

National Grid

The Narragansett Electric Company

FY 2017 Gas Infrastructure,  
Safety and Reliability Plan

**Annual Reconciliation**

August 1, 2017

Docket No. 4590

**Submitted to:**  
Rhode Island Public Utilities Commission

Submitted by:

**nationalgrid**



August 1, 2017

**VIA HAND DELIVERY & ELECTRONIC MAIL**

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

**RE: Docket 4590 - Gas Infrastructure, Safety, and Reliability Plan Fiscal Year 2017 Reconciliation Filing**

Dear Ms. Massaro:

In accordance with National Grid's<sup>1</sup> gas tariff, RIPUC NG-GAS No. 101, at Section 3, Schedule A, Sheets 5-7, I have enclosed 10 copies of National Grid's fiscal year (FY) 2017 Gas Infrastructure, Safety and Reliability (ISR) Reconciliation filing, which relates to National Grid's FY 2017 Gas ISR Plan filing in the above-referenced docket. This filing provides an overview and description of the \$87.75 million of actual capital investment and operation and maintenance (O&M) spending by category, as well as an explanation by category of major variances to the budget of \$86.05 million, as approved by the Public Utilities Commission (PUC) in Docket No. 4590.

The pre-filed direct testimonies of John B. Currie and Melissa A. Little are enclosed with this filing. Mr. Currie presents National Grid's FY 2017 Gas ISR Plan Annual Report and Reconciliation filing, including the actual spending for the period April 1, 2016 to March 31, 2017. Mr. Currie also provides details concerning the major spending variances by specific ISR Plan categories for this time period. Ms. Little's testimony presents the updated FY 2017 ISR revenue requirement associated with actual capital investment levels for each of FY 2012 through FY 2017, actual tax deductibility percentages and tax net operating loss (NOL) for FY 2016 capital additions, and updated O&M expenses. As explained in Ms. Little's testimony, actual tax deductibility percentages and actual NOL for FY 2017 capital investment will not be known until National Grid files its FY 2017 income tax return in December 2017, so National Grid has included certain estimated tax assumptions for this reconciliation. At this time, National Grid estimates it will earn taxable income in FY 2017, so no NOL offset to accumulated deferred income taxes has been included in the vintage FY 2017 rate base calculation. The actual tax deductibility percentages and actual NOL information for FY 2017 capital investment will be reflected in National Grid's FY 2018 Gas ISR Reconciliation filing next year and will generate a true up adjustment in that filing. The updated FY 2017 revenue requirement also includes an adjustment associated with the ISR property tax recovery formula approved in Docket No. 4323.

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

Luly E. Massaro, Commission Clerk  
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As explained in Ms. Little's testimony, the updated FY 2017 revenue requirement associated with the above-referenced items totals \$29,113,213, which consists of \$487,908 in O&M expenses and \$28,625,305 of capital-related revenue requirement. This includes the full-year revenue requirement on vintage FY 2012 through FY 2017 ISR capital investments above or below the level of capital investment reflected in base distribution rates, and the property tax component. This compares to the projected FY 2017 ISR revenue requirement of \$25,586,451, which went into effect on April 1, 2016.

Please note that the FY 2017 Gas ISR Reconciliation has been included in the calculation of the Gas ISR factor contained in National Grid's annual Distribution Adjustment Charge (DAC) filing in Docket No. 4708, which National Grid filed with the PUC today under separate cover. The DAC filing includes a reconciliation of forecasted collections to actual collections.

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

Very truly yours,



Robert J. Humm

Enclosures

cc: Docket 4590 Service List  
LeoWold, Esq.  
Steve Scialabba, Division  
Al Contente, Division

**Testimony of  
John B. Currie**

**DIRECT TESTIMONY**

**OF**

**JOHN B. CURRIE**

**August 1, 2017**

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1 **I. INTRODUCTION**

2 **Q. Please state your name, business address, title, and areas of responsibility.**

3 A. My name is John B. Currie. My business address is 40 Sylvan Road, Waltham, MA  
4 02451. I am employed by National Grid USA Service Company, Inc. (Service Company)  
5 as the Director of New England Gas Network Strategy. I am the Rhode Island state  
6 Jurisdictional Lead for all gas network strategy issues, including those related to The  
7 Narragansett Electric Company's (the Company) capital investment strategy. In my role,  
8 I work closely with the Rhode Island Jurisdictional President and staff on all local issues  
9 related to the Company's Rhode Island gas system. My responsibilities also include  
10 working with regulators on issues related to the gas system, developing strategies to  
11 support Company objectives regarding investment in the gas system, and providing  
12 testimony regarding capital investments in the Company's gas system during state  
13 regulatory proceedings.

14

15 **Q. Please describe your educational background and professional experience.**

16 A. I graduated from Saint Michael's College in 1987 with a Bachelor of Science degree in  
17 Accounting. In 2000, I graduated from Bentley University with a Master of Science  
18 degree in Taxation.

19

20 From 1987 to 1989, I worked as a staff accountant at Price Waterhouse (now  
21 PricewaterhouseCoopers). In 1989, I was employed by New England Electric System, a

1 predecessor company to National Grid, in internal audit. From 1997 to 2016, I held roles  
2 of increasing responsibility related to Plant Accounting, Finance, and Regulation. I  
3 assumed my current position in October of 2016.

4  
5 **Q. Have you previously testified or appeared before the Rhode Island Public Utilities**  
6 **Commission (PUC)?**

7 A. Yes. I testified before the PUC in support of the Company's fiscal year (FY) 2017 Gas  
8 Infrastructure, Safety, and Reliability (ISR) Plan in Docket No. 4678. I also represented  
9 the Company in negotiations with the Division of Public Utilities and Carriers (Division)  
10 regarding the FY 2017 Gas ISR Plan. In addition, in 2016, I submitted testimony with  
11 the Massachusetts Department of Public Utilities in support of the leak-prone pipe  
12 replacement plan of the Boston Gas Company (Boston Gas) and Colonial Gas Company  
13 (Colonial Gas), each d/b/a National Grid, which was enacted by Massachusetts  
14 legislation and designed to implement a gas system enhancement plan focused on the  
15 replacement of proactive mains and services. I also testified in support of Boston Gas  
16 and Colonial Gas regarding the 2017 Gas System Enhancement Program plan filings in  
17 Docket No. D.P.U. 16-GSEP-03. In 2012, I sponsored testimony and exhibits in support  
18 of a request by Massachusetts Electric Company (Mass. Electric) and Nantucket Electric  
19 Company (Nantucket) to recover costs from a December 2008 winter storm in Docket  
20 No. D.P.U. 11-56 (2013). In April 2016, I sponsored rebuttal testimony in support of

1 National Grid U.S.A. Service Company expense in Mass. Electric and Nantucket's most  
2 recent base rate proceeding in Docket No. D.P.U. 15-155 (2016).

3  
4 **II. PURPOSE OF TESTIMONY**

5 **Q. What is the purpose of your testimony?**

6 A. The purpose of my testimony is to present the Company's FY 2017 Annual Report and  
7 Reconciliation filing for the Gas ISR Plan, including the actual spending for the period  
8 April 1, 2016 to March 31, 2017. As part of this filing, I also provide detailed  
9 information regarding the major spending variances by specific ISR Plan categories for  
10 this time period. As discussed in her pre-filed direct testimony, Melissa A. Little uses  
11 this actual spending information to calculate the FY 2017 Gas ISR Plan (also referred to  
12 as the Plan) revenue requirement, which is then reconciled with the Company's actual  
13 ISR Plan revenues for FY 2017. The reconciliation balance will then be included in the  
14 Company's annual Distribution Adjustment Charge (DAC) filing, which will be reflected  
15 in rates effective November 1, 2017.

