

September 4, 2012

#### VIA HAND DELIVERY & ELECTRONIC MAIL

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

RE: Docket 4346 - 2012 Gas Charge Recovery Filing

Dear Ms Massaro:

Enclosed please find ten (10) copies of the pre-filed testimony and schedules of Elizabeth D. Arangio, Ann E. Leary, and Stephen A. Mc Cauley in support of National Grid's<sup>1</sup> Annual Gas Cost Recovery ("GCR") filing. 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, 2012 through October 31, 2013.

Based on the proposed GCR rate, an average residential heating customer using 922 therms per year will experience a total bill decrease related to the proposed GCR and Distribution Adjustment Charge ("DAC") rates of approximately \$72 or an annual 5.6 percent decrease over the current existing rates. This decrease is comprised of an \$112 decrease in GCR related costs offset by a \$40 increase in the DAC related costs filed today under separate cover.

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 pricing terms contained in its FCS contract with Distrigas as well as forecast basis numbers, which are purchased subject to a contractual confidentiality agreement. Accordingly, National Grid requests that the Commission protect the price terms and basis information set forth in designated portions of Attachments EDA-2 and EDA-4. To that end, the Company has provided the Commission with the confidential materials for its review, and has included redacted copies of these attachments in the filing.

Thank you for your attention to this filing. If you have any questions, please do not hesitate to contact me at (401) 784-7667.

Very truly yours,

Thomas R. Teehan

Enclosures

cc: Leo Wold, Esq. Steve Scialabba

Bruce Oliver

<sup>&</sup>lt;sup>1</sup> The Narragansett Electric Company d/b/a National Grid ("National Grid" or the "Company").

# STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS RHODE ISLAND PUBLIC UTILITIES COMMISSION

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Annual Gas Cost Recovery Filing 2012 Docket No. 4346

#### NATIONAL GRID'S REQUEST FOR PROTECTIVE TREATMENT OF CONFIDENTIAL INFORMATION

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

#### I. BACKGROUND

On September 4, 2012, National Grid filed with the Commission its Annual Gas Cost Recovery filing in this docket. This filing included information relative to the Company's summary of estimated gas costs for 2012-2013 (Attachment EDA-1) and the Distrigas contract (Attachment EDA-2) and relative to forecasted basis numbers (Attachments EDA-2 and EDA-4) for which National Grid is requesting confidential treatment.

#### 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 Commission falls within one of the designated exceptions to the public records law, the Commission 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)(i)(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; or (2) to cause substantial harm to the competitive position of the person from whom the information was obtained. Providence Journal Company v. Convention Center Authority, 774 A.2d 40 (R.I.2001).

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<sup>&</sup>lt;sup>1</sup> The Narragansett Electric Company d/b/a National Grid ("National Grid or "the Company").

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. <u>Providence Journal</u>, 774 A.2d at 47.

In addition, the Court has held that the agencies making determinations as to the disclosure of information under APRA may apply the balancing test established in <u>Providence Journal v. Kane</u>, 577 A.2d 661 (R.I.1990). Under that balancing test, the Commission may protect information from public disclosure if the benefit of such protection outweighs the public interest inherent in disclosure of information pending before regulatory agencies.

#### II. BASIS FOR CONFIDENTIALITY

The Company has redacted estimated gas costs for 2012-2013 that appear in Attachment EDA-1 as well as forecasts of basis numbers that appear in Attachment EDA-2 and Attachment EDA-4. The Company seeks protective treatment for pricing information under its contract with Distrigas and for its basis number information, which provides price forecasts at specific points where gas is purchased. This basis information is assembled by a third-party and purchased by the Company subject to contractual agreement to maintain it as proprietary and confidential information.

#### III. CONCLUSION

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

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

Respectfully submitted,

**NATIONAL GRID** 

By its attorney,

Thomas R. Teehan, Esq. (RI Bar #4698)

H Tucken

National Grid 280 Melrose Street Providence, RI 02907

(401) 784-7667

Dated: September 4, 2012

THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
R.I.P.U.C. DOCKET NO. 4346
GAS COST RECOVERY FILING
WITNESS: ELIZABETH D. ARANGIO
SEPTEMBER 4, 2012

#### **DIRECT TESTIMONY**

**OF** 

**ELIZABETH D. ARANGIO** 

September 4, 2012

THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID R.I.P.U.C. DOCKET NO. 4346 GAS COST RECOVERY FILING WITNESS: ELIZABETH D. ARANGIO SEPTEMBER 4, 2012

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#### 1 I. <u>INTRODUCTION</u>

- 2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
- 3 A. My name is Elizabeth Danehy Arangio. My business address is 40 Sylvan Road,
- 4 Waltham, Massachusetts 02451.

#### 5 Q. WHAT IS YOUR POSITION WITH NATIONAL GRID?

- 6 I am the Director of Gas Supply Planning with responsibility for the resource portfolio Α. 7 of the New England local gas distribution companies ("LDC's") that operate as 8 Boston Gas Company ("Boston Gas"), Colonial Gas Company ("Colonial") and The 9 Narragansett Electric Company ("Narragansett") each d/b/a National Grid. In addition 10 to the New England portfolios, I am also responsible for gas supply planning for the 11 resource portfolios of The Brooklyn Union Gas Company, KeySpan Gas East 12 Corporation and Niagara Mohawk Power Company, all in New York. For purposes of 13 this testimony, references to "National Grid" or the "Company" relate solely to The
- 15 Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND YOUR
- 16 **PROFESSIONAL EXPERIENCE.**

Narragansett Electric Company.

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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

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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.

#### O. ARE YOU A MEMBER OF ANY PROFESSIONAL ORGANIZATIONS?

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

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1	Q.	HAVE YOU PREVIOUSLY	TESTIFIED IN REGULATORY PROCEEDINGS?
2	A.	Yes. I have recently testified b	efore the Rhode Island Public Utility Commission in
3		support of National Grid's Ann	ual Gas Cost Recovery ("GCR") (Docket No. 4283),
4		the Natural Gas Portfolio Mana	gement Plan ("NGPMP") (Docket No. 4038) and the
5		Long Range Gas Supply plan.	In the past, I have testified numerous times before the
6		Massachusetts Department of P	ublic Utilities, and the New Hampshire Public Utilities
7		Commission. In addition I have	e also presented information to the State of New York
8		Department of Public Service.	
9	Q.	WHAT IS THE PURPOSE O	F YOUR TESTIMONY IN THIS PROCEEDING?
10	A.	My testimony provides suppor	t for the estimated gas costs, assignments of pipeline
11		capacity to marketers and other	r issues relating to the Company's proposed Gas Cost
12		Recovery ("GCR") factors.	
13	Q.	ARE YOU SPONSORING A	TTACHMENTS TO YOUR TESTIMONY?
14	A.	Yes. I am sponsoring the follow	wing attachments:
15		•	of Projected Gas Costs
16			Details - <b>CONFIDENTIAL Information Redacted</b>
17			Strip Comparison
18			ent of Pipeline Capacity –
19			DENTIAL Information Redacted
20			erational Parameters
21 22		EDA-0 F1-2 St0	rage Variable Costs
23			
24			
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II.	<b>PROJECTED</b>	<b>GAS</b>	<b>COSTS</b>

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#### 3 Q. WHAT COMMODITY PRICES WERE USED TO DEVELOP THE

#### 4 **PROPOSED GCR FACTORS?**

- 5 In terms of commodity prices, the proposed GCR factors are based on the following: Α. 6 (1) the NYMEX strip as of the close of trading on August 1, 2012 and (2) the 7 difference between the futures contract purchases under the Gas Procurement 8 Incentive Plan ("GPIP") as of July 31, 2012 and the August 1, 2012 NYMEX strip. 9 The GCR factors also reflect storage and inventory costs as of July 31, 2012, as well 10 as the projected cost of purchasing gas ratably through the remainder of the injection 11 season, as provided for in the NGPMP. Attachment EDA-1 provides a summary of 12 gas costs by major cost categories. Attachment EDA-2 shows the details of the 13 calculations including the cost detail by supply source and the cost impact of financial 14 hedges.
- 15 Q. OVERALL WHAT ARE THE NYMEX PRICES FOR GAS SUPPLIES
- PROJECTED TO BE PURCHASED IN THE GCR YEAR AND HOW DO
- 17 THEY COMPARE TO LAST YEAR'S PRICES?
- 18 A. Attachment EDA-3 is a graph that compares NYMEX pricing from August 1, 2011
- utilized in the Company's filing last year to NYMEX pricing from August 1, 2012
- 20 used in this instant filing.

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#### 1 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. The model uses commodity price, pipeline contract and storage information to determine the 6 dispatch of supplies to minimize the cost of supply over the year. The pricing of various pipeline services is based directly on the pipeline tariffs and the prices in effect as of August 1, 2012. For Company 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."

#### 11 Q. HOW DID THE COMPANY CATEGORIZE THE PROJECTED GAS COST

#### 12 **COMPONENTS?**

- 13 Α. For the purpose of this filing Gas costs are disaggregated into five components: (1) Supply Fixed Costs; (2) Supply Variable Costs; (3) Storage Fixed Costs; (4) Storage 14 Variable Product Costs; and (5) Storage Variable Non-Product Costs. Each is 15 16 described below.
  - 1. The Supply Fixed Cost component includes pipeline demand charges.

The modification of the rate design from five components to two components is address in the testimony of Ms. Leary.

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# THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID R.I.P.U.C. DOCKET NO. 4346 GAS COST RECOVERY FILING WITNESS: ELIZABETH D. ARANGIO SEPTEMBER 4. 2012

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2. The Supply Variable Cost component includes; (1) commodity costs of all firm gas supplies and (2) variable costs to transport these gas supplies to the Company's distribution system. The volumes included in this component reflect the sum of purchases made under the GPIP. The projections of gas costs are based on the August 1, 2012 NYMEX strip adjusted for the basis differentials between the point of purchase and Henry Hub 3. The Storage Fixed Cost component includes; (1) pipeline underground and LNG storage demand charges and (2) pipeline demand charges for contracts associated with the transportation of storage gas to the Company's distribution system. 4. The Storage Product Cost component includes; (1) the commodity cost of the underground-storage gas supplies priced at the weighted-average cost of gas in storage ("WACOG"); (2) storage injection costs; and (3) the cost of LNG supplies which also includes the commodity cost of the gas, trucking costs and any demand charge component converted to a per-unit charge. 5. The Storage Variable Non-Product Cost component includes all variable costs related to the withdrawal and delivery of storage gas to the Company's Distribution System.

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A summary of gas costs included in the GCR and disaggregated into these cost components by month for the period November 2012 through October 2013 is shown on Attachment EDA-1.

#### 4 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 2012 through October 2013. The first two pages show the optimized, forecasted sendout by supply source under normal weather from the SENDOUT model and 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 per unit delivered cost for each pipeline path based on the August 1st 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 the total costs for LNG are shown on page 17. As the Company has yet to contract for LNG supplies for the upcoming 2012/13 year, pricing included in this filing reflects contractual terms from the Company's contracts with Distrigas during the 2011/12 year. Charges for the Distrigas contracts have been

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redacted in the public version of the filing in order to comply with confidentiality terms.

#### 3 Q. HOW DO YOU CALCULATE THE DELIVERED COST FOR A

#### 4 PARTICULAR GAS SUPPLY?

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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 \$3.297 NYMEX price which is then adjusted for basis by, in this case, subtracting \$0.080. 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, 4.00%, to bring the price to \$3.351. That adjustment is made by dividing the price by one minus the loss factor, .9600, effectively adjusting the commodity price to incorporate the fact that only 96.00% of the supply delivered to the pipeline in South Texas will be delivered to Rhode Island. The pipeline usage fee of 31.42 cents is then added to reflect the cost of transportation on the pipeline, resulting in a delivered cost of \$3.6652 per Dth.

#### 16 III. MARKETER CAPACITY ASSIGNMENT

# 17 Q. WHAT TRANSPORTATION PATHS WILL BE AVAILABLE FOR

#### 18 **ASSIGNMENT TO MARKETERS?**

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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 2011/12 GCR filing.

#### 5 Q. PLEASE EXPLAIN THE SURCHARGE/CREDIT CALCULATION FOR

#### EACH ASSIGNED PIPELINE PATH?

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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 \$0.8601 per Dth is shown at 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 and two (2) years of marketer reconciliation represented as a 100% load factor per unit cost. The 100% load factor fixed-cost unit value is \$0.5591 per Dth. The system-average pipeline unit variable cost is \$0.2693 per Dth. The sum of these components results in a weighted average pipeline cost of \$0.8284 per Dth.

# Q. HOW ARE THE DELIVERED COSTS FOR EACH PATH RELEASED TO

#### MARKETERS DEVELOPED IN EDA-4?

17 **A**. The calculations for the delivered cost for each path are similar to those described for 18 the system average. For illustration, the calculation for the first path (Tennessee Zone 19 1, shown on Attachment EDA-4, page 6) is comprised of a single contract originating

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in Zone 1 and terminating in Zone 6. Total fixed costs of \$2,570,951 and total variable costs of \$14,012,484 are shown near the bottom, right of page 6 of EDA-4. Commodity gas costs of \$12,607,260 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 \$0.7414 per Dth at 100% load factor plus the non-gas variable unit cost of \$0.4053 per Dth, or \$1.1467 per Dth. The unit cost of \$1.1467 per Dth represents the direct costs incurred by the marketer, which are paid directly to the pipeline by the marketer. Since this cost is \$0.2866 per Dth greater than the system-average, marketers electing this path would be credited \$0.2866 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. HAS THE COMPANY COMPLIED WITH ITEM NO. 6 FROM THE

#### DIVISION OF PUBLIC UTILITIES AND CARRIERS SETTLEMENT

#### **AGREEMENT IN DOCKET 4283?**

**A.** Yes. The Commission ordered the Company to file a Long-Term Gas Supply
18 Planning Study. On March 8, 2012 the Company submitted a Long-Range Resource
19 and Requirements Plan ("Supply Plan"), for the forecast period November 1, 2011
20 through October 31, 2016.

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1 The filing addresses issues raised by the Rhode Island Division of Public Utilities and 2 Carriers ("Division") regarding the Company's 2011/12 GCR Filing, filed in Docket 3 No. 4283. In addition, this filing provides a review of the LNG System Pressure study 4 that the Company agreed to perform as a result of Docket 4199. The study was 5 performed to ensure that calculation is appropriate, or whether changes are necessary 6 to the system pressure calculation. The Company continues to hold discussions with 7 the Division with regards to the system pressure calculation. 8 IV. GAS SUPPLY PORTFOLIO 9 Q. HAVE THERE BEEN ANY CHANGES TO THE COMPANY'S INTERSTATE 10 PIPELINE CAPACITY? 11 Yes. The Company's latest capacity change occurred November 1, 2011 with the A. 12 conversion of the Company's TransCanada long-haul capacity being replaced with 13 Union Gas Limited ("Union") and TransCanada Pipelines Limited ("TransCanada") 14 short-haul pipeline capacity. By converting the long-haul capacity to short-haul 15 capacity, the Company saves its customers approximately \$500,000 a year in pipeline 16 demand charges. 17 The Company has a total firm capacity entitlement of 1,025 MMBtus/day on the 18 Union Gas pipeline system. The capacity path originates at Dawn, Ontario Canada 19 and delivers into TransCanada at Parkway. In addition, the Company will have firm

capacity entitlements of 1,012 MMBtus/day on the TransCanada pipeline system. The

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1 capacity path originates at the interconnection with Union Gas at Parkway and 2 delivers into Iroquois Gas Transmission ("Iroquois") at Waddington, New York. This 3 supply is delivered to the Company's distribution system on Company's existing 4 transportation contracts on the Iroquois and Tennessee Gas Pipeline ("Tennessee"). 5 0. HOW DID THE COMPANY SUPPLY THE DAWN CAPACITY FOR THE 6 2011/12 YEAR? 7 Leading up to the conversion of the Company's TransCanada Gas Pipeline ("TCPL") A. 8 long-haul to short-haul capacity, the Company issued a request for Proposal ("RFP") 9 on September 23, 2011 for an Asset Management and Gas Supply Agreement 10 ("AMA") effective November 1, 2011 for a term of one year. With the utilization of 11 the SENDOUT® Model, the appropriate resource mix was determined to establish 12 volume requirements for the term of the agreement. Subject to satisfying the gas 13 supply requirements associated with the AMA, the seller has the right to utilize and 14 optimize the transportation agreement for its own account. In exchange for such right, 15 the seller pays the Company an optimization fee. 16 BG Energy Merchants, LLC ("BG") was awarded the bid to manage the assets and provide the Company with deliveries at the Canadian-US border at Waddington, New 17 18 York. The Company then transported these volumes on Iroquois and Tennessee to the 19 Company's citygates. This AMA provided the opportunity to extract value from 20 temporarily-unused assets, subject to market conditions.

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2		CAPACITY FOR 2012/13 YEAR?
3	<b>A.</b>	The Company issued an RFP on July 16, 2012 for an Asset Management and Gas
4		Supply Agreement ("AMA"), similar to the RFP issued last year, to be effective
5		November 1, 2012 for a term of one year. The RFP requested a maximum daily
6		quantity ("MDQ") of 1,025 MMBtu/day of baseload for the months of November
7		2012 through March 2013.
8		Shell Energy North America U.S. ("Shell") was awarded the bid to manage the assets
9		and provide the Company with deliveries at the Canadian-US border at Waddington,
10		New York. The Company will then transport these volumes on Iroquois and
11		Tennessee to the Company's citygates.
12	Q.	WHAT ARE THE COMPANY'S PLANS TO SUPPLY THE EAST-TO-WEST
13		PROJECT FOR 2012/13 YEAR?
14	A.	The Company issued an RFP on July 9, 2012 for an Asset Management and Gas
15		Supply Agreement ("AMA"), similar to the RFP issued last year, to be effective
16		November 1, 2012 for a term of one year. Utilizing the SENDOUT® Model, the
17		Company determined the appropriate resource mix and established the baseload and
18		swing volume requirements by month.
19		The RFP requested a maximum daily quantity ("MDQ") of 10,000 MMBtu/day, the
20		contractual volume under the Algonquin agreement, with both a baseload and swing

WHAT ARE THE COMPANY'S PLANS TO SUPPLY THE DAWN

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Q.

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- 1 component for the months of November 2012 through May 2012 and for the month of
- 2 October 2012.
- 3 Please see Table 1 below for a description of the monthly baseload and swing
- 4 quantities for the agreement.

5 TABLE 1

	Base-Load	Supplies	Da	ily Call		Supplemen	ntal Daily	Call
	Maximum	Maximum	Maximum	Max. #	Maximum		Max. #	Maximum
	Daily	Monthly	Daily	of	Monthly	Maximum	of	Monthly
Month	Quantity	Quantity	Quantity	Days	Quantity	Daily Quantity	Days	Quantity
Nov	0	0	10,000	20	200,000	10,000	10	100,000
Dec	3,000	93,000	7,000	12	84,000	7,000	19	133,000
Jan	3,000	93,000	7,000	14	98,000	7,000	17	119,000
Feb	3,000	84,000	7,000	14	98,000	7,000	14	98,000
Mar	0	0	10,000	20	200,000	10,000	11	110,000
Apr	0	0	10,000	20	200,000	0	0	0
May	0	0	3,000	13	39,000	0	0	0
Jun	0	0	0	0	0	0	0	0
Jul	0	0	0	0	0	0	0	0
Aug	0	0	0	0	0	0	0	0
Sep	0	0	0	0	0	0	0	0
Oct	0	0	10,000	20	200,000	0	0	0

Subject to satisfying the gas supply requirements associated with the AMA, the Seller

had the right to utilize and optimize the transportation agreement for its own account.

In exchange for such right, the Seller paid the Company an optimization fee. EDF

Trading North America, LLC ("EDF") was awarded the bid to manage the assets and

provide the asset management services for the 2012/13 season.

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# 1 Q. ARE THERE ANY OTHER CONTRACT CHANGES AFFECTING THE 2 SUPPLY PORTFOLIO AND GAS COSTS?

Yes. As it does each year, the Company will need to contract for LNG for the upcoming year. The Company contracted for a firm liquid supply contract which commenced on November 1, 2011 and expired on March 31, 2012 with Distrigas of Massachusetts LLC ("Distrigas"). The Company retained the right to purchase a quantity of LNG up to the MDQ of 3,000 MMBtu/day with a total quantity during the term of up to 125,000 MMBtus. The contract was structured to allow the Company to back fill its LNG facilities in the event of design weather during the Peak Season. Additionally, the Company also has an agreement with Distrigas for off-peak liquid refill. The Company has the right to purchase a quantity of LNG up to the MDQ of 4,000 MMBtu/day with a total quantity during the term of up to 552,000 MMBtu. The Company is in discussions with Distrigas for the 2012/13 peak season with similar requirements.

Finally, as it has in previous years, the Company will contract for a dedicated trucking arrangement in order to guarantee the availability of both trailers and drivers to truck the LNG from the Distrigas terminal to the Company's facilities during the peak season. The Company plans to issue an RFP for these services.

Α.

THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
R.I.P.U.C. DOCKET NO. 4346
GAS COST RECOVERY FILING
WITNESS: ELIZABETH D. ARANGIO
SEPTEMBER 4, 2012
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#### 1 Q. ARE THERE ANY GAS RESOURCE PORTFOLIO RECOMMENDATIONS?

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A. Yes. The Company is responsible for planning its gas supply portfolio in order to serve customer requirements for all firm customers, both sales and transportation, with the exception of those customers who are grandfathered and not required to take mandatory assignment of capacity. Thus, the Company must plan for firm sales customers, FT-1 and FT-2 transportation customers. Under the Company's Customer Choice Program, marketers are required to accept mandatory capacity assignment on behalf of customers. FT-1 customers are assigned an allocation of their peak day usage of pipeline assets only, whereas FT-2 customers are assigned an allocation of their peak day usage, including pipeline, storage and peaking assets. In the Company's Gas Cost Recovery ("GCR") filing each year, the Company attempts to account for customer choice migration by subtracting the load associated with FT-1 and FT-2 customers, while also reflecting the capacity that has been released to marketers as of a certain point in time. By eliminating the load and capacity, the GCR rates are then calculated for remaining sales customers only. While this process has worked successfully in the past, as more customers migrate to transportation, it has become apparent that the process needs to be modernized in order to make certain the appropriate level of assets are contracted for and that the cost of the resources are recovered by the appropriate customers.

THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
R.I.P.U.C. DOCKET NO. 4346
GAS COST RECOVERY FILING
WITNESS: ELIZABETH D. ARANGIO
SEPTEMBER 4, 2012
PAGE 17 OF 17

- 1 Q. DOES THIS CONCLUDE YOUR TESTIMONY?
- 2 A. Yes, it does.

National Grid Rhode Island - Gas Attachment EDA-1 Redacted Docket No. 4346 September 4, 2012 Page1 of 1

#### SUMMARY OF ESTIMATED GAS COSTS FOR 2012-2013 GCR Estimate

#### 08/01/2012 NYMEX

Variable Costs Total Pipeline Supply Costs Total Storage Product Costs Total Storage Delivery Costs Total LNG Costs	Nov \$10,611,606 \$0 \$105,291	Dec \$16,957,885 \$1,611,095 \$34,268 \$510,215	Jan \$17,853,651 \$6,922,920 \$174,468 \$350,598	Feb \$15,285,243 \$5,134,424 \$136,135 \$201,062	Mar \$15,867,984 \$245,598 \$5,721 \$109,212	Apr \$9,175,517 \$0 \$0 \$105,291	May \$5,352,229 \$0 \$0 \$109,212	\$0	\$0 \$0	Aug \$2,756,658 \$0 \$0 \$115,127	Sep \$2,810,260 \$0 \$0 \$110,994	Oct \$5,035,992 \$112,685 \$4,682 \$115,499	GCR TOTAL \$107,717,133 \$14,026,722 \$355,274 \$2,056,336
Total All Variable Gas Costs	\$10,716,897	\$19,113,463	\$25,301,637	\$20,756,863	\$16,228,514	\$9,280,808	\$5,461,441	\$3,319,290	\$2,914,655	\$2,871,784	\$2,921,254	\$5,268,858	\$124,155,464
Fixed Costs TOTAL PIPELINE DEMANDS TOTAL STORAGE FACILITIES TOTAL STORAGE DELIVERY TOTAL SUPPLIER DEMANDS	\$2,939,236 \$402,997 \$424,228	\$2,939,879 \$402,997 \$424,228	\$2,938,539 \$402,997 \$424,228	\$2,936,610 \$402,997 \$424,228	\$2,938,539 \$402,997 \$424,228	\$2,937,896 \$402,997 \$424,228	\$2,938,539 \$402,997 \$424,228	\$402,997	\$402,997	\$2,938,539 \$402,997 \$424,228	\$2,937,896 \$402,997 \$424,228	\$2,938,539 \$402,997 \$424,228	\$35,260,650 \$4,835,962 \$5,090,738
Total All Fixed Costs Capacity Release Credits NGPMP Credit	\$3,885,211 \$551,270 \$383,333	\$3,885,854 \$551,270 \$383,333	\$3,884,514 \$551,270 \$383,333	\$3,882,585 \$551,270 \$383,333	\$3,884,514 \$551,270 \$383,333	\$3,890,504 \$551,270 \$383,333	\$3,891,147 \$551,270 \$383,333	. ,	\$551,270	\$3,891,147 \$551,270 \$383,333		\$3,891,147 \$551,270 \$383,333	\$46,658,779 \$6,615,235 \$4,600,000
Net Fixed Costs	\$2,950,608	\$2,951,251	\$2,949,911	\$2,947,982	\$2,949,911	\$2,955,901	\$2,956,544	\$2,955,901	\$2,956,544	\$2,956,544	\$2,955,901	\$2,956,544	\$35,443,545
Total All Gas Costs	\$13,667,505	\$22,064,714	\$28,251,548	\$23,704,846	\$19,178,426	\$12,236,710	\$8,417,985	\$6,275,191	\$5,871,199	\$5,828,328	\$5,877,155	\$8,225,402	\$159,599,009

National Grid Rhode Island - Gas

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National Grid 2012 Estimated GCR Normal Weather Scenario Ventyx

SENDOUT® Version 12.5.5 08-Aug-2012

Natural Gas Supply VS. Requirements	Unit

	Natural Gas Supply VS. I	Requirements		Units: [	OTH								
	NOV 2012	DEC 2012	JAN 2013	FEB 2013	MAR 2013	APR 2013	MAY 2013	JUN 2013	JUL 2013	AUG 2013	SEP 2013	OCT 2013	Total/Average
Forecast Demand													
RI Sales GCR	2,223,400	3,797,000	4,509,900	3,856,200	3,413,900	2,117,600	1,259,500	749,200	610,400	608,200	661,700	1,269,600	25,076,600
Total Demand	2,223,400	3,797,000	4,509,900	3,856,200	3,413,900	2,117,600	1,259,500	749,200	610,400	608,200	661,700	1,269,600	25,076,600
Storage Injections													
TENN 501	0	0	0	0	0	118,800	122,700	118,800	0	0	0	0	360,300
GSS 300170	0	0	0	0	0	0	0	0	0	0	0	0	0
GSS 300168	0	0	0	0	0	21,000	21,700	0	0	0	0	0	42,700
GSS 300171	0	0	0	0	0	15,800	16,200	15,700	16,200	16,200	15,700	16,200	112,000
GSSTE 600045	0	0	0	0	0	187,800	194,000	42,800	0	0	0	0	424,600
TETCO 400515	0	0	0	0	0	8,700	9,000	8,700	2,000	0	0	0	28,400
TETCO 400221	0	0	0	0	0	181,800	187,800	181,800	42,600	0	0	0	594,000
TETCO 400185	0	0	0	0	0	8,000	5,000	0	0	0	0	0	13,000
GSS 300169	0	0	0	0	0	29,200	29,100	28,100	17,500	0	•	0	103,900
COL FSS 9630	0	0	0	0	0	30,600	40,800	0	21,600	23,200 0	26,500 0	0	142,700
TENN 62918	0	0	0	0	0	41,200	42,600	41,200	0 000		_		125,000
Total Underground Storage	U	U	U	U	U	642,900	668,900	437,100	99,900	39,400	42,200	16,200	1,946,600
LNG PROV	0	0	0	0	0	0	107,100	120,400	0	0	35,800	12,100	275,400
LNG VALLEY	0	0	0	0	0	0	19,900	5,000	0	0	9,400	3,200	37,500
LNG EXETER	0	0	0	0	0	0	28,200	4,500	0	0	12,400	4,200	49,300
Total LNG Injection	0	0	0	0	0	0	155,200	129,900	0	0	57,600	19,500	362,200
Total Injections	0	0	0	0	0	642,900	824,100	567,000	99,900	39,400	99,800	35,700	2,308,800
Delivered Firm Sales Supp													
	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	GCR Total
Sources of Supply													
TENN CONX	348,000	359,600	359,600	324,800	359,600	348,000	359,600	348,000	359,600	359,600	348,000	359,600	4,234,000
TENN ZONE 0	56,252	183,396	162,135	180,085	122,567	107,993	60,699	39,341	0	0	0	0	912,470
TENN ZONE 1 TENN NIAGARA	117,048 0	381,604 3,200	337,365 0	374,715 0	255,033 0	224,707 32,000	126,301 0	81,859 0	0	0	0	0	1,898,630 35,200
TENN DRACUT	0	35,000	0	0	0	32,000 0	19,200	0	0	0	0	0	54,200
COL MAUMEE	762,400	1,173,100	1,172,900	1,059,400	1,172,900	774,600	82.400	102,800	1,700	0	0	41.900	6,344,100
COL BROADRUN	291,400	300,900	300,800	271,700	300,800	291,600	301,400	291,400	251,300	252,500	291,600	301,100	3,446,500
TRANSCO Z2	3,915	4,013	4,013	3,621	000,000	0	0	0	0	0	0	0	15,562
TRANSCO Z3	85	87	87	79	0	0	0	0	0	0	0	0	338
TETCO ELA	0	230,267	326,736	260,657	0	164,378	168,230	105,658	29,856	6,177	5,986	6,177	1,304,123
TETCO ETX	0	68,982	97,881	78,086	0	49,243	50,397	31,652	8,944	1,850	1,793	1,850	390,681
TETCO STX	0	102,816	145,890	116,385	0	73,396	75,116	47,177	13,331	2,758	2,673	2,758	582,300
TETCO WLA	0	158,251	224,549	179,136	0	112,969	115,615	72,613	20,518	4,245	4,114	4,245	896,256
TETCO to B&W - SCT	0	25,604	36,331	28,983	0	18,278	18,706	11,748	3,320	687	666	687	145,010
TETCO - NF - TRANSCO	0	11,283	16,011	12,773	0	8,055	8,243	5,177	1,463	303	293	303	63,904
TETCO - DTI - TETCO	0	6,697	9,502	7,581	0	4,781	4,893	3,073	868	180	174	180	37,928
M3 DELIVERED	595,600	304,600	203,700	125,100	1,119,700	531,500	518,400	27,000	0	0	29,800	518,400	3,973,800
HUBLINE	0	109,000	92,100	83,100	0	0	0	0	0	0	0	0	284,200
COL EAGLE	0	0	0	0	0	0	0	0	0	0	0	0	0
COL DOWNINGTOWN	0	0	0	0	0	0	0	0	0	0	0	0	0
ANE II - DAWN-TENN	30,000	31,000	31,000	28,000	31,000	0	0	0	0	0	0	0	151,000
DISTRIGAS NSB Winter	0	0	0	0	0	0	0	0	0	0	0 57 700	10.400	0
DISTRIGAS NSB Summer	ŭ	0	•	0	U	0	155,000	129,900	0	0	57,700	19,400	362,000
NEWPORT LNG	0	0	0	0	0	0	0	0	0	0	0	0	0

National Grid Rhode Island - Gas Attachment EDA-2 Redacted Docket No. 4346 September 4, 2012 Page 2 of 17

National Grid 2012 Estimated GCR Normal Weather Scenario Ventyx

SENDOUT® Version 12.5.5 08-Aug-2012

Natural Gas Supply VS. Requirements Units: DTH

N	latural Gas Supply VS. F	Requirements		Units: I	DTH								
	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
Non LNG Liquid take	2,204,700	3,489,400	3,520,600	3,134,200	3,361,600	2,741,500	1,909,200	1,167,500	690,900	628,300	685,100	1,237,200	24,770,200
LNG Liquid take	0	0	0	0	0	0	155,000	129,900	0	0	57,700	19,400	362,000
Total take	2,204,700	3,489,400	3,520,600	3,134,200	3,361,600	2,741,500	2,064,200	1,297,400	690,900	628,300	742,800	1,256,600	25,132,200
Storage Withdrawals	•	44.700	474.000	447.700	7.500			•			•	44.000	050.000
TENN 501	0	44,700	174,900	117,700	7,500	0	0	0	0	0	0	11,200	356,000
GSS 300170	0	0	0	0	0	0	0	0	0	0	0	0	
GSS 300168	0	14,000	20,600	0	0	0	0	0	0	0	0	7,600	42,200
GSS 300171	0	0	68,300	41,100	0	0	0	0	0	0	0	0	,
GSSTE 600045	0	99,600	166,400	147,800	0	0	0	0	0	0	0	0	,
TETCO 400515	0	0	13,400	13,400	0	0	0	0	0	0	0	0	.,
TETCO 400221	0	0	284,300	284,300	0	0	0	0	0	0	0	0	,
TETCO 400185	0	0	12,400	0	0	0	0	0	0	0	0	0	
GSS 300169	0	0	53,500	46,300	0	0	0	0	0	0	0	0	,
COL FSS 9630	0	38,800	39,100	35,300	25,400	0	0	0	0	0	0	0	,
TENN 62918	0	19,200	93,900	0	0	0	0	0	0	0	0	10,400	
LNG PROV	11,700	83,700	55,100	29,300	12,100	11,700	12,100	11,700	12,100	12,100	11,700	12,100	275,400
LNG VALLEY	3,100	3,200	3,200	2,800	3,200	3,100	3,200	3,100	3,200	3,200	3,100	3,100	
LNG EXETER	4,000	4,200	4,300	3,800	4,200	4,000	4,200	4,000	4,200	4,200	4,000	4,200	49,300
Total Withdrawal Delivered	18,800	307,400	989,400	721,800	52,400	18,800	19,500	18,800	19,500	19,500	18,800	48,600	2,253,300
Total Storage withdrawal	0	216,300	926,800	685,900	32,900	0	0	0	0	0	0	29,200	1,891,100
Total Peaking withdrawal	18,800	91,100	62,600	35,900	19,500	18,800	19,500	18,800	19,500	19,500	18,800	19,400	362,200
Total Supply	2,223,500	3,796,800	4,510,000	3,856,000	3,414,000	2,760,300	1,928,700	1,186,300	710,400	647,800	703,900	1,285,800	27,023,500
Storage withdrawals at Storage	Facilty												
TENN 501	0	45,300	177,000	119,100	7,600	0	0	0	0	0	0	11,300	360,300
GSS 300170	0	0	0	0	0	0	0	0	0	0	0	0	,
GSS 300168	0	14,200	20,800	0	0	0	0	0	0	0	0	7,700	
GSS 300171	0	0	69,900	42,100	0	0	0	0	0	0	0	0	,
GSSTE 600045	0	102,200	170,700	151,700	0	0	0	0	0	0	0	0	,
TETCO 400515	0	0	14,200	14,200	0	0	0	0	0	0	0	0	,
TETCO 400313	0	0	297,000	297,000	0	0	0	0	0	0	0	0	594,000
TETCO 400221 TETCO 400185	0	0	13,000	297,000	0	0	0	0	0	0	0	0	,
GSS 300169	0	0	55,700	48,200	0	0	0	0	0	0	0	0	
COL FSS 9630	0	40.000	40.100	36,400	26,200	0	0	0	0	0	0	0	
TENN 62918	0	19,500	95,000	30,400	20,200	0	0	0	0	0	0	10,500	
1 LIVIN 023 10	0	221,200	953,400	708,700	33,800	0	0	0	0	0	0	29,500	
	0	221,200	333,400	700,700	33,000	U	U	U	U	U	U	23,300	1,340,000

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Total/Average

National Grid 2012 Estimated GCR Normal Weather Scenario

## Ventyx SENDOUT® Version 12.5.5 08-Aug-2012

Natural Gas Supply VS. Requirements

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
08/01/2012 NYMEX	\$3.297	\$3.540	\$3.653	\$3.664	\$3.637	\$3.607	\$3.629	\$3.665	\$3.708	\$3.729	\$3.734	\$3.762
TENNESSEE CONNEXION												
Basis usage to Zn 6	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018
fuel to Zn 6 Total Delivered	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
TENNESSEE ZN 0 Basis												
usage	\$0.3142	\$0.3142	\$0.3142	\$0.3142	\$0.3142	\$0.3142	\$0.3142	\$0.3142	\$0.3142	\$0.3142	\$0.3142	\$0.3142
fuel	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Total Delivered												
TENNESSEE ZN 1 Basis												
usage to Zn 6	\$0.2741	\$0.2741	\$0.2741	\$0.2741	\$0.2741	\$0.2741	\$0.2741	\$0.2741	\$0.2741	\$0.2741	\$0.2741	\$0.2741
fuel to Zn 6 Total Delivered	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%
TENNESSEE DRACUT												
Basis \$0.800 usage	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352
fuel	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%
Total Delivered												
TETCO ELA												
Basis Usage to M3	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960
Usage on AGT	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130
Fuel to M3 Fuel on AGT	6.95% 0.93%	8.21% 1.00%	8.21% 1.00%	8.21% 1.00%	8.21% 1.00%	6.95% 0.93%						
Total Delivered	0.5570	1.0070	1.0070	1.0070	1.0070	0.5570	0.5570	0.5576	0.5576	0.5570	0.3070	0.3370
TETCO ETX												
Basis Usage to M3	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960
Usage on AGT	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130
Fuel to M3 Fuel on AGT	6.95% 0.93%	8.21% 1.00%	8.21% 1.00%	8.21% 1.00%	8.21% 1.00%	6.95% 0.93%						
Total Delivered	0.93%	1.00 /6	1.00 /0	1.00 /6	1.00 /0	0.83/0	0.33 /0	0.33 /0	0.33 /0	0.33 /6	0.8376	0.93 %

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National Grid 2012 Estimated GCR Normal Weather Scenario

## Ventyx SENDOUT® Version 12.5.5 08-Aug-2012

Natural Gas Supply VS. Requirements

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
TETCO STX													
Basis	00.4004	20.1001	20 1001	00.1001	00.1001	20 1001	00.1001	20 1001	00.4004	00.4004	00.4004	00.1001	
Usage to M3	\$0.1021	\$0.1021 \$0.0130	\$0.1021 \$0.0130	\$0.1021	\$0.1021	\$0.1021	\$0.1021	\$0.1021	\$0.1021	\$0.1021	\$0.1021	\$0.1021	
Usage on AGT Fuel to M3	\$0.0130 7.95%	9.59%	9.59%	\$0.0130 9.59%	\$0.0130 9.59%	\$0.0130 7.95%							
Fuel on AGT	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Total Delivered	0.93 /6	1.00 /6	1.00 /6	1.00 /6	1.00 /6	0.9376	0.93 /6	0.93 /6	0.93 /6	0.9376	0.93 /6	0.93 /6	
Total Belivered													
TETCO WLA													
Basis	00.0070	00.0070	<b>#0.0070</b>	<b>#0.0070</b>	#0.00 <del>7</del> 0	00.0070	<b>#0.0070</b>	#0.00 <del>7</del> 0	00.0070	<b>#0.0070</b>	#0.00 <b>7</b> 0	00.0070	
Usage to M3	\$0.0979	\$0.0979	\$0.0979 \$0.0130	\$0.0979 \$0.0130	\$0.0979	\$0.0979	\$0.0979	\$0.0979	\$0.0979	\$0.0979	\$0.0979	\$0.0979	
Usage on AGT Fuel to M3	\$0.0130 7.25%	\$0.0130 8.64%	\$0.0130 8.64%	\$0.0130 8.64%	\$0.0130 8.64%	\$0.0130 7.25%							
Fuel to M3 Fuel on AGT	7.25% 0.93%	1.00%	1.00%	1.00%	1.00%	7.25% 0.93%							
Total Delivered	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Total Delivered													
TETCO -> NF -> TRANSCO													
Basis	***							***			** ***		
Usage to M2	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	
Usage on NF	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	
Usage on Transco Usage on AGT	\$0.0101 \$0.2291												
Fuel to M2	\$0.2291 6.19%	7.19%	7.19%	7.19%	7.19%	6.19%	6.19%	6.19%	6.19%	6.19%	6.19%	6.19%	
Fuel on NF	0.76%	0.76%	0.76%	0.76%	0.76%	0.76%	0.19%	0.76%	0.76%	0.76%	0.76%	0.76%	
Fuel on Transco	0.65%	0.65%	0.76%	0.76%	0.76%	0.76%	0.76%	0.65%	0.76%	0.65%	0.76%	0.76%	
Fuel on AGT	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.03%	
Delivered to NF	0.5570	1.0070	1.00 /0	1.0070	1.0070	0.5570	0.5570	0.5570	0.5570	0.5570	0.5570	0.5570	
Delivered to Transco													
Delivered to Algonquin													
Total Delivered													
<u>-</u>													
M3 DELIVERED													
Basis													
Usage on AGT	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	
Fuel on AGT	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Total Delivered													
COLUMBIA MAUMEE													
Basis													
Usage on Columbia	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	
Usage on AGT	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	
Fuel on Columbia	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	
Fuel on AGT	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Total Delivered													

National Grid Rhode Island - Gas Attachment EDA-2 Redacted Docket No. 4346 September 4, 2012 Page 5 of 17

National Grid 2012 Estimated GCR Normal Weather Scenario

#### Ventyx SENDOUT® Version 12.5.5 08-Aug-2012

Natural Gas Supply VS. Requirements

COLUMBIA BROADRUN	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	Total/Average
Basis													
Usage on Columbia	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	
Usage on AGT	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	
Fuel on Columbia	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	
Fuel on AGT	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Total Delivered													
COLUMBIA EAGLE													
Basis													
Usage on Columbia	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	•
Usage on AGT	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	
Fuel on Columbia	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	
Fuel on AGT	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Total Delivered													
COLUMBIA DOWNINGTOWN													
Basis													
Usage on Columbia	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	
Usage on AGT	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	
Fuel on Columbia	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	
Fuel on AGT	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Total Delivered													
TETCO -> DTI -> TETCO													
Basis													
Usage to M2	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	
Usage on Dominion	\$0.0252	\$0.0252	\$0.0252	\$0.0252	\$0.0252	\$0.0252	\$0.0252	\$0.0252	\$0.0252	\$0.0252	\$0.0252	\$0.0252	
Usage on Tetco	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	
Usage on AGT	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	
Fuel to M2	6.19%	7.19%	7.19%	7.19%	7.19%	6.19%	6.19%	6.19%	6.19%	6.19%	6.19%	6.19%	
Fuel on Dominion	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	
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	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Delivered to Dominion													
Delivered to Tetco													
Delivered to Algonquin													
Total Delivered													
TRANSCO ZONE 2													•
Basis													
Usage on Transco	\$0.05035	\$0.05035	\$0.05035	\$0.05035	\$0.05035	\$0.05035	\$0.05035	\$0.05035	\$0.05035	\$0.05035	\$0.05035	\$0.05035	
Usage on Tetco	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	
Usage on AGT	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	
Fuel on Transco	3.98%	3.98%	3.98%	3.98%	3.98%	3.98%	3.98%	3.98%	3.98%	3.98%	3.98%	3.98%	
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	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Total Delivered													

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National Grid 2012 Estimated GCR Normal Weather Scenario

# Ventyx SENDOUT® Version 12.5.5 08-Aug-2012

Natural Gas Supply VS. Requirements

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	Total/Average
TRANSCO ZONE 3													
Basis													
Usage on Transco	\$0.04634	\$0.04634	\$0.04634	\$0.04634	\$0.04634	\$0.04634	\$0.04634	\$0.04634	\$0.04634	\$0.04634	\$0.04634	\$0.04634	
Usage on Tetco	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	
Usage on AGT	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	
Fuel on Transco	3.62%	3.62%	3.62%	3.62%	3.62%	3.62%	3.62%	3.62%	3.62%	3.62%	3.62%	3.62%	
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	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Total Delivered													
DAWN TO TENNESSEE - ANE II													
Basis													
Transcanada usage	\$0.0184	\$0.0184	\$0.0184	\$0.0184	\$0.0184	\$0.0184	\$0.0184	\$0.0184	\$0.0184	\$0.0184	\$0.0184	\$0.0184	
Transcanada pressure chg	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	
Iroquois usage	\$0.0048	\$0.0048	\$0.0048	\$0.0048	\$0.0048	\$0.0048	\$0.0048	\$0.0048	\$0.0048	\$0.0048	\$0.0048	\$0.0048	
Tenn usage	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	
Fuel on Union	1.305%	1.305%	1.305%	1.305%	1.305%	1.305%	1.305%	1.305%	1.305%	1.305%	1.305%	1.305%	
Fuel on TCPL	1.360%	1.360%	1.360%	1.360%	1.360%	1.360%	1.360%	1.360%	1.360%	1.360%	1.360%	1.360%	
Fuel on Iroquois	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	
Fuel on Tenn	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	
Total Delivered													
NIAGARA TO TENNESSEE													
Basis													
Tenn usage	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	
Tenn Fuel	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	
Total Delivered													
Tetco to B&W - SCT													
Basis													
usage on Tetco	\$0.5482	\$0.5482	\$0.5482	\$0.5482	\$0.5482	\$0.5482	\$0.5482	\$0.5482	\$0.5482	\$0.5482	\$0.5482	\$0.5482	
usage on AGT	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	
fuel to ZN 3	7.20%	8.56%	8.56%	8.56%	8.56%	7.20%	7.20%	7.20%	7.20%	7.20%	7.20%	7.20%	
Fuel on AGT	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Total Delivered													
Hubline													
Basis \$0.8680													
usage	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	
fuel	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Total Delivered													

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National Grid 2012 Estimated GCR Normal Weather Scenario Ventyx

SENDOUT® Version 12.5.5 08-Aug-2012

Natural Gas Supply VS. Requirements

Total Delivered to the City Gate	NOV • Gas Supply	DEC Costs	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
TENN CONNEXION Delivered Mmbtu NYMEX \$/Mmbtu Del Total Delivered Cost	348,000 \$3.353 \$1,166,789	359,600 \$3.606 \$1,296,706	359,600 \$3.739 \$1,344,652	324,800 \$3.730 \$1,211,480	359,600 \$3.712 \$1,334,913	348,000 \$3.671 \$1,277,351	359,600 \$3.699 \$1,330,044	348,000 \$3.741 \$1,302,001	359,600 \$3.791 \$1,363,381	359,600 \$3.813 \$1,371,248	348,000 \$3.813 \$1,327,014	359,600 \$3.832 \$1,377,990	
Tennessee Zn 0 Delivered Mmbtu NYMEX \$/Mmbtu Del Total Delivered Cost	56,252 \$3.665 \$206,178	183,396 \$3.918 \$718,614	162,135 \$4.052 \$656,924	180,085 \$4.042 \$727,964	122,567 \$4.025 \$493,286	107,993 \$3.983 \$430,130	60,699 \$4.011 \$243,469	39,341 \$4.054 \$159,480	0 \$4.104 \$0	0 \$4.126 \$0	0 \$4.126 \$0	0 \$4.144 \$0	
TENN ZONE 1 Delivered Mmbtu \$/Mmbtu Del Total Delivered Cost	117,048 \$3.749 \$438,820	381,604 \$3.879 \$1,480,095	337,365 \$4.016 \$1,355,011	374,715 \$4.059 \$1,520,947	255,033 \$4.060 \$1,035,429	224,707 \$4.049 \$909,746	126,301 \$4.043 \$510,685	81,859 \$4.030 \$329,886	0 \$4.088 \$0	0 \$4.095 \$0	0 \$4.211 \$0	0 \$4.211 \$0	
TENN DRACUT Delivered Mmbtu \$/Mmbtu Del Total Delivered Cost	0 \$4.14 \$0	35,000 \$5.80 \$202,906	0 \$7.53 \$0	0 \$6.64 \$0	0 \$4.73 \$0	0 \$4.04 \$0	19,200 \$3.82 \$73,308	0 \$3.88 \$0	0 \$3.99 \$0	0 \$4.03 \$0	0 \$3.93 \$0	0 \$4.06 \$0	
TETCO ELA Delivered Mmbtu \$/Mmbtu Del Total Delivered Cost	0 \$3.6343 \$0	230,267 \$3.9527 \$910,185	326,736 \$4.0815 \$1,333,569	260,657 \$4.0892 \$1,065,875	0 \$4.0595 \$0	164,378 \$3.9598 \$650,903	168,230 \$3.9836 \$670,168	105,658 \$4.0401 \$426,865	29,856 \$4.0693 \$121,494	6,177 \$4.0965 \$25,304	5,986 \$4.0976 \$24,530	6,177 \$4.1279 \$25,498	
TETCO ETX Delivered Mmbtu NYMEX \$/Mmbtu Del Total Delivered Cost	0 \$3.5020 \$0	68,982 \$3.8405 \$264,924	97,881 \$3.9626 \$387,869	78,086 \$3.9857 \$311,230	0 \$3.9362 \$0	49,243 \$3.8730 \$190,720	50,397 \$3.8817 \$195,625	31,652 \$3.9598 \$125,337	8,944 \$4.0401 \$36,134	1,850 \$4.0010 \$7,404	1,793 \$4.0249 \$7,218	1,850 \$4.0824 \$7,554	
TETCO STX Delivered Mmbtu NYMEX \$/Mmbtu Del Total Delivered Cost	0 \$3.622 \$0	102,816 \$3.948 \$405,946	145,890 \$4.069 \$593,618	116,385 \$4.085 \$475,384	0 \$4.057 \$0	73,396 \$3.953 \$290,130	75,116 \$3.980 \$298,987	47,177 \$4.023 \$189,799	13,331 \$4.083 \$54,435	2,758 \$4.106 \$11,326	2,673 \$4.106 \$10,976	2,758 \$4.132 \$11,396	
TETCO WLA Delivered Mmbtu \$/Mmbtu Del Total Delivered Cost	0 \$3.6760 \$0	158,251 \$4.0015 \$633,238	224,549 \$4.0866 \$917,645	179,136 \$4.0988 \$734,239	0 \$4.0689 \$0	112,969 \$3.9774 \$449,324	115,615 \$4.0014 \$462,619	72,613 \$4.0242 \$292,212	20,518 \$4.0906 \$83,932	4,245 \$4.1145 \$17,467	4,114 \$4.1156 \$16,932	4,245 \$4.1461 \$17,601	

National Grid Rhode Island - Gas

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National Grid 2012 Estimated GCR Normal Weather Scenario Ventyx

SENDOUT® Version 12.5.5 08-Aug-2012

Natural Gas Supply VS. Requirements

	Natural Gas Supply VS. I	Requirements		Offics.	חוט								
TETCO -> NF -> TRANSCO	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
Delivered Mmbtu	0	11,283	16,011	12,773	0	8,055	8,243	5,177	1,463	303	293	303	
Delivered \$/Mmbtu	\$4.2501	\$4.5594	\$4.6885	\$4.6963	\$4.6665	\$4.5775	\$4.6015	\$4.6582	\$4.6877	\$4.7150	\$4.7161	\$4.7466	
Delivered Cost	\$0	\$51,446	\$75,066	\$59,983	\$0	\$36,871	\$37,932	\$24,118	\$6,858	\$1,427	\$1,383	\$1,437	
M3 DELIVERED Delivered Mmbtu	595,600	304,600	203,700	125,100	1,119,700	531,500	518,400	27,000	0	0	29,800	518,400	
Delivered \$/Mmbtu	\$3.5509	\$4.2473	\$4.8090	\$4.4968	\$3.8908	\$3.7901	\$3.7952	\$3.8315	\$3.9052	\$3.9264	\$3.8406	\$3.8759	
Delivered Cost	\$2,114,918	\$1,293,741	\$979,585	\$562,554	\$4,356,504	\$2,014,453	\$1,967,418	\$103,451	\$0	\$0	\$114,450	\$2,009,280	
COLUMBIA MAUMEE													
Delivered Mmbtu	762,400	1,173,100	1,172,900	1,059,400	1,172,900	774,600	82,400	102,800	1,700	0	0	41,900	
Delivered \$/Mmbtu	\$3.4415	\$3.6912	\$3.8076	\$3.8158	\$3.7777	\$3.7853	\$3.7977	\$3.8245	\$3.8584	\$3.8698	\$3.8646	\$3.8832	
Total Delivered Cost	\$2,623,770	\$4,330,104	\$4,465,923	\$4,042,493	\$4,430,877	\$2,932,130	\$312,931	\$393,156	\$6,559	\$0	\$0	\$162,704	
COLUMBIA BROADRUN													
Delivered Mmbtu	291,400	300,900	300,800	271,700	300,800	291,600	301,400	291,400	251,300	252,500	291,600	301,100	
Delivered \$/Mmbtu	\$3.3972	\$3.6675	\$3.7921	\$3.7777	\$3.7190	\$3.7153	\$3.7668	\$3.7833	\$3.8131	\$3.8183	\$3.7926	\$3.7884	
Total Delivered Cost	\$989,941	\$1,103,540	\$1,140,674	\$1,026,404	\$1,118,670	\$1,083,391	\$1,135,318	\$1,102,450	\$958,244	\$964,119	\$1,105,909	\$1,140,698	
COLUMBIA EAGLE													
Delivered Mmbtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered \$/Mmbtu	\$3.6474	\$4.3578	\$4.9306	\$4.6123	\$3.9941	\$3.8914	\$3.8965	\$3.9336	\$4.0088	\$4.0304	\$3.9429	\$3.9789	
Delivered Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
COLUMBIA DOWNINGTOW	N												
Delivered Mmbtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered \$/Mmbtu	\$3.6711	\$4.4165	\$5.1676	\$4.8008	\$4.0250	\$3.8986	\$3.8924	\$3.9295	\$4.0222	\$4.0407	\$3.9429	\$3.9758	
Delivered Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
TETCO -> DTI -> TETCO													
Delivered Mmbtu	0	6,697	9,502	7,581	0	4,781	4,893	3,073	868	180	174	180	
Delivered \$/Mmbtu	\$4.3630	\$4.6810	\$4.8138	\$4.8217	\$4.7911	\$4.6996	\$4.7243	\$4.7826	\$4.8129	\$4.8410	\$4.8421	\$4.8735	
Delivered Cost	\$0	\$31,348	\$45,743	\$36,552	\$0	\$22,467	\$23,114	\$14,696	\$4,179	\$870	\$843	\$876	
TRANSCO ZONE 2													
Delivered Mmbtu	3,915	4,013	4,013	3,621	0	0	0	0	0	0	0	0	
Delivered \$/Mmbtu	\$3.5477	\$3.7953	\$3.9370	\$3.9168	\$3.9306	\$3.8842	\$3.8906	\$3.9577	\$4.0109	\$4.0163	\$4.0269	\$4.0567	
Delivered Cost	\$13,889	\$15,230	\$15,798	\$14,184	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	

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National Grid 2012 Estimated GCR Normal Weather Scenario Ventyx

SENDOUT® Version 12.5.5 08-Aug-2012

Natural Gas Supply VS. Requirements

	Natural Gas Supply VS.	Requirements		Units:	DTH								
	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
TRANSCO ZONE 3	25	07	0.7	70	_				•				
Delivered Mmbtu Delivered \$/Mmbtu	85 \$3.5550	87 \$3.8155	87 \$3.9376	79 \$3.9493	0 \$3.9163	0 \$3.8796	0 \$3.9030	0 \$3.9528	0 \$3.9921	0 \$4.0250	0 \$4.0197	0 \$4.0303	
Delivered \$/Mmbtu  Delivered Cost	\$3.5550 \$303	\$3.8155	\$3.9376	\$3.9493 \$311	\$3.9163	\$3.8796	\$3.9030 \$0	\$3.9528 \$0	\$3.9921	\$4.0250 \$0	\$4.0197 \$0	\$4.0303 \$0	
Delivered Cost	<b>ф</b> 303	φοσο	<b>Ф</b> 343	φοιι	\$0	φυ	φυ	ΦΟ	φU	φυ	φυ	φυ	
DAWN TO TENNESSEE - A													
Delivered Mmbtu	30,000	31,000	31,000	28,000	31,000	0	0	0	0	0	0	0	
Delivered \$/Mmbtu	\$3.9729	\$4.2095	\$4.2282	\$4.2344	\$4.2168	\$4.0840	\$4.1068	\$4.1556	\$4.1566	\$4.1587	\$4.2158	\$4.2448	
Total Delivered Cost	\$119,188	\$130,495	\$131,074	\$118,564	\$130,721	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
NIAGARA TO TENNESSEE													
Delivered Mmbtu	0	3,200	0	0	0	32,000	0	0	0	0	0	0	
Delivered \$/Mmbtu	\$3.7755	\$4.0894	\$4.1075	\$4.1136	\$4.0964	\$3.9168	\$3.9390	\$4.0036	\$3.9925	\$4.0086	\$4.0450	\$4.0732	
Total Delivered Cost	\$0	\$13,086	\$0	\$0	\$0	\$125,337	\$0	\$0	\$0	\$0	\$0	\$0	
Tetco to B&W - SCT													
Delivered Mmbtu	0	25.604	36,331	28,983	0	18,278	18,706	11,748	3,320	687	666	687	
Delivered \$/Mmbtu	\$4.3164	\$4.6403	\$4.7696	\$4.7773	\$4.7475	\$4.6427	\$4.6666	\$4.7232	\$4.7526	\$4.7798	\$4.7808	\$4.8113	
Total Delivered Cost	\$0	\$118,811	\$173,282	\$138,462	\$0	\$84,858	\$87,294	\$55,490	\$15,777	\$3,283	\$3,182	\$3,305	
	**	*****	******	¥	**	7-1,	70.,=0.	400,.00	*,	**,===	**,	70,000	
HUBLINE													
Total Delivered Vol	0	109,000	92,100	83,100	0	0	0	0	0	0	0	0	
Delivered \$/Mmbtu	\$4.2171	\$5.9524	\$7.7635	\$6.7494	\$4.7675	\$4.0980	\$3.8699	\$3.9728	\$4.1212	\$4.1424	\$4.0294	\$4.1515	
Total Delivered Cost	\$0	\$648,811	\$715,019	\$560,872	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ост	
	2012	2012	2013	2013	2013	2013	2013	2013	2013	2013	2013	2013	
Financial Hedges as of 7/3	1/2012												
Quantity	2,270,000	2,940,000	3,080,000	2,600,000	2,460,000	1,408,642	766,518	575,561	590,230	478,018	591,194	582,274	18,342,438
Average Price	\$4.591	\$4.665	\$4.796	\$4.694	\$4.843	\$4.664	\$4.790	\$4.730	\$4.761	\$4.856	\$4.381	\$4.354	
08/01/2012 NYMEX	\$3.297	\$3.540	\$3.653	\$3.664	\$3.637	\$3.607	\$3.629	\$3.665	\$3.708	\$3.729	\$3.734	\$3.762	
Impact of Financial Hedges	\$2,937,811	\$3,308,328	\$3,521,856	\$2,677,745	\$2,967,584	\$1,488,598	\$889,801	\$612,975	\$621,754	\$538,642	\$382,288	\$344,471	\$20,291,853.47
Total Pipeline Costs (Incl II	ni) \$10.611.606	\$16,957,885	\$17,853,651	\$15.285.243	\$15.867.984	\$11,986,410	\$8,238,713	\$5,131,917	\$3,272,748	\$2,941,090	\$2.994.725	\$5,102,809	\$116,244,781
Total Delivered Pipeline Vo	•	3,489,400	3,520,600	3,134,200	3,361,600	2,741,500	1,909,200	1,167,500	690,900	628,300	685,100	1,237,200	
WACOG (Cost/Volume)	\$4.813	\$4.860	\$5.071	\$4.877	\$4.720	\$4.372	\$4.315	\$4.396	\$4.737	\$4.681	\$4.371	\$4.124	\$4.693
(2002 : 2.0110)	ψ1.010	ψσοσ	ψ3.37 1	Ų	Ų 20	ψ	ŲJ10	ψσσσ	Ų O1	Ų	Ψ	¥ 12 1	<b>\$</b> 500
Injections	0	0	0	0	0	642,900	668,900	437,100	99,900	39,400	42,200	16,200	
Cost of Injections	\$0	\$0	\$0	\$0	\$0	\$2,810,893	\$2,886,484	\$1,921,337	\$473,220	\$184,433	\$184,466	\$66,817	\$8,527,648
•											-	•	
Total GCR Cost Including I	Financial Hedges, Exclud	ing Injections											
Total Pipeline Costs	\$10,611,606	\$16,957,885	\$17,853,651		\$15,867,984	\$9,175,517	\$5,352,229	\$3,210,580	\$2,799,528	\$2,756,658	\$2,810,260	\$5,035,992	, ,
Total Pipeline Purchase Vo	lumes 2,204,700	3,489,400	3,520,600	3,134,200	3,361,600	2,098,600	1,240,300	730,400	591,000	588,900	642,900	1,221,000	22,823,600

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#### 2012 GCR estimate FIXED COST ESTIMATES Nov 2012 - Oct 2013

