

October 3, 2017

**VIA HAND DELIVERY & ELECTRONIC MAIL**

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

**RE: Docket 4708 - 2017 Distribution Adjustment Charge  
Responses to Division Data Requests – Set 3**

Dear Ms. Massaro:

Enclosed please find 10 copies of National Grid's<sup>1</sup> responses to the third set of data requests issued by the Rhode Island Division of Public Utilities and Carriers in the above-referenced docket.

Thank you for your attention to this matter. If you have any questions, please contact me at 401-784-7415.

Very truly yours,



Robert J. Humm

Enclosures

cc: Docket 4708 Service List  
Leo Wold, Esq.  
Steve Scialabba, Division  
Bruce Oliver, Division

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

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.



\_\_\_\_\_  
Joanne M. Scanlon

October 3, 2017  
Date

**Docket No. 4708 – National Grid –2017 Annual Distribution Adjustment  
Charge Filing (DAC) - Service List as of 10/3/17**

<b>Name/Address</b>	<b>E-mail</b>	<b>Phone</b>
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<b>File an original &amp; nine (9) copies w/:</b> Luly E. Massaro, Commission Clerk	<a href="mailto:Luly.massaro@puc.ri.gov">Luly.massaro@puc.ri.gov</a> ;	401-780-2107
	<a href="mailto:Patricia.lucarelli@puc.ri.gov">Patricia.lucarelli@puc.ri.gov</a> ;	

Public Utilities Commission 89 Jefferson Blvd. Warwick, RI 02888	<a href="mailto:Sharon.ColbyCamara@puc.ri.gov">Sharon.ColbyCamara@puc.ri.gov</a> ;	
	<a href="mailto:Todd.bianco@puc.ri.gov">Todd.bianco@puc.ri.gov</a> ;	
	<a href="mailto:Margaret.hogan@puc.ri.gov">Margaret.hogan@puc.ri.gov</a> ;	

Division 3-1

Request:

Re: The August 1, 2017 Direct Testimony of Witness Ann E. Leary at page 18, lines 8 through 12, please:

- a. Provide the rationale for why the Company does not believe that a transfer is warranted for smaller customers;
- b. Provide the number of customer identified as eligible for transfer that would warrant the transfer between the four Residential rate classes;
- c. Provide the number of customers identified as eligible for transfer that would warrant the transfer between the Commercial rate classes.

Response:

- a. The Company does not believe a transfer of its Gas Infrastructure, Safety, and Reliability (ISR) Plan reconciliation revenues is warranted for smaller customers because the impact from a transfer of such customers would be minimal. The Company allocates the revenue requirement associated with its ISR Plan reconciliation to each rate class utilizing a rate base allocator derived from the Company's Allocated Cost of Service Study (ACOSS) in its last general rate case, Docket No. 4323. This rate base allocator remains constant until the effective date of the Company's next general rate case filing. Traditionally, small movements of customers between rate classes may occur subsequent to a rate year presented in a general rate case and will have minimal impact on the amount of costs allocated to each rate class. However, if large migration occurs among rate classes subsequent to the last general rate case, then the rate base allocator developed in that rate case's final ACOSS does not appropriately assign the costs to each rate class based upon the rate class's current customer base. This was the case with the transfer of residential customers between the Residential Non-Heating and Residential Heating rate classes. In Schedule AEL-8, page 2, the Company compared the forecasted usage with the actual usage for the Residential Non-Heating rate class and multiplied the difference by the approved fiscal year (FY) 2017 ISR factor (excluding the uncollectible gross-up) to identify the amount of revenue not recovered from the Residential Non-Heating rate class due to the significant decrease in annual usage brought on by the transfer of customers from the Non-Heating rate classes to the Heating rate classes. In Attachment DIV 3-1, the Company presents the same analysis for all rate classes, including the

