual (l)	Apr-Mar (m)
62	**SALES**														
63	Residential Non-Heating		103,094	65,116	37,167	29,077	27,531	27,601	33,761	56,635	74,913	97,349	123,153	116,760	792,157
64	Residential Non-Heating Low Income		4,678	3,213	1,508	1,202	1,113	1,130	1,382	2,753	2,976	4,006	4,900	4,353	33,215
65	Residential Heating		2,122,865	1,108,093	513,737	372,360	344,157	355,647	438,073	954,909	2,132,202	2,877,504	3,747,011	3,449,650	18,416,207
66	Residential Heating Low Income		210,481	123,623	57,730	44,605	41,177	41,359	48,984	100,792	213,885	282,745	352,717	318,259	1,836,355
67	Small C&I		308,906	139,479	57,631	43,238	40,478	42,588	54,725	113,249	292,468	439,525	597,057	549,888	2,679,230
68	Medium C&I		379,968	227,082	97,341	85,387	82,462	87,012	98,547	178,359	381,774	521,529	651,611	613,387	3,404,460
69	Large LLF		82,868	56,261	14,785	8,870	7,554	19,020	11,305	33,489	86,758	120,493	141,284	147,542	730,228
70	Large HLF		10,855	20,995	19,839	20,687	29,173	13,685	13,411	15,270	18,169	24,633	22,930	25,819	235,465
71	Extra Large LLF		12,862	7,699	3,015	1,510	728	1,034	1,137	5,189	9,565	16,279	19,829	11,954	90,801
72	Extra Large HLF		81,748	7,934	78,073	22,848	(1,011)	(24,036)	28,636	(152,203)	160,465	108,923	59,429	53,908	424,714
73	**Total Sales**		3,318,325	1,759,495	880,827	629,784	573,363	565,040	729,958	1,308,441	3,373,175	4,492,986	5,719,920	5,291,519	28,642,832
74	**TSS**														
75	Small		99	254	159	150	142	142	174	301	854	1,327	1,920	2,089	7,611
76	Medium		13,614	12,072	5,507	5,215	5,213	5,366	6,351	9,178	21,446	29,294	38,027	37,104	188,385
77	Large LLF		624	3,228	636	781	823	870	821	2,777	5,722	7,098	13,537	8,055	44,972
78	Large HLF		545	1,210	1,168	1,734	950	1,136	1,301	2,532	2,704	4,072	3,674	3,313	24,337
79	Extra Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
80	Extra Large HLF		(11,060)	297	202	136	116	129	182	264	532	743	837	769	(6,853)
81	**Total TSS**		3,823	17,061	7,672	8,015	7,244	7,643	8,829	15,052	31,258	42,532	57,995	51,330	258,454
82	**Sales & TSS THROUGHPUT**														
83	Residential Non-Heating	Ln 63	103,094	65,116	37,167	29,077	27,531	27,601	33,761	56,635	74,913	97,349	123,153	116,760	792,157
84	Residential Non-Heating Low Income	Ln 64	4,678	3,213	1,508	1,202	1,113	1,130	1,382	2,753	2,976	4,006	4,900	4,353	33,215
85	Residential Heating	Ln 65	2,122,865	1,108,093	513,737	372,360	344,157	355,647	438,073	954,909	2,132,202	2,877,504	3,747,011	3,449,650	18,416,207
86	Residential Heating Low Income	Ln 66	210,481	123,623	57,730	44,605	41,177	41,359	48,984	100,792	213,885	282,745	352,717	318,259	1,836,355
87	Small C&I	Ln 67 + Ln 75	309,005	139,734	57,790	43,388	40,620	42,731	54,899	113,550	293,321	440,852	598,976	551,977	2,686,842
88	Medium C&I	Ln 68 + Ln 76	393,583	239,155	102,848	90,602	87,675	92,378	104,897	187,537	403,220	550,823	689,638	650,491	3,592,845
89	Large LLF	Ln 69 + Ln 77	83,492	59,488	15,421	9,651	8,378	19,890	12,126	36,266	92,480	127,590	154,821	155,597	775,200
90	Large HLF	Ln 70 + Ln 78	11,400	22,205	21,008	22,421	30,123	14,821	14,711	17,802	20,873	28,704	26,603	29,132	259,802
91	Extra Large LLF	Ln 71 + Ln 79	12,862	7,699	3,015	1,510	728	1,034	1,137	5,189	9,565	16,279	19,829	11,954	90,801
92	Extra Large HLF	Ln 72 + Ln 80	70,688	8,230	78,275	22,984	(895)	(23,907)	28,818	(151,939)	160,997	109,666	60,266	54,678	417,862
93	**Total Sales & TSS Throughput**		3,322,148	1,776,556	888,499	637,799	580,607	572,682	738,787	1,323,493	3,404,433	4,535,518	5,777,914	5,342,849	28,901,286
94	**FT-1 TRANSPORTATION**														
95	FT-1 Medium		88,081	24,514	13,269	26,505	20,561	26,489	29,148	57,966	96,104	100,233	135,188	122,498	740,555
96	FT-1 Large LLF		165,760	8,557	(13,996)	1,290	50,803	6,040	29,538	85,682	189,184	184,327	260,376	215,382	1,182,943
97	FT-1 Large HLF		39,805	30,449	25,977	24,752	37,888	36,007	35,867	44,200	22,241	61,570	68,016	59,201	485,972
98	FT-1 Extra Large LLF		169,520	26,881	(4,254)	(16,905)	16,994	16,678	23,232	90,099	219,158	190,733	271,669	157,146	1,160,953
99	FT-1 Extra Large HLF		487,284	300,478	313,334	337,476	341,166	319,437	595,816	387,524	526,905	485,557	1,114,383	199,614	5,408,972
100	Default		65,503	(12,974)	71,604	(37,929)	1,961	646	79,279	19,277	5,635	11,253	12,896	13,353	230,503
101	**Total FT-1 Transportation**		1,015,953	377,905	405,934	335,189	469,373	405,296	792,880	684,748	1,059,227	1,033,672	1,862,528	767,194	9,209,898
102	**FT-2 TRANSPORTATION**														
103	FT-2 Small		4,462	2,107	1,133	854	849	1,134	1,188	2,128	4,905	8,211	16,127	14,606	57,703
104	FT-2 Medium		191,727	115,891	61,308	46,526	45,760	45,472	52,278	112,126	178,320	249,026	302,723	291,842	1,692,996
105	FT-2 Large LLF		149,702	76,307	30,153	15,811	14,450	16,083	23,970	77,258	143,077	207,088	238,144	233,339	1,225,381
106	FT-2 Large HLF		37,293	34,841	31,199	22,842	24,171	25,804	26,342	32,198	45,275	50,064	52,770	67,514	450,311
107	FT-2 Extra Large LLF		9,118	3,302	2,781	1,011	706	947	1,817	5,357	4,119	11,008	13,007	15,952	69,124
108	FT-2 Extra Large HLF		17,166	12,497	9,999	6,674	13,392	9,823	11,460	13,412	16,035	16,606	16,189	21,989	165,241
109	**Total FT-2 Transportation**		409,467	244,945	136,571	93,716	99,327	99,262	117,055	242,480	391,730	542,002	638,960	645,241	3,660,756
110	**Total THROUGHPUT**														
111	Residential Non-Heating	Ln 83	103,094	65,116	37,167	29,077	27,531	27,601	33,761	56,635	74,913	97,349	123,153	116,760	792,157
112	Residential Non-Heating Low Income	Ln 84	4,678	3,213	1,508	1,202	1,113	1,130	1,382	2,753	2,976	4,006	4,900	4,353	33,215
113	Residential Heating	Ln 85	2,122,865	1,108,093	513,737	372,360	344,157	355,647	438,073	954,909	2,132,202	2,877,504	3,747,011	3,449,650	18,416,207
114	Residential Heating Low Income	Ln 86	210,481	123,623	57,730	44,605	41,177	41,359	48,984	100,792	213,885	282,745	352,717	318,259	1,836,355
115	Small C&I	Ln 97 + Ln 103	313,467	141,840	58,923	44,241	41,469	43,864	56,088	115,678	298,227	449,062	615,104	566,582	2,744,544
116	Medium C&I	Ln 88 + Ln 95 + Ln 104	673,391	379,559	177,424	163,633	153,996	164,338	186,323	357,629	677,643	900,081	1,127,548	1,064,830	6,026,396
117	Large LLF	Ln 89 + Ln 96 + Ln 105	398,954	144,352	31,578	26,751	73,631	42,013	65,634	199,207	424,741	519,005	653,341	604,318	3,183,524
118	Large HLF	Ln 90 + Ln 97 + Ln 106	88,497	87,495	78,183	70,014	92,182	76,632	76,920	94,200	88,389	140,338	147,390	155,847	1,196,085
119	Extra Large LLF	Ln 91 + Ln 98 + Ln 107	191,500	37,882	1,542	(14,385)	18,428	18,660	26,186	100,645	232,842	218,020	304,505	185,051	1,320,878
120	Extra Large HLF	Ln 92 + Ln 99 + Ln 108	575,138	321,206	401,607	367,134	353,663	305,353	636,093	248,997	703,937	611,829	1,190,838	276,281	5,992,075
121	Default	Ln 100	65,503	(12,974)	71,604	(37,929)	1,961	646	79,279	19,277	5,635	11,253	12,896	13,353	230,503
122	**Total Throughput**		4,747,568	2,399,405	1,431,004	1,066,704	1,149,307	1,077,241	1,648,721	2,250,721	4,855,391	6,111,192	8,279,403	6,755,284	41,771,940