#### 2012-2013 Gas Supply Fixed Costs UNIT PRICES

	Г	NOV	DEC	JAN-13	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
													•
PIPELINE FIXED COST UNIT PRICES \$/Dth													
ALGONQUIN AFT-E/AFT-1 DEMAND	\$/Dth	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771
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	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909
ALGONQUIN HUBLINE DEMAND	\$/Dth	\$11.5583	\$11.5583	\$11.5583	\$11.5583	\$11.5583	\$11.5583	\$11.5583	\$11.5583	\$11.5583	\$11.5583	\$11.5583	\$11.5583
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	\$6.9920	\$6.9920	\$6.9920	\$6.9920	\$6.9920	\$6.9920	\$6.9920	\$6.9920	\$6.9920	\$6.9920	\$6.9920	\$6.9920
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	\$6.0770	\$6.0770	\$6.0770	\$6.0770	\$6.0770	\$6.0770	\$6.0770	\$6.0770	\$6.0770	\$6.0770	\$6.0770	\$6.0770
DOMINION FTNN DEMAND	\$/Dth	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040
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	\$3.9617	\$3.9617	\$3.9617	\$3.9617	\$3.9617	\$3.9617	\$3.9617	\$3.9617	\$3.9617	\$3.9617	\$3.9617	\$3.9617
TENNESSEE FT-A DEMAND ZONE 0 TO 6	\$/Dth	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587
TENNESSEE FT-A DEMAND ZONE 1 TO 6	\$/Dth	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587
TENNESSEE FT-A DEMAND ZONE 0 TO 6	\$/Dth	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522
TENNESSEE FT-A DEMAND ZONE 1 TO 6	\$/Dth	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522
TENNESSEE FT-A DEMAND ZONE 0 TO 6 CXN	\$/Dth	\$22.7365	\$22.7365	\$22.7365	\$22.7365	\$22.7365	\$22.7365	\$22.7365	\$22.7365	\$22.7365	\$22.7365	\$22.7365	\$22.7365
TENNESSEE FT-A DEMAND DRACUT	\$/Dth	\$4.8846	\$4.8846	\$4.8846	\$4.8846	\$4.8846	\$4.8846	\$4.8846	\$4.8846	\$4.8846	\$4.8846	\$4.8846	\$4.8846
TENNESSEE FT-A DEMAND ZONE 5 TO 6 TEXAS EASTERN CDS STX DEMAND M3	\$/Dth	\$7.4396 \$6.8050	\$7.4396	\$7.4396	\$7.4396 \$6.8050	\$7.4396	\$7.4396	\$7.4396 \$6.8050	\$7.4396	\$7.4396	\$7.4396 \$6.8050	\$7.4396	\$7.4396 \$6.8050
TEXAS EASTERN CDS STX DEMAND M3 TEXAS EASTERN CDS WLA DEMAND M3	\$/Dth \$/Dth	\$6.8050 \$2.8250	\$6.8050 \$2.8250	\$6.8050 \$2.8250	\$6.8050 \$2.8250	\$6.8050 \$2.8250	\$6.8050 \$2.8250	\$2.8250	\$6.8050 \$2.8250	\$6.8050 \$2.8250	\$0.8050 \$2.8250	\$6.8050 \$2.8250	\$2.8250
TEXAS EASTERN CDS WLA DEMAND M3	\$/Dth	\$2.3750	\$2.3750	\$2.3750	\$2.3750	\$2.8250 \$2.3750	\$2.3750	\$2.3750	\$2.3750	\$2.3750	\$2.3750	\$2.3750	\$2.3750
TEXAS EASTERN CDS ELA DEMAND M3	\$/Dth	\$2.3750	\$2.1890	\$2.3750 \$2.1890	\$2.3750 \$2.1890	\$2.3750 \$2.1890	\$2.3750 \$2.1890	\$2.1890	\$2.3750 \$2.1890	\$2.3750 \$2.1890	\$2.3750 \$2.1890	\$2.3750	\$2.3750
TEXAS EASTERN CDS ETA DEMAND M3	\$/Dth	\$10.9240	\$10.9240	\$10.9240	\$10.9240	\$10.9240	\$10.9240	\$10.9240	\$2.1690 \$10.9240	\$10.9240	\$2.1690 \$10.9240	\$10.9240	\$10.9240
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 FTS 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	\$4.3710	\$4.3710	\$4.3710	\$4.3710	\$4.3710	\$4.3710	\$4.3710	\$4.3710	\$4.3710	\$4.3710	\$4.3710	\$4.3710
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	\$3.3290	\$3.3290	\$3.3290	\$3.3290	\$3.3290	\$3.3290	\$3.3290	\$3.3290	\$3.3290	\$3.3290	\$3.3290	\$3.3290
TRANSCANADA DEMAND	\$/Dth	\$10.3350	\$10.6795	\$10.6795	\$9.6460	\$10.6795	\$10.3350	\$10.6795	\$10.3350	\$10.6795	\$10.6795	\$10.3350	\$10.6795
TRANSCO DEMAND ZONE 2 TO 6	\$/Dth	\$0.4645	\$0.4645	\$0.4645	\$0.4645	\$0.4645	\$0.4645	\$0.4645	\$0.4645	\$0.4645	\$0.4645	\$0.4645	\$0.4645
TRANSCO DEMAND ZONE 3 TO 6	\$/Dth	\$0.4379	\$0.4379	\$0.4379	\$0.4379	\$0.4379	\$0.4379	\$0.4379	\$0.4379	\$0.4379	\$0.4379	\$0.4379	\$0.4379
TRANSCO DEMAND ZONE 6	\$/Dth	\$0.1194	\$0.1194	\$0.1194	\$0.1194	\$0.1194	\$0.1194	\$0.1194	\$0.1194	\$0.1194	\$0.1194	\$0.1194	\$0.1194
UNION DEMAND	\$/Dth	\$2.3700	\$2.4490	\$2.4490	\$2.2120	\$2.4490	\$2.3700	\$2.4490	\$2.3700	\$2.4490	\$2.4490	\$2.3700	\$2.4490
STORAGE FIXED COST UNIT PRICES	A / D / I										** ====		
COLUMBIA FSS DEMAND	\$/Dth	\$1.5090	\$1.5090	\$1.5090	\$1.5090	\$1.5090	\$1.5090	\$1.5090	\$1.5090	\$1.5090	\$1.5090	\$1.5090	\$1.5090
COLUMBIA FSS CAPACITY	\$/Dth	\$0.0289	\$0.0289	\$0.0289	\$0.0289	\$0.0289	\$0.0289	\$0.0289	\$0.0289	\$0.0289	\$0.0289	\$0.0289	\$0.0289
DOMINION GSS DEMAND	\$/Dth	\$1.8788	\$1.8788	\$1.8788	\$1.8788	\$1.8788	\$1.8788	\$1.8788	\$1.8788	\$1.8788	\$1.8788	\$1.8788	\$1.8788
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	\$1.8788	\$1.8788	\$1.8788	\$1.8788	\$1.8788	\$1.8788	\$1.8788	\$1.8788	\$1.8788	\$1.8788	\$1.8788	\$1.8788
DOMINION GSS-TE CAPACITY	\$/Dth	\$0.0145 \$1.5400	\$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 TENNESSEE FSMA CAPACITY	\$/Dth \$/Dth	\$1.5400 \$0.0211	\$1.5400 \$0.0211	\$1.5400 \$0.0211	\$1.5400 \$0.0211	\$1.5400 \$0.0211							
TEXAS EASTERN SS-1 DEMAND	\$/Dth	\$0.0211 \$5.5070	\$5.5070	\$5.5070	\$0.0211 \$5.5070	\$5.5070	\$5.5070	\$5.5070	\$5.5070	\$0.0211 \$5.5070	\$5.5070	\$5.5070	\$5.5070
TEXAS EASTERN SS-1 DEMAND TEXAS EASTERN SS-1 CAPACITY	\$/Dth	\$5.5070 \$0.1293	\$5.5070 \$0.1293	\$0.1293	\$5.5070 \$0.1293	\$0.1293							
TEXAS EASTERN 55-1 CAPACITY TEXAS EASTERN FSS-1 DEMAND	\$/Dth	\$0.8950	\$0.1293	\$0.8950	\$0.8950	\$0.8950	\$0.8950	\$0.8950	\$0.1293 \$0.8950	\$0.8950	\$0.1293 \$0.8950	\$0.8950	\$0.1293
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
ILMO LAGILIMI OG-1 OALAGITI	Ψισαί	ψυ. 1233	ψυ. 1233	ψυ. 1233	ψυ. 1200	ψυ. 1200	ψυ. 1233	ψυ. 1233	ψυ. 1200	ψυ. 1200	ψυ. 1200	ψυ. 1200	ψυ. 1233

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STORAGE DELIVERY FIXED		NOV	DEC	JAN-13	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
UNIT RATES (\$/Dth)				67.1.1.10			7		00.1	702	7.00	<b>V</b>	
PATH													
ALGONQUIN FOR TETCO SS-1	\$/Dth	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771
ALGONQUIN DELIVERY FOR FSS-1	\$/Dth	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771
ALGONQUIN SCT FOR SS-1 ALGONQUIN DELIVERY FOR GSS. GSS-TE.	\$/Dth \$/Dth	\$2.3909 \$5.9771											
ALGONQUIN DELIVERY FOR GSS, GSS-TE, ALGONQUIN SCT DELIVERY FOR GSS-TE	\$/Dth	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909
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	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771
COLUMBIA DELIVERY FOR FSS	\$/Dth	\$5.9070	\$5.9070	\$5.9070	\$5.9070	\$5.9070	\$5.9070	\$5.9070	\$5.9070	\$5.9070	\$5.9070	\$5.9070	\$5.9070
DOMINION DELIVERY FOR GSS	\$/Dth	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040
DOMINION DELIVERY FOR GSS CONV.	\$/Dth	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040
TENNESSEE DELIVERY FOR GSS TENNESSEE DELIVERY FOR FSMA	\$/Dth \$/Dth	\$8.4896 \$8.4896											
TETCO DELIVERY FOR FSS-1	\$/Dth	\$5.2580	\$5.2580	\$5.2580	\$5.2580	\$5.2580	\$5.2580	\$5.2580	\$5.2580	\$5.2580	\$5.2580	\$5.2580	\$5.2580
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
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													
DISTRIGAS NSB CALL PAYMENT Winter	\$/Dth												
DISTRIGAS NSB CALL PAYMENT Summer	\$/Dth												
DIDELINE FIVED COST DILLING LINES								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	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 DOMINION FTNN DEMAND	Dth Dth	47,455 537											
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
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 TENNESSEE FT-A DEMAND ZONE 0 TO 6 CXN	Dth Dth	13,313 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 TEXAS EASTERN CDS 1-3 DEMAND M3	Dth Dth	7,995 45,934											
TEXAS EASTERN CDS 1-3 DEMAND MS TEXAS EASTERN FTS DEMAND	Dth	45,934 537	537	537	537	537	537	537	537	45,934 537	45,934 537	537	45,934 537
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 TEXAS EASTERN SCT WLA DEMAND M2	Dth Dth	401 455											
TEXAS EASTERN SCT WAS DEMAND M2 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
TRANSCO DEMAND ZONE 2 TO 6	Dth	4,140	4,278	4,278	3,864	4,278	4,140	4,278	4,140	4,278	4,278	4,140	4,278
TRANSCO DEMAND ZONE 3 TO 6.	Dth Dth	90	93	93	84	93	90	93	90	93	93	90	93
TRANSCO DEMAND ZONE 6 UNION DEMAND	Dth Dth	37,200 1,025	38,440 1,025	38,440 1,025	34,720 1,025	38,440 1,025	37,200 1,025	38,440 1,025	37,200 1,025	38,440 1,025	38,440 1,025	37,200 1,025	38,440 1,025
ONTO IN DELIVINIO	Dui	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,025	1,020

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		NOV	DEC	JAN-13	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	
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														
DISTRIGAS NSB CALL PAYMENT Winter	Dth													
DISTRIGAS NSB CALL PAYMENT Summer	Dth													

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	Г	NOV	DEC	JAN-13	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	rage to or tr
	<u> </u>			07.11.10			OTAL COST				7.00	<u></u>		
PIPELINE FIXED COST DOLLARS							OTAL COST							
ALGONQUIN AFT-E/AFT-1 DEMAND	\$	\$521,711	\$521,711	\$521.711	\$521.711	\$521.711	\$521.711	\$521,711	\$521,711	\$521,711	\$521.711	\$521,711	\$521.711	
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	\$	\$9,752	\$9,752	\$9,752	\$9,752	\$9,752	\$9,752	\$9,752	\$9,752	\$9,752	\$9,752	\$9,752	\$9,752	
ALGONQUIN HUBLINE DEMAND	\$	\$46,233	\$46,233	\$46.233	\$46,233	\$46,233	\$46,233	\$46,233	\$46,233	\$46,233	\$46,233	\$46,233	\$46,233	
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	\$	\$24,472	\$24,472	\$24,472	\$24,472	\$24,472	\$24,472	\$24,472	\$24,472	\$24,472	\$24,472	\$24,472	\$24,472	
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	\$	\$288,384	\$288,384	\$288,384	\$288,384	\$288,384	\$288,384	\$288,384	\$288,384	\$288,384	\$288,384	\$288,384	\$288,384	
DOMINION FTNN DEMAND	\$	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	
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	\$	\$4,663	\$4,663	\$4,663	\$4,663	\$4,663	\$4,663	\$4,663	\$4,663	\$4,663	\$4,663	\$4,663	\$4,663	
TENNESSEE FT-A DEMAND ZONE 0 TO 6	\$	\$79,305	\$79,305	\$79,305	\$79,305	\$79,305	\$79,305	\$79,305	\$79,305	\$79,305	\$79,305	\$79,305	\$79,305	
TENNESSEE FT-A DEMAND ZONE 1 TO 6	\$	\$147,282	\$147,282	\$147,282	\$147,282	\$147,282	\$147,282	\$147,282	\$147,282	\$147,282	\$147,282	\$147,282	\$147,282	
TENNESSEE FT-A DEMAND ZONE 0 TO 6	\$	\$135,809	\$135,809	\$135,809	\$135,809	\$135,809	\$135,809	\$135,809	\$135,809	\$135,809	\$135,809	\$135,809	\$135,809	
TENNESSEE FT-A DEMAND ZONE 1 TO 6	\$	\$300,237	\$300,237	\$300,237	\$300,237	\$300,237	\$300,237	\$300,237	\$300,237	\$300,237	\$300,237	\$300,237	\$300,237	
TENNESSEE FT-A DEMAND ZONE 0 TO 6 CXN	\$	\$263,743	\$263,743	\$263,743	\$263,743	\$263,743	\$263,743	\$263,743	\$263,743	\$263,743	\$263,743	\$263,743	\$263,743	
TENNESSEE FT-A DEMAND DRACUT	\$	\$73,269	\$73,269	\$73,269	\$73,269	\$73,269	\$73,269	\$73,269	\$73,269	\$73,269	\$73,269	\$73,269	\$73,269	
TENNESSEE FT-A DEMAND ZONE 5 TO 6	\$	\$15,378	\$15,378	\$15,378	\$15,378	\$15,378	\$15,378	\$15,378	\$15,378	\$15,378	\$15,378	\$15,378	\$15,378	
TEXAS EASTERN CDS STX DEMAND M3	\$	\$94,208	\$94,208	\$94,208	\$94,208	\$94,208	\$94,208	\$94,208	\$94,208	\$94,208	\$94,208	\$94,208	\$94,208	
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	\$	\$501,783	\$501,783	\$501,783	\$501,783	\$501,783	\$501,783	\$501,783	\$501,783	\$501,783	\$501,783	\$501,783	\$501,783	
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	\$ \$	\$9,175 \$1.092	\$9,175	\$9,175 \$1.092	\$9,175 \$1.092	\$9,175	\$9,175 \$1.092	\$9,175	\$9,175 \$1.092	\$9,175 \$1.092	\$9,175	\$9,175 \$1.092	\$9,175 \$1.092	
TEXAS EASTERN SCT STX DEMAND M2 TEXAS EASTERN SCT WLA DEMAND M2	\$	\$1,092 \$514	\$1,092 \$514	\$1,092 \$514	\$1,092 \$514	\$1,092 \$514	\$1,092 \$514	\$1,092 \$514	\$1,092 \$514	\$1,092 \$514	\$1,092 \$514	\$1,092 \$514	\$1,092 \$514	
TEXAS EASTERN SCT WAS DEMAND M2 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	\$	\$4,907	\$4,907	\$4,907	\$4,907	\$4,907	\$4,907	\$4,907	\$4,907	\$4,907	\$4,907	\$4,907	\$4,907	
TRANSCANADA DEMAND	\$	\$10.459	\$10,808	\$10,808	\$9,762	\$10,808	\$10,459	\$10,808	\$10.459	\$10,808	\$10,808	\$10,459	\$10,808	
TRANSCO DEMAND ZONE 2 TO 6	\$	\$1,923	\$1,987	\$1,987	\$1,795	\$1.987	\$1,923	\$1,987	\$1,923	\$1,987	\$1.987	\$1,923	\$1,987	
TRANSCO DEMAND ZONE 3 TO 6.	\$	\$39	\$41	\$41	\$37	\$41	\$39	\$41	\$39	\$41	\$41	\$39	\$41	
TRANSCO DEMAND ZONE 6	\$	\$4,442	\$4,590	\$4,590	\$4,146	\$4,590	\$4,442	\$4,590	\$4.442	\$4,590	\$4,590	\$4,442	\$4,590	
UNION DEMAND	\$	\$2,429	\$2.510	\$2.510	\$2.267	\$2.510	\$2,429	\$2.510	\$2,429	\$2.510	\$2.510	\$2,429	\$2.510	
WESTERLY LATERAL (Yankee)	\$	72,120	<del>+=,</del>	<del>+</del> =,• · •	<del>+-,</del>	<del>+</del> =,0:0	<del>+</del> 2,:20	<del>+-,</del>	<del>+-,</del>	<del>+=,</del>	4-,0.0	<del>-</del> -,	42,010	
TOTAL PIPELINE DEMAND COSTS		\$2,939,236	\$2,939,879	\$2,938,539	\$2,936,610	\$2,938,539	\$2,937,896	\$2,938,539	\$2,937,896	\$2,938,539	\$2,938,539	\$2,937,896	\$2,938,539	\$35,260,650
STORAGE FIXED COST DOLLARS														
COLUMBIA FSS DEMAND	\$	\$3,840	\$3,840	\$3,840	\$3,840	\$3,840	\$3,840	\$3,840	\$3,840	\$3,840	\$3,840	\$3,840	\$3,840	
COLUMBIA FSS CAPACITY	\$	\$5,894	\$5,894	\$5,894	\$5,894	\$5,894	\$5,894	\$5,894	\$5,894	\$5,894	\$5,894	\$5,894	\$5,894	
DOMINION GSS DEMAND	\$	\$21,424	\$21,424	\$21,424	\$21,424	\$21,424	\$21,424	\$21,424	\$21,424	\$21,424	\$21,424	\$21,424	\$21,424	
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	\$	\$26,936	\$26,936	\$26,936	\$26,936	\$26,936	\$26,936	\$26,936	\$26,936	\$26,936	\$26,936	\$26,936	\$26,936	
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	\$	\$81,515	\$81,515	\$81,515	\$81,515	\$81,515	\$81,515	\$81,515	\$81,515	\$81,515	\$81,515	\$81,515	\$81,515	
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	\$	\$845	\$845	\$845	\$845	\$845	\$845	\$845	\$845	\$845	\$845	\$845	\$845	
TEXAS EASTERN FSS-1 CAPACITY	\$	\$610	\$610	\$610	\$610	\$610	\$610	\$610	\$610	\$610	\$610	\$610	\$610	
NATIONAL GRID LNG TANK LEASE PAYMENTS	\$	£400 00=	£400.00=	£400 00=	6400 00=	£460.00=	£400 00=	£400.00=	£400.00=	£400.00=	£400.00=	£400 007	6400 00-	£4.005.006
TOTAL STORAGE DEMAND COSTS	\$	\$402,997	\$402,997	\$402,997	\$402,997	\$402,997	\$402,997	\$402,997	\$402,997	\$402,997	\$402,997	\$402,997	\$402,997	\$4,835,962

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STORAGE DELIVERY FIXED COSTS														
ALGONQUIN FOR TETCO SS-1	\$	\$84,498	\$84,498	\$84,498	\$84,498	\$84,498	\$84,498	\$84,498	\$84,498	\$84,498	\$84,498	\$84,498	\$84,498	
ALGONQUIN DELIVERY FOR FSS-1	\$	\$5,642	\$5,642	\$5,642	\$5,642	\$5,642	\$5,642	\$5,642	\$5,642	\$5,642	\$5,642	\$5,642	\$5,642	
ALGONQUIN SCT FOR SS-1	\$	\$1,590	\$1.590	\$1.590	\$1,590	\$1.590	\$1.590	\$1.590	\$1.590	\$1,590	\$1.590	\$1,590	\$1.590	
ALGONQUIN DELIVERY FOR GSS, GSS-TE,	\$	\$70,165	\$70,165	\$70,165	\$70,165	\$70,165	\$70,165	\$70,165	\$70,165	\$70,165	\$70,165	\$70,165	\$70,165	
ALGONQUIN SCT DELIVERY FOR GSS-TE	\$	\$447	\$447	\$447	\$447	\$447	\$447	\$447	\$447	\$447	\$447	\$447	\$447	
ALGONQUIN DELIVERY FOR GSS CONV	Š	\$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	é	\$15,212	\$15,212	\$15,212	\$15,212	\$15,212	\$15,212	\$15,212	\$15,212	\$15,212	\$15,212	\$15,212	\$15,212	
COLUMBIA DELIVERY FOR FSS	\$	\$15,033	\$15.033	\$15.033	\$15,033	\$15.033	\$15.033	\$15.033	\$15.033	\$15,033	\$15.033	\$15.033	\$15,033	
DOMINION DELIVERY FOR GSS	\$	\$22,914	\$22,914	\$22,914	\$22,914	\$22,914	\$22,914	\$22,914	\$22,914	\$22,914	\$22,914	\$22,914	\$22,914	
DOMINION DELIVERY FOR GSS CONV	ę.	\$8,871	\$8,871	\$8,871	\$8,871	\$8,871	\$8,871	\$8,871	\$8,871	\$8,871	\$8,871	\$8,871	\$8,871	
TENNESSEE DELIVERY FOR GSS	\$	\$57,093	\$57,093	\$57,093	\$57,093	\$57,093	\$57,093	\$57,093	\$57,093	\$57,093	\$57,093	\$57,093	\$57,093	
TENNESSEE DELIVERY FOR FSMA	\$	\$34.901	\$34.901	\$34.901	\$34,901	\$34.901	\$34.901	\$34,901	\$34.901	\$34.901	\$34,901	\$34.901	\$34.901	
TETCO DELIVERY FOR FSS-1	\$	\$4,964	\$4.964	\$4.964	\$4,964	\$4.964	\$4,964	\$4.964	\$4.964	\$4,964	\$4,964	\$4,964	\$4.964	
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	Ψ	\$424,228	\$424,228	\$424,228	\$424,228	\$424,228	\$424,228	\$424,228	\$424,228	\$424,228	\$424,228	\$424,228	\$424,228	\$5,090,738
		<b>v</b> ,	<b>*</b> := :,===	*,	*,	<b>*</b> ,	*	*,	*,	*,	*,	*,	<b>V</b> ,	40,000,000
DISTRIGAS NSB CALL PAYMENT Winter	\$													
DISTRIGAS NSB CALL PAYMENT Summer	\$													
TOTAL SUPPLIER DEMAND COSTS														
	۱ .							** *** ***						
TOTAL ALL DEMAND COSTS	\$	\$3,885,211	\$3,885,854	\$3,884,514	\$3,882,585	\$3,884,514	\$3,890,504	\$3,891,147	\$3,890,504	\$3,891,147	\$3,891,147	\$3,890,504	\$3,891,147	\$46,658,779
			T			T	T	T						
	L	NOV	DEC	JAN-13	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	Total
Marketer Demand Charge Credits														
•														
Capacity Release Volumes as of August 1, 2012														
Capacity Release Volumes as of August 1, 2012 Tennessee Dth		9,499	9,499	9,499	9,499	9,499	9,499	9,499	9,499	9,499	9,499	9,499	9,499	
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin	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	
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT	Dth	2,714 4,002	2,714 4,002	2,714 4,002	2,714 4,002	2,714 4,002	2,714 4,002	2,714 4,002	2,714 4,002	2,714 4,002	2,714 4,002	2,714 4,002	2,714 4,002	
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin	Dth Dth	2,714	2,714	2,714	2,714	2,714 4,002 8,499	2,714	2,714	2,714	2,714	2,714 4,002 8,499	2,714 4,002 8,499	2,714 4,002 8,499	
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT	Dth	2,714 4,002	2,714 4,002	2,714 4,002	2,714 4,002	2,714 4,002 8,499 6,499	2,714 4,002	2,714 4,002	2,714 4,002	2,714 4,002	2,714 4,002 8,499 6,499	2,714 4,002	2,714 4,002 8,499 6,499	
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT Tetco WLA/AGT	Dth Dth	2,714 4,002 8,499	2,714 4,002 8,499	2,714 4,002 8,499	2,714 4,002 8,499	2,714 4,002 8,499	2,714 4,002 8,499	2,714 4,002 8,499	2,714 4,002 8,499	2,714 4,002 8,499	2,714 4,002 8,499	2,714 4,002 8,499	2,714 4,002 8,499	
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT	Dth Dth Dth	2,714 4,002 8,499 6,499	2,714 4,002 8,499 6,499	2,714 4,002 8,499 6,499	2,714 4,002 8,499 6,499	2,714 4,002 8,499 6,499	2,714 4,002 8,499 6,499	2,714 4,002 8,499 6,499	2,714 4,002 8,499 6,499	2,714 4,002 8,499 6,499	2,714 4,002 8,499 6,499	2,714 4,002 8,499 6,499	2,714 4,002 8,499 6,499	
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Columbia/AGT	Dth Dth Dth	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Columbia/AGT	Dth Dth Dth	2,714 4,002 8,499 6,499 1,201	2,714 4,002 8,499 6,499 1,201	2,714 4,002 8,499 6,499 1,201	2,714 4,002 8,499 6,499 1,201	2,714 4,002 8,499 6,499 1,201	2,714 4,002 8,499 6,499 1,201	2,714 4,002 8,499 6,499 1,201	2,714 4,002 8,499 6,499 1,201	2,714 4,002 8,499 6,499 1,201	2,714 4,002 8,499 6,499 1,201	2,714 4,002 8,499 6,499 1,201	2,714 4,002 8,499 6,499 1,201	
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Columbia/AGT Total  System Weighted Average cost per MMBtu	Dth Dth Dth	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Columbia/AGT Total	Dth Dth Dth	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	2,714 4,002 8,499 6,499 1,201 <b>32,414</b>	\$6,615,235
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Columbia/AGT Total  System Weighted Average cost per MMBtu	Dth Dth Dth	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	\$6,615,235
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Columbia/AGT Total  System Weighted Average cost per MMBtu Total Demand Charge Credit	Dth Dth Dth Dth	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	. , ,
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Columbia/AGT Total  System Weighted Average cost per MMBtu	Dth Dth Dth	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071	\$6,615,235 \$40,043,545
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Columbia/AGT Total  System Weighted Average cost per MMBtu Total Demand Charge Credit  Demand Costs Net of Releases to Marketers	Dth Dth Dth Dth	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270	\$40,043,545
Capacity Release Volumes as of August 1, 2012 Tennessee Dith Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Columbia/AGT Total  System Weighted Average cost per MMBtu Total Demand Charge Credit  Demand Costs Net of Releases to Marketers TOTAL PIPELINE DEMANDS	Dth Dth Dth Dth	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,941 \$2,939,236	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,334,584 \$2,939,879	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,331,316 \$2,936,610	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539	\$40,043,545 \$35,260,650
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Columbia/AGT Total  System Weighted Average cost per MMBtu Total Demand Charge Credit  Demand Costs Net of Releases to Marketers  TOTAL PIPELINE DEMANDS TOTAL STORAGE FACILITIES DEMANDS	Dth Dth Dth Dth	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,941 \$2,939,236 \$402,997	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,334,584 \$2,939,879 \$402,997	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539 \$402,997	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,331,316 \$2,936,610 \$402,997	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539 \$402,997	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997	\$40,043,545 \$35,260,650 \$4,835,962
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Columbia/AGT Total  System Weighted Average cost per MMBtu Total Demand Charge Credit  Demand Costs Net of Releases to Marketers TOTAL PIPELINE DEMANDS TOTAL STORAGE FACILITIES DEMANDS TOTAL STORAGE DELIVERY DEMANDS	Dth Dth Dth Dth	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,941 \$2,939,236	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,334,584 \$2,939,879	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,331,316 \$2,936,610	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539	\$40,043,545 \$35,260,650
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Total  System Weighted Average cost per MMBtu Total Demand Charge Credit  Demand Costs Net of Releases to Marketers  TOTAL PIPELINE DEMANDS TOTAL STORAGE FACILITIES DEMANDS TOTAL STORAGE FACILITIES DEMANDS TOTAL STORAGE DELIVERY DEMANDS TOTAL SUPPLIER DEMANDS	Dth Dth Dth Dth Sth	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,941 \$2,939,236 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,334,584 \$2,939,879 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,331,316 \$2,936,610 \$402,997 \$424,228	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539 \$402,997 \$424,228	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997 \$424,228	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997 \$424,228	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997 \$424,228	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228	\$40,043,545 \$35,260,650 \$4,835,962 \$5,090,738
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Columbia/AGT Total  System Weighted Average cost per MMBtu Total Demand Charge Credit  Demand Costs Net of Releases to Marketers TOTAL PIPELINE DEMANDS TOTAL STORAGE FACILITIES DEMANDS TOTAL STORAGE DELIVERY DEMANDS	Dth Dth Dth Dth	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,941 \$2,939,236 \$402,997	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,334,584 \$2,939,879 \$402,997	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539 \$402,997	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,331,316 \$2,936,610 \$402,997	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539 \$402,997	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997	\$40,043,545 \$35,260,650 \$4,835,962
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Columbia/AGT Total  System Weighted Average cost per MMBtu Total Demand Charge Credit  Demand Costs Net of Releases to Marketers  TOTAL PIPELINE DEMANDS TOTAL STORAGE FACILITIES DEMANDS TOTAL STORAGE DELIVERY DEMANDS TOTAL SUPPLIER DEMANDS TOTAL SUPPLIER DEMANDS TOTAL SUPPLIER DEMANDS TOTAL SUPPLIER DEMANDS	Dth Dth Dth Dth S \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,941 \$2,939,236 \$402,997 \$424,228 \$3,885,211	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,334,584 \$2,939,879 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,331,316 \$2,936,610 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997 \$424,228 \$3,890,504	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228	\$40,043,545 \$35,260,650 \$4,835,962 \$5,090,738 \$46,658,779
Capacity Release Volumes as of August 1, 2012 Tennessee Dith Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Total  System Weighted Average cost per MMBtu Total Demand Charge Credit  Demand Costs Net of Releases to Marketers  TOTAL PIPELINE DEMANDS TOTAL STORAGE FACILITIES DEMANDS TOTAL STORAGE FACILITIES DEMANDS TOTAL SUPPLIER DEMANDS	Dth Dth Dth Dth Sth	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,941 \$2,939,236 \$402,997 \$424,228 \$3,885,211 \$551,270	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,334,584 \$2,939,879 \$402,997 \$424,228 \$3,885,854 \$551,270	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539 \$402,97 \$424,228 \$3,884,514	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,331,316 \$2,936,610 \$402,997 \$424,228 \$3,882,585	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539 \$402,997 \$424,228 \$3,884,514	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997 \$424,228 \$3,890,504	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228 \$3,891,147	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997 \$424,228 \$3,890,504	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228 \$3,891,147	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228 \$3,891,147	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997 \$424,228 \$3,890,504	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228 \$3,891,147	\$40,043,545 \$35,260,650 \$4,835,962 \$5,090,738 \$46,658,779 \$6,615,235
Capacity Release Volumes as of August 1, 2012 Tennessee Dth Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Columbia/AGT Total  System Weighted Average cost per MMBtu Total Demand Charge Credit  Demand Costs Net of Releases to Marketers  TOTAL PIPELINE DEMANDS TOTAL STORAGE FACILITIES DEMANDS TOTAL STORAGE DELIVERY DEMANDS TOTAL SUPPLIER DEMANDS TOTAL SUPPLIER DEMANDS TOTAL SUPPLIER DEMANDS TOTAL SUPPLIER DEMANDS	Dth Dth Dth Dth S \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,941 \$2,939,236 \$402,997 \$424,228 \$3,885,211	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,334,584 \$2,939,879 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,331,316 \$2,936,610 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997 \$424,228 \$3,890,504	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997 \$424,228	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228	\$40,043,545 \$35,260,650 \$4,835,962 \$5,090,738 \$46,658,779
Capacity Release Volumes as of August 1, 2012 Tennessee Dith Algonquin Tetco STX/AGT Tetco WLA/AGT Tetco ELA/AGT Total  System Weighted Average cost per MMBtu Total Demand Charge Credit  Demand Costs Net of Releases to Marketers  TOTAL PIPELINE DEMANDS TOTAL STORAGE FACILITIES DEMANDS TOTAL STORAGE FACILITIES DEMANDS TOTAL SUPPLIER DEMANDS	Dth Dth Dth Dth S \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2,714 4,002 8,499 6,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,941 \$2,939,236 \$402,997 \$424,228 \$3,885,211 \$551,270	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,334,584 \$2,939,879 \$402,997 \$424,228 \$3,885,854 \$551,270	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539 \$402,97 \$424,228 \$3,884,514	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,331,316 \$2,936,610 \$402,997 \$424,228 \$3,882,585	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,333,245 \$2,938,539 \$402,997 \$424,228 \$3,884,514	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997 \$424,228 \$3,890,504	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228 \$3,891,147	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997 \$424,228 \$3,890,504	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228 \$3,891,147	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228 \$3,891,147	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,235 \$2,937,896 \$402,997 \$424,228 \$3,890,504	2,714 4,002 8,499 1,201 32,414 \$17.0071 \$551,270 \$3,339,878 \$2,938,539 \$402,997 \$424,228 \$3,891,147	\$40,043,545 \$35,260,650 \$4,835,962 \$5,090,738 \$46,658,779 \$6,615,235

Attachment EDA-2 Redacted Docket No. 4346 September 4, 2012 Page 15 of 17

Storage Product Cost		_				_				_			
WACOG INJECTIONS	<b>Nov</b> \$3.481	Dec \$3.912	<b>Jan</b> \$4.071	Feb \$4.023	Mar \$3.838	Apr \$3.829	<b>May</b> \$3.849	<b>Jun</b> \$3.871	Jul \$3.837	Aug \$3.824	<b>Sep</b> \$3.813	Oct \$3.846	
	\$0.025	\$3.912 \$0.025	\$4.071 \$0.025	\$4.023 \$0.025	\$3.030 \$0.025	\$0.025	\$3.649 \$0.025	\$0.025	\$0.025	\$0.02 <del>4</del> \$0.025	\$0.025	\$3.046 \$0.025	
Injection cost Total injection cost	\$3.505	\$3.936	\$0.025 \$4.095	\$4.047	\$3.862	\$3.854	\$3.874	\$3.895	\$3.862	\$3.848	\$3.838	\$3.871	
rotal injection cost	φ3.505	φ3.930	φ4.093	φ4.047	φ3.002	φ3.00 <del>4</del>	φ3.074	φ3.093	φ3.002	φ3.040	φ3.030	φ3.07 Ι	
COMBINED STORAGE	Nov	Dec	Jan	Feb	Mar	Apr	Mav	Jun	Jul	Aug	Sep	Oct	
Beginning Inv Vol	4.495.011	4.495.011	4,273,811	3.320.411	2.611.711	2.577.911	3.220.811	3.889.711	4.326.811	4.426.711	4.466.111	4,508,311	
Vol Withdrawn	0	221.200	953.400	708.700	33.800	2,377,311	0,220,011	0,000,711	0	0	0	29,500	1.946.600
Vol Injected	0	0	0	0	00,000	642,900	668.900	437.100	99,900	39.400	42,200	16,200	1,946,600
voi injected	· ·	Ŭ	· ·	Ŭ	Ü	012,000	000,000	407,100	00,000	00,100	12,200	10,200	1,0-10,000
Begining Inv \$ (virtual)	\$17.309.838	\$17.309.838	\$16,458,019	\$12,786,571	\$10.057.438	\$9,927,277	\$12,404,846	\$14,995,982	\$16.698.544	\$17,084,311	\$17.235.932	\$17.397.884	
\$ Withdrawn (1)	\$0	\$1,629,965	\$7,025,354	\$5,222,224	\$249,063	\$0	\$0	\$0	\$0	\$0	\$0	\$113,843	\$14,240,449
\$ Injected	\$0	\$0	\$0	\$0	\$0	\$2,477,569	\$2,591,136	\$1,702,562	\$385,767	\$151,621	\$161,953	\$62,703	\$7,533,310
•													
Ending Vol	4,495,011	4,273,811	3,320,411	2,611,711	2,577,911	3,220,811	3,889,711	4,326,811	4,426,711	4,466,111	4,508,311	4,495,011	
Ending \$	\$17,309,838	\$16,458,019	\$12,786,571	\$10,057,438	\$9,927,277	\$12,404,846	\$14,995,982	\$16,698,544	\$17,084,311	\$17,235,932	\$17,397,884	\$17,346,745	
Avg \$/Mmbtu	\$3.8509	\$3.8509	\$3.8509	\$3.8509	\$3.8509	\$3.8515	\$3.8553	\$3.8593	\$3.8594	\$3.8593	\$3.8591	\$3.8591	
•													
Withdrawal cost	\$0	\$3,944	\$28,628	\$24,933	\$467	\$0	\$0	\$0	\$0	\$0	\$0	\$338	\$58,309
Transportation cost	\$0	\$11,455	\$43,406	\$23,401	\$1,789	\$0	\$0	\$0	\$0	\$0	\$0	\$3,186	\$83,237
Costs allocated to fuel	\$0	\$18,869	\$102,434	\$87,801	\$3,466	\$0	\$0	\$0	\$0	\$0	\$0	\$1,158	\$213,727
Storage value Less fuel	\$0	\$1,611,095	\$6,922,920	\$5,134,424	\$245,598	\$0	\$0	\$0	\$0	\$0	\$0	\$112,685	\$14,026,722
Delivered Volumes	0	216,300	926,800	685,900	32,900	0	0	0	0	0	0	29,200	1,891,100
Hedge Amortization	\$0	\$778,146	\$3,353,906	\$2,493,091	\$118,903	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,744,046

<sup>-</sup> amortization of hedges on injection gas \$6,744,046 (1) Includes Hedge Amortization 1,917,100 Withdrawal

#### Storage Withdrawal variable costs 2012-2013 GCR Storage estimate

Storage Withdrawals at Facility Dth	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
TENN_501	0	45,300	177,000	119,100	7,600	0	0	0	0	0	0	11,300	360,300
GSS 300170 GSS 300168	0	0 14,200	0 20,800	0	0	0	0	0	0	0	0	7,700	0 42,700
GSS 300108 GSS 300171	0	0	69,900	42,100	0	0	0	0	0	0	0	0,700	112,000
GSS-TE 600045	0	102,200	170,700	151,700	0	0	0	0	0	0	0	0	424,600
TETCO_400515 TETCO_400221	0 0	0	14,091 287,258	14,091 287,258	0	0	0	0	0	0	0	0	28,181 574,517
TETCO 400185	0	0	12,574	0	0	0	0	0	0	0	0	0	12,574
GSS 300169 COL FSS 9630	0	0 40.000	55,700 40.100	48,200 36,400	0 26.200	0	0	0	0	0	0	0	103,900 142,700
TENN_62918	0	19,500	95,000	30,400	26,200	0	0	0	0	0	0	10,500	125,000
TOTAL	0	221,200	943,123	698,849	33,800	0	0	0	0	0	0	29,500	1,926,472
STORAGE WITHDRAWAL PRICES													
Tennessee Withdrawal Dominion GSS Withdrawal	\$0.0087 \$0.0193												
Dominion GSS-TE Withdrawal	\$0.0244	\$0.0193	\$0.0193	\$0.0193	\$0.0193	\$0.0193	\$0.0193	\$0.0193	\$0.0193	\$0.0193	\$0.0193	\$0.0193	
Tetco SS-1 Withdrawal	\$0.0606	\$0.0606	\$0.0606	\$0.0606	\$0.0606	\$0.0606	\$0.0606	\$0.0606	\$0.0606	\$0.0606	\$0.0606	\$0.0606	
Tetco FSS-1 Withdrawal Columbia Withdrawal	\$0.0346 \$0.0153												
Withdrawal Costs	Nov	Dec	Jan	Feb	Mar	A		lu an	lod.	A	0	Oct	Total
Tennessee Withdrawal	\$0	\$564	\$2,366	\$1,036	\$66	Apr \$0	May \$0	Jun \$0	Jul \$0	Aug \$0	Sep \$0	\$190	\$4,222
Dominion GSS Withdrawal	\$0	\$274	\$2,826	\$1,743	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$149	\$4,991
Dominion GSS-TE Withdrawal Tetco SS-1 Withdrawal	\$0 \$0	\$2,494 \$0	\$4,165 \$18,170	\$3,701 \$17,408	\$0 \$0	\$10,360 \$35,578							
Tetco FSS-1 Withdrawal	\$0	\$0	\$488	\$488	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$975
Columbia Withdrawal Total	\$0 \$0	\$612 \$3,944	\$614 \$28,628	\$557 \$24,933	\$401 \$467	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$338	\$2,183 \$58,309
Storage Withdrawals at Gate Dth	Nov	93,944 Dec	Jan	φ24,933 Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	<b>Ф</b> 30,309
-											•		
TENN_501 GSS 300170	0	44,700 0	174,900 0	117,700 0	7,500 0	0	0	0	0	0	0	11,200 0	356,000 0
GSS 300168	0	14,000	20,600	0	0	0	0	0	0	0	0	7,600	42,200
GSS 300171 GSS-TE 600045	0	0 000	68,300 166.400	41,100	0	0	0	0	0	0	0	0	109,400 413.800
TETCO 400515	0	99,600 0	13,400	147,800 13,400	0	0	0	0	0	0	0	0	26,800
TETCO_400221	0	0	284,300	284,300	0	0	0	0	0	0	0	0	568,600
TETCO 400185 GSS 300169	0	0	12,400 53,500	0 46,300	0	0	0	0	0	0	0	0	12,400 99,800
COL FSS 9630	0	38,800	39,100	35,300	25,400	0	0	0	0	0	0	0	138,600
TENN_62918	0	19,200	93,900	0	0	0	0	0	0	0	0	10,400	123,500
TOTAL	0	216,300	926,800	685,900	32,900	0	0	0	0	0	0	29,200	1,891,100
Storage Transportation Prices													
Tennessee Transportation Dominion Trans on Tetco/AGT	\$0.1091 \$0.0148												
Dominion Trans on DTI/Tetco/AGT	\$0.0400	\$0.0400	\$0.0400	\$0.0400	\$0.0400	\$0.0400	\$0.0400	\$0.0400	\$0.0400	\$0.0400	\$0.0400	\$0.0400	
Dominion Trans on Tennessee	\$0.1091	\$0.1091	\$0.1091	\$0.1091	\$0.1091	\$0.1091	\$0.1091	\$0.1091	\$0.1091	\$0.1091	\$0.1091	\$0.1091	
Dominion Trans on DTI/Tennessee Tetco SS-1 Trans	\$0.1343 \$0.0130												
Tetco FSS-1 Trans	\$0.0648	\$0.0648	\$0.0648	\$0.0648	\$0.0648	\$0.0648	\$0.0648	\$0.0648	\$0.0648	\$0.0648	\$0.0648	\$0.0648	
Columbia Trans	\$0.0382	\$0.0382	\$0.0382	\$0.0382	\$0.0382	\$0.0382	\$0.0382	\$0.0382	\$0.0382	\$0.0382	\$0.0382	\$0.0382	
Storage Transportation Costs	Nov	Dec 60.074	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
Tennessee Transportation Dominion Trans on Tetco/AGT	\$0 \$0	\$6,971 \$1,474	\$29,326 \$3,474	\$12,841 \$2,796	\$818 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$2,357 \$0	\$52,313 \$7,743
Dominion Trans on DTI/Tetco/AGT	\$0	\$0	\$2,140	\$1,852	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,992
Dominion Trans on Tennseess  Dominion Trans on DTI/Tennessee	\$0 \$0	\$1,527 \$0	\$2,247 \$0	\$0 \$0	\$829 \$0	\$4,604 \$0							
Tetco SS-1 Trans	\$0 \$0	\$0 \$0	\$0 \$3,857	\$3,696	\$0 \$0	\$0 \$7,553							
Tetco FSS-1 Trans	\$0	\$0	\$868	\$868	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,737
Columbia Trans Total	\$0 \$0	\$1,482 \$11,455	\$1,494 \$43,406	\$1,348 \$23,401	\$970 \$1,789	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$3,186	\$5,295 \$83,237
	, .							·		·			
Total Variable	\$0	\$15,399	\$72,034	\$48,334	\$2,256	\$0	\$0	\$0	\$0	\$0	\$0	\$3,524	\$141,546

**Total All LNG Costs** 

LNG Estimate for 2012 - 2013

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#### NATIONAL GRID - RI SERVICE AREA NOVEMBER 2012 - OCTOBER 2013

\$350.598

\$201.062

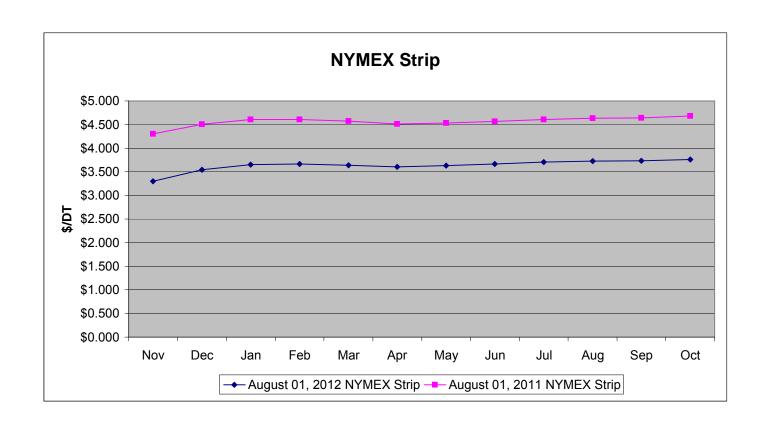
\$510.215

\$105.291

Dec Nov Jan Feb Mar Apr May Jun Jul Aug Sep Oct Total 08/01/2012 NYMEX \$3.297 \$3.540 \$3.653 \$3.664 \$3.637 \$3.607 \$3.629 \$3.665 \$3.708 \$3.729 \$3.734 \$3.762 Algonquin city-gates \$4.165 \$5.880 \$7.673 \$6.669 \$4.707 \$4.047 \$3.821 \$3.923 \$4.070 \$4.091 \$3.979 \$4.100 Trucking Basis NSB contract - Winter Delivered Cost NSB - Winter Basis NSB contract - Summer Delivered Cost NSB - Summer Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Combined LNG Inv Beginning Inv Vol 000.888 869.200 778.100 715.500 679.600 660.100 641,300 777.000 888.100 868.600 849.100 887.900 Vol Injected - winter 0 0 0 0 0 0 0 0 0 0 0 0 0 Vol Injected - summer 0 0 0 0 0 0 155,200 129,900 0 0 57,600 19,500 362,200 Vol Withdrawn 18.800 91.100 62.600 35.900 19.500 18.800 19.500 18.800 19.500 19.500 18.800 19.400 362.200 \$4,973,333 \$4,868,042 \$4,357,827 \$4,007,229 \$3,806,168 \$3,696,956 \$3,591,665 \$4,492,960 \$5,243,279 \$5,128,152 \$5,013,026 \$5,286,166 \$ Begining Inv 11/1/12 = \$5.6006 \$ Injected \$0 \$0 \$0 \$0 \$0 \$0 \$1,010,507 \$859,029 \$384,134 \$132,405 \$2,386,075 \$109,212 \$ Withdrawn \$350,598 \$110,994 \$115,499 \$2,056,336 \$105,291 \$510,215 \$201,062 \$105,291 \$109,212 \$108,710 \$115,127 \$115,127 Ending Vol 869.200 778.100 715.500 679.600 660.100 641,300 777,000 888.100 868.600 849.100 887.900 888.000 \$4,868,042 \$4,357,827 \$4,007,229 \$3,806,168 \$3,696,956 \$3,591,665 \$4,492,960 \$5,243,279 \$5,128,152 \$5,013,026 \$5,286,166 \$5,303,072 Ending \$ Avg \$/Dth Newport Newport LNG Vol Vapor 0 0 0 0 0 0 0 0 0 0 0 0 Avg \$/Dth Total cost \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0

\$109.212 \$105.291 \$109.212 \$108.710 \$115.127 \$115.127 \$110.994 \$115.499 \$2.056.336

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
August 01, 2011 NYMEX Strip	\$4.303	\$4.505	\$4.607	\$4.608	\$4.575	\$4.512	\$4.532	\$4.565	\$4.606	\$4.635	\$4.644	\$4.682
August 01, 2012 NYMEX Strip	\$3.297	\$3.540	\$3.653	\$3.664	\$3.637	\$3.607	\$3.629	\$3.665	\$3.708	\$3.729	\$3.734	\$3.762



Attachment EDA-4 Redacted Docket No. 4346 September 4, 2012 Page 1 of 18

**PRELIMINARY** 

12 Month Forward Pricing

National Grid
Summary of Transportation Capacity Release
Pipeline Path Availability and Pricing
November 2012 - October 2013

**PRELIMINARY** 

Path to City Gate	As of 8/1/12 Existing Releases	Total Available	Remaining Available	Cost /Dth	New Credit/ Surcharge	Old Credit / Surcharge
Company Weighted Average				\$0.8601		
Tennessee Zone 1	9,499	9,500	1	\$1.1467	(\$0.2866)	(\$0.3232)
Algonquin @ Lambertville, NJ	2,714	2,714	0	\$0.5559	\$0.3042	\$0.0949
Texas Eastern - South Texas Algonquin @ Lambertville, NJ	4,002	4,044	42	\$1.3359	(\$0.4758)	(\$0.3755)
Texas Eastern - West La Algonquin @ Lambertville, NJ	8,499	8,500	1	\$1.1297	(\$0.2696)	(\$0.1939)
Texas Eastern - East La Algonquin @ Lambertville, NJ	6,499	6,500	1	\$1.0184	(\$0.1583)	\$0.0033
Columbia (Maumee/Downington) at 5:1 ratio*	1,201	1,500	299	\$0.5331	\$0.3270	\$0.3198
Totals:	32,414	32,758	344			

<sup>\*</sup> 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.

TOTAL PATH COST

\$/Dth

Attachment EDA-4 Redacted Docket No. 4346 September 4, 2012 Page 2 of 18

Gas Year 2012 - 2013
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
FIXED														
TETCO STX SUPPLY ZONE DEMAND	\$/Dth	\$6.805	\$6.805	\$6.805	\$6.805	\$6.805	\$6.805	\$6.805	\$6.805	\$6.805	\$6.805	\$6.805	\$6.805	
TECCO WLA SUPPLY ZONE DEMAND	\$/Dth	\$2.825	\$2.825	\$2.825	\$2.825	\$2.825	\$2.825	\$2.825	\$2.825	\$2.825	\$2.825	\$2.825	\$2.825	
TETCO ELA SUPPLY ZONE DEMAND	\$/Dth	\$2.375	\$2.375	\$2.375	\$2.375	\$2.375	\$2.375	\$2.375	\$2.375	\$2.375	\$2.375	\$2.375	\$2.375	
TETCO M1 TO M3 DEMAND	\$/Dth	\$10.924	\$10.924	\$10.924	\$10.924	\$10.924	\$10.924	\$10.924	\$10.924	\$10.924	\$10.924	\$10.924	\$10.924	
ALGONQUIN AFT-E DEMAND	\$/Dth	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	
VARIABLE	\$/Dth	<b>60 400</b>	<b>CO 100</b>	<b>CO 100</b>	<b>60 400</b>	<b>60 400</b>	<b>60 400</b>	¢0.400	¢0.400	<b>CO 100</b>	<b>60 100</b>	\$0.102	<b>CO 100</b>	
TETCO USAGE STX TO M3 ALGONQUIN USAGE	\$/Dth	\$0.102 \$0.013	\$0.102 \$0.013	\$0.102 \$0.013	\$0.102 \$0.013	\$0.102 \$0.013	\$0.102 \$0.013	\$0.102 \$0.013	\$0.102 \$0.013	\$0.102 \$0.013	\$0.102 \$0.013	\$0.102	\$0.102 \$0.013	
08/01/2012 NYMEX	\$/Dth	\$3.297	\$3.540	\$3.653	\$3.664	\$3.637	\$3.607	\$3.629	\$3.665	\$3.708	\$3.729	\$3.734	\$3.762	
SUPPLY AREA BASIS	\$/Dth	ψ3.291	ψ3.5 <del>4</del> 0	φ5.055	ψ3.00 <del>4</del>	ψ3.037	ψ3.007	\$5.029	φ3.003	ψ3.700	ψ3.72 <del>9</del>	φ3.734	φ3.702	
NET COST AFTER BASIS	\$/Dth													
NET GOOT AT TER BAGIO	Ψ/Επ													
				В	ILLING UNITS	3								
FIXED														
TETCO STX SUPPLY ZONE DEMAND	\$/Dth	4,082	4,085	4,085	4,085	4,085	4,082	4,082	4,082	4,082	4,082	4,082	4,082	
TECCO WLA SUPPLY ZONE DEMAND	\$/Dth	4,082	4,085	4,085	4,085	4,085	4,082	4,082	4,082	4,082	4,082	4,082	4,082	
TETCO ELA SUPPLY ZONE DEMAND	\$/Dth	4,082	4,085	4,085	4,085	4,085	4,082	4,082	4,082	4,082	4,082	4,082	4,082	
TETCO M1 TO M3 DEMAND	\$/Dth	4,082	4,085	4,085	4,085	4,085	4,082	4,082	4,082	4,082	4,082	4,082	4,082	
ALGONQUIN AFT-E DEMAND VARIABLE	\$/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
PURCHASE VOLUMES	Dth	133,035	140,062	140,062	126,508	140,062	133,035	137,470	133,035	137,470	137,470	133,035	137,470	1,628,714
TETCO USAGE STX TO M3	Dth	122,459	126,630	126,630	114,376	126,630	122,459	126,541	122,459	126,541	126,541	122,459	126,541	1,490,265
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
				_										
				۲	UEL USE %									
TETCO STX TO M3 FUEL	%	7.95%	9.59%	9.59%	9.59%	9.59%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	
ALGONQUIN AFT-E FUEL	%	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
				_		T.O								
FIXED					RANSPORTA	TION COST								
TETCO STX SUPPLY ZONE DEMAND	\$	\$27,778	\$27,797	\$27,797	\$27,797	\$27,797	\$27,778	\$27,778	\$27,778	\$27,778	\$27,778	\$27,778	\$27,778	\$333,412
TECCO WLA SUPPLY ZONE DEMAND	\$	\$11,532	\$11,540	\$11,540	\$11,540	\$11,540	\$11,532	\$11,532	\$11,532	\$11,532	\$11,532	\$11,532	\$11,532	\$138,411
TETCO ELA SUPPLY ZONE DEMAND	\$	\$9,695	\$9,702	\$9,702	\$9,702	\$9,702	\$9,695	\$9,695	\$9,695	\$9,695	\$9,695	\$9,695	\$9,695	\$116,363
TETCO M1 TO M3 DEMAND	\$	\$44,591	\$44,623	\$44,623	\$44,623	\$44,623	\$44,591	\$44,591	\$44,591	\$44,591	\$44,591	\$44,591	\$44,591	\$535,222
ALGONQUIN AFT-E DEMAND	\$	\$24,171	\$24,171	\$24,171	\$24,171	\$24,171	\$24,171	\$24,171	\$24,171	\$24,171	\$24,171	\$24,171	\$24,171	\$290,057
VARIABLE														
TETCO USAGE STX TO M3	\$	\$12,503	\$12,929	\$12,929	\$11,678	\$12,929	\$12,503	\$12,920	\$12,503	\$12,920	\$12,920	\$12,503	\$12,920	\$152,156
ALGONQUIN USAGE	\$	\$1,577	\$1,630	\$1,630	\$1,472	\$1,630	\$1,577	\$1,630	\$1,577	\$1,630	\$1,630	\$1,577	\$1,630	\$19,189
PURCHASE COST	\$	\$425,313	\$480,414	\$495,540	\$449,356	\$494,000	\$465,490	\$484,443	\$474,004	\$497,365	\$500,252	\$484,115	\$503,414	\$5,753,707
TOTAL FIXED	\$	\$117,767	\$117,833	\$117,833	\$117,833	\$117,833	\$117,767	\$117,767	\$117,767	\$117,767	\$117,767	\$117,767	\$117,767	\$1,413,465
TOTAL VARIABLE	\$	\$439,394	\$494,972	\$510,099	\$462,506	\$508,558	\$479,570	\$498,993	\$488,084	\$511,915	\$514,802	\$498,195	\$517,963	\$5,925,051
DELINERED COOT AT A TOTAL	_	****	<b>*</b> * * * * * * * * * * * * * * * * * *	0.5		0.55	<b>*</b> * * * * * * * * * * * * * * * * * *			0.40:			0.17: 5::	<b>AF 065</b>
DELIVERED COST AT NYMEX	\$	\$399,992	\$443,789	\$457,955	\$414,882	\$455,949	\$437,601	\$454,946	\$444,638	\$464,850	\$467,482	\$453,009	\$471,619	\$5,366,712
NET NON-GAS VARIABLE COST	\$	\$39,402	\$51,184	\$52,144	\$47,624	\$52,609	\$41,969	\$44,047	\$43,447	\$47,065	\$47,319	\$45,186	\$46,344	\$558,340
AVERAGE NON-GAS VARIABLE COST	\$/Dth	\$0.3248	\$0.4083	\$0.4159	\$0.4206	\$0.4197	\$0.3459	\$0.3514	\$0.3581	\$0.3754	\$0.3775	\$0.3725	\$0.3697	\$0.3783
AVERAGE FIXED COST	\$/Dth													
AVERAGE COST AT 100% LOAD FACTOR	\$/Dth													
TOTAL DATH COST	¢/Dth													

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Gas Year 2012 - 2013
TEXAS EASTERN WEST LOUISIANA SUPPLY PATH TO ALGONQUIN CITY GATE
CITY GATE DELIVERED MDQ = 8,500

UNIT PRICING

CITT GATE DELIVERED MID	Q = 0,300			U	NII PRICING	,								
		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTAL
FIXED														
TETCO WLA SUPPLY ZONE DEMAND	\$/Dth	\$2.825	\$2.825	\$2.825	\$2.825	\$2.825	\$2.825	\$2.825	\$2.825	\$2.825	\$2.825	\$2.825	\$2.825	
TETCO ELA SUPPLY ZONE DEMAND	\$/Dth	\$2.375	\$2.375	\$2.375	\$2.375	\$2.375	\$2.375	\$2.375	\$2.375	\$2.375	\$2.375	\$2.375	\$2.375	
TETCO M1 TO M3 DEMAND	\$/Dth	\$10.924	\$10.924	\$10.924	\$10.924	\$10.924	\$10.924	\$10.924	\$10.924	\$10.924	\$10.924	\$10.924	\$10.924	
ALGONQUIN AFT-E DEMAND	\$/Dth	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	
VARIABLE														
TETCO USAGE WLA TO M3	\$/Dth	\$0.098	\$0.098	\$0.098	\$0.098	\$0.098	\$0.098	\$0.098	\$0.098	\$0.098	\$0.098	\$0.098	\$0.098	
ALGONQUIN USAGE	\$/Dth	\$0.013	\$0.013	\$0.013	\$0.013	\$0.013	\$0.013	\$0.013	\$0.013	\$0.013	\$0.013	\$0.013	\$0.013	
08/01/2012 NYMEX	\$/Dth	\$3.297	\$3.540	\$3.653	\$3.664	\$3.637	\$3.607	\$3.629	\$3.665	\$3.708	\$3.729	\$3.734	\$3.762	
SUPPLY AREA BASIS	\$/Dth													
NET COST AFTER BASIS	\$/Dth													
				ь	ILLING UNIT	·e								
FIXED					ILLING UNII	3								
TETCO WLA SUPPLY ZONE DEMAND	Dth	8,580	8,586	8,586	8,586	8,586	8,580	8,580	8,580	8,580	8,580	8,580	8,580	
TETCO ELA SUPPLY ZONE DEMAND	Dth	8,580	8,586	8,586	8,586	8,586	8,580	8,580	8,580	8,580	8,580	8,580	8,580	
TETCO M1 TO M3 DEMAND	Dth	8,580	8,586	8,586	8,586	8,586	8,580	8,580	8,580	8,580	8,580	8,580	8,580	
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	277,513	291,333	291,333	263,139	291,333	277,513	286,764	277,513	286,764	286,764	277,513	286,764	3,394,247
TETCO USAGE WLA TO M3	Dth	257,394	266,162	266,162	240,404	266,162	257,394	265,974	257,394	265,974	265,974	257,394	265,974	3,132,358
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
				F	UEL USE %									
TETCO WLA TO M3 FUEL	%	7.25%	8.64%	8.64%	8.64%	8.64%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	
ALGONQUIN AFT-E FUEL	%	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
				т	RANSPORTA	ATION COST								
FIXED														
TETCO WLA SUPPLY ZONE DEMAND	\$	\$24,238	\$24,255	\$24,255	\$24,255	\$24,255	\$24,238	\$24,238	\$24,238	\$24,238	\$24,238	\$24,238	\$24,238	\$290,924
TETCO ELA SUPPLY ZONE DEMAND	\$	\$20,377	\$20,391	\$20,391	\$20,391	\$20,391	\$20,377	\$20,377	\$20,377	\$20,377	\$20,377	\$20,377	\$20,377	\$244,582
TETCO M1 TO M3 DEMAND	\$	\$93,726	\$93,792	\$93,792	\$93,792	\$93,792	\$93,726	\$93,726	\$93,726	\$93,726	\$93,726	\$93,726	\$93,726	\$1,124,973
ALGONQUIN AFT-E DEMAND	\$	\$50,805	\$50,805	\$50,805	\$50,805	\$50,805	\$50,805	\$50,805	\$50,805	\$50,805	\$50,805	\$50,805	\$50,805	\$609,664
VARIABLE														
TETCO USAGE WLA TO M3	\$	\$25,199	\$26,057	\$26,057	\$23,536	\$26,057	\$25,199	\$26,039	\$25,199	\$26,039	\$26,039	\$25,199	\$26,039	\$306,658
ALGONQUIN USAGE	\$	\$3,315	\$3,426	\$3,426	\$3,094	\$3,426	\$3,315	\$3,426	\$3,315	\$3,426	\$3,426	\$3,315	\$3,426	\$40,333
PURCHASE COST	\$	\$908,857	\$1,024,909	\$1,047,341	\$948,880	\$1,042,680	\$985,728	\$1,024,894	\$997,661	\$1,048,409	\$1,054,718	\$1,020,972	\$1,063,034	\$12,168,083
TOTAL FIXED	\$	\$189,146	\$189,244	\$189,244	\$189,244	\$189,244	\$189,146	\$189,146	\$189,146	\$189,146	\$189.146	\$189.146	\$189.146	\$2,270,142
TOTAL VARIABLE	\$		\$1,054,391	\$1,076,824	\$975,510	\$1,072,163	\$1,014,242	\$1,054,359	\$1,026,175		, ,	\$1,049,486	\$1,092,498	\$12,515,073
TOTAL VARIABLE	Ψ	ψουτ,υτι	ψ1,007,001	ψ1,010,024	ψ010,010	ψ1,072,103	ψ1,017,242	ψ1,004,009	ψ1,020,173	ψ1,077,073	ψ1,007,102	ψ1,070,700	ψ1,002, <del>1</del> 90	ψ12,010,070
DELIVERED VOLUMES AT NYMEX	\$	\$840,735	\$932,790	\$962,566	\$872,032	\$958,350	\$919,785	\$956,242	\$934,575	\$977,058	\$982,592	\$952,170	\$991,287	\$11,280,180
NET NON-GAS VARIABLE COST	\$	\$96,636	\$121,601	\$114,259	\$103,478	\$113,813	\$94,457	\$98,117	\$91,600	\$100,815	\$101,591	\$97,316	\$101,211	\$1,234,893
AVERAGE NON-GAS VARIABLE COST	\$/Dth	\$0.3790	\$0.4615	\$0.4336	\$0.4348	\$0.4319	\$0.3704	\$0.3724	\$0.3592	\$0.3826	\$0.3855	\$0.3816	\$0.3841	\$0.3980
AVERAGE FIXED COST	\$/Dth												I	