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Commercial rate classes. The only revision the Company made to this calculation was to weather normalize the actual usage of the rate classes that are weather dependent (i.e., Residential Heating; Small, Medium, and Large Low Load Factor; and Extra Large Low Load Factor rate classes). Similar to Exhibit AEL-8, page 2, the Company compared the forecast throughput for April 2016 through March 2017 with the actual weather normalized throughput for the same period and multiplied the difference by the approved FY 2017 ISR factor, excluding the uncollectibles gross-up. The Company then divided the revenue difference by the forecasted 2017-18 annual throughput to determine the overall per unit impact. As shown in Attachment DIV 3-1, the impact on the Residential Non-Heating rate class (\$0.089 per therm) was approximately 10 times larger than the impact from any other rate class, including any Commercial rate class. Therefore, the Company concluded that the impact from a transfer of customers between Commercial rate classes would be minimal and not warranted at this time.

- b&c. The table below compares the number of Residential and Commercial customers during the Docket No. 4323 rate year (February 2013 through January 2014) with the actual number of customers as of August 2017. This table also indicates the percentage distribution of customers across all rate classes for both periods. As demonstrated below, the number of Residential Non-Heating customers as a percentage of total customers has decreased by more than 2%, while the number of total Commercial customers as a percentage of total customers has changed by less than 0.1% over the same time period. As a result, the transfer of Commercial customers after the rate year will have insignificant impact on the rate base allocator used to allocate the revenue requirement associated with the ISR Plan. Therefore, the Company did not propose any adjustments to the allocation of the reconciliation balance of the ISR Plan for Commercial customers.

The Narragansett Electric Company  
d/b/a National Grid  
RIPUC Docket No. 4708  
2017 Distribution Adjustment Charge Filing  
Responses to Division's Third Set of Data Requests  
Issued September 8, 2017

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	Rate Year					
	Dk 4323	Rate Year	Aug-2017	Aug-2017	No. Cust	%Total
	No. Cust	%Total	No. Cust	%Total	Variance	Variance
Residential Non Heat	23,978	9.56%	19,387	7.34%	(4,591)	2.2%
Residential Heat	203,171	81.02%	220,400	83.40%	17,229	-2.4%
Small C&I	18,328	7.31%	18,668	7.06%	340	0.2%
Medium C&I	4,599	1.83%	5,056	1.91%	458	-0.1%
Large Low Load Factor C&I	410	0.16%	455	0.17%	45	0.0%
Large High Load Factor C&I	159	0.06%	187	0.07%	28	0.0%
XLarge Low Load Factor C&I	31	0.01%	32	0.01%	1	0.0%
XLarge High Load Factor C&I	79	0.03%	84	0.03%	5	0.0%
Total	250,754	100.00%	264,269	100.00%	13,515	0.0%