Line No.	THROUGHPUT (Dth)	Reference	Apr Actual (a)	May Actual (b)	Jun Actual (c)	Jul Actual (d)	Aug Actual (e)	Sep Actual (f)	Oct Actual (g)	Nov Actual (h)	Dec Actual (i)	Jan Actual (j)	Feb Actual (k)	Mar Actual (l)	Apr-Mar (m)
	Accruals														
	Rate Class														
123	**SALES**														
124	Residential Non-Heating		0	0	0	0	0	0	0	0	0	0	0	0	0
125	Residential Non-Heating Low Income		0	0	0	0	0	0	0	0	0	0	0	0	0
126	Residential Heating		0	0	0	0	0	0	0	0	0	0	0	0	0
127	Residential Heating Low Income		0	0	0	0	0	0	0	0	0	0	0	0	0
128	Small C&I		0	0	0	0	0	0	0	0	0	0	0	0	0
129	Medium C&I		0	0	0	0	0	0	0	0	0	0	0	0	0
130	Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
131	Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
132	Extra Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
133	Extra Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
134	**Total Sales**		0	0	0	0	0	0	0	0	0	0	0	0	0
135	**TSS**														
136	Small		0	0	0	0	0	0	0	0	0	0	0	0	0
137	Medium		0	0	0	0	0	0	0	0	0	0	0	0	0
138	Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
139	Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
140	Extra Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
141	Extra Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
142	**Total TSS**		0	0	0	0	0	0	0	0	0	0	0	0	0
143	**Sales & TSS THROUGHPUT**														
144	Residential Non-Heating		0	0	0	0	0	0	0	0	0	0	0	0	0
145	Residential Non-Heating Low Income		0	0	0	0	0	0	0	0	0	0	0	0	0
146	Residential Heating		0	0	0	0	0	0	0	0	0	0	0	0	0
147	Residential Heating Low Income		0	0	0	0	0	0	0	0	0	0	0	0	0
148	Small C&I		0	0	0	0	0	0	0	0	0	0	0	0	0
149	Medium C&I		0	0	0	0	0	0	0	0	0	0	0	0	0
150	Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
151	Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
152	Extra Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
153	Extra Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
154	**Total Sales & TSS Throughput**		0	0	0	0	0	0	0	0	0	0	0	0	0
155	**FT-1 TRANSPORTATION**														
156	FT-1 Medium	Company's accounting data	96,115	60,315	36,792	31,648	26,105	26,297	27,722	42,844	69,474	84,853	110,021	116,259	728,445
157	FT-1 Large LLF	Company's accounting data	173,220	90,888	38,446	19,868	35,336	20,688	25,113	55,398	122,291	153,309	206,842	211,112	1,152,510
158	FT-1 Large HLF	Company's accounting data	49,680	40,065	33,021	28,886	33,387	34,697	35,282	39,741	30,991	46,281	57,148	58,175	487,354
159	FT-1 Extra Large LLF	Company's accounting data	171,702	99,292	47,519	15,307	16,151	16,414	19,823	54,961	137,060	163,896	217,783	187,464	1,147,373
160	FT-1 Extra Large HLF	Company's accounting data	484,878	392,678	353,006	345,241	343,203	331,320	463,568	425,546	476,225	219,520	928,323	563,968	5,327,476
161	Default	Company's accounting data	40,519	13,772	42,688	2,380	2,171	1,408	233	18,656	6,212	8,732	10,814	12,084	159,667
162	**Total FT-1 Transportation**		1,016,115	697,010	551,472	443,330	456,352	430,824	571,741	637,145	842,253	676,591	1,530,931	1,149,062	9,002,825
163	**FT-2 TRANSPORTATION**														
164	FT-2 Small		0	0	0	0	0	0	0	0	0	0	0	0	0
165	FT-2 Medium		0	0	0	0	0	0	0	0	0	0	0	0	0
166	FT-2 Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
167	FT-2 Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
168	FT-2 Extra Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
169	FT-2 Extra Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
170	**Total FT-2 Transportation**		0	0	0	0	0	0	0	0	0	0	0	0	0
171	**Total THROUGHPUT**														
172	Residential Non-Heating		0	0	0	0	0	0	0	0	0	0	0	0	0
173	Residential Non-Heating Low Income		0	0	0	0	0	0	0	0	0	0	0	0	0
174	Residential Heating		0	0	0	0	0	0	0	0	0	0	0	0	0
175	Residential Heating Low Income		0	0	0	0	0	0	0	0	0	0	0	0	0
176	Small C&I		0	0	0	0	0	0	0	0	0	0	0	0	0
177	Medium C&I	Ln 156	96,115	60,315	36,792	31,648	26,105	26,297	27,722	42,844	69,474	84,853	110,021	116,259	728,445
178	Large LLF	Ln 157	173,220	90,888	38,446	19,868	35,336	20,688	25,113	55,398	122,291	153,309	206,842	211,112	1,152,510
179	Large HLF	Ln 158	49,680	40,065	33,021	28,886	33,387	34,697	35,282	39,741	30,991	46,281	57,148	58,175	487,354
180	Extra Large LLF	Ln 159	171,702	99,292	47,519	15,307	16,151	16,414	19,823	54,961	137,060	163,896	217,783	187,464	1,147,373
181	Extra Large HLF	Ln 160	484,878	392,678	353,006	345,241	343,203	331,320	463,568	425,546	476,225	219,520	928,323	563,968	5,327,476
182	Default	Ln 161	40,519	13,772	42,688	2,380	2,171	1,408	233	18,656	6,212	8,732	10,814	12,084	159,667
183	**Total Throughput**		1,016,115	697,010	551,472	443,330	456,352	430,824	571,741	637,145	842,253	676,591	1,530,931	1,149,062	9,002,825