AVERAGE FIXED COST \$/Dth
AVERAGE COST AT 100% LOAD FACTOR \$/Dth
TOTAL PATH COST \$/Dth

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Gas Year 2012 - 2013
TEXAS EASTERN EAST LOUISIANA SUPPLY PATH TO ALGONQUIN CITY GATE
CITY GATE DELIVERED MDQ = 6,500

AVERAGE COST AT 100% LOAD FACTOR \$/Dth

\$/Dth

TOTAL PATH COST

PRED															
TETCO ELA SUPPLY ZONE DEMAND			NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTAL
TETCO M 1 TO M 3 DEMAND   S/DIH   \$10.924															
ALGONQUIN AFT-E DEMAND VARIABLE  TETCO USAGE ELA TO M3 ALGONQUIN SAGE SUPPLY ARCHARD SUPPLY ARCH		, .	,												
VARIABLE   TETCO USAGE ELA TO M3															
TETCO USAGE ELA TO MS		\$/Dtn	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	
ALGONQUIN USAGE  SUPPLY AREA BASIS  NOTH  S3.297  \$3.540  \$3.603  \$3.0013  \$0.0013  \$0.0013  \$0.0013  \$0.0013  \$0.0013  \$0.0013  \$0.0013  \$0.0013  \$0.0013  \$0.0013  \$0.0013															
SUPPLY AREA BASIS   SUPPLY ZONE DEMAND   DIT   S. 2.21   S. 2.22   S. 2.21   S. 2.22   S. 2.21   S. 2.22															
SUPPLY AREA BASIS SOTH NET COST AFTER BASIS SOTH ASSOCIATED AS A START SOTH NET COST AFTER BASIS SOTH ASSOCIATED AS A START SOTH NET COST AFTER BASIS SOTH ASSOCIATED AS A START SOTH NET COST AFTER BASIS SOTH ASSOCIATED AS A START SOTH ASSOCIATED															
SILLING UNITS			\$3.297	\$3.540	\$3.653	\$3.664	\$3.637	\$3.607	\$3.629	\$3.665	\$3.708	\$3.729	\$3.734	\$3.762	
FIXED TETCO ELA SUPPLY ZONE DEMAND   DIh   6,561   6,566   6,566   6,566   6,566   6,566   6,561   6,5															
FIXEO   TETCO ELA SUPPLY ZONE DEMAND   Dih   6,561   6,566   6,566   6,566   6,566   6,566   6,566   6,561	NET COST AFTER BASIS	\$/Dtn													
TETCO ELA SUPPLY ZONE DEMAND  DITH  6,561  6,566  6					В	ILLING UNITS	3								
TETCO MT TO M3 DEMAND DIT 6 5.61 6.561 6.566 6.566 6.566 6.566 6.561 6.5	FIXED														
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 6,500 6,500 6,500 6,500 78,000 VARIABLE PURCHASE VOLUMES Dth 191,532 221,740 221,740 200,281 221,740 211,532 218,583 218,589 211,532 218,583 211,532 218,583 211,532 218,583 211,532 218,583 211,532 218,583 211,532 218,583 211,532 218,583 211,532 218,583 211,532 218,583 211,532 218,583 211,532 218,583 211,532 218,583 211,532 218,583 211,532 218,583 211,532 218,583 211,532 218,583 211,532 218,583 211,532 218,583 218,589 211,532 218,583 218,589 211,532 218,583 218,589 211,532 218,583 218,589 211,532 218,583 218,589 211,532 218,583 218,589 211,532 218,583 218,589 211,532 218,583 218,589 211,532 218,583 218,589 211,53			.,	- ,	.,				- /	.,					
VARIABLE PURCHASE VOLUMES DIT 195,000 196,831 221,740 221,500			.,	6,566	.,				- /	.,	-,		6,561		
PURCHASE VOLUMES Dth 211,532 221,740 221,740 20,281 221,740 21,532 218,583 211,532 218,583 21,532 21,		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
TETCO USAGE ELA TO M3															
ALGONQUIN USAGE Dth 195,000 201,500 201,500 201,500 182,000 201,500 195,000 201,500 195,000 201,500 20	PURCHASE VOLUMES			221,740	221,740	200,281		211,532	218,583	211,532	218,583	218,583	211,532	218,583	
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										/					
FUEL USE %  TETCO ELA TO M3 FUEL															
TETCO ELA TO M3 FUEL % 6.95% 8.21% 8.21% 8.21% 1.00% 1.00% 1.00% 0.93% 0	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
ALGONQUIN AFT-E FUEL % 0.93% 1.00% 1.00% 1.00% 1.00% 0.93% 0					F	UEL USE %									
ALGONQUIN AFT-E FUEL % 0.93% 1.00% 1.00% 1.00% 1.00% 0.93% 0															
FIXED TETCO ELA SUPPLY ZONE DEMAND \$ \$15,582 \$15,593 \$															
FIXED  TETCO ELA SUPPLY ZONE DEMAND \$ \$15,582 \$15,593 \$15,593 \$15,593 \$15,593 \$15,593 \$15,593 \$15,582 \$12,582 \$15,582 \$12,582 \$12,582 \$12,582 \$12,582 \$12,582 \$12,582 \$12,582 \$12,582 \$12,582	ALGONQUIN AFT-E FUEL	%	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
TETCO ELA SUPPLY ZONE DEMAND \$ \$15,582 \$12,673					т	RANSPORTA	TION COST								
TETCO M1 TO M3 DEMAND \$ \$71,673 \$71,723 \$71,723 \$71,723 \$71,723 \$71,723 \$71,673 \$71,673 \$71,673 \$71,673 \$71,673 \$71,673 \$71,673 \$860,273 ALGONQUIN AFT-E DEMAND \$ \$38,851 \$38,	FIXED														
ALGONQUIN AFT-E DEMAND \$ \$38,851 \$30,8	TETCO ELA SUPPLY ZONE DEMAND	\$	\$15,582	\$15,593	\$15,593	\$15,593	\$15,593	\$15,582	\$15,582	\$15,582	\$15,582	\$15,582	\$15,582	\$15,582	\$187,033
VARIABLE           TETCO USAGE ELA TO M3         \$ 18,896         \$19,539         \$17,648         \$19,539         \$18,896         \$19,526         \$18,896         \$19,526         \$18,896         \$19,526         \$229,952           ALGONQUIN USAGE         \$ \$2,635         \$2,620         \$2,620         \$2,366         \$2,620         \$2,535         \$2,620         \$2,535         \$2,620         \$2,535         \$2,620         \$2,535         \$2,620         \$2,535         \$2,620         \$2,535         \$2,620         \$30,843           PURCHASE COST         \$ 687,267         \$774,317         \$800,260         \$724,218         \$795,826         \$750,727         \$780,560         \$766,380         \$797,828         \$803,293         \$777,592         \$809,632         \$9,267,900           TOTAL FIXED         \$ \$126,106         \$126,168         \$126,168         \$126,168         \$126,168         \$126,106	TETCO M1 TO M3 DEMAND	\$	\$71,673			\$71,723									\$860,273
TETCO USAGE ELA TO M3 \$ \$18,896 \$19,539 \$19,539 \$19,539 \$17,648 \$19,539 \$18,896 \$19,526 \$18,896 \$19,526 \$18,896 \$19,526 \$18,896 \$19,526 \$29,952 \$18,000 \$10,00		\$	\$38,851	\$38,851	\$38,851	\$38,851	\$38,851	\$38,851	\$38,851	\$38,851	\$38,851	\$38,851	\$38,851	\$38,851	\$466,214
ALGONQUIN USAGE \$ \$2,535 \$2,620 \$2,366 \$2,620 \$2,355 \$2,620 \$2,535 \$2,620 \$2,535 \$2,620 \$2,535 \$2,620 \$2,535 \$2,620 \$30,843 PURCHASE COST \$ \$687,267 \$774,317 \$800,260 \$724,218 \$795,826 \$750,727 \$780,560 \$766,380 \$797,828 \$803,293 \$777,592 \$809,632 \$9,267,900 TOTAL FIXED \$ \$126,106 \$126,10															
PURCHASE COST \$ \$687,267 \$774,317 \$800,260 \$724,218 \$795,826 \$750,727 \$780,560 \$766,380 \$797,828 \$803,293 \$777,592 \$809,632 \$9,267,900 TOTAL FIXED \$ \$126,106 \$126,															
TOTAL FIXED \$ \$126,106 \$126,168 \$126,168 \$126,168 \$126,106 \$126,10	ALGONQUIN USAGE	\$	\$2,535	\$2,620	\$2,620	\$2,366	\$2,620	\$2,535	\$2,620	\$2,535	\$2,620	\$2,620	\$2,535	\$2,620	\$30,843
	PURCHASE COST	\$	\$687,267	\$774,317	\$800,260	\$724,218	\$795,826	\$750,727	\$780,560	\$766,380	\$797,828	\$803,293	\$777,592	\$809,632	\$9,267,900
	TOTAL FIXED	\$	\$126 106	\$126 168	\$126 168	\$126 168	\$126 168	\$126 106	\$126 106	\$126 106	\$126 106	\$126 106	\$126 106	\$126 106	\$1 513 520
						,									
		•					,					,,		, ,	
DELIVERED VOLUMES AT NYMEX \$ \$642,915 \$713,310 \$736,080 \$666,848 \$732,856 \$703,365 \$731,244 \$714,675 \$747,162 \$751,394 \$728,130 \$758,043 \$8,626,020	DELIVERED VOLUMES AT NYMEX	\$	\$642,915	\$713,310	\$736,080	\$666,848	\$732,856	\$703,365	\$731,244	\$714,675	\$747,162	\$751,394	\$728,130	\$758,043	\$8,626,020
NET NON-GAS VARIABLE COST \$ \$65,783 \$83,166 \$86,340 \$77,384 \$85,129 \$68,793 \$71,462 \$73,136 \$72,811 \$74,044 \$70,892 \$73,734 \$902,675	NET NON-GAS VARIABLE COST	\$	\$65,783	\$83,166	\$86,340	\$77,384	\$85,129	\$68,793	\$71,462	\$73,136	\$72,811	\$74,044	\$70,892	\$73,734	\$902,675
AVERAGE NON-GAS VARIABLE COST \$/Dth \$0.3373 \$0.4127 \$0.4285 \$0.4252 \$0.4225 \$0.3528 \$0.3546 \$0.3751 \$0.3613 \$0.3675 \$0.3636 \$0.3659 \$0.3805	AVERAGE NON-GAS VARIABLE COST	\$/Dth	\$0.3373	\$0.4127	\$0.4285	\$0.4252	\$0.4225	\$0.3528	\$0.3546	\$0.3751	\$0.3613	\$0.3675	\$0.3636	\$0.3659	\$0.3805
AVERAGE FIXED COST \$/Dth	AVERAGE FIXED COST	\$/Dth													

TOTAL PATH COST

\$/Dth

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Gas Year 2012 - 2013
MAUMEE/DOWNINGTON COLUMBIA PATH TO CITY GATE
CITY GATE DELIVERED MDQ = 1,500

FIVED		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTAL
FIXED COLUMBIA FTS DEMAND	\$/Dth	\$6.077	\$6.077	\$6.077	\$6.077	\$6.077	\$6.077	\$6.077	\$6.077	\$6.077	\$6.077	\$6.077	\$6.077	
ALGONQUIN DEMAND	\$/Dth	\$6.077 \$5.977	\$6.077 \$5.977	\$5.977	\$6.077 \$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$6.077 \$5.977	\$6.077 \$5.977	\$5.977	\$6.077 \$5.977	
VARIABLE	ק/טוו	φυ.91 <i>1</i>	φ3.9 <i>11</i>	φυ.911	φυ.911	φ3.91 <i>1</i>	φ3.91 <i>1</i>	φυ.911	φυ.911	φυ.911	φυ.911	φυ.911	φυ.977	
COLUMBIA USAGE	\$/Dth	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	
ALGONQUIN USAGE	\$/Dth	\$0.025 \$0.013	\$0.025 \$0.013	\$0.025 \$0.013	\$0.025 \$0.013	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025 \$0.013	\$0.025		
08/01/2012 NYMEX	\$/Dth	\$0.013 \$3.297					\$3.607				\$3,729		\$0.013	
SUPPLY BASIS MAUMEE	\$/Dth	\$3.297	\$3.540	\$3.653	\$3.664	\$3.637	\$3.00 <i>1</i>	\$3.629	\$3.665	\$3.708	\$3.729	\$3.734	\$3.762	
	\$/Dth													
SUPPLY BASIS DOWNINGTON NET COST AFTER BASIS MAUMEE	\$/Dth													
NET COST AFTER BASIS MADNIEE  NET COST AFTER BASIS DOWNINGTON	\$/Dth													
NET COST AFTER BASIS DOWNINGTON	\$/Dtn													
					ILLING UNITS	2								
FIXED					ILLING ONLL	,								
COLUMBIA FTS DEMAND	Dth	1,530	1,530	1,530	1,530	1,530	1,530	1,530	1,530	1,530	1,530	1,530	1,530	
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	Dui	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	10,000
PURCHASE VOLUMES MAUMEE	Dth	38,610	39,141	39,141	35,354	39,141	37,852	39,114	37,852	39,114	39,114	37,852	39,114	
PURCHASE VOLUMES DOWNINGTON	Dth	7,722	7,828	7,828	7,071	7,828	7,570	7,823	7,570	7,823	7,823	7,570	7,823	
COLUMBIA USAGE	Dth	45,422	46.970	46,970	42,424	46.970	45,422	46.937	45.422	46.937	46,937	45.422	46.937	
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
		.,	.,	.,	.,	.,	.,	.,	.,	.,	.,	.,	.,	,
				F	UEL USE %									
COLUMBIA FUEL	%	1.96%	1.96%	1.96%	1.96%	1.96%	1.96%	1.96%	1.96%	1.96%	1.96%	1.96%	1.96%	
ALGONQUIN AFT-E FUEL	%	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
	,-													
				Т	RANSPORTA	TION COST								
FIXED														
COLUMBIA FTS DEMAND	\$	\$9,298	\$9,298	\$9,298	\$9,298	\$9,298	\$9,298	\$9,298	\$9,298	\$9,298	\$9,298	\$9,298	\$9,298	\$111,576
ALGONQUIN DEMAND	\$	\$8,966	\$8,966	\$8,966	\$8,966	\$8,966	\$8,966	\$8,966	\$8,966	\$8,966	\$8,966	\$8,966	\$8,966	\$107,588
VARIABLE														
COLUMBIA USAGE	\$	\$1,154	\$1,193	\$1,193	\$1,078	\$1,193	\$1,154	\$1,192	\$1,154	\$1,192	\$1,192	\$1,154	\$1,192	\$14,040
ALGONQUIN USAGE	\$	\$585	\$605	\$605	\$546	\$605	\$585	\$605	\$585	\$605	\$605	\$585	\$605	\$7,118
PURCHASE COST MAUMEE	\$	\$127,606	\$138,756	\$143,179	\$129,606	\$142,044	\$137,744	\$142,804	\$139,182	\$145,112	\$145,542	\$140,658	\$146,051	\$1,678,285
PURCHASE COST DOWNINGTON	\$	\$27,066	\$32,816	\$37,169	\$31,387	\$30,053	\$28,328	\$29,312	\$28,639	\$30,165	\$30,329	\$28,707	\$29,938	\$363,907
TOTAL FIXED	\$	\$18.264	\$18,264	\$18.264	\$18.264	\$18,264	\$18,264	\$18,264	\$18,264	\$18,264	\$18,264	\$18,264	\$18,264	\$219,164
TOTAL VARIABLE	\$	\$156,410	\$173,370	\$182,146	\$162,617	\$173,895	\$167,811	\$173,913	\$169,559	\$177,073	\$177,668	\$171,104	\$177,785	\$2,063,350
	•					,					. , , , , , , , , , , , , , , , , , , ,			
DELIVERED VOLUMES AT NYMEX	\$	\$148,365	\$164,610	\$169,865	\$153,888	\$169,121	\$162,315	\$168,749	\$164,925	\$172,422	\$173,399	\$168,030	\$174,933	\$1,990,620
NET NON-GAS VARIABLE COST	\$	\$8,045	\$8,760	\$12,281	\$8,729	\$4,774	\$5,496	\$5,164	\$4,634	\$4,651	\$4,269	\$3,074	\$2,852	\$72,730
AVERAGE NON-GAS VARIABLE COST	\$/Dth	\$0.1788	\$0.1884	\$0.2641	\$0.2078	\$0.1027	\$0.1221	\$0.1111	\$0.1030	\$0.1000	\$0.0918	\$0.0683	\$0.0613	\$0.1328
AVERAGE FIXED COST	\$/Dth													
AVERAGE COST AT 100% LOAD FACTOR	\$/Dth													
AVERAGE COST AT 100% LOAD FACTOR	φ/D(II													

National Grid Rhode Island - Gas

TOTAL PATH COST

\$/Dth

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Gas Year 2012 - 2013 TENNESSEE ZONE 1 TO CITY GATE CITY GATE DELIVERED MDQ = 9,500

FIVED		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTAL
FIXED TENNESSEE ZONE 1 TO 6 DEMAND VARIABLE	\$/Dth	\$22.552	\$22.552	\$22.552	\$22.552	\$22.552	\$22.552	\$22.552	\$22.552	\$22.552	\$22.552	\$22.552	\$22.552	
TENNESSE ZONE 1 TO 6 USAGE 08/01/2012 NYMEX	\$/Dth \$/Dth	\$0.274 \$3.297	\$0.274 \$3.540	\$0.274 \$3.653	\$0.274 \$3.664	\$0.274 \$3.637	\$0.274 \$3.607	\$0.274 \$3.629	\$0.274 \$3.665	\$0.274 \$3.708	\$0.274 \$3.729	\$0.274 \$3.734	\$0.274 \$3.762	
SUPPLY AREA BASIS NET COST AFTER BASIS	\$/Dth \$/Dth	ψ3.291	φ3.3 <del>4</del> 0	ψ3.033	φ3.004	φ3.037	ψ3.007	ψ3.029	ψ5.005	φ3.700	ψ3.729	φ3.734	ψ3.702	
FIXED					BILLING UNIT	5								
TENNESSEE ZONE 1 TO 6 DEMAND VARIABLE	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
PURCHASE VOLUMES TENNESSE ZONE 1 TO 6 USAGE	Dth Dth	295,367 285,000	305,213 294,500	305,213 294.500	275,676 266.000	305,213 294,500	295,367 285,000	305,213 294,500	295,367 285,000	305,213 294,500	305,213 294,500	295,367 285.000	305,213 294,500	3,593,637 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	%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	
				-	TRANSPORTA	ATION COST								
FIXED	•	0044.040	0044040	0044040	0044.040	0044.040	0044.040	0044.040	0044040	0044.040	0044.040	0044.040	0044.040	#0 F70 0F4
TENNESSEE ZONE 1 TO 6 DEMAND VARIABLE	\$	\$214,246	\$214,246	\$214,246	\$214,246	\$214,246	\$214,246	\$214,246	\$214,246	\$214,246	\$214,246	\$214,246	\$214,246	\$2,570,951
TENNESSE ZONE 1 TO 6 USAGE	\$	\$78,119	\$80,722	\$80,722	\$72,911	\$80,722	\$78,119	\$80,722	\$78,119	\$80,722	\$80,722	\$78,119	\$80,722	\$950,442
PURCHASE COST	\$	\$990,367	\$1,061,531	\$1,102,124	\$1,006,770	\$1,114,943	\$1,075,728	\$1,110,060	\$1,070,411	\$1,123,184	\$1,125,320	\$1,122,101	\$1,159,504	\$13,062,042
TOTAL FIXED	\$	\$214,246	\$214,246	\$214,246	\$214,246	\$214,246	\$214,246	\$214,246	\$214,246	\$214,246	\$214,246	\$214,246	\$214,246	\$2,570,951
TOTAL VARIABLE	\$	\$1,068,485	\$1,142,253	\$1,182,847	\$1,079,680	\$1,195,665	\$1,153,847	\$1,190,782	\$1,148,530	\$1,203,906	\$1,206,043	\$1,200,219	\$1,240,227	\$14,012,484
DELIVERED VOLUMES AT NYMEX	\$	\$939,645	\$1,042,530	\$1,075,809	\$974,624	\$1,071,097	\$1,027,995	\$1,068,741	\$1,044,525	\$1,092,006	\$1,098,191	\$1,064,190	\$1,107,909	\$12,607,260
NET NON-GAS VARIABLE COST	\$	\$128,840	\$99,723	\$107,038	\$105,056	\$124,569	\$125,852	\$122,042	\$104,005	\$111,900	\$107,852	\$136,029	\$132,318	\$1,405,224
AVERAGE NON-GAS VARIABLE COST	\$/Dth	\$0.4521	\$0.3386	\$0.3635	\$0.3949	\$0.4230	\$0.4416	\$0.4144	\$0.3649	\$0.3800	\$0.3662	\$0.4773	\$0.4493	\$0.4053
AVERAGE FIXED COST	\$/Dth													
AVERAGE COST AT 100% LOAD FACTOR	\$/Dth													

National Grid Rhode Island - Gas

TOTAL PATH COST

\$/Dth

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Gas Year 2012 - 2013 ALGONQUIN LAMBERTVILLE TO CITY GATE CITY GATE DELIVERED MDQ = 2,714

FIXED		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	TOTAL
ALGONQUIN AFT-E DEMAND VARIABLE	\$/Dth	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	\$5.977	
ALGONQUIN AFT-E USAGE 08/01/2012 NYMEX	\$/Dth \$/Dth	\$0.013 \$3.297	\$0.013 \$3.540	\$0.013 \$3.653	\$0.013 \$3.664	\$0.013 \$3.637	\$0.013 \$3.607	\$0.013 \$3.629	\$0.013 \$3.665	\$0.013 \$3.708	\$0.013 \$3.729	\$0.013 \$3.734	\$0.013 \$3.762	
SUPPLY AREA BASIS NET COST AFTER BASIS	\$/Dth \$/Dth	ψ3.231	ψ3.340	ψ3.033	ψ5.004	ψ5.051	ψ3.001	ψ5.025	ψ3.005	ψ3.700	ψ5.729	ψ5.7 54	ψ3.702	
	_			В	ILLING UNITS	3								
FIXED														
ALGONQUIN AFT-E DEMAND VARIABLE	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
PURCHASE VOLUMES	Dth	82,184	84,984	84,984	76,760	84,984	82,184	84,924	82,184	84,924	84,924	82,184	84,924	1,000,144
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
ALGONQUIN AFT-E FUEL	%	0.93%	1.00%	1.00%	UEL USE %	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
7.2501.401.711	,,	0.0070	11.0070				0.0070	0.0070	0.0070	0.0070	0.0070	0.0070	0.0070	
FIXED				I	RANSPORTA	HON COST								
ALGONQUIN AFT-E DEMAND VARIABLE	\$	\$16,222	\$16,222	\$16,222	\$16,222	\$16,222	\$16,222	\$16,222	\$16,222	\$16,222	\$16,222	\$16,222	\$16,222	\$194,662
ALGONQUIN AFT-E USAGE	\$	\$1.058	\$1,094	\$1.094	\$988	\$1,094	\$1,058	\$1.094	\$1.058	\$1.094	\$1,094	\$1.058	\$1,094	\$12.878
PURCHASE COST	\$	\$288,056	\$356,252	\$403,503	\$340,736	\$326,253	\$307,534	\$318,209	\$310,903	\$327,466	\$329,250	\$311,643	\$325,003	\$3,944,809
1 ONOTIAGE GOOT	Ψ	Ψ200,030	ψ330,232	ψ+05,505	ψ3+0,730	ψ320,233	ψ307,334	ψ510,203	ψ510,305	ψ321,400	ψ323,230	ψ511,045	ψ323,003	ψ5,544,005
TOTAL FIXED	\$	\$16,222	\$16,222	\$16.222	\$16.222	\$16,222	\$16,222	\$16.222	\$16.222	\$16.222	\$16,222	\$16,222	\$16,222	\$194.662
TOTAL VARIABLE	\$	\$289,114	\$357,346	\$404,597	\$341,724	\$327,347	\$308,592	\$319,303	\$311,962	\$328,560	\$330,343	\$312,701	\$326,097	\$3,957,687
			, ,	,	,	, , , , , , , , , , , , , , , , , , , ,	, ,		, - ,		, , .	, ,	,,	, -, - ,
DELIVERED VOLUMES AT NYMEX	\$	\$268,442	\$297,834	\$307,342	\$278,435	\$305,995	\$293,682	\$305,322	\$298,404	\$311,969	\$313,736	\$304,022	\$316,512	\$3,601,695
NET NON-GAS VARIABLE COST	\$	\$20,673	\$59,512	\$97,256	\$63,289	\$21,351	\$14,910	\$13,981	\$13,557	\$16,591	\$16,608	\$8,679	\$9,585	\$355,992
AVERAGE NON-GAS VARIABLE COST	\$/Dth	\$0.2539	\$0.7073	\$1.1560	\$0.8328	\$0.2538	\$0.1831	\$0.1662	\$0.1665	\$0.1972	\$0.1974	\$0.1066	\$0.1139	\$0.3594
AVERAGE FIXED COST AVERAGE COST AT 100% LOAD FACTOR	\$/Dth \$/Dth													

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#### CALCULATION OF SYSTEM WEIGHTED AVERAGE DEMAND COSTS

#### 2012 - 2013 GCR PROJECTED PRICES

August 1, 2012

**UNIT PRICES** 

	j	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
	l	2012		2013									
PIPELINE FIXED COST UNIT PRICES													
ALGONQUIN AFT-E/AFT-1 DEMAND	\$/Dth	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771	\$5.9771
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	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909	\$2.3909
ALGONQUIN HUBLINE DEMAND	\$/Dth	\$11.5583	\$11.5583	\$11.5583	\$11.5583	\$11.5583	\$11.5583	\$11.5583	\$11.5583	\$11.5583	\$11.5583	\$11.5583	\$11.5583
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	\$6.9920	\$6.9920	\$6.9920	\$6.9920	\$6.9920	\$6.9920	\$6.9920	\$6.9920	\$6.9920	\$6.9920	\$6.9920	\$6.9920
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	\$6.0770	\$6.0770	\$6.0770	\$6.0770	\$6.0770	\$6.0770	\$6.0770	\$6.0770	\$6.0770	\$6.0770	\$6.0770	\$6.0770
DOMINION FTNN DEMAND	\$/Dth	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040	\$4.3040
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	\$3.9617	\$3.9617	\$3.9617	\$3.9617	\$3.9617	\$3.9617	\$3.9617	\$3.9617	\$3.9617	\$3.9617	\$3.9617	\$3.9617
TENNESSEE FT-A DEMAND ZONE 0 TO 6	\$/Dth	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587
TENNESSEE FT-A DEMAND ZONE 1 TO 6	\$/Dth	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587	\$22.6587
TENNESSEE FT-A DEMAND ZONE 0 TO 6	\$/Dth	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522
TENNESSEE FT-A DEMAND ZONE 1 TO 6	\$/Dth	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522	\$22.5522
TENNESSEE FT-A DEMAND ZONE 0 TO 6 CXN	\$/Dth	\$22.7365	\$22.7365	\$22.7365	\$22.7365	\$22.7365	\$22.7365	\$22.7365	\$22.7365	\$22.7365	\$22.7365	\$22.7365	\$22.7365
TENNESSEE FT-A DEMAND DRACUT	\$/Dth	\$4.8846	\$4.8846	\$4.8846	\$4.8846	\$4.8846	\$4.8846	\$4.8846	\$4.8846	\$4.8846	\$4.8846	\$4.8846	\$4.8846
TENNESSEE FT-A DEMAND ZONE 5 TO 6	\$/Dth	\$7.4396	\$7.4396	\$7.4396	\$7.4396	\$7.4396	\$7.4396	\$7.4396	\$7.4396	\$7.4396	\$7.4396	\$7.4396	\$7.4396
TEXAS EASTERN CDS STX DEMAND M3	\$/Dth	\$6.8050	\$6.8050	\$6.8050	\$6.8050	\$6.8050	\$6.8050	\$6.8050	\$6.8050	\$6.8050	\$6.8050	\$6.8050	\$6.8050
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	\$10.9240	\$10.9240	\$10.9240	\$10.9240	\$10.9240	\$10.9240	\$10.9240	\$10.9240	\$10.9240	\$10.9240	\$10.9240	\$10.9240
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	\$4.3710	\$4.3710	\$4.3710	\$4.3710	\$4.3710	\$4.3710	\$4.3710	\$4.3710	\$4.3710	\$4.3710	\$4.3710	\$4.3710
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	\$3.3290	\$3.3290	\$3.3290	\$3.3290	\$3.3290	\$3.3290	\$3.3290	\$3.3290	\$3.3290	\$3.3290	\$3.3290	\$3.3290
TRANSCANADA DEMAND	\$/Dth	\$10.3350	\$10.6795	\$10.6795	\$9.6460	\$10.6795	\$10.3350	\$10.6795	\$10.3350	\$10.6795	\$10.6795	\$10.3350	\$10.6795
TRANSCO DEMAND ZONE 2 TO 6	\$/Dth	\$0.4645	\$0.4645	\$0.4645	\$0.4645	\$0.4645	\$0.4645	\$0.4645	\$0.4645	\$0.4645	\$0.4645	\$0.4645	\$0.4645
TRANSCO DEMAND ZONE 3 TO 6	\$/Dth	\$0.4379	\$0.4379	\$0.4379	\$0.4379	\$0.4379	\$0.4379	\$0.4379	\$0.4379	\$0.4379	\$0.4379	\$0.4379	\$0.4379
TRANSCO DEMAND ZONE 6	\$/Dth	\$0.1194	\$0.1194	\$0.1194	\$0.1194	\$0.1194	\$0.1194	\$0.1194	\$0.1194	\$0.1194	\$0.1194	\$0.1194	\$0.1194
UNION DEMAND	\$/Dth	\$2.3700	\$2.4490	\$2.4490	\$2.2120	\$2.4490	\$2.3700	\$2.4490	\$2.3700	\$2.4490	\$2.4490	\$2.3700	\$2.4490

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#### CALCULATION OF SYSTEM WEIGHTED AVERAGE DEMAND COSTS

#### 2012 - 2013 GCR PROJECTED PRICES

August 1, 2012				ι	INIT 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 2 TO 6	DTH	4,140	4,278	4,278	3,864	4,278	4,140	4,278	4,140	4,278	4,278	4,140	4,278
TRANSCO DEMAND ZONE 3 TO 6	DTH	90	93	93	84	93	90	93	90	93	93	90	93
TRANSCO DEMAND ZONE 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

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#### CALCULATION OF SYSTEM WEIGHTED AVERAGE DEMAND COSTS

#### 2012 - 2013 GCR PROJECTED PRICES

August 1, 2012	NOV	DEC	JAN	JNIT PRICES FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	
PIPELINE FIXED COST DOLLARS	1107	520	O/AIT	1.25	III/-LIX	Aire	MIZ I	00.1	002	AGG	OL.	00.	
ALGONQUIN AFT-E/AFT-1 DEMAND \$	\$521,711	\$521,711	\$521,711	\$521,711	\$521,711	\$521,711	\$521,711	\$521,711	\$521,711	\$521,711	\$521,711	\$521,711	
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 \$	\$9,752	\$9,752	\$9,752	\$9,752	\$9,752	\$9,752	\$9,752	\$9,752	\$9,752	\$9,752	\$9,752	\$9,752	
ALGONQUIN HUBLINE DEMAND \$	\$46,233	\$46,233	\$46,233	\$46,233	\$46,233	\$46,233	\$46,233	\$46,233	\$46,233	\$46,233	\$46,233	\$46,233	
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 \$	\$24,472	\$24,472	\$24,472	\$24,472	\$24,472	\$24,472	\$24,472	\$24,472	\$24,472	\$24,472	\$24,472	\$24,472	
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 \$	\$288,384	\$288,384	\$288,384	\$288,384	\$288,384	\$288,384	\$288,384	\$288,384	\$288,384	\$288,384	\$288,384	\$288,384	
DOMINION FTNN DEMAND \$	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	\$2,311	
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 \$	\$4,663	\$4,663	\$4,663	\$4,663	\$4,663	\$4,663	\$4,663	\$4,663	\$4,663	\$4,663	\$4,663	\$4,663	
TENNESSEE FT-A DEMAND ZONE 0 TO 6 \$	\$79,305	\$79,305	\$79,305	\$79,305	\$79,305	\$79,305	\$79,305	\$79,305	\$79,305	\$79,305	\$79,305	\$79,305	
TENNESSEE FT-A DEMAND ZONE 1 TO 6 \$	\$147,282	\$147,282	\$147,282	\$147,282	\$147,282	\$147,282	\$147,282	\$147,282	\$147,282	\$147,282	\$147,282	\$147,282	
TENNESSEE FT-A DEMAND ZONE 0 TO 6 \$	\$135,809	\$135,809	\$135,809	\$135,809	\$135,809	\$135,809	\$135,809	\$135,809	\$135,809	\$135,809	\$135,809	\$135,809	
TENNESSEE FT-A DEMAND ZONE 1 TO 6 \$	\$300,237	\$300,237	\$300,237	\$300,237	\$300,237	\$300,237	\$300,237	\$300,237	\$300,237	\$300,237	\$300,237	\$300,237	
TENNESSEE FT-A DEMAND ZONE 0 TO 6 CXN \$	\$263,743	\$73,269	\$73,269	\$73,269	\$73,269	\$73,269	\$73,269	\$73,269	\$73,269	\$73,269	\$73,269	\$73,269	
TENNESSEE FT-A DEMAND DRACUT \$	\$73,269	\$15,378	\$15,378	\$15,378	\$15,378	\$15,378	\$15,378	\$15,378	\$15,378	\$15,378	\$15,378	\$15,378	
TENNESSEE FT-A DEMAND ZONE 5 TO 6 \$	\$15,378	\$263,743	\$263,743	\$263,743	\$263,743	\$263,743	\$263,743	\$263,743	\$263,743	\$263,743	\$263,743	\$263,743	
TEXAS EASTERN CDS STX DEMAND M3 \$	\$94,208	\$94,208	\$94,208	\$94,208	\$94,208	\$94,208	\$94,208	\$94,208	\$94,208	\$94,208	\$94,208	\$94,208	
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 \$	\$501,783	\$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	\$501,783	\$501,783	\$501.783	\$501,783	\$501,783	\$501,783	\$501,783	\$501.783	\$501.783	\$501,783	\$501,783	
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 \$	\$1,12 <del>4</del> \$288	\$288	\$1,124 \$288	\$1,124 \$288	\$288	\$1,124 \$288	\$1,124 \$288	\$1,124 \$288	\$1,124 \$288	\$288	\$1,12 <del>4</del> \$288	\$288	
										\$9,175			
	\$9,175 \$1,092	\$9,175 \$1,092	\$9,175	\$9,175 \$1,092	\$9,175	\$9,175	\$9,175 \$1,092	\$9,175	\$9,175 \$1,092	\$9,175 \$1,092	\$9,175	\$9,175 \$1,092	
	\$1,092 \$514	\$1,092 \$514	\$1,092		\$1,092 \$514	\$1,092 \$514	\$1,092 \$514	\$1,092	\$1,092 \$514	\$1,092 \$514	\$1,092 \$514		
· - · · · · - · · · · · · · · · · · · ·	* * *		\$514	\$514	\$789		\$789	\$514		\$789		\$514 \$700	
	\$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 \$	\$4,907	\$4,907	\$4,907	\$4,907	\$4,907	\$4,907	\$4,907	\$4,907	\$4,907	\$4,907	\$4,907	\$4,907	
TRANSCANADA DEMAND \$	\$10,459	\$10,808	\$10,808	\$9,762	\$10,808	\$10,459	\$10,808	\$10,459	\$10,808	\$10,808	\$10,459	\$10,808	
TRANSCO DEMAND ZONE 2 TO 6 \$	\$1,923	\$1,987	\$1,987	\$1,795	\$1,987	\$1,923	\$1,987	\$1,923	\$1,987	\$1,987	\$1,923	\$1,987	
TRANSCO DEMAND ZONE 3 TO 6 \$	\$39	\$41	\$41	\$37	\$41	\$39	\$41	\$39	\$41	\$41	\$39	\$41	
TRANSCO DEMAND ZONE 6 \$	\$4,442	\$4,590	\$4,590	\$4,146	\$4,590	\$4,442	\$4,590	\$4,442	\$4,590	\$4,590	\$4,442	\$4,590	
UNION DEMAND \$	\$2,429	\$2,510	\$2,510	\$2,267	\$2,510	\$2,429	\$2,510	\$2,429	\$2,510	\$2,510	\$2,429	\$2,510	
WESTERLY LATERAL (Yankee) \$	<b>*</b> 0.000.000	£0.000.070	\$0.000 F00	£0.000.040	\$0.000 F00	£0.007.000	\$0.000 F00	£0.007.000	\$0.000 F00	\$0.000 F00	\$0.007.000	\$0.000 F00	
\$	\$2,939,236	\$2,939,879	\$2,938,539	\$2,936,610	\$2,938,539	\$2,937,896	\$2,938,539	\$2,937,896	\$2,938,539	\$2,938,539	\$2,937,896	\$2,938,539	
TOTAL PIPELINE FIXED DEMAND CHARGES	\$2,939,236	\$2,939,879	\$2,938,539	\$2,936,610	\$2,938,539	\$2,937,896	\$2,938,539	\$2,937,896	\$2,938,539	\$2,938,539	\$2,937,896	\$2,938,539	
TOTAL DEMAND UNITS DTH	5,340,825	5,551,046	5,551,046	5,013,848	5,551,046	5,340,825	5,486,659	4,854,210	5,016,017	5,016,017	4,854,210	5,486,659	
100% LOAD FACTOR UNIT VALUE \$/DTH	3,340,023	3,331,040	3,331,040	3,013,040	3,331,040	3,340,023	3,400,039	7,007,210	3,010,017	3,010,017	7,007,210	5,400,059	
Average rate per unit per month													
AVERAGE SYSTEM VARIABLE UNIT VALUE \$/DTH													
Marketer Reconciliation 2010/11 & 2011/12													
Marketer Demand Units DTH	972,420	1,004,834	1,004,834	907,592	1,004,834	972,420	1,004,834	972,420	1,004,834	1,004,834	972,420	1,004,834	
100% LOAD FACTOR UNIT VALUE \$/DTH													

TOTAL AVERAGE SYSTEM UNIT VALUE \$/DTH

National Grid Rhode Island - Gas

Normal Weather Scenario

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National Grid Ventyx 2012 Estimated GCR

SENDOUT® Version 12.5.5

08-Aug-2012

Natural Gas Supply VS. Requirements

	Natural Gas Supply VS.	requirements		Utilis.	DIII								
	NOV 2012	DEC 2012	JAN 2013	FEB 2013	MAR 2013	APR 2013	MAY 2013	JUN 2013	JUL 2013	AUG 2013	SEP 2013	OCT 2013	Total/Average
Forecast Demand													
RI Sales GCR	2,223,400	3,797,000	4,509,900	3,856,200	3,413,900	2,117,600	1,259,500	749,200	610,400	608,200	661,700	1,269,600	25,076,600
Total Demand	2,223,400	3,797,000	4,509,900	3,856,200	3,413,900	2,117,600	1,259,500	749,200	610,400	608,200	661,700	1,269,600	25,076,600
Storage Injections													
TENN 501	0	0	0	0	0	118,800	122,700	118,800	0	0	0	0	360,300
GSS 300170	0	0	0	0	0	0	0	0	0	0	0	0	0
GSS 300168	0	0	0	0	0	21,000	21,700	0	0	0	0	0	42,700
GSS 300171	0	0	0	0	0	15,800	16,200	15,700	16,200	16,200	15,700	16,200	112,000
GSSTE 600045	0	0	0	0	0	187,800	194,000	42,800	0	0	0	0	424,600
TETCO 400515	0	0	0	0	0	8,700	9,000	8,700	2,000	0	0	0	28,400
TETCO 400221	0	0	0	0	0	181,800	187,800	181,800	42,600	0	0	0	594,000
TETCO 400185	0	0	0	0	0	8,000	5,000	0	0	0	0	0	13,000
GSS 300169	0	0	0	0	0	29,200	29,100	28,100	17,500	0	0	0	103,900
COL FSS 9630	0	0	0	0	0	30,600	40,800	0	21,600	23,200	26,500	0	142,700
TENN 62918	0	0	0	0	0	41,200	42,600	41,200	0	0	0	0	125,000
Total Underground Storage	0	0	0	0	0	642,900	668,900	437,100	99,900	39,400	42,200	16,200	1,946,600
LNG PROV	0	0	0	0	0	0	107,100	120,400	0	0	35,800	12,100	275,400
LNG VALLEY	0	0	0	0	0	0	19,900	5,000	0	0	9,400	3,200	37,500
LNG EXETER	0	0	0	0	0	0	28,200	4,500	0	0	12,400	4,200	49,300
Total LNG Injection	0	0	0	0	0	0	155,200	129,900	0	0	57,600	19,500	362,200
Total Injections	0	0	0	0	0	642,900	824,100	567,000	99,900	39,400	99,800	35,700	2,308,800
Delivered Firm Sales Supp	ly												
	l <b>y</b> NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	GCR Total
Sources of Supply	NOV												
Sources of Supply TENN CONX	NOV 348,000	359,600	359,600	324,800	359,600	348,000	359,600	348,000	359,600	359,600	348,000	359,600	4,234,000
Sources of Supply TENN CONX TENN ZONE 0	NOV 348,000 56,252	359,600 183,396	359,600 162,135	324,800 180,085	359,600 122,567	348,000 107,993	359,600 60,699	348,000 39,341	359,600 0	359,600 0	348,000 0	359,600 0	4,234,000 912,470
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1	NOV 348,000 56,252 117,048	359,600 183,396 381,604	359,600 162,135 337,365	324,800 180,085 374,715	359,600 122,567 255,033	348,000 107,993 224,707	359,600 60,699 126,301	348,000 39,341 81,859	359,600 0 0	359,600 0 0	348,000 0 0	359,600 0 0	4,234,000 912,470 1,898,630
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA	NOV 348,000 56,252 117,048 0	359,600 183,396 381,604 3,200	359,600 162,135 337,365 0	324,800 180,085 374,715 0	359,600 122,567 255,033 0	348,000 107,993 224,707 32,000	359,600 60,699 126,301 0	348,000 39,341 81,859 0	359,600 0 0	359,600 0 0	348,000 0 0	359,600 0 0 0	4,234,000 912,470 1,898,630 35,200
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT	NOV 348,000 56,252 117,048 0	359,600 183,396 381,604 3,200 35,000	359,600 162,135 337,365 0	324,800 180,085 374,715 0	359,600 122,567 255,033 0 0	348,000 107,993 224,707 32,000 0	359,600 60,699 126,301 0 19,200	348,000 39,341 81,859 0	359,600 0 0 0	359,600 0 0 0	348,000 0 0 0	359,600 0 0 0	4,234,000 912,470 1,898,630 35,200 54,200
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT COL MAUMEE	NOV 348,000 56,252 117,048 0 0 762,400	359,600 183,396 381,604 3,200 35,000 1,173,100	359,600 162,135 337,365 0 0 1,172,900	324,800 180,085 374,715 0 0 1,059,400	359,600 122,567 255,033 0 0 1,172,900	348,000 107,993 224,707 32,000 0 774,600	359,600 60,699 126,301 0 19,200 82,400	348,000 39,341 81,859 0 0	359,600 0 0 0 0 0 1,700	359,600 0 0 0 0	348,000 0 0 0 0	359,600 0 0 0 0 41,900	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT COL MAUMEE COL BROADRUN	NOV 348,000 56,252 117,048 0 0 762,400 291,400	359,600 183,396 381,604 3,200 35,000 1,173,100 300,900	359,600 162,135 337,365 0 0 1,172,900 300,800	324,800 180,085 374,715 0 0 1,059,400 271,700	359,600 122,567 255,033 0 0 1,172,900 300,800	348,000 107,993 224,707 32,000 0 774,600 291,600	359,600 60,699 126,301 0 19,200 82,400 301,400	348,000 39,341 81,859 0 0 102,800 291,400	359,600 0 0 0 0 1,700 251,300	359,600 0 0 0 0 0 0 252,500	348,000 0 0 0 0 0 0 291,600	359,600 0 0 0 0 41,900 301,100	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 3,446,500
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT COL MAUMEE COL BROADRUN TRANSCO Z2	NOV  348,000 56,252 117,048 0 0 762,400 291,400 3,915	359,600 183,396 381,604 3,200 35,000 1,173,100 300,900 4,013	359,600 162,135 337,365 0 0 1,172,900 300,800 4,013	324,800 180,085 374,715 0 0 1,059,400 271,700 3,621	359,600 122,567 255,033 0 0 1,172,900 300,800 0	348,000 107,993 224,707 32,000 0 774,600 291,600 0	359,600 60,699 126,301 0 19,200 82,400 301,400 0	348,000 39,341 81,859 0 0 102,800 291,400 0	359,600 0 0 0 0 1,700 251,300 0	359,600 0 0 0 0 0 0 252,500 0	348,000 0 0 0 0 0 0 291,600	359,600 0 0 0 0 41,900 301,100 0	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 3,446,500 15,562
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT COL MAUMEE COL BROADRUN TRANSCO Z2 TRANSCO Z3	NOV  348,000 56,252 117,048 0 0 762,400 291,400 3,915 85	359,600 183,396 381,604 3,200 35,000 1,173,100 300,900 4,013 87	359,600 162,135 337,365 0 0 1,172,900 300,800 4,013 87	324,800 180,085 374,715 0 0 1,059,400 271,700 3,621 79	359,600 122,567 255,033 0 0 1,172,900 300,800 0	348,000 107,993 224,707 32,000 0 774,600 291,600 0	359,600 60,699 126,301 0 19,200 82,400 301,400 0	348,000 39,341 81,859 0 0 102,800 291,400 0	359,600 0 0 0 0 1,700 251,300 0	359,600 0 0 0 0 0 0 252,500 0	348,000 0 0 0 0 0 0 291,600 0	359,600 0 0 0 41,900 301,100 0	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 3,446,500 15,562 338
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT COL MAUMEE COL BROADRUN TRANSCO Z2 TRANSCO Z3 TETCO ELA	NOV  348,000 56,252 117,048 0 0 762,400 291,400 3,915 85 0	359,600 183,396 381,604 3,200 35,000 1,173,100 300,900 4,013 87 230,267	359,600 162,135 337,365 0 0 1,172,900 300,800 4,013 87 326,736	324,800 180,085 374,715 0 0 1,059,400 271,700 3,621 79 260,657	359,600 122,567 255,033 0 0 1,172,900 300,800 0 0	348,000 107,993 224,707 32,000 0 774,600 291,600 0 0 164,378	359,600 60,699 126,301 0 19,200 82,400 301,400 0 0 168,230	348,000 39,341 81,859 0 0 102,800 291,400 0 0 105,658	359,600 0 0 0 1,700 251,300 0 29,856	359,600 0 0 0 0 0 0 252,500 0 0 6,177	348,000 0 0 0 0 0 291,600 0 0 5,986	359,600 0 0 0 41,900 301,100 0 6,177	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 3,446,500 15,562 338 1,304,123
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT COL MAUMEE COL BROADRUN TRANSCO Z2 TRANSCO Z3 TETCO ELA TETCO ETX	NOV  348,000 56,252 117,048 0 0 762,400 291,400 3,915 85 0 0	359,600 183,396 381,604 3,200 35,000 1,173,100 300,900 4,013 87 230,267 68,982	359,600 162,135 337,365 0 0 1,172,900 300,800 4,013 87 326,736 97,881	324,800 180,085 374,715 0 0 1,059,400 271,700 3,621 79 260,657 78,086	359,600 122,567 255,033 0 0 1,172,900 300,800 0 0	348,000 107,993 224,707 32,000 0 774,600 291,600 0 0 164,378 49,243	359,600 60,699 126,301 0 19,200 82,400 301,400 0 0 168,230 50,397	348,000 39,341 81,859 0 0 102,800 291,400 0 105,658 31,652	359,600 0 0 0 1,700 251,300 0 0 29,856 8,944	359,600 0 0 0 0 0 0 252,500 0 6,177 1,850	348,000 0 0 0 0 0 0 291,600 0 0 5,986 1,793	359,600 0 0 0 41,900 301,100 0 6,177 1,850	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 3,446,500 15,562 338 1,304,123 390,681
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT COL MAUMEE COL BROADRUN TRANSCO Z2 TRANSCO Z3 TETCO ELA TETCO ETX TETCO STX	NOV  348,000 56,252 117,048 0 0 762,400 291,400 3,915 85 0 0 0	359,600 183,396 381,604 3,200 35,000 1,173,100 300,900 4,013 87 230,267 68,982 102,816	359,600 162,135 337,365 0 0 1,172,900 300,800 4,013 87 326,736 97,881 145,890	324,800 180,085 374,715 0 0 1,059,400 271,700 3,621 79 260,657 78,086 116,385	359,600 122,567 255,033 0 0 1,172,900 300,800 0 0 0	348,000 107,993 224,707 32,000 0 774,600 291,600 0 0 164,378 49,243 73,396	359,600 60,699 126,301 0 19,200 82,400 301,400 0 0 168,230 50,397 75,116	348,000 39,341 81,859 0 0 102,800 291,400 0 0 105,658 31,652 47,177	359,600 0 0 0 1,700 251,300 0 0 29,856 8,944 13,331	359,600 0 0 0 0 0 252,500 0 0 6,177 1,850 2,758	348,000 0 0 0 0 0 291,600 0 0 5,986 1,793 2,673	359,600 0 0 0 41,900 301,100 0 6,177 1,850 2,758	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 3,446,500 15,562 338 1,304,123 390,681 582,300
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT COL MAUMEE COL BROADRUN TRANSCO Z2 TRANSCO Z3 TETCO ELA TETCO ETX TETCO STX TETCO WLA	NOV  348,000 56,252 117,048 0 0 762,400 291,400 3,915 85 0 0 0 0	359,600 183,396 381,604 3,200 35,000 1,173,100 300,900 4,013 87 230,267 68,982 102,816 158,251	359,600 162,135 337,365 0 0 1,172,900 300,800 4,013 87 326,736 97,881 145,890 224,549	324,800 180,085 374,715 0 0 1,059,400 271,700 3,621 79 260,657 78,086 116,385 179,136	359,600 122,567 255,033 0 0 1,172,900 300,800 0 0 0	348,000 107,993 224,707 32,000 0 774,600 0 0 164,378 49,243 73,396 112,969	359,600 60,699 126,301 0 19,200 82,400 301,400 0 0 168,230 50,397 75,116 115,615	348,000 39,341 81,859 0 0 102,800 291,400 0 0 105,658 31,652 47,177 72,613	359,600 0 0 0 0 1,700 251,300 0 0 29,856 8,944 13,331 20,518	359,600 0 0 0 0 0 252,500 0 6,177 1,850 2,758 4,245	348,000 0 0 0 0 0 291,600 0 0 5,986 1,793 2,673 4,114	359,600 0 0 0 41,900 0 0 6,177 1,850 2,758 4,245	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 15,562 338 1,304,123 390,681 582,300 896,256
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT COL MAUMEE COL BROADRUN TRANSCO Z2 TRANSCO Z3 TETCO ELA TETCO ETX TETCO STX TETCO WLA TETCO to B&W - SCT	NOV  348,000 56,252 117,048 0 0 762,400 291,400 3,915 85 0 0 0 0 0	359,600 183,396 381,604 3,200 35,000 1,173,100 300,900 4,013 87 230,267 68,982 102,816 158,251 25,604	359,600 162,135 337,365 0 0 1,172,900 300,800 4,013 87 326,736 97,881 145,890 224,549 36,331	324,800 180,085 374,715 0 0 1,059,400 271,700 3,621 79 260,657 78,086 116,385 179,136 28,983	359,600 122,567 255,033 0 0 1,172,900 300,800 0 0 0 0	348,000 107,993 224,707 32,000 0 774,600 291,600 0 0 164,378 49,243 73,396 112,969 18,278	359,600 60,699 126,301 0 19,200 82,400 301,400 0 0 168,230 50,397 75,116 115,615 18,706	348,000 39,341 81,859 0 0 102,800 291,400 0 0 105,658 31,652 47,177 72,613 11,748	359,600 0 0 0 1,700 251,300 0 0 29,856 8,944 13,331 20,518 3,320	359,600 0 0 0 0 0 252,500 0 6,177 1,850 2,758 4,245 687	348,000 0 0 0 0 0 291,600 0 0 5,986 1,793 2,673 4,114 666	359,600 0 0 0 41,900 301,100 0 6,177 1,850 2,758 4,245 687	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 15,562 338 1,304,123 390,681 582,300 896,256 145,010
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT COL MAUMEE COL BROADRUN TRANSCO Z2 TRANSCO Z3 TETCO ELA TETCO ELA TETCO ETX TETCO STX TETCO WLA TETCO IS B&W - SCT TETCO - NF - TRANSCO	NOV  348,000 56,252 117,048 0 0 762,400 291,400 3,915 85 0 0 0 0 0 0	359,600 183,396 381,604 3,200 35,000 1,173,100 300,900 4,013 87 230,267 68,982 102,816 158,251 25,604 11,283	359,600 162,135 337,365 0 0 1,172,900 300,800 4,013 87 326,736 97,881 145,890 224,549 36,331 16,011	324,800 180,085 374,715 0 0 1,059,400 271,700 3,621 79 260,657 78,086 116,385 179,136 28,983 12,773	359,600 122,567 255,033 0 0 1,172,900 300,800 0 0 0 0 0	348,000 107,993 224,707 32,000 0 774,600 291,600 0 0 164,378 49,243 73,396 112,969 18,278 8,055	359,600 60,699 126,301 0 19,200 82,400 301,400 0 0 168,230 50,397 75,116 115,615 18,706 8,243	348,000 39,341 81,859 0 0 102,800 291,400 0 0 105,658 31,652 47,177 72,613 11,748 5,177	359,600 0 0 0 1,700 251,300 0 0 29,856 8,944 13,331 20,518 3,320 1,463	359,600 0 0 0 0 0 252,500 0 6,177 1,850 2,758 4,245 687 303	348,000 0 0 0 0 291,600 0 5,986 1,793 2,673 4,114 666 293	359,600 0 0 0 41,900 301,100 0 6,177 1,850 2,758 4,245 687 303	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 3,446,500 15,562 338 1,304,123 390,681 582,300 896,256 145,010 63,904
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT COL MAUMEE COL BROADRUN TRANSCO Z2 TRANSCO Z3 TETCO ELA TETCO ETX TETCO STX TETCO WLA TETCO to B&W - SCT	NOV  348,000 56,252 117,048 0 0 762,400 291,400 3,915 85 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	359,600 183,396 381,604 3,200 35,000 1,173,100 300,900 4,013 87 230,267 68,982 102,816 158,251 25,604 11,283 6,697	359,600 162,135 337,365 0 0 1,172,900 300,800 4,013 87 326,736 97,881 145,890 224,549 36,331 16,011 9,502	324,800 180,085 374,715 0 0 1,059,400 271,700 3,621 79 260,657 78,086 116,385 179,136 28,983 12,773 7,581	359,600 122,567 255,033 0 0 1,172,900 300,800 0 0 0 0 0	348,000 107,993 224,707 32,000 0 774,600 291,600 0 0 164,378 49,243 73,396 112,969 18,278 8,055 4,781	359,600 60,699 126,301 0 19,200 82,400 301,400 0 0 168,230 50,397 75,116 115,615 18,706 8,243 4,893	348,000 39,341 81,859 0 0 102,800 291,400 0 0 105,658 31,652 47,177 72,613 11,748 5,177 3,073	359,600 0 0 0 1,700 251,300 0 0 29,856 8,944 13,331 20,518 3,320	359,600 0 0 0 0 0 252,500 0 6,177 1,850 2,758 4,245 687	348,000 0 0 0 0 291,600 0 5,986 1,793 2,673 4,114 666 293 174	359,600 0 0 0 41,900 301,100 0 6,177 1,850 2,758 4,245 687 303 180	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 3,446,500 15,562 338 1,304,123 390,681 582,300 896,256 145,010 63,904 37,928
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN MIAGARA TENN DRACUT COL MAUMEE COL BROADRUN TRANSCO Z2 TRANSCO Z3 TETCO ELA TETCO ETX TETCO STX TETCO WLA TETCO TO B&W - SCT TETCO - NF - TRANSCO TETCO - DTI - TETCO M3 DELIVERED	NOV  348,000 56,252 117,048 0 0 762,400 291,400 3,915 85 0 0 0 0 0 0	359,600 183,396 381,604 3,200 35,000 1,173,100 300,900 4,013 87 230,267 68,982 102,816 158,251 25,604 11,283 6,697 304,600	359,600 162,135 337,365 0 0 1,172,900 300,800 4,013 87 326,736 97,881 145,890 224,549 36,331 16,011 9,502 203,700	324,800 180,085 374,715 0 0 1,059,400 271,700 3,621 79 260,657 78,086 116,385 179,136 28,983 12,773 7,581 125,100	359,600 122,567 255,033 0 0 1,172,900 300,800 0 0 0 0 0	348,000 107,993 224,707 32,000 0 774,600 291,600 0 0 164,378 49,243 73,396 112,969 18,278 8,055	359,600 60,699 126,301 0 19,200 82,400 301,400 0 0 168,230 50,397 75,116 115,615 18,706 8,243	348,000 39,341 81,859 0 0 102,800 291,400 0 0 105,658 31,652 47,177 72,613 11,748 5,177	359,600 0 0 0 1,700 251,300 0 0 29,856 8,944 13,331 20,518 3,320 1,463 868	359,600 0 0 0 0 0 252,500 0 6,177 1,850 2,758 4,245 687 303 180	348,000 0 0 0 0 291,600 0 5,986 1,793 2,673 4,114 666 293	359,600 0 0 0 41,900 301,100 0 6,177 1,850 2,758 4,245 687 303	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 3,446,500 15,562 338 1,304,123 390,681 582,300 896,256 145,010 63,904 37,928 3,973,800
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT COL MAUMEE COL BROADRUN TRANSCO Z2 TRANSCO Z3 TETCO ELA TETCO ETX TETCO STX TETCO WLA TETCO UBA TETCO - NF - TRANSCO TETCO - DTI - TETCO	NOV  348,000 56,252 117,048 0 0 762,400 291,400 3,915 85 0 0 0 0 0 595,600	359,600 183,396 381,604 3,200 35,000 1,173,100 300,900 4,013 87 230,267 68,982 102,816 158,251 25,604 11,283 6,697	359,600 162,135 337,365 0 0 1,172,900 300,800 4,013 87 326,736 97,881 145,890 224,549 36,331 16,011 9,502	324,800 180,085 374,715 0 0 1,059,400 271,700 3,621 79 260,657 78,086 116,385 179,136 28,983 12,773 7,581	359,600 122,567 255,033 0 0 1,172,900 300,800 0 0 0 0 0 0 0 0 0 0	348,000 107,993 224,707 32,000 0 774,600 291,600 0 0 164,378 49,243 73,396 112,969 18,278 8,055 4,781 531,500	359,600 60,699 126,301 0 19,200 82,400 301,400 0 0 168,230 50,397 75,116 115,615 18,706 8,243 4,893 518,400	348,000 39,341 81,859 0 0 102,800 291,400 0 105,658 31,652 47,177 72,613 11,748 5,177 3,073 27,000	359,600 0 0 0 1,700 251,300 0 0 29,856 8,944 13,331 20,518 3,320 1,463 868 0	359,600 0 0 0 0 0 0 252,500 0 6,177 1,850 2,758 4,245 687 303 180 0	348,000 0 0 0 0 291,600 0 5,986 1,793 2,673 4,114 666 293 174 29,800	359,600 0 0 0 41,900 301,100 0 6,177 1,850 2,758 4,245 687 303 180 518,400	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 3,446,500 15,562 338 1,304,123 390,681 582,300 896,256 145,010 63,904 37,928
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT COL MAUMEE COL BROADRUN TRANSCO Z2 TRANSCO Z3 TETCO ELA TETCO ETX TETCO STX TETCO WLA TETCO TO B&W - SCT TETCO - DTI - TETCO M3 DELIVERED HUBLINE	NOV  348,000 56,252 117,048 0 0 762,400 291,400 3,915 85 0 0 0 0 595,600	359,600 183,396 381,604 3,200 35,000 1,173,100 300,900 4,013 87 230,267 68,982 102,816 158,251 25,604 11,283 6,697 304,600 109,000	359,600 162,135 337,365 0 0 1,172,900 300,800 4,013 87 326,736 97,881 145,890 224,549 36,331 16,011 9,502 203,700 92,100	324,800 180,085 374,715 0 0 1,059,400 271,700 3,621 79 260,657 78,086 116,385 179,136 28,983 12,773 7,581 125,100 83,100	359,600 122,567 255,033 0 0 1,172,900 300,800 0 0 0 0 0 0 0 0 1,119,700 0	348,000 107,993 224,707 32,000 0 774,600 0 0 164,378 49,243 73,396 112,969 18,278 8,055 4,781 531,500 0	359,600 60,699 126,301 0 19,200 82,400 0 0 168,230 50,397 75,116 115,615 18,706 8,243 4,893 518,400 0	348,000 39,341 81,859 0 0 102,800 291,400 0 105,658 31,652 47,177 72,613 11,748 5,177 3,073 27,000 0	359,600 0 0 0 1,700 251,300 0 29,856 8,944 13,331 20,518 3,320 1,463 868 0 0	359,600 0 0 0 0 0 252,500 0 6,177 1,850 2,758 4,245 687 303 180 0	348,000 0 0 0 0 0 0 291,600 0 5,986 1,793 2,673 4,114 666 293 174 29,800 0	359,600 0 0 0 41,900 0 6,177 1,850 2,758 4,245 687 303 180 518,400	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 15,562 338 1,304,123 390,681 582,300 896,256 145,010 63,904 37,928 3,973,800 284,200
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT COL MAUMEE COL BROADRUN TRANSCO Z2 TRANSCO Z3 TETCO ELA TETCO ETX TETCO STX TETCO WLA TETCO VIA TETCO - NF - TRANSCO TETCO - DTI - TETCO M3 DELIVERED HUBLINE COL EAGLE	NOV  348,000 56,252 117,048 0 0 762,400 291,400 3,915 85 0 0 0 0 595,600	359,600 183,396 381,604 3,200 35,000 1,173,100 300,900 4,013 87 230,267 68,982 102,816 158,251 25,604 11,283 6,697 304,600 109,000 0	359,600 162,135 337,365 0 0 1,172,900 300,800 4,013 87 326,736 97,881 145,890 224,549 36,331 16,011 9,502 203,700 92,100 0	324,800 180,085 374,715 0 0 1,059,400 271,700 3,621 79 260,657 78,086 116,385 179,136 28,983 12,773 7,581 125,100 83,100 0	359,600 122,567 255,033 0 0 1,172,900 300,800 0 0 0 0 0 0 0 0 1,119,700	348,000 107,993 224,707 32,000 0 774,600 291,600 0 0 164,378 49,243 73,396 112,969 18,278 8,055 4,781 531,500 0	359,600 60,699 126,301 0 19,200 82,400 301,400 0 0 168,230 50,397 75,116 115,615 18,706 8,243 4,893 518,400 0	348,000 39,341 81,859 0 0 102,800 291,400 0 105,658 31,652 47,177 72,613 11,748 5,177 3,073 27,000 0	359,600 0 0 0 1,700 251,300 0 0 29,856 8,944 13,331 20,518 3,320 1,463 868 0 0	359,600 0 0 0 0 0 252,500 0 6,177 1,850 2,758 4,245 687 303 180 0 0	348,000 0 0 0 0 0 291,600 0 5,986 1,793 2,673 4,114 666 293 174 29,800 0 0	359,600 0 0 0 41,900 301,100 0 6,177 1,850 2,758 4,245 687 303 180 518,400 0	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 3,446,500 15,562 338 1,304,123 390,681 582,300 896,256 145,010 63,904 37,928 3,973,800 284,200 0
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT COL MAUMEE COL BROADRUN TRANSCO Z2 TRANSCO Z3 TETCO ELA TETCO ETX TETCO STX TETCO WLA TETCO to B&W - SCT TETCO - NF - TRANSCO TETCO - DTI - TETCO M3 DELIVERED HUBLINE COL EAGLE COL DOWNINGTOWN	NOV  348,000 56,252 117,048 0 0 762,400 291,400 3,915 85 0 0 0 0 595,600 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	359,600 183,396 381,604 3,200 35,000 1,173,100 300,900 4,013 87 230,267 68,982 102,816 158,251 25,604 11,283 6,697 304,600 109,000	359,600 162,135 337,365 0 0 1,172,900 300,800 4,013 87 326,736 97,881 145,890 224,549 36,331 16,011 9,502 203,700 92,100 0	324,800 180,085 374,715 0 0 1,059,400 271,700 3,621 79 260,657 78,086 116,385 179,136 28,983 12,773 7,581 125,100 83,100 0	359,600 122,567 255,033 0 0 1,172,900 300,800 0 0 0 0 0 0 0 0 1,119,700 0 0	348,000 107,993 224,707 32,000 0 774,600 291,600 0 0 164,378 49,243 73,396 112,969 18,278 8,055 4,781 531,500 0 0	359,600 60,699 126,301 0 19,200 82,400 301,400 0 0 168,230 50,397 75,116 115,615 18,706 8,243 4,893 518,400 0 0	348,000 39,341 81,859 0 0 102,800 291,400 0 105,658 31,652 47,177 72,613 11,748 5,177 3,073 27,000 0 0	359,600 0 0 0 1,700 251,300 0 29,856 8,944 13,331 20,518 3,320 1,463 868 0 0 0	359,600 0 0 0 0 0 252,500 0 6,177 1,850 2,758 4,245 687 303 180 0 0	348,000 0 0 0 0 291,600 0 5,986 1,793 2,673 4,114 666 293 174 29,800 0 0	359,600 0 0 0 41,900 301,100 0 6,177 1,850 2,758 4,245 687 303 180 518,400 0 0	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 3,446,500 15,562 338 1,304,123 390,681 582,300 896,256 145,010 63,904 37,928 3,973,800 284,200 0
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN MIAGARA TENN DRACUT COL MAUMEE COL BROADRUN TRANSCO Z2 TRANSCO Z3 TETCO ELA TETCO ELA TETCO ETX TETCO STX TETCO WLA TETCO IN B&W - SCT TETCO - NF - TRANSCO TETCO - DTI - TETCO M3 DELIVERED HUBLINE COL EAGLE COL DOWNINGTOWN ANE II - DAWN-TENN	NOV  348,000 56,252 117,048 0 0 762,400 291,400 3,915 85 0 0 0 0 0 595,600 0 30,000	359,600 183,396 381,604 3,200 35,000 1,173,100 300,900 4,013 87 230,267 68,982 102,816 158,251 25,604 11,283 6,697 304,600 109,000 0 0 31,000	359,600 162,135 337,365 0 0 0 1,172,900 300,800 4,013 87 326,736 97,881 145,890 224,549 36,331 16,011 9,502 203,700 92,100 0 0 31,000	324,800 180,085 374,715 0 0 1,059,400 271,700 3,621 79 260,657 78,086 116,385 179,136 28,983 12,773 7,581 125,100 83,100 0 0 28,000	359,600 122,567 255,033 0 0 1,172,900 300,800 0 0 0 0 0 0 0 1,119,700 0 0 0 31,000	348,000 107,993 224,707 32,000 0 774,600 291,600 0 0 164,378 49,243 73,396 112,969 18,278 8,055 4,781 531,500 0 0	359,600 60,699 126,301 0 19,200 82,400 301,400 0 0 168,230 50,397 75,116 115,615 18,706 8,243 4,893 518,400 0 0	348,000 39,341 81,859 0 0 102,800 291,400 0 0 105,658 31,652 47,177 72,613 11,748 5,177 3,073 27,000 0 0	359,600 0 0 0 1,700 251,300 0 29,856 8,944 13,331 20,518 3,320 1,463 868 0 0 0	359,600 0 0 0 0 0 252,500 0 6,177 1,850 2,758 4,245 687 303 180 0 0 0	348,000 0 0 0 0 0 291,600 0 5,986 1,793 2,673 4,114 666 293 174 29,800 0 0 0	359,600 0 0 0 41,900 301,100 0 6,177 1,850 2,758 4,245 687 303 180 518,400 0 0	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 3,446,500 15,562 338 1,304,123 390,681 582,300 896,256 145,010 63,904 37,928 3,973,800 284,200 0 0
Sources of Supply TENN CONX TENN ZONE 0 TENN ZONE 1 TENN NIAGARA TENN DRACUT COL MAUMEE COL BROADRUN TRANSCO Z2 TRANSCO Z3 TETCO ELA TETCO ETX TETCO STX TETCO STX TETCO TO S&W - SCT TETCO - NF - TRANSCO TETCO - DTI - TETCO M3 DELIVERED HUBLINE COL EAGLE COL DOWNINGTOWN ANE II - DAWN-TENN DISTRIGAS NSB Winter	NOV  348,000 56,252 117,048 0 0 762,400 291,400 3,915 85 0 0 0 0 595,600 0 30,000 0	359,600 183,396 381,604 3,200 35,000 1,173,100 4,013 87 230,267 68,982 102,816 158,251 25,604 11,283 6,697 304,600 109,000 0	359,600 162,135 337,365 0 0 1,172,900 300,800 4,013 87 326,736 97,881 145,890 224,549 36,331 16,011 9,502 203,700 92,100 0 0 31,000	324,800 180,085 374,715 0 0 1,059,400 271,700 3,621 79 260,657 78,086 116,385 179,136 28,983 12,773 7,581 125,100 83,100 0 0 28,000 0	359,600 122,567 255,033 0 0 1,172,900 300,800 0 0 0 0 0 0 0 0 0 0 0 1,119,700 0 0 0 31,000	348,000 107,993 224,707 32,000 0 774,600 0 0 164,378 49,243 73,396 112,969 18,278 8,055 4,781 531,500 0 0	359,600 60,699 126,301 0 19,200 82,400 0 0 168,230 50,397 75,116 115,615 18,706 8,243 4,893 518,400 0 0	348,000 39,341 81,859 0 0 102,800 0 105,658 31,652 47,177 72,613 11,748 5,177 3,073 27,000 0 0 0	359,600 0 0 0 1,700 251,300 0 29,856 8,944 13,331 20,518 3,320 1,463 868 0 0 0 0	359,600 0 0 0 0 0 252,500 0 6,177 1,850 2,758 4,245 687 303 180 0 0 0	348,000 0 0 0 0 0 0 291,600 0 0 5,986 1,793 2,673 4,114 666 293 174 29,800 0 0 0	359,600 0 0 0 41,900 0 6,177 1,850 2,758 4,245 687 303 180 518,400 0 0	4,234,000 912,470 1,898,630 35,200 54,200 6,344,100 15,562 338 1,304,123 390,681 582,300 896,256 145,010 63,904 37,928 3,973,800 284,200 0 0 151,000