			April 16-March 17	Percent of
			Dktherm	Total
<b>Projected Firm Throughput</b>				
(1)	Res-NH	DK 4590 Attachment 4 Section 1 Compliance Filing	680,857	1.7%
(2)	Res-H	DK 4590 Attachment 4 Section 1 Compliance Filing	18,618,817	46.8%
(3)	Small	DK 4590 Attachment 4 Section 1 Compliance Filing	2,744,538	6.9%
(4)	Medium	DK 4590 Attachment 4 Section 1 Compliance Filing	6,208,427	15.6%
(5)	Large LL	DK 4590 Attachment 4 Section 1 Compliance Filing	2,976,064	7.5%
(6)	Large HL	DK 4590 Attachment 4 Section 1 Compliance Filing	1,217,231	3.1%
(7)	XL-LL	DK 4590 Attachment 4 Section 1 Compliance Filing	1,289,288	3.2%
(8)	XL-HL	DK 4590 Attachment 4 Section 1 Compliance Filing	6,070,062	15.2%
(9)	Total		39,805,284	100%
<b>Actual Firm Throughput</b>				
(1)	Res-NH	Schedule AEL-8 pg 2	427,078	1.1%
(2)	Res-H	Schedule AEL-8 pg 2	17,975,374	48.2%
(3)	Small	Schedule AEL-8 pg 2	2,268,355	6.1%
(4)	Medium	Schedule AEL-8 pg 2	5,342,780	14.3%
(5)	Large LL	Schedule AEL-8 pg 2	2,614,904	7.0%
(6)	Large HL	Schedule AEL-8 pg 2	1,100,737	3.0%
(7)	XL-LL	Schedule AEL-8 pg 2	1,210,985	3.3%
(8)	XL-HL	Schedule AEL-8 pg 2	6,317,187	17.0%
(9)	Total		37,257,399	100%
<b>Weather Normalize Throughput to remove "Weather Impact"</b>				
<b>Weather Adj Load</b>				
(10)	Res-NH		427,078	1.1%
(11)	Res-H		19,067,394	48.9%
(12)	Small		2,417,999	6.2%
(13)	Medium		5,613,827	14.4%
(14)	Large LL		2,797,945	7.2%
(15)	Large HL		1,100,737	2.8%
(16)	XL-LL		1,280,176	3.3%
(17)	XL-HL		6,317,187	16.2%
(18)	Total		39,022,342	100%
<b>Variance ( Forecast less Weather Normalized Actual)</b>				
(19)	Res-NH	Line 1 - Line 10	253,779	
(20)	Res-H	Line 2 - Line 11	(448,577)	
(21)	Small	Line 3 - Line 12	326,539	
(22)	Medium	Line 4 - Line 13	594,601	
(23)	Large LL	Line 5 - Line 14	178,119	
(24)	Large HL	Line 6 - Line 15	116,494	
(25)	XL-LL	Line 7 - Line 16	9,112	
(26)	XL-HL	Line 8 - Line 17	(247,124)	
(27)	Total		782,942	
<b>FY 17 ISR Factors without Uncollectible</b>				
(28)	Res-NH	DK 4590 Attachment 4 Section 1 Compliance Filing	\$1,384	
(29)	Res-H	DK 4590 Attachment 4 Section 1 Compliance Filing	\$0,841	
(30)	Small	DK 4590 Attachment 4 Section 1 Compliance Filing	\$0,760	
(31)	Medium	DK 4590 Attachment 4 Section 1 Compliance Filing	\$0,561	
(32)	Large LL	DK 4590 Attachment 4 Section 1 Compliance Filing	\$0,521	
(33)	Large HL	DK 4590 Attachment 4 Section 1 Compliance Filing	\$0,497	
(34)	XL-LL	DK 4590 Attachment 4 Section 1 Compliance Filing	\$0,163	
(35)	XL-HL	DK 4590 Attachment 4 Section 1 Compliance Filing	\$0,169	
<b>Difference in Revenue</b>				
(36)	Res-NH	Line 28 * Line 19	\$351,230	
(37)	Res-H	Line 29 * Line 20	(\$377,253)	
(38)	Small	Line 30 * Line 21	\$248,170	
(39)	Medium	Line 31 * Line 22	\$333,571	
(40)	Large LL	Line 32 * Line 23	\$92,800	
(41)	Large HL	Line 33 * Line 24	\$57,897	
(42)	XL-LL	Line 34 * Line 25	\$1,485	
(43)	XL-HL	Line 35 * Line 26	(\$41,764)	
(44)	Total		\$666,136	
<b>2017-18 Projected Annual Throughput</b>				
(45)	Res-NH	Schedule AEL-8 page 1		
(46)	Res-H	Schedule AEL-8 page 1	3,937,079	
(47)	Small	Schedule AEL-8 page 1	190,612,472	
(48)	Medium	Schedule AEL-8 page 1	24,734,065	
(49)	Large LL	Schedule AEL-8 page 1	54,603,041	
(50)	Large HL	Schedule AEL-8 page 1	26,654,144	
(51)	XL-LL	Schedule AEL-8 page 1	12,243,549	
(52)	XL-HL	Schedule AEL-8 page 1	12,633,704	
(53)	Total		69,418,247	
<b>Rate Impact</b>				
(54)	Res-NH	Line 36 * Line 45	\$0,089	
(55)	Res-H	Line 37 * Line 46	(\$0,002)	
(56)	Small	Line 38 * Line 47	\$0,010	
(57)	Medium	Line 39 * Line 48	\$0,006	
(58)	Large LL	Line 40 * Line 49	\$0,003	
(59)	Large HL	Line 41 * Line 50	\$0,005	
(60)	XL-LL	Line 42 * Line 51	\$0,000	
(61)	XL-HL	Line 43 * Line 52	(\$0,001)	