Reversals

Line No.	THROUGHPUT (Dth) Rate Class	Reference	Apr Actual (a)	May Actual (b)	Jun Actual (c)	Jul Actual (d)	Aug Actual (e)	Sep Actual (f)	Oct Actual (g)	Nov Actual (h)	Dec Actual (i)	Jan Actual (j)	Feb Actual (k)	Mar Actual (l)	Apr-Mar (m)
184	**SALES**														
185	Residential Non-Heating		0	0	0	0	0	0	0	0	0	0	0	0	0
186	Residential Non-Heating Low Income		0	0	0	0	0	0	0	0	0	0	0	0	0
187	Residential Heating		0	0	0	0	0	0	0	0	0	0	0	0	0
188	Residential Heating Low Income		0	0	0	0	0	0	0	0	0	0	0	0	0
189	Small C&I		0	0	0	0	0	0	0	0	0	0	0	0	0
190	Medium C&I		0	0	0	0	0	0	0	0	0	0	0	0	0
191	Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
192	Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
193	Extra Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
194	Extra Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
195	**Total Sales**		0	0	0	0	0	0	0	0	0	0	0	0	0
196	**TSS**														
197	Small		0	0	0	0	0	0	0	0	0	0	0	0	0
198	Medium		0	0	0	0	0	0	0	0	0	0	0	0	0
199	Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
200	Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
201	Extra Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
202	Extra Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
203	**Total TSS**		0	0	0	0	0	0	0	0	0	0	0	0	0
204	**Sales & TSS THROUGHPUT**														
205	Residential Non-Heating		0	0	0	0	0	0	0	0	0	0	0	0	0
206	Residential Non-Heating Low Income		0	0	0	0	0	0	0	0	0	0	0	0	0
207	Residential Heating		0	0	0	0	0	0	0	0	0	0	0	0	0
208	Residential Heating Low Income		0	0	0	0	0	0	0	0	0	0	0	0	0
209	Small C&I		0	0	0	0	0	0	0	0	0	0	0	0	0
210	Medium C&I		0	0	0	0	0	0	0	0	0	0	0	0	0
211	Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
212	Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
213	Extra Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
214	Extra Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
215	**Total Sales & TSS Throughput**		0	0	0	0	0	0	0	0	0	0	0	0	0
216	**FT-1 TRANSPORTATION**														
217	FT-1 Medium	Company's accounting data	(104,150)	(96,115)	(60,315)	(36,792)	(31,648)	(26,105)	(26,297)	(27,722)	(42,844)	(69,474)	(84,853)	(110,021)	(716,336)
218	FT-1 Large LLF	Company's accounting data	(180,679)	(173,220)	(90,888)	(38,446)	(19,868)	(35,336)	(20,688)	(25,113)	(55,398)	(122,291)	(153,309)	(206,842)	(1,122,078)
219	FT-1 Large HLF	Company's accounting data	(59,556)	(49,680)	(40,065)	(33,021)	(28,886)	(33,387)	(34,697)	(35,282)	(39,741)	(30,991)	(46,281)	(57,148)	(488,735)
220	FT-1 Extra Large LLF	Company's accounting data	(173,885)	(171,702)	(99,292)	(47,519)	(15,307)	(16,151)	(16,414)	(19,823)	(54,961)	(137,060)	(163,896)	(217,783)	(1,133,793)
221	FT-1 Extra Large HLF	Company's accounting data	(482,472)	(484,878)	(392,678)	(353,006)	(345,241)	(343,203)	(331,320)	(463,568)	(425,546)	(476,225)	(219,520)	(928,323)	(5,245,980)
222	Default	Company's accounting data	(15,535)	(40,519)	(13,772)	(42,688)	(2,380)	(2,171)	(1,408)	(233)	(18,656)	(6,212)	(8,732)	(10,814)	(163,118)
223	**Total FT-1 Transportation**		(1,016,277)	(1,016,115)	(697,010)	(551,472)	(443,330)	(456,352)	(430,824)	(571,741)	(637,145)	(842,253)	(676,591)	(1,530,931)	(8,870,039)
224	**FT-2 TRANSPORTATION**														
225	FT-2 Small		0	0	0	0	0	0	0	0	0	0	0	0	0
226	FT-2 Medium		0	0	0	0	0	0	0	0	0	0	0	0	0
227	FT-2 Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
228	FT-2 Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
229	FT-2 Extra Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
230	FT-2 Extra Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
231	**Total FT-2 Transportation**		0	0	0	0	0	0	0	0	0	0	0	0	0
232	**Total THROUGHPUT**														
233	Residential Non-Heating		0	0	0	0	0	0	0	0	0	0	0	0	0
234	Residential Non-Heating Low Income		0	0	0	0	0	0	0	0	0	0	0	0	0
235	Residential Heating		0	0	0	0	0	0	0	0	0	0	0	0	0
236	Residential Heating Low Income		0	0	0	0	0	0	0	0	0	0	0	0	0
237	Small C&I		0	0	0	0	0	0	0	0	0	0	0	0	0
238	Medium C&I	Ln 217	(104,150)	(96,115)	(60,315)	(36,792)	(31,648)	(26,105)	(26,297)	(27,722)	(42,844)	(69,474)	(84,853)	(110,021)	(716,336)
239	Large LLF	Ln 218	(180,679)	(173,220)	(90,888)	(38,446)	(19,868)	(35,336)	(20,688)	(25,113)	(55,398)	(122,291)	(153,309)	(206,842)	(1,122,078)
240	Large HLF	Ln 219	(59,556)	(49,680)	(40,065)	(33,021)	(28,886)	(33,387)	(34,697)	(35,282)	(39,741)	(30,991)	(46,281)	(57,148)	(488,735)
241	Extra Large LLF	Ln 220	(173,885)	(171,702)	(99,292)	(47,519)	(15,307)	(16,151)	(16,414)	(19,823)	(54,961)	(137,060)	(163,896)	(217,783)	(1,133,793)
242	Extra Large HLF	Ln 221	(482,472)	(484,878)	(392,678)	(353,006)	(345,241)	(343,203)	(331,320)	(463,568)	(425,546)	(476,225)	(219,520)	(928,323)	(5,245,980)
243	Default	Ln 222	(15,535)	(40,519)	(13,772)	(42,688)	(2,380)	(2,171)	(1,408)	(233)	(18,656)	(6,212)	(8,732)	(10,814)	(163,118)
244	**Total Throughput**		(1,016,277)	(1,016,115)	(697,010)	(551,472)	(443,330)	(456,352)	(430,824)	(571,741)	(637,145)	(842,253)	(676,591)	(1,530,931)	(8,870,039)