16  
17 **III. FY 2017 GAS ISR PLAN ANNUAL REPORT AND ACTUAL SPENDING**

18 **Q. Please summarize the results of the Company's Gas ISR Plan actual spending for  
19 FY 2017 to the FY 2017 budget.**

20 A. Attachment JBC-1 to my testimony is the Company's FY 2017 Gas ISR Plan Annual  
21 Report and actual spending for the period April 1, 2016 to March 31, 2017. As set forth

1 in Table 1 of that Attachment, for FY 2017, the Company spent \$87.75 million for capital  
2 investment and Operation and Maintenance (O&M) expense under the Gas ISR Plan.

3 This amount represents a variance of approximately \$1.70 million more than the annual  
4 approved Plan budget of \$86.05 million. The \$1.70 million over-budget variance for the  
5 year is discussed below in more detail for each specific category of the Plan. A total of  
6 64.2 miles of leak-prone pipe were abandoned under all ISR categories, which is a 3.7  
7 mile increase over the prior year results. Elimination of cast and wrought iron and  
8 unprotected steel pipe (i.e., leak-prone pipe) remains a key element of the Company's  
9 overall ISR plan and provides for further enhanced safety and reliability of the gas  
10 distribution system through removal of leak-prone pipe. These materials have been  
11 identified in the Company's Distribution Integrity Management Plan (DIMP) as riskier  
12 assets and have been targeted for replacement through a 20-year replacement plan. The  
13 DIMP provides a structured approach to identification, evaluation, and mitigation of risks  
14 associated with the gas distribution system. More than 109 gas leaks have been  
15 eliminated through abandonment of the 64.2 miles of leak prone gas main.

16  
17 I would like to point out that the Company's fourth quarter report for the FY 2017 Gas  
18 ISR Plan indicated a total spending of \$87.88 million. In preparation of the annual ISR  
19 Reconciliation filing, the Company finalized adjustments totaling approximately  
20 \$130,000, which resulted in total spending of \$87.75 million.

21

1 **Q. What were the primary drivers for the \$1.70 million over-budget variance in FY**  
2 **2017?**

3 A. As shown in Attachment JBC-1 at Table 2, the primary drivers that contributed to the  
4 \$1.70 million over-budget variance in FY 2017 were as follows: First, there was an over-  
5 budget variance of \$3.39 million in the Non-Discretionary category, including increased  
6 spending of a combined \$5.02 million for the three Remediation Projects (Dey Street,  
7 Allens Avenue Filter Separator, and Cumberland liquefied natural gas (LNG)  
8 Decommissioning), increased spending of \$0.90 million for Leaks, and decreased  
9 spending of \$2.63 million for Public Works. Second, there was an under-budget variance  
10 of \$1.61 million in the Discretionary category, including decreased spending of \$0.76  
11 million for the Proactive Main Replacement program, under-spending of \$1.29 million  
12 for LNG projects, increased spending for Pressure Regulating Facilities of \$0.76 million,  
13 and increased spending of \$0.45 million for the Allens Avenue Regulator Station  
14 projects.

15  
16 **A. NON-DISCRETIONARY WORK**

17 **Q. Please explain the over-budget variance of \$5.02 million for the Remediation**  
18 **Projects in FY 2017.**

19 A. For FY 2017, the Company incurred net spending of \$5.02 million for Remediation  
20 Projects against a plan of \$0 million, resulting in an over-spending variance of \$5.02  
21 million. The Company unexpectedly had to address three projects that had adverse

1 operating conditions on the gas distribution network. Those unforeseen projects did not  
2 contain a budget in the FY 2017 Gas ISR Plan. The first project required the installation  
3 of a filter separator vessel at the Allens Avenue gas interchange in Providence. This  
4 installation was necessary to prevent customer disruptions by collecting condensates prior  
5 to their entry into the gas distribution system. The second project involved the  
6 modification of pressure regulation equipment at the Dey Street gate station in East  
7 Providence to provide over-pressure protection on the system. In June 2016, the Dey  
8 Street gate station experienced an over-pressurization of intermediate piping (i.e., piping  
9 between regulators). The Company's analysis of the incident determined the root cause  
10 was that a third-party's upstream regulators did not operate as expected to control the  
11 pressure in the intermediate piping. To mitigate future risk, the Dey Street project was  
12 undertaken to build new redundant dual regulator runs that consist of a series of three  
13 pressure regulating devices to protect the gas system from over pressurization. The third  
14 project was the completion of the initial two phases to decommission and demolish the  
15 Cumberland LNG tank after an unexpected condition occurred at the tank. The work  
16 included plant modifications to allow for vaporization of LNG from tanker trucks and for  
17 the purging of the remaining liquids and gaseous vapors from the tank.

18  
19 These issues were unforeseen at the time the FY 2017 Gas ISR Plan was developed and,  
20 therefore, were not identified for funding in the original Plan. To mitigate such over-  
21 spending in the future, the Company included funding for a Damage/Failure program in

1 the FY 2018 Gas ISR Plan to address this type of unforeseen work that requires  
2 immediate action. The spending on these Remediation Projects includes \$1.91 million  
3 for the Allens Avenue Filter Separator, \$0.78 million for Dey Street, and \$2.32 million  
4 for Cumberland LNG.

5  
6 **Q. Please explain the under-budget variance of \$2.63 million for the Public Works**  
7 **program in FY 2017.**

8 A. The key driver for the Public Works under-spending is the lower-than-anticipated  
9 installation and abandonment of gas mains and services in the Public Works program.  
10 This is attributed to timing of the work performed in conjunction with state and municipal  
11 schedules. In the third quarter of FY 2017, the Company began several projects on the  
12 East Side of Providence that it had expected to complete within the Plan. Due to the  
13 weather in March 2017, the City of Providence did not allow the Company to resume  
14 work on these projects. As a result, additional spend is expected to be incurred in FY  
15 2018 that carried over from FY 2017. The Company has installed 8.4 miles of new gas  
16 main and has abandoned 9.3 miles of leak-prone pipe under the Public Works program.  
17 Significant projects completed during the year include University Avenue, Providence  
18 (9,783 feet); Earl Street, Lincoln (3,695 feet); and Sherman Street, Providence (2,542  
19 feet).

1 **Q. Please explain the over-budget variance of \$1.01 million for the Mandated Programs**  
2 **category in FY 2017.**

3 A. The primary drivers of the \$1.01 million over-budget variance for the Mandated  
4 Programs were the \$1.37 million over-spending for a combination of service leaks and  
5 cast iron (CI) joint encapsulation, \$0.50 million over-spending in the Mains Replacement  
6 Maintenance category, and under-spending of \$0.60 million for meter purchases and  
7 replacements. The number of leaks repaired in FY 2017 was 1,526 against a total plan of  
8 1,446. As a result of the mild winter, the Company was able to complete an increased  
9 number of CI joint encapsulations. Total joints completed were 542 against a plan of  
10 493. Thus, the additional spend is due to the additional leaks and CI joints that were  
11 repaired.

12  
13 In addition, there was an over-spending of \$0.50 million in the Main Replacement  
14 Maintenance category as a result of the John Street project in Westerly, where leaks and  
15 water intrusion required unplanned main replacement late in the year.