Division 3-2

Request:

Re: The September 1, 2017 Supplemental Direct Testimony of Witness Leary at page 4, lines 4 through 6 please:

- a. Provide the percent of contracted firm gas supply deliverability at the Crary Street Gate Station that is anticipated to be used for maintenance of system pressure;
- b. Provide the anticipated monthly and annual volumes of gas delivered to the Crary Street Gate Station that are expected to be used to maintain system pressure;
- c. Provide actual volumes of gas by month that has been required to maintain system pressure over the last 5 years.

Response:

- a. 100% of the contracted firm gas supply delivered at the Crary Street Gate Station is anticipated to be used for maintenance of system pressure.
- b. The table below shows anticipated monthly and annual volumes of gas delivered to the Crary Street Gate Station expected to be used to maintain system pressure based on the June 2017 Analytics and Modeling gas sendout forecast. Such volumes are derived from a gas network modeling analysis and do not account for the inventory of liquefied natural gas (LNG) in the Providence tank belonging to the Boston Gas Company (Boston Gas) and Consolidated Edison (Con Ed), which can be nominated for vapor service at any time regardless of the supply or pressure requirements of The Narragansett Electric Company's (Narragansett) distribution system. By way of further response, please see the response to Division 3-2(c).

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<b>Crary St Gate Station</b>	
<b>Month</b>	<b>Flow (Dth)</b>
November	31,293
December	164,031
January	155,685
February	165,384
March	94,098
April	15,579
<b>Annual</b>	<b>626,070</b>

- c. The actual monthly volumes of gas supplied from the LNG facility in Providence required to maintain system pressure over the last five years is variable for the following reason.

Typically, a LNG plant operated by a National Grid-affiliated company (National Grid-affiliated LNG plant) is used to serve a National Grid-affiliated distribution system that is physically connected to the outlet of the LNG plant. This is the case for all National Grid-affiliated LNG plants, except for the LNG facility in Providence owned by National Grid LNG LLC. The inventory in the Providence LNG plant is allocated to the following three different companies: (1) Narragansett, (2) Boston Gas, and (3) Con Ed. Each of those companies has the ability to schedule vapor service from the Providence plant at any time.

The inventory belonging to Narragansett is generally dispatched like a typical National Grid-affiliated LNG plant, such that it would be nominated either for supply needs or pressure support. The inventory belonging to Boston Gas and Con Ed can be nominated for vapor service at any time regardless of the supply or pressure requirements of the Narragansett distribution system. Because of this, any time that the LNG plant comes on line to provide vapor service for Boston Gas or Con Ed, National Grid is unable to determine what the pressure requirement may have been for Narragansett on such days.

Division 3-3

Request:

Re: The September 1, 2017 Supplemental Direct Testimony of witness Ann E. Leary at page 4, lines 11 through 14, and at page 4, line 20, to page 5, line 3, please verify that going forward there is no part of the Company's system for which LNG will be utilized to maintain system pressure.

Response:

The liquefied natural gas (LNG) facility at Allens Avenue in Providence will no longer be required for maintaining system pressure. The Company's distribution system will continue to utilize LNG to maintain system pressure in the Southern Rhode Island region (i.e., Washington County) from the Exeter LNG facility.