Billing Adjustments

Line No.	THROUGHPUT (Dth) Rate Class	Reference	Apr Actual (a)	May Actual (b)	Jun Actual (c)	Jul Actual (d)	Aug Actual (e)	Sep Actual (f)	Oct Actual (g)	Nov Actual (h)	Dec Actual (i)	Jan Actual (j)	Feb Actual (k)	Mar Actual (l)	Apr-Mar (m)
245	**SALES**														
246	Residential Non-Heating		0	0	0	0	0	0	0	0	0	0	0	0	0
247	Residential Non-Heating Low Income		0	0	0	0	0	0	0	0	0	0	0	0	0
248	Residential Heating		0	0	0	0	0	0	0	0	0	0	0	0	0
249	Residential Heating Low Income		0	0	0	0	0	0	0	0	0	0	0	0	0
250	Small C&I		0	0	0	0	0	0	0	0	0	0	0	0	0
251	Medium C&I		0	0	0	0	0	0	0	0	0	0	0	0	0
252	Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
253	Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
254	Extra Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
255	Extra Large HLF		0	0	0	0	(20,921)	(76,811)	0	(192,903)	119,434	75,822	0	0	(95,379)
256	**Total Sales**		0	0	0	0	(20,921)	(76,811)	0	(192,903)	119,434	75,822	0	0	(95,379)
257	**TSS**														
258	Small		0	0	0	0	0	0	0	0	0	0	0	0	0
259	Medium		0	0	0	0	0	0	0	0	0	0	0	0	0
260	Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
261	Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
262	Extra Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
263	Extra Large HLF		(11,060)	0	0	0	0	0	0	0	0	0	0	0	(11,060)
264	**Total TSS**		(11,060)	0	0	0	0	0	0	0	0	0	0	0	(11,060)
265	**Sales & TSS THROUGHPUT**														
266	Residential Non-Heating	Ln 246	0	0	0	0	0	0	0	0	0	0	0	0	0
267	Residential Non-Heating Low Income	Ln 247	0	0	0	0	0	0	0	0	0	0	0	0	0
268	Residential Heating	Ln 248	0	0	0	0	0	0	0	0	0	0	0	0	0
269	Residential Heating Low Income	Ln 249	0	0	0	0	0	0	0	0	0	0	0	0	0
270	Small C&I	Ln 250 + Ln 258	0	0	0	0	0	0	0	0	0	0	0	0	0
271	Medium C&I	Ln 251 + Ln 259	0	0	0	0	0	0	0	0	0	0	0	0	0
272	Large LLF	Ln 252 + Ln 260	0	0	0	0	0	0	0	0	0	0	0	0	0
273	Large HLF	Ln 253 + Ln 261	0	0	0	0	0	0	0	0	0	0	0	0	0
274	Extra Large LLF	Ln 254 + Ln 262	0	0	0	0	0	0	0	0	0	0	0	0	0
275	Extra Large HLF	Ln 255 + Ln 263	(11,060)	0	0	0	(20,921)	(76,811)	0	(192,903)	119,434	75,822	0	0	(106,438)
276	**Total Sales & TSS Throughput**		**(11,060)**	**0**	**0**	**0**	**(20,921)**	**(76,811)**	**0**	**(192,903)**	**119,434**	**75,822**	**0**	**0**	(106,438)
277	**FT-1 TRANSPORTATION**														
278	FT-1 Medium		0	0	0	0	0	0	0	0	0	0	0	0	0
279	FT-1 Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
280	FT-1 Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
281	FT-1 Extra Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
282	FT-1 Extra Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
283	Default		11,060	0	0	0	0	0	78,960	0	0	0	0	0	90,020
284	**Total FT-1 Transportation**		11,060	0	0	0	0	0	78,960	0	0	0	0	0	90,020
285	**FT-2 TRANSPORTATION**														
286	FT-2 Small		0	0	0	0	0	0	0	0	0	0	0	0	0
287	FT-2 Medium		0	0	0	0	0	0	0	0	0	0	0	0	0
288	FT-2 Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
289	FT-2 Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
290	FT-2 Extra Large LLF		0	0	0	0	0	0	0	0	0	0	0	0	0
291	FT-2 Extra Large HLF		0	0	0	0	0	0	0	0	0	0	0	0	0
292	**Total FT-2 Transportation**		0	0	0	0	0	0	0	0	0	0	0	0	0
293	**Total THROUGHPUT**														
294	Residential Non-Heating	Ln 266	0	0	0	0	0	0	0	0	0	0	0	0	0
295	Residential Non-Heating Low Income	Ln 267	0	0	0	0	0	0	0	0	0	0	0	0	0
296	Residential Heating	Ln 268	0	0	0	0	0	0	0	0	0	0	0	0	0
297	Residential Heating Low Income	Ln 269	0	0	0	0	0	0	0	0	0	0	0	0	0
298	Small C&I	Ln 270 + Ln 286	0	0	0	0	0	0	0	0	0	0	0	0	0
299	Medium C&I	Ln 271 + Ln 278 + Ln 287	0	0	0	0	0	0	0	0	0	0	0	0	0
300	Large LLF	Ln 272 + Ln 279 + Ln 288	0	0	0	0	0	0	0	0	0	0	0	0	0
301	Large HLF	Ln 273 + Ln 280 + Ln 289	0	0	0	0	0	0	0	0	0	0	0	0	0
302	Extra Large LLF	Ln 274 + Ln 281 + Ln 290	0	0	0	0	0	0	0	0	0	0	0	0	0
303	Extra Large HLF	Ln 275 + Ln 282 + Ln 291	(11,060)	0	0	0	(20,921)	(76,811)	0	(192,903)	119,434	75,822	0	0	(106,438)
304	Default	Ln 283	11,060	0	0	0	0	0	78,960	0	0	0	0	0	90,020
305	**Total Throughput**		0	0	0	0	(20,921)	(76,811)	78,960	(192,903)	119,434	75,822	0	0	(16,419)