16  
17 As for the \$0.60 million in under-spending in meter purchases, the Company's meter  
18 change program impacts the number of meters required for purchase on an annual basis.  
19 In the current year, completion of actual meter changes came in lower than planned and  
20 resulted in a reduction to the number of meters purchased.

21

1           **B.     DISCRETIONARY WORK**

2   **Q.     Please explain the under-budget variance of \$0.76 million for the Proactive Main**  
3           **Replacement Program in FY 2017.**

4   A.     The primary driver of this under-spend is due to the total miles of main replaced coming  
5           in under plan. In FY 2017, the Company installed 45.8 miles of new main and  
6           abandoned 53.4 miles of leak-prone pipe within the Proactive Main Replacement  
7           program. This represents completion of 98.9 percent of 54.0 planned abandonment  
8           miles.

9  
10 **Q.     Please explain the \$0.85 million under-budget variance for the Gas System**  
11           **Reliability Programs category.**

12 A.     In FY 2017, the Company spent approximately \$8.40 million of a fiscal year-end budget  
13           of \$9.25 million on Gas System Reliability, resulting in an under-spending variance of  
14           \$0.85 million. This includes lower spending on LNG projects and Gas Planning. These  
15           programs were partially offset by higher spending at the Bentley Street Regulator Station  
16           and Allens Avenue Regulator Station. Actual spending for LNG in FY 2017 was \$0.41  
17           million against a plan of \$1.70 million, resulting in an under-spending variance of \$1.29  
18           million. Certain LNG projects, including Cumberland supervisory control and data  
19           acquisition (SCADA) and back-up generator projects, were cancelled as a result of the  
20           decision to retire the Cumberland LNG tank, as described earlier in my testimony in

1 relation to the Remediation Projects. These cancellations mitigate the net impact of the  
2 overall FY 2017 spend on the Cumberland LNG demolition project.

3  
4 Actual spending for Gas Planning in FY 2017 was \$1.07 million against a plan of \$1.50  
5 million, resulting in an under-spending variance of \$0.43 million. The under-spending is  
6 due to the deferral of two regulator station projects (the Roger Williams and Whitaker  
7 station and the Halidon Avenue station). Actual spending for Pressure Regulating  
8 Facilities in FY 2017 was \$2.26 million against a plan of \$1.50 million, resulting in an  
9 over-spending variance of \$0.76 million. The Bentley Street Regulator Station had  
10 higher spend due the logistics of the location requiring the use of additional safety items,  
11 ranging from more police/flaggers, temporary fencing, pit relocation, and a requirement  
12 for hydrostatic testing (originally planned as pneumatic testing). Actual spending for the  
13 Allens Avenue Regulator Station project in FY 2017 was \$2.20 million against a plan of  
14 \$1.75 million, resulting in an over-spending variance of \$0.45 million. These increases  
15 were the result of dewatering during the foundation installation, additional costs  
16 associated with the inlet side pipe installation, and challenges with underground  
17 interference. The Allens Avenue Regulator Station project is a multi-year project  
18 consisting of rebuilding and replacing multiple regulator stations, piping, and  
19 appurtenances both at the current site as well as within the local distribution system.  
20 Overall, the Company abandoned 1.5 miles of leak-prone pipe through the Gas Planning  
21 program.

1 **IV. ANNUAL RECONCILIATION**

2 **Q. What is the amount of FY 2017 capital spending that the Company is seeking to**  
3 **reconcile in this filing?**

4 A. The Company is seeking to reconcile its FY 2017 actual capital spending of \$87.26  
5 million in this filing. As noted in prior ISR Plan filings, in implementing the Gas ISR  
6 Plan in any fiscal year, the circumstances encountered during the year may require  
7 reasonable deviations from the original Gas ISR Plan approved by the PUC.<sup>1</sup> The  
8 primary drivers of the \$1.79 million net capital over-spending variance for FY 2017 were  
9 in the Non-Discretionary Work category, which accounted for \$3.39 million of over-  
10 spend towards the net capital over-spend. This included over-spending of \$5.02 million  
11 for Remediation Projects, over-spending of \$1.01 million for Mandated Programs, and  
12 under-spending of \$2.63 million for Public Works projects. These programs were  
13 partially offset by a \$1.61 million under-spending in Discretionary programs, which  
14 included \$0.76 million of under-spend in Proactive Main Replacement and \$0.85 million  
15 of under-spend in various Reliability programs.<sup>2</sup> As discussed earlier in my testimony,  
16 the primary drivers for the \$1.79 million variance were the Remediation Projects that  
17 were required to ensure the safety and reliability of the gas system. The reasons for the  
18 \$1.79 million net capital over-spending variance for FY 2017 are clearly consistent with

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<sup>1</sup> See the FY 2012 Gas ISR Plan filed with the PUC on December 20, 2010, at Section 1, page 3 of 6, in Docket No. 4219.

<sup>2</sup> Under-spending of \$1.29 million in LNG Reliability projects partially offset the \$2.32 million incurred for the initial two phases of the Cumberland LNG decommissioning and demolition.

1 the intent of the Gas ISR Plan to maintain the overall safety and reliability of the  
2 Company's gas system and to ensure that customers are charged only for the appropriate  
3 Gas ISR Plan costs in the ISR annual Reconciliation filing.  
4

5 **Q. What is the amount of FY 2017 O&M spending that the Company is seeking to**  
6 **reconcile in this filing?**

7 A. The Company is seeking to reconcile approximately \$0.49 million of actual O&M  
8 spending for FY 2017. In the FY 2017 Gas ISR Plan, the Company requested \$0.57  
9 million of incremental O&M expense to hire, train, and supervise an additional 16 full-  
10 time equivalent (FTE) personnel to support Main Replacement work for FY 2017.  
11 Similar to FY 2015 and FY 2016, the Company also agreed to track and reconcile the  
12 amount of actual O&M expense associated with these new hires for FY 2017. For FY  
13 2017, the O&M expense associated with these 16 FTEs required in support of the  
14 expanded main replacement program totaled approximately \$0.49 million, resulting in an  
15 under-budget variance of \$0.08 million.  
16

17 **V. CONCLUSION**

18 **Q. Does this conclude your testimony?**

19 A. Yes.



## **Gas Infrastructure, Safety, and Reliability Plan**

### **Fiscal Year 2017 Reconciliation Filing**

#### **EXECUTIVE SUMMARY**

In accordance with its tariff, RIPUC NG-GAS, No. 101, at Section 3, Schedule A, Sheets 5-7, The Narragansett Electric Company d/b/a/ National Grid (Company) submits this Annual Report and Reconciliation filing for the fiscal year (FY) 2017 Gas Infrastructure, Safety and Reliability (ISR) Plan, which the Rhode Island Public Utilities Commission (PUC) approved in Docket No. 4590. This filing provides an overview and description of the \$87.75 million<sup>1</sup> of actual capital investment and Operation and Maintenance (O&M) spending by category, as well as an explanation by category of major variances to the budget of \$86.05 million approved in Docket No. 4590.