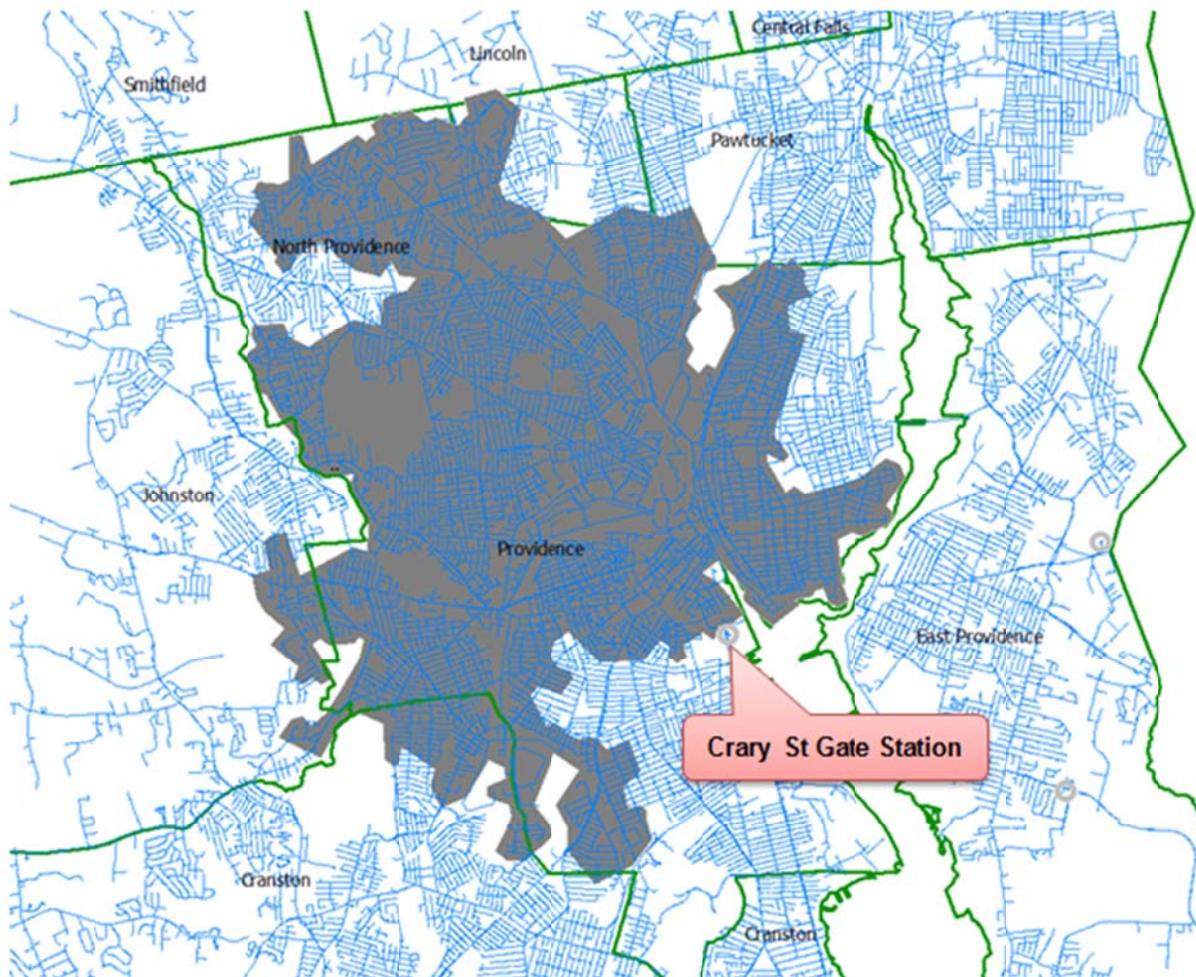
Division 3-4

Request:

Re: The September 1, 2017 Supplemental Direct Testimony of witness Ann E. Leary at page 4, lines 11 through 14, and at page 4, line 20, to page 5, line 3, please provide a map showing all areas of the Company's system that will be directly served by gas delivered to the Crary Street Station.