Total Net Adjustments- Including Accruals/Reversals and Billing Adjustments

Line No.	THROUGHPUT (Dth) Rate Class	Reference	Apr Actual (a)	May Actual (b)	Jun Actual (c)	Jul Actual (d)	Aug Actual (e)	Sep Actual (f)	Oct Actual (g)	Nov Actual (h)	Dec Actual (i)	Jan Actual (j)	Feb Actual (k)	Mar Actual (l)	Apr-Mar (m)
306	**SALES**														
307	Residential Non-Heating	Ln 124 + Ln 185 + Ln 246	0	0	0	0	0	0	0	0	0	0	0	0	0
308	Residential Non-Heating Low Income	Ln 125 + Ln 186 + Ln 247	0	0	0	0	0	0	0	0	0	0	0	0	0
309	Residential Heating	Ln 126 + Ln 187 + Ln 248	0	0	0	0	0	0	0	0	0	0	0	0	0
310	Residential Heating Low Income	Ln 127 + Ln 188 + Ln 249	0	0	0	0	0	0	0	0	0	0	0	0	0
311	Small C&I	Ln 128 + Ln 189 + Ln 250	0	0	0	0	0	0	0	0	0	0	0	0	0
312	Medium C&I	Ln 129 + Ln 190 + Ln 251	0	0	0	0	0	0	0	0	0	0	0	0	0
313	Large LLF	Ln 130 + Ln 191 + Ln 252	0	0	0	0	0	0	0	0	0	0	0	0	0
314	Large HLF	Ln 131 + Ln 192 + Ln 253	0	0	0	0	0	0	0	0	0	0	0	0	0
315	Extra Large LLF	Ln 132 + Ln 193 + Ln 254	0	0	0	0	0	0	0	0	0	0	0	0	0
316	Extra Large HLF	Ln 133 + Ln 194 + Ln 255	0	0	0	0	(20,921)	(76,811)	0	(192,903)	119,434	75,822	0	0	(95,379)
317	**Total Sales**		0	0	0	0	(20,921)	(76,811)	0	(192,903)	119,434	75,822	0	0	(95,379)
318	**TSS**														
319	Small	Ln 136 + Ln 197 + Ln 258	0	0	0	0	0	0	0	0	0	0	0	0	0
320	Medium	Ln 137 + Ln 198 + Ln 259	0	0	0	0	0	0	0	0	0	0	0	0	0
321	Large LLF	Ln 138 + Ln 199 + Ln 260	0	0	0	0	0	0	0	0	0	0	0	0	0
322	Large HLF	Ln 139 + Ln 200 + Ln 261	0	0	0	0	0	0	0	0	0	0	0	0	0
323	Extra Large LLF	Ln 140 + Ln 201 + Ln 262	0	0	0	0	0	0	0	0	0	0	0	0	0
324	Extra Large HLF	Ln 141 + Ln 202 + Ln 263	(11,060)	0	0	0	0	0	0	0	0	0	0	0	(11,060)
325	**Total TSS**		(11,060)	0	0	0	0	0	0	0	0	0	0	0	(11,060)
326	**Sales & TSS THROUGHPUT**														
327	Residential Non-Heating	Ln 307	0	0	0	0	0	0	0	0	0	0	0	0	0
328	Residential Non-Heating Low Income	Ln 308	0	0	0	0	0	0	0	0	0	0	0	0	0
329	Residential Heating	Ln 309	0	0	0	0	0	0	0	0	0	0	0	0	0
330	Residential Heating Low Income	Ln 310	0	0	0	0	0	0	0	0	0	0	0	0	0
331	Small C&I	Ln 311 + Ln 319	0	0	0	0	0	0	0	0	0	0	0	0	0
332	Medium C&I	Ln 312 + Ln 320	0	0	0	0	0	0	0	0	0	0	0	0	0
333	Large LLF	Ln 313 + Ln 321	0	0	0	0	0	0	0	0	0	0	0	0	0
334	Large HLF	Ln 314 + Ln 322	0	0	0	0	0	0	0	0	0	0	0	0	0
335	Extra Large LLF	Ln 315 + Ln 323	0	0	0	0	0	0	0	0	0	0	0	0	0
336	Extra Large HLF	Ln 316 + Ln 324	(11,060)	0	0	0	(20,921)	(76,811)	0	(192,903)	119,434	75,822	0	0	(106,438)
337	**Total Sales & TSS Throughput**		(11,060)	0	0	0	(20,921)	(76,811)	0	(192,903)	119,434	75,822	0	0	(106,438)
338	**FT-1 TRANSPORTATION**	95 156 217													
339	FT-1 Medium	Ln 156 + Ln 217 + Ln 278	(8,034)	(35,801)	(23,523)	(5,143)	(5,544)	192	1,426	15,122	26,630	15,379	25,167	6,239	12,110
340	FT-1 Large LLF	Ln 157 + Ln 218 + Ln 279	(7,460)	(82,332)	(52,442)	(18,578)	15,468	(14,648)	4,425	30,285	66,893	31,018	53,534	4,270	30,433
341	FT-1 Large HLF	Ln 158 + Ln 219 + Ln 280	(9,876)	(9,616)	(7,044)	(4,135)	4,501	1,310	585	4,459	(8,750)	15,289	10,868	1,026	(1,381)
342	FT-1 Extra Large LLF	Ln 159 + Ln 220 + Ln 281	(2,182)	(72,411)	(51,773)	(32,212)	844	264	3,409	35,138	82,098	26,837	53,887	(30,319)	13,580
343	FT-1 Extra Large HLF	Ln 160 + Ln 221 + Ln 282	2,406	(92,200)	(39,672)	(7,765)	(2,037)	(11,883)	132,248	(38,022)	50,679	(256,706)	708,803	(364,355)	81,496
344	Default	Ln 161 + Ln 222 + Ln 283	36,044	(26,746)	28,916	(40,308)	(209)	(762)	77,784	18,423	(12,444)	2,521	2,082	1,270	86,569
345	**Total FT-1 Transportation**		10,898	(319,105)	(145,538)	(108,142)	13,022	(25,528)	219,877	65,404	205,107	(165,662)	854,340	(381,869)	222,805
346	**FT-2 TRANSPORTATION**														
347	FT-2 Small	Ln 164 + Ln 225 + Ln 286	0	0	0	0	0	0	0	0	0	0	0	0	0
348	FT-2 Medium	Ln 165 + Ln 226 + Ln 287	0	0	0	0	0	0	0	0	0	0	0	0	0
349	FT-2 Large LLF	Ln 166 + Ln 227 + Ln 288	0	0	0	0	0	0	0	0	0	0	0	0	0
350	FT-2 Large HLF	Ln 167 + Ln 228 + Ln 289	0	0	0	0	0	0	0	0	0	0	0	0	0
351	FT-2 Extra Large LLF	Ln 168 + Ln 229 + Ln 290	0	0	0	0	0	0	0	0	0	0	0	0	0
352	FT-2 Extra Large HLF	Ln 169 + Ln 230 + Ln 291	0	0	0	0	0	0	0	0	0	0	0	0	0
353	**Total FT-2 Transportation**		0	0	0	0	0	0	0	0	0	0	0	0	0
354	**Total THROUGHPUT**														
355	Residential Non-Heating	Ln 327	0	0	0	0	0	0	0	0	0	0	0	0	0
356	Residential Non-Heating Low Income	Ln 328	0	0	0	0	0	0	0	0	0	0	0	0	0
357	Residential Heating	Ln 329	0	0	0	0	0	0	0	0	0	0	0	0	0
358	Residential Heating Low Income	Ln 330	0	0	0	0	0	0	0	0	0	0	0	0	0
359	Small C&I	Ln 331 + Ln 347	0	0	0	0	0	0	0	0	0	0	0	0	0
360	Medium C&I	Ln 332 + Ln 339 + Ln 348	(8,034)	(35,801)	(23,523)	(5,143)	(5,544)	192	1,426	15,122	26,630	15,379	25,167	6,239	12,110
361	Large LLF	Ln 333 + Ln 340 + Ln 349	(7,460)	(82,332)	(52,442)	(18,578)	15,468	(14,648)	4,425	30,285	66,893	31,018	53,534	4,270	30,433
362	Large HLF	Ln 334 + Ln 341 + Ln 350	(9,876)	(9,616)	(7,044)	(4,135)	4,501	1,310	585	4,459	(8,750)	15,289	10,868	1,026	(1,381)
363	Extra Large LLF	Ln 335 + Ln 342 + Ln 351	(2,182)	(72,411)	(51,773)	(32,212)	844	264	3,409	35,138	82,098	26,837	53,887	(30,319)	13,580
364	Extra Large HLF	Ln 336 + Ln 343 + Ln 352	(8,654)	(92,200)	(39,672)	(7,765)	(22,958)	(88,694)	132,248	(230,925)	170,114	(180,884)	708,803	(364,355)	(24,942)
365	Default	Ln 344	36,044	(26,746)	28,916	(40,308)	(209)	(762)	77,784	18,423	(12,444)	2,521	2,082	1,270	86,569
366	**Total Throughput**		(162)	(319,105)	(145,538)	(108,142)	(7,899)	(102,339)	219,877	(127,499)	324,541	(89,840)	854,340	(381,869)	116,367