#### **FY 2017 Actual Results**

As set forth in Table 1, below, in FY 2017, the Company spent \$29.99 million for Non-Discretionary capital work (i.e., work required by legal, regulatory code, and/or agreement with limited exception), \$57.27 million for Discretionary capital work, and \$0.49 million for O&M expense under the Gas ISR Plan. This amount was approximately \$3.39 million more than planned on Non-Discretionary programs and \$1.61 million less than planned on Discretionary programs compared to the approved annual Gas ISR capital budget of \$26.59 for Non-Discretionary programs and \$58.88 million for Discretionary programs, and \$0.08 million less than the O&M budget of \$0.57 million approved in Docket No. 4590. A total of 64.2 miles of leak-prone pipe was abandoned from all ISR categories, which is a 3.7 mile increase over the prior year results. More than 109 gas leaks were eliminated through abandonment of the leak prone gas main in FY 2017. The variances by category of work are shown in Table 1, with the key drivers discussed in greater detail below. Additional details of each sub-category are provided in Table 2.

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<sup>1</sup> The Company's fourth quarter report for the FY 2017 Gas ISR Plan (also referred to as the Plan) indicated a total spending of \$87.88 million. In preparation of the annual Reconciliation filing, the Company finalized adjustments totaling approximately \$130,000, which resulted in total spending of \$87.75 million.

**Table 1**

<b>Narragansett Gas</b>			
<b>FY 2017</b>			
<b>In Millions</b>			
<b>Category</b>	<b>Budget</b>	<b>Actual</b>	<b>Variance</b>
<b>NON-DISCRETIONARY</b>			
Public Works*	\$11.23	\$8.60	(\$2.63)
Mandated Programs	\$15.36	\$16.37	\$1.01
Remediation Projects	\$0.00	\$5.02	\$5.02
<b>NON-DISCRETIONARY SUB-TOTAL</b>	<b>\$26.59</b>	<b>\$29.99</b>	<b>\$3.39</b>
<b>DISCRETIONARY</b>			
Proactive Main Replacement	\$49.63	\$48.87	(\$0.76)
Reliability	\$9.25	\$8.40	(\$0.85)
<b>DISCRETIONARY SUB-TOTAL</b>	<b>\$58.88</b>	<b>\$57.27</b>	<b>(\$1.61)</b>
<b>Capital Total</b>	<b>\$85.48</b>	<b>\$87.26</b>	<b>\$1.79</b>
<b>O&amp;M</b>	<b>\$0.57</b>	<b>\$0.49</b>	<b>(\$0.08)</b>
<b>TOTAL</b>	<b>\$86.05</b>	<b>\$87.75</b>	<b>\$1.70</b>
<small>*Public works includes reimbursements</small>			

*Non-Discretionary Work<sup>2</sup>*

**Public Works Program - \$2.63 million under-budget variance**

For FY 2017, the Company incurred net spending of \$8.6 million against a plan of \$11.23 million, resulting in an under-spending variance of \$2.63 million. The Public Works program includes total spend of approximately \$9.93 million against a fiscal year budget of \$12.56 million, and reimbursement of \$1.33 million against a reimbursement budget of \$1.33 million.

<sup>2</sup> Non-Discretionary programs include those required by legal, regulatory code and/or agreement, or a result of damage or failure with limited exceptions.

The key driver for this under-spending is the lower-than-anticipated installation and abandonment of gas mains and services in the Public Works program. This is attributed to timing of the work that is performed in conjunction with state and municipal schedules. In the third quarter of FY 2017, the Company began several projects on the East Side of Providence that it had expected to complete within the fiscal year. Due to the weather in March 2017, the City of Providence did not allow the Company to resume work on these projects. As a result, additional spend is expected to be incurred in FY 2018 that carried over from FY 2017. The Company has installed 8.4 miles of new gas main and has abandoned 9.3 miles of leak-prone pipe under the Public Works program. Significant projects completed during the year include University Avenue, Providence (9,783 feet); Earl Street, Lincoln (3,695 feet); and Sherman Street, Providence (2,542 feet). Public Works cost detail is provided in the table below.

<b>Public Works</b>	<b>FY17</b>	
Category	Actuals	% of Total Spend
Base Labor, OT & Employee Expense	\$1,207,021	12.20%
Benefits	\$1,039,587	10.51%
Clearing Burdens	\$1,529,488	15.46%
Contractor/Consultants	\$3,043,244	30.76%
Restoration/Police/Permits	\$2,476,293	25.03%
Materials	\$598,381	6.05%
<b>Total</b>	<b>\$9,894,013</b>	
Other-CSC Reimbursements	-\$1,333,417	
<b>Total</b>	<b>\$8,560,596</b>	

**Mandated Programs – \$1.01 million over-budget variance**

The Mandated Programs spending was \$1.01 million over-budget for FY 2017. This variance was driven primarily by spending in the following categories:

- Service Leaks and Cast Iron (CI) Joint Encapsulation – For FY 2017, actual spending for these two categories was \$10.42 million, which was approximately \$1.37 million over the budget of \$9.05 million. The number of leaks repaired was 1,526 against a total plan of 1,446. As a result of the mild winter, the Company was able to complete an increased number of CI joint encapsulations. Total joints completed were 542 against a plan of 493. Thus, the additional spend is due to the additional leaks and CI joints that were repaired.

- Main Replacement - Maintenance – For FY 2017, actual spending in this category was \$0.80 million, which was \$0.50 million over the budget of \$0.30 million. The over-spend is due to the John Street project in Westerly where leaks and water intrusion required unplanned main replacement late in the year.
- Purchase Meters – For FY 2017, actual spending for meter purchases was \$1.66 million, which was \$0.60 million less than the budget of \$2.26 million. The Company’s meter change program impacts the number of meters required for purchase on an annual basis. In the current year, completion of actual meter changes came in lower than planned and resulted in a reduction to the number of meters purchased.

### **Remediation Projects – \$5.02 million over-spending variance**

For FY 2017, the Company incurred net spending of \$5.02 million for Remediation Projects against a plan of \$0 million, resulting in an over-spending variance of \$5.02 million. The Company unexpectedly had to address three projects that had adverse operating conditions on the gas distribution network. Those unforeseen projects did not contain a budget in the FY2017 Gas ISR Plan. The first project required the installation of a filter separator vessel at the Allens Avenue gas interchange in Providence. This installation was necessary to prevent customer disruptions by collecting condensates prior to their entry into the gas distribution system. The second project involved the modification of pressure regulation equipment at the Dey Street gate station in East Providence to provide over-pressure protection on the system. In June 2016, the Dey Street gate station experienced an over pressurization of intermediate piping (i.e., piping between regulators). The Company’s analysis of the incident determined the root cause was that a third-party’s upstream regulators did not operate as expected to control the pressure in the intermediate piping. To mitigate future risk this project was undertaken to build new redundant dual regulator runs that consist of a series of three pressure regulating devices to protect the gas system from over pressurization. The third project was the completion of the initial two phases to decommission and demolish the Cumberland liquefied natural gas (LNG) tank after an unexpected condition occurred at the tank. The work included plant modifications to allow for vaporization of LNG from tanker trucks and for the purging of the remaining liquids and gaseous vapors from the tank.

These issues were unforeseen at the time the FY 2017 Gas ISR Plan was developed and, therefore, were not identified for funding in the original Plan. To mitigate such over-spending in the future, the Company included funding for a Damage/Failure program in the FY 2018 Gas ISR Plan to address this type of unforeseen work that requires immediate action. The spending on these Remediation Projects includes \$1.91 million for the Allens Avenue Filter Separator, \$0.78 million for Dey Street, and \$2.32 million for Cumberland LNG.