Response:

The map below displays the region of the Company's distribution system that will be directly served by gas delivered to the Crary Street Gate Station.



Division 3-5

Request:

Re: The September 1, 2017 Supplemental Direct Testimony of Ann E. Leary at page 5, lines 7 through 15, please:

- a. Provide the workpapers, analyses, and supporting documents relied upon to determine the approximately \$0.4 million reduction in LNG commodity costs;
- b. Verify that the Company's overall projected LNG commodity costs for the 2017-2018 GCR year are approximately \$0.4 million higher than the LNG commodity costs the Company projected in its 2016-2017 GCR filing;
- c. Provide the workpapers, analyses, and supporting documents that justify the approximately \$0.9 million or 38% increase in annual demand costs allocated to the DAC for the 2017-2018 DAC period when compared to the comparable costs reflect in the Company's 2016-2017 Supplemental DAC filing, Schedule SLN-2S;
- d. Indicate whether the Company anticipates a change in the expected volumes of LNG required on an annual basis to maintain system pressure of greater than 15%. If not, please:
  - i. Provide the data, analyses and studies relied upon to justify an increase of approximately \$0.9 million or 38% increase in annual system pressure costs;
  - ii. Provide justification for the increase in the costs to maintain system pressure that results from the Company's shift from reliance on LNG to reliance of pipeline gas delivered through the Crary Street Gate Station.

Response:

- a. The approximately \$0.4 million reduction in LNG commodity costs can be found in Docket No. 4719, Schedule AEL-2, page 1, line 23. This represents the cost associated with the incremental amount of LNG commodity which exceeds the forecasted requirement under normal weather conditions for the period November 2016 through March 2017. This methodology was approved in the Company's settlement agreement in Docket No. 4339. See Attachment DIV 3-5(a) for the calculation of the reduction in LNG commodity costs.

Division 3-5, page 2

- b. As described in response to Division 3-5(a), the \$0.4 million in LNG commodity savings is a result of the elimination of the LNG commodity calculation described in the Settlement Agreement in Docket No. 4339, and is not related the LNG commodity costs for periods 2016-17 and/or 2017-18. However, the LNG commodity costs found in Attachment NGC-1S to the pre-filed direct testimony of Nancy G. Culliford in this year's Gas Cost Recovery (GCR) filing in Docket No. 4719 are approximately \$0.4 million higher than the forecasted LNG commodity costs found in Attachment EDA-1 Revised to the pre-filed direct testimony of Elizabeth D. Arangio in last year's GCR filing in Docket No. 4647.
- c. Although the Company estimated an increase of \$0.9 million in demand costs allocated to the Distribution Adjustment Charge (DAC) for System Pressure, the Company also projected commodity savings of \$0.4 million, resulting in a net increase of \$0.5 million in System Pressure costs. See Attachment DIV 3-5(c) for the derivation of the \$0.9 million increase in demand costs associated with the System Pressure allocated to the DAC.
- d. Yes, the Company anticipates a change resulting in a reduction of greater than 15% in expected volumes of LNG required on an annual basis to maintain system pressure from the Providence LNG facility. With the addition of Crary Street, the Company does not anticipate using any LNG for system pressure from the Providence LNG facility, resulting in a change (reduction) in LNG usage of 100%.

Division 3-6

Request:

Please document and explain the manner in which LNG boil-off will be utilized by the system in each month of the 2017-2018 GCR period and the effect that LNG Boil-off will have on system pressure requirements on a monthly basis.

Response:

Boil-off from the Providence LNG plant is discharged into The Narragansett Electric Company's distribution system each hour of each day. The volumes of boil-off delivered are accounted for and charged against each of the three companies holding inventory in the tank. Such amount is calculated based on each company's allocated inventory. The boil-off deliveries into the distribution system average approximately 1,500 MMBTU per day and have no measurable effect on distribution system pressures.