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National Grid 2012 Estimated GCR

Ventyx SENDOUT® Version 12.5.5

Normal Weather Scenario

08-Aug-2012

N	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 LNG Liquid take	2,204,700 0	3,489,400 0	3,520,600 0	3,134,200 0	3,361,600 0	2,741,500 0	1,909,200 155,000	1,167,500 129,900	690,900 0	628,300 0	685,100 57,700	1,237,200 19,400	24,770,200 362,000
Total take	2,204,700	3,489,400	3,520,600	3,134,200	3,361,600	2,741,500	2,064,200	1,297,400	690,900	628,300	742,800	1,256,600	25,132,200
Storage Withdrawals													
TENN 501	0	44,700	174,900	117,700	7,500	0	0	0	0	0	0	11,200	356,000
GSS 300170	0	0	0	0	0	0	0	0	0	0	0	0	0
GSS 300168	0	14,000	20,600	0	0	0	0	0	0	0	0	7,600	42,200
GSS 300171	0	0	68,300	41,100	0	0	0	0	0	0	0	0	,
GSSTE 600045	0	99,600	166,400	147,800	0	0	0	0	0	0	0	0	413,800
TETCO 400515	0	0	13,400	13,400	0	0	0	0	0	0	0	0	26,800
TETCO 400221	0	0	284,300	284,300	0	0	0	0	0	0	0	0	568,600
TETCO 400185	0	0	12,400	0	0	0	0	0	0	0	0	0	12,400
GSS 300169	0	0	53,500	46,300	0	0	0	0	0	0	0	0	99,800
COL FSS 9630	0	38,800	39,100	35,300	25,400	0	0	0	0	0	0	0	138,600
TENN 62918	0	19,200	93,900	0	0	0	0	0	0	0	0	10,400	
LNG PROV	11,700	83,700	55,100	29,300	12,100	11,700	12,100	11,700	12,100	12,100	11,700	12,100	
LNG VALLEY LNG EXETER	3,100 4,000	3,200 4,200	3,200 4,300	2,800 3,800	3,200 4,200	3,100 4,000	3,200 4,200	3,100 4,000	3,200 4,200	3,200 4,200	3,100 4,000	3,100 4,200	
	4,000 18,800	4,200 307,400	4,300 989,400	721,800	4,200 52,400	4,000 18,800	4,200 19,500	4,000 18,800	4,200 19,500		18,800	48,600	2,253,300
Total Withdrawal Delivered Total Storage withdrawal	18,800	216,300	989,400	685.900	32,900	18,800	19,500	18,800	19,500	19,500 0	18,800	29,200	
Total Peaking withdrawal	18,800	91,100	62,600	35,900	19,500	18,800	19,500	18,800	19,500	19,500	18,800	19,400	
Total Supply	2,223,500	3,796,800	4,510,000	3,856,000	3,414,000	2,760,300	1,928,700	1,186,300	710,400	647,800	<b>703,900</b>	1,285,800	
тогат эцергу	2,223,300	3,730,000	4,310,000	3,030,000	3,414,000	2,700,300	1,320,700	1,100,300	710,400	047,000	703,300	1,203,000	21,023,300
Storage withdrawals at Storage	Facilty												
TENN 501	0	45,300	177,000	119,100	7,600	0	0	0	0	0	0	11,300	360,300
GSS 300170	0	0	0	0	0	0	0	0	0	0	0	0	
GSS 300168	0	14,200	20,800	0	0	0	0	0	0	0	0	7,700	42,700
GSS 300171	0	0	69,900	42,100	0	0	0	0	0	0	0	0	,
GSSTE 600045	0	102,200	170,700	151,700	0	0	0	0	0	0	0	0	424,600
TETCO 400515	0	0	14,200	14,200	0	0	0	0	0	0	0	0	28,400
TETCO 400221	0	0	297,000	297,000	0	0	0	0	0	0	0	0	594,000
TETCO 400185	0	0	13,000	0	0	0	0	0	0	0	0	0	13,000
GSS 300169	0	0	55,700	48,200	0	0	0	0	0	0	0	0	103,900
COL FSS 9630	0	40,000	40,100	36,400	26,200	0	0	0	0	0	0	0	
TENN 62918	0	19,500	95,000	700.700	0	0	0	0	0	0	0	10,500	
	0	221,200	953,400	708,700	33,800	0	0	0	0	0	0	29,500	1,946,600

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Total/Average

National Grid 2012 Estimated GCR Normal Weather Scenario Ventyx SENDOUT® Version 12.5.5

08-Aug-2012

Natural Gas Supply VS. Requirements

	Matural Gas Supply VS. I	Requirements		Units.	חום							
	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
08/01/2012 NYMEX	\$3.297	\$3.540	\$3.653	\$3.664	\$3.637	\$3.607	\$3.629	\$3.665	\$3.708	\$3.729	\$3.734	\$3.762
TENNESSEE CONNEXION												
Basis usage to Zn 6	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018
fuel to Zn 6	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Total Delivered												
TENNESSEE ZN 0												
Basis usage	\$0.3142	\$0.3142	\$0.3142	\$0.3142	\$0.3142	\$0.3142	\$0.3142	\$0.3142	\$0.3142	\$0.3142	\$0.3142	\$0.3142
fuel	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Total Delivered												
TENNESSEE ZN 1												
Basis usage to Zn 6	\$0.2741	\$0.2741	\$0.2741	\$0.2741	\$0.2741	\$0.2741	\$0.2741	\$0.2741	\$0.2741	\$0.2741	\$0.2741	\$0.2741
fuel to Zn 6	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%	3.51%
Total Delivered												
TENNESSEE DRACUT												
Basis \$0.800 usage	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352
fuel	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%	0.21%
Total Delivered												
TETCO ELA												
Basis Usage to M3	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960
Usage on AGT	\$0.0130	\$0.0130	\$0.0300	\$0.0300	\$0.0300	\$0.0300	\$0.0300	\$0.0300	\$0.0300	\$0.0130	\$0.0300	\$0.0130
Fuel to M3	6.95%	8.21%	8.21%	8.21%	8.21%	6.95%	6.95%	6.95%	6.95%	6.95%	6.95%	6.95%
Fuel on AGT	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%
Total Delivered												
TETCO ETX												
Basis Usage to M3	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960	\$0.0960
Usage on AGT	\$0.0300	\$0.0900	\$0.0900	\$0.0900	\$0.0900	\$0.0900	\$0.0900	\$0.0900	\$0.0900	\$0.0900	\$0.0900	\$0.0900
Fuel to M3	6.95%	8.21%	8.21%	8.21%	8.21%	6.95%	6.95%	6.95%	6.95%	6.95%	6.95%	6.95%
Fuel on AGT	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%
Total Delivered												
TETCO STX Basis												
Usage to M3	\$0.1021	\$0.1021	\$0.1021	\$0.1021	\$0.1021	\$0.1021	\$0.1021	\$0.1021	\$0.1021	\$0.1021	\$0.1021	\$0.1021
Usage on AGT	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130
Fuel to M3	7.95%	9.59%	9.59%	9.59%	9.59%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%
Fuel on AGT Total Delivered	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%
Total Delivered												

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Natural Gas Supply VS. Requirements

TETCO WLA	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
Basis													İ
Usage to M3	\$0.0979	\$0.0979	\$0.0979	\$0.0979	\$0.0979	\$0.0979	\$0.0979	\$0.0979	\$0.0979	\$0.0979	\$0.0979	\$0.0979	
•	\$0.0979		\$0.0979	\$0.0979	\$0.0979		\$0.0979		\$0.0979	\$0.0979		\$0.0979	
Usage on AGT		\$0.0130				\$0.0130		\$0.0130			\$0.0130		
Fuel to M3	7.25%	8.64%	8.64%	8.64%	8.64%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	
Fuel on AGT Total Delivered	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
TETCO -> NF -> TRANSCO													ı
Basis		**					***						
Usage to M2	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	
Usage on NF	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	\$0.0166	
Usage on Transco	\$0.0101	\$0.0101	\$0.0101	\$0.0101	\$0.0101	\$0.0101	\$0.0101	\$0.0101	\$0.0101	\$0.0101	\$0.0101	\$0.0101	
Usage on AGT	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	
Fuel to M2	6.19%	7.19%	7.19%	7.19%	7.19%	6.19%	6.19%	6.19%	6.19%	6.19%	6.19%	6.19%	
Fuel on NF	0.76%	0.76%	0.76%	0.76%	0.76%	0.76%	0.76%	0.76%	0.76%	0.76%	0.76%	0.76%	
Fuel on Transco	0.65%	0.65%	0.65%	0.65%	0.65%	0.65%	0.65%	0.65%	0.65%	0.65%	0.65%	0.65%	
Fuel on AGT	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	ì
Delivered to NF													
Delivered to Transco													
Delivered to Algonquin													
Total Delivered													
M3 DELIVERED													
Basis													
Usage on AGT	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	
Fuel on AGT	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Total Delivered													
COLUMBIA MAUMEE													i
Basis	******	******	******	******	** ***	******	******	******	******	******	** ***	*****	
Usage on Columbia	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	
Usage on AGT	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	
Fuel on Columbia	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	
Fuel on AGT	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	Í
Total Delivered													
COLUMBIA BROADRUN Basis													İ
Basis Usage on Columbia	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	
Usage on AGT			\$0.0254						\$0.0254 \$0.0130			\$0.0254	
Fuel on Columbia	\$0.0130 1.963%	\$0.0130 1.963%	1.963%	\$0.0130 1.963%	\$0.0130 1.963%	\$0.0130 1.963%	\$0.0130 1.963%	\$0.0130 1.963%	1.963%	\$0.0130 1.963%	\$0.0130 1.963%	1.963%	
Fuel on AGT	0.93%	1.903%	1.00%		1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Total Delivered	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	ĺ
COLUMBIA EAGLE													
Basis													
Usage on Columbia	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	
Usage on AGT	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	
Fuel on Columbia	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	
Fuel on AGT	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Total Delivered	· · · · · ·	/ -	- · · · •	/ -	· · ·	· · · · · ·			· ·	/-	/-		

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National Grid 2012 Estimated GCR Normal Weather Scenario Ventyx SENDOUT® Version 12.5.5

08-Aug-2012

Natural Gas Supply VS. Requirements

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Averag
COLUMBIA DOWNINGTOWN													`
Basis													
Usage on Columbia	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	\$0.0254	_
Usage on AGT	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	
Fuel on Columbia	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	1.963%	
Fuel on AGT	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Total Delivered	0.0070	1.0070	1.0070	1.0070	1.0070	0.0070	0.0070	0.0070	0.0070	0.0070	0.0070	0.0070	
TETCO -> DTI -> TETCO													
Basis													
Usage to M2	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	\$0.4378	
Usage on Dominion	\$0.0252	\$0.0252	\$0.0252	\$0.0252	\$0.0252	\$0.0252	\$0.0252	\$0.0252	\$0.0252	\$0.0252	\$0.0252	\$0.0252	
Usage on Tetco	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	
Usage on AGT	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	
Fuel to M2	6.19%	7.19%	7.19%	7.19%	7.19%	6.19%	6.19%	6.19%	6.19%	6.19%	6.19%	6.19%	
Fuel on Dominion	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	
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	0.93%	1.00%	1.29%	1.29%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Delivered to Dominion	0.3370	1.00 /0	1.0070	1.00 /0	1.00 /6	0.33 /0	0.33 /0	0.33 /0	0.30/0	0.33 /0	0.3376	0.9370	
Delivered to Dominion  Delivered to Tetco													
Delivered to Algonquin													
Total Delivered													
TRANSCO ZONE 2													-
Basis													
Usage on Transco	\$0.05035	\$0.05035	\$0.05035	\$0.05035	\$0.05035	\$0.05035	\$0.05035	\$0.05035	\$0.05035	\$0.05035	\$0.05035	\$0.05035	
Usage on Tetco	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	
Usage on AGT	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	1
Fuel on Transco	3.98%	3.98%	3.98%	3.98%	3.98%	3.98%	3.98%	3.98%	3.98%	3.98%	3.98%	3.98%	
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	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
Total Delivered													
TRANSCO ZONE 3													
Basis													
Usage on Transco	\$0.04634	\$0.04634	\$0.04634	\$0.04634	\$0.04634	\$0.04634	\$0.04634	\$0.04634	\$0.04634	\$0.04634	\$0.04634	\$0.04634	
•													
Usage on Tetco	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	\$0.0018	
Usage on AGT	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	
Fuel on Transco	3.62%	3.62%	3.62%	3.62%	3.62%	3.62%	3.62%	3.62%	3.62%	3.62%	3.62%	3.62%	
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	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	-
Total Delivered													
DAWN TO TENNESSEE - ANE II													_
Basis													
Transcanada usage	\$0.0184	\$0.0184	\$0.0184	\$0.0184	\$0.0184	\$0.0184	\$0.0184	\$0.0184	\$0.0184	\$0.0184	\$0.0184	\$0.0184	
Transcanada pressure chg	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	\$0.0352	
Iroquois usage	\$0.0048	\$0.0048	\$0.0048	\$0.0048	\$0.0048	\$0.0048	\$0.0048	\$0.0048	\$0.0048	\$0.0048	\$0.0048	\$0.0048	
Tenn usage	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	
Fuel on Union	1.305%	1.305%	1.305%	1.305%	1.305%	1.305%	1.305%	1.305%	1.305%	1.305%	1.305%	1.305%	
Fuel on TCPL	1.360%	1.360%	1.360%	1.360%	1.360%	1.360%	1.360%	1.360%	1.360%	1.360%	1.360%	1.360%	
Fuel on Iroquois	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	
Fuel on Tenn	0.91%	0.10%	0.10%	0.10%	0.91%	0.91%	0.91%	0.91%	0.91%	0.10%	0.91%	0.10%	
Total Delivered	0.5170	0.0170	0.0170	0.5170	0.5170	0.5170	0.5170	0.5170	0.5170	0.5170	0.5170	0.5170	
I Olai Delivereu													

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\$25,498

National Grid 2012 Estimated GCR Normal Weather Scenario

Total Delivered Cost

Ventyx SENDOUT® Version 12.5.5

\$910,185 \$1,333,569 \$1,065,875

08-Aug-2012

Natural Gas Supply VS. Requirements

Units: DTH

	,												
	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total//
NIAGARA TO TENNESSEE													
Basis													
enn usage	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	\$0.0829	
enn Fuel	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	0.91%	
otal Delivered													
etco to B&W - SCT													_
asis													
age on Tetco	\$0.5482	\$0.5482	\$0.5482	\$0.5482	\$0.5482	\$0.5482	\$0.5482	\$0.5482	\$0.5482	\$0.5482	\$0.5482	\$0.5482	
age on AGT	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	\$0.2291	
el to ZN 3	7.20%	8.56%	8.56%	8.56%	8.56%	7.20%	7.20%	7.20%	7.20%	7.20%	7.20%	7.20%	
iel on AGT	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
tal Delivered													
ıbline													i
asis \$0.8680													
age	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	\$0.0130	
el	0.93%	1.00%	1.00%	1.00%	1.00%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	0.93%	
otal Delivered													
ENN CONNEXION													
elivered Mmbtu	348,000	359,600	359,600	324,800	359,600	348,000	359,600	348,000	359,600	359,600	348,000	359,600	
YMEX \$/Mmbtu Del	\$3.353	\$3.606	\$3.739	\$3.730	\$3.712	\$3.671	\$3.699	\$3.741	\$3.791	\$3.813	\$3.813	\$3.832	
otal Delivered Cost	\$1,166,789	\$1,296,706	\$1,344,652	\$1,211,480	\$1,334,913	\$1,277,351	\$1,330,044	\$1,302,001	\$1,363,381	\$1,371,248	\$1,327,014	\$1,377,990	
ennessee Zn 0													
elivered Mmbtu	56,252	183,396	162,135	180,085	122,567	107,993	60,699	39,341	0	0	0	0	
/MEX \$/Mmbtu Del	\$3.665	\$3.918	\$4.052	\$4.042	\$4.025	\$3.983	\$4.011	\$4.054	\$4.104	\$4.126	\$4.126	\$4.144	
otal Delivered Cost	\$206,178	\$718,614	\$656,924	\$727,964	\$493,286	\$430,130	\$243,469	\$159,480	\$0	\$0	\$0	\$0	
	¥=23,113	¥1.12,211	*****	**=*,***	*****	*,	<del>1</del> ,	*****	**	**	**	**	
NN ZONE 1													
livered Mmbtu	117,048	381.604	337,365	374,715	255,033	224,707	126.301	81,859	0	0	0	0	
Mmbtu Del	\$3,749	\$3.879	\$4.016	\$4.059	\$4.060	\$4.049	\$4.043	\$4.030	\$4.088	\$4.095	\$4.211	\$4.211	
tal Delivered Cost	\$438,820	\$1,480,095	\$1,355,011	\$1,520,947	\$1,035,429	\$909,746	\$510,685	\$329,886	\$0	\$0	\$0	\$0	
	Ţ,3 <b>2</b> 0	. ,,-30	. ,,	. ,,	. ,. ,.,0				+0	+0	+0	,,,	
ENN DRACUT													
elivered Mmbtu	0	35,000	0	0	0	0	19,200	0	0	0	0	0	
/Imbtu Del	\$4.14	\$5.80	\$7.53	\$6.64	\$4.73	\$4.04	\$3.82	\$3.88	\$3.99	\$4.03	\$3.93	\$4.06	
tal Delivered Cost	\$0	\$202,906	\$0	\$0	\$0	\$0	\$73,308	\$0	\$0	\$0	\$0	\$0	
TCO ELA													
livered Mmbtu	0	230,267	326,736	260,657	0	164,378	168,230	105,658	29,856	6,177	5,986	6,177	
/Imbtu Del	\$3.6343	\$3.9527	\$4.0815	\$4.0892	\$4.0595	\$3.9598	\$3.9836	\$4.0401	\$4.0693	\$4.0965	\$4.0976	\$4.1279	
	\$5.5010	40.0027	ψ	ψσσ <u>υ</u>	ψσσσσ	45.5500	40.0000	Ψ	<b>4</b>	ψ	<b>4</b>	¥ 1 0	

\$650,903

\$670,168

\$426,865

\$121,494

\$25,304

\$24,530

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National Grid 2012 Estimated GCR Normal Weather Scenario Ventyx SENDOUT® Version 12.5.5

08-Aug-2012

Natural Gas Supply VS. Requirements Units: DTH

	Natural Gas Supply VS.	requirements		Office									
	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total/Average
TETCO ETX		220	07			,		00.1	002	7.00	02.		rota trorago
Delivered Mmbtu	0	68,982	97,881	78,086	0	49,243	50,397	31,652	8,944	1,850	1,793	1,850	
NYMEX \$/Mmbtu Del	\$3.5020	\$3.8405	\$3.9626	\$3.9857	\$3.9362	\$3.8730	\$3.8817	\$3.9598	\$4.0401	\$4.0010	\$4.0249	\$4.0824	
Total Delivered Cost	\$0	\$264,924	\$387,869	\$311,230	\$0	\$190,720	\$195,625	\$125,337	\$36,134	\$7,404	\$7,218	\$7,554	
		, ,	, ,	, . ,		,,		, .,	, ,	. , -	* ,	. ,	
TETCO STX													
Delivered Mmbtu	0	102,816	145,890	116,385	0	73,396	75,116	47,177	13,331	2,758	2,673	2,758	
NYMEX \$/Mmbtu Del	\$3.622	\$3.948	\$4.069	\$4.085	\$4.057	\$3.953	\$3.980	\$4.023	\$4.083	\$4.106	\$4.106	\$4.132	
Total Delivered Cost	\$0	\$405,946	\$593,618	\$475,384	\$0	\$290,130	\$298,987	\$189,799	\$54,435	\$11,326	\$10,976	\$11,396	
TETCO WLA													
Delivered Mmbtu	0	158,251	224,549	179,136	0	112,969	115,615	72,613	20,518	4,245	4,114	4,245	
\$/Mmbtu Del	\$3.6760	\$4.0015	\$4.0866	\$4.0988	\$4.0689	\$3.9774	\$4.0014	\$4.0242	\$4.0906	\$4.1145	\$4.1156	\$4.1461	
Total Delivered Cost	\$0	\$633,238	\$917,645	\$734,239	\$0	\$449,324	\$462,619	\$292,212	\$83,932	\$17,467	\$16,932	\$17,601	
TETCO -> NF -> TRANSCO													
Delivered Mmbtu	0	11,283	16,011	12,773	0	8,055	8,243	5,177	1,463	303	293	303	
Delivered \$/Mmbtu	\$4.2501	\$4.5594	\$4.6885	\$4.6963	\$4.6665	\$4.5775	\$4.6015	\$4.6582	\$4.6877	\$4.7150	\$4.7161	\$4.7466	
Delivered Cost	\$0	\$51,446	\$75,066	\$59,983	\$0	\$36,871	\$37,932	\$24,118	\$6,858	\$1,427	\$1,383	\$1,437	
Ma DELIVERED													
M3 DELIVERED	FOF COO	204.000	202 700	405 400	4 440 700	F24 F00	F40 400	07.000	0	0	20,000	F40 400	
Delivered Mmbtu Delivered \$/Mmbtu	595,600 \$3,5509	304,600 \$4,2473	203,700 \$4.8090	125,100	1,119,700 \$3.8908	531,500 \$3.7901	518,400 \$3,7952	27,000 \$3.8315	0 \$3.9052	0 \$3.9264	29,800 \$3.8406	518,400 \$3.8759	
Delivered Cost	\$2,114,918	\$4,2473	\$979,585	\$4.4968 \$562,554	\$3.0900	\$3.7901	\$3.7952	\$103,451	\$3.9052 \$0	\$3.9204 \$0	\$3.0406 \$114,450	\$2,009,280	
Delivered Cost	φ2,114,910	\$1,293,741	φ9/9,565	\$302,334	\$4,330,304	\$2,014,455	\$1,907,410	φ103, <del>4</del> 31	ΦΟ	ΦΟ	\$114,450	\$2,009,260	
COLUMBIA MAUMEE													
Delivered Mmbtu	762.400	1,173,100	1,172,900	1.059.400	1,172,900	774.600	82,400	102.800	1,700	0	0	41,900	
Delivered \$/Mmbtu	\$3.4415	\$3.6912	\$3.8076	\$3.8158	\$3.7777	\$3.7853	\$3.7977	\$3.8245	\$3.8584	\$3.8698	\$3.8646	\$3.8832	
Total Delivered Cost	\$2,623,770	\$4,330,104	\$4,465,923	\$4,042,493	\$4,430,877	\$2,932,130	\$312,931	\$393,156	\$6,559	\$0	\$0	\$162,704	
Total Belivered Cool	ΨΣ,020,770	ψ1,000,101	Ψ1,100,020	Ψ1,012,100	Ψ1,100,077	ΨΣ,00Σ,100	φο 12,001	φοσο, τοσ	ψ0,000	ΨΟ	ΨŪ	ψ10 <b>2</b> ,701	
COLUMBIA BROADRUN													
Delivered Mmbtu	291,400	300,900	300,800	271,700	300,800	291,600	301,400	291,400	251,300	252,500	291,600	301,100	
Delivered \$/Mmbtu	\$3.3972	\$3.6675	\$3.7921	\$3.7777	\$3.7190	\$3.7153	\$3.7668	\$3.7833	\$3.8131	\$3.8183	\$3.7926	\$3.7884	
Total Delivered Cost	\$989,941	\$1,103,540	\$1,140,674	\$1,026,404	\$1,118,670	\$1,083,391	\$1,135,318	\$1,102,450	\$958,244	\$964,119	\$1,105,909	\$1,140,698	
COLUMBIA EAGLE													
Delivered Mmbtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered \$/Mmbtu	\$3.6474	\$4.3578	\$4.9306	\$4.6123	\$3.9941	\$3.8914	\$3.8965	\$3.9336	\$4.0088	\$4.0304	\$3.9429	\$3.9789	
Delivered Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
COLUMBIA DOWNINGTOW													
Delivered Mmbtu	0	0	0	0	0	0	0	0	0	0	0	0	
Delivered \$/Mmbtu	\$3.6711	\$4.4165	\$5.1676	\$4.8008	\$4.0250	\$3.8986	\$3.8924	\$3.9295	\$4.0222	\$4.0407	\$3.9429	\$3.9758	
Delivered Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	

National Grid Rhode Island - Gas Attachment EDA-4 Redacted Docket No. 4346 September 4, 2012 Page 18 of 18

National Grid 2012 Estimated GCR Normal Weather Scenario Ventyx SENDOUT® Version 12.5.5

Natural Gas Supply VS. Requirements

08-Aug-2012

Units: DTH

NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT Total/Average TETCO -> DTI -> TETCO Delivered Mmbtu 0 6,697 9,502 7,581 0 4,781 4,893 3,073 868 180 174 180 Delivered \$/Mmbtu \$4,3630 \$4.6810 \$4.8138 \$4.8217 \$4,7911 \$4.6996 \$4,7243 \$4.7826 \$4.8129 \$4.8410 \$4.8421 \$4.8735 Delivered Cost \$0 \$31.348 \$45,743 \$36.552 \$0 \$22,467 \$23.114 \$14.696 \$4.179 \$870 \$843 \$876 **TRANSCO ZONE 2** Delivered Mmbtu 3,915 4.013 4.013 3.621 0 0 0 0 0 0 0 0 \$3.9370 \$3.9168 \$3.9306 \$3.8842 \$3.8906 \$3.9577 \$4.0109 \$4.0163 \$4.0269 \$4.0567 Delivered \$/Mmbtu \$3.5477 \$3.7953 \$13,889 \$0 Delivered Cost \$15,230 \$15,798 \$14,184 \$0 \$0 \$0 \$0 \$0 \$0 \$0 TRANSCO ZONE 3 85 87 87 79 Delivered Mmbtu 0 0 0 0 0 0 0 0 Delivered \$/Mmbtu \$3.5550 \$3.8155 \$3.9376 \$3.9493 \$3.9163 \$3.8796 \$3.9030 \$3.9528 \$3.9921 \$4.0250 \$4.0197 \$4.0303 Delivered Cost \$303 \$333 \$343 \$311 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 **DAWN TO TENNESSEE - ANE II** Delivered Mmbtu 30,000 31.000 31.000 28.000 31.000 0 0 0 0 0 0 0 Delivered \$/Mmbtu \$3.9729 \$4.2095 \$4,2282 \$4.2344 \$4.2168 \$4.0840 \$4.1068 \$4.1556 \$4.1566 \$4.1587 \$4.2158 \$4.2448 Total Delivered Cost \$119,188 \$130,495 \$131,074 \$118,564 \$130,721 \$0 \$0 \$0 \$0 \$0 \$0 \$0 **NIAGARA TO TENNESSEE** 3.200 32.000 Delivered Mmbtu 0 0 0 0 0 0 0 0 0 0 Delivered \$/Mmbtu \$3.7755 \$4.0894 \$4.1075 \$4.1136 \$4.0964 \$3.9168 \$3.9390 \$4.0036 \$3.9925 \$4.0086 \$4.0450 \$4.0732 Total Delivered Cost \$0 \$13,086 \$0 \$0 \$0 \$125,337 \$0 \$0 \$0 \$0 \$0 \$0 Tetco to B&W - SCT Delivered Mmbtu 0 25.604 36,331 28.983 0 18,278 18.706 11,748 3,320 687 666 687 Delivered \$/Mmbtu \$4.3164 \$4.6403 \$4.7696 \$4.7773 \$4.7475 \$4.6427 \$4.6666 \$4.7232 \$4.7526 \$4.7798 \$4.7808 \$4.8113 Total Delivered Cost \$0 \$118,811 \$173,282 \$138,462 \$0 \$84,858 \$87,294 \$55,490 \$15,777 \$3,283 \$3,182 \$3,305 HUBLINE Total Delivered Vol 0 109,000 92,100 83,100 0 0 0 0 0 0 0 0 Delivered \$/Mmbtu \$4.2171 \$5.9524 \$7.7635 \$6.7494 \$4.7675 \$4.0980 \$3.8699 \$3.9728 \$4.1212 \$4. 1424 \$4.0294 \$4.1515 Total Delivered Cost \$0 \$648,811 \$715,019 \$560,872 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0

NOV DEC JAN **FEB** MAR APR MAY JUN JUL AUG SEP OCT **Total Pipeline Costs** \$7,673,795 \$13,649,557 \$14,331,795 \$12,607,498 \$12,900,400 \$10,497,811 \$7,348,912 \$4,518,941 \$2,650,994 \$2,402,448 \$2,612,438 \$4,758,338 \$95,952,928 **Total Pipeline Volumes** 2.204.700 3.489.400 3.520.600 3.134.200 3.361.600 2.741.500 1.909.200 1.167.500 690.900 628.300 685.100 1.237.200 24.770.200 WACOG \$3.4807 \$3.9117 \$4.0708 \$4.0226 \$3.8376 \$3.8292 \$3.8492 \$3.8706 \$3.8370 \$3.8237 \$3.8132 \$3.8461 \$3.8737 Injections 0 642.900 668.900 437.100 99.900 39.400 42.200 16.200 1.946.600 0 0 0 n Value at WACOG \$0 \$0 \$0 \$0 \$0 \$2.461.807 \$2.574.737 \$1.691.845 \$383.318 \$150.655 \$160.918 \$62,306 \$7,485,585 **Pipeline Costs less Injections** \$7,673,795 \$13,649,557 \$14,331,795 \$12,607,498 \$12,900,400 \$8,036,005 \$4,774,175 \$2,827,096 \$2,267,677 \$2,251,793 \$2,451,520 \$88,467,342 \$4,696,032 Pipeline Volumes less injections 2.204.700 3,489,400 3,520,600 3.134.200 3.361.600 2.098.600 1.240.300 730,400 591.000 588.900 642.900 1.221.000 22.823.600 NYMEX cost of Supplies \$7,268,896 \$12,352,476 \$12,860,752 \$11,483,709 \$12,226,139 \$7,569,650 \$4,501,049 \$2,676,916 \$2,191,428 \$2,196,008 \$2,400,589 \$4,593,402 \$82,321,013 Non-gas cost of delivered supplies \$0.2693

## 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, 2012 through October 31, 2013

#### <u>Underground Storage:</u>

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

Minimum Inventory Levels:

November 1	95%
November 15	95%
December 1	95%
December 15	91%
January 1	86%
January 15	77%
February 1	67%
February 15	57%
March 1	48%
March 15	47%
April 1	46%

#### **Peaking Inventory**:

Inventory Level allocated on November 1, 2012 = MSQ-P Injections are not allowed.

Minimum Inventory Levels:

November 1	100%
January 1	81%
February 1	48%
March 1	19%
April 1	5%

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

#### FT-2 Storage Variable Costs

	SLF - Weighte	d Average L	oss Factor on S	Storage Withdrawals	
<u>Storage</u>	<u>Withdrawals</u>	Fuel %	Fuel Vol.	Fuel Avg.	
<b>TENN 501</b>	360,300	0.00%	0		
GSS 300170	0	0.00%	0		
GSS 300168	42,700	0.00%	0		
GSS 300171	112,000	0.00%	0		
GSS-TE 600045	424,600	0.00%	0		
TETCO 400515	28,400	0.77%	219		
TETCO 400221	594,000	3.28%	19,483		
TETCO 400185	13,000	3.28%	426		
GSS 300169	103,900	0.00%	0		
COL FSS 9630	142,700	0.00%	0		
TENN 62918	125,000	0.00%	<u>0</u>		
	1,946,600		20,128	1.0340%	

V	WCC - Weighte	d Average Co	mmodity Cost	of Storage Withdrawals	
Storage	Withdrawals	Unit Cost	Cost	Average	
TENN 501	360,300	\$0.0087	\$3,135		
GSS 300170	0	\$0.0193	\$0		
GSS 300168	42,700	\$0.0193	\$824		
GSS 300171	112,000	\$0.0193	\$2,162		
GSS-TE 600045	424,600	\$0.0244	\$10,360		
TETCO 400515	28,181	\$0.0346	\$975		
TETCO 400221	574,517	\$0.0606	\$34,816		
TETCO 400185	12,574	\$0.0606	\$762		
GSS 300169	103,900	\$0.0193	\$2,005		
COL FSS 9630	142,700	\$0.0153	\$2,183		
TENN 62918	125,000	\$0.0087	<b>\$1,088</b>		
	1,926,472		\$58,309	\$0.0303	

PLF - Weighted	d Average Loss F	actor on Pipe	eline Contracts	<b>Used to Deliv</b>	er Storage With	ndrawals
<u>Storage</u>	Transported		Fuel %		Fuel Vol.	Fuel Avg.
TENN 501	360,300			1.20%	4,324	
GSS 300170	0		2.85%	1.20%	0	
GSS 300168	42,700			1.20%	512	
GSS 300171	112,000		1.29%	1.00%	2,550	
GSS-TE 600045	424,600		1.50%	1.00%	10,551	
TETCO 400515	28,181		3.98%	1.00%	1,391	
TETCO 400221	574,517			1.00%	5,745	
TETCO 400185	12,574			1.00%	126	
GSS 300169	103,900	2.85%	0.00%	1.00%	3,971	
COL FSS 9630	142,700		1.963%	1.00%	4,200	
TENN 62918	125,000			1.20%	<u>1,500</u>	
	1,926,472				34,870	1.8101%

PCC - Weighted A	verage Commod	dity Cost on P	ipeline Contrac	cts Used to De	liver Storage V	Vithdrawals
<u>Storage</u>	<u>Withdrawals</u>		Unit Cost		<u>Cost</u>	<u>Average</u>
<b>TENN 501</b>	356,000			\$0.1091	\$38,840	
GSS 300170	0		\$0.0252	\$0.1091	\$0	
GSS 300168	42,200			\$0.1091	\$4,604	
GSS 300171	109,400		\$0.0018	\$0.0130	\$1,619	
GSS-TE 600045	413,800		\$0.0018	\$0.0130	\$6,124	
TETCO 400515	26,800		\$0.0518	\$0.0130	\$1,737	
TETCO 400221	568,600			\$0.0130	\$7,392	
TETCO 400185	12,400			\$0.0130	\$161	
GSS 300169	99,800	\$0.0252	\$0.0018	\$0.0130	\$3,992	
COL FSS 9630	138,600		\$0.0252	\$0.0130	\$5,295	
TENN 62918	123,500			\$0.1091	\$13,474	
	1,891,100				\$83,237	\$0.0440

THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID R.I.P.U.C. DOCKET NO. 4346 GAS COST RECOVERY FILING WITNESS: ANN E. LEARY SEPTEMBER 4, 2012

#### **DIRECT TESTIMONY**

**OF** 

ANN E. LEARY

September 4, 2012

THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
R.I.P.U.C. DOCKET NO. 4346
GAS COST RECOVERY FILING
WITNESS: ANN E. LEARY
SEPTEMBER 4, 2012

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# THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID

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WITNESS: ANN E. LEARY

SEPTEMBER 4, 2012 PAGE 1 OF 14

-	
I.	INTRODUCTION

	•	•		
3	A.	My name is Ann E. Leary. My business address is 40 Sylva	an Road,	Waltham,
4		Massachusetts, 02451.		
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#### Q. What is your position and responsibilities?

Please state your name and business address.

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

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#### Q. Please describe your educational and professional background.

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. After the merger with KeySpan
Energy Delivery, subsequently National Grid, I became the Manager of New
England Gas Pricing, the position I hold today.

### THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID

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1	Q.	Have you previously testified or appeared before this Commission?
2	A.	I have not testified previously before this Commission. However, I have testified
3		extensively in several ratemaking and regulatory proceedings before the
4		Massachusetts Department of Public Utilities and the New Hampshire Public
5		Utilities Commission. In addition, I am currently a witness in the Company's
6		Base Rate filing Docket No. 4323.
7		
8	Q.	What is the purpose of your testimony?
9	A.	The purpose of this testimony is to explain the Gas Cost Recovery ("GCR")
10		charges to be effective on November 1, 2012 for the following services: (1) Firm
11		sales service customers in the Residential Non-Heating and Heating rate classes
12		as well as Commercial and Industrial ("C&I") firm sales customers in the Small,
13		Medium, Large and Extra Large rate classes and; (2) Gas Marketer Fixed Charges
14		and factors associated with transportation services billed to Gas Marketers.
15		
16	Q.	How is your testimony organized?
17	A.	My testimony is composed of four (4) general sections: I. Introduction; II. GCR
18		Rate Development Overview; III. GCR Rate Development Details; and IV. Bill
19		Impacts.

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1	Q.	Are you including any Attachments with your testimony?
2	A.	Yes. I am sponsoring the following Attachments:
3		Attachment AEL-1 Gas Cost Recovery Factors
4		Attachment AEL-2 Annual GCR Reconciliation Filing including
5		Attachment 1 only.
6		Attachment AEL-3 Projected Gas Cost Balances
7		Attachment AEL-4 Bill Impact Analysis
8		Attachment AEL-5 FT-2 Demand Rate
9		Attachment AEL-6 FT-2 Capacity Allocator Percentages
10		Attachment AEL-7 Marketer Reconciliation
11		
12	II.	GCR RATE DEVELOPMENT OVERVIEW
13	Q.	Please provide an overview of the development of the proposed GCR rates.
14	A.	The proposed GCR rates reflect the load specific (high load and low load) factors
15		necessary for the Company to collect the projected gas costs allocated to firm
16		customers for the period November 1, 2012 through October 31, 2013. As shown
17		in the testimony of Ms. Arangio on Attachment EDA-1, firm customers' gas costs
18		for the period are projected to be approximately \$159.6 million for the twelve
19		months ended October 2013. In addition to these projected costs, the GCR factors
20		also reflect Working Capital Costs of approximately \$1.1 million (Attachment
21		AEL-1, page 2 line 9 and page 3 line 6), Inventory Financing Costs of

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approximately \$1.9 million (Attachment AEL-1, page 3 lines 9-10), a prior period
Deferred Balance of approximately \$0.1 million including the Marketer Fixed
Cost Reconciliation (Attachment AEL-1 page 2 line 10-11 and page 3 line 7)
based on actual data through July 2012 and forecast data for the period August
2012 through October 2012, LNG Operation and Maintenance ("O&M") Costs of
approximately \$1.0 million (Docket No. 3943) (Attachment AEL-1 page 2 line 8
and page 3 line 8, a \$1.2 million credit associated with FT-2 Marketer Storage
Demand costs (Attachment AEL-1 page 2 line 4), and a credit of approximately
\$1.0 million associated with LNG Costs (Attachment AEL-1 page 2 line 5 and
page 3 line 3) which will be collected via the Distribution Adjustment Clause
("DAC") factor <sup>1</sup> . Thus, the GCR factors are intended to recover approximately
\$161.5 million in costs over the period November 2012 through October 2013.
Please describe the changes to the GCR Rate Development that are part of
this filing.
In this filing, the Company has simplified gas costs for high load factor rate
classes and low load factor rate classes by consolidating all fixed gas costs into a

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single Fixed Gas Cost component and all variable gas costs into a single Variable

<sup>&</sup>lt;sup>1</sup> This figure aggregates LNG commodity related gas costs of: 1. Withdrawal commodity, \$372,608; 2. Inventory Finance, \$82,079; and Demand charges, \$622,659.

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1 Gas Cost component. This filing implements the approach presented in last year's 2 GCR filing Docket No. 4283, which was not fully implemented due to issues 3 related to the Company's billing system modifications. Further, this approach is 4 now in line with the way the Commission approves a single rate applicable to the 5 high load factor rate classes and a single rate applicable to the low load factor rate 6 classes<sup>2</sup> in accordance with the restructuring of gas costs rates approved in Docket 7 No. 3943 at 90. 8 In addition to the changes to the GCR, this filing also includes the redesign of the 9 FT-2 rate as approved in Docket No. 4270, which will be implemented on 10 November 1, 2012. These changes include the modification of the FT-2 storage 11 charges for marketers, which will improve the alignment between how storage 12 fixed costs are incurred and how they are recovered. 13 14 III. GCR RATE DEVELOPMENT DETAILS 15 Q. At a high level, please explain how the proposed GCR Rates were derived. 16 A. The proposed GCR rates were developed utilizing Fixed and Variable cost

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components. The Company has consolidated the previous five bucket system into

<sup>&</sup>lt;sup>2</sup> Under this rate design, the Residential-Non-Heating, the Large High Load Commercial and Industrial ("C&I') and the Extra-Large High Load C&I rate classes comprised the high load factor group, and the Residential-Heating, Small C&I, Medium C&I, Large Low Load C&I and Extra-Large Low Load C&I rate classes comprise the low load factor group.

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fixed and variable components by combining the supply fixed and storage fixed costs into the fixed cost component and the supply variable, storage variable product and storage variable non-product costs into the variable costs component.

Attachment AEL-1 provides a summary of the GCR fixed and variable gas cost components used to derive the rates the Company seeks approval for in this filing for effect November 1, 2012.

# Q. Please describe how the fixed cost component of the proposed GCR 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 the 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 (net of Capacity Release), less any credits such as Natural Gas Portfolio Management Plan ("NGPMP") customer credits, LNG Demand costs allocated to the DAC, 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

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agreement between the Company and the Division in Docket No. 4199. This results in total Fixed Gas Costs of \$44,849,323 that are to be collected over the period November 2012 through October 2013. Finally, because the Company's gas-supply resources are planned so that there is sufficient capacity to meet the needs of firm sales customers under design winter conditions, the total Fixed Gas Costs are allocated to the various rate classes based on their proportion of design-winter use. The factor rates are derived using the allocated supply fixed costs and dividing them by the projected throughput for the upcoming year for each class. In this case the High Load classes would be expected to use 2.9% of the total throughput or 952,267 Dths while the Low Load classes would use the remaining 97.1% or 23,927,611 Dths. Accordingly, the GCR Fixed Low Load Factor of \$1.8206 per dekatherm while the GCR Fixed High Load Factor is \$1.3509 per dekatherm.

## Q. Please describe how the Company calculated the Marketer Fixed Cost

#### **Reconciliation Balance?**

A. In the Settlement Agreement approved in Docket No. 4199, the Company agreed to provide a reconciliation of Marketer fixed costs.<sup>3</sup> In the Company's 2011-2012 GCR Filing, Docket No. 4283, the Company included an adjustment

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<sup>&</sup>lt;sup>3</sup> Order No. 20230 in Docket No. 4199 at 25.

#### THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID R.I.P.U.C. DOCKET NO. 4346 GAS COST RECOVERY FILING

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1 associated with the Marketer fixed cost reconciliation. The reconciliation 2

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calculation has been updated and revised to better reflect the difference between projected and actual fixed costs paid by marketers during the two GCR years, 2010- 2011 and 2011 - 2012, (including last year's reconciliation credit) and the system actual weighted average cost of capacity in each year. Attachment AEL-7, shows the calculation of the Marketer reconciliation adjustment for both the 2010-2011 and 2011-2012 periods. The Company calculated the Marketer Reconciliation by updating the pipeline surcharge/credit for each path based on actual instead of projected pipeline capacity costs. The Company then compared the approved projected pipeline surcharge/credit (including the 2011- 2012 adjustment for the prior period reconciliation) for each path with the updated actual pipeline surcharge/credit and multiplied this variance by the Marketer's actual monthly capacity. (Please note- in the calculation of the 2010-2011 updated actual pipeline surcharge/credit, the Company used the final approved November 2011 Tennessee rates for the months of June 2011 through October 2011 and not the actual Tennessee rates billed during that period. Since the Company had directly provided each Marketer their portion of the Tennessee refund associated with the true up between the actual rates billed during June 2011-October 2011 and the rates finally approved in November 2011, the Company used the November 2011 approved rates in the recalculation of the 2010-2011 reconciliation to avoid a double credit to those Marketers purchasing

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1 Tennessee capacity.) The Marketer fixed cost reconciliation for the two year 2 period of 2010-2012 resulted in a net surcharge to Marketers of \$374,462. In 3 addition to crediting firm sales customers fixed costs for this amount, the 4 Company included this reconciliation in its calculation of the 2012-2013 pipeline 5 surcharge/credits detailed in Ms. Arangio's testimony. See Attachment EDA-4. 6 7 Q. How did the Company develop its design winter calculations? 8 A. The Company developed its design winter calculation using calendar month 9 degree days consistent with Commission's finding in Docket No. 4097. 10 11 Q. Please describe how the variable cost component was derived. 12 A. The variable cost component includes all variable costs of gas such as commodity 13 costs; supply related LNG O&M, working capital, inventory finance costs; 14 pipeline refunds, credit for the balancing related LNG costs to the DAC, and 15 deferred cost balances. As shown on Attachment AEL-1, page 3 line 12 the total 16 Variable Costs for the period November 2012 through October 2013 is 17 \$116,682,698. The variable costs are divided by the projected period throughput 18 of 24,879,878 Dths to obtain a variable cost factor of \$4.6898 per Dth. 19 20 Q. What is the Company's estimate of the deferred gas cost balance at the end

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of the current GCR period?

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A. Based on actual data through July 2012, and forecasted data for the period August 2012 through October 2012, the total estimated deferred balance at October 31, 3 2012 is an under collection of approximately \$487,002 as shown in Attachment 4 AEL-1, page 7. This balance is incorporated into the development of the GCR 5 rates for the period November 1, 2012 to October 31, 2013. In addition, the 6 projected deferred gas cost balances for the November 2012 through October 7 2013 period are shown on Attachment AEL-3.

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Does the estimated October 31, 2012 deferred gas cost balance include any Q. corrections identified by Ernst & Young (E&Y) as part of its analysis of gas costs?

12 A. 13

Yes. As described in the Company's August 1, 2012 Annual GCR filing, Docket No. 4346, the Company commissioned the accounting firm of Ernst & Young ("E&Y") to perform an analysis and validation of gas costs in the Company's Gas Cost Recovery filings, which extended from September 2006<sup>4</sup> through June 2012. The broad time period covered by this review was undertaken in order to ensure that E&Y confirmed the calculation of the Company's GCR deferred balance filings since the time the Company acquired its gas operations in 2006

<sup>&</sup>lt;sup>4</sup>Due to the absence of detailed account information from the acquisition of Narragansett Electric Company in August 2006, E&Y relied on a gas cost reconciliation filed with the RIPUC for information prior to that time.

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1	until the present. In the course of that analysis, E&Y calculated revised monthly
2	deferral balances resulting in proposed deferred balance adjustments of
3	approximately \$5.5 million in over collections. The Company has included a
4	copy of the E&Y report in its 2012 Annual Gas Cost Reconciliation Filing in
5	Docket 4346 submitted on August 1, 2012

- This analysis identified adjustments in the following areas:
- 7 Capacity Release \$11,700,017;
- Conoco Hedges (\$6,669,322);
- 9 Non-firm Gas Costs (\$10,353,515);
- Company Use \$2,136,371;
- Gas Cost Errors (\$2,053,984);
- Gas Collections Errors (\$193,165)
- Working Capital and Inventory Finance \$416,821;
- Interest (\$466,827).

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#### Q. In addition to validating the historical gas costs, did E&Y recommend any

#### process improvements?

18 A. Yes. In addition to validating gas costs, E&Y developed re-designed spreadsheets
19 used in the process for calculating the monthly GCR deferral to reduce the chance
20 of error and improve data quality. E&Y also recommend process improvement
21 opportunities which the Company is currently implementing. This includes the
22 establishments of various spreadsheet checks and balances and the validation of
23 gas costs with the Company's general ledger.

## THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID

R.I.P.U.C. DOCKET NO. 4346 GAS COST RECOVERY FILING

WITNESS: ANN E. LEARY SEPTEMBER 4, 2012

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

Yes. Consistent with the modifications in Docket No. 4270, the Company is 2 A. 3 submitting for approval its FT-2 marketer demand rate of \$7.3770 per MDQ in 4 Dth/month as shown in Attachment AEL-5. In addition, the Company is also 5 submitting for approval the capacity assignment percentages for the high load and 6 low load factors to be used in the determination of pipeline, underground storage 7 and peaking capacity for Marketers. These percentages are set forth in 8 Attachment AEL-6.

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#### Q. Please describe how the proposed FT-2 marketer demand rate is calculated.

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 storage demand rate is derived by adding the total 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 and refunds if

#### THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID

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15	IV.	BILL IMPACTS
14		
13		deferred filings for the variable storage costs incurred by the Marketers. <sup>5</sup>
12		the variable storage rate each month and credit firm customers in the monthly
11		appropriately compensated for these variable costs, the Company will calculate
10		testimony, Attachment EDA-5. In order to ensure that firm customers are
9		the city gate. These associated cost factors are provided in Ms. Arangio's
8		storage, including all associated variable costs for transporting that storage gas to
7		will be charged the gas storage inventory rate at the time it is withdrawn from
6		storage rate at the time gas is withdrawn from storage. Specifically, Marketers
5		In addition, under the new rate design Marketers will now be charged a variable
4		per Dth and will be applied to the marketer's storage and peaking MDQ.
3		shown in Attachment AEL-5, the proposed FT-2 marketer demand rate is \$7.3770
2		the year to derive a monthly per dekatherm rate to be charged to Marketers. As
1		applicable. That total is then divided by the total storage and peaking MDQ for

1

What is the combined bill impact of the proposed DAC and GCR rates on 16 Q. 17 customer bills as compared to the rates currently in effect?

<sup>&</sup>lt;sup>5</sup> The Company will calculate the FT-2 variable storage rate each month and will file the rate with the Commission and Division, similar to the process that is currently followed for the Transitional Sales Service surcharge.

## THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID

R.I.P.U.C. DOCKET NO. 4346 GAS COST RECOVERY FILING

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9	Q.	Does this conclude your testimony?
8		
7		levels of usage is provided on Attachment AEL-4.
6		Docket No. 4339. A summary of annual bill impacts for customers with various
5		by a \$40 increase in the DAC related costs filed today under separate cover,
4		rates. This decrease is comprised of a \$112 decrease in GCR related costs offset
3		approximately \$72 or an annual 5.6% percent decrease over the current existing
2		experience a total bill decrease related to the proposed GCR and DAC rates of
1	A.	An average residential heating customer using 922 therms per year will

Yes.

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A.