***Discretionary Work***<sup>3</sup>

**Proactive Main Replacement Program – \$0.76 million under-budget variance**

For FY 2017, the Company spent approximately \$48.87 million of a budget of \$49.63 million, resulting in an under-spending variance of \$0.76 million. The primary driver of the under-spend is due to total miles of main replacement coming in under plan. In FY 2017, the Company installed 45.8 miles of new main and abandoned 53.4 miles of leak-prone pipe within the Proactive Main Replacement program. This represents completion of 98.9 percent of the 54.0 planned abandonment miles. Proactive Main Replacement cost detail is provided in the table below.

<b>Proactive Main Replacement</b>	<b>FY17</b>	
<b>Category</b>	<b>Actuals</b>	<b>% of Total Spend</b>
Base Labor, OT & Employee Expense	\$4,505,369	9.22%
Benefits	\$3,852,502	7.88%
Clearing Burdens	\$7,021,928	14.37%
Contractor/Consultants	\$14,080,236	28.81%
Restoration/Police/Permits	\$17,509,507	35.83%
Materials	\$2,033,360	4.16%
Other	-\$132,664	-0.27%
<b>Total</b>	<b>\$48,870,237</b>	<b>100.00%</b>

**Gas System Reliability – \$0.85 million under-budget variance**

In FY 2017, the Company spent approximately \$8.40 million of a fiscal year budget of \$9.25 million on Gas System Reliability, resulting in an under-spending variance of \$0.85 million. This includes lower spending on LNG projects and Gas Planning. These programs were partially offset by higher spending at the Bentley Street Regulator Station and Allens Avenue Regulator Station.

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<sup>3</sup> Discretionary programs are not required by legal, regulatory code or agreement, or a result of damage or failure with limited exceptions.

- LNG – For FY2017, actual spending was \$0.41 million against a plan of \$1.70 million, resulting in an under-spending variance of \$1.29 million. Certain LNG projects, including Cumberland supervisory control and data acquisition (SCADA) and back-up generator projects, were cancelled as a result of the decision to retire the Cumberland LNG tank (see Remediation section on page 4, above). These cancellations mitigate the net impact of the overall FY 2017 spend on the Cumberland LNG demolition project.
- Gas Planning – For FY 2017, actual spending was \$1.07 million against a plan of \$1.50 million, resulting in an under-spending variance of \$0.43 million. The under-spending is due to the deferral of two regulator stations projects (the Roger Williams and Whitaker station and the Halidon Avenue station). Overall, the Company abandoned 1.5 miles of leak-prone pipe through the Gas Planning program.
- Pressure Regulating Facilities – For FY 2017, actual spending was \$2.26 million against a plan of \$1.50 million, resulting in an over-spending variance of \$0.76 million. The Bentley Street Regulator Station had higher spend due the logistics of the location requiring the use of additional safety items, ranging from more police/flaggers, temporary fencing, pit relocation, and a requirement for hydrostatic testing (originally planned as pneumatic testing).
- Allens Avenue Regulator Stations – For FY 2017, actual spending was \$2.20 million against a plan of \$1.75 million, resulting in an over-spending variance of \$0.45 million. The increase was the result of dewatering during the foundation installation, additional costs associated with the inlet side pipe installation, and challenges with underground interference. The Allens Avenue Regulator Stations project is a multi-year project consisting of rebuilding and replacing multiple regulator stations, piping, and appurtenances both at the current site as well as within the local distribution system.

### **O&M – \$0.8 million under-budget variance**

In the FY 2017 Gas ISR Plan, the Company requested \$0.57 million of incremental O&M expense to hire, train, and supervise an additional 16 full-time equivalent (FTE) personnel to support Main Replacement work for FY 2017. Similar to FY 2015 and FY 2016, the Company also agreed to track and reconcile the amount of actual O&M expense associated with these new hires for FY 2017. For FY 2017, the O&M expense associated with these 16 FTEs required in support of the expanded Main Replacement program totaled approximately \$0.49 million, resulting in an under-budget variance of \$0.08 million.

**Table 2**  
**Narragansett Gas FY2017**  
**In Millions**

<b>Category</b>	<b>Budget</b>	<b>Actual</b>	<b>Variance</b>
<b>NON-DISCRETIONARY</b>			
<b>Public Works</b>			
City State Construction - Non-Reimbursable	\$11.23	\$8.39	(\$2.84)
City State Construction - Reimbursable	\$1.33	\$1.54	\$0.21
City State Consturction - Reimbursements	(\$1.33)	(\$1.33)	(\$0.01)
<b>Sub-Total</b>	<b>\$11.23</b>	<b>\$8.60</b>	<b>(\$2.63)</b>
<b>Mandated Programs</b>			
Corrosion	\$0.70	\$0.75	\$0.05
Pipeline Integrity (Transmission LMP)	\$0.80	\$0.53	(\$0.27)
Main Replacement - Maintenance	\$0.30	\$0.80	\$0.50
CI Joint Encapsulation	\$3.05	\$3.52	\$0.47
Purchase Meters (Replacement)	\$2.26	\$1.66	(\$0.60)
Service Replacements - BS HP Leak-prone Srvs	\$0.00	\$0.06	\$0.06
Leaks	\$6.00	\$6.90	\$0.90
Non-Leaks/Other	\$2.25	\$2.15	(\$0.10)
<b>Sub-Total</b>	<b>\$15.36</b>	<b>\$16.37</b>	<b>\$1.01</b>
<b>Remediation Projects</b>			
Pressure Regulating facilities - Dey St	\$0.00	\$0.78	\$0.78
Allens Ave - Filter/Separator	\$0.00	\$1.91	\$1.91
Cumberland LNG Decommissioning	\$0.00	\$2.32	\$2.32
<b>Sub-Total</b>	<b>\$0.00</b>	<b>\$5.02</b>	<b>\$5.02</b>
<b>NON-DISCRETIONARY SUBTOTAL</b>	<b>\$26.59</b>	<b>\$29.99</b>	<b>\$3.39</b>
<b>DISCRETIONARY</b>			
<b>Proactive Main Replacement</b>			
<b>Sub-Total</b>	<b>\$49.63</b>	<b>\$48.87</b>	<b>(\$0.76)</b>
<b>Reliability</b>			
Gas System Control	\$0.10	\$0.00	(\$0.10)
Gas Planning	\$1.50	\$1.07	(\$0.43)
Heater Program	\$0.00	\$0.13	\$0.13
I&R Reactive/CNG Programs	\$1.00	\$1.04	\$0.04
LNG	\$0.80	\$0.41	(\$0.39)
Pressure Regulating Facilities	\$1.50	\$2.26	\$0.76
Valve Installation/Replacement	\$0.20	\$0.01	(\$0.19)
Water Intrusion	\$0.00	\$0.04	\$0.04
System Automation	\$1.00	\$0.73	(\$0.27)
LNG - Cumberland Upgrade SCADA	\$0.80	\$0.00	(\$0.80)
LNG - Cumberland Emergency Gener Replace	\$0.10	\$0.00	(\$0.10)
Allens Ave	\$1.75	\$2.20	\$0.45
Micellaneous Capital, Equipment and Tools	\$0.50	\$0.52	\$0.02
<b>Sub-Total</b>	<b>\$9.25</b>	<b>\$8.40</b>	<b>(\$0.85)</b>
<b>DISCRETIONARY SUBTOTAL</b>	<b>\$58.88</b>	<b>\$57.27</b>	<b>(\$1.61)</b>
<b>Capital Total</b>	<b>\$85.48</b>	<b>\$87.26</b>	<b>\$1.79</b>
<b>O&amp;M</b>	<b>\$0.57</b>	<b>\$0.49</b>	<b>(\$0.08)</b>
<b>TOTAL</b>	<b>\$86.05</b>	<b>\$87.75</b>	<b>\$1.70</b>

**Testimony of  
Melissa A. Little**

**DIRECT TESTIMONY**

**OF**

**MELISSA A. LITTLE**

**August 1, 2017**

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1   **I.    INTRODUCTION**

2   **Q.    Please state your full name and business address.**

3   A.    My name is Melissa A. Little, and my business address is 40 Sylvan Road, Waltham,  
4        Massachusetts 02451.