Adjusted Actual Dth Usage (Removal of Accruals and Large Billing Adjustments from Actual Usage)

Line No.	THROUGHPUT (Dth) Rate Class	Reference	Apr Actual (a)	May Actual (b)	Jun Actual (c)	Jul Actual (d)	Aug Actual (e)	Sep Actual (f)	Oct Actual (g)	Nov Actual (h)	Dec Actual (i)	Jan Actual (j)	Feb Actual (k)	Mar Actual (l)	Apr-Mar (m)
367	**SALES**														
368	Residential Non-Heating	Ln 63 - Ln 307	103,094	65,116	37,167	29,077	27,531	27,601	33,761	56,635	74,913	97,349	123,153	116,760	792,157
369	Residential Non-Heating Low Income	Ln 64 - Ln 308	4,678	3,213	1,508	1,202	1,113	1,130	1,382	2,753	2,976	4,006	4,900	4,353	33,215
370	Residential Heating	Ln 65 - Ln 309	2,122,865	1,108,093	513,737	372,360	344,157	355,647	438,073	954,909	2,132,202	2,877,504	3,747,011	3,449,650	18,416,207
371	Residential Heating Low Income	Ln 66 - Ln 310	210,481	123,623	57,730	44,605	41,177	41,359	48,984	100,792	213,885	282,745	352,717	318,259	1,836,355
372	Small C&I	Ln 67 - Ln 311	308,906	139,479	57,631	43,238	40,478	42,588	54,725	113,249	292,468	439,525	597,057	549,888	2,679,230
373	Medium C&I	Ln 68 - Ln 312	379,968	227,082	97,341	85,387	82,462	87,012	98,547	178,359	381,774	521,529	651,611	613,387	3,404,460
374	Large LLF	Ln 69 - Ln 313	82,868	56,261	14,785	8,870	7,554	19,020	11,305	33,489	86,758	120,493	141,284	147,542	730,228
375	Large HLF	Ln 70 - Ln 314	10,855	20,995	19,839	20,687	29,173	13,685	13,411	15,270	18,169	24,633	22,930	25,819	235,465
376	Extra Large LLF	Ln 71 - Ln 315	12,862	7,699	3,015	1,510	728	1,034	1,137	5,189	9,565	16,279	19,829	11,954	90,801
377	Extra Large HLF	Ln 72 - Ln 316	81,748	7,934	78,073	22,848	19,910	52,774	28,636	40,701	41,031	33,101	59,429	53,908	520,093
378	**Total Sales**		3,318,325	1,759,495	880,827	629,784	594,284	641,850	729,958	1,501,345	3,253,741	4,417,164	5,719,920	5,291,519	28,738,211
379	**TSS**														
380	Small	Ln 75 - Ln 319	99	254	159	150	142	142	174	301	854	1,327	1,920	2,089	7,611
381	Medium	Ln 76 - Ln 320	13,614	12,072	5,507	5,215	5,213	5,366	6,351	9,178	21,446	29,294	38,027	37,104	188,385
382	Large LLF	Ln 77 - Ln 321	624	3,228	636	781	823	870	821	2,777	5,722	7,098	13,537	8,055	44,972
383	Large HLF	Ln 78 - Ln 322	545	1,210	1,168	1,734	950	1,136	1,301	2,532	2,704	4,072	3,674	3,313	24,337
384	Extra Large LLF	Ln 79 - Ln 323	0	0	0	0	0	0	0	0	0	0	0	0	0
385	Extra Large HLF	Ln 80 - Ln 324	0	297	202	136	116	129	182	264	532	743	837	769	4,207
386	**Total TSS**		14,883	17,061	7,672	8,015	7,244	7,643	8,829	15,052	31,258	42,532	57,995	51,330	269,513
387	**Sales & TSS THROUGHPUT**														
388	Residential Non-Heating	Ln 368	103,094	65,116	37,167	29,077	27,531	27,601	33,761	56,635	74,913	97,349	123,153	116,760	792,157
389	Residential Non-Heating Low Income	Ln 369	4,678	3,213	1,508	1,202	1,113	1,130	1,382	2,753	2,976	4,006	4,900	4,353	33,215
390	Residential Heating	Ln 370	2,122,865	1,108,093	513,737	372,360	344,157	355,647	438,073	954,909	2,132,202	2,877,504	3,747,011	3,449,650	18,416,207
391	Residential Heating Low Income	Ln 371	210,481	123,623	57,730	44,605	41,177	41,359	48,984	100,792	213,885	282,745	352,717	318,259	1,836,355
392	Small C&I	Ln 372 + Ln 380	309,005	139,734	57,790	43,388	40,620	42,731	54,899	113,550	293,321	440,852	598,976	551,977	2,686,842
393	Medium C&I	Ln 373 + Ln 381	393,583	239,155	102,848	90,602	87,675	92,378	104,897	187,537	403,220	550,823	689,638	650,491	3,592,845
394	Large LLF	Ln 374 + Ln 382	83,492	59,488	15,421	9,651	8,378	19,890	12,126	36,266	92,480	127,590	154,821	155,597	775,200
395	Large HLF	Ln 375 + Ln 383	11,400	22,205	21,008	22,421	30,123	14,821	14,711	17,802	20,873	28,704	26,603	29,132	259,802
396	Extra Large LLF	Ln 376 + Ln 384	12,862	7,699	3,015	1,510	728	1,034	1,137	5,189	9,565	16,279	19,829	11,954	90,801
397	Extra Large HLF	Ln 377 + Ln 385	81,748	8,230	78,275	22,984	20,026	52,903	28,818	40,965	41,563	33,843	60,266	54,678	524,300