# National Grid - RI Gas Gas Cost Recovery (GCR) Filing Factors Effective November 1, 2012

Line <u>No.</u>	<u>Description</u> (a)	Source Reference (b)	ce <u>Line #</u>	<u>High Load<sup>1</sup></u> (c)	Low Load <sup>2</sup> (d)	FT-2 <u>Mkter<sup>3</sup></u> (e)
1	Fixed Cost Factor	AEL-1 pg 2	Line 17	\$1.3509	\$1.8206	
2	Variable Cost Factor	AEL-1 pg 3	Line 14	\$4.6898	\$4.6898	
3	Total Gas Cost Recovery Charge	(1)+(2)		\$6.0407	\$6.5104	
4	Uncollectible %	Docket 3943		2.46%	2.46%	
5	Total GCR Charge adjusted for Uncollectibles	(3) / [(1 - (4)]		\$6.1930	\$6.6746	
6	GCR Charge on a per therm basis	(5) / 10		\$0.6193	\$0.6675	
	Current rate effective 11/01/11 difference			\$0.7464 (\$0.1271) -17.0%	\$0.7896 (\$0.1221) -15.5%	

<sup>&</sup>lt;sup>1</sup> Includes: Residential Non Heating, Large High Load and Extra Large High Load

<sup>&</sup>lt;sup>2</sup> Includes: Residential Heating, Small C&I, Medium C&I, Large Low Load, Extra Large Low Load

<sup>&</sup>lt;sup>3</sup>See AEL-5 for calculation of FT-2 rate

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

Line <u>No.</u>		Source Reference Line # (b)		Amount (c)	High Load <u>Factor Total</u> (e)	Low Load <u>Factor Total</u> (d)	Line <u>No.</u>
1	Fixed Costs (net of Cap Rel to marketers)	AEL-1 pg 4	Line 56	\$40,043,545			1
2	Less: NGPMP Customer Benefit Interruptible Costs	EDA-1		(\$4,600,000) \$0			2 3
4 5 6	FT-2 Storage Demand Costs LNG Demand to DAC Refunds	AEL-5 pg 3 AEL-1 pg 4	Line 5 Line (33 + 52) x (18.12%)*	(\$1,178,704) (\$622,659) \$0			4 5 6
7	Total Credits Plus:	sum[(3):(7)]		(\$6,401,363)			7
8 9 10 11	Supply Related LNG O&M Costs Working Capital Requirement Deferred Fixed Cost Balance Reconciliation Amount from Fixed costs- Marketers	Rate Case  AEL-1 pg 8  AEL-1 pg 6  EDA-4	Line 15 Line 12 + Line 25	\$618,591 \$265,525 \$10,697,488 (\$374,462)			8 9 10 11
12	Total Additions	sum[(8):(11)]		\$11,207,142			12
13	Total Fixed Costs	(1) + (7) + (12)		\$44,849,323			13
14	Design Winter Sales Percentage	AEL-1 pg 12	Lines 10 & 11		2.87%	97.13%	14
15	Allocated Supply Fixed Costs	(13) x (14)			\$1,286,428	\$43,562,895	15
16	Sales (Dt) Nov 2012 - Oct 2013	AEL-1 pg 11	Line 12	24,879,878	952,267	23,927,611	16
17	Fixed Factor	(15) / (16)			\$1.3509	\$1.8206	17

<sup>\*</sup> System Balancing Factor (Dkt 4283)

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

Line		<u>s</u>		Line			
<u>No.</u>	<u>Description</u>	Reference	Line #	<u>Amount</u>	<u>No.</u>		
1	Variable Costs	AEL-1 pg 4-5	<b>AEL-1 pg 4-5</b> Line 87 - 81				
	Less:						
2	Non-Firm Sales			\$0	2		
3	Balancing Related LNG Costs (to DAC)	AEL-1 pg 4-5	Line 84 x (18.12%)*	(\$372,608)	3		
4	Refunds	AEL-1 pg 4-5	Line 81	\$0	4		
5	Total Credits	sum [(2):(4)]		(\$372,608)	5		
	Plus:						
6	Working Capital	AEL-1 pg 8-9	Line 31	\$823,727	6		
7	Reconciliation Amount	AEL-1 pg 6-7	Line 40 & 57 & 70	(\$10,210,487)	7		
8	Supply Related LNG O&M	Docket 3943		\$430,129	8		
9	Inventory Financing - LNG (Supply)	AEL-1 pg 10	Line 25	\$370,897	9		
10	Inventory Financing - Storage	AEL-1 pg 10	Line 12	\$1,485,575	10		
11	Total Additions	sum [(6):(10)]	•	(\$7,100,158)	11		
12	Total Variable Supply Costs	(1)+(5)+(11)	-	\$116,682,698	12		
13	Sales (Dt) Nov 2012 - Oct 2013	AEL-1 pg 11	Line 12	24,879,878	13		
14	Variable Cost Factor	(12)/(13)		\$ <u>4.6898</u>	14		

<sup>\*</sup> System Balancing Factor (Dkt 4283)

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

Line	Nov. 40	D 40	I 40	F-1- 40	M 40	A 40	M= 40	lum 40	led 40	A 40	0 40	0-1-40	Page 4 of 12
Line <u>No.</u>	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-Oct
SUPPLY FIXED COSTS - Pipeline Delivery													
1 Algonquin	650,451	650,451	650,451	650,451	650,451	650,451	650,451	650,451	650,451	650,451	650,451	650,451	7,805,408
2 Texas Eastern	212,532	212,532	212,532	212,532	212,532	212,532	212,532	212,532	212,532	212,532	212,532	212,532	2,550,389
3 TETCO	525,034	525,034	525,034	525,034	525,034	525,034	525,034	525,034	525,034	525,034	525,034	525,034	6,300,411
4 Tennessee 5 NETNE	1,015,024 0	12,180,286 0											
6 Iroquois	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
7 Union	2,429	2,510	2,510	2,267	2,510	2,429	2,510	2,429	2,510	2,510	2,429	2,510	29,556
8 Transcanada	10,459	10,808	10,808	9,762	10,808	10,459	10,808	10,459	10,808	10,808	10,459	10,808	127,251
9 Dominion	2,311	2,311	2,311	2,311	2,311	2,311	2,311	2,311	2,311	2,311	2,311	2,311	27,735
10 Transco 11 National Fuel	6,404 4.663	6,618 4.663	6,618 4.663	5,977 4.663	6,618 4.663	6,404 4.663	6,618 4.663	6,404 4,663	6,618 4.663	6,618 4.663	6,404 4.663	6,618 4,663	77,916 55.955
12 Columbia	288,384	288,384	288,384	288,384	288,384	288,384	288,384	288,384	288,384	288,384	288,384	288,384	3,460,608
13 Hubline	74,203	74,203	74,203	74,203	74,203	74,203	74,203	74,203	74,203	74,203	74,203	74,203	890,437
14 Westerly Lateral	56,324	56,324	54,984	54,984	54,984	54,984	54,984	54,984	54,984	54,984	54,984	54,984	662,490
15 East to West	84,341	84,341	84,341	84,341	84,341	84,341	84,341	84,341	84,341	84,341	84,341	84,341	1,012,092
16 Less Credits from Mkter Releases 17 TOTAL SUPPLY FIXED COSTS - Pipeline	(551,270) 2,387,966	(551,270) 2,388,609	(551,270) 2,387,270	(551,270) 2,385,341	(551,270) 2,387,270	(551,270) 2,386,627	(551,270) 2,387,270	(551,270) 2,386,627	(551,270) 2,387,270	(551,270) 2,387,270	(551,270) 2,386,627	(551,270) 2,387,270	(6,615,235) 28,645,415
Supply Fixed - Supplier 18 Distrigas FCS													
19 Total	2,387,966	2,388,609	2,387,270	2,385,341	2,387,270	2,386,627	2,387,270	2,386,627	2,387,270	2,387,270	2,386,627	2,387,270	28,645,415
20 Total Supply Fixed (Pipeline & Supplier)	2,387,966	2,388,609	2,387,270	2,385,341	2,387,270	2,386,627	2,387,270	2,386,627	2,387,270	2,387,270	2,386,627	2,387,270	28,645,415
STORAGE FIXED COSTS - Facilities													
21 Texas Eastern SS-1 Demand	81,515	81,515	81,515	81,515	81,515	81,515	81,515	81,515	81,515	81,515	81,515	81,515	978,175
22 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	160,336
23 Texas Eastern FSS-1 Demand 24 Texas Eastern FSS-1 Capacity	845 610	10,139 7.324											
25 Dominion GSS Demand	21,424	21,424	21,424	21,424	21,424	21,424	21,424	21,424	21,424	21,424	21,424	21,424	257,087
26 Dominion GSS Capiacity	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
27 Dominion GSS-TE Demand	26,936	26,936	26,936	26,936	26,936	26,936	26,936	26,936	26,936	26,936	26,936	26,936	323,236
28 Dominion GSS-TE Capacity 29 Tennessee FSMA Demand	19,957 32,600	239,480 391,203											
30 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	206,445
31 Columbia FSS Demand	3,840	3,840	3,840	3,840	3,840	3,840	3,840	3,840	3,840	3,840	3,840	3,840	46,085
32 Columbia FSS Capacity	5,894	5,894	5,894	5,894	5,894	5,894	5,894	5,894	5,894	5,894	5,894	5,894	70,732
33 Keyspan LNG Tank Lease Payment	163,740	163,740	163,740	163,740	163,740	163,740	163,740	163,740	163,740	163,740	163,740	163,740	1,964,880
34 TOTAL FIXED STORAGE COSTS	402,997	402,997	402,997	402,997	402,997	402,997	402,997	402,997	402,997	402,997	402,997	402,997	4,835,962
STORAGE FIXED COSTS - Delivery 35 Algonquin for TETCO SS-1	84,498	84.498	84.498	84.498	84.498	84.498	84.498	84.498	84.498	84.498	84.498	84.498	1,013,979
36 Algonquin delivery for FSS	5,642	5.642	5.642	5.642	5.642	5.642	5,642	5.642	5,642	5.642	5.642	5.642	67,709
37 TETCO delivery for FSS	4,964	4,964	4,964	4,964	4,964	4,964	4,964	4,964	4,964	4,964	4,964	4,964	59,563
38 Algonquin SCT for SS-1	1,590	1,590	1,590	1,590	1,590	1,590	1,590	1,590	1,590	1,590	1,590	1,590	19,079
39 Algonquin delivery for GSS, GSS-TE, 40 Algonquin SCT delivery for GSS-TE	70,165 447	70,165 447	70,165 447	70,165 447	70,165 447	70,165 447	70,165 447	70,165 447	70,165 447	70,165 447	70,165 447	70,165 447	841,982 5,365
41 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	242,013
42 Tennessee delivery for GSS	57,093	57,093	57,093	57,093	57,093	57,093	57,093	57,093	57,093	57,093	57,093	57,093	685,111
43 Tennessee delivery for FSMA	34,901	34,901	34,901	34,901	34,901	34,901	34,901	34,901	34,901	34,901	34,901	34,901	418,809
44 TETCO delivery for GSS	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
45 TETCO delivery for GSS-TE 46 TETCO delivery for GSS-TE	3,538 34,396	42,455 412,746											
47 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	128,087
48 Dominion delivery for GSS Conv	8,871	8,871	8,871	8,871	8,871	8,871	8,871	8,871	8,871	8,871	8,871	8,871	106,447
49 Dominion delivery for GSS	22,914	22,914	22,914	22,914	22,914	22,914	22,914	22,914 15,212	22,914	22,914 15,212	22,914	22,914 15,212	274,974 182,541
50 Algonquin delivery for FSS 51 Columbia Delivery for FSS	15,212 15,033	182,541 180.400											
52 Distrigas FLS call payment	118,750	118,750	118,750	118,750	118,750	125,383	125,383	125,383	125,383	125,383	125,383	125,383	1,471,430
53 Less Credits from Mkter Releases 54 STORAGE DELIVERY FIXED COST	542,978	542,978	542,978	542,978	542,978	549,611	549,611	549,611	549,611	549,611	549,611	549,611	6,562,168
55 TOTAL STORAGE FIXED	945,975	945,975	945,975	945,975	945,975	952,608	952,608	952,608	952,608	952,608	952,608	952,608	11,398,130
56 TOTAL FIXED COSTS	3,333,941	3,334,584	3,333,245	3,331,316	3,333,245	3,339,235	3,339,878	3,339,235	3,339,878	3,339,878	3,339,235	3,339,878	40,043,545

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

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Line	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-Oct
<u>No.</u>													
VARIABLE SUPPLY COSTS (Includes Injections	<b>s</b> )												
57 Tennessee Zone 0	206,178	718,614	656,924	727,964	493,286	430,130	243,469	159,480	0	0	0	0	3,636,045
58 Tennessee Zone 1	438,820	1,480,095	1,355,011	1,520,947	1,035,429	909,746	510,685	329,886	0	0	0	0	7,580,619
59 Tennessee Connexion	1,166,789	1,296,706	1,344,652	1,211,480	1,334,913	1,277,351	1,330,044	1,302,001	1,363,381	1,371,248	1,327,014	1,377,990	15,703,569
60 Tennessee Dracut	0	202,906	0	0	0	0	73,308	0	0	0	0	0	276,214
61 TETCO STX	0	405,946	593,618	475,384	0	290,130	298,987	189,799	54,435	11,326	10,976	11,396	2,341,997
62 TETCO ELA	0	910,185	1,333,569	1,065,875	0	650,903	670,168	426,865	121,494	25,304	24,530	25,498	5,254,390
63 TETCO WLA	0	633,238	917,645	734,239	0	449,324	462,619	292,212	83,932	17,467	16,932	17,601	3,625,210
64 TETCO ETX	0	264,924	387,869	311,230	0	190,720	195,625	125,337	36,134	7,404	7,218	7,554	1,534,016
65 TETCO NF	0	51,446	75,066	59,983	0	36,871	37,932	24,118	6,858	1,427	1,383	1,437	296,521
66 M3 Delivered	2,114,918	1,293,741	979,585	562,554	4,356,504	2,014,453	1,967,418	103,451	0	0	114,450	2,009,280	15,516,353
67 Maumee	2,623,770	4,330,104	4,465,923	4,042,493	4,430,877	2,932,130	312,931	393,156	6,559	0	0	162,704	23,700,646
68 Broadrun Col	989,941	1,103,540	1,140,674	1,026,404	1,118,670	1,083,391	1,135,318	1,102,450	958,244	964,119	1,105,909	1,140,698	12,869,358
69 Columbia Eagle and Downingtown	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Transco Zone 2	13,889	15,230	15,798	14,184	0	0	0	0	0	0	0	0	59,100
71 Dominion to TETCO FTS	0	31,348	45,743	36,552	0	22,467	23,114	14,696	4,179	870	843	876	180,687
72 Transco Zone 3	303	333	343	311	0	0	0	0	0	0	0	0	1,290
73 ANE to Tennessee	119,188	130,495	131,074	118,564	130,721	0	0	0	0	0	0	0	630,043
74 Niagara to Tennessee	0	13,086	0	0	0	125,337	0	0	0	0	0	0	138,423
75 TETCO to B & W	0	118,811	173,282	138,462	0	84,858	87,294	55,490	15,777	3,283	3,182	3,305	683,745
76 DistriGas FCS													0
77 Hubline	0	648,811	715,019	560,872	0	0	0	0	0	0	0	0	1,924,702
78 Total Pipeline Commodity Charges	7,673,795	13,649,557	14,331,795	12,607,498	12,900,400	10,497,811	7,348,912	4,518,941	2,650,994	2,402,448	2,612,438	4,758,338	95,952,928
79 Hedging 2,937,811		3,308,328	3,521,856	2,677,745	2,967,584	1,488,598	889,801	612,975	621,754	538,642	382,288	344,471	20,291,853
80 Costs of Injections	0	0	0	0	0	(2,810,893)	(2,886,484)	(1,921,337)	(473,220)	(184,433)	(184,466)	(66,817)	(8,527,648)
81 Refunds													0
82 TOTAL VARIABLE SUPPLY COSTS	10,611,606	16,957,885	17,853,651	15,285,243	15,867,984	9,175,517	5,352,229	3,210,580	2,799,528	2,756,658	2,810,260	5,035,992	107,717,133
83 Underground Storage	0	1,611,095	6,922,920	5,134,424	245,598	0	0	0	0	0	0	112,685	14,026,722
84 LNG Withdrawals and Trucking	105,291	510,215	350,598	201,062	109,212	105,291	109,212	108,710	115,127	115,127	110,994	115,499	2,056,336
85 Storage Delivery Costs	0	34,268	174,468	136,135	5,721	0	0	0	0	0	0	4,682	355,274
86 TOTAL VARIABLE STORAGE COSTS	105,291	2,155,578	7,447,986	5,471,620	360,531	105,291	109,212	108,710	115,127	115,127	110,994	232,866	16,438,331
87 TOTAL VARIABLE COSTS	10,716,897	19,113,463	25,301,637	20,756,863	16,228,514	9,280,808	5,461,441	3,319,290	2,914,655	2,871,784	2,921,254	5,268,858	124,155,464
88 TOTAL SUPPLY COSTS	14,050,838	22,448,047	28,634,881	24,088,179	19,561,759	12,620,043	8,801,319	6,658,524	6,254,533	6,211,662	6,260,488	8,608,736	164,199,009
	,,	,,	-,,	,,	-,,	,,.	-,,	-,,	-, - 1,	-, -,	-,,	-,-,-,-	. , ,
Storage Costs for FT-2 Calculation													
89 Storage Fixed Costs - Facilities	402,997	402,997	402,997	402,997	402,997	402,997	402,997	402,997	402,997	402,997	402,997	402,997	4,835,962
90 Storage Fixed Costs - Deliveries	542,978	542,978	542,978	542,978	542,978	549,611	549,611	549,611	549,611	549,611	549,611	549,611	6,562,168
91 Total Storage Costs	945,975	945,975	945,975	945,975	945,975	952,608	952,608	952,608	952,608	952,608	952,608	952,608	11,398,130

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

		Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12
		31	30	31	30	31	31	30	31
Line		actual	actual	actual	actual	actual	forecast	forecast	forecast
<u>No.</u>	10 15 10 15 1								
	I. Supply Fixed Cost Deferred		******	***					** ***
1	Beginning Balance	\$4,542,227	\$3,622,411	\$2,761,030	\$3,566,306	\$5,135,693	\$6,444,991	\$8,234,772	\$9,923,967
2	Supply Fixed Costs (net of cap rel)	\$2,420,835	\$2,175,399	\$2,301,228	\$2,602,517	\$2,200,867	\$2,637,174	\$2,636,499	\$2,637,174
3	Capacity Release	\$0	\$0	\$0 (#200 007)	\$0	\$0	\$0	\$0	\$0 (\$200.00 <del>7</del> )
4	NGPMP Credits	(\$326,667)	(\$1,040,994)	(\$326,667)	(\$326,667)	(\$326,667)	(\$326,667)	(\$326,667)	(\$326,667)
5	Working Capital	\$16,066 \$2,440,224	\$14,437	\$15,272	\$17,272	\$14,606 \$4,000,007	\$17,502	\$17,497	\$17,502
6 7	Total Supply Fixed Costs	\$2,110,234	\$1,148,842	\$1,989,834	\$2,293,122	\$1,888,807	\$2,328,009	\$2,327,330	\$2,328,009
	Supply Fixed - Collections	\$3,034,381	\$2,013,501	\$1,187,915	\$728,203	\$585,654	\$546,016	\$647,458	\$685,387
8 9	Prelim. Ending Balance	\$3,618,080	\$2,757,753	\$3,562,949	\$5,131,226 \$4,240,766	\$6,438,847	\$8,226,983	\$9,914,643	\$11,566,588
9 10	Month's Average Balance	\$4,080,153 1.25%	\$3,190,082 1.25%	\$3,161,990 1.25%	\$4,348,766 1.25%	\$5,787,270 1.25%	\$7,335,987 1.25%	\$9,074,707 1.25%	\$10,745,278 1.25%
11	Interest Rate (BOA Prime minus 200 bps Interest Applied	\$4,332	\$3,277	\$3,357		\$6,144	\$7,788	\$9,323	
12	• •		\$3,277 \$2,761,030	\$3,566,306	\$4,468 \$5,135,693	\$6,444,991	\$8,234,772	\$9,923,967	\$11,408 \$11,577,996
12	Supply Fixed Ending Balance	\$3,622,411	\$2,761,030	\$3,300,300	<b>Ф</b> 5, 135,693	<b>Ф</b> 0,444,99 I	Φ0,234,772	<b>Ф9,923,90</b> 7	φ11,577,990
	II. Storage Fixed Cost Deferred								
13	Beginning Balance	(\$3,200,098)	(\$3,655,954)	(\$3,706,601)	(\$3,434,575)	(\$3,319,121)	(\$2,842,091)	(\$2,153,388)	(\$1,500,464)
14	Storage Fixed Costs	\$770,389	\$782,521	\$774,727	\$436,007	\$727,807	\$876,522	\$876,522	\$876,522
15	LNG Demand to DAC	(\$56,567)	(\$52,389)	(\$52,389)	(\$52,389)	(\$52,389)	(\$29,670)	(\$29,670)	(\$29,670)
16	Supply Related LNG O & M	\$51,549	\$51,549	\$51,549	\$51,549	\$51,549	\$51,549	\$51,549	\$51,549
17	Working Capital	\$5,07 <u>9</u>	<u>\$5,188</u>	<b>\$5,136</b>	\$2,888	<u>\$4,825</u>	<b>\$5,962</b>	<u>\$5,962</u>	\$5,962
18	Total Storage Fixed Costs	\$770,452	\$786,869	\$779,023	\$438,055	\$731,792	\$904,364	\$904,364	\$904,364
19	TSS Peaking Collections	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20	Storage Fixed - Collections	\$1,222,670	\$833,736	\$503,208	\$319,134	\$251,493	\$213,011	\$249,564	\$283,145
21	Prelim. Ending Balance	(\$3,652,317)	(\$3,702,821)	(\$3,430,786)	(\$3,315,653)	(\$2,838,822)	(\$2,150,738)	(\$1,498,588)	(\$879,244)
22	Month's Average Balance	(\$3,426,207)	(\$3,679,387)	(\$3,568,694)	(\$3,375,114)	(\$3,078,972)	(\$2,496,414)	(\$1,825,988)	(\$1,189,854)
23	Interest Rate (BOA Prime minus 200 bps	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%
24	Interest Applied	(\$3,637)	(\$3,780)	(\$3,789)	(\$3,468)	(\$3,269)	(\$2,650)	(\$1,876)	(\$1,263)
25	Storage Fixed Ending Balance	(\$3,655,954)	(\$3,706,601)	(\$3,434,575)	(\$3,319,121)	(\$2,842,091)	(\$2,153,388)	(\$1,500,464)	(\$880,508)
	III. Variable Supply Cost Deferred								
26	Beginning Balance	(\$4,095,967)	(\$8,665,808)	(\$11,580,864)	(\$12,852,837)	(\$13,902,852)	(\$14,253,608)	(\$14,081,944)	(\$15,148,266)
27	Variable Supply Costs	\$13,015,136	\$8.797.510	\$5.753.837	\$3,222,939	\$3,117,585	\$3,417,404	\$2,810,168	\$5,297,426
28	Variable Delivery Storage	(\$10,262)	(\$1,764)	(\$1,716)	(\$2,756)	(\$2,196)	\$0	\$0	\$0
29	Variable Injections Storage	(\$6,736)	(\$6,359)	(\$9,612)	(\$5,558)	(\$4,822)	(\$611)	(\$10,518)	(\$392)
30	Fuel Cost Allocated to Storage	(\$11,789)	(\$10,078)	(\$14,899)	(\$9,989)	(\$9,500)	(\$2,412)	(\$26,551)	(\$1,780)
31	Working Capital	\$86,185	\$58,265	\$38,012	\$21,268	\$20,581	\$22,660	\$18,404	\$35,142
32	Total Supply Variable Costs	\$13,072,534	\$8,837,574	\$5,765,621	\$3,225,903	\$3,121,648	\$3,437,041	\$2,791,502	\$5,330,397
33	Supply Variable - Collections	\$17,643,818	\$11,743,654	\$7,026,260	\$4,262,652	\$3,457,510	\$3,250,344	\$3,842,816	\$4,065,455
34	Deferred Responsibility	(\$8,213)	(\$1,420)	(\$1,629)	(\$471)	(\$45)	\$0	\$0	\$0
35	Prelim. Ending Balance	(\$8,659,037)	(\$11,570,468)	(\$12,839,874)	(\$13,889,115)	(\$14,238,670)	(\$14,066,911)	(\$15,133,258)	(\$13,883,324)
36	Month's Average Balance	(\$6,377,502)	(\$10,118,138)	(\$12,210,369)	(\$13,370,976)	(\$14,070,761)	(\$14,160,259)	(\$14,607,601)	(\$14,515,795)
37	Interest Rate (BOA Prime minus 200 bps	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%
38	Interest Applied	(\$6,771)	(\$10,395)	(\$12,963)	(\$13,737)	(\$14,938)	(\$15,033)	(\$15,008)	(\$15,411)
39	Gas Procurement Incentive/(penalty)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
40	Supply Variable Ending Balance	(\$8,665,808)	(\$11,580,864)	(\$12,852,837)	(\$13,902,852)	(\$14,253,608)	(\$14,081,944)	(\$15,148,266)	(\$13,898,735)

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

		Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12
Line		31 actual	30 actual	31 actual	30 actual	31 actual	31 forecast	30 forecast	31 forecast
No.									
110.	IVa. Storage Variable Product Cost Deferred								
41	Beginning Balance	\$10,920,603	\$7,189,013	\$5,581,359	\$6,314,234	\$4,703,516	\$4,795,321	\$4,521,429	\$4,150,576
42	Storage Variable Prod. Costs - LNG	\$415,824	\$81,388	\$73,019	\$96,291	\$117,174	\$116,130	\$111,839	\$116,274
43	Storage Variable Prod. Costs - LP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
44	Storage Variable Prod. Costs - UG	(\$1,036,118)	\$317,500	\$1,751,151	(\$1,117,579)	\$390,861	\$0	\$0	\$0
45	Supply Related LNG to DAC	\$6,799	(\$14,747)	(\$13,231)	(\$17,448)	(\$21,232)	(\$21,043)	(\$20,265)	(\$21,069)
46	Supply Related LNG O & M	\$35,844	\$35,844	\$35,844	\$35,844	\$35,844	\$35,844	\$35,844	\$35,844
47	Inventory Financing - LNG	\$22,706	\$22,626	\$22,303	\$25,323	\$26,583	\$39,188	\$39,316	\$39,450
48	Inventory Financing - UG	\$120,472	\$137,160	\$147,763	\$174,044	\$181,249	\$160,017	\$178,115	\$178,769
49	Inventory Financing - LP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
50	Working Capital	(\$3,834)	\$2,787	\$12,256	(\$6,656)	\$3,469	\$869	\$846	\$870
51	Total Storage Variable Product Costs	(\$438,308)	\$582,557	\$2,029,106	(\$810,181)	\$733,948	\$331,005	\$345,695	\$350,138
52	Storage Variable Product Collections	\$3,302,890	\$2,196,768	\$1,302,541	\$806,194	\$647,183	\$609,840	\$721,001	\$762,773
53	Prelim. Ending Balance	\$7,179,405	\$5,574,802	\$6,307,923	\$4,697,860	\$4,790,282	\$4,516,487	\$4,146,123	\$3,737,941
54	Month's Average Balance	\$9,050,004	\$6,381,907	\$5,944,641	\$5,506,047	\$4,746,899	\$4,655,904	\$4,333,776	\$3,944,258
55	Interest Rate (BOA Prime minus 200 bps	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%
56	Interest Applied	\$9,608	\$6,557	\$6,311	\$5,657	\$5,040	\$4,943	\$4,453	\$4,187
57	Storage Variable Product Ending Bal.	\$7,189,013	\$5,581,359	\$6,314,234	\$4,703,516	\$4,795,321	\$4,521,429	\$4,150,576	\$3,742,128
	IVb. Stor Var Non-Prod Cost Deferred								
58	Beginning Balance	\$65,387	\$29,222	(\$21,676)	(\$32,647)	(\$29,422)	(\$25,209)	(\$42,562)	(\$29,073)
59	Storage Variable Non-prod. Costs	\$50,623	\$8,386	\$7,661	\$12,060	\$9,495	\$0	\$0	\$0
60	Variable Delivery Storage Costs	\$10,262	\$1,764	\$1,716	\$2,756	\$2,196	\$0	\$0	\$0
61	Variable Injection Storage Costs	\$6,736	\$6,359	\$9,612	\$5,558	\$4,822	\$611	\$10,518	\$392
62	Fuel Costs Allocated to Storage	\$11,789	\$10,078	\$14,899	\$9,989	\$9,500	\$2,412	\$26,551	\$1,780
63	Working Capital	\$527	\$176	\$225	\$202	\$173	\$20	\$246	\$14
64	Total Storage Var Non-product Costs	\$79,937	\$26,763	\$34,113	\$30,565	\$26,185	\$3,043	\$37,316	\$2,186
65	Storage Var Non-Product Collections	\$116,153	\$77,664	\$45,055	\$27,309	\$21,943	\$20,360	\$23,790	\$26,949
66	Prelim. Ending Balance	\$29,171	(\$21,679)	(\$32,618)	(\$29,390)	(\$25,180)	(\$42,526)	(\$29,036)	(\$53,836)
67	Month's Average Balance	\$47,279	\$3,771	(\$27,147)	(\$31,019)	(\$27,301)	(\$33,868)	(\$35,799)	(\$41,455)
68	Interest Rate (BOA Prime minus 200 bps	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%
69	Interest Applied	\$50	\$4	(\$29)	(\$32)	(\$29)	(\$36)	(\$37)	(\$44)
70	Storage Var Non-Product Ending Bal.	\$29,222	(\$21,676)	(\$32,647)	(\$29,422)	(\$25,209)	(\$42,562)	(\$29,073)	(\$53,880)
	00D D-f1 0								
74	GCR Deferred Summary	<b>60 000 450</b>	(04 404 440)	(00,000,750)	(00,400,540)	(07.440.405)	(AE 000 E07)	(00 504 004)	(00,000,004)
71	Beginning Balance	\$8,232,152	(\$1,481,116)	(\$6,966,752)	(\$6,439,518)	(\$7,412,185)	(\$5,880,597)	(\$3,521,694)	(\$2,603,261)
72	Gas Costs	\$15,817,492	\$12,342,746	\$10,853,462	\$5,469,158	\$6,785,393	\$7,283,116	\$6,689,918	\$9,182,270
73	NGPMP Credits	(\$326,667)	(\$1,040,994)	(\$326,667)	(\$326,667)	(\$326,667)	(\$326,667)	(\$326,667)	(\$326,667)
74	Working Capital	\$104,024	\$80,853	\$70,901	\$34,973	\$43,653	\$47,013	\$42,955	\$59,491
75 76	Total Costs	\$15,594,849	\$11,382,605	\$10,597,696	\$5,177,465	\$6,502,379	\$7,003,462 \$4,630,571	\$6,406,207 \$5,484,630	\$8,915,094
	Collections	\$25,311,699	\$16,863,904	\$10,063,350	\$6,143,020	\$4,963,738	\$4,639,571	\$5,484,629	\$5,823,709
77 78	Prelim. Ending Balance	(\$1,484,698) \$3,373,737	(\$6,962,414)	(\$6,432,405)	(\$7,405,073)	(\$5,873,544)	(\$3,516,705)	(\$2,600,116) (\$3,060,005)	\$488,125 (\$1.057.569)
	Month's Average Balance	\$3,373,727	(\$4,221,765)	(\$6,699,578)	(\$6,922,296)	(\$6,642,865)	(\$4,698,651)	(\$3,060,905)	(\$1,057,568)
79	Interest Rate (BOA Prime minus 200 bps	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%
80 81	Interest Applied Gas Burchase Plan Incentives//Penalties)	\$3,582	(\$4,337)	(\$7,113)	(\$7,112)	(\$7,052)	(\$4,988)	(\$3,145)	(\$1,123)
82	Gas Purchase Plan Incentives/(Penalties) Ending Bal. W/ Interest	(\$1,481,116)	(\$6,966,752)	(\$6,439,518)	(\$7,412,185)	(\$5,880,597)	(\$3,521,694)	(\$2,603,261)	\$487,002
02	Linding Dai. W/ Interest	(ψ1,π01,110)	(ψυ,θυυ,102)	(ψυ, <del>τ</del> υθ,υτο)	(ψ1,+12,100)	(ψυ,υυυ,υσι)	(ψυ,υ <u>∠</u> 1,0 <del>04</del> )	(ΨΖ,003,Ζ01)	φ+01,002

#### National Grid - RI Gas Gas Cost Recovery (GCR) Filing Costs Working Capital Calculation

Line <u>No.</u>		<u>Source</u>	Nov-12	Dec-12	<u>Jan-13</u>	Feb-13	Mar-13	Apr-13	May-13	<u>Jun-13</u>	<u>Jul-13</u>	Aug-13	Sep-13	Oct-13	Total
INU.	(a)	(b)	NOV-12	Dec-12	Jail-15	<u>reb-13</u>	<u>Iviai-13</u>	<u>жрі-13</u>	iviay-13	Juli-13	<u>Jul-13</u>	<u>Aug-13</u>	<u>зер-13</u>	<u>OG-13</u>	Total
3 4	Fixed Costs Capacity Release Revenue Less: LNG Demand to DAC Less: Credits Plus: Supply Related LNG O&M Costs Allowable Working Capital Costs	sum[(1):(4)]	\$3,333,941 \$0 (\$51,187) \$0 \$51,549 \$3,334,303	\$3,334,584 \$0 (\$51,187) \$0 \$51,549 \$3,334,946	\$3,333,245 \$0 (\$51,187) \$0 \$51,549 \$3,333,607	\$3,331,316 \$0 (\$51,187) \$0 \$51,549 \$3,331,678	\$3,333,245 \$0 (\$51,187) \$0 \$51,549 \$3,333,607	\$3,339,235 \$0 (\$52,389) \$0 \$51,549 \$3,338,395	\$3,339,878 <u>\$0</u> (\$52,389) \$0 <u>\$51,549</u> \$3,339,038	\$3,339,235 \$0 (\$52,389) \$0 \$51,549 \$3,338,395	\$3,339,878 \$0 (\$52,389) \$0 \$51,549 \$3,339,038	\$3,339,878 \$0 (\$52,389) \$0 \$51,549 \$3,339,038	\$3,339,235 \$0 (\$52,389) \$0 \$51,549 \$3,338,395	\$3,339,878 \$0 (\$52,389) \$0 \$51,549 \$3,339,038	\$40,043,545 \$0 (\$622,659) \$0 \$618,591 \$40,039,476
6	Number of Days Lag	Rate Case	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	
7 8 9	Working Capital Requirement Cost of Capital Return on Working Capital Requirement	[(5) * (6)] / 365 Dkt 4339 (7) * (8)	\$222,896 <u>7.22%</u> \$16,099	\$222,939 <u>7.22%</u> \$16,102	\$222,849 <u>7.22%</u> \$16,096	\$222,720 <u>7.22%</u> \$16,086	\$222,849 <u>7.22%</u> \$16,096	\$223,169 <u>7.22%</u> \$16,119	\$223,212 <u>7.22%</u> \$16,122	\$223,169 <u>7.22%</u> \$16,119	\$223,212 7.22% \$16,122	\$223,212 7.22% \$16,122	\$223,169 <u>7.22%</u> \$16,119	\$223,212 <u>7.22%</u> \$16,122	
	Weighted Cost of Debt Interest Expense	Dkt 4339 (7) * (10)	<u>2.21%</u> \$4,933	<u>2.21%</u> \$4,934	<u>2.21%</u> \$4,932	2.21% \$4,929	<u>2.21%</u> \$4,932	<u>2.21%</u> \$4,939	2.21% \$4,940	2.21% \$4,939	<u>2.21%</u> \$4,940	2.21% \$4,940	2.21% \$4,939	<u>2.21%</u> \$4,940	
13	Taxable Income 1 - Combined Tax Rate Return and Tax Requirement	(9) - (11) Rate Case (12) / (13)	\$11,166 <u>0.6500</u> \$17,179	\$11,168 0.6500 \$17,182	\$11,164 <u>0.6500</u> \$17,175	\$11,157 <u>0.6500</u> \$17,165	\$11,164 <u>0.6500</u> \$17,175	\$11,180 0.6500 \$17,200	\$11,182 <u>0.6500</u> \$17,203	\$11,180 <u>0.6500</u> \$17,200	\$11,182 <u>0.6500</u> \$17,203	\$11,182 <u>0.6500</u> \$17,203	\$11,180 <u>0.6500</u> \$17,200	\$11,182 <u>0.6500</u> \$17,203	
15	Fixed Working Capital Requirement	(11) + (14)	\$ <u>22,112</u>	\$ <u>22,116</u>	\$ <u>22,107</u>	\$ <u>22,094</u>	\$ <u>22,107</u>	\$ <u>22,139</u>	\$ <u>22,143</u>	\$ <u>22,139</u>	\$ <u>22,143</u>	\$ <u>22,143</u>	\$ <u>22,139</u>	\$ <u>22,143</u>	\$ <u>265,525</u>
17	Variable Costs Less: Non-firm Sales Less: Supply Refunds		\$10,716,897	\$19,113,463	\$25,301,637	\$20,756,863	\$16,228,514	\$9,280,808	\$5,461,441	\$3,319,290	\$2,914,655	\$2,871,784	\$2,921,254	\$5,268,858	\$124,155,464 \$0 \$0
19 20	Less: Balancing Related LNG Commodity (to DAC Plus: Supply Related LNG O&M Costs Allowable Working Capital Costs	c) sum[(16):(20)]	(\$19,079) <u>\$35,844</u> \$10,733,662	(\$92,451) \$35,844 \$19,056,856	(\$63,528) <u>\$35,844</u> \$25,273,952	(\$36,432) <u>\$35,844</u> \$20,756,275	(\$19,789) <u>\$35,844</u> \$16,244,569	(\$19,079) \$35,844 \$9,297,574	(\$19,789) <u>\$35,844</u> \$5,477,496	(\$19,698) <u>\$35,844</u> \$3,335,436	(\$20,861) <u>\$35,844</u> \$2,929,638	(\$20,861) <u>\$35,844</u> \$2,886,767	(\$20,112) <u>\$35,844</u> \$2,936,986	(\$20,928) <u>\$35,844</u> \$5,283,774	(\$372,608) \$430,129 \$124,212,985
22	Number of Days Lag	Rate Case	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	
24	Working Capital Requirement Cost of Capital Return on Working Capital Requirement	[(21) * (22)] / 365 Dkt 4339 (23) * (24)	\$717,538 <u>7.22%</u> \$51,826	\$1,273,938 <u>7.22%</u> \$92,013	\$1,689,546 <u>7.22%</u> \$122,031	\$1,387,543 <u>7.22%</u> \$100,218	\$1,085,938 <u>7.22%</u> \$78,434	\$621,536 <u>7.22%</u> \$44,892	\$366,167 <u>7.22%</u> \$26,447	\$222,972 7.22% \$16,105	\$195,844 <u>7.22%</u> \$14,145	\$192,978 <u>7.22%</u> \$13,938	\$196,335 <u>7.22%</u> \$14,181	\$353,217 <u>7.22%</u> \$25,512	
	Weighted Cost of Debt Interest Expense	Dkt 4339 (23) * (26)	<u>2.21%</u> \$15,880	2.21% \$28,195	<u>2.21%</u> \$37,393	2.21% \$30,709	2.21% \$24,034	2.21% \$13,756	<u>2.21%</u> \$8,104	<u>2.21%</u> \$4,935	<u>2.21%</u> \$4,334	<u>2.21%</u> \$4,271	2.21% \$4,345	<u>2.21%</u> \$7,817	
29	Taxable Income 1 - Combined Tax Rate Return and Tax Requirement	(25) - (27) Rate Case (28) / (29)	\$35,945 0.6500 \$55,301	\$63,819 0.6500 \$98,182	\$84,639 <u>0.6500</u> \$130,213	\$69,510 0.6500 \$106,938	\$54,401 <u>0.6500</u> \$83,693	\$31,136 0.6500 \$47,902	\$18,343 0.6500 \$28,220	\$11,170 0.6500 \$17,184	\$9,811 <u>0.6500</u> \$15,094	\$9,667 <u>0.6500</u> \$14,873	\$9,836 <u>0.6500</u> \$15,132	\$17,695 <u>0.6500</u> \$27,222	
31	Variable Working Capital Requirement	(27) + (30)	\$ <u>71,181</u>	\$ <u>126,377</u>	\$ <u>167,606</u>	\$ <u>137,647</u>	\$ <u>107,727</u>	\$ <u>61,658</u>	\$36,324	\$22,119	\$19,428	\$ <u>19,144</u>	\$ <u>19,477</u>	\$35,040	\$823,727

#### National Grid - RI Gas Gas Cost Recovery (GCR) Filing Storage Fixed Cost Working Capital Calculation for FT-2 Demand Rate (see AEL-5 pg 2)

Line <u>No.</u>	Description (a)	Source (b)	<u>Nov-12</u>	<u>Dec-12</u>	<u>Jan-13</u>	<u>Feb-13</u>	<u>Mar-13</u>	<u>Apr-13</u>	<u>May-13</u>	<u>Jun-13</u>	<u>Jul-13</u>	<u>Aug-13</u>	<u>Sep-13</u>	Oct-13	Total
32 Less 33 Less 34 Plus:	age Fixed Costs  : LNG Demand to DAC  : Credits  : Supply Related LNG O&M Costs vable Working Capital Costs	sum[(32):(35)]	\$945,975 (\$51,187) \$0 \$51,549 \$946,337	\$945,975 (\$51,187) \$0 \$51,549 \$946,337	\$945,975 (\$51,187) \$0 \$51,549 \$946,337	\$945,975 (\$51,187) \$0 \$51,549 \$946,337	\$945,975 (\$51,187) \$0 <u>\$51,549</u> \$946,337	\$952,608 (\$52,389) \$0 \$51,549 \$951,768	\$952,608 (\$52,389) \$0 <u>\$51,549</u> \$951,768	\$952,608 (\$52,389) \$0 \$51,549 \$951,768	\$952,608 (\$52,389) \$0 \$51,549 \$951,768	\$952,608 (\$52,389) \$0 \$51,549 \$951,768	\$952,608 (\$52,389) \$0 \$51,549 \$951,768	\$952,608 (\$52,389) \$0 <u>\$51,549</u> \$951,768	\$11,398,130 (\$622,659) \$0 \$618,591 \$11,394,061
36 Num	ber of Days Lag	Rate Case	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	
38 Cost	king Capital Requirement of Capital Irn on Working Capital Requirement	[(35) * (36)] / 365 Rate Case (37) * (38)	\$63,262 <u>7.22%</u> \$4,569	\$63,262 <u>7.22%</u> \$4,569	\$63,262 <u>7.22%</u> \$4,569	\$63,262 <u>7.22%</u> \$4,569	\$63,262 <u>7.22%</u> \$4,569	\$63,625 <u>7.22%</u> \$4,595	\$63,625 <u>7.22%</u> \$4,595	\$63,625 <u>7.22%</u> \$4,595	\$63,625 <u>7.22%</u> \$4,595	\$63,625 <u>7.22%</u> \$4,595	\$63,625 <u>7.22%</u> \$4,595	\$63,625 <u>7.22%</u> \$4,595	
	ghted Cost of Debt est Expense	Rate Case (37) * (40)	2.21% \$1,400	2.21% \$1,400	2.21% \$1,400	<u>2.21%</u> \$1,400	2.21% \$1,400	2.21% \$1,408	2.21% \$1,408	<u>2.21%</u> \$1,408	2.21% \$1,408	<u>2.21%</u> \$1,408	2.21% \$1,408	<u>2.21%</u> \$1,408	
43 1 - C	able Income Combined Tax Rate Im and Tax Requirement	(39) - (41) Rate Case (42) / (43)	\$3,169 <u>0.6500</u> \$4,876	\$3,169 <u>0.6500</u> \$4,876	\$3,169 <u>0.6500</u> \$4,876	\$3,169 <u>0.6500</u> \$4,876	\$3,169 <u>0.6500</u> \$4,876	\$3,187 <u>0.6500</u> \$4,904	\$3,187 <u>0.6500</u> \$4,904	\$3,187 <u>0.6500</u> \$4,904	\$3,187 <u>0.6500</u> \$4,904	\$3,187 <u>0.6500</u> \$4,904	\$3,187 <u>0.6500</u> \$4,904	\$3,187 <u>0.6500</u> \$4,904	
45 Stora	age Fixed Working Capital Requirement	(41) + (44)	\$ <u>6,276</u>	\$ <u>6,312</u>	\$ <u>6,312</u>	\$ <u>6,312</u>	\$ <u>6,312</u>	\$ <u>6,312</u>	\$ <u>6,312</u>	\$ <u>6,312</u>	\$ <u>75,561</u>				

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

Line No.		Source	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Total
INO	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(I)	(m)	(n)	(p)
1 2	Storage Inventory Balance Hedging		\$17,309,838	\$16,458,019	\$12,786,571	\$10,057,438	\$9,927,277	\$12,404,846	\$14,995,982	\$16,698,544	\$17,084,311	\$17,235,932	\$17,397,884	\$17,346,745	
3	Subtotal Cost of Capital	(1) + (2) Dkt 4339	\$17,309,838 7.22%	\$16,458,019 7.22%	\$12,786,571 7.22%	\$10,057,438 7.22%	\$9,927,277 7.22%	\$12,404,846 7.22%	\$14,995,982 7.22%	\$16,698,544 7.22%	\$17,084,311 7.22%	\$17,235,932 7.22%	\$17,397,884 7.22%	\$17,346,745 7.22%	
5	Return on Working Capital Requirement	(3) * (4)	\$1,250,243	\$1,188,718	\$923,539	\$726,422	\$717,020	\$895,968	\$1,083,119	\$1,206,091	\$1,233,954	\$1,244,905	\$1,256,602	\$1,252,908	\$12,979,490
6 7	Weighted Cost of Debt Interest Charges Financed	Dkt 4339 (1) * (6)	2.21% \$383,098	2.21% \$364,246	2.21% \$282,990	2.21% \$222,589	2.21% \$219,708	2.21% \$274,542	2.21% \$331,888	2.21% \$369,569	2.21% \$378,106	2.21% \$381,462	2.21% \$385,046	2.21% \$383,915	\$3,977,159
8 9 10	1 - Combined Tax Rate	(5) - (7) Rate Case (8) / (9)	\$867,145 0.6500 \$1,334,069	\$824,473 0.6500 \$1,268,420	\$640,550 0.6500 \$985,461	\$503,832 0.6500 \$775,127	\$497,312 0.6500 \$765,095	\$621,427 0.6500 \$956,041	\$751,231 0.6500 \$1,155,740	\$836,522 0.6500 \$1,286,957	\$855,847 0.6500 \$1,316,688	\$863,443 0.6500 \$1,328,373	\$871,556 0.6500 \$1,340,855	\$868,994 0.6500 \$1,336,914	\$13,849,740
	·														
11	Working Capital Requirement	(7) + (10)	\$1,717,167	\$1,632,665	\$1,268,451	\$997,716	\$984,804	\$1,230,583	\$1,487,628	\$1,656,526	\$1,694,794	\$1,709,835	\$1,725,901	\$1,720,828	\$17,826,899
12	Monthly Average	(11) / 12	\$143,097	\$136,055	\$105,704	\$83,143	\$82,067	\$102,549	\$123,969	\$138,044	\$141,233	\$142,486	\$143,825	\$143,402	\$1,485,575
13 14 15		Dkt 4339 (13) * (14)	\$4,868,042 7.22% \$351,605	\$4,357,827 7.22% \$314,754	\$4,007,229 7.22% \$289,431	\$3,806,168 7.22% \$274,909	\$3,696,956 7.22% \$267,021	\$3,591,665 7.22% \$259,416	\$4,492,960 7.22% \$324,514	\$5,243,279 7.22% \$378,708	\$5,128,152 7.22% \$370,393	\$5,013,026 7.22% \$362,077	\$5,286,166 7.22% \$381,806	\$5,303,072 7.22% \$383,027	\$3,957,662
	Weighted Cost of Debt Interest Charges Financed	Dkt 4339 (13) * (16)	2.21% \$107,739	2.21% \$96,447	2.21% \$88,687	2.21% \$84,237	2.21% \$81,820	2.21% \$79,490	2.21% \$99,437	2.21% \$116,043	2.21% \$113,495	2.21% \$110,947	2.21% \$116,992	2.21% \$117,367	\$1,212,702
18 19 20		(15) - (17) Rate Case (18) / (19)	\$243,867 0.6500 \$375,180	\$218,308 0.6500 \$335,858	\$200,744 0.6500 \$308,837	\$190,672 0.6500 \$293,341	\$185,201 0.6500 \$284,924	\$179,926 0.6500 \$276,810	\$225,077 0.6500 \$346,272	\$262,665 0.6500 \$404,100	\$256,897 0.6500 \$395,227	\$251,130 0.6500 \$386,354	\$264,813 0.6500 \$407,405	\$265,660 0.6500 \$408,708	\$4,223,015
21	Working Capital Requirement	(17) + (20)	\$482,918	\$432,304	\$397,524	\$377,579	\$366,745	\$356,300	\$445,710	\$520,143	\$508,722	\$497,301	\$524,397	\$526,074	\$5,435,717
22	Monthly Average	(21) / 12	\$40,243	\$36,025	\$33,127	\$31,465	\$30,562	\$29,692	\$37,142	\$43,345	\$42,393	\$41,442	\$43,700	\$43,840	\$452,976
23	System Balancing Factor	Dkt 4283	18.12%	18.12%	18.12%	18.12%	18.12%	18.12%	18.12%	18.12%	18.12%	18.12%	18.12%	18.12%	
24	Balancing Related Inventory Costs	(22) * (23)	\$7,292	\$6,528	\$6,003	\$5,701	\$5,538	\$5,380	\$6,730	\$7,854	\$7,682	\$7,509	\$7,918	\$7,944	\$82,079
25	Supply Related Inventory Costs	(22) - (24)	\$32,951	\$29,498	\$27,124	\$25,763	\$25,024	\$24,312	\$30,412	\$35,491	\$34,712	\$33,933	\$35,781	\$35,896	\$370,897

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

Line		N 40	D - 10	l== 40	F-1- 40	M 40	4 40	M 40	10	1:1.40	410	0 40	0-1-40	Nov. Oct
No	. Rate Class (a)	Nov-12 (b)	Dec-12 (c)	<u>Jan-13</u> (d)	Feb-13 (e)	Mar-13 (f)	Apr-13 (g)	May-13 (h)	<u>Jun-13</u> (i)	<u>Jul-13</u> (i)	Aug-13 (k)	Sep-13 (I)	Oct-13 (m)	Nov-Oct (p)
	(4)	(5)	(0)	(0)	(0)	(.)	(9)	()	(1)	u)	(11)	(1)	()	(P)
	SALES (dth)													
1	Residential Non-Heating	39,952	59,594	78,573	77,377	66,696	52,095	46,325	34,178	29,995	27,280	27,901	28,447	568,413
3	Residential Non-Heating Low Income Residential Heating	1,099,863	2,058,633	3,053,892	3,108,191	2,680,218	1,998,463	1,232,855	674,166	443,392	388.331	399.794	515,751	17,653,549
5	· ·	1,055,005	2,030,033	3,033,032	3,100,131	2,000,210	1,990,403	1,232,033	074,100	443,332	300,331	333,734	313,731	17,000,040
6	Small C&I	121,739	254,777	460,531	442,493	396,614	264,475	142,278	71,605	53,665	47,990	48,259	48,988	2,353,415
7		207,209	321,417	519,131	539,951	483,907	330,411	217,747	126,281	99,812	92,066	97,084	111,258	3,146,273
8		48,903	79,494	120,029	125,067	113,419	85,261	41,244	22,552	14,944	12,089	12,648	20,290	695,940
9	Large HLF	18,760	21,377	27,399	24,235	24,333	20,881	19,186	13,244	13,661	14,634	16,000	14,038	227,748
	Extra Large LLF	5,824	9,181	12,885	12,530	12,644	9,031	5,606	3,688	1,676	1,620	1,523	2,227	78,434
	Extra Large HLF Total Sales	13,476 1,555,727	17,573 2,822,047	<u>12,539</u> 4,284,978	<u>15,845</u> 4,345,689	<u>13,744</u> 3,791,575	11,686 2,772,304	<u>13,141</u> 1,718,381	12,780 958,496	10,719 667,864	<u>10,388</u> 594,397	<u>11,956</u> 615,165	12,260 753,258	156,107 24,879,878
12	Total Sales	1,000,727	2,022,047	4,204,370	4,545,005	3,781,373	2,772,304	1,7 10,301	330,430	007,004	354,357	013,103	755,256	24,079,070
	FT-2 TRANSPORTATION													
	FT-2 Medium	92,888	159,599	219,045	234,859	204,413	151,837	105,327	68,711	55,908	50,329	59,272	57,359	1,459,546
	FT-2 Large LLF	60,687	110,429	167,936	167,051	155,037	122,409	66,369	40,157	19,655	15,980	19,047	29,944	974,700
	FT-2 Large HLF	18,521	23,975	27,099	26,494	27,954	22,743	19,797	15,478	13,152	14,036	14,742	14,350	238,339
	FT-2 Extra Large LLF FT-2 Extra Large HLF	3,015 10,716	5,220 10,540	8,530 16,390	7,548 13,759	6,718 13,375	5,357 12,647	3,709 16,583	1,489 <u>13,581</u>	1,425 9,378	1,446 13,944	1,414 10,967	1,359 10,056	47,230 <u>151,936</u>
	Total FT-2 Transportation	185,827	309,764	438,999	449,710	407,496	314,992	211,785	139,415	99,519	95,734	105,441	113,068	2,871,750
	rotair i 2 manoportation	100,021	000,707	100,000	110,110	101,100	011,002	211,700	100,110	00,010	00,707	100,111		2,011,100
	FT-1 TRANSPORTATION													
	FT-1 Medium	64,555	104,616	100,799	116,392	78,431	58,267	35,837	31,717	27,590	30,317	32,063	44,379	724,960
	FT-1 Large LLF	112,575	160,912	187,148	175,061	147,149	100,655	35,931	26,084	19,007	18,700	23,103	48,557	1,054,881
	FT-1 Large HLF FT-1 Extra Large LLF	41,150 100,336	47,549 147.424	45,469 160,905	53,143 156,041	51,539 130,124	38,283 84,853	35,595 38,595	31,525 18,532	28,811 15,411	30,886 15,140	31,785 20,782	29,909 46,507	465,644 934,650
	FT-1 Extra Large HLF	370,606	461,895	413,052	395,881	361,317	316,597	360,402	346,610	351,098	355,559	374,067	348,864	4,455,947
04	T T T Extra Earge TIEI	010,000	401,000	410,002	000,001	001,017	010,001	000,402	040,010	001,000	000,000	014,001	040,004	4,400,041
35	Total FT-1 Transportation	689,221	922,394	907,373	896,517	768,560	598,655	506,360	454,467	441,917	450,601	481,800	518,216	7,636,083
00	Total THROUGHPUT	00.050	50 504	70.570	77.077	00.000	50.005	40.005	04.470	00.005	07.000	07.004	00.447	500 110
36	Residential Non-Heating	39,952	59,594	78,573	77,377	66,696	52,095	46,325	34,178	29,995	27,280	27,901	28,447	568,413
37	Residential Heating	1,099,863	2,058,633	3,053,892	3,108,191	2,680,218	1,998,463	1,232,855	674,166	443,392	388,331	399,794	515,751	17,653,549
	January 3													
	Small C&I	121,739	254,777	460,531	442,493	396,614	264,475	142,278	71,605	53,665	47,990	48,259	48,988	2,353,415
39		364,651	585,632	838,975	891,201	766,750	540,515	358,911	226,708	183,310	172,711	188,419	212,996	5,330,780
	Large LLF	222,164	350,835	475,113	467,179	415,605	308,325	143,544	88,793	53,607	46,769	54,797	98,791	2,725,521
	Large HLF Extra Large LLF	78,431 109,175	92,901 161,825	99,967 182,320	103,872 176,119	103,826 149,486	81,907 99,241	74,577 47.910	60,247 23,709	55,624 18,513	59,555 18,206	62,527 23,719	58,297 50,092	931,731 1,060,314
	Extra Large HLF	394,798	490,008	441,981	425,484	388,437	340,930	390,126	372,971	371,195	379,890	396,990	371,180	4,763,990
70	90	55.,.56	100,000	111,001	120,104	555, 151	0.0,000	555,120	<u>0.2,0.1</u>	5,.55	5.5,550	000,000	5,.50	1,1.00,000
44	Total Throughput	2,430,775	4,054,205	5,631,350	5,691,916	4,967,631	3,685,951	2,436,526	1,552,377	1,209,300	1,140,732	1,202,406	1,384,542	35,387,711

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

Line	•							
No.	Rate Class	Nov-12	<u>Dec-12</u>	<u>Jan-13</u>	Feb-13	<u>Mar-13</u>	<u>Total</u>	<u>%</u>
	(a)	(b)	(c)	(d)	(e)	(f)	(h)	(i)
	SALES (dth)							
1	Residential Non-Heating	54,215	79,028	80,492	74,631	69,327	357,694	1.84%
2	Residential Heating	1,844,909	3,173,035	3,253,614	3,044,950	2,638,910	13,955,419	71.62%
3	Small C&I	255,693	445,790	457,341	428,306	369,222	1,956,353	10.04%
4	Medium C&I	325,338	538,712	551,596	515,197	453,307	2,384,150	12.23%
5	Large LLF	73,930	129,957	133,364	124,949	107,370	569,569	2.92%
6	Large HLF	20,759	26,871	27,216	25,036	24,585	124,467	0.64%
7	Extra Large LLF	8,101	14,104	14,469	13,550	11,687	61,911	0.32%
8	Extra Large HLF	13,546	16,328	16,476	15,077	15,345 _	76,772	0.39%
9	Total Sales	2,596,493	4,423,824	4,534,568	4,241,695	3,689,754	19,486,334	100.00%
10	Low Load Factor	2,507,972	4,301,598	4,410,384	4,126,951	3,580,496	18,927,401	97.13%
11	High Load Factor	88,521	122,227	124,183	114,744	109,258	558,933	2.87%



Thomas R. Teehan Senior Counsel

August 1, 2012

#### VIA HAND DELIVERY & ELECTRONIC MAIL

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

**RE: 2012 Annual Gas Cost Recovery Reconciliation** 

Dear Ms. Massaro:

In accordance with the provisions of the National Grid's Gas Cost Recovery ("GCR") Clause Tariff, R.I.P.U.C. NG No. 101, Section 2, Schedule A, Item 1.2, enclosed are ten (10) copies of National Grid's annual GCR reconciliation filing. The reconciliation consists of six schedules and contains actual gas cost and collection data for the twelve months ending March 31, 2012. In addition to the annual GCR reconciliation schedules, the Company is submitting as attachments to this filing a written report on the results of the recent analysis of the Company's GCR deferred balance calculations, along with supporting documentation.

As described in the July Monthly Deferred Balance Report, the Company commissioned the accounting firm of Ernst & Young ("E&Y") to perform an analysis and validation of gas costs in the Company's Gas Cost Recovery filings, which extended from September 2006<sup>3</sup> through June 2012. E&Y's analysis of the Company's GCR deferral calculations involved a comparison and reconciliation of the monthly deferral balances report and the Company's General Ledger for the months of September 2006 through November 2011. As part of its review, E&Y validated actual gas costs related to gas supply, underground and LNG storage activity, hedging, marketer invoices, non-firm sales, off-system sales, NGPMP credits, and GCR collections. Additionally, their analysis traced information among GCR filings, preliminary "two-day close" materials, the General Ledger, journal entries, source schedules, and source documents such as invoices. E&Y also validated the gas costs data for the months December 2011 through June 2012 for use in the recently filed July Monthly Deferred Balance Report.

<sup>&</sup>lt;sup>1</sup> The Narragansett Electric Company d/b/a National Grid ("National Grid" or the "Company").

<sup>&</sup>lt;sup>2</sup> In Docket 4199, the Company and the Division of Public Utilities and Carriers agreed to adjust the period of the annual gas cost reconciliation to reflect the Company's current fiscal year (April 1 through March 31). In Docket 4283, the Company filed an amended tariff incorporating that change.

<sup>&</sup>lt;sup>3</sup>Because of the absence of detailed account information from the acquisition of the Company in August 2006, E&Y relied on a gas cost reconciliation filed with the Commission for information prior to that time.

Luly E. Massaro, Commission Clerk GCR Reconciliation 2012 August 1, 2012 Page 2 of 3

The Company has also identified and included in this GCR annual reconciliation \$453,344 in gas supply replacement costs incurred during the period March 2011 – September 2011, while DOT-required inspection, integrity testing, and repair work was performed on an interstate pipeline servicing National Grid. While that pipeline was out of service, the Company served customers utilizing an LNG vaporizer provided by Transgas. Although the Company had initially charged these costs to an account that is not included in the calculation of gas costs, the Company corrected this oversight in March 2012.

In order to fully inform the Commission with respect to E&Y's GCR deferred balance analysis, the Company is also submitting the following attachments:

- Attachment 1-Fiscal year 2012 (April 2011-March 2012) GCR Reconciliation
- Attachment 2-Summary 2006 2011 showing original and revised ending balances ending October of each year
- Attachment 3- High level explanation of adjustments by GCR Year (November through October).
- Attachment 4-Original detail monthly GCR Reconciliation Filings for the periods November 2005 November 2011
- Attachment 5-Revised monthly detail GCR Reconciliation Filing for the periods November 2005 – November 2011
- Attachment 6-Monthly Variance (differences between original and revised deferrals shown on attachments 5 and 6)
- Attachment 7-E&Y Report

The enclosed 2012 annual GCR reconciliation (Attachment 1) consists of six schedules. Schedule 1 presents the monthly gas-cost specific ending deferred balances for the period April 1, 2011 through March 31, 2012, resulting in an end-of-period over-collection of approximately \$1.5 million, as shown on the bottom of page 2. The \$1.5 million over-collection is comprised of five distinct cost components: Supply Fixed, Storage Fixed, Supply Variable, Storage Variable Product, and Storage Variable Non-Product. The monthly balances for each of the components are also contained in Schedule 1.

Schedule 2 provides monthly gas costs by pipeline, and Schedule 3 summarizes Gas Cost Collections for the period April 2011 through March 2012.

Attachment AEL-2 Docket No. 4346 September 4, 2012 Page 3 of 15

Luly E. Massaro, Commission Clerk GCR Reconciliation 2012 August 1, 2012 Page 3 of 3

Schedule 4 presents the calculation of inventory financing costs, and Schedule 5 provides the calculations of Working Capital consistent with the methodology approved in Docket 3943. Lastly, monthly firm throughput is summarized in Schedule 6.

Thank you for your attention to this transmittal. If you have any questions, please feel free to contact me at (401) 784-7667.

Very truly yours,

H Tucken

Thomas R. Teehan

#### Enclosure

cc: Steve Scialabba, Division

Leo Wold, Esq.