5

6   **Q.    Please state your position at National Grid and your responsibilities within that**  
7        **position.**

8   A.    I am an Acting Director for New England Revenue Requirements in the Regulation and  
9        Pricing department of National Grid USA Service Company, Inc. (Service Company).  
10       The Service Company provides engineering, financial, administrative, and other technical  
11       support to subsidiary companies of National Grid USA (National Grid). My current  
12       duties include revenue requirement responsibilities for National Grid's electric and gas  
13       distribution activities in New England, including the gas operations of The Narragansett  
14       Electric Company d/b/a National Grid (Narragansett or the Company).

15

16   **Q.    Please describe your educational and professional experience.**

17   A.    In 2000, I received a Bachelor of Science degree in Accounting Information Systems  
18        from Bentley College (now Bentley University). In September 2000, I joined  
19        Pricewaterhouse Coopers LLP in Boston, Massachusetts, where I worked as an associate  
20        in the Assurance practice. In November 2004, I joined National Grid in the Service  
21        Company as an Analyst in the General Accounting group. After the merger of National

1 Grid and KeySpan in 2007, I joined the Regulation and Pricing department as a Senior  
2 Analyst in the Regulatory Accounting function, also supporting the Niagara Mohawk  
3 Power Corporation Revenue Requirement team. I was promoted to Lead Specialist in  
4 July 2011 and moved to the New England Revenue Requirement team. I was assigned to  
5 my current role in July 2017.

6  
7 **Q. Have you previously testified before the Rhode Island Public Utilities Commission**  
8 **(PUC)?**

9 A. Yes. Among other testimony, I submitted pre-filed testimony in the Company's fiscal  
10 year (FY) 2018 Gas Infrastructure, Safety and Reliability (ISR) Plan filing in Docket No.  
11 4678 to support the Company's revenue requirement; FY 2017 Gas ISR Plan filing in this  
12 docket to support the Company's revenue requirement; FY 2016 Gas ISR Plan filing and  
13 reconciliation filing in Docket No. 4540 to support the Company's revenue requirement;  
14 and FY2015 Gas ISR Plan reconciliation filing in Docket No. 4474 to support the  
15 Company's revenue requirement.

16  
17 **Q. What is the purpose of your testimony?**

18 A. In this docket, the PUC approved a Gas ISR factor that went into effect April 1, 2016.  
19 The ISR factor was based on a projected FY 2017 ISR revenue requirement of  
20 \$25,586,451 associated with estimated ISR capital investment during each FY ended

1 March 31 in FY 2012 through FY 2017<sup>1</sup> that were incremental to the levels reflected in  
2 rate base in the Company's last base rate case (Docket No. 4323), and an estimate of  
3 operations and maintenance (O&M) expenses associated with additional personnel to  
4 support main replacement work for FY 2017. Thus, the purpose of my testimony is to  
5 present an updated FY 2017 ISR revenue requirement associated with actual capital  
6 investment levels for each of FY 2012 through FY 2017, actual tax deductibility  
7 percentages and tax net operating loss (NOL) for FY 2016 capital additions, and updated  
8 O&M expenses. Actual tax deductibility percentages and actual NOL for FY 2017  
9 capital investment will not be known until the Company files its FY 2017 income tax  
10 return in December of this year. Consequently, the actual tax deductibility percentages  
11 and actual NOL for FY 2017 capital investment will be reflected in the Company's FY  
12 2018 Gas ISR Reconciliation filing next year and will generate a true up adjustment in  
13 that filing.

14  
15 The updated FY 2017 revenue requirement also includes an adjustment associated with  
16 the ISR property tax recovery formula that was approved in Docket No. 4323. The ISR  
17 property tax recovery adjustment became effective for periods subsequent to the rate year  
18 in Docket No. 4323 that ended on January 31, 2014. Consequently, the ISR property tax  
19 recovery adjustment covers only the months of February and March of 2014 and the 12  
20 months ended March 31 in 2015, 2016, and 2017.

---

<sup>1</sup> The Company's fiscal year is the 12 months ending March 31 of each year.

1 As shown on Attachment MAL-1 on Page 1, Line 13, the updated FY 2017 ISR revenue  
2 requirement collectible through the Company's ISR factor for the FY 2017 period,  
3 including the catch-up adjustment related to the NOL impact on prior fiscal years'  
4 revenue requirements, amounts to \$29,113,213, which is an increase of \$3,526,762 from  
5 the projected FY 2017 ISR revenue requirement of \$25,586,451 previously approved by  
6 the PUC. Approximately 53 percent of the increase, or \$1.9 million, is related to  
7 increased spending on actual capital investments compared to the capital plan budgets.  
8 Approximately 62 percent of the increase, or \$2.2 million, is related to prior investment  
9 years' NOLs, which were not included in the projected FY 2016 revenue requirement.  
10 Approximately \$1.2 million of the \$2.2 million tax NOL adjustment is a true up for one-  
11 third of the understated Gas ISR Reconciliation filings in FY 2012 to FY 2014, as  
12 described above. The FY 2017 and FY 2016 revenue requirement effect of the NOLs  
13 related to vintage FY 2016 investment are \$1.2 million and (\$0.2 million), respectively.  
14 \$0.9 million of the total \$3.5 million increase in the FY 2017 revenue requirement relates  
15 to the property tax adjustment mechanism, driven by the increase in capital investment.  
16 The remainder is comprised of adjustments for the work order write-offs previously  
17 described in Docket No. 4678, new service installations and service relocations, and  
18 changes in tax assumptions.

19  
20 At this time, the Company's Tax department estimates it will earn taxable income in FY  
21 2017 and, therefore, no NOL offset to accumulated deferred income taxes has been

1 included in the vintage FY 2017 rate base calculation. The Company's Tax department  
2 calculated taxable income when the Company closed its books for FY 2017, which has  
3 formed the basis for the estimate in this reconciliation. However, National Grid's income  
4 tax returns for each fiscal year are not filed until mid-December following the end of the  
5 fiscal year, which occurs after the August 1 deadline for each fiscal year's ISR  
6 reconciliation filing with the PUC. Therefore, the Company will true up this estimated  
7 tax NOL to the NOL that is ultimately reflected in National Grid's FY 2017 income tax  
8 returns in its FY 2018 Gas ISR Reconciliation filing.