398	**Total Sales & TSS Throughput**		3,333,208	1,776,556	888,499	637,799	601,528	649,493	738,787	1,516,397	3,284,999	4,459,696	5,777,914	5,342,849	29,007,724
399	**FT-1 TRANSPORTATION**														
400	FT-1 Medium	Ln 95 - Ln 339	96,115	60,315	36,792	31,648	26,105	26,297	27,722	42,844	69,474	84,853	110,021	116,259	728,445
401	FT-1 Large LLF	Ln 96 - Ln 340	173,220	90,888	38,446	19,868	35,336	20,688	25,113	55,398	122,291	153,309	206,842	211,112	1,152,510
402	FT-1 Large HLF	Ln 97 - Ln 341	49,680	40,065	33,021	28,886	33,387	34,697	35,282	39,741	30,991	46,281	57,148	58,175	487,354
403	FT-1 Extra Large LLF	Ln 98 - Ln 342	171,702	99,292	47,519	15,307	16,151	16,414	19,823	54,961	137,060	163,896	217,783	187,464	1,147,373
404	FT-1 Extra Large HLF	Ln 99 - Ln 343	484,878	392,678	353,006	345,241	343,203	331,320	463,568	425,546	476,225	742,262	405,580	563,968	5,327,476
405	Default	Ln 100 - Ln 344	29,459	13,772	42,688	2,380	2,171	1,408	1,494	854	18,079	8,732	10,814	12,084	143,935
406	**Total FT-1 Transportation**		1,005,055	697,010	551,472	443,330	456,352	430,824	573,003	619,344	854,120	1,199,333	1,008,188	1,149,062	8,987,092
407	**FT-2 TRANSPORTATION**														
408	FT-2 Small	Ln 103 - Ln 347	4,462	2,107	1,133	854	849	1,134	1,188	2,128	4,905	8,211	16,127	14,606	57,703
409	FT-2 Medium	Ln 104 - Ln 348	191,727	115,891	61,308	46,526	45,760	45,472	52,278	112,126	178,320	249,026	302,723	291,842	1,692,996
410	FT-2 Large LLF	Ln 105 - Ln 349	149,702	76,307	30,153	15,811	14,450	16,083	23,970	77,258	143,077	207,088	238,144	233,339	1,225,381
411	FT-2 Large HLF	Ln 106 - Ln 350	37,293	34,841	31,199	22,842	24,171	25,804	26,342	32,198	45,275	50,064	52,770	67,514	450,311
412	FT-2 Extra Large LLF	Ln 107 - Ln 351	9,118	3,302	2,781	1,011	706	947	1,817	5,357	4,119	11,008	13,007	15,952	69,124
413	FT-2 Extra Large HLF	Ln 108 - Ln 352	17,166	12,497	9,999	6,674	13,392	9,823	11,460	13,412	16,035	16,606	16,189	21,989	165,241
414	**Total FT-2 Transportation**		409,467	244,945	136,571	93,716	99,327	99,262	117,055	242,480	391,730	542,002	638,960	645,241	3,660,756
415	**Total THROUGHPUT**														
416	Residential Non-Heating	Ln 388	103,094	65,116	37,167	29,077	27,531	27,601	33,761	56,635	74,913	97,349	123,153	116,760	792,157
417	Residential Non-Heating Low Income	Ln 389	4,678	3,213	1,508	1,202	1,113	1,130	1,382	2,753	2,976	4,006	4,900	4,353	33,215
418	Residential Heating	Ln 390	2,122,865	1,108,093	513,737	372,360	344,157	355,647	438,073	954,909	2,132,202	2,877,504	3,747,011	3,449,650	18,416,207
419	Residential Heating Low Income	Ln 391	210,481	123,623	57,730	44,605	41,177	41,359	48,984	100,792	213,885	282,745	352,717	318,259	1,836,355
420	Small C&I	Ln 402 + Ln 408	313,467	141,840	58,923	44,241	41,469	43,864	56,088	115,678	298,227	449,062	615,104	566,582	2,744,544
421	Medium C&I	Ln 393 + Ln 400 + Ln 409	681,426	415,360	200,947	168,776	159,539	164,146	184,897	342,507	651,013	884,702	1,102,381	1,058,592	6,014,286
422	Large LLF	Ln 394 + Ln 401 + Ln 410	406,413	226,684	84,020	45,329	58,163	56,661	61,209	168,922	357,848	487,987	599,807	600,048	3,153,092
423	Large HLF	Ln 395 + Ln 402 + Ln 411	98,373	97,111	85,227	74,148	87,681	75,322	76,335	89,741	97,139	125,048	136,522	154,821	1,197,467
424	Extra Large LLF	Ln 396 + Ln 403 + Ln 412	193,682	110,293	53,315	17,827	17,585	18,396	22,777	65,508	150,744	191,183	250,619	215,370	1,307,298
425	Extra Large HLF	Ln 397 + Ln 404 + Ln 413	583,792	413,406	441,280	374,899	376,621	394,047	503,845	479,922	533,824	792,712	482,035	640,635	6,017,017
426	Default	Ln 405	29,459	13,772	42,688	2,380	2,171	1,408	1,494	854	18,079	8,732	10,814	12,084	143,935
427	**Total Throughput**		4,747,730	2,718,510	1,576,542	1,174,845	1,157,207	1,179,579	1,428,844	2,378,220	4,530,849	6,201,032	7,425,062	7,137,152	41,655,573

Testimony of
Theodore E. Poe, Jr.