Bruce Oliver, Division

### The Narragansett Electric Company

### 2012 Annual Gas Cost Recovery Reconciliation

Attachment 1- Fiscal year 2012 (April 2011-March 2012) GCR Reconciliation

Allacillelli	April 11-March 12 GCR Reconciliation	

National Grid Rhode Island - Gas Deferred Gas Cost Balance

Apr - Mar 366	\$29,947,037 (\$4,712,840) \$201,463 \$25,435,660 \$19,263,177	\$27,257 \$226,102 \$0	\$8,908,505 (\$517,370) \$618,591 \$60,635 \$9,070,360 \$1,500 \$	(\$40,917)	\$118,035,053 (\$92,200) (\$95,082) (\$265,927) \$785,716 \$118,367,560 \$178,694,381 \$17,429
Mar-12 31 actual	\$4,542,227 \$2,420,835 \$326,667) \$16,066 \$2,110,234 \$3,034,381 \$3,618,080 \$3,618,080 \$1,25%	\$4,332 \$0 \$3,622,411	(\$3,200,098) \$770,389 (\$56,567) \$51,549 \$5,079 \$770,452 \$1,222,670 (\$3,652,317)	(\$3,655,954)	(\$4,095,967) \$13,015,136 (\$10,262) (\$6,736) (\$11,789) \$86,135 \$13,072,534 \$17,643,818 (\$8,213) (\$8,659,037) (\$6,377,502) 1,25% (\$6,377,602) 1,25% (\$6,377,602)
Feb-12 29 actual	\$5,554,643 \$2,750,889 (\$326,667) \$18,257 \$2,442,479 \$3,459,906 \$4,537,215 \$5,045,929	\$5,011 \$0 \$4,542,227	(\$2,586,165) \$716,734 (\$56,567) \$51,549 \$4723 \$716,440 \$1,327,501 (\$3,197,227)	(\$2,872) (\$2,872) (\$3,200,098)	\$19,051,547 \$19,051,547 (\$23,794) (\$1,177) (\$2,680) \$126,254 \$19,150,150 \$20,129,117 (\$4,092,388) (\$3,603,022) 1,25% (\$3,603,022) (\$3,6
Jan-12 31 actual	\$6,340,426 \$2,631,108 \$326,667) \$17,462 \$2,321,903 \$3,113,997 \$5,548,332 \$5,548,332	\$6,311 \$0 \$5,554,643	(\$2.141,494) \$755,845 (\$56,567) \$51,549 \$4,983 \$755,810 \$1,197,974 (\$2,583,657)	(\$2,586,165)	(\$5,710,117) \$20,583,663 (\$16,879) (\$16,879) (\$12,446) \$136,375 \$20,685,246 \$18,091,448 (\$7,344) (\$7,3
Dec-11 31 actual	\$6,216,149 \$2,530,100 \$326,667) \$16,721 \$2,220,224 \$2,102,609 \$6,333,764 \$6,274,956 \$1,259	\$6,662 \$0 \$6,340,426	(\$2,011,899) \$684,098 (\$56,567) \$5,567) \$4,507 \$683,588 \$810,979 (\$2,139,290)	(\$2,141,494)	\$18.768,619 (\$8.970) (\$8.970) (\$8.279) (\$8.572) \$124422 \$12.375,753 (\$8.700) (\$5.700,612) (\$8.953,195) (\$8.953,195) (\$8.953,195) (\$8.953,195) (\$8.953,195) (\$8.953,195)
Nov-11 30 actual	\$5,499,135 \$2,364,181 (\$326,667) \$15,690 \$2,033,205 \$1,342,206 \$6,210,134 \$6,210,134 \$5,854,634	\$6,015 \$0 \$6,216,149	(\$2,180,509) \$743,017 (\$29,670) \$51,549 \$5076 \$769,973 \$599,211 (\$2,009,746)	(\$2,011,899)	(\$15.097.876) \$12.170.461 (\$6.444) (\$1.853) (\$3.956) \$2.30.689 \$12.238.897 \$9.335.509 (\$12.191.759) (\$12.491.759) (\$13.644.818) 1.25% (\$12.205.777)
Oct-11 31 actual	\$4,106,471 \$2,710,817 \$1,051,532) \$1,677,703 \$5,61,17 \$5,268,057 \$4,687,264	\$4,976 \$226,102 \$5,499,135	\$774.910 \$774.910 \$774.910 \$7.348) \$1.549 \$5.361 \$794.473 \$286.312 \$2.177.927)	(\$2,180,509)	\$6,671,063 (\$3,733) (\$3,731) (\$23,460) \$4,272,790 (\$15,080,580 (\$16,284,303) (\$16,284,303) (\$16,284,303) (\$17,289)
Sep-11 30 actual	\$2,178,473 \$2,589,061 (\$200,000) \$17,590 \$2,406,651 \$481,880 \$4,103,244 \$3,140,859 1,25%	\$3,227 \$0 \$4,106,471	(\$3.193.304) \$752.376 (\$37.348) \$51,549 \$5208 \$771,786 \$261,549 (\$2.683,067)	(\$2,686,086)	\$2,907,879 \$2,907,879 (\$669) (\$15,324) (\$42,601) \$19,358 \$2,868,643 \$3,996,219 (\$17,470,648) (\$17,470,648) (\$17,488,018)
Aug-11 31 actual	\$271,004 \$2,522,525 \$2,620,000) \$17,138 \$2,339,663 \$4,37,174 \$1,77,174 \$1,25%	\$1,300 \$0 \$2,178,473	(\$3,733,241) \$763,838 (\$37,348) \$51,549 \$ <u>\$5,286</u> \$783,325 \$239,713 (\$3,189,629)	(\$3,193,304)	\$4,236,094 \$4,236,094 (\$1,597) (\$14,872) (\$47,373) \$28,347 \$4,200,598 (\$1,599,581 (\$1,61,218) (\$16,626,539) 1,25% (\$1,55,421) (\$16,626,539) 1,25% (\$1,54,218) (\$16,626,539) (\$16,626,539) (\$16,626,539) (\$1,626,639) (\$1,636,639)
Jul-11 31 actual	(\$1.560,078) \$2.556,345 (\$200,000) \$1.368 \$2.373,713 \$541,947 \$271,688 (\$644,195)	(\$684) \$0 \$271,004	(\$4,219,973) \$773,740 (\$37,348) \$51,549 \$ <u>\$5353</u> \$793,295 \$302,344 (\$3,729,022)	(\$4,220) (\$4,220) (\$3,733,241)	\$1.275,388 (\$8.277) (\$6.493) (\$20,805) \$8.423 \$1.248,236 \$4.517,203 \$4.517,203 (\$16,911,438) (\$15,276,753) (\$16,911,438) (\$16,91
Jun-11 30 actual	(\$3,375,406) \$2,700,197 (\$200,000) \$18,245 \$2,518,542 \$700,680 (\$1,557,544) (\$2,466,475)	(\$2,534) \$0 (\$1,560,078)	\$813.488 (\$37.348) (\$37.348) \$51,549 \$ <u>\$5626</u> \$833.675 \$402.494 (\$4,215.490)	(\$4,219,973)	\$3.666.592 (\$1.660) (\$1.660) (\$28,072) \$24.649 \$3.652,662 \$5.790,541 \$18,301 (\$13,629,172) (\$12,551,082) 1,22% (\$12,561,082) 1,22% (\$13,642,067)
May-11 31 actual	(\$3.953,917) \$1,950,996 (\$200,000) \$1,764,251 \$1,181,852 (\$3.371,518) (\$3.371,518)	(\$3,375,406)	(\$4,731,862) \$746,221 (\$47,187) \$51,549 \$5,100 \$755,683 \$65,446 (\$4,641,626)	(\$4,646,601)	\$5,992,902 \$5,992,903 (\$4,709) (\$11,127) (\$29,628) \$40,407 \$5,987,847 \$9,702,164 \$23,508 (\$11,462,807) (\$9,593,895) 1,25% (\$10,185) (\$11,472,992)
Apr-11 30 actual	(\$2.803,431) \$2.219,985 \$1.027,975) \$1.507,092 \$2.354,109 (\$3.960,447) (\$3.376,393)	(\$3,469) \$0 (\$3,953,917)	(\$4,072,243) \$613,490 (\$27,508) \$51,549 \$4,331 \$641,862 \$1,296,960 (\$4,727,341)	(\$4,731,862)	\$1.811,641 \$9,695,707 (\$5,205) (\$11,178) (\$34,534) \$65,528 \$9,710,307 \$19,240,239 \$3,655 (\$7,721,946) (\$2,965,152) 1,22% (\$3,336) (\$3,336)
	Supply Fixed Cost Deferred     Beginning Balance     Supply Fixed Costs (net of cap rel)     NGPMP Credits     Working Capital     Total Supply Fixed Costs     Supply Fixed Costs     Prelim. Ending Balance     Month's Average Balance     Interest Rate (BOA Prime minus 200 bps)	Interest Applied GPIP Marketer Reconcilation Supply Fixed Ending Balance	II. Storage Fixed Cost Deferred Beginning Balance Storage Fixed Costs LNG Demand to DAC Supply Related LNG O & M Working Capital Total Storage Fixed Costs TSS Peaking Collections Storage Fixed - Collections Prelim. Ending Balance Monthly Avarage Balance	Interest Rate (BOA Prime minus 200 bps) Interest Applied Storage Fixed Ending Balance	III. Variable Supply Cost Deferred Beginning Balance Variable Supply Costs Variable Delivery Storage Variable Injections Storage Variable Injections Storage Fuel Cost Allocated to Storage Working Capital Total Supply Variable Costs Supply Variable - Collections Deferred Responsibility Prelim. Ending Balance Month's Average Balance Interest Rate (BOA Prime minus 200 bps) Interest Applied Supply Variable Ending Balance

Attachment 1 April 11-March 12 GCR Reconciliation

Schedule 1 Page 2 of 2

National Grid Rhode Island - Gas Deferred Gas Cost Balance

Mar 366 	\$33 \$66 661 229 229 229 229 230 56 63 63 63	77.942 22.200 22.200 55.927 55.253 68.404 8,370 (\$535)	Attachment AEL-2 Docket No. 4346 September 4, 2012
Apr - Mar 366 	\$3,756,633 \$17,680,061 (\$582,992) \$430,129 \$731,281 \$1,931,281 \$23,734,763 \$23,734,763 \$23,734,763	\$327,942 \$92,200 \$95,200 \$95,097 \$ <u>\$5,263</u> \$786,404 \$218,370 (\$535	\$1,000,000,000,000,000,000,000,000,000,0
Mar-12 31 actual	\$10,920,603 \$415,824 \$0 (\$1,036,118) \$6,799 \$32,844 \$22,04,772 \$0 (\$438,308) \$3,302,890 \$7,179,405 \$9,050,004 1,25% \$7,189,013	\$65,387 \$50,623 \$10,262 \$6,1738 \$11,789 \$227 \$17,79 \$16,173 \$22,173 \$17,279 \$1,173 \$29,171 \$47,279 \$28,222 \$28,222	\$8,232,152 (\$326,667) (\$326,667) (\$326,667) (\$14,464,024 (\$14,464,024) (
Feb-12 29 actual	\$8.211.378 \$301.350 \$6.011.166 (\$54.605) \$35.844 \$21.06.896 \$0.46.896 \$1.06.	\$167,251 \$2,110 \$23,794 \$1,177 \$2,680 \$19,958 \$329,958 \$116,261 \$116,261 \$115,8	\$8,233,451 \$28,937,976 (\$326,667) \$191,200 \$28,802,509 \$28,811,981 \$8,228,715 \$8,175 \$8,175 \$8,732,152
Jan-12 31 actual	\$5,131,706 \$1,534,727 \$4,947,560 (\$278,093) \$35,844 \$25,844 \$2,419 \$154,031 \$6,45,307 \$6,45,307 \$6,668,003 \$1,25% \$7,079 \$8,204,299 \$6,668,003 \$1,25% \$7,079 \$8,211,378	\$158.243 \$87.214 \$16.879 \$5.246 \$122.815 \$112.815 \$112.870 \$162.660 \$1.25% \$167.251	\$3,778,763 \$30,469,300 (\$326,667) \$201,041 \$30,343,675 \$5,895,360 \$8,227,078 \$6,002,921 \$6,373 \$6,373 \$8,373
Dec-11 31 actual	\$4,316,605 \$217,371 \$2,648,256 (\$39,388) \$35,844 \$35,844 \$35,844 \$35,188,042 \$3,101,505 \$5,126,693 \$4,721,649 \$5,126,693 \$5,126,693 \$5,126,693 \$5,126,693 \$5,126,693	\$167,545 \$8,710 \$8,970 \$8,572 \$8,572 \$68,468 \$77,943 \$158,070 \$162,807 \$158,070 \$158,243	(\$3,517,378) \$25,107,504 (\$326,667) \$165,165 \$24,946,003 \$17,650,000 \$3,778,624 \$130,623 \$1,25% \$139 \$1,25%
Nov-11 30 actual	\$4,229,720 \$132,967 \$132,967 \$1,291,223 \$35,844 \$35,844 \$35,874 \$204,503 \$1,601,356 \$4,312,217 \$4,270,968 \$1,25% \$4,316,605	\$124,728 \$34,071 \$6,444 \$1,853 \$3,956 \$307 \$46,632 \$146,062 \$146,062 \$146,062 \$146,062 \$146,062 \$146,062 \$146,062	(\$7,424,802) \$17,007,932 (\$326,667) \$111,293 \$16,702,558 \$12,879,517 (\$3,511,760) (\$5,618) \$6 (\$5,618) \$6 (\$3,517,378)
Oct-11 31 actual	\$3,985,449 \$217,317 \$0 \$442,554 (\$36,509) \$35,844 \$35,844 \$35,844 \$36,738 \$918,882 \$678,870 \$4,725,362 \$4,105,406 \$4,225,362 \$4,105,406 \$4,225,362 \$4,388 \$4,388 \$4,388	\$54,014 \$14,752 \$3,733 \$8,731 \$23,400 \$344 \$51,020 (\$19,599) \$124,633 \$89,324 \$124,633 \$124,633 \$124,633	(\$12,028,169) \$11,100,148 (\$1,051,532) \$73,682 \$10,122,288 \$5,734,592 (\$7,640,463) (\$9,834,316) (\$10,441) \$226,102 (\$7,424,802)
Sep-11 30 actual	\$3,798,252 \$110,854 \$440,196 (\$18,623) \$35,844 \$36,663 \$210,325 \$210,325 \$218,520 \$635,319 \$3,889,882 1,25% \$3,989,445 \$3,986,449	\$25,635) \$2,881 \$669 \$15,324 \$42,601 \$416 \$61,691 (\$17,943) \$14,183 1,22% 1,22% \$54,014	(\$13,585,285) \$7,080,857 (\$200,000) \$46,334 \$6,927,291 \$6,927,291 (\$12,015,018) (\$12,015,018) (\$13,151) (\$13,151) (\$13,151) (\$12,028,169)
Aug-11 31 actual	\$3,739,983 \$154,573 \$238,456 (\$25,968) \$35,844 \$36,138 \$184,386 \$2,737 \$626,166 \$571,897 \$3,794,252 \$3,794,252 \$3,794,252 \$3,794,252 \$3,794,252 \$3,794,252	(\$112,635) \$6,577 \$1,597 \$1,597 \$47,373 \$70,898 (\$16,176) (\$25,561) (\$25,561) (\$25,561) (\$25,561) (\$25,561)	(\$16,762,546) \$8,166,664 (\$200,000) \$53,987 \$8,020,651 \$4,827,289 (\$13,569,184) (\$15,165,865) (\$16,101) \$0 (\$13,585,285)
Jul-11 31 actual	\$3,002,956 \$1,078,200 \$1,078,730 \$35,844 \$35,844 \$3,146,611 \$713,161 \$71,46,611 \$713,161 \$73,736,406 \$3,736,406 \$3,736,406 \$3,736,983	(\$202,888) \$34,380 \$8,277 \$6,443 \$20,805 \$70,431 (\$112,488) (\$112,488) (\$157,678) 1,25% (\$167)	(\$16,622,050) \$6,092,193 (\$200,000) \$4,093 \$5,932,285 \$6,055,070 (\$16,744,835) (\$16,744,835) (\$16,7712) \$6 (\$17,712) \$6 (\$16,762,546)
Jun-11 30 actual	\$3.234.763 \$157,936 \$327,864 (\$26,533) \$35,844 \$35,661 \$151,174 \$161,174 \$161,174 \$919,719 \$919,719 \$3,117,288 1,25% \$3,117,288	(\$273,955) \$6,923 \$1,660 \$8,847 \$28,072 \$309 \$45,811 (\$202,643) (\$238,299) 1,25% (\$202,888)	(\$16,534,192) \$7,883,106 (\$200,000) \$5,293 \$7,735,400 \$7,806,234 (\$16,605,028) (\$16,605,028) (\$11,024) \$0 (\$16,622,050)
May-11 31 actual	\$3,794,105 \$210,514 \$598,968 \$35,844 \$36,291 \$128,312 \$128,312 \$128,312 \$128,312 \$15,503 \$980,066 \$1,543,137 \$3,512,669 \$1,25% \$3,729 \$3,729 \$3,739	(\$381,779) \$19,257 \$4,709 \$1,127 \$29,628 \$440 \$65,160 (\$4273,607) (\$273,607) (\$273,607) (\$273,607) (\$273,607)	(\$12,998,435) \$9,688,302 (\$200,000) \$64,705 \$9,553,007 \$13,073,096 (\$16,518,524) (\$14,758,479) (\$14,568) (\$15,568) (\$16,534,192)
Apr-11 30 actual	\$5,880,284 \$144,000 \$691,207 (\$23,866) \$35,844 \$31,612 \$106,822 \$106,822 \$106,822 \$3,062,511 \$3,789,148 \$4,824,716 \$4,957 \$3,794,105	(\$538,277) \$22,158 \$5,205 \$1,178 \$34,544 \$497 \$73,582 (\$831,307) (\$459,792) 1,25% (\$72) (\$472)	\$257,374 \$13,560,999 (\$1,027,975) \$91,194 \$12,624,218 \$25,874,087 (\$12,991,894) (\$6,541) \$6,541) \$6 (\$12,998,435) (\$12,998,435)
	Na. Storage Variable Product Cost Deferred Beginning Balance Storage Variable Prod. Costs - LNG Storage Variable Prod. Costs - LP Storage Variable Prod. Costs - LP Storage Variable Prod. Costs - LP Storage Variable Prod. Costs - UG Supply Related LNG to DAC Supply Related LNG to BAC Inventory Financing - LNG Inventory Financing - LP Working Capital Total Storage Variable Product Colections Prelim. Ending Balance Month's Average Balance Interest Rate (BOA Prime minus 200 bps) Interest Applied Storage Variable Product Ending Bal.	IVb. Stor Var Non-Prod Cost Deferred Beginning Balance Storage Variable Non-prod. Costs Variable Delivery Storage Costs Variable Injection Storage Costs Fuel Costs Allocated to Storage Costs Fuel Costs Allocated to Storage Working Capital Total Storage Var Non-product Costs Storage Var Non-Product Collections Prelim. Ending Balance Month's Average Balance Interest Rate (BOA Prime minus 200 bps) Interest Rate (BOA Prime Balance Interest Rate (BOA Prime Balance) Storage Var Non-Product Ending Bal.	Beginning Balance   \$13,560,500,500,500,500,500,500,500,500,500

National Grid Rhode Island - Gas Deferred Gas Cost Balance

Natorial Grid Rhode Island - Gas Deferred Gas Cost Balance					Attachment 1	nent 1	Attachment 1	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;					sche Page
SUPPLY FIXED COSTS - Pipeline Delivery	Apr-11 actual	May-11 actual	Jun-11 actual	Jul-11 actual	Aug-11 actual	Sep-11 actual	Oct-11 actual	Nov-11 actual	Dec-11 actual	Jan-12 actual	Feb-12 actual	Mar-12 actual	Apr - Mar
Algonquin Alberta Northeast	639,787	706,566	1,020,716	869,521	869,990	868,393	870,290	872,052	1,037,363	991,108	949,100	725,335	10,420,219 2 856
Teres Eastern	0 0 0 0 0 0 0	0 0 0	22. 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 00	00000	0 202	765,159	903,311	819,999	862,839	875,989	4,227,297
TELCO	426,307 785,151	818,046 641,226	1,155,688	1,188,401	785,520 1,210,419	1,296,626	735,016 1,450,301	0 1,028,887	0 891,113	1,140,018	0 1,085,702	0 941,329	5,083,675 12,814,860
NETNE Iroquois	0 6,676	0 6,693	0 6,676	0 6,676	0 6,676	0 6,676	0 6,676	6,676	6,676	0	6,676	6,676	0 73,456
Union Transcanada	00	00	00	00	00	00	00	2,530	(71)	(780)	2,479	2,519	6,676
Dominion	2,313	2,313	2,313	1,156	2,892	2,313	2,313	34,096	34,959	34,096	36,625	123,304	278,694
Iransco National Fuel	6,561 4,184	6,669 4,184	6,453 4,184	6,584 4,184	6,626 4,184	5,412 4,184	10,621 4,184	1,289 4,184	6,625 4,184	6,625 4,199	6,282 4,214	6,625 0	76,374 46,066
Columbia Hubline	291,347 0	302,186 0	301,968 0	294,574 0	312,418 0	305,233 0	305,395 0	315,540	265,769	321,915	302,332	319,604	3,638,279 0
Westerly Lateral BG LNG Energy GDF Serin	57,637	57,637	57,637	57,656	57,637	57,637	57,637	57,637 11,968	57,485 88,542	57,010 12,247	55,011 38,823	44,628 62,958	675,245 214,538
East to West Less Credits from Mkter Releases TOTAL SUPPLY FIXED COSTS - Pipeline	0 542,603 2,219,985	0 594,522 1,950,996	0 627,330 2,700,197	0 651,668 2,556,345	0 734,345 2,522,525	0 725,876 2,589,061	0 731,631 2,710,817	735,836 2,364,181	766,383 2,530,100	755,856 2,631,108	599,667 2,750,889	688,082 2,420,835	8,153,801 29,947,037
<b>Supplier</b> Distrigas FCS	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Supply Fixed (Pipeline & Supplier)	2,219,985	1,950,996	2,700,197	2,556,345	2,522,525	2,589,061	2,710,817	2,364,181	2,530,100	2,631,108	2,750,889	2,420,835	29,947,037
STORAGE FIXED COSTS - Facilities Texas Eastern SS-1 Demand Texas Eastern SS-1 Dapacity Texas Capacity	88,844	87,289	87,729	86,978	87,011	87,007	87,048	87,194	(268)	0	0	0	698,833
Texas Eastern FSS-1 Dentand Texas Eastern FSS-1 Capacity Dominion GSS Demand Dominion GSS Capiacity Dominion GSS-TE Demand	83,655	83,655	83,655	83,655	83,655	83,655	83,655	83,387	86,440	83,387	84,978	(0)	923,775 0 0 0
Dominion GSS-TE Capacity Tennessee FSMA Demand Tennessee FSMA Capacity	39,425	39,427	61,371	90,926	47,558	34,943	58,699	49,804	43,128	56,480	49,804	32,600	0 604,165 0
Columbia FSS Demand Columbia FSS Capacity									24,720	0	0	0	24,720 0
Iroquois Repsol Karama I M.C Tank I ages Daymont	163 740	077697	163 740	163 740	163 740	163 740	163 740	8,333	6,676	112 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 163 740	6,788 8,333
Keyspan LNG I ank Lease Payment TOTAL FIXED STORAGE COSTS	367,330	163,740 374,111	163,740 396,495	163,740 425,299	163,740 381,963	163,740 369,345	163,740 393,143	163,740 392,459	163,740 324,436	163,740 303,719	163,740 298,522	163,740 196,340	1,964,880 4,223,162
STORAGE FIXED COSTS - Delivery Algonquin for TETCO SS-1 Algonquin delivery for FSS TETCO delivery for FSS	128,718	137,533	139,526	138,190	137,911	139,017	137,753	145,543	91,424	158,405	156,758	275,688	1,786,467 0 0
Agonquin SCI for SS-1 Algonquin delivery for GSS, GSS-TE, Algonquin Gellvery for GSS-TE Algonquin delivery for GSS-TE Algonquin delivery for GSS Conv Tennessee delivery for GSS	63,824	63,824	165,641	98,066	131,854	131,854	131,854	118,854	66,208	91,993	91,993	92,038	0 0 0 0 1,248,002
Territo delevery for GSS TETCO delivery for GSS-TE TETCO delivery for GSS-TE TETCO delivery for GSS-TE TETCO delivery for GSS-TE	53,617	53,617	53,617	53,617	53,543	53,593	53,593	86,162	53,593	53,593	21,023	53,679	643,246 0 0
Dominion delivery for GSS Conv Dominion delivery for GSS Algonquin delivery for FSS Columbia Delivera for ESS													0000
Octumes Delivery for 155 Distrigas FLS call payment National Fuel	0	117,136	58,568	58,568	58,568	58,568	58,568		148,438	148,438	148,438	148,438 4,206	April GCF
VPEM STORAGE DELIVERY FIXED COST\$	246,159	372,110	417,352	348,441	381,875	383,031	381,768	350,558	359,662	(303) 452,125	0 418,212	0 574,049	303 Rec 3 of chme
TOTAL STORAGE FIXED	613,490	746,221	813,848	773,740	763,838	752,376	774,910	743,017	684,098	755,845	716,734	770,389	larch oncil
TOTAL FIXED COSTS	2,833,474	2,697,217	3,514,044	3,330,085	3,286,362	3,341,436	3,485,727	3,107,198	3,214,198	3,386,953	3,467,623	3,191,224	38,855,541 liation

Attachment 1 April 11-March 12 GCR Reconciliation Page 4 of 10

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Annual-GCR Deferred Apr11- Mar12 (8-1-12) v2 SupplyEst

Attachment 1 April 11-March 12 GCR Reconciliation

National Grid Rhode Island - Gas Deferred Gas Cost Balance National Grid GCR - Gas Cost Collections

Total Apr - Mar		20,786,414 \$18,604,116	1,036,942	21,823,355 <b>\$19,263,177</b>		20,786,414 \$7,492,298	1,036,942	2,688,771	\$24,512,127 <b>\$8,613,153</b>		21,823,355	63,871	0 (\$140)	51,519 \$454,696	\$120,440	\$128,694,381
Mar-12 actual		3,140,582 \$0.9404 \$2,953,408	127,454 \$0.6353 \$80,973	3,268,037 <b>\$3,034,381</b>		3,140,582 \$0.3363 \$1,056,314	127,454 \$0.2209 \$28,152	489,404 \$0.2824 \$138,204	3,757,440 <b>\$1,222,670</b>		3,268,037 \$5.3867 \$17,603,853	11,444 \$0.0000 \$0	0 \$0.0000 \$0	5,189 \$7.7018 \$39,965		\$17,643,818 \$128,694,381
Feb-12 actual		3,586,992 \$0.9401 \$3,372,056	138,549 \$0.6341 \$87,850	3,725,541 <b>\$3,459,906</b>		3,586,992 \$0.3362 \$1,206,050	138,549 \$0.2205 \$30,544	544,128 \$0.1671 \$90,907	4,269,669 <b>\$1,327,50</b> 1		3,725,541 \$5.3845 \$20,060,195	16,570 \$0.0000 \$0	0000.0\$	9,219 \$7.7018 \$68,922		\$20,129,117
Jan-12 actual		3,232,330 \$0.9402 \$3,039,105	118,036 \$0.6345 \$74,892	3,350,366 <b>\$3,113,997</b>		3,232,330 \$0.3363 \$1,086,965	118,036 \$0.2206 \$26,039	337,494 \$0.2518 \$84,970	3,687,860 <b>\$1,197,974</b>		3,350,366 \$5.3854 \$18,043,126	13,150 \$0.0000 \$0	0 \$0.0000 \$0	5,962 \$7.7018 \$48,322		\$18,091,448
Dec-11 actual		2,167,029 \$0.9419 \$2,041,191	96,677 \$0.6353 \$61,418	2,263,705 <b>\$2,102,609</b>		2,167,029 \$0.3369 \$730,051	96,677 \$0.2209 \$21,353	254,172 \$0.2344 \$59,575	2,517,877 <b>\$810,979</b>		2,263,705 \$5.3951 \$12,212,869	1,811 \$0.0000 \$0	0 \$0.0000 \$0	5,240 \$8.1056 \$42,444	\$120,440	\$12,375,753
Nov-11 actual		1,444,870 \$0.8919 \$1,288,746	\$2,160 \$0.6507 \$53,460	1,527,031 <b>\$1,342,206</b>		1,444,870 \$0.3725 \$538,210	\$2,160 \$0.2687 \$22,073	174,749 \$0.3566 \$62,307	1,701,779 <b>\$599,211</b>		1,527,031 \$6.0905 \$9,300,304	1,221 \$0.0000 \$0	0 \$0.0000 \$0	4,486 \$7.8960 \$35,205		\$9,335,509
Oct-11 actual		588,024 \$0.8184 \$481,238	55,152 \$0.6324 \$34,879	643,176 <b>\$516,117</b>		588,024 \$0.3981 \$234,096	55,152 \$0.3024 \$16,678	102,547 \$0.3841 \$39,388	745,723 <b>\$286,312</b>		643,176 \$6.6133 \$4,253,546	815 \$0.0000 \$1	0 0000.0\$ \$0	2,170 \$9.0910 \$19,243		\$4,272,790
Sep-11 actual		543,919 \$0.8193 \$445,621	57,192 \$0.6340 \$36,259	601,110 <b>\$481,880</b>		543,919 \$0.3985 \$216,771	57,192 \$0.3032 \$17,338	80,970 \$0.3841 \$31,101	682,081 <b>\$261,549</b>		601,110 \$6.6212 \$3,980,102	\$25 \$0.0000 \$0	0000:0\$	1,818 \$9.0910 \$16,117		\$3,996,219
Aug-11 actual		496,718 \$0.8050 \$399,881	53,003 \$0.6342 \$33,612	549,721 <b>\$433,493</b>		496,718 \$0.3916 \$194,519	53,003 \$0.3032 \$16,072	73,855 \$0.3841 \$28,368	623,577 <b>\$239,713</b>		549,721 \$6.5174 \$3,582,765	1,637 \$0.0000 \$0	0000.0\$	1,378 \$9.0910 \$16,816		\$3,599,581
Jul-11 actual		607,863 \$0.8304 \$504,752	58,662 \$0.6341 \$37,195	666,525 <b>\$541,947</b>		607,863 \$0.4039 \$245,534	58,662 \$0.3032 \$17,787	85,083 \$0.3841 \$32,680	751,608 <b>\$302,344</b>		666,525 \$6.7031 \$4,467,766	980 \$0.0000 \$0	0 \$0.0000 (\$140)	4,023 \$9.0910 \$49,577		\$4,517,203
Jun-11 actual		803,520 \$0.8199 \$658,773	66,178 \$0.6332 \$41,907	869,697 <b>\$700,680</b>		803,520 \$0.3988 \$320,457	66,178 \$0.3028 \$20,038	99,159 \$0.3841 \$38,087	968,857 <b>\$402,494</b>		869,697 \$6.6250 \$5,761,777	3,099 \$0.0000 \$0	0 \$0.0000 \$0	1,961 \$9.0910 \$28,764		\$5,790,541
May-11 actual		1,386,304 \$0.8172 \$1,132,899	77,221 \$0.6339 \$48,953	1,463,524 <b>\$1,181,852</b>		1,386,304 \$0.3975 \$551,096	77,221 \$0.3031 \$23,407	174,976 \$0.3841 \$67,208	1,638,500 <b>\$665,446</b>		1,463,524 \$6.6055 \$9,667,314	5,349 \$0.0000 \$0	0 \$0.0000 \$0	3,930 \$9.0910 \$34,850		\$9,702,164
Apr-11 actual		2,788,263 \$0.8200 \$2,286,446	106,657 \$0.6344 \$67,663	2,894,921 <b>\$2,354,109</b>	.,	2,788,263 \$0.3989 \$1,112,235	106,657 \$0.3033 \$32,354	272,234 \$0.3841 \$104,565	3,167,155 <b>\$1,296,960</b>	ا د	2,894,921 \$6.6274 \$19,185,767	7,269 \$0.0000 \$0	0 \$0.0000 \$0	6,143 \$9.0910 \$54,472		\$19,240,239
	I. Supply Fixed Cost Collections	(a) Low Load dth Supply Fixed Cost Factor Low Load collections	(b) High Load dth Supply Fixed Cost Factor High Load collections	sub-total Dth TOTAL Supply Fixed Collections	II. Storage Fixed Cost Collections	(a) Low Load dth Storage Fixed Cost Factor Low Load collections	(b) High Load oth Storage Fixed Cost Factor High Load collections	(c) FT-2 dth Storage Fixed Cost Factor FT-2 collection	sub-total Dth TOTAL Storage Fixed Collections	III. Variable Supply Cost Collections	(a) Firm Sales ofth Variable Supply Cost Factor Variable Supply collections	(b) TSS Sales dth TSS Variable Supply Cost F. TSS Surcharge collections	(c) NGV Sales ofth Variable Supply Cost Factor Variable Supply collections	(d) Default Sales dth Variable Supply Cost Factor Variable Supply collections	Peaking Gas revenue	TOTAL Variable Supply Collections

Attachment 1 April 11-March 12 GCR Reconciliation Page 5 of 10

Attachment 1 April 11-March 12 GCR Reconciliation

National Grid Rhode Island - Gas Deferred Gas Cost Balance National Grid GCR - Gas Cost Collections

	Apr-11 actual	May-11 actual	Jun-11 actual	Jul-11 actual	Aug-11 actual	Sep-11 actual	Oct-11 actual	Nov-11 actual	Dec-11 actual	Jan-12 actual	Feb-12 actual	Mar-12 actual	Total Apr - Mar
IVa. Storage Variable Product Cost Collections	st Collections												
(a) Firm Sales oth Variable Supply Cost Factor TOTAL Stor Var Product collections	2,894,921 \$1.0579 <b>\$3,062,511</b>	1,463,524 \$1.0544 <b>\$1,543,137</b>	869,697 \$1.0575 <b>\$919,719</b>	666,525 \$1.0700 <b>\$713,161</b>	549,721 \$1.0403 <b>\$571,897</b>	601,110 \$1.0569 <b>\$635,319</b>	643,176 \$1.0557 <b>\$678,970</b>	1,527,031 \$1.0487 <b>\$1,601,356</b>	2,263,705 \$1.0122 <b>\$2,291,416</b>	3,350,366 \$1.0104 <b>\$3,385,307</b>	3,725,541 \$1.0103 <b>\$3,763,754</b>	3,268,037 \$1.0107 <b>\$3,302,890</b>	21,823,355 <b>\$22,469,437</b>
IVb. Storage Variable Non-product Cost Collections	st Cost Collectio	Su											
(a) Firm Sales dth	2,894,921	1,463,524	869,697	666,525	549,721	601,110	643,176	1,527,031	2,263,705		3,725,541		21,823,355
variable Supply Cost Factor Stor Var Non-Product collec	(\$0.0263) (\$76,228)	(\$38,410)	(\$22,893)	(\$17,751)	(\$14,234)	(\$15,813)	(\$16,902)	\$3,563	\$70,089	\$103,550	\$115,124	\$101,030	\$191,125
(b) FT-2 dth	272,234	174,976	99,159	85,083	73,855	80,970	102,547	174,749	254,172	337,494	544,128	489,404	2,688,771
Variable Supply Cost Factor	(\$0.0263)	(\$0.0263)	(\$0.0263)	(\$0.0263)	(\$0.0263)	(\$0.0263)	(\$0.0263)	\$0.0023	\$0.0309	\$0.0309	\$0.0309	\$0.0309	\$27.245
Total Firm Sales/FT-2 dth	3 167 155	1 638 500	968 857	751 608	623 577	682 084	745 723	1 701 779		3 687 860	4 269 669		24 512 127
TOTAL Stor Var Non-Product collec	(\$83,388)	(\$43,012)	(\$25,501)	(\$19,989)	(\$16,176)	(\$17,943)	(\$19,599)	\$3,965	\$77,943	\$113,979	\$131,938	\$116,153	\$218,370
Deferred Responsibility	\$3,655	\$23,508	\$18,301	\$405	(\$1,218)	\$0	\$0	(\$2,730)	(\$8,700)	(\$7,344)	(\$235)	(\$8,213)	\$17,429
Total Gas Cost Collections	\$25,874,087	\$25,874,087 \$13,073,096	\$7,806,234	\$6,055,070	\$4.827.289	\$5.357.025	\$5.734.591	\$12.879.517	\$17,650,000	\$25,895,360	\$28,811,981	\$25.311.699	\$25.311.699 \$179.275.948

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Total (0)	\$230,198,763 \$16,965,648	\$5,433,305	\$17,742,066	\$23,175,371	\$1,931,281	\$4,011,098	\$1,288,638	\$4,188,401	\$5,477,039	\$456,420		\$78,814	\$377,606
<u>Mar-12</u> (n)	\$14,561,908 \$24 \$14,561,933 7.23% 1,052,828	2.22% 323,275	\$729,553 0.6500 \$1,122,389	\$1,445,664	\$120,472	\$3,351,880 7.23% \$242,341	2.22% \$74,412	\$167,929 0.6500 \$258,353	\$332,764	\$27,730	18.12%	\$5,025	\$22,706
Feb-12 (m)	\$12,541,091 \$379,848 \$12,920,939 7.23% 934,184	2.22% 286,845	\$647,339 0.6500 \$995,906	\$1,282,751	\$106,896	\$3,109,341 7.23% \$224,805	2.22% \$69,027	\$155,778 0.6500 \$239,658	\$308,686	\$25,724	18.12%	\$4,661	\$21,063
<u>Jan-12</u> (I)	\$16,766,654 \$1,851,663 \$18,618,318 7.23% 1,346,104	2.22% 413,327	\$932,778 0.6500 \$1,435,043	\$1,848,369	\$154,031	\$3,309,527 7.23% \$239,279	2.22% \$73,471	\$165,807 0.6500 \$255,088	\$328,560	\$27,380	18.12%	\$4,961	\$22,419
Dec-11 (k)	\$19,073,568 \$3,655,825 \$22,729,393 7.23% 1,643,335	2.22% 504,593	\$1,138,743 0.6500 \$1,751,912	\$2,256,504	\$188,042	\$4,780,667 7.23% \$345,642	2.22% \$106,131	\$239,511 0.6500 \$368,479	\$474,610	\$39,551	18.12%	\$7,167	\$32,384
Nov-11 (j)	\$19,971,317 \$4,747,817 24,719,134 7.23% 1,787,193	2.22% 548,765	1,238,429 0.6500 1,905,275	2,454,040	204,503	\$5,001,334 7.23% 361,596	2.22% 111,030	250,567 0.6500 385,487	496,517	41,376	18.12%	7,497	33,879
Oct-11 (i)	21,140,596 4,747,817 25,888,413 7.47% 1,932,788	2.46% 635,895	1,296,893 0.6500 1,995,220	2,631,115	219,260	5,100,106 7.47% 380,766	2.46% 125,274	255,492 0.6500 393,065	518,339	43,195	16.80%	7,257	35,938
Sep-11 (h)	20,122,933 4,710,582 24,833,515 7.47% 1,854,031	2.46% 609,984	1,244,047 0.6500 1,913,919	2,523,903	210,325	5,117,860 7.47% 382,091	2.46% 125,710	256,382 0.6500 394,433	520,143	43,345	16.80%	7,282	36,063
Aug-11 (g)	17,441,445 4,329,345 21,770,790 7.47% 1,625,373	2.46% 534,754	1,090,619 0.6500 1,677,875	2,212,629	184,386	5,128,501 7.47% 382,886	2.46% 125,971	256,915 0.6500 395,254	521,225	43,435	16.80%	7,297	36,138
<u>Jul-11</u> (f)	14,843,799 3,700,318 18,544,117 7.47% 1,384,475	2.46% 455,498	928,977 0.6500 1,429,195	1,884,693	157,058	4,832,462 7.47% 360,784	2.46% 118,699	242,085 0.6500 372,438	491,137	40,928	16.80%	6,876	34,052
<u>Jun-11</u> (e)	14,732,691 3,116,688 17,849,378 7.47% 1,332,607	2.46% 438,433	894,174 0.6500 1,375,652	1,814,085	151,174	4,975,591 7.47% 371,470	2.46% 122,215	249,255 0.6500 383,469	505,684	42,140	16.80%	7,080	35,061
<u>May-11</u> (d)	12,985,012 2,165,095 15,150,108 7.47% 1,131,083	2.46% 372,131	758,952 0.6500 1,167,619	1,539,750	128,312	5,150,249 7.47% 384,510	2.46% 126,505	258,004 0.6500 396,930	523,435	43,620	16.80%	7,328	36,291
<u>Apr-11</u> (c)	11,649,879 962,847 12,612,726 7.47% 941,646	2.46% 309,806	631,841 0.6500 972,063	1,281,868	106,822	4,486,140 7.47% 334,928	2.46% 110,193	224,735 0.6500 345,747	455,940	37,995	16.80%	6,383	31,612
Reference (b)	(1) + (2) Rate Case (3) * (4)	Rate Case (1)* (6)	(5) - (7) Rate Case (8) / (9)	(7) + (10)	(11) / 12	Rate Case (13) * (14)	Rate Case (13) * (16)	(15) - (17) Rate Case (18) / (19)	(17) + (20)	(21) / 12	Rate Case	(22) * (23)	(22) - (24)
<u>No.</u> <u>Description</u> (a)	<ul> <li>Storage Inventory Balance</li> <li>Hedging</li> <li>Subtotal</li> <li>Cost of Capital</li> <li>Return on Working Capital Requirement</li> </ul>	6 Weighted Cost of Debt 7 Interest Charges Financed	8 Taxable Income 9 1 - Combined Tax Rate 10 Return and Tax Requirement	11 Working Capital Requirement	12 Monthly Average	<ul><li>13 LNG inventory Balance</li><li>14 Cost of Capital</li><li>15 Return on Working Capital Requirement</li></ul>	<ul><li>16 Weighted Cost of Debt</li><li>17 Interest Charges Financed</li></ul>	<ul><li>18 Taxable Income</li><li>19 1 - Combined Tax Rate</li><li>20 Return and Tax Requirement</li></ul>	21 Working Capital Requirement	22 Monthly Average	23 System Balancing Factor	24 Balancing Related Inventory Costs	25 Supply Related Inventory Costs

# Attachment 1 April 11-March 12 GCR Reconciliation

National Grid Rhode Island - Gas Deferred Gas Cost Balance

Attachment AEL-2 Docket No. 4346\_ \$29,947,037 \$0 \$29,947,037 \$118,035,053 \$0 \$92,200 \$95,082 \$265,927 \$453,209 \$117,581,844 \$8,908,505 \$517,370 \$0 \$618,591 \$9,009,726 \$60,635 \$201,463 Total \$868,129 7.23% \$62,766 \$51,165 7.23% \$3,699 \$8,108 0.6500 \$12,473 \$2,563 0.6500 \$3,944 \$28,787 \$12,986,349 \$161,831 7.23% \$11,700 \$3,593 \$56,567 \$56,567 \$0 \$51,549 \$765,372 24.40 \$1,136 \$10,262 \$6,736 \$11,789 2.22% \$19,272 0.6500 \$16,066 \$43,493 \$5,079 \$13,015,136 Mar-12 \$47,578 7.23% \$3,440 \$9,213 0.6500 \$14,174 \$2,384 0.6500 \$3,667 \$27,651 \$19,023,896 \$1,271,734 7.23% \$91,946 \$2,750,889 \$0 \$2,750,889 \$716,734 \$56,567 \$0 \$51,549 \$711,717 \$1,056 24.40 2.22% \$28,233 \$63,714 0.6500 \$98,021 \$18,257 24.40 \$4,723 \$23,794 \$1,177 \$2,680 126,254 \$19,051,547 \$8,812 0.6500 313,557 \$50,192 7.23% \$3,629 \$2,515 0.6500 \$3,869 \$1,373,678 7.23% \$99,317 \$68,821 0.6500 \$105,879 \$2,631,108 \$0 \$2,631,108 24.40 \$1,114 2.22% \$30,496 \$755,845 \$56,567 \$0 \$51,549 \$750,827 \$20,548,872 \$17,462 3136,375 \$20,583,663 Jan-12 \$8,474 0.6500 \$13,036 \$45,396 7.23% \$3,282 \$2,274 0.6500 \$3,499 \$90,612 \$2,530,100 \$0 \$2,530,100 \$169,135 7.23% \$12,228 \$1,008 \$684,098 \$56,567 \$0 \$51,549 \$679,081 24.40 \$16,791 \$20,821 \$18,747,797 \$124,422 \$18,768,619 \$1,253,277 Dec-11 \$7,918 0.6500 \$12,182 24.40 \$2,562 0.6500 \$3,941 \$12,253 \$12,158,208 \$2,364,181 \$158,044 7.23% \$11,427 \$743,017 \$29,670 \$0 \$51,549 \$764,897 \$51,133 7.23% \$3,697 \$1,135 24.40 \$58,763 2.22% \$18,043 \$40,720 0.6500 \$62,646 \$15,690 \$6,444 \$1,853 \$3,956 \$80,689 \$5,076 \$812,768 \$2,364,181 \$12,170,46 Nov-11 \$2,710,817 \$22,220 0.6500 \$34,185 \$9,078 0.6500 \$13,966 24.40 \$52,752 7.47% \$3,938 \$2,643 0.6500 \$4,066 24.40 2.46% \$10,895 \$181,216 7.47% \$13,529 \$774,910 \$37,348 \$0 \$51,549 \$789,112 \$1,296 \$3,733 \$8,731 \$23,460 \$6,635,140 \$443,555 \$0 \$33,115 \$45,080 \$2,710,817 \$18,418 \$6,671,063 0.6500 24.40 \$2,567 0.6500 \$3,949 \$2,589,061 \$12,922 2.46% \$4,251 7.47% \$3,826 \$1,259 \$58,594 \$190,473 \$0 \$14,220 2.46% \$4,679 \$9,542 0.6500 \$14,680 \$8,670 \$752,376 \$37,348 \$0 \$51,549 \$766,577 \$17,590 \$669 \$15,324 \$42,601 \$19,358 \$51,245 \$2,907,879 \$2,589,061 \$2,522,525 \$0 \$2,522,525 0.6500 \$12,996 \$763,838 \$37,348 \$0 \$51,549 \$778,039 24.40 7.47% \$3,883 \$1,278 \$2,606 0.6500 \$4,009 \$20,823 2.46% \$6,851 0.6500 \$4,172,252 \$28,347 \$17,138 \$52,011 \$278,912 \$13,972 \$4,236,094 \$2,556,345 \$0 \$2,556,345 2.46% \$4,198 \$8,561 0.6500 \$13,170 \$1,294 \$2,639 0.6500 \$4,060 \$82,881 \$0 \$6,188 2.46% \$2,036 \$4,152 0.6500 \$6,388 \$773,740 \$37,348 \$0 \$51,549 \$787,941 24.40 \$8,277 \$6,493 \$20,805 \$8,423 \$52,673 Jul-11 \$55,355 7.47% \$4,133 \$12,150 0.6500 \$18,692 \$180,506 7.47% \$13,476 \$9,043 0.6500 \$13,912 \$2,773 0.6500 \$4,266 \$3,628,013 24.40 \$242,530 \$0 \$18,107 2.46% \$5,957 \$18,345 \$813,848 \$37,348 \$0 \$51,549 \$828,049 24.40 \$1,360 \$24,649 \$2,700,197 \$1,660 \$8,847 \$28,072 \$5,626 \$3,666,592 \$2,700,197 Jun-11 \$1,950,996 \$0,950,996 \$3,204 \$6,534 0.6500 \$10,052 \$746,221 \$47,187 \$0 \$51,549 \$750,583 24.40 \$50,176 7.47% \$3,746 \$1,232 \$2,514 0.6500 \$3,867 \$45,464 24.40 \$397,582 \$0 \$29,683 2.46% \$9,766 \$19,917 0.6500 \$30,642 \$13,255 \$5,100 \$4,709 \$11,127 \$29,628 \$40,407 55,992,903 \$7,434 0.6500 \$11,438 \$42,618 7.47% \$3,182 \$2,135 0.6500 \$3,285 \$32,299 0.6500 \$49,691 \$2,219,985 2.46% \$3,645 \$613,490 \$27,508 \$0 \$51,549 \$637,531 24.40 \$1,047 \$9,644,779 24.40 \$644,747 \$00 \$48,136 2.46% \$15,837 \$15,083 \$65,528 \$2,219,985 695,707 [(17) \* (18)] / 365 Rate Case (19) \* (20) [(3) \* (4)] / 365 Rate Case (5) \* (6) [(3) \* (4)] / 365 Rate Case (5) \* (6) (14) - (15) + (16) Reference (b) Rate Case (19) \* (22) (19) - (23) Rate Case (24) / (25) (7) - (9) Rate Case (10) / (11) Rate Case (5) \* (8) (7) - (9) Rate Case (10) / (11) Rate Case Rate Case (23) + (26)Rate Case Rate Case (9) + (12)(1) - (2) (9) + (12)(1) - (2) (2) \* (8) Supply Variable Working Capital Requirement Storage Fixed Working Capital Requirement Supply Fixed Working Capital Requirement Working Capital Requirement Cost of Capital Return on Working Capital Requirement Working Capital Requirement Cost of Capital Return on Working Capital Requirement Return on Working Capital Requirement Storage Fixed Costs
Less: LNG Demand to DAC
Less: Credits
Plus: Supply Related LNG O&M Costs Less: Non-firm Sales Less: Variable Delivery Storage Costs Less: Variable Injection Storage Costs Less: Fuel Costs Allocated to Storage Total Credits
Allowable Working Capital Costs Description (a) Allowable Working Capital Costs Allowable Working Capital Costs Working Capital Requirement Cost of Capital 1 - Combined Tax Rate Return and Tax Requirement Return and Tax Requirement Return and Tax Requirement Supply Fixed Costs Capacity Release Revenue Taxable Income 1 - Combined Tax Rate Supply Variable Costs Weighted Cost of Debt Interest Expense Weighted Cost of Debt 1 - Combined Tax Rate Weighted Cost of Debt Less: Supply Refunds Number of Days Lag Number of Days Lag Number of Days Lag Interest Expense Interest Expense Taxable Income 2 1 9 4 4 9 7 8 19 22 28 23 25 26 27 28 2 1 9

September 4, 2012 Page 13 of 15 \$785,71 Attachment 1 \$86,185 April 11-March 12

GCR Reconciliation Page 8 of 10

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National Grid Rhode Island - Gas Deferred Gas Cost Balance

Total	\$21,436,694 (\$582,992) \$430,129 \$21,283,831					\$142,044	\$781,151 <u>\$0</u> \$781,151					\$5,253
Mar-12	(\$620,294) \$6,799 \$35,844 (\$577,652)	24.40	(\$38,616) 7.23% (\$2,792)	2.22% (\$857)	(\$1,935) 0.6500 (\$2,976)	(\$3,834)	\$79,410 \$0 \$79,410	24.40	\$5,309 7.23% \$384	2.22% \$118	\$266 0.6500 \$409	\$527
Feb-12	\$6,312,515 (\$54,605) \$35,844 \$6,293,755	24.40	\$420,733 7.23% \$30,419	\$9,340	\$21,079 0.6500 \$32,429	\$41,769	\$29,761 <u>\$0</u> \$29,761	24.40	\$1,989 7.23% \$144	2.22% \$44	\$100 0.6500 \$153	\$198
Jan-12	\$6,482,287 (\$278,093) \$35,844 \$6,240,038	24.40	\$417,142 7.23% \$30,159	<u>2.22%</u> \$9,261	\$20,899 0.6500 \$32,152	\$41,413	\$122,005 <u>\$0</u> \$122,005	24.40	\$8,156 7.23% \$590	<u>2.22%</u> \$181	\$409 0.6500 \$629	\$810
Dec-11	\$2,865,627 (\$39,388) \$35,844 \$2,862,084	24.40	\$191,328 7.23% \$13,833	2.22% \$4,247	\$9,586 0.6500 \$14,747	\$18,994	\$68,016 \$0 \$68,016	24.40	\$4,547 7.23% \$329	2.22% \$101	\$228 0.6500 \$350	\$451
Nov-11	\$1,424,190 (\$24,094) \$35,844 \$1,435,940	24.40	\$95,992 7.23% \$6,940	<u>2.22%</u> \$2,131	\$4,809 0.6500 \$7,399	\$9,530	\$46,324 <u>\$0</u> \$46,324	24.40	\$3,097 7.23% \$224	<u>2.22%</u> \$69	\$155 0.6500 \$239	\$307
Oct-11	\$659,871 (\$36,509) \$35,844 \$659,206	24.40	\$44,067 7.47% \$3,290	2.46% \$1,082	\$2,208 0.6500 \$3,396	\$4,479	\$50,676 <u>\$0</u> \$50,676	24.40	\$3,388 7.47% \$253	2.46% \$83	\$170 0.6500 \$261	\$344
Sep-11	\$551,050 (\$18,623) \$35,844 \$568,271	24.40	\$37,989 7.47% \$2,836	2.46% \$933	\$1,903 0.6500 \$2,928	\$3,861	\$61,275 \$0 \$61,275	24.40	\$4,096 7.47% \$306	2.46% \$101	\$205 0.6500 \$316	\$416
Aug-11	\$393,029 (\$25,968) \$35,844 \$402,905	24.40	\$26,934 7.47% \$2,011	2.46% \$662	\$1,349 0.6500 \$2,076	\$2,737	\$70,420 <u>\$0</u> \$70,420	24.40	\$4,708 7.47% \$351	2.46% \$116	\$236 0.6500 \$363	\$478
Jul-11	\$1,237,930 (\$26,746) \$35,844 \$1,247,029	24.40	\$83,363 7.47% \$6,224	2.46% \$2,048	\$4,176 0.6500 \$6,425	\$8,472	\$69,955 <u>\$0</u> \$69,955	24.40	\$4,676 7.47% \$349	2.46% \$115	\$234 0.6500 \$360	\$475
Jun-11	\$485,800 (\$26,533) \$35,844 \$495,111	24.40	\$33,098 7.47% \$2,471	2.46% \$813	\$1,658 0.6500 \$2,551	\$3,364	\$45,502 <u>\$0</u> \$45,502	24.40	\$3,042 7.47% \$227	2.46% \$75	\$152 0.6500 \$234	\$309
May-11	\$809,481 (\$35,366) \$35,844 \$809,959	24.40	\$54,145 7.47% \$4,042	2.46% \$1,330	\$2,712 0.6500 \$4,173	\$5,503	\$64,721 \$0 \$64,721	24.40	\$4,327 7.47% \$323	2.46% \$106	\$217 0.6500 \$333	\$440
Apr-11	\$835,207 (\$23,866) <u>\$35,844</u> \$847,185	24.40	\$56,634 7.47% \$4,228	2.46% \$1,391	\$2,837 0.6500 \$4,365	\$5,756	\$73,085 \$0 \$73,085	24.40	\$4,886 7.47% \$365	<u>2.46%</u> \$120	\$245 0.6500 \$377	\$497
Reference (b)	(14) + (15) + (16)	Rate Case	[(17) * (18)] / 365 Rate Case (19) * (20)	Rate Case (19) * (22)	(19) - (23) Rate Case (24) / (25)	(23) + (26)	(1) - (2)	Rate Case	[(3) * (4)] / 365 Rate Case (5) * (6)	Rate Case (5) * (8)	(7) - (9) Rate Case (10) / (11)	(9) + (12)
No. Description (a)	<ul> <li>14 Storage Variable Product Costs</li> <li>15 Less. Balancing Related ING Commodity (to DAC)</li> <li>16 Plus: Supply Related LNG O&amp;M Costs</li> <li>17 Allowable Working Capital Costs</li> </ul>	18 Number of Days Lag	<ul><li>19 Working Capital Requirement</li><li>20 Cost of Capital</li><li>21 Return on Working Capital Requirement</li></ul>	<ul><li>22 Weighted Cost of Debt</li><li>23 Interest Expense</li></ul>	<ul> <li>24 Taxable Income</li> <li>25 1 - Combined Tax Rate</li> <li>26 Return and Tax Requirement</li> </ul>	27 Storage Var. Product Working Capital Requir.	Storage Variable Non-Product Costs     Credits     Allowable Working Capital Costs	4 Number of Days Lag	5 Working Capital Requirement 6 Cost of Capital 7 Return on Working Capital Requirement	8 Weighted Cost of Debt 9 Interest Expense	<ul><li>10 Taxable Income</li><li>11 1 - Combined Tax Rate</li><li>12 Return and Tax Requirement</li></ul>	13 Storage Variable Non-product WC Requir.
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# Attachment 1 April 11-March 12 GCR Reconciliation

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Schedule 6 Page 1 of 1	Apr - Mar (n)	583,302 19,228 13,820,976 1,543,932 1,754,537 564,349 234,581 54,392 190,426 21,759,485	29,374 25,091 9,406 0 0 63,871	1,191,953 757,592 234,732 348,136 156,358 2,688,771	583,302 19,228 13,820,976 1,543,932 1,993,763 3,975,263 1,347,030 478,507 402,528 346,783 246,783	698,523 1,016,860 455,323 625,731 4,749,580 51,519 7,597,536	283,302 13,823,302 13,823,302 14,643,932 14,	
	Mar-12 (m) actual	74.243 2.895 2.120,996 220,671 374,636 377,195 86,574 26,950 9,960 9,365 3,256,593	5,171 6,272 0 0 0 0 0 11,444	169,456 123,509 26,395 151,682 18,361 489,404	74,243 2,190,996 220,671 314,636 551,822 216,356 53,345 160,748 3,757,440	76,260 130,914 42,388 (7,662) 430,383 5,189 677,471	2.120.886 2.120.671 314.636 628.082 34.747 47.748 628.082 34.747 44.44.44 62.848 62.848 63.84	1
	Feb-12 (I) actual	80,015 2,598 2,410,188 228,599 365,172 460,83 96,183 24,057 9417 31,872 3,708,971	7,494 9,077 0 0 0 0 0 16,570	198,009 148,698 25,571 159,674 12,176 544,128	80,015 2,598 2,410,188 228,599 365,172 666,366 253,957 49,627 169,091 44,055 4,269,669	126,067 240,868 58,511 42,743 537,893 9 <u>219</u> 1,015,301	80,015 2,598 2,410,188 228,599 365,172 792,433 494,826 108,139 211,833 581,948 5,284,970	
	<u>Jan-12</u> (k) actual	74,486 2,622 2,163,628 228,341 331,804 399,576 89,953 25,224 7,032 7,032 3,337,216	5,510 6,486 1,154 0 13,150	173,238 120,006 25,100 5,464 13,687 337,494	74,486 2,622 2,163,628 228,341 331,804 578,324 578,324 516,444 51,478 12,496 28,237 3,687,860	84,346 150,594 43,691 120,681 435,051 5 <u>962</u> 840,325	74,486 2,163,628 2,23,41 331,804 662,670 367,039 95,169 133,177 463,288 4,528,185	
	Dec-11 (j) actual	58,419 1,937 1,459,048 155,722 197,162 282,086 64,369 20,964 7,085 15,102 2,261,894	1,292 264 256 256 0 1,811	124,415 88,932 23,314 4,804 12,707 254,172	58,419 1,937 1,459,048 155,722 197,162 407,793 113,565 44,533 11,889 27,809 2,517,877	71,907 126,331 39,984 108,994 417,990 <u>5,240</u> 770,446	58,419 1,937 1,459,048 155,722 197,162 479,700 279,896 84,517 120,883 445,798 3,288,323	
	Nov-11 (i) actual	44,902 1,359 960,000 114,787 122,071 198,585 42,525 21,365 5,735 14,479 1,525,810	1,160 7 54 0 1,221	84,497 55,136 19,363 3,048 12,705 174,749	44,902 1,359 960,000 114,787 122,071 284,241 97,668 40,783 8,784 27,184 1,701,779	70,505 112,279 38,799 112,161 404,370 4486 742,601	44,902 1,359 960,000 114,787 122,071 354,746 209,947 79,582 120,944 431,555 4486 2,444,380	
iation	Oct-11 (h) actual	28,795 667 377,486 48,508 47,648 97,191 11,795 14,027 4,792 4,792 642,361	601 212 212 0 0 815	55,125 19,760 13,712 4,316 <u>9,634</u> 102,547	28,795 667 377,486 48,508 47,648 152,316 31,555 27,739 9,108 44,907	43,552 38,099 32,424 37,595 349,002 2,170 502,841	28.795 667 377.486 48.508 47.648 195.868 69.654 60.163 37.086 1,247.749	
R Reconcili	Sep-11 (g) actual	28,158 638 351,381 46,018 94,239 94,239 5,507 15,261 701	294 229 0 0 525	39,442 15,061 14,111 1,288 11,069 80,970	28,158 638 361,381 46,018 133,975 20,570 29,600 1,989 23,975 682,081	32,048 24,007 30,335 19,228 345,600 1,818 453,035	28,158 638 351,381 45,777 46,018 166,023 44,577 59,935 21,217 369,575 1,135,116	_
Attachment 1 April 11-March 12 GCR Reconciliation	Aug-11 (f) actual	25,513 596 338,829 42,811 46,827 55,517 11,406 15,242 10,280 548,084	257 8 1,372 0 0 0 1,637	35,737 12,410 13,286 1,424 10,998 73,855	25,513 596 38,829 42,811 46,827 29,800 2,487 21,278 623,577	30,027 18,741 30,954 15,780 373,896 1,378 470,777	25,513 596 338,829 42,811 46,827 121,538 42,566 60,854 18,268 395,175 1,094,353	-
Attachment 1 April 11-Marc	Jul-11 (e) actual	29,795 705 367,950 51,639 54,697 121,760 10,951 18,957 12,210 665,545	(24) 996 0 0 980	41,849 15,487 15,021 2,063 10,663 85,083	29,795 705 367,960 51,639 54,637 163,584 26,448 30,973 2,945 2,945 2,247 751,608	26,402 15,214 25,870 12,768 329,704 4,023 413,982	29,795 705 367,950 51,639 54,697 189,986 41,662 56,843 15,713 32,576 4,023 1,165,590	
	Jun-11 (d) actual	35,440 945 514,509 771,759 68,788 119,313 26,427 14,962 1,700 12,683 866,598	780 7,171 7,148 0,099	54,623 14,153 15,697 2,005 12,681 99,159	35,440 945 514,509 71,759 68,788 174,717 40,752 32,807 3,775 968,857	34,237 17,336 31,477 12,885 365,278 1 <u>961</u> 463,174	35,440 945 514,509 71,759 68,788 208,954 58,087 64,285 16,660 390,642 1,432,031	
	May-11 (c) actual	42,710 1,609 913,059 115,189 123,393 198,349 30,116 16,658 2,759 14,335 1,458,175	2,868 571 1,909 0 5,349	82,783 55,989 18,634 3,841 13,729 174,976	42,710 1,609 913,059 115,189 123,393 284,000 86,676 37,201 6,600 1,638,500	34,922 38,937 35,881 45,827 351,634 3930 511,131	42,710 1,609 913,059 115,189 123,393 318,922 126,613 73,082 52,426 379,698 379,698 2,149,631	
	Apr-11 (b) actual	60,827 2,654 1,843,901 220,131 275,546 349,862 88,541 24,915 4,990 17,184 2,887,652	3,970 2,223 1,076 0 0 7,269	132,781 88,452 24,528 8,526 17,947 272,234	60,827 2,654 1,843,901 220,131 275,546 486,613 179,216 50,520 12,616 35,131 3,167,155	68,251 103,539 45,009 104,731 408,779 6,143 736,452	60,827 2,654 1,843,901 220,131 275,546 554,864 282,755 95,529 117,347 443,910 6,143 3,903,607	
National Grid Rhode Island - Gas Deferred Gas Cost Balance	d) ·i	1 SALES (dth) 2 Residential Non-Heating 3 Residential Non-Heating 4 Residential Heating 5 Residential Heating 6 Small C&I 7 Medium C&I 8 Large LLF 9 Large HLF 11 Extra Large HLF 11 Extra Large HLF 11 Total Sales	12 <u>TSS</u> 13 Medium 14 Large LLF 15 Large LLF 16 Extra Large LLF 17 Extra Large HLF 18 <b>Total TSS</b>	19 FT-2 TRANSPORTATION 20 FT-2 Medium 21 FT-2 Large LLF 22 FT-2 Large HLF 23 FT-2 Extra Large LLF 24 FT-2 Extra Large HLF 25 Total FT-2 Transportation	26 Sales & FT-2 THROUGHPUT 27 Residential Non-Heating 28 Residential Non-Heating 29 Residential Heating 30 Residential Heating 31 Small C&I 32 Medium C&I 33 Large LLF 34 Large HLF 35 Extra Large HLF 36 Extra Large HLF 37 Total Sales & FT-2 Throughput	38 FT-1 TRANSPORTATION 39 FT-1 Medium 40 FT-1 Large LLF 41 FT-1 Large HLF 42 FT-1 Extra Large HLF 43 FT-1 Extra Large HLF 44 Default 45 Total FT-1 Transportation	46 Total THROUGHPUT  47 Residential Non-Heating 48 Residential Non-Heating 49 Residential Heating 50 Residential Heating 51 Small C&I 52 Medium C&I 53 Large LLF 53 Large HLF 54 Extra Large LLF 55 Extra Large HLF 56 Extra Large HLF 56 Default 57 Total Throughput	