9  
10 **Q. Are there any schedules attached to your testimony?**

11 A. Yes, I am sponsoring the following attachment:

- 12 • Attachment MAL-1: FY 2017 Gas Infrastructure, Safety and Reliability Plan  
13 Revenue Requirement Reconciliation  
14

15 **II. ISR PLAN FY 2017 REVENUE REQUIREMENT**

16 **Q. Did the Company calculate the updated FY 2017 ISR revenue requirement in the**  
17 **same fashion as calculated in the previous ISR factor submissions and the FY 2016**  
18 **ISR factor reconciliation?**

19 A. Yes, with three exceptions. First, in December 2015, the U.S. House and Senate signed  
20 the Protecting Americans from Tax Hikes (PATH) Act into law, which extends  
21 accelerated bonus depreciation for tax purposes at a rate of 50 percent through calendar  
22 year 2017, but then phases down to 40 percent for 2018 and 30 percent for 2019. As a

1 result, the Company's FY 2017 revenue requirement includes the impact of the PATH  
2 Act on vintage FY 2016 and FY 2017 investment, as the vintage FY 2016 and FY 2017  
3 tax depreciation calculations now include a deduction for bonus depreciation at 50  
4 percent. Second, the Internal Revenue Service (IRS) clarified its tangible property  
5 regulations. As a result the Company submitted an election with the IRS pursuant to 26  
6 U.S.C. § 481(a) to apply for a change in accounting method regarding the treatment of  
7 gains or losses on asset retirements which are characterized as partial retirements for tax  
8 purposes. This election was submitted to the PUC, as required under IRS rules, on  
9 December 17, 2015. The late partial disposition election was made to protect the  
10 Company's deduction of cost of removal. Otherwise, the Company would have been  
11 required to make a § 481(a) adjustment to reverse all historical cost of removal  
12 deductions, resulting in a substantial reduction in deferred tax liabilities. Because the  
13 Company made the election, cost of removal remains 100 percent deductible. Therefore,  
14 the Company's FY 2017 revenue requirement now includes the cumulative impact on  
15 deferred income taxes for additional tax deductions reflected in the vintage FY 2015  
16 through FY 2017 tax depreciation calculations related to losses incurred on partial  
17 retirements. Lastly, this reconciliation reflects an adjustment, pursuant to Informal  
18 Division Request 1-2 in Docket No. 4678 for the FY 2018 Gas ISR Plan, for new service  
19 installations and service relocations that should have been reported under growth and,  
20 therefore, excluded from the ISR. The Company has made an adjustment in this

1 reconciliation to correct for the over-stated revenue requirements for FY 2012 through  
2 FY 2016.

3  
4 Other than these changes, the updated FY 2017 ISR revenue requirement calculation is  
5 identical to the ISR revenue requirement used for purposes of developing the approved  
6 ISR factors that became effective April 1, 2016 and, as described previously in my  
7 testimony in this proceeding, incorporates updated ISR investment amounts and known  
8 tax deductibility percentages. I will rely on my testimony included in the Company's FY  
9 2017 ISR Plan filing in this docket for the detailed description of the revenue requirement  
10 calculation, and will limit my testimony here to summarizing the revenue requirement, a  
11 description of the tax NOL impact, and the update for the known tax deductibility  
12 percentages.

13  
14 **Q. What is a NOL?**

15 A. Tax NOLs are generated when the Company has tax deductions on its income tax returns  
16 that exceed its taxable income. This does not mean that the Company is suffering losses  
17 in its financial statements. Instead, the Company's tax NOLs are the result of the  
18 significant tax deductions that have been generated in recent years by the bonus  
19 depreciation and capital repairs tax deductions. In addition to first-year bonus tax  
20 depreciation, the US tax code allows the Company to classify certain costs as repairs  
21 expense, which the Company takes as an immediate deduction on its income tax return.

1           However, such costs are recorded as plant investment on the Company's books. These  
2           significant bonus depreciation and capital repairs tax deductions have exceeded the  
3           amount of taxable income reported in tax returns filed for FY 2009 to FY 2016, with the  
4           exception of FY 2011. NOLs are recorded as non-cash assets on the Company's balance  
5           sheet and represent a benefit that the Company and customers will receive when the  
6           Company is able to realize actual cash savings when it applies the NOLs against taxable  
7           income in the future.

8  
9           Accumulated NOLs represent an offset to the Company's accumulated deferred income  
10          taxes, which are included as a credit, or reduction, in the calculation of rate base.  
11          Consequently, including accumulated NOLs in the revenue requirement calculations  
12          reduces the amount of accumulated deferred taxes in the derivation of ISR rate base.  
13          Deferred taxes are an offset, or reduction, to ISR rate base and are intended to represent  
14          the amount of cash benefit generated by and associated with ISR investment related tax  
15          deductions that the Company has reflected in its income tax returns.

16  
17   **Q.    Has the Company included NOL in its vintage FY 2017 rate base calculation?**

18   A.    At this time, the Company estimates it will earn taxable income in FY 2017, so no NOL  
19          offset to accumulated deferred income taxes has been included in the vintage FY 2017  
20          rate base calculation. The tax depreciation calculation on vintage FY 2017 investment is  
21          an estimate until the Company files its FY 2017 tax return in December 2017. If the

1 Company's actual FY 2017 NOL differs based on its FY 2017 tax position filed with the  
2 IRS, the adjustment will be reflected as a prior period adjustment to the FY 2017 revenue  
3 requirement in the FY 2018 Gas ISR reconciliation filing. Conversely, if the Company is  
4 able to utilize any of its currently accumulated NOLs, that benefit will be flowed through  
5 to customers in its FY 2018 Gas ISR reconciliation filing.

6  
7 **Q. Are there any updates to the FY 2016 revenue requirement that are being trued up**  
8 **in the FY 2017 Gas ISR Reconciliation?**

9 A. Yes. The Company filed its FY 2016 Gas ISR Reconciliation on August 1, 2016.  
10 However, the Company had not filed its FY 2016 income tax return until later that year in  
11 December. As a result, the Company used certain tax assumptions at that time. The  
12 Company has revised its vintage FY 2016 revenue requirement to reflect the following  
13 updates on Attachment MAL-1: (1) actual capital repairs deduction rate of 75.72 percent,  
14 as shown on Page 5, Line 2; (2) actual percentage of plant eligible for bonus depreciation  
15 of 99.7 percent, as shown on Page 5, Line 7; (3) actual tax loss on retirements of  
16 \$248,321, as shown on Page 5, Line 19; and (4) actual NOL of \$11,594,940, as shown  
17 on Page 4, Line 17. Furthermore, the Company revised its vintage FY 2016 revenue  
18 requirement to reflect a work order write-off adjustment of \$33,917, as shown on Page 4,  
19 Line 31, and a new service installation and service relocations adjustment of \$10,954, as  
20 shown on Page 4, Line 34.

21

1 **Q. Please summarize the updated FY 2017 ISR revenue requirement.**

2 A. As shown on Attachment MAL-1 at Page 1, Line 13, the updated FY 2017 ISR revenue  
3 requirement amounts to \$29,113,213, which consists of \$487,908 in O&M expenses and  
4 \$28,625,305 of capital related revenue requirement. As previously described, it includes  
5 the full year revenue requirement on vintage FY 2012 through FY 2017 ISR capital  
6 investments above or below the level of capital investment reflected in base distribution  
7 rates, as well as the property tax component.