DIRECT TESTIMONY

OF

THEODORE E. POE, JR.

September 1, 2015

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I. Introduction

Q. Please state your name and business address.

A. My name is Theodore E. Poe, Jr. My business address is National Grid, 40 Sylvan Road, Waltham, MA 02451.

Q. What is your position?

A. I am the Manager of Gas Load Forecasting and Analysis with responsibility for preparing forecasts of the resource requirements for the New England local gas distribution companies (LDC's) that operate as Boston Gas Company (Boston Gas), Colonial Gas Company (Colonial) and The Narragansett Electric Company (Company) each d/b/a National Grid. In addition to the New England portfolios, I am also responsible for preparing forecasts of the resource requirements for the resource portfolios of The Brooklyn Union Gas Company (Brooklyn Gas), KeySpan Gas East Corporation (KeySpan) and Niagara Mohawk Power Corporation (Niagara Mohawk), all in New York. For purposes of this testimony, references to the Company relate solely to The Narragansett Electric Company.

Q. Please summarize your educational background and your professional experience.

A. I graduated from the Massachusetts Institute of Technology in 1978 with a Bachelor of Science Degree in Geology. From 1981 to 1989, I worked as a Research Associate with Jensen Associates, Inc. of Boston where I was responsible for developing a variety of computer-forecasting models to analyze natural gas supply and demand for interstate pipeline and local distribution companies. Since joining Boston Gas in 1989, I have been responsible for modeling and forecasting the natural-gas resource requirements of customers and managing the resource-planning process. In 1998-1999, I assumed the same responsibility for Essex Gas Company and Colonial Gas. In 2000, I added the responsibility for modeling and forecasting the natural-gas resource requirements of Brooklyn Gas and KeySpan. Then in 2008, I added the responsibility for modeling and forecasting the natural-gas resource requirements of The Narragansett Electric Company as well as Niagara Mohawk Power Corporation.

Q. Are you a member of any professional organizations?

A. I am a member of the Northeast Gas Association, the New England-Canada Business Council, and the American Meteorological Society.

Q. Have you previously testified in regulatory proceedings?

A. Yes. I have testified in a number of proceedings before the Department of Public Utilities in the Commonwealth of Massachusetts and the Public Utilities Commission in New Hampshire.

Q. What is the purpose of your testimony in this proceeding?

A. My testimony provides support for the underlying retail and wholesale forecasts of natural gas customer requirements that is used to estimate gas costs in the Company's submission.

Q. What was the source of the projected sendout requirements and costs used in this filing?

A. As in prior cost of gas filings, the Company used projected sendout requirements and costs from its internal budgets and forecasts.

II. <u>Summary of Retail and Wholesale Natural Gas Forecasts</u>

Q. Please describe the Company's process for developing its retail and wholesale forecasts.

A. Annually, beginning on April 1st, the Company prepares its ten-year forecast of customer requirements using a five-step process:

1) Forecast retail demand requirements;
2) Develop reference-year wholesale sendout requirements using regression analysis;
3) Normalize forecast of customer requirements;
4) Determine design weather planning standards; and
5) Determine wholesale customer requirements under design weather conditions

In this instance, "retail" refers to gas delivered and metered at the Company's customers' burner tips, and "wholesale" refers to gas received and metered flowing into the

Company's distribution system. This process is more fully documented in the Company's biennial submission of its Gas Long-Range Resource and Requirements Plan. The Company's retail forecast is prepared through econometric and statistical modeling of both customer count (meter count) and use per customer. Billing data is modeled at the rate class level and further sub-categorized as sales or transportation (either capacity-eligible or capacity-exempt). The Company's volume forecast is then the product of meter count and use per customer at the rate class level. The retail forecast takes into account the impact of the Company's energy efficiency programs.

The Company's wholesale forecast is then based on its retail forecast. The retail forecast is adjusted to correct for the billing lag inherent therein, and it is further adjusted to account for unaccounted for gas. Unaccounted for gas is the accounting of the difference between gas received and metered flowing into the Company's distribution system, and gas delivered and metered at the Company's customers' burner tips. These two forecasts (retail and wholesale) then serve as the annual basis of the Company's supply, engineering, and financial planning.

III. <u>The 2015 Gas Forecast</u>

Q. Would you please describe the forecasted sales requirements for 2015/16?

A. The Company's most recent retail sales forecast for the period November 2015 – October 2016 is summarized in the table below:

	2015/16 Volume (MMBtu)
Residential Sales	19,424,203
Commercial/Industrial Sales	7,585,647
Total Sales	27,009,851
Commercial/Industrial Transportation	12,887,190
Total Sales and Transportation	39,897,041

Comparatively, the Company's previous retail forecast (as filed in Docket No. 4520) for November 2014 – October 2015 is shown in the table below:

	2014/15 Volume (MMBtu)
Residential Sales	19,735,629
Commercial/Industrial Sales	6,792,560
Total Sales	26,528,189
Commercial/Industrial Transportation	11,582,326
Total Sales and Transportation	38,110,516

In summary, the overall Total Sales and Transportation shows a 4.7 percent increase, with Total Sales increasing by 1.8 percent and Commercial/Industrial Transportation increasing by 11.3 percent.

On a wholesale basis (See EDA-2, page 1), the Company forecasts Sales volumes to be 27,962,300 MMBtu for the period November 2015 – October 2016. Comparatively, in the Company's previous wholesale forecast (as filed in Docket No. 4520) for November 2014 – October 2015, the Sales volume was projected to be 26,822,900 MMBtu. The wholesale Sales volume growth rate is then 4.2 percent.

The short-term decrease in residential sales is driven by the sluggish Rhode Island housing market, as indicated by the recent decline in existing home sales and housing starts. The forecasted increase in commercial and industrial sales is indicative of projected improvement in Rhode Island's remaining industrial base. Moody's continues to predict a turnaround in housing beginning in the second half of this year as well as significant increases in personal income growth, commercial output, and total employment.

Q. Does this conclude your direct prefiled testimony in this proceeding?

A. Yes, it does.