actual dth

#### National Grid - RI Gas Gas Cost Recovery (GCR) Filing <u>Projected Gas Cost Balances</u>

Leg			Nov-12 30	Dec-12 31	Jan-13 31	Feb-13 28	Mar-13 31	Apr-13 30	May-13 31	Jun-13 30	Jul-13 31	Aug-13 31	Sep-13 30	Oct-13 31
Total Cond Defended   Scient Part   Scient	Line													
Page   Page														
Second Continue (rest of pure (rest of pure (rest)   \$1,333,841   \$1,333,244   \$1,333,245   \$1														
Singley Colls to Maintener FT-2 (686.2229) (		0 0												
Second Company   Variable   Var		. ,												
No Demand to DAC   1811/79   1811/														
Part   Part	-	• .												
Second Contentions	7													
Fixed - Coliectories   1827/88,449   85,961,532   \$77,456,969   \$77,856,969   \$77,856,969   \$77,856,969   \$77,856,969   \$77,856,969   \$77,856,969   \$78,856,979   \$77,95	, α													
No No More Mine	-													
1   Pellm Ending Balance   \$10,773.899   \$4,94.93   \$3,332.000   \$6,164.950   \$6,026.950   \$6,	-													
Months Average Balance   \$10,736,802   \$3,902,449   \$5,786,005   \$846,335   \$3,343,305   \$3,054,305   \$3,056,005   \$3,05														
1   1   1   1   1   1   1   1   1   1														
Infrarest Applied   \$11,000   \$0.8,076   \$6.124   \$0.9   \$0. \$0   \$0. \$0. \$0. \$0. \$0. \$0. \$0. \$0. \$0. \$0.														
Marketer Reconcilation   S374,462  S0   S0   S0   S0   S0   S0   S0   S0	14		\$11,030	\$9,876	\$6,124	\$812	(\$3,858)	(\$6,876)	(\$8,354)	(\$7,605)	(\$6,353)	(\$4,496)	(\$2,503)	(\$827)
Fixed Ending Balance	15	GPIP	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fixed Entroling Balance		Marketer Reconcilation	(\$374,462)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
19   19   19   19   19   19   19   19														
		Fixed Ending Balance	\$10,410,463	\$8,204,311	\$3,339,024	(\$1,644,543)	(\$5,627,975)	(\$7,763,366)	(\$7,983,639)	(\$6,829,029)	(\$5,146,133)	(\$3,328,599)	(\$1,545,859)	(\$12,731)
1														
Beginning Belaince   \$10,210,487   \$65,534,239   \$64,23,879   \$5,057,178   \$5,684,743   \$4,367,786   \$854,599   \$61,536,601   \$(2,501,199)   \$(2,211,1997)   \$(3,197,081)														
23 Variable Costs \$10,716,897 \$19,113,463 \$25,501,637 \$20,756,863 \$16,228,514 \$92,200,808 \$5,461,41\$ \$3,319,200 \$2,914,655 \$2,271,784 \$2,921,224 \$5,268,858 \$1,000 \$2,000 \$1,000			(2.0.2.0.10.10.00)											
Supply Related LNG to DAC   \$(\$19,079)   \$(\$2,2451)   \$(\$63,528)   \$(\$38,422)   \$(\$19,789)   \$(\$19,079)   \$(\$19,799)   \$(\$19,089)   \$(\$20,861)   \$(\$20,861)   \$(\$20,112)   \$(\$20,028)   \$(\$20,112)   \$(\$20,028)   \$(\$20,112)   \$(\$20,028)   \$(\$20,112)   \$(\$20,028)   \$(\$20,112)   \$(\$20,028)   \$(\$20,112)   \$(\$20,028)   \$(\$20,0112)   \$(\$20,0112)   \$(\$2				(, , , , , , , , , , , , , , , , , , ,										
Supply Related LING O & M   \$35,644   \$35,64							, .,.							
Inventory Financing - LNG														
Working Capitla														
Total Variable Costs  10,980,982  10,980,982  10,980,987  10,980,980,987  10,980,987  10,980,987  10,980,987  10,980,987  10,980,980,987  10,980,987  10,980,987  10,980,987  10,980,987  10,980,980,987  10,980,987  10,980,987  10,980,987  10,980,987  10,980,980,987  10,980,987  10,980,987  10,980,987  10,980,987  10,980,980,987  10,980,987  10,980,987  10,980,987  10,980,987  10,980,980,987  10,980,987  10,980,987  10,980,987  10,980,987  10,980,980,987  10,980,987  10,980,987  10,980,987  10,980,987  10,980,980,987  10,980,987  10,980,987  10,980,987  10,980,987  10,980,980,987  10,980,987  10,980,987  10,980,987  10,980,987  10,980,980,987  10,980,987  10,980,987  10,980,987  10,980,987  10,980,980,987  10,980,987  10,980,987  10,980,987  10,980,987  10,980,980,987  10,980,987  10,980,987  10,980,987  10,980,987  10,980,980,987  10,980,987  10,980,987  10,980,987  10,980,987  10,980,980,987  10,980,987  10,980,987  10,980,987  10,980,987  10,980,980,987  10,980,987  10,980,987  10,980,987  10,980,987  10,980,9														
Variable - Collections														
Deferred Responsibility														
22 Prelim. Ending Balance (\$6,625,642) (\$420,288) \$5,054,720 \$5,078,959 \$4,362,403 \$852,278 (\$1,535,700) (\$2,500,125) (\$2,500,336) (\$2,217,269) (\$1,968,709) (\$5,379) 31 Month's Average Balance (\$8,386,064) (\$3,477,263) \$2,315,370 \$5,368,387 \$5,023,573 \$2,610,007 (\$340,370) (\$2,018,003) (\$2,505,767) (\$2,364,633) (\$2,094,244) (\$988,120) 41 Interest Applied (\$9,507) (\$1,256) (\$1,256) \$1,256 \$1,														
A Interest Rate (BOA Prime minus 200 bps)  1			(\$6,525,642)			\$5,679,595		\$852,278					(\$1,968,709)	(\$5,379)
Second Control of Co	33	Month's Average Balance	(\$8,368,064)	(\$3,477,263)	\$2,315,370	\$5,368,387	\$5,023,573	\$2,610,007	(\$340,370)	(\$2,018,093)	(\$2,505,767)	(\$2,364,633)	(\$2,094,244)	(\$988,120)
36 Gas Procurement Incentive/(penalty) \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$		Interest Rate (BOA Prime minus 200 bps)				1.25%				1.25%	1.25%		1.25%	1.25%
37 Variable Ending Balance (\$6,534,239) (\$423,979) \$5,057,178 \$5,684,743 \$4,367,736 \$854,959 (\$1,536,061) (\$2,502,198) (\$2,511,997) (\$2,219,779) (\$1,970,861) (\$6,429) \$38	35	Interest Applied	(\$8,597)	(\$3,692)	\$2,458	\$5,148	\$5,333	\$2,682	(\$361)	(\$2,073)	(\$2,660)	(\$2,510)	(\$2,152)	(\$1,049)
GCR Deferred Summary  41 Beginning Balance \$487,002 \$3,876,224 \$7,780,331 \$8,396,202 \$4,040,200 (\$1,260,238) (\$6,908,406) (\$9,519,700) (\$9,331,227) (\$7,658,130) (\$5,548,378) (\$3,516,720) (\$7,000,000 (\$1,000,000														
Secret   S		Variable Ending Balance	(\$6,534,239)	(\$423,979)	\$5,057,178	\$5,684,743	\$4,367,736	\$854,959	(\$1,536,061)	(\$2,502,198)	(\$2,511,997)	(\$2,219,779)	(\$1,970,861)	(\$6,429)
40 GCR Deferred Summary 41 Beginning Balance \$487,002 \$3,876,224 \$7,780,331 \$8,396,202 \$4,040,200 (\$1,260,238) (\$6,908,406) (\$9,519,700) (\$9,331,227) (\$7,658,130) (\$5,548,378) (\$3,516,720) (\$2,658,130) (\$6,508,106) (\$9,519,700) (\$9,331,227) (\$7,658,130) (\$5,548,378) (\$3,516,720) (\$7,658,130) (\$5,548,378) (\$3,516,720) (\$7,658,130														
Beginning Balance		000.0 ( 10												
42 Gas Costs \$13,771,327 \$22,459,130 \$28,642,163 \$24,098,634 \$19,587,042 \$12,664,603 \$8,872,690 \$6,749,140 \$6,346,395 \$6,303,999 \$6,356,761 \$8,703,884 \$40 \$40			£497.000	£2 076 224	67 700 224	£0 306 303	£4.040.200	(64.260.220)	(PC 000 40C)	(CO E10 700)	(£0.224.227)	(\$7 CEO 120)	(CE E40 270)	(\$2 E46 720)
43 Working Capital \$93,293 \$148,493 \$189,713 \$159,741 \$129,834 \$83,796 \$58,467 \$44,258 \$41,571 \$41,287 \$41,616 \$57,183 \$17 total Costs \$13,864,619 \$22,607,623 \$28,831,876 \$24,258,375 \$19,716,876 \$12,748,399 \$8,931,157 \$6,793,398 \$6,387,966 \$6,345,285 \$6,398,377 \$8,760,677 \$10,000 \$11,150,402] \$10,000 \$10,000 \$11,150,402] \$10,000														
Total Costs \$13,864,619 \$22,607,623 \$28,831,876 \$24,258,375 \$19,716,876 \$12,748,399 \$8,931,157 \$6,793,398 \$6,387,966 \$6,345,285 \$6,398,377 \$8,761,067 \$6,701,000 \$10,0														
Collections (\$10,094,496) (\$18,326,367) (\$27,841,254) (\$28,237,003) (\$24,635,456) (\$18,009,040) (\$11,150,402) (\$6,211,913) (\$4,322,522) (\$3,845,194) (\$3,977,731) (\$4,878,298) (\$4,878,298) (\$4,878,298) (\$4,878,298) (\$4,972,512) (\$4,978,298) (\$4,972,512) (\$4,978,298) (\$4,972,512) (\$4,978,298) (\$4,972,512) (\$4,978,298) (\$4,972,512) (\$4,978,298) (\$4,972,512) (\$4,978,298) (\$4,972,512) (\$4,978,298) (\$4,972,512) (\$4,978,298) (\$4,972,512) (\$4,978,298) (\$4,972,512) (\$4,978,298) (\$4,972,512) (\$4,978,298) (\$4,972,512) (\$4,978,298) (\$4,972,512) (\$4,978,298)														
46 NGPMP Credits (\$383,333) (\$383														
46 Prelim. Ending Balance \$4,257,125 \$8,157,480 \$8,770,953 \$4,417,574 (\$878,380) (\$6,520,879) (\$9,127,651) (\$0,939,215) (\$7,265,783) (\$5,158,038) (\$0,128,732) \$366,049 (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,575,335) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,574,800) (\$1,575,335) (\$1,57														
47 Month's Average Balance \$2,372,063 \$6,016,852 \$8,275,642 \$6,406,888 \$1,580,910 (\$3,890,559) (\$8,018,029) (\$9,228,958) (\$8,298,505) (\$6,408,084) (\$4,338,555) (\$1,575,335) (														
48 Interest Rate (BOA Prime minus 200 bps) 1.25%														
50 Gas Purchase Plan Incentives/(Penalties) \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	48													
51	49	Interest Applied	\$2,432	\$6,184	\$8,582	\$5,960	\$1,475	(\$4,194)	(\$8,716)	(\$9,679)	(\$9,014)	(\$7,007)	(\$4,654)	(\$1,876)
		Gas Purchase Plan Incentives/(Penalties)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
52 <b>Ending Bal. W/ Interest</b> \$3,876,224 \$7,780,331 \$8,396,202 \$4,040,200 (\$1,260,238) (\$6,908,406) (\$9,519,700) (\$9,331,227) (\$7,658,130) (\$5,548,378) (\$3,516,720) (\$19,160)														
	52	Ending Bal. W/ Interest	\$3,876,224	\$7,780,331	\$8,396,202	\$4,040,200	(\$1,260,238)	(\$6,908,406)	(\$9,519,700)	(\$9,331,227)	(\$7,658,130)	(\$5,548,378)	(\$3,516,720)	(\$19,160)

# National Grid - RI Gas Gas Cost Recovery (GCR) Filing Bill Impact Analysis with Various Levels of Consumption: Current Distribution, GCR, DAC, and ISR Rates thru October 2012

Residential Heating:										
	Nov. Oct	Dropped	Current				Diffe	erence due to:		
Nov - Oct Consumption (Therms)		Proposed Rates	Current Rates	Difference	% Chg	Base Rates	GCR	DAC	·	EnergyEff
o noump.	··· (········)	. 10.00		2	/v 0g	2000 1 10100	00.1	DAC	ISR	
	600	\$845	\$892	(\$47)	-5.3%	\$0	(\$73)	\$26	\$0	(\$113)
	664	\$919	\$971	(\$52)	-5.3%	\$0	(\$81)	\$29	\$0	\$0
	730	\$996	\$1,053	(\$57)	-5.4%	\$0	(\$89)	\$32	\$0	\$0
	794	\$1,069	\$1,131	(\$62)	-5.5%	\$0	(\$97)	\$35	\$0	\$0
	857	\$1,138	\$1,205	(\$67)	-5.6%	\$0	(\$105)	\$38	\$0	\$0
Average Customer	922	\$1,209	\$1,281	(\$72)	-5.6%	<b>\$0</b>	(\$113)	\$40	\$0	\$0
•	987	\$1,280	\$1,357	(\$77)	-5.7%	\$0	(\$120)	\$43	\$0	\$0
	1,051	\$1,349	\$1,431	(\$82)	-5.7%	\$0	(\$128)	\$46	\$0	\$0
	1,114	\$1,415	\$1,502	(\$87)	-5.8%	\$0	(\$136)	\$49	\$0	\$0
	1,180	\$1,484	\$1,577	(\$92)	-5.9%	\$0	(\$144)	\$52	\$0	\$0
	1,247	\$1,554	\$1,652	(\$98)	-5.9%	\$0	(\$152)	\$55	\$0	\$0
Residential Heating L	ow Income:									
	Nov - Oct	Proposed	Current				Diff(	erence due to:		
Consumption (Therms)		Rates	Rates	Difference	% Chg	Base Rates	GCR	DAC	;	EnergyEff
	(	- 10000			/ · · · · · · · · · · · · · · · · · · ·			Base DAC	ISR	
	600	\$808	\$855	(\$47)	-5.5%	\$0	(\$73)	\$26	<del></del> \$0	<del></del> \$0
	664	\$880	\$931	(\$52)	-5.6%	\$0	(\$81)	\$29	\$0	\$0
	730	\$954	\$1,011	(\$57)	-5.6%	\$0	(\$89)	\$32	\$0	\$0
	794	\$1,024	\$1,086	(\$62)	-5.7%	\$0	(\$97)	\$35	\$0	\$0
	857	\$1,091	\$1,158	(\$67)	-5.8%	\$0	(\$105)	\$38	\$0	\$0
Average Customer	922	\$1,160	\$1,232	(\$72)	-5.8%	\$0	(\$113)	\$40	\$0	\$0
<b>G</b>	987	\$1,229	\$1,306	(\$77)	-5.9%	\$0	(\$120)	\$43	\$0	\$0
	1,051	\$1,296	\$1,379	(\$82)	-6.0%	\$0	(\$128)	\$46	\$0	\$0
	1,114	\$1,361	\$1,448	(\$87)	-6.0%	\$0	(\$136)	\$49	\$0	\$0
	1,180	\$1,428	\$1,521	(\$92)	-6.1%	\$0	(\$144)	\$52	\$0	\$0
	1,247	\$1,497	\$1,594	(\$98)	-6.1%	\$0	(\$152)	\$55	\$0	\$0

Residential Non-Heating:

	Nov. Oct	Drongood	Current				Diff	erence due to:		
Consumptio	Nov - Oct in (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Base Rates	GCR	DAC	;	EnergyEff
	(,	- 10000			/ · · · · · · · · · · · · · · · · · · ·			DAC	ISR	
	123	\$265	\$275	(\$10)	-3.6%	\$0	(\$16)	\$6	\$0	\$0
	137	\$282	\$293	(\$11)	-3.8%	\$0	(\$17)	\$6	\$0	\$0
	147	\$294	\$306	(\$12)	-3.9%	\$0	(\$19)	\$7	\$0	\$0
	161	\$310	\$323	(\$13)	-4.0%	\$0	(\$20)	\$8	\$0	\$0
	176	\$328	\$342	(\$14)	-4.1%	\$0	(\$22)	\$8	\$0	\$0
Average Customer	189	\$343	\$358	(\$15)	-4.2%	<b>\$0</b>	(\$24)	\$9	\$0	\$0
·	202	\$359	\$375	(\$16)	-4.3%	\$0	(\$26)	\$9	\$0	\$0
	217	\$376	\$394	(\$17)	-4.4%	\$0	(\$28)	\$10	\$0	\$0
	231	\$393	\$411	(\$18)	-4.5%	\$0	(\$29)	\$11	\$0	\$0
	241	\$405	\$424	(\$19)	-4.6%	\$0	(\$31)	\$11	\$0	\$0
				, ,	-4.6%	\$0	(\$33)	\$12	\$0	\$0
Residential Non-Heatir	256 ng Low Incom	\$423 e:	\$443	(\$21)	-4.0 /0	Ψ				
Residential Non-Heatir	g Low Incom	e:		(\$21)	-4.0 /0			erence due to:		
	ng Low Incom	e: Proposed	Current				Diff	erence due to:		
Residential Non-Heatin Consumptio	ng Low Incom	e: Proposed Rates		(\$21) Difference	% Chg	Base Rates			 ; ISR	EnergyEff
	ng Low Incom	e: Proposed	Current				Diff	erence due to: DAC		
	Nov - Oct	e: Proposed Rates	Current Rates	Difference	% Chg	Base Rates	Diffi GCR	erence due to: DAC DAC	ISR 	EnergyEff 
	Nov - Oct (Therms)	Proposed Rates	Current Rates  \$258	Difference (\$10)	% Chg 	Base Rates	Diffi GCR  (\$16)	erence due to:  DAC  DAC	ISR  \$8	EnergyEff \$0
	Nov - Oct n (Therms) 123 137	Proposed Rates	Current Rates  \$258 \$275	Difference (\$10) (\$11)	% Chg  -3.8% -4.0%	Base Rates \$0 \$0	GCR(\$16) (\$17)	erence due to:  DAC  DAC	ISR  \$8 \$9	EnergyEff  \$0 \$0
	Nov - Oct in (Therms) 123 137 147	Proposed Rates	Current Rates  \$258 \$275 \$288	Difference(\$10) (\$11) (\$12)	% Chg 	Base Rates \$0 \$0 \$0 \$0	Difformation	DAC	ISR  \$8 \$9 \$10	EnergyEff \$0 \$0 \$0 \$0
	Nov - Oct in (Therms) 123 137 147 161	Proposed Rates	Current Rates  \$258 \$275 \$288 \$305	Difference(\$10) (\$11) (\$12) (\$13)	% Chg	Base Rates	Difformation Diffo	erence due to:	ISR  \$8 \$9 \$10 \$11	EnergyEff  \$0 \$0 \$0 \$0 \$0
Consumptio	Nov - Oct in (Therms) 123 137 147 161 176	Proposed Rates	Current Rates  \$258 \$275 \$288 \$305 \$323	Difference(\$10) (\$11) (\$12) (\$13) (\$14)	% Chg	Base Rates	Diffi GCR (\$16) (\$17) (\$19) (\$20) (\$22)	erence due to:	ISR  \$8 \$9 \$10 \$11 \$12	EnergyEff  \$0 \$0 \$0 \$0
Consumptio	Nov - Oct in (Therms) 123 137 147 161 176 189	Proposed Rates	Current Rates \$258 \$275 \$288 \$305 \$323 \$339	Difference (\$10) (\$11) (\$12) (\$13) (\$14) <b>(\$15)</b>	% Chg	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	Difformation (\$16) (\$17) (\$19) (\$20) (\$22) <b>(\$24)</b>	erence due to:	\$8 \$9 \$10 \$11 \$12 <b>\$13</b>	EnergyEff\$0 \$0 \$0 \$0 \$0 \$0 \$0
Consumptio	Nov - Oct in (Therms) 123 137 147 161 176 189 202	Proposed Rates	Current Rates \$258 \$275 \$288 \$305 \$323 <b>\$339</b> \$355	Difference  (\$10) (\$11) (\$12) (\$13) (\$14) <b>(\$15)</b> (\$16)	% Chg	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	Difformation (\$16) (\$17) (\$19) (\$20) (\$22) (\$24) (\$26)	erence due to:  DAC  DAC  S6 \$6 \$7 \$8 \$8 \$9 \$9	\$8 \$9 \$10 \$11 \$12 <b>\$13</b> \$14	EnergyEff
Consumptio	123 137 147 161 176 189 202 217	Proposed Rates	Current Rates \$258 \$275 \$288 \$305 \$323 <b>\$339</b> \$355 \$373	Difference  (\$10) (\$11) (\$12) (\$13) (\$14) (\$15) (\$16) (\$17)	% Chg -3.8% -4.0% -4.1% -4.2% -4.4% -4.5% -4.6% -4.7%	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	SCR (\$16) (\$17) (\$19) (\$20) (\$22) (\$24) (\$26) (\$28)	erence due to:	\$8 \$9 \$10 \$11 \$12 <b>\$13</b> \$14 \$15	EnergyEff

C & I Small:	Nov - Oct	Drangood	Current				Diffe	erence due to:		
Consumpti	tion (Therms)	Proposed Rates	Rates	Difference	% Chg	Base Rates	GCR	DAC		EnergyEff
, and the second	- ( /				<b>3</b>			DAC	ISR	- 37
	824	\$1,245	\$1,310	(\$65)	-5.0%	\$0	(\$101)	\$36	\$0	\$0
	916	\$1,346	\$1,419	(\$72)	-5.1%	\$0	(\$112)	\$39	\$0	\$0
	1,003	\$1,441	\$1,521	(\$79)	-5.2%	\$0	(\$122)	\$43	\$0	\$0
	1,092	\$1,535	\$1,622	(\$86)	-5.3%	\$0	(\$133)	\$47	\$0	\$0
	1,179	\$1,623	\$1,717	(\$93)	-5.4%	\$0	(\$144)	\$51	\$0	\$0
Average Customer	1,269	\$1,714	\$1,814	(\$100)	-5.5%	<b>\$0</b>	(\$155)	\$55	\$0	\$0
•	1,359	\$1,805	\$1,913	(\$107)	-5.6%	\$0	(\$166)	\$59	\$0	\$0
	1,447	\$1,894	\$2,008	(\$114)	-5.7%	\$0	(\$177)	\$62	\$0	\$0
	1,535	\$1,981	\$2,103	(\$121)	-5.8%	\$0	(\$187)	\$66	\$0	\$0
	1,622	\$2,068	\$2,196	(\$128)	-5.8%	\$0	(\$198)	\$70	\$0	\$0
	1,715	\$2,161	\$2,296	(\$135)	-5.9%	\$0	(\$209)	\$74	\$0	\$0
C & I Medium:							Diffe	erence due to:		
	Nov - Oct	Proposed	Current	D:#	0/ 01					
Consumpti	on (Therms)	Rates	Rates	Difference	% Chg	Base Rates	GCR	DAC DAC	ISR	EnergyEff
	7,117	\$7,947	\$8,512	(\$565)	-6.6%	\$0	(\$869)	\$304	\$0	\$0
	7,117 7,884	\$7,947 \$8,726	\$8,512 \$9,352	(\$565) (\$626)	-6.6% -6.7%	\$0 \$0	(\$869) (\$963)	\$304 \$337	\$0 \$0	\$0
										\$0 \$0
	7,884	\$8,726	\$9,352	(\$626)	-6.7%	\$0	(\$963)	\$337	\$0	\$0 \$0 \$0
	7,884 8,649	\$8,726 \$9,503	\$9,352 \$10,190 \$11,030 \$11,872	(\$626) (\$687)	-6.7% -6.7%	\$0 \$0	(\$963) (\$1,056)	\$337 \$369	\$0 \$0	\$0 \$0 \$0 \$0
Average Customer	7,884 8,649 9,416	\$8,726 \$9,503 \$10,282	\$9,352 \$10,190 \$11,030	(\$626) (\$687) (\$748)	-6.7% -6.7% -6.8%	\$0 \$0 \$0	(\$963) (\$1,056) (\$1,150)	\$337 \$369 \$402	\$0 \$0 \$0	\$0 \$0 \$0 \$0 <b>\$0</b>
Average Customer	7,884 8,649 9,416 10,185	\$8,726 \$9,503 \$10,282 \$11,063	\$9,352 \$10,190 \$11,030 \$11,872	(\$626) (\$687) (\$748) (\$809)	-6.7% -6.7% -6.8% -6.8%	\$0 \$0 \$0 \$0	(\$963) (\$1,056) (\$1,150) (\$1,244)	\$337 \$369 \$402 \$435	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 <b>\$0</b> \$0
Average Customer	7,884 8,649 9,416 10,185 <b>10,950</b>	\$8,726 \$9,503 \$10,282 \$11,063 <b>\$11,840</b>	\$9,352 \$10,190 \$11,030 \$11,872 <b>\$12,709</b>	(\$626) (\$687) (\$748) (\$809) <b>(\$869)</b>	-6.7% -6.7% -6.8% -6.8%	\$0 \$0 \$0 \$0 <b>\$0</b>	(\$963) (\$1,056) (\$1,150) (\$1,244) <b>(\$1,337)</b>	\$337 \$369 \$402 \$435 <b>\$468</b>	\$0 \$0 \$0 \$0 <b>\$0</b>	\$0 \$0 \$0 \$0 <b>\$0</b> \$0 \$0
Average Customer	7,884 8,649 9,416 10,185 <b>10,950</b> 11,715	\$8,726 \$9,503 \$10,282 \$11,063 <b>\$11,840</b> \$12,617	\$9,352 \$10,190 \$11,030 \$11,872 <b>\$12,709</b> \$13,547	(\$626) (\$687) (\$748) (\$809) <b>(\$869)</b> (\$930)	-6.7% -6.7% -6.8% -6.8% -6.8%	\$0 \$0 \$0 \$0 <b>\$0</b> \$0	(\$963) (\$1,056) (\$1,150) (\$1,244) <b>(\$1,337)</b> (\$1,430)	\$337 \$369 \$402 \$435 <b>\$468</b> \$500	\$0 \$0 \$0 \$0 <b>\$0</b> \$0	\$0 \$0 \$0 \$0 <b>\$0</b> \$0 \$0 \$0
Average Customer	7,884 8,649 9,416 10,185 <b>10,950</b> 11,715 12,484	\$8,726 \$9,503 \$10,282 \$11,063 <b>\$11,840</b> \$12,617 \$13,398	\$9,352 \$10,190 \$11,030 \$11,872 <b>\$12,709</b> \$13,547 \$14,389	(\$626) (\$687) (\$748) (\$809) <b>(\$869)</b> (\$930) (\$991)	-6.7% -6.7% -6.8% -6.8% <b>-6.8%</b> -6.9%	\$0 \$0 \$0 \$0 <b>\$0</b> \$0 \$0	(\$963) (\$1,056) (\$1,150) (\$1,244) <b>(\$1,337)</b> (\$1,430) (\$1,524)	\$337 \$369 \$402 \$435 <b>\$468</b> \$500 \$533	\$0 \$0 \$0 \$0 <b>\$0</b> \$0 \$0	\$0 \$0 \$0 \$0 <b>\$0</b> \$0 \$0

C & I LLF Large:		Cl	irrent Distributi	on, GCR, DAC, a	and ISK Kati	es thru October	2012			
0 u :: _u.go:	N 0 1		0 1				Diff	erence due to:		
Consumpti	Nov - Oct on (Therms)	Proposed Rates	Current Rates	Difference	% Chg	- Base Rates	GCR	DAC	·	EnergyEff
Consumpti	on (menns)	Nates	Nates	Dillerence	70 Crig	Dase Nates	GOR	DAC	ISR	LileigyLii
	37,532	\$38,473	\$42,977	(\$4,504)	-10.5%	\$0	(\$4,583)	\$79	<b>\$</b> 0	<b>\$</b> 0
	41,573	\$42,461	\$47,449	(\$4,989)	-10.5%	\$0	(\$5,076)	\$87	\$0	\$0
	45,616	\$46,450	\$51,924	(\$5,474)	-10.5%	\$0	(\$5,570)	\$96	\$0	\$0
	49,660	\$50,440	\$56,399	(\$5,959)	-10.6%	\$0	(\$6,063)	\$104	\$0	\$0
	53,699	\$54,426	\$60,869	(\$6,444)	-10.6%	\$0	(\$6,557)	\$113	\$0	\$0
Average Customer	57,742	\$58,415	\$65,344	(\$6,929)	-10.6%	\$0	(\$7,050)	\$121	\$0	\$0
	61,785	\$62,404	\$69,818	(\$7,414)	-10.6%	\$0	(\$7,544)	\$130	\$0	\$0
	65,824	\$66,390	\$74,288	(\$7,899)	-10.6%	\$0	(\$8,037)	\$138	\$0	\$0
	69,868	\$70,380	\$78,764	(\$8,384)	-10.6%	\$0	(\$8,531)	\$147	\$0	\$0
	73,911	\$74,369	\$83,238	(\$8,869)	-10.7%	\$0	(\$9,025)	\$155	\$0	\$0
	77,952	\$78,356	\$87,711	(\$9,354)	-10.7%	\$0	(\$9,518)	\$164	\$0	\$0
C & I HLF Large:							Diff	erence due to:		
	Nov - Oct	Proposed	Current	D:"	0/ 01	-				
Consumpti	on (Therms)	Rates	Rates	Difference	% Chg	Base Rates	GCR	DAC DAC	; ISR	EnergyEff
	37,970	\$33,379	\$38,118	(\$4,739)	-12.4%	\$7,632	(\$4,826)	\$87	\$0	\$0
	42,061	\$36,820	\$42,070	(\$5,249)	-12.5%	\$8,299	(\$5,346)	\$97	\$0	\$0
	46,151	\$40,261	\$46,020	(\$5,760)	-12.5%	\$8,966	(\$5,866)	\$106	\$0	\$0
	50,240	\$43,700	\$49,970	(\$6,270)	-12.5%	\$9,632	(\$6,386)	\$116	\$0	\$0
	54,329	\$47,140	\$53,920	(\$6,780)	-12.6%	\$10,299	(\$6,905)	\$125	\$0	\$0
Average Customer	58,418	\$50,579	\$57,870	(\$7,291)	-12.6%	\$10,966	(\$7,425)	\$134	\$0	\$0
	62,508	\$54,020	\$61,821	(\$7,801)	-12.6%	\$11,633	(\$7,945)	\$144	\$0	\$0
	66,596	\$57,459	\$65,770	(\$8,311)	-12.6%	\$12,300	(\$8,464)	\$153	\$0	\$0
	70,686	\$60,898	\$69,720	(\$8,822)	-12.7%	\$12,966	(\$8,984)	\$163	\$0	\$0
	74,775	\$64,338	\$73,670	(\$9,332)	-12.7%	\$13,633	(\$9,504)	\$172	\$0	\$0
	78,867	\$67,780	\$77,623	(\$9,843)	-12.7%	\$14,300	(\$10,024)	\$181	\$0	\$0

C & I LLF Extra-Large	2:	C	urrent Distribution	on, GCR, DAC, a	and ion ital	es tilla Octobel	2012			
o a i I I I I I I I I I I I I I I I I I I							Diff	erence due to:		
	Nov - Oct	Proposed	Current							
Consumpt	ion (Therms)	Rates	Rates	Difference	% Chg	Base Rates	GCR	DAC		EnergyEff
								DAC	ISR	
	189,450	\$162,073	\$184,940	(\$22,867)	-12.4%	\$0	(\$23,132)	\$265	\$0	\$0
	209,855	\$179,142	\$204,471	(\$25,329)	-12.4%	\$0	(\$25,623)	\$294	\$0	\$0
	230,255	\$196,206	\$223,998	(\$27,792)	-12.4%	\$0	(\$28,114)	\$322	\$0	\$0
	250,655	\$213,271	\$243,525	(\$30,254)	-12.4%	\$0	(\$30,605)	\$351	\$0	\$0
	271,059	\$230,338	\$263,055	(\$32,717)	-12.4%	\$0	(\$33,096)	\$379	\$0	\$0
Average Customer	291,462	\$247,405	\$282,584	(\$35,179)	-12.4%	\$0	(\$35,588)	\$408	\$0	\$0
-	311,865	\$264,472	\$302,114	(\$37,642)	-12.5%	\$0	(\$38,079)	\$437	\$0	\$0
	332,269	\$281,539	\$321,644	(\$40,105)	-12.5%	\$0	(\$40,570)	\$465	\$0	\$0
	352,669	\$298,604	\$341,171	(\$42,567)	-12.5%	\$0	(\$43,061)	\$494	\$0	\$0
	373,069	\$315,668	\$360,698	(\$45,029)	-12.5%	\$0	(\$45,552)	\$522	\$0	\$0
	393,474	\$332,737	\$380,229	(\$47,492)	-12.5%	\$0	(\$48,043)	\$551	\$0	\$0
C & I HLF Extra-Large		Drawaaad	Cumant				Diff	erence due to:		
Computer	Nov - Oct	Proposed	Current	Difference	0/ Ch =	Dana Datas				Г.,
Consumpt	ion (Therms)	Rates	Rates	Difference	% Chg	Base Rates	GCR	DAC DAC	ISR	EnergyEff
	184,661	\$149,839	\$173,069	(\$23,230)	-13.4%	\$0	(\$23,470)	\$240	\$0	\$0
	204,549	\$165,589	\$191,321	(\$25,732)	-13.4%	\$0	(\$25,998)	\$266	\$0	\$0
	224,435	\$181,337	\$209,571	(\$28,234)	-13.5%	\$0	(\$28,526)	\$292	\$0	\$0
	244,321	\$197,086	\$227,821	(\$30,736)	-13.5%	\$0	(\$31,053)	\$318	\$0	\$0
	264,206	\$212,833	\$246,071	(\$33,237)	-13.5%	\$0	(\$33,581)	\$343	\$0	\$0
Average Customer	284,094	\$228,583	\$264,322	(\$35,739)	-13.5%	\$0	(\$36,108)	\$369	\$0	\$0
	303,982	\$244,333	\$282,574	(\$38,241)	-13.5%	\$0	(\$38,636)	\$395	\$0	\$0
	323,867	\$260,081	\$300,823	(\$40,742)	-13.5%	\$0	(\$41,164)	\$421	\$0	\$0
	343,753	\$275,829	\$319,073	(\$43,244)	-13.6%	\$0	(\$43,691)	\$447	\$0	\$0
	363,639	\$291,577	\$337,323	(\$45,746)	-13.6%	\$0	(\$46,219)	\$473	\$0	\$0
	383,527	\$307,327	\$355,575	(\$48,248)	-13.6%	\$0	(\$48,746)	\$499	\$0	\$0

Attachment AEL-5 Docket No. 4346 September 4, 2012 Page No. 1 of 3

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

Item	Reference	Proposed	Billing Units
FT-2 Demand	AEL-5 pg 2	\$7.3770	Dth/Mth
Weighted Average Upstream Pipeline Transportation Cost	EDA - 4	\$0.8601	Per Therm of capacity

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

Line	D			Source "		
<u>No.</u>	<u>Description</u>		<u>Reference</u>	Line #	<u>Amount</u>	
1	Storage Fixed Costs		AEL-1 pg 4	Line 55	\$11,398,130	
2 3 4 5	Less: LNG Demand to DAC Credits Refunds Total Credits		<b>AEL-1 pg 2</b> sum [(2):(4)]	Line 5	(\$622,659) \$0 \$0 (\$622,659)	
6 7 8	Plus: Supply Related LNG O&M Costs Working Capital Requirement Total Additions		Rate Case <b>AEL-1 pg 9</b> sum [(6):(7)]	Line 45	\$618,591 \$75,561 \$694,152	
9	Total Storage Fixed Costs		(1) + (5) + (8)		\$11,469,622	•
10 11	Inventory Financing U	nderground LNG	AEL-1 pg 10 AEL-1 pg 10	Line 12 Line 25	\$1,485,575 \$370,897	
12	Total Storage Fixed Costs		(9) + (10) + (11)		\$13,326,094	•
13 14 15 16	LNG Storage MDQ (Dth) AGT TENN Total Storage MDQ		EDA-4 EDA-4 sum [(13):(15)]		111,857 31,641 10,836 154,334	
17	Storage MDQ X 12 Months		(16) *12		1,852,008	MDCQ Dth
18	FT- 2 Demand Rate		(12) / (17)		\$7.1955	per MDCQ Dth
19	Uncollectible %		Docket 3943		2.46%	
20	Total FT-2 Demand Rate adjusted for Unc	ollectibles	(18) / [(1 - (19)]		\$7.3770	per MDCQ Dth

#### National Grid - RI Gas Gas Cost Recovery (GCR) Filing Calculation of FT-2 Demand Costs

Line				
No.	<u>Description</u>	Reference	Line #	<u>Amount</u>
1	FT- 2 Demand Rate	AEL-5 pg 2	Line 18	<b>\$7.1955</b> per MDCQ Dth
2	MDQ-U	Mkter MDQ Forecast		3,774
3	MDQ-P	Mkter MDQ Forecast		9,877
4	Marketer MDQs	(2) + (3)		13,651 Dth/Mth
5	FT-2 Storage Costs	(19) x (20) x 12 Months		\$1,178,704

#### RI Gas Company Capacity Assignment Table

		% of Peak Day Requirement			rement	% of	Total Capa	acity
		Pipeline	Storage	Peaking	Total	Pipeline	Storage	Peaking
HLF	Res - Non-Heating	60.0%	11.0%	29.0%	100.0%	1.8%	1.5%	1.5%
HLF	Res - Non-Heating LI	60.0%	11.0%	29.0%	100.0%			
LLF	Res - Heating	53.0%	13.0%	34.0%	100.0%	59.8%	60.7%	60.7%
LLF	Res - Heating LI	53.0%	13.0%	34.0%	100.0%			
LLF	Small	53.0%	13.0%	34.0%	100.0%	8.1%	8.3%	8.3%
LLF	Med	53.0%	13.0%	34.0%	100.0%	9.5%	9.1%	9.1%
LLF	Large Low Load	53.0%	13.0%	34.0%	100.0%	2.4%	2.6%	2.6%
HLF	Large High Load	60.0%	11.0%	29.0%	100.0%	0.6%	0.3%	0.3%
LLF	XL Low Load	53.0%	13.0%	34.0%	100.0%	0.2%	0.3%	0.3%
HLF	XL High Load	60.0%	11.0%	29.0%	100.0%	0.5%	0.4%	0.4%

HLF	High Load Factor	60.0%	11.0%	29.0%	100.0%
LLF	Low Load Factor	53.0%	13.0%	34.0%	100.0%
	Total	54.0%	13.0%	33.0%	100.0%

5.8%	4.6%	4.6%
94.2%	95.4%	95.4%
100.0%	100.0%	100.0%

#### 2010/11 & 2011/2012 Annual Marketer Reconciliation

1 2010-2010 Marketer Reconciliation								
3 Month of activity #	# of days	Tetco ELA/Algonquin	Tetco WLA/Algonquin	Tennessee Zone 1 to NEGC	Tetco STX/Algonquin	Algonquin @ Lambertville, NJ	Columbia (Maumee/Downington)	Tota
Nov-10	30	165,000	249,030	249,000	121,320	81,420	26,880	892,65
Dec-10	31	170,500	263,035	280,178	125,364	84,134	27,311	950,52
7 Jan-11	31	170,500	263,035	286,347	116,157	84,134	26,381	946,55
8 Feb-11	28	154,000	238,000	265,552	100,296	75,992	23,828	857,668
9 <b>Mar-11</b>	31	170,500	263,500	294,500	125,364	84,134	28,892	966,890
0 Apr-11	30	171,840	253,440	285,000	120,210	81,420	27,630	939,540
1 May-11	31	179,831	262,973	294,376	119,815	84,134	28,551	969,680
2 Jun-11	30	179,730	254,490	285,000	111,450	81,420	26,580	938,670
3 Jul-11	31	186,217	262,756	294,500	116,157	84,134	26,877	970,641
4 Aug-11	31	188,511	262,756	294,500	118,203	84,134	26,660	974,764
5 Sep-11	30	190,620	255,000	285,000	108,840	81,420	24,090	944,970
6 Oct-11	31	197,408	263,500	294,500	111,166	84,134	24,893	975,601
7		2,124,657	3,091,515	3,408,453	1,394,342	990,610	318,573	11,328,150
8 9								
20 Approved								
1 System Average		\$0.9677	\$0.9677	\$0.9677	\$0.9677	\$0.9677	\$0.9677	
2 Path \$1.1380			\$1.2116	\$1.0050	\$1.3453	\$0.7824	\$0.6872	
3 Credit/Surcharge		(\$0.1703)	(\$0.2439)	(\$0.0373)	(\$0.3776)	\$0.1853	\$0.2805	
25 Revised								
26 System Average		\$0.9843	\$0.9843	\$0.9843	\$0.9843	\$0.9843	\$0.9843	
Path		\$1.1331	\$1.2065	\$1.1003	\$1.3396	\$0.7824	\$0.6862	
28 Credit/Surcharge		(\$0.1489)	(\$0.2222)	(\$0.1160)	(\$0.3554)	\$0.2018	\$0.2980	
80 Variance- approved Surcharge/Credit vs. Revised Su	ırcharge/C	\$0.0215	\$0.0217	(\$0.0787)	\$0.0222	\$0.0166	\$0.0175	
31 Annual MDCQ		2,124,657	3,091,515	3,408,453	1,394,342	990,610	318,573	11,328,150
32 Marketer Reconciliation Adjustment		\$45,592	\$67,045	(\$268,183)	\$30,961	\$16,419	\$5,580	(\$102,587)
86 Month of activity 87 Nov-11 89 Dec-11 90 Jan-12 11 Feb-12 12 Mar-12 13 Apr-12 14 May-12	30 31 31 29 31 30 31	195,000 201,531 201,526 188,500 201,461 195,000 201,500	255,000 263,500 263,513 246,500 263,500 254,970 263,469	285,000 294,531 294,460 275,471 294,500 285,030 294,500	115,826 120,869 121,614 114,840 120,807 117,600 122,109	81,420 84,134 84,105 78,735 84,086 81,450 84,165	15,314 20,521 26,825 15,318 18,840	938,670 979,879 985,738 930,871 979,672 952,890 988,342
Jun-12	30	195,030	255,000	285,030	118,320	81,450	22,680	957,510
6 <b>Jul-12</b>	31	201,500	263,500	294,469	122,636	84,134	26,288	992,527
47 Aug-12	31	201,469	263,469	294,469	124,062	84,134	37,231	1,004,834
8 Sep-12	30	194,970	254,970	284,970	120,060	81,420		972,420
19 Oct-12	31	201,469	263,469	294,469	124,062	84,134	37,231	1,004,834
50 51		2,378,957	3,110,860	3,476,899	1,442,805	993,367	285,300	11,688,187
52								
53 Approved 54 System Average		\$0.9617	\$0.9617	\$0.9617	\$0.9617	\$0.9617	\$0.9617	
55 Path \$0.9584		φυ.συ17	\$1.1556	\$1.2849	\$1.3372	\$0.8669	\$0.9617	
66 Credit/Surcharge		\$0.0033	(\$0.1939)	(\$0.3232)	(\$0.3755)	\$0.009	\$0.6419	
or Credit/Surcharge		φυ.υυ33	(\$0.1939)	(⊅0.3232)	(φυ.3/55)	\$0.0949	φ0.3198	
8 Revised								
59 System Average		\$0.9252	\$0.9252	\$0.9252	\$0.9252	\$0.9252	\$0.9252	
00 Path		\$0.9604	\$1.1578	\$1.0205	\$1.3399	\$0.8669	\$0.6425	
1 Credit/Surcharge		(\$0.0352)	(\$0.2326)	(\$0.0952)	(\$0.4147)	\$0.0584	\$0.2828	
2 3 Variance- approved Surcharge/Credit vs. Revised Su	ırcharne/C	(\$0.0385)	(\$0.0387)	\$0.2279	(\$0.0392)	(\$0.0365)	(\$0.0370)	
4 Annual MDCQ		2,378,957	3,110,860	3,476,899	1,442,805	993,367	285,300	11,688,187
5 Marketer Reconciliation Adjustment		(\$91,566)	(\$120,445)	\$792,492	(\$56,608)	(\$36,261)	(\$10,562)	\$477,049
6		(\$0.,000)	(ψ.20,440)	ψ. 02, 102	(\$00,000)	(\$00,201)	(Ψ.0,002)	
7 2010/11 & 2011/2012 Marketer Reconciliation								\$374,462

Note: Tennessee rates for June - October 2011 are the settlement rates reflecting since there was a refund of the difference between the rates in effect at that time and the settlement rates.

THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID R.I.P.U.C. DOCKET NO. 4346 GAS COST RECOVERY FILING WITNESS: STEPHEN A MC CAULEY SEPTEMBER 4, 2012

#### **DIRECT TESTIMONY**

**OF** 

STEPHEN A. MC CAULEY

September 4, 2012

THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
R.I.P.U.C. DOCKET NO. 4346
GAS COST RECOVERY FILING
WITNESS: STEPHEN A MC CAULEY
SEPTEMBER 4, 2012

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III.	Natural Gas Portfolio Management Plan ("NGPMP")	5

THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
R.I.P.U.C. DOCKET NO. 4346
GAS COST RECOVERY FILING
WITNESS: STEPHEN A MC CAULEY
SEPTEMBER 4, 2012

PAGE 1 OF 7

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#### 1 I. <u>INTRODUCTION</u>

- 2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
- 3 A. My name is Stephen A Mc Cauley. My business address is 100 E. Old Country
- 4 Road, Hicksville, NY 11801.

#### 5 Q. WHAT IS YOUR POSITION AND RESPONSIBILITIES?

- 6 A. I am Director of Origination and Price Volatility Management in the Energy
- 7 Procurement organization. As Director, I am responsible for all financial
- 8 hedging activity for the National Grid regulated natural gas and electric utilities. I
- 9 am also responsible for structuring and optimizing the natural gas assets to help
- return the most value to the regulated entities.

#### 11 Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

- 12 A. I graduated from the United States Merchant Marine Academy in 1984 with a
- Bachelor of Science degree in Marine Engineering Systems.

#### 14 Q. PLEASE DESCRIBE YOUR PROFESSION EXPERIENCE.

- 15 A. I joined National Grid in 1992 as an engineer for the gas peak-shaving plants and
- the gas-regulator and telemetering stations. In 1996, I joined the gas supply group
- as a trader responsible for purchasing the natural gas supply requirements for both
- the firm gas customers and the LILCO generation facilities. In 1999, my

# THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID R.I.P.U.C. DOCKET NO. 4346 GAS COST RECOVERY FILING WITNESS: STEPHEN A MC CAULEY SEPTEMBER 4, 2012 PAGE 2 OF 7

1		responsibilities were changed to managing the emissions-allowance portfolio and
2		the financial-hedging activities of the regulated utilities. In 2002, I was promoted
3		to my current position as Director.
4	Q.	ARE YOU SPONSORING ANY ATTACHMENTS?
5	A.	Yes. I am sponsoring the following schedules:
6 7 8 9 10 11		SAM-1 Revised Gas Procurement Incentive Plan (GPIP) for National Grid Redlined Gas Procurement Incentive Plan GPIP July 2011 through June 2012 Results (excerpt pages 1-8) NGPMP Annual Report, April 2011 through March 2012 (excerpt pages 1-12)
12	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
13	A.	The purpose of my testimony is to discuss the results of the Gas Procurement
14		Incentive Plan ("GPIP") for the period July 1, 2011 through June 30, 2012. In
15		addition, I also will address the results of the Natural Gas Portfolio Management
16		Plan ("NGPMP") for the period April 1, 2011 through March 31, 2012.
17	II.	GAS PROCUREMENT INCENTIVE PLAN
18	Q.	PLEASE DESCRIBE THE INCENTIVE PORTION OF THE GAS
19		PROCUREMENT INCENTIVE PLAN (GPIP)?
20	A.	The GPIP encourages the Company to purchase supply in a way designed to
21		stabilize prices and reduce the risk that commodity costs will escalate

# THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID R.I.P.U.C. DOCKET NO. 4346 GAS COST RECOVERY FILING WITNESS: STEPHEN A MC CAULEY SEPTEMBER 4, 2012 PAGE 3 OF 7

1 dramatically. An outline of the proposed GPIP with revisions is provided in 2 Attachment SAM-1 and the relined version reflecting changes to the plan 3 approved by the Commission in last year's GCR proceeding, Docket No. 4283. 4 The gas procurement portion of the GPIP is based on the Company's gas 5 purchasing program under which the Company fixes the price of commodity 6 purchases through purchases or financial hedges over a 24-month horizon. The 7 minimum amount fixed or financially hedged is 60% of the expected purchases 8 for April and October, and 70% for the remaining ten months of the year. The 9 hedged volume is based on the five-year firm-sales forecast filed each year in the 10 Gas Cost Recovery docket. These mandatory hedges are required to be made 11 ratably over the period beginning 24 months prior to the start of each month and 12 ending four months before the month begins. These mandatory hedges also form 13 the benchmark for the incentive calculation. For each month, the average unit 14 cost of the mandatory hedges is compared to the average unit cost of discretionary 15 purchases to determine the savings or loss per dekatherm resulting from the 16 discretionary purchases. This difference, multiplied by the discretionary volumes, 17 determines the total savings or cost. To determine the incentive or penalty for the 18 month, this total is multiplied by 10% with two exceptions. The first exception is 19 for discretionary purchases made at least 8 months prior to the month of gas flow 20 where the unit cost savings is greater than 50 cents per dekatherm, in which case

the incentive applicable to those purchases is 20%. The second exception is that

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1 for any discretionary purchases made during the four months prior to the month of 2 flow will only generate an incentive of 5%. 3 Q. WHAT IS THE GPIP GAS PROCUREMENT INCENTIVE FOR THE 4 **PAST YEAR?** 5 A. Attachment SAM-2, which contains pages 1 through 6 of the Company's Semi-6 Annual GPIP Report, shows the results for the period July 1, 2011 through 7 June 30, 2012 by month. As shown, the Company purchased discretionary supply 8 of 3,725,000 Dth during the period resulting in a net calculated incentive of 9 \$355,884. The average cost of discretionary purchases was per Dth less than the 10 mandatory hedges. 11 The calculation of the savings and incentive is shown for each month. For 12 example, in July 2011 the average purchase cost per Dth for mandatory purchases 13 was \$5.4991 and discretionary purchases were made at an average cost of 14 \$4.6921, which equates to a savings of \$0.81 per Dth on discretionary purchases 15 of 163,000 Dth, resulting in a savings for the month of \$131,526. 16 Q. WHAT IS THE GAS PROCUREMENT INCENTIVE THE COMPANY IS 17 FILING? 18 The Company is proposing that it be granted the full incentive of \$355,884 for the A. 19 period July 2011 through June 2012.

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#### O. ARE THERE ANY RECOMMENDED CHANGES TO THE GPIP FOR

#### 2 THE PERIOD STARTING JULY 2012?

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A.

3 A. No. The Company is not recommending any changes at this time.

#### 4 III. NATURAL GAS PORTFOLIO MANAGEMENT PLAN ("NGPMP")

#### 5 Q. BRIEFLY DESCRIBE THE NGPMP?

In Docket No. 4038, the Commission approved the NGPMP which implemented changes to the management of the Company's Rhode Island gas portfolio. These changes were designed to provide various financial, regulatory, and risk management benefits over the previous asset management arrangements. The Company changed the management of the gas portfolio from an external thirdparty asset-management agreement to an internal portfolio management by the Company. The Company uses its transportation contracts, underground storage contracts, peaking supplies, and supply contracts first to purchase gas supplies to economically and reliably serve sales customers and then to make additional purchases and sales that generate revenue by extracting value from any assets that are not required to serve customers on any day. The mix of supply, transportation, and storage contracts creates flexibility and opportunities for optimization to create value for Rhode Island customers. This potential optimization value is subject to market variables: the fluctuation of gas pricing, the value of temporarily unused assets, the existence of excess transportation and THE NARRAGANSETT ELECTRIC COMPANY
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storage capacity, and the opportunities to optimize delivered supplies as storage fill opportunities arise. These activities were previously executed by external third-party asset managers. The Company believes that the internal management of the portfolio is superior to the external portfolio management for two primary reasons. First, active asset management by the Company reduces the potential for performance failure by a third-party asset manager, which may impact supply reliability. Second, the NGPMP creates an appropriate incentive for the Company to maximize the savings to its customers at levels that would be comparable to or that would exceed those from a third-party asset manager.

A.

### Q. WHAT WERE THE RESULTS OF THE NPGMP FOR THE INCENTIVE YEAR APRIL 2011 THROUGH MARCH 2012?

As required by Order 19627 in Commission Docket No. 4038, the Company has filed comprehensive reports of its optimization activity each quarter and on June 1, 2012, it filed its annual report showing the results of the past year of the NGPMP, April 2011 through March 2012. Attachment SAM-3 contains pages 1 through 13 of that annual report which shows that the second year of the NGPMP produced total savings of \$5,498,990.90. Under the provisions of the NGPMP, customers receive \$4,599,192 of those savings.

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1	Q.	WHAT IS THE NGPMP INCENTIVE THE COMPANY IS FILING?
2	Α.	The Company's incentive, as specified in the NGPMP, is determined as 20% of
3		the total savings in excess of \$1,000,000. Accordingly, the Company is filing for
4		approval of an NGPMP incentive of \$899,798 for the April 2011 through March
5		2012 period.
6	Q.	ARE THERE ANY RECOMMENDED CHANGES TO THE NGPMP FOR
7		THE PERIOD STARTING APRIL 2013?
8	A.	In Docket 4283 the Commission approved the continuation of the NGPMF
9		through March 2014 and therefore no changes will take effect starting in April
10		2013. As required by Order 19627 Docket 4038, the Company and Division will
11		review the results of the NGPMP after March 2013 in order to evaluate additional
12		extensions and/or recommended changes to the Plan for inclusion in the
13		Company's September 1, 2013 GCR filing.
14	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?

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A.

Yes.

#### **Gas Procurement Incentive Plan for National Grid**

Revised Effective July 1, 2011

#### I. <u>Objective</u>

To reduce the volatility of gas costs and to encourage National Grid (or "Company") to achieve a lower hedged gas commodity cost for its customers.

#### II. Structure of the Gas Procurement Incentive Plan

- A. The original Plan became effective June 1, 2003 and was most recently revised in Docket No. 4283. It will be reviewed with each gas cost recovery ("GCR") filing. The cap on the amount of the incentive that may be earned by the Company was eliminated effective July 1, 2010 and approved by the Commission in Docket 4283. The Company will file the Plan results semi-annually on January 31<sup>st</sup> and July 31 of each year. Effective January 2011 the quarterly reports were eliminated and the material was consolidated into the semi-annual report. These reports shall include reporting for all Plan activity and results through the end of the month prior to the filing.
  - 1. The Gas Procurement Incentive Plan revised effective December 1, 2008 applied to discretionary hedges that settled up to June 2010.
  - 2. This revised Plan will be effective for hedges that settle starting in July 2010.
- B. The Company will file its forecasted normal weather natural gas purchase requirements with its annual GCR filing. The hedging plan volume will be adjusted based on this revised forecast. Changes to the hedged volume execution plan will become effective in November of each year. The Company will not unwind or sell any purchases or hedged positions without notifying the Commission and Division. If a midyear revision is warranted the Company will file support for the revised purchase forecast with the Commission and Division.

#### III. The Gas Procurement Incentive Program

A. The Company will make purchases of natural gas, natural gas swaps or natural gas futures which lock or hedge the NYMEX Henry Hub portion of the variable cost. For any future gas supply month the Company will make three types of gas purchases:

#### 1. Mandatory Purchases and/or Hedges

- a. Are defined as mandatory monthly purchases of gas volumes or hedges made in approximately uniform monthly increments. (Mandatory purchases and/or hedges will vary as the forecast of purchases is updated periodically and in order to adjust for the rounding of the 10,000 Dth futures contract.)
- b. Will equal 60% of forecasted normal weather gas purchase requirements for the April and October gas supply months and 70% of forecasted normal weather gas purchase requirements for the remaining ten months. Purchases and/or hedges will be based on the forecast of requirements in place when the purchases and/or hedges are made.
- c. Will be purchased in approximately uniform monthly increments on a mandatory basis starting 24 months prior to the month of delivery and ending 4 months prior to the start of deliveries.
- d. The first purchases and/or hedges made each month will be deemed the Company's mandatory hedge up to the amount of the Company's scheduled mandatory requirement for the month.
- e. The Company will make the financial hedges in increments of one contract, 10,000 Dth. The Company will adjust the schedule of hedging to achieve the required mandatory level in accordance with paragraph II.B. Within the constraints of 10,000 Dth contract increments, the Company will seek to maximize the uniformity of monthly mandatory purchase/hedge volumes over the 20 month period specified in paragraph III.A.1.c.

f. The Company and the Division may agree to accelerate a portion of the mandatory hedges. They will notify the Commission of any such plan and provide 3 business days for the Commission to object. Accelerated hedges will neither earn an incentive nor be used in the calculation of mandatory benchmark.

#### 2. Discretionary Purchases and/or Hedges

- a. Are defined as the purchases and/or hedges established at least 6 business days prior to the start of the delivery month for delivery to the system or storage in excess of the mandatory hedging requirements in a month.
- b. The cost or benefit of any financial purchase and/or hedge will be included in the calculation of the average unit price.
- c. The total financial and physical hedged volume (planned mandatory plus accelerated plus discretionary), shall not exceed 95% of the forecasted normal weather requirements for a given supply month. Subsequent revisions to the forecast may impact the hedge percentage for existing deals.
- 3. Other Discretionary Purchases and/or Hedges Not Subject To Incentives
  - a. LNG
  - b. Supplies that lock in price but are not part of the program.
  - c. Hedges specifically put in place as part of the Natural Gas Procurement Management Program to lock in optimization savings for customers.
  - d. Purchases and/or hedges made less than 6 business days prior to the beginning of the month, during the month or under a contract which does not allow for the locking of the price.

e. Purchases and/or hedges made due to updated levels of forecasted migration of throughput volumes from transportation service to sales service.

#### B. Computation of Gas Procurement Incentives

Gas Procurement Incentives will be determined on the basis of comparisons of the volume-weighted average cost per dekatherm of discretionary purchases and/or hedges and the volume weighted average cost per dekatherm of mandatory gas purchases, excluding any accelerated hedges for each gas supply month. All comparisons will be based on the NYMEX portion of the variable cost per dekatherm of the purchased gas supply or the price of the NYMEX futures contract.

- C. Any purchases and/or hedges made for a future gas supply month, excluding other discretionary purchases and/or hedges not subject to incentives as shown in III.A.3, that are in excess of the mandatory purchases and/or hedges requirement for the month, will be deemed discretionary purchases and/or hedges.
- D. The timing of discretionary purchases and/or hedges is left solely to the discretion of the Company. However, beginning in November 2005 the Company will make sufficient discretionary purchases and/or hedges by November 1st of each year, such that a minimum of 80% of supply needed for December, January and February and 75% of supply needed for a normal November and March will be at a fixed or capped price. The fixed and capped supplies will include all forward purchases, financially based purchases and/or hedges, DOMAC FCS contract purchases fixed in price, LNG supplies and storage supplies.
- E. After all purchases and/or hedges for forecasted gas requirements for a given gas supply month are completed, the volume-weighted average cost of mandatory purchases and/or hedges will be computed. That volume weighted average cost for mandatory purchases and/or hedges will then be compared against the actual cost of each discretionary purchase and/or hedge made for the same gas supply month.
  - 1. For all discretionary purchases and/or hedges executed more than eight months prior to the start of the gas supply month, the Company will be provided a positive incentive equal to 10 percent

of the difference between the cost of each discretionary purchase and the volume-weighted average cost for mandatory purchases and/or hedges for the same gas supply month if the cost of the discretionary purchase and/or hedge is less than the volume weighted average cost of mandatory purchases and/or hedges for the same gas supply month. In the event that the cost of the discretionary purchases/hedges is at least 50 cents less than the cost of the mandatory purchases/hedges, the incentive will be 20 percent.

- 2. For all discretionary purchases and/or hedges executed within the last five to eight months prior to the start of the gas supply month, the Company will be provided as positive incentive equal to 10% of the difference between the cost of each discretionary purchase and the volume-weighted average cost for mandatory purchases and/or hedges for the same gas supply month if the cost of the discretionary purchase and/or hedge is less than the volume weighted average cost of mandatory purchases for the same gas supply month.
- 3. For all discretionary purchases and/or hedges executed within the last four months prior to the start of the gas supply month, the Company will be provided as positive incentive equal to 5% of the difference between the cost of each discretionary purchase and the volume-weighted average cost for mandatory purchases and/or hedges for the same gas supply month if the cost of the discretionary purchase and/or hedge is less than the volume weighted average of mandatory purchases for the same gas supply month.
- 4. For any and all discretionary purchases and/or hedges that are made at a cost which is greater than the volume-weighted average cost for mandatory purchases and/or hedges, made for the same gas supply month, regardless of when they occur prior to the start of the gas supply month, the Company will be assessed a penalty equal to 10% of the difference between the volume-weighted average cost for mandatory purchases and/or hedges and the cost of the each such discretionary purchase.

5. The net incentive/penalty for the Company for each gas supply month shall equal the sum of the incentives/penalties calculated for all individual discretionary purchases and/or hedges executed for the subject gas supply month.

National Grid	
Rhode Island	

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#### **Gas Procurement Incentive Plan for National Grid**

Revised Effective July 1, 2011

#### I. Objective

To reduce the volatility of gas costs and to encourage National Grid (or "Company") to achieve a lower hedged gas commodity cost for its customers.

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- II. Structure of the Gas Procurement Incentive Plan
  - A. The original Plan became effective June 1, 2003 and was most recently revised in Docket No. 4283, It will be reviewed with each gas cost recovery ("GCR") filing. The cap on the amount of the incentive that may be earned by the Company was eliminated effective July 1, 2010 and approved by the Commission in Docket 4283. The Company will file the Plan results semi-annually on January 31st and July 31 of each year. Effective January 2011 the quarterly reports were eliminated and the material was consolidated into the semi-annual report. These reports shall include reporting for all Plan activity and results through the end of the month prior to the filing.
    - 1. The Gas Procurement Incentive Plan revised effective December 1, 2008 applied to discretionary hedges that settled up to June 2010
    - 2. This revised Plan will be effective for hedges that settle starting in July 2010.
  - B. The Company will file its forecasted normal weather natural gas purchase requirements with its annual GCR filing. The hedging plan volume will be adjusted based on this revised forecast. Changes to the hedged volume execution plan will become effective in November of each year. The Company will not unwind or sell any purchases or hedged positions without notifying the Commission and Division. If a midyear revision is warranted the Company will file support for the revised purchase forecast with the Commission and Division.

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National Grid Rhode Island Attachment SAM-1a Docket No. 4346 September 4 2012 Page 2 of 6

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- c. Will be purchased in approximately uniform monthly increments on a mandatory basis starting 24 months prior to the month of delivery and ending 4 months prior to the start of deliveries.
- d. The first purchases and/or hedges made each month will be deemed the Company's mandatory hedge up to the amount of the Company's scheduled mandatory requirement for the month.
- e. The Company will make the financial hedges in increments of one contract, 10,000 Dth. The Company will adjust the schedule of hedging to achieve the required mandatory level in accordance with paragraph II.B. Within the constraints of 10,000 Dth contract increments, the Company will seek to maximize the uniformity of monthly mandatory purchase/hedge volumes over the 20 month period specified in paragraph III.A.1.c.