8  
9 **Q. How is Attachment MAL-1 structured?**

10 A. Page 1 of Attachment MAL-1 summarizes the individual components of the updated FY  
11 2017 ISR revenue requirement. Page 1, Line 1, shows the O&M expenses associated  
12 with an additional 16 full time equivalent personnel to support Main Replacement work  
13 for FY 2017, as described in the pre-filed direct testimony of Company witness John B.  
14 Currie. Page 1, Lines 2 through 7, represent the full year 2017 ISR revenue requirements  
15 for the FY 2017 and FY 2016 ISR investments and incremental FY 2012 through FY  
16 2015 ISR investments – meaning those investments not included in the Company’s base  
17 rates – and as supported with detailed calculations on Pages 2, 4, 6, 8, 10 and 12,  
18 respectively. Page 1, Line 9, reflects the reconciliation of the approved FY 2016 ISR  
19 revenue requirement for vintage FY 2016 investments with a revised vintage FY 2016  
20 revenue requirement on those investments. This reconciliation is necessary because the  
21 actual level of tax deductibility on FY 2016 investments was not known at the time of

1 filing the FY 2016 ISR Reconciliation factor or the FY 2017 ISR Plan filing. The  
2 calculation of the reconciliation amounts is shown on Page 14 and reflects the difference  
3 in the approved FY 2016 ISR revenue requirement on FY 2016 investments and the  
4 updated revenue requirement for FY 2016 on FY 2016 ISR investments when  
5 incorporating the final tax deductibility levels. Detailed calculations of the updated FY  
6 2016 and FY 2017 revenue requirements on vintage FY 2016 investments and the  
7 updated FY 2016 tax depreciation on vintage FY 2016 ISR investments are presented on  
8 Pages 4 and 5 of the Attachment, respectively. Page 1, Line 10, represents one-third of  
9 the FY 2012, FY 2013, and FY 2014 revenue requirement impact of NOLs, of which FY  
10 2017 is the third year in a three-year recovery period. Page 1, Line 10a, represents the  
11 effect of the following two prior period corrections on the property tax recovery  
12 adjustment: (1) cost of removal included in the calculation of net plant was not properly  
13 impacted by the work order write off adjustments included in the Company's FY 2018  
14 Gas ISR Plan in Docket No. 4678, and (2) reductions to vintage FY 2012 through FY  
15 2016 investment related to new service installations and service relocations that should  
16 have been classified as growth. Page 1, Line 10b, represents the adjustment for new  
17 service installations and service relocations, which is supported by a detailed calculation  
18 on Page 23. Page 1, Line 11, represents the results of the FY 2017 property tax recovery  
19 adjustment, which is supported by a detailed calculation on Page 16.

20

1 **Q. Has the Company provided support for the actual level of FY 2017 ISR-eligible**  
2 **plant investments?**

3 A. Yes. The description of the FY 2017 Gas ISR program and the amount of the  
4 incremental non-growth capital investment eligible for inclusion in the ISR mechanism  
5 are supported by the pre-filed direct testimony and supporting attachment of Mr. Currie.  
6 The ultimate revenue requirement on the incremental non-growth capital investment  
7 equals the return on the investment (i.e., average rate base at the weighted average cost of  
8 capital), plus depreciation expense and property taxes associated with the investment.  
9 Incremental non-growth capital investment for this purpose is intended to represent the  
10 net change in rate base for non-growth infrastructure investments since the establishment  
11 of the Company's ISR mechanism effective April 1, 2011 and is defined as capital  
12 additions plus cost of removal, less annual depreciation expense embedded in the  
13 Company's rates, net of depreciation expense attributable to general plant. The actual  
14 ISR-eligible non-growth capital investment for FY 2017 amounts to \$87.3 million<sup>2</sup>  
15 associated with the Company's FY 2017 ISR Plan (non-growth infrastructure investment  
16 net of general plant).

17  
18 **Q. What is the updated revenue requirement associated with actual capital investment?**

---

<sup>2</sup> Total ISR-eligible capital investment for FY 2017 of \$81.2 million plus total ISR-eligible cost of removal of \$6.1 million reflects \$87.3 million of actual capital spending, as referenced in the pre-filed testimony of Mr. Currie (Attachment JBC-1, Page 2, Table 1).

1 A. The updated FY 2017 revenue requirement associated with the Company's actual FY  
2 2012 through FY 2017 eligible plant investments amounts to \$28,625,305. This figure  
3 includes the updated FY 2017 revenue requirement on FY 2017 through FY 2012  
4 investment; the reconciliation of the approved FY 2016 ISR revenue requirement for  
5 vintage FY 2016 investment with the actual FY 2016 revenue requirement on that vintage  
6 investment; the third year of a three-year recovery of the true-up adjustment for the FY  
7 2012, FY 2013, and FY 2014 ISR revenue requirements related to NOLs generated on  
8 vintage FY 2012, FY 2013, and FY 2014 ISR-eligible investment; and the inclusion of a  
9 property tax formula adjustment pursuant to the Company's rate case settlement  
10 agreement in Docket No. 4323.

11

12 **III. CONCLUSION**

13 **Q. Does this conclude your testimony?**

14 A. Yes.

**THE NARRAGANSETT ELECTRIC COMPANY  
d/b/a NATIONAL GRID  
RIPUC DOCKET NO. 4590  
FY 2017 GAS INFRASTRUCTURE, SAFETY, AND RELIABILITY PLAN  
ANNUAL RECONCILIATION FILING  
WITNESS: MELISSA A. LITTLE**

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**Index of Attachments**

Attachment MAL-1            FY2017 Gas Infrastructure, Safety and Reliability Plan Revenue  
Requirement Calculation



**THE NARRAGANSETT ELECTRIC COMPANY  
d/b/a NATIONAL GRID  
RIPUC DOCKET NO. 4590  
FY 2017 GAS INFRASTRUCTURE, SAFETY, AND RELIABILITY PLAN  
ANNUAL RECONCILIATION FILING  
WITNESS: MELISSA A. LITTLE**

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Attachment MAL-1

FY2017 Gas Infrastructure, Safety, and Reliability Plan Revenue Requirement Calculation

**The Narragansett Electric Company  
d/b/a National Grid  
FY 2017 Gas ISR Revenue Requirement Reconciliation  
Summary**

<u>Line</u> <u>No.</u>		<b>FY 2017 Actuals</b>
1	<b>FY 2017 Operation &amp; Maintenance Expense</b>	<b><u>\$487,908</u></b>
2	FY 2017 Revenue Requirement on FY 2017 Actual Capital Investment	\$3,021,881
3	FY 2017 Revenue Requirement on FY 2016 Actual Capital Investment	\$7,855,971
4	FY 2017 Revenue Requirement on FY 2015 Actual Capital Investment	\$6,742,024
5	FY 2017 Revenue Requirement on FY 2014 Actual Incremental Capital Investment	\$3,324,567
6	FY 2017 Revenue Requirement on FY 2013 Actual Incremental Capital Investment	\$237,957
7	FY 2017 Revenue Requirement on FY 2012 Actual Incremental Capital Investment	<u>\$1,063,902</u>
8	Subtotal- FY 2017 Revenue Requirement on Actual Capital Investment	\$22,246,303
	True Up for Capital Repairs Deduction Rate, Bonus Depreciation, Tax Loss on Retirements, NOL and New Service Installation and Service Relocations in FY 2016 Revenue Requirement on FY 2016 Capital Investment in RIPUC Docket No. 4540	(\$191,661)
9		
10	True Up for Net Operating Losses generated in FY 2012, FY 2013 and FY 2014 (Third Year of a Three-Year Recovery Period)	\$1,176,784
10a	True-Up for FY 2014 through FY 2016 impact on Property Tax recovery adjustment related to COR on Work Order Write Offs and New Service Installations and Service Relocations	(\$24,571)
10b	True-Up for FY 2012 through FY 2016 New Service Installations and Service Relocations, Growth (Per Informal Divison Request 1