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#### 2. Discretionary Purchases and/or Hedges

- a. Are defined as the purchases and/or hedges established at least 6 business days prior to the start of the delivery month for delivery to the system or storage in excess of the mandatory hedging requirements in a month.
- b. The cost or benefit of any financial purchase and/or hedge will be included in the calculation of the average unit price.
- c. The total financial and physical hedged volume (planned mandatory plus accelerated plus discretionary), shall not exceed 95% of the forecasted normal weather requirements for a given supply month. Subsequent revisions to the forecast may impact the hedge percentage for existing deals.
- 3. Other Discretionary Purchases and/or Hedges Not Subject To Incentives
  - a. LNG
  - b. Supplies that lock in price but are not part of the program.
  - Hedges specifically put in place as part of the Natural Gas
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  - d. Purchases and/or hedges made less than 6 business days prior to the beginning of the month, during the month or under a contract which does not allow for the locking of the price.

National Grid Rhode Island Attachment SAM-1<u>a</u>
Docket No. <u>4346</u>
September <u>4</u> 201<u>2</u>
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e. Purchases and/or hedges made due to updated levels of forecasted migration of throughput volumes from transportation service to sales service.

#### B. Computation of Gas Procurement Incentives

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- C. Any purchases and/or hedges made for a future gas supply month, excluding other discretionary purchases and/or hedges not subject to incentives as shown in III.A.3, that are in excess of the mandatory purchases and/or hedges requirement for the month, will be deemed discretionary purchases and/or hedges.
- D. The timing of discretionary purchases and/or hedges is left solely to the discretion of the Company. However, beginning in November 2005 the Company will make sufficient discretionary purchases and/or hedges by November 1st of each year, such that a minimum of 80% of supply needed for December, January and February and 75% of supply needed for a normal November and March will be at a fixed or capped price. The fixed and capped supplies will include all forward purchases, financially based purchases and/or hedges, DOMAC FCS contract purchases fixed in price, LNG supplies and storage supplies.
- E. After all purchases and/or hedges for forecasted gas requirements for a given gas supply month are completed, the volume-weighted average cost of mandatory purchases and/or hedges will be computed. That volume weighted average cost for mandatory purchases and/or hedges will then be compared against the actual cost of each discretionary purchase and/or hedge made for the same gas supply month.
  - For all discretionary purchases and/or hedges executed more than eight months prior to the start of the gas supply month, the Company will be provided a positive incentive equal to 10% of

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the difference between the cost of each discretionary purchase and the volume-weighted average cost for mandatory purchases and/or hedges for the same gas supply month if the cost of the discretionary purchase and/or hedge is less than the volume weighted average cost of mandatory purchases and/or hedges for the same gas supply month. In the event that the cost of the discretionary purchases/hedges is at least 50 cents less than the cost of the mandatory purchases/hedges, the incentive will be 20%.

- 2. For all discretionary purchases and/or hedges executed within the last five to eight months prior to the start of the gas supply month, the Company will be provided as positive incentive equal to 10% of the difference between the cost of each discretionary purchase and the volume-weighted average cost for mandatory purchases and/or hedges for the same gas supply month if the cost of the discretionary purchase and/or hedge is less than the volume weighted average cost of mandatory purchases for the same gas supply month.
- 3. For all discretionary purchases and/or hedges executed within the last four months prior to the start of the gas supply month, the Company will be provided as positive incentive equal to 5% of the difference between the cost of each discretionary purchase and the volume-weighted average cost for mandatory purchases and/or hedges for the same gas supply month if the cost of the discretionary purchase and/or hedge is less than the volume weighted average of mandatory purchases for the same gas supply month.
- 4. For any and all discretionary purchases and/or hedges that are made at a cost which is greater than the volume-weighted average cost for mandatory purchases and/or hedges, made for the same gas supply month, regardless of when they occur prior to the start of the gas supply month, the Company will be assessed a penalty equal to 10% of the difference between the volume-weighted average cost for mandatory purchases and/or hedges and the cost of the each such discretionary purchase.

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5. The net incentive/penalty for the Company for each gas supply month shall equal the sum of the incentives/penalties calculated for all individual discretionary purchases and/or hedges executed for the subject gas supply month.

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Attachment SAM-2 Docket No. 4346 September 4, 2012 Page 1 of 8

Thomas R. Teehan Senior Counsel – Rhode Island

August 1, 2012

#### VIA HAND DELIVERY AND ELECTRONIC MAIL

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

RE: Semi-annual Report on Gas Procurement Incentive Plan

Dear Ms. Massaro:

Pursuant to the provisions of the Gas Procurement Incentive Plan ("Plan") initially approved in Docket No. 3436, enclosed are ten (10) copies of National Grid's semi-annual report on the status of the penalties and incentives as of the end of June 2011.

A summary of incentives and penalties associated with the GPIP is shown on page 1 of the attachment. This summary shows the purchases made under the GPIP for the months of July 2011 to June 2014. Through June 30, 2012, the discretionary purchases have resulted in \$2.6 million in savings compared to the benchmark mandatory prices. The associated Company incentive for this period is \$0.4 million. For the July 2012 to June 2013 year, it shows a benefit to customers from discretionary purchases of \$2.8 million and a \$0.5 million calculated incentive. For the July 2013 to June 2014 measurement year, the benefit is \$0.07 million and the incentive is \$0.01 million.

Pages 2 and 3 reflect Plan provisions where, discretionary hedges can have an incentive of 10 percent if they were made five to eight months in advance of the supply period and 20 percent if they were made greater than 8 months in advance of the supply period and if the cost was at least \$0.50 per dekatherm lower than the prices obtained for the mandatory purchasing amount. For all discretionary purchases and/or hedges executed within the last four months prior to the start of the gas supply period, the incentive equals 5 percent of the difference between the cost of each discretionary and mandatory purchase. These figures are shown on page 4.

Page 5 of the Report shows the mandatory, accelerated, and discretionary hedge volumes and the total volume hedged as a percentage of the original forecast. The last two columns on page 5 show the average NYMEX hedge price and the total weighted cost.

Page 6 of the Report shows the dollar amount of hedges broken out into mandatory, accelerated, and discretionary and the unit cost of each type of hedge under the program.

Attachment SAM-2 Docket No. 4346 September 4, 2012 Page 2 of 8

Luly E. Massaro, Commission Clerk Semi-annual Report August 1, 2012 Page 2 of 2

Finally, the individual trade data that had previously been provided in the GPIP quarterly report is shown beginning on page 7.

Thank you for your attention to this matter. If you have any questions, please do not hesitate to contact Stephen Mc Cauley at (516) 545-5403 or me at (401) 784-7667.

Very truly yours,

Thomas R. Teehan

The Ruchen

#### Enclosures

cc:

Thomas Ahern, Division Stephen Scialabba, Division Bruce Oliver, Division Leo Wold, Esq.

# Gas Procurement Incentive Program Worksheet - June 30, 2012

National Grid - Rhode Island Incentive Calculation

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TOTAL

		2	Mandatory	DISCL	Discretionary			Discretionary		/	Aggregate -	3	Company
		_		NYMEX		Differ	Difference	Volumes (Dt)	(Loss)		Incentive %	ľ	Incentive
	Jul-11		5.4991	₩	4.6921	es)	0.81	163,000	↔	131,526	10.00%	₩	13,153
	Aug-11	€	5.5336	₩	4.9009	s	0.63	202,000	49	127,805	10.00%	69	12,780
	Sep-11	69	5.8136	↔	4.7907	69	1.02	166,000	↔	169,808	15.23%	69	25,854
	Oct-11	↔	5.7167	↔	5.0080	€	0.71	94,000	8	66,613	15.61%	B	10,399
	Nov-11	€9	5.8693	G	5.1914	€	1.04	138,000	ø	143,297	13.06%	4	18,711
	Dec-11	₩	6.2298	₩	4.9743	₩	1.26	281,000	49	352,798	20.00%	69	70,560
	Jan-12	69	5.9471	↔	4.9555	↔	0.99	454,000	↔	450,199	14.58%	49	65,628
	Feb-12	49	5.7335	↔	5.1623	B	0.57	532,000	↔	303,879	10.00%	↔	30,388
	Mar-12	B	5.3124	↔	4.5439	છ	0.77	619,000	↔	475,697	14.66%	69	69,726
	Apr-12	↔	4.9247	↔	4.4734	s	0.45	656,000	↔	296,020	10.00%	49	29,602
	May-12	₩	4.9125	G	4.5848	49	0.33	260,000	B	85,227	10.00%	B	8,523
	Jun-12	8	4.7821	S	4.7470	8	0.04	160,000	S	5,611	10.00%	s	561
Subtotal 11-12	2							3,725,000	s	2,608,480		B	355,884
	Jul-12	↔	4.7743	\$	4.3258	€9	0.45	160,000	s	71,762	10.00%	S	7,176
	Aug-12	49	4.7660	₩	4.2702	છ	0.50	190,000	49	94,194	10.00%	49	9,419
	Sep-12	s	3.9253	↔	3.8920	S	0.03	300,000	€9	866'6	10.00%	49	1,000
	Oct-12	€9	4.0987	↔	3.5824	S	0.52	360,000	↔	185,850	10.00%	↔	18,585
	Nov-12	₩	4.3596	69	3.6486	G	0.71	450,000	8	319,935	20.00%	49	63,987
	Dec-12	↔	4.5346	G	3.7011	↔	0.83	640,000	↔	533,473	20.00%	49	106,695
	Jan-13	₩	4.6610	<del>()</del>	3.7997	↔	0.86	640,000	છ	551,223	20.00%	B	110,245
	Feb-13	↔	4.6205	\$	3.7433	€9	0.88	510,000	G	447,361	20.00%	B	89,472
	Mar-13	€	4.6032	↔	3.8992	↔	0.70	360,000	69	253,441	20.00%	B	50,688
	Apr-13	↔	4.4080	↔	3.7857	49	0.62	370,000	↔	230,235	20.00%	49	46,047
	May-13	4	4.4764	↔	3.9379	છ	0.54	110,000	€9	59,235	20.00%	49	11,847
	Jun-13	49	4.3208	↔	4.1738	s	0.15	60,000	€9	8,823	10.00%	€9	882
Subtotal 12-13	3							4,150,000	89	2,765,529		€9	516,043
	Jul-13	€9	4.3698	es.	4.2151	\$	0.15	60,000	89	9,285	10.00%	89	928
	Aug-13	↔	4.8688	G	4.3678	↔	0.50	000'09	છ	30,055	20.00%	છ	6,011
	Sep-13	69	3.9868	₩	3.8837	€	0.10	20,000	B	5,156	10.00%	ø	516
	Oct-13	69	3.9734	₩.	3.8657	€	0.11	20,000	↔	5,389	10.00%	49	539
	Nov-13	69	4.0198	↔	3.9543	69	0.07	20,000	↔	3,275	10.00%	49	327
	Dec-13	₩.	4.1456	€	4.0155	s	0.13	20,000	↔	6,508	10.00%	₩	651
	Jan-14	↔	4.1446	<del>()</del>	3.9951	<del>&amp;</del>	0.15	40,000	↔	5,980	10.00%	49	598
	Feb-14	₩.	3.9667	B	3.9584	€9	0.01	30,000	₩	247	10.00%	B	25
	Mar-14	€9	3.9170	6A	3.9287	€	(0.01)	20,000	B	(233)	-10.00%	B	(23)
	Apr-14	↔	3.7925	es es	3.7187	↔	0.07	20,000	s	1,477	10.00%	S	148
	May-14	↔	3.7200	49	3.6700	49	0.05	10,000	s	200	10.00%	4	20
	Jun-14	B	3.7000	↔	٠	ક્ક			€		0.00%	s	
Subtotal 13-14	4							440,000	<del>4.</del>	67 639		6	0 760

8,315,000 \$ 5,441,649

\* Percentage Computed as the weighted average of the three levels of incentive as detailed below:

a) INCENTIVE MECHANISM

Deals executed after Dec 1 2008

a. i) 5% for trades executed within 4 months to the start of the supply month; 10% for trades executed within the 8 months to the start of the Supply Month and Margin is higher than \$.50, 10% if margin is lower than \$0.50.

In both a & b explained above a 10% Penalty is applicable for months where discretionary price is higher than the mandatory hedged price.

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Gas Procurement Incentive Program Worksheet - June 30, 2012 Incentive Calculation National Grid - Rhode Island

execute	Deals executed within eight months of t	it months of t	ne Supply Month - 10% Incentive Level	- Month	Š	, incentive	Level								10%	
		VOLUME (Dth)	:			ISN)	6	_		Average Price (\$/Dth)	rice (\$/Dth	•	_	Margin	Incentive	ive
1.1.14	Maridatory	Accelerated	Discretionary	Mai		- 1	Discretionary	$\overline{}$	Mandatory	Accelerated		Discretionary		(\$/Dth)	(USD)	. 6
A 11-01-4	000,000	480,000	30,000	22.0	220	3,084,500	\$ 390,450	49	5.4991	49	6.4260 \$	\$ 4.3383	8	1.1607	\$ 10	10.446
Sop 11	300,000	470,000	10,000	ŕ	360	3,109,050	\$ 474,450	_	5.5336	₩	6.6150 \$	3 4.3132	69	1,2205	13	13,425
Sep	136,000	470,000	000'09		220	3,062,050	\$ 209,600		5.8136	G	6.5150 \$	3 4.1920	8	1.6216	. 65	8,108
-50	356,000	000'065	20,000		140	3,986,800	\$ 85,100	8	5.7167	4	6.7573 \$	4.2550	69	1.4617	. 65	2000
-000	000,809	1,510,000	1.		130	9,795,450	•	49	5.8693	\$	6.4871		€9			27.
Dec-11		1,700,000	•	4	790	11,367,600	•	49	6.2298	S	6.6868		₩.	,	· 4	
Jan-12		1,670,000	200,000	\$ 4,983,680	\$ 089	11,361,150	\$ 945,300	69	5.9471	49	6.8031	4 7265	6	1 2206	,	04 410
Feb-12	7.	1,500,000	140,000	\$ 4,128,150	50	9,728,000	\$ 664,900		5.7335	49	6.4853 \$	4 7493	· ·	0 9843	9 6	214,42
Mar-12		1,670,000	180,000	\$ 4,143,680	\$ 089	9,787,250	\$ 702,100	-	5.3124	69	5.8606 \$	3 9006		1 4110	5 6	13,700
Apr-12		970,000	200,000	\$ 3,885,585	\$ \$89	5,431,650	\$ 818,500	_	4.9247	· <del>69</del>	5.5996 \$	4.0925		0.8322	9 4	16,413
May-12	20000	740,000	•		965 \$	4,133,550	9	49	4.9125	€9	5.5859 \$	í '		- 0.002	- -	t ,
Jun-12		540,000	-	"	50 \$	2,972,800	•	49	4.7821	8	5.5052 \$		· 49		<b>→</b> 45	. ,
Jul-12	250 4	420,000	•	\$ 1,766,500	\$ 000	2,207,900	•	છ	4.7743	€	5.2569 \$	•	69		· 6	].
Aug-12		400,000	•		20 \$	2,071,900	· •	49	4.7660	49	5.1798 \$	•	<del>U</del>	,	· <del>'</del>	
Sep-12		300,000	•	αí	\$ 00	1,501,500	· •	49	3.9253	49	5.0050 \$	•	<del>6</del> 9	,	÷ 4:	
ZI-150		540,000	10,000		\$ 00.	2,664,900	\$ 26,780	69	4.0987	69	4.9350 \$	2.6780	_	1 4207		101
Nov-12	•	950,000	Tr.		61	4,987,250	· •	49	4.3596	4	5.2497 \$		_		·	17.
Dec-12	1,190,000	1,110,000	r		28	5,951,000	•	49	4.5346	€9	5.3613 \$	٠	69	,	· 69	0 1
Jan 13		000,061,1	•	\$ 5,826,236	36 \$	6,515,050	· •	G	4.6610	€	5,4748 \$	•	69	,	÷ 65	,
Mor 13	-	1,040,000	•	\$ 4,851,475	75 \$	5,443,600	· •	₩	4.6205	€	5.2342 \$		49	,	÷ +	
Niar-13		1,170,000	•	\$ 4,280,988	88	6,229,900		B	4.6032	69	5.3247 \$	ī	49		÷ 66	,
Apr-13		880,000	•	\$ 2,600,705	05 \$	4,579,900	, &	€9	4.4080	4	5.2044 \$	•	69	, 0,	+ 44	,
May-13		640,000	,	\$ 1,924,840	40 \$	3,294,000	, \$	↔	4.4764	<del>\$</del>	5.1469 \$	•	69		· 4	
Our 13	340,000	520,000		-	78 \$	2,632,100		B	4.3208	\$	5.0617 \$	•	49	,	+ <del>(A</del>	
0.00	<b>u</b>	410,000	•	\$ 961,366	\$ 99	2,071,100		↔	4.3698	\$	5.0515 \$		69		66	١.
Aug-13		3/0,000	•		\$ 00	1,824,900	·	↔	4.8688	\$	4.9322 \$	1	49	,	. 46	,
3ep-13		290,000	•	-	89	1,409,450		69	3.9868	\$	4.8602 \$		69	1	- 40	
2 - 2 - 2 - 2		340,000	•		88	1,580,650		↔	3.9734	\$	4.6490 \$		69	,		
2 - 100	430,000	860,000	•	-	95 \$	3,930,650	,	B	4.0198	\$	4.5705 \$		40	,	. 46	,
Dec-13	480,000	1,120,000	•	\$ 1,989,900	00	5,062,925		49	4.1456	\$	4.5205 \$	e#	69			
Dall-14	480,000	1,240,000	•	-	\$ 00	5,240,500		↔	4.1446	*	4.2262 \$		69			
Mor 14	360,000	1,070,000	•	_	\$ 00	4,402,660	,	Ø	3.9667	8	4.1146 \$	Е	49			
Mar-14	300,000	700,000	•	<del>-</del>	90	4,425,150		49	3.9170	€ 4	3.9510 \$	J	49	,		
Apr - 14	000,000	760,000	•		\$ 00	2,774,950		↔	3.7925	€	3.6513 \$		49		- 65	
May-14	90,000	260,000	•	(.)	9	2,111,900		↔	3.7200	(r)	3.7713 \$	r	69	1		
Jun-14	000,000	440,000	•	\$ 185,000	\$ 00	1,626,900		49	3.7000	6	3.6975 \$	,	<del>(</del>	,		
_								L								

# Gas Procurement Incentive Program Worksheet - June 30, 2012 Incentive Calculation National Grid - Rhode Island

Deals executed more than eight more	d more than	eight months	nths prior to the Supply Month - 20% Incentive Level	e Supply	Mont	th - 20%	Incent	ive Le	vel							20%	
		VOLUME (Dth)	2		PUR	PURCHASE (USD)	(C)			A	Average Price (\$/Dth)	Dth)		Margin	gin	Incentive	
		Accelerated	Discretionary	Mandatory	Acce	Accelerated	Discretionary	onary	Mandatory		Accelerated	Discretionary	ionary	(\$/Dth)	£,	(USD)	
Jul-11		480,000	73,000	\$ 2,034,650	\$ 0	3,084,500	8	374,370	& 22.€	5.4991	\$ 6.4260	8	5.1284	S	0.3707 \$	2,706	۱,,
Ang-11		470,000	92,000	-	8	3,109,050	\$	515,540	\$ 5.	5.5336	\$ 6.6150	\$	5.6037	9	(0.0701) \$	(645)	(6
Sep-11		470,000	116,000	\$ 790,650	8	3,062,050	ψ? <del>ψ?</del>	585,650	\$ 5.6	5.8136	6.5150	↔	5.0487	8	0.7649 \$	17,746	
Oct-11		290,000	74,000	\$ 2,035,140	\$	3,986,800	€	385,655	\$	5,7167 \$	\$ 6.7573	↔	5.2116	69	0.5051 \$	7,476	,-
Nov-11	_	1,510,000	138,000	•	\$	9,795,450	8	716,415	\$ 5.6	5.8693 \$	6.4871	↔	5.1914	69	\$ 6279	18,711	
Dec-11		1,700,000	281,000	•	\$	11,367,600	\$ 1,3	397,775	\$ 6.	6.2298	8989.9	69	4.9743	69	1.2555 \$	70,560	_
Jan-12		1,670,000	254,000	9000	\$	11,361,150	\$ 1,3	,304,490	\$ 5.0	5.9471	6.8031	↔	5.1358	8	0.8113 \$	41,215	100
Feb-12		1,500,000	392,000	120	\$	9,728,000	\$ 2,0	2,081,465	\$	5.7335	6.4853	↔	5.3099	8	0.4237 \$	16,608	~
Mar-12		1,670,000	439,000	\$ 4,143,680	\$	9,787,250	\$ 2,1	2,110,585	\$ 5.	5.3124	5.8606	↔	4.8077	9	0.5047 \$	44,313	
Apr-12		970,000	456,000	\$ 3,885,585	\$	5,431,650	\$ 2,1	2,116,080	\$ 4.5	4.9247	5.5996	69	4.6405	\$	0.2842 \$	12,958	_
May-12		740,000	260,000	\$ 2,922,965	8	4,133,550	5,1	,192,035	\$ 4.5	4.9125	5.5859	€9	4.5848		0.3278 \$	8.523	
Jun-12		540,000	160,000	\$ 2,391,050	\$	2,972,800	\$	759,525	\$ 4.	4.7821	5.5052	69	4.7470		0.0351 \$	561	
Jul-12		420,000	160,000	\$ 1,766,500	8	2,207,900	8	692,130	\$ 4.7	4.7743	5.2569	€9	4.3258	\$	0.4485 \$	7,176	۱,-
Aug-12	310,000	400,000	190,000	\$ 1,477,450	<del>\$</del>	2,071,900	8	811,340	\$ 4.	4.7660 \$	5.1798	↔	4.2702	8	0.4958 \$	9,419	_
Sep-12		300,000	300,000	\$ 2,001,900	\$	1,501,500	\$ 1,1	,167,590	\$ 3.5	3.9253 \$	5.0050	↔	3.8920	\$	0.0333 \$	1,000	_
Oct-12		540,000	350,000	\$ 942,700	8	2,664,900	\$ 1,2	,262,900	\$ 4.0	4.0987	\$ 4.9350	↔	3.6083	\$	0.4904 \$	17,164	-
Nov-12		920,000	450,000	\$ 3,792,861	<del>69</del>	4,987,250	\$ 1,6	,641,890	\$ 4.	4.3596 \$	5.2497	↔	3.6486	\$	0.7110 \$	63,987	
Dec-12	_	1,110,000	640,000	\$ 5,396,228	<del>\$</del>	5,951,000	\$ 2,3	,368,700	\$ 4.5	4.5346 \$	5.3613	49	3.7011	\$	0.8336 \$	106,695	
Jan-13	_	1,190,000	640,000	\$ 5,826,236	<del>\$</del>	6,515,050	\$ 2,4	431,810	\$ 4.6	4.6610 \$	5.4748	↔	3.7997	\$	0.8613 \$	110,245	
Feb-13	<del>-</del>	1,040,000	510,000	\$ 4,851,475	<del>69</del>	5,443,600	\$ 1,9	909,070	\$ 4.6	4.6205 \$	5.2342	\$	3.7433	8	0.8772 \$	89,472	22
Mar-13	80	1,170,000	360,000	\$ 4,280,988	<del>\$</del>	6,229,900	\$ 1,4	403,716	\$ 4.6	4.6032 \$	5.3247	↔	3.8992	8	0.7040 \$	50,688	
Apr-13		880,000	370,000	\$ 2,600,705	69	4,579,900	\$ 1,4	400,716	\$ 4.4	4.4080 \$	5.2044	↔	3.7857	\$	3.6223 \$	46,047	
May-13	20	640,000	110,000	\$ 1,924,840	8	3,294,000	\$	433,166	\$ 4.4	4.4764 \$	5.1469	↔	3.9379	\$	0.5385 \$	11,847	
Jun-13		520,000	000'09	\$ 1,469,078	\$	2,632,100	\$	250,426	\$ 4.5	4.3208 \$	5.0617	↔	4.1738	\$	3.1471 \$	882	
Jul-13	.,	410,000	000'09	\$ 961,366	<del>69</del>	2,071,100	\$	252,906	\$ 4.3	4.3698 \$	5.0515	\$	4.2151	\$	0.1547 \$	928	١
Aug-13		370,000	000'09	\$ 389,500	8	1,824,900	\$	262,070	\$ 4.8	4.8688 \$	3 4.9322	€9	4.3678	\$	\$ 6005.0	6,011	
Sep-13		290,000	20,000	\$ 1,156,168	<del>69</del>	1,409,450	8	94,183	3.6	3.9868	3 4.8602	↔	3.8837	8	0.1031 \$	516	
Oct-13	200	340,000	20,000	\$ 794,688	<del>69</del>	1,580,650	÷	93,283	\$ 3.5	3.9734 \$	3 4.6490	↔	3.8657	\$	0.1078 \$	539	
Nov-13	45	860,000	20,000	\$ 1,728,495	49	3,930,650	÷	97,713	\$ 4.0	4.0198	3 4.5705	↔	3.9543	\$	0.0655 \$	327	120
Dec-13	30	1,120,000	20,000	\$ 1,989,900	8	5,062,925	8	200,773	\$ 4.1	4.1456 \$	3 4.5205	↔	4.0155	\$	0.1302 \$	651	
Jan-14		1,240,000	40,000	\$ 1,989,400	8	5,240,500	<b>⇔</b>	59,803	\$ 4.1	4.1446 \$	4.2262	↔	3.9951	\$	0.1495 \$	598	7200
Feb-14		1,070,000	30,000	\$ 1,428,000	49	4,402,660	- -	18,753	\$ 3.6	3.9667	4,1146	4	3.9584	\$	0.0082 \$	25	
Mar-14	.,	1,120,000	20,000	\$ 1,175,100	49	4,425,150	s	78,573	\$ 3.5	3.9170 \$	3.9510	↔	3.9287	9	0.0117) \$	(23)	_
Apr-14		760,000	20,000	\$ 606,800	<del>\$</del>	2,774,950	49	74,373	\$ 3.7	3.7925 \$	3.6513	\$	3.7187	8	0.0739 \$	148	
May-14	000'06	260,000	10,000	\$ 334,800	49	2,111,900	€9	36,700	\$ 3.7	3.7200 \$	3.7713	\$	3.6700	\$	0.0500	20	
Jun-14		440,000		\$ 185,000	89	1,626,900	↔		\$ 3.7	3.7000 \$	3.6975	€9		49	1		
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Gas Procurement Incentive Program Worksheet - June 30, 2012 Incentive Calculation National Grid - Rhode Island

Deals executed within four months of	d within four		Ν M	onth - {	5% In	the Supply Month - 5% Incentive Level	ivel									2%	
		VOLUME (Dth)	8		P	PURCHASE (USD)	Ω (Ω	_		Avera	Average Price (\$/Dth)	Oth)		Σ	Margin	Incentive	tive
	Mandatory	Accelerated Discretionary	_	Mandatory		Accelerated	Discretionary	Σ	Mandatory	Accele	Accelerated	Discretionary	narv	\$	(\$/Dth)	(USD)	6
Jul-11		480,000	1	2.2	\$ 059	3,084,500	8	8	5.4991	69	6.4260			69		49	
Ang-11	.,	470,000	1	\$ 1,704,360	\$ 098	3,109,050	s	₩	5.5336	69	6.6150	69	r	S		69	
Sep-11		470,000	<del>()</del>		\$ 099	3,062,050	9	₩	5.8136	€	6.5150	₩	•	S		49	ï
Oct-11		290,000	'		140 \$	3,986,800	· \$	49	5.7167	↔	6.7573	€9	1	49	•	· <del>69</del>	1
Nov-11		1,510,000	•		430 \$	9,795,450	· \$	S	5.8693	49	6.4871	↔	٠	€9		49	
Dec-11		1,700,000	•		\$ 062	11,367,600	•	49		49	6.6868	↔	ı	€9		49	t
Jan-12	_	1,670,000	<b>↔</b>		\$ 089	11,361,150	· •	₩	5.9471	49	6.8031	₩	•	69		69	
Feb-12		1,500,000	<del>⇔</del> '		\$ 051	9,728,000	· •	49	5.7335	49	6.4853	€9	•	49		6	1
Mar-12		1,670,000	<del>()</del>	4,143,680	\$ 089	9,787,250	· \$	49	5.3124	49	5.8606	₩	,	69		<del>• ••</del>	ı
Apr-12	80	970,000	•	3,885,585	\$ 585	5,431,650	•	49	4.9247	S	5.5996	49	•	69		· <del>6</del> 9	
May-12		740,000	•		\$ 995	4,133,550	9	€9	4.9125	S	5.5859	69	•	69		• 69	
Jun-12		540,000	<del>\$</del>	"	\$ 050	2,972,800	· &	↔	4.7821	€	5.5052	49	,	49		· <del>69</del>	,
Jul-12		420,000	'	_	\$ 000	2,207,900	· &	49	4.7743	₩	5.2569	8		49		69	
Ang-12		400,000	<del>()</del>		\$ 051	2,071,900	, 69	49	4.7660	49	5.1798	€9		69	•	€9	
Sep-12		300,000	'	αĺ	\$ 006	1,501,500	\$	49	3.9253	s	5.0050	€9	•	69	i	· 69	. 1
Oct-12		540,000	<del>()</del>		\$ 002	2,664,900	·	↔	4.0987	49	4.9350	49	٠	69		69	
Nov-12		950,000	<del>()</del>		361 \$	4,987,250	· •	₩	4.3596	↔	5.2497	49	•	69	4	₩	1
Dec-12	-	1,110,000	<del>\$</del>		\$ 82	5,951,000	· \$	49	4.5346	49	5.3613	49	1	49		₩	
Jan-13	-	1,190,000	<del>()</del>		39 \$	6,515,050	, 49	B	4.6610	49	5.4748	49		49		69	
Feb-13	Ť.	1,040,000	φ.		\$ 521	5,443,600	· •	49	4.6205	s	5.2342	€9	1	€9		69	
Mar-13		1,170,000	<del>()</del>		\$ 88	6,229,900	•	49	4.6032	49	5.3247	€9	1	69		69	a
Apr-13	2019/000	880,000	9	N	\$ 502	4,579,900	· &	49	4.4080	\$	5.2044	€9		G		€9	1
May-13		640,000	•	Ť	340 \$	3,294,000	· •	₩.	4.4764	↔	5.1469	€9	•	€		€9	
Jun-13		520,000	4	-	\$ 8/	2,632,100	•	છ	4.3208	8	5.0617	↔		49	-1	€9	
Jul-13		410,000	'		\$ 998	2,071,100	•	↔	4.3698	s	5.0515	€9		€9		\$	.
Aug-13		370,000	<del>⇔</del> ·		\$ 000	1,824,900	9	↔	4.8688	€	4.9322	69		↔	ı	↔	,
Sep-13	18 250.00	290,000	'	Ť.	\$ 89	1,409,450	· &	↔	3.9868	↔	4.8602	€	1	<del>()</del>		↔	e
Cct-13		340,000	•		\$ 88	1,580,650	٠ &	49	3.9734	↔	4.6490	€		↔		↔	9
Nov-13	430,000	860,000	•	_	8 261	3,930,650	, &	છ	4.0198	↔	4.5705	↔	•	↔		8	
Dec-13	480,000	1,120,000	<del>()</del>	_	\$ 00	5,062,925	\$	4	4.1456	↔	4.5205	↔	1	€9		€9	,
Jan-14	480,000	1,240,000	•	-	\$ 001	5,240,500	s	↔	4.1446	₩	4.2262	₩	•	s		\$	
Feb-14	360,000	000,070,1	•	_	\$ 000	4,402,660	· &	↔	3.9667	↔	4.1146	↔		↔		↔	,
Mar-14	300,000	1,120,000	9	<del>-</del>	\$ 00	4,425,150	· •	↔	3.9170	↔	3.9510	↔	10	<del>⇔</del>	·	↔	ī.
Apr-14	160,000	760,000	•		\$ 00	2,774,950	· \$	S	3.7925	€9	3.6513	↔	•	↔		s	
May-14	90,000	560,000	•	eo ·	65	2,111,900	· •	69	3.7200	4	3.7713	↔		€9		↔	
Jun-14	20,000	440,000	8	185,000		1,626,900	•	↔	3.7000	<del>cs</del>	3.6975	69		€9		↔	,
Dec-14		ı	<del>()</del>		<b>⇔</b>		· •	₩		\$		₩	1	<del>G)</del>	e	8	

NEC Gas Cost Volatility Hedging

### nationalgrid

# NEC Gas Cost Volatility Hedging Summary

	<b>Cost</b> 5.883.970	5,803,400	4,647,950	6,492,695	14,086,295	17,070,165	18,594,620	16,602,515	16,743,615	12,251,815	8,248,550	6,123,375	4,666,530	4,360,690	4,670,990	4,897,280	10,422,001	13,715,928	14,773,096	12,204,145	11,914,604	8,581,321	5,652,006	4,351,604	3,285,372	2,476,470	2,759,801	2,568,621	5,856,858	7,253,598	7,389,703	5,949,413	5,678,823	3,456,123	2,483,400	1,811,900
	Total	<del>69</del>	s	₩	s	↔	<del>69</del>	↔	↔	↔	↔	ઝ	₩	s	s	s	s	↔	↔	↔	↔	<del>()</del>	<del>()</del>	↔	€	↔	↔	↔	↔	↔	ઝ	<del>()</del>	s	↔	↔	€
Average	Hedge Price <b>Total Cost</b> \$ 5.8085 \$ 5.88	5.9218	6.0207	6.2430	6.2412	6.3885	6.2777	6.0329	5.4557	5.0732	5.1715	5.1028	4.9121	4.8452	4.2081	4.3339	4.5912	4.6653	4.7965	4.6939	4.8433	4.6638	4.7898	4.7300	4.7614	4.8558	4.3806	4.3536	4.3708	4.3961	4.1987	4.0749	3.9436	3.6767	3.7627	3.6978
_ <	ΙΨ	-	97	0)	47	4)	<del>0)</del>	47	<del>0)</del>	<del>0)</del>	93	<del>0)</del>	<del>0)</del>	<del>0)</del>	<del>0)</del>	<del>0)</del>	<del>())</del>	<del>9)</del>	<del>()</del>	4)	<del>()</del>	<del>()</del>	<del>())</del>	4)	<del>6)</del>	↔	↔	↔	<del>69</del>	4)	<del>()</del>	<del>()</del>	<del>()</del>	↔	<del>()</del>	\$
Percentage	"Locked" 83%	%68	%88	87%	%88	%08	%98	%88	%66	93%	%56	91%	95%	144%	100%	%06	91%	95%	88%	85%	%62	73%	73%	72%	72%	95%	28%	48%	24%	51%	%09	48%	46%	37%	41%	39%
Monthly	"Locked" 1.013.000	980,000	772,000	1,040,000	2,257,000	2,672,000	2,962,000	2,752,000	3,069,000	2,415,000	1,595,000	1,200,000	950,000	000'006	1,110,000	1,130,000	2,270,000	2,940,000	3,080,000	2,600,000	2,460,000	1,840,000	1,180,000	920,000	000'069	510,000	630,000	290,000	1,340,000	1,650,000	1,760,000	1,460,000	1,440,000	940,000	000'099	490,000
(Dth)	Discretionary 163.000	202,000	166,000	94,000	138,000	281,000	454,000	532,000	619,000	656,000	260,000	160,000	160,000	190,000	300,000	360,000	450,000	640,000	640,000	510,000	360,000	370,000	110,000	60,000	000'09	000'09	20,000	20,000	20,000	20,000	40,000	30,000	20,000	20,000	10,000	•
HEDGED VOLUME (Dth)	Accelerated 480,000	470,000	470,000	290,000	1,510,000	1,700,000	1,670,000	1,500,000	1,670,000	970,000	740,000	540,000	420,000	400,000	300,000	540,000	950,000	1,110,000	1,190,000	1,040,000	1,170,000	880,000	640,000	520,000	410,000	370,000	290,000	340,000	860,000	1,120,000	1,240,000	1,070,000	1,120,000	760,000	260,000	440,000
HEDC	Mandatory 370,000	308,000	136,000	356,000	000,609	691,000	838,000	720,000	780,000	789,000	595,000	500,000	370,000	310,000	510,000	230,000	870,000	1,190,000	1,250,000	1,050,000	930,000	290,000	430,000	340,000	220,000	80,000	290,000	200,000	430,000	480,000	480,000	360,000	300,000	160,000	90,000	20,000
Volume *	Forecast (Dth) 1,213,899	1,104,835	878,854	1,193,508	2,455,700	3,151,800	3,437,900	3,125,600	3,103,900	2,596,800	1,681,300	1,316,800	1,035,100	624,600	1,104,500	1,251,200	2,489,600	3,204,700	3,506,300	3,056,700	3,105,800	2,535,400	1,621,700	1,273,300	964,700	555,100	1,068,800	1,219,500	2,472,600	3,205,200	3,508,900	3,058,400	3,130,700	2,546,000	1,611,900	1,243,200
	07/01/2011	08/01/2011	09/01/2011	10/01/2011	11/01/2011	12/01/2011	01/01/2012	02/01/2012	03/01/2012	04/01/2012	05/01/2012	06/01/2012	07/01/2012	08/01/2012	09/01/2012	10/01/2012	11/01/2012	12/01/2012	01/01/2013	02/01/2013	03/01/2013	04/01/2013	05/01/2013	06/01/2013	07/01/2013	08/01/2013	09/01/2013	10/01/2013	11/01/2013	12/01/2013	01/01/2014	02/01/2014	03/01/2014	04/01/2014	05/01/2014	06/01/2014

NEC Gas Cost Volatility Hedging

# NEC Gas Cost Volatility Hedging Summary

			PU	PURCHASE (USD)	<u>a</u>			Aver	age	Average Price (\$/Dth)	Oth)	
	Mar	Mandatory	Acc	Accelerated	Discre	Discretionary	Manc	Mandatory	Acce	Accelerated	Discr	Discretionary
07/01/2011	↔	2,034,650	s	3,084,500	↔	764,820	↔	5.4991	↔	6.4260	↔	4.6921
08/01/2011	8	1,704,360	↔	3,109,050	↔	066,686	↔	5.5336	<del>()</del>	6.6150	8	4.9009
09/01/2011	s	790,650	↔	3,062,050	↔	795,250	ઝ	5.8136	s	6.5150	↔	4.7907
10/01/2011	↔	2,035,140	↔	3,986,800	↔	470,755	↔	5.7167	↔	6.7573	↔	5.0080
11/01/2011	<del>()</del>	3,574,430	↔	9,795,450	↔	716,415	↔	5.8693	↔	6.4871	↔	5.1914
12/01/2011	s	4,304,790	↔	11,367,600	↔	1,397,775	↔	6.2298	<del>()</del>	6.6868	↔	4.9743
01/01/2012	↔	4,983,680	↔	11,361,150	↔	2,249,790	↔	5.9471	↔	6.8031	8	4.9555
02/01/2012	s	4,128,150	8	9,728,000	↔	2,746,365	છ	5.7335	<del>()</del>	6.4853	\$	5.1623
03/01/2012	s	4,143,680	↔	9,787,250	↔	2,812,685	ઝ	5.3124	ઝ	5.8606	↔	4.5439
04/01/2012	s	3,885,585	↔	5,431,650	↔	2,934,580	↔	4.9247	↔	5.5996	↔	4.4734
05/01/2012	ઝ	2,922,965	↔	4,133,550	ઝ	1,192,035	↔	4.9125	ઝ	5.5859	8	4.5848
06/01/2012	s	2,391,050	↔	2,972,800	↔	759,525	\$	4.7821	ઝ	5.5052	8	4.7470
07/01/2012	s	1,766,500	÷	2,207,900	<del>ss</del>	692,130	\$	4.7743	ઝ	5.2569	↔	4.3258
08/01/2012	s	1,477,450	<del>&amp;</del>	2,071,900	₩	811,340	ઝ	4.7660	<del>()</del>	5.1798	↔	4.2702
09/01/2012	s	2,001,900	↔	1,501,500	↔	1,167,590	↔	3.9253	↔	5.0050	↔	3.8920
10/01/2012	↔	942,700	↔	2,664,900	↔	1,289,680	↔	4.0987	<del>()</del>	4.9350	↔	3.5824
11/01/2012	↔	3,792,861	↔	4,987,250	↔	1,641,890	↔	4.3596	ઝ	5.2497	↔	3.6486
12/01/2012	s	5,396,228	↔	5,951,000	↔	2,368,700	↔	4.5346	↔	5.3613	↔	3.7011
01/01/2013	↔	5,826,236	↔	6,515,050	<del>()</del>	2,431,810	↔	4.6610	ઝ	5.4748	↔	3.7997
02/01/2013	s	4,851,475	↔	5,443,600	<del>s</del>	1,909,070	↔	4.6205	↔	5.2342	↔	3.7433
03/01/2013	↔	4,280,988	↔	6,229,900	↔	1,403,716	↔	4.6032	↔	5.3247	↔	3.8992
04/01/2013	↔	2,600,705	↔	4,579,900	↔	1,400,716	↔	4.4080	₩	5.2044	↔	3.7857
05/01/2013	S	1,924,840	↔	3,294,000	↔	433,166	ઝ	4.4764	ઝ	5.1469	↔	3.9379
06/01/2013	s	1,469,078	↔	2,632,100	<del>s</del>	250,426	s	4.3208	s	5.0617	ક્ક	4.1738
07/01/2013	↔	961,366	↔	2,071,100	<del>&amp;</del>	252,906	↔	4.3698	↔	5.0515	↔	4.2151
08/01/2013	↔	389,500	↔	1,824,900	↔	262,070	↔	4.8688	↔	4.9322	↔	4.3678
09/01/2013	↔	1,156,168	↔	1,409,450	↔	194,183	↔	3.9868	↔	4.8602	↔	3.8837
10/01/2013	↔	794,688	ઝ	1,580,650	<del>⇔</del>	193,283	↔	3.9734	છ	4.6490	↔	3.8657
11/01/2013	↔	1,728,495	↔	3,930,650	↔	197,713	↔	4.0198	↔	4.5705	↔	3.9543
12/01/2013	↔	1,989,900	↔	5,062,925	↔	200,773	↔	4.1456	↔	4.5205	↔	4.0155
01/01/2014	↔	1,989,400	છ	5,240,500	ઝ	159,803	↔	4.1446	↔	4.2262	ક્ર	3.9951
02/01/2014	↔	1,428,000	₩	4,402,660	↔	118,753	↔	3.9667	↔	4.1146	8	3.9584
03/01/2014	↔	1,175,100	↔	4,425,150	↔	78,573	↔	3.9170	ઝ	3.9510	↔	3.9287
04/01/2014	↔	606,800	↔	2,774,950	ઝ	74,373	ઝ	3.7925	ઝ	3.6513	s	3.7187
05/01/2014	↔ •	334,800	↔ ↔	2,111,900	↔ ↔	36,700	↔ (	3.7200	↔ (	3.7713	↔ ↔	3.6700
06/01/2014	€	185,000	€	1,626,900	€		89	3.7000	9	3.6975	æ	



Thomas R. Teehan Senior Counsel

June 1, 2012

### VIA HAND DELIVERY & ELECTRONIC MAIL

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

> RE: Docket 4038 – National Grid Natural Gas Portfolio Management Plan Annual Report – April 1, 2011 to March 31, 2012

Dear Ms. Massaro:

On behalf of National Grid¹ enclosed please find ten (10) copies of the Company's Annual Report of activity relating to the Natural Gas Portfolio Management Plan ("NGPMP"). This filing is also accompanied by 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 the identities of certain companies in order to protect their pricing information for delivered volumes that are identified in the report. Additionally, the Company seeks protected treatment for account numbers to the extent that they appear on the attachments to this filing. Consequently and pursuant to Commission rules, the Company has provided the Commission with one copy of the confidential materials for its review, and has otherwise included redacted copies of the plan.

In this docket, the Commission approved the NGPMP, which implemented changes in the management of the Company's Rhode Island gas portfolio. These changes were designed to provide various financial, regulatory and risk management benefits over the asset management arrangement which it replaced. One of those benefits was to encourage the Company to minimize gas costs to customers by combining a least-cost dispatch with an asset optimization program designed to obtain the maximum value from the Rhode Island gas supply portfolio resources. As part of the NGPMP, the Company is required to file quarterly and annual reports in order to provide transparency in measuring the Company's performance.

This annual report covers the measurement year April 1, 2011 through March 31, 2012.

The enclosed report provides a Monthly Summary which calculates the savings achieved based on supporting data contained in Attachments 1 through 9. The Monthly Report indicates that the preliminary estimate of savings for the period April 1, 2011 to March 31, 2012 of the

<sup>&</sup>lt;sup>1</sup> The Narragansett Electric Company d/b/a National Grid.

Luly E. Massaro, Commission Clerk NGPMP Annual Report Page 2 of 2

optimization program is \$5,498,990.90. The \$1 million guarantee has been achieved with excess earnings of \$4,498,990.90. The incentive to the Company is \$899,798.18 at this time.

Also enclosed as part of this filing is a discussion of the Monthly Summary Report by section that describes the entries in the Monthly Summary and traces the entries in that report to the sources from which they are derived.

Thank you for your attention to this filing. Please feel free to contact me if you have any questions at (401) 784-7667 or Stephen Mc Cauley at (516) 545-5403.

Very truly yours,

Thomas R. Teehan

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### **Enclosures**

cc: Docket 4038 Service List

Leo Wold, Esq.

Steve Scialabba, Division

### STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS RHODE ISLAND PUBLIC UTILITIES COMMISSION

Natural Gas Portfolio Management Plan Docket No. 4038

### NATIONAL GRID'S REQUEST FOR PROTECTIVE TREATMENT OF CONFIDENTIAL INFORMATION

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

### I. BACKGROUND

On June 1, 2012, National Grid filed with the Commission its Plan Results for April 1, 2011 to March 31, 2012 of activity undertaken in pursuing the Natural Gas Portfolio Management Plan that was approved by the Commission in Order No. 19627. This filing includes information relative to the identity of companies that discloses the names of the suppliers and the paid for the supplies purchased. These references occur in Attachment 2 ("Flowing Transaction Deal"), Attachment 4 ("Storage Injection

Transactions"), Attachment 7 ("Realized Financial Transactions"), and Attachment 8 ("Narragansett Mark to Market"). National Grid is seeking protective treatment with respect to the identities of those companies in order to protect the pricing information, which is competitively sensitive information.

### 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 Commission falls within one of the designated exceptions to the public records law, the Commission 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)(i)(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; or (2) to cause

<sup>&</sup>lt;sup>1</sup> The Narragansett Electric Company d/b/a National Grid ("National Grid or "the Company").

substantial harm to the competitive position of the person from whom the information 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. <u>Providence Journal</u>, 774 A.2d at 47.

In addition, the Court has held that the agencies making determinations as to the disclosure of information under APRA may apply the balancing test established in <u>Providence Journal v. Kane</u>, 577 A.2d 661 (R.I.1990). Under that balancing test, the Commission may protect information from public disclosure if the benefit of such protection outweighs the public interest inherent in disclosure of information pending before regulatory agencies.

### II. BASIS FOR CONFIDENTIALITY

The Company has redacted the names of the companies from which purchases were made in order to protect the pricing information for those companies. Were this information revealed, those companies could be harmed in future negotiations with other parties. Public dissemination of this type of information could disincline these and other companies to deal with National Grid or to provide National Grid with their lowest prices. Thus, the absence of confidential treatment would negatively influence National Grid's ability to negotiate with these and other similar companies and to receive least cost pricing

Attachment SAM-3 Docket No. 4346 September 4, 2012 Page 6 of 13

III. CONCLUSION

Accordingly, the Company requests that the Commission grant protective

treatment to those previously identified portions of its Natural Gas Portfolio Procurement

Plan Results for April 1, 2011 to March 31, 2012.

WHEREFORE, the Company respectfully requests that the Commission grant

its Motion for Protective Treatment as stated herein.

Respectfully submitted,

**NATIONAL GRID** 

By its attorney,

Thomas R. Teehan, Esq. (RI Bar #4698)

H Tucken

National Grid

280 Melrose Street

Providence, RI 02907

(401) 784-7667

Dated: June 1, 2012

**-**4-

Attachment SAM-3 Docket No. 4346 September 4, 2012 Page 7 of 13

The Narragansett Electric Company d/b/a National Grid R.I.P.U.C. Docket No. 4038 Natural Gas Portfolio Management Plan Results Annual Report Page 1 of 5

National Grid
Natural Gas Portfolio Management Plan Report
Annual Report
Plan Results for April 1, 2011 to March 31, 2012

### Introduction

In Docket 4038 the Commission approved a new approach to the management of the gas supply portfolio called the Natural Gas Portfolio Management Plan (NGPMP). One of the conditions included in that filing was a requirement that the Company file reports on the results of the Plan each quarter and annually and that the filings provide sufficient detail and transparency for the Commission and Division to determine the reasonableness and appropriateness of the costs associated with asset management transactions.

The Commission's order in this docket requires the Company to provide in the Annual Report the information suggested by Mr. Oliver in his testimony. In addition to the detailed information on each optimization transaction included with each quarterly report and also attached to this report, Mr. Oliver requested that annual reports contain information on the assignment of the Service Company costs associated with asset management activities allocated to the Narragansett Electric Company. Essentially, 8.21% of the full cost of the energy transactions team is allocated to the Narragansett Electric Company's Gas Division (NEC-Gas) based on a three point allocation methodology that is updated each year. The 8.21% allocation is derived based on NEC Gas' share of revenue, payroll and assets as compared to the total for all National Grid USA gas utilities with each component given an equal weight. The Energy Transaction team FTE count did not change from last years report.

The goal of the NGPMP is to minimize gas costs to customers by encouraging the Company to obtain as much value as possible from the Rhode Island gas supply portfolio assets. In order to measure the impact of the Company's efforts to optimize the value of the portfolio, the NGPMP establishes two benchmarks that exactly parallel the approach used in its past contracting for asset management services.

The first benchmark is built on the concept of least cost dispatch and focuses on the optimization of flowing supply. It provides that as the starting point for the management of flowing supplies, the Company will set up its dispatch of supply resources for each month and each day so that it utilizes the lowest cost flowing supplies available from its existing supply portfolio in the same fashion it would have if it used an asset manager (Attachment 6).

Attachment SAM-3 Docket No. 4346 September 4, 2012 Page 8 of 13

The Narragansett Electric Company d/b/a National Grid R.I.P.U.C. Docket No. 4038 Natural Gas Portfolio Management Plan Results Annual Report Page 2 of 5

The second benchmark is used to measure the effectiveness of the Company's efforts to minimize the cost of supply injected into storage and is also drawn directly from the asset management contracting approach. This benchmark has as its starting point the concept that storage will be filled based on uniform monthly injections over the full seven months of the injection season. To the extent the Company can reduce the cost of supplies injected into storage from that injection schedule it provides savings to customers. In order to be certain customers will benefit from the injection optimization transactions in spite of significant movements up or down in natural gas prices, the Company puts hedge positions in place to guarantee their effectiveness. These hedge positions cover price changes within the injection season and thus are short term in nature and also completely unrelated to the hedge positions utilized in the execution of the Gas Purchase Incentive Program.

### **Monthly Summary Report**

The report consists of a series of attachments that begins with the Monthly Summary Report (Attachment 1) which provides an overview of the results followed by additional attachments that provide detailed support for the information in the Monthly Summary Report. The Monthly Summary Report is divided into two sections. Section 1 shows the results from the Company's efforts to optimize flowing supply while Section 2 shows the results from optimizing the purchase of gas injected into storage. Section 2 is, itself, divided into 3 parts with 2a showing the injection cost and 2b and 2c showing the hedging results broken down into those that have been realized and those that will occur in the future and are, as yet, unrealized.

### Section 1 Flowing Supply/Storage Withdrawals

This Section shows the calculation of the savings to customers generated by the Company's optimization activities as it purchases supplies for delivery to the city gate. The calculation starts with the total actual cost of all flowing supplies for each month. That cost is subtracted from the sum of those purchases made to support sales to third parties as part of optimization transactions and the cost of supply for customers calculated using the least cost dispatch for the monthly and daily supplies delivered to the RI gas system. This difference is the savings generated by the optimization transactions executed during each month as flowing supplies were purchased and sales were made to third parties to generate revenues.

The costs for each supply purchase are the actual delivered costs including both the supply acquisition cost and any pipeline related charges for the volumes purchased during

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the month. The purchases included in the actual delivered cost are both the supplies needed to support third party sales and the gas supplies delivered to the citygate for the firm sales customers. As part of the optimization process, the Company purchases supplies to reduce overall costs and it is common for specific supply purchases to be used to meet a different need than that for which they were initially purchased. For instance volumes that were purchased to meet a third party sale may have been injected into storage if that resulted in a lower overall cost for all supply purchases. When the schedulers transport the purchase volumes to meet the various demands, such as storage injections, baseload, swing or sales, they look to move the volumes most efficiently. The Actual Flowing Cost also includes any storage withdrawals delivered to the firm customers at the delivered weighted average cost of supply (WACOG) based on the benchmark dispatch.

The actual flowing supply costs are listed by transaction on the Flowing Transaction Detail Report (Attachment 2). Third Party sales are the aggregate monthly sales volume and revenue associated with sales off system. The revenue for each deal is also listed in the Flowing Transaction Deal Report.

The Flowing Transaction Deal (FTD) Report shows for each month all gas purchases and storage withdrawals. In the January section of the report the total 4,470,341 dekatherms and \$15,870,067.75 of purchases are shown as the sub-total for the month and can also be found in the Monthly Summary Report under the Actual Flowing Cost for Jan-12. The report shows city-gate purchases, those purchases entered into as part of optimization transactions and any storage withdrawals. It ties directly to the Company's booked gas cost payable amount. The second part of the FTD Report for January shows the revenue from off-system sales which is also shown on the Monthly Summary Report under the 3rd Party Sales column.

The Customer Cost, or dispatch cost, is calculated as the product of the price and volume received each day by the firm sales customers based on the least cost dispatch structure. The cost of the supplies for customers for each day is shown in the attached Customer Transaction Summaries (Attachments 3) for the months of April 2011 through March 2012. For example, the volume and cost shown in the Customer Cost section of Attachment 1 for April 2011 are from Attachment 3a, which shows that the total delivered volume was 1,864,016 DT and the total delivered cost was \$8,651,680.50. The detail provided in the Customer Transaction Summaries includes the price and volume by delivering pipeline with a breakdown into baseload purchases, swing purchases and storage withdrawals.

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### Section 2a Storage Injections

This section shows the actual storage costs and volumes based on the optimized storage fill and the benchmark inventory cost based on the planned storage fill using a ratable, one-seventh per month approach as has been used in past asset management arrangements. The costs for the purchase of supply for injection are the actual delivered costs for the volumes purchased during the month and scheduled to be injected into the storage fields. Similar to the flowing costs, the volumes purchased and scheduled for injection may not be the specific volumes purchased for injection. The actual cost of injections into the storage fields is shown by transaction on the Storage Injection Transaction Deal report (Attachment 4).

The Customer Inventory Cost is the monthly ratable injection volume and price. It is the benchmark for measurement of the savings to customers from optimized storage fill. Attachment 5 lists the actual and Customer and Inventory Costs by storage field.

### Section 2b Realized Hedging Impact on Storage Transactions

Realized hedging gains/losses are calculated based on the final monthly settlements of any financial transactions that were used to hedge forward transactions designed to lock in cost savings for supplies injected into storage. These gains or losses are separated here but are already included in actual costs in Section 1. The realized financial transactions are listed in Attachment 7.

### Section 2c Unrealized Hedging Impact on Storage Transactions

Unrealized activity represents the results of the forward transactions that have not been financially settled or physically delivered. At the end of the fiscal year the unrealized Mark to Market value, as calculated on March 31, 2011, was booked to earnings for the April 2010 through March 2011 period. As this unrealized value, as of March 31, 2011, was realized in the April 2011 through March 2012 period it was reversed from the April 2010 through March 2011 earnings so that it was not double counted. This value was \$77,925.05 and was recovered over the course of the April 2011 to March 2012 fiscal year. The storage long/short position is the excess gas that was injected into the storage capacity that is not currently being used by the firm sales customers. The MTM is the mark to market position of the financial and physical transactions that were executed to lock in margins (savings).. (Attachment 8) The Physical Storage Value is the difference in the inventory cost of the actual inventory and the Benchmark inventory. (Attachment

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5) The Forward Storage Value is the value of the excess gas in storage when there is more gas in inventory then the benchmark inventory, or the forecasted replacement cost, when there is less gas in inventory than the benchmark inventory. These forward values are priced based on the future markets. The future carry costs on storage inventory are estimated for the remaining months of the fiscal year. The cost of collateral on the settled derivative positions is calculated to adjust the realized gains by the carry costs associated with financial storage hedges. The Mark to Market value calculated on March 31 is also decayed for the seven summer months as recovered and the cost of collateral associated with the early payment of this value is also captured as a cost of carry at the applicable monthly tariff rate currently at 9.925%. The posted collateral associated with trading clearport futures is added into the cost of carry calculation at the monthly money pool rate. (Attachment 9) The total unrealized value is the net value of the future activity; financial hedges, cost of excess gas in storage and expected forward value at market prices, adjusted for the earnings already booked in the previous contract year.

### Position and Margin Sharing

The last section on the Monthly Summary Report is a calculation of the total savings to customers under the Plan and any incentive earned by the Company. This total is the sum of the Savings from Section 1 and the Total Unrealized value shown at the end of Section 2c. Any realized savings from storage activity is embedded in the Section 1 flowing supply activity which includes the impact of any optimization hedges for months where the NYMEX contract has closed.

The final value of the savings from all optimization transactions, as shown on page 2, is \$5,498,990.90. This value is currently \$4,498,990.90 more than the \$1,000,000 guaranteed to customers. This amount of savings would be split with the customer's receiving \$3,599,192.72 plus the \$1,000,000 guaranteed amount and the Company receiving \$899,798.18.

Attachment 1

Narragansett Monthly Summary National Grid Natural Gas Portfolio Management Plan As of 3/31/2012

### 1) FLOWING SUPPLY /STORAGE WITHDRAWAL

Month	Actual	Flowing Cost	3rd	Party Sales	Cus	tomer Costs		Earnings
	VOLUME	\$	VOLUME	\$	VOLUME	\$	士	
Apr-11	2,734,806	\$ 12,493,857.71	870,790	\$ 4,199,853.87	1,864,016	\$ 8,651,680.50	\$	357,676.66
May-11	1,965,022	\$ 9,175,650,51	995,739	\$ 4,692,801.31	969,283	\$ 4,607,279.18	\$	124,429.98
Jun-11	1,542,024	\$ 7,256,269.73	880,625	\$ 4,391,764.88	661,402	\$ 3,084,031.35	\$	219,526.50
Jul-11	2,217,766	\$ 10,338,727.59	1,634,705	\$ 8,649,828.91	583,058	\$ 2,701,775.87	\$	1,012,877.19
Aug-11	1,919,135	\$ 8,404,546.67	1,356,506	\$ 6,001,705.54	562,627	\$ 2,577,481,09	\$	174,639,89
Sep-11	1,787,541	\$ 7,317,624.49	1,214,993	\$ 5,004,653.52	572,549	\$ 2,344,334.38	\$	31,363.41
Oct-11	2,011,583	\$ 7,765,656.46	935,281	\$ 3,652,770.00	1,076,300	\$ 4,334,803.76	\$	221,917.30
Nov-11	3,230,533	\$ 11,645,998.56	1,281,437	\$ 4,968,299.36	1,949,096	\$ 7,425,435.85	\$	747,736.65
Dec-11	4,034,182	\$ 14,909,756.17	4,034,182	\$ 3,021,983.11	3,269,395	\$ 12,467,547.81	\$	579,774.75
Jan-12	4,470,341	\$ 15,870,067.75	503,209	\$ 2,228,593.64	3,967,132	\$ 14,619,132.23	\$	977,658.12
Feb-12	3,870,951	\$ 11,855,342.17	349,911	\$ 1,178,286,98	3,521,040	\$ 11,137,394.05	\$	460,338.86
Mar-12	2,965,396	\$ 8,346,053.53	2,965,396	\$ 1,487,613.26	2,466,096	\$ 7,240,492.53	\$	382,052.26
Total	32,749,279	\$ 125,379,551.34	17,022,774	\$ 49,478,154.38	21,461,994	\$ 81,191,388.60	\$	5,289,991.57

### 2a) STORAGE INJECTION

Month		Storage Costs	Customer	Inventory Costs
	VOLUME	\$	VOLUME	\$
Apr-11	502,649	\$ 2,268,9	918.98 462,644	\$ 2,126,66
May-11	465,806	\$ 2,181,3	390.20 420,856	\$ 1,997,8
lun-11	364,391	\$ 1,687,5	582.31 434,910	\$ 2,022,9
lul-11	312,554	1,46	62,025 448,818	\$ 2,105,0
Aug-11	457,153	\$ 2,147,5	583.01 362,247	\$ 1,717,69
Sep-11	663,839	\$ 2,693,1	165.50 450,450	\$ 1,872,9
Oct-11	358,206	\$ 1,406,7	793,73 495,254	\$ 1,985,1
Nov-11	113,581	\$ 427,2	205.28 68,425	\$ 1,187,56
Dec-11	186,291	\$ 691,1	157.83 90,072	\$ 326,4
Jan-12	249,388	\$ 840,0	061.39 91,118	\$ 303,09
eb-12	118,365	\$ 316,7	714.07	\$ 188,4
Mar-12	297,135	\$ 745,2	265.35 141,642	\$ 377,18
Total	4,089,359	\$ 16,867,8	862.69 3,531,302	\$ 16,210,89

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Attachment 1

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### 2b) REALIZED HEDGING

Month	Hedging Gair	n/(Loss)*	_
Apr-11	\$	19,090.44	_
May-11	\$	1,392.79	
Jun-11	\$	784.99	
Jul-11	\$	(1,246.71)	
Aug-11	\$	15,917.36	
Sep-11	\$	(102,533.52)	
Oct-11	\$	11,085.78	
Nov-11	\$	(1,909.00)	
Dec-11	\$	(18,228.00)	
Jan-11	\$	-	
Feb-11	\$	-	
Mar-11	\$	97	
Total	s	(75,645.87)	_

<sup>\*</sup> Realized hedging gains and losses are included monthly in 3rd party sales dollars

### 2c) UNREALIZED ACTIVITY

Storage position long/(short) (dt)
Contract Year 2010-2011 Value Booked to Earnings (MTM at 3/31/2011)
MTM (Financial and Physica) as of March 28th, 2012
Physical Storage Value as of March 28th, 2012
Forward Storage Val

373,169
\$ 77,925.05
\$ 342,690.12
\$ (1,200,508.02)
\$ 988,892.19

### TOTAL UNREALIZED VALUE

TOTAL REALIZED AND UNREALIZED VALUE

MARGIN SHARING

Customer Guarantee Customer Excess Earnings National Grid Incentive 208,999.33

\$ 5,498,990.90

\$ 1,000,000.00 \$ 3,599,192,72 \$ 899,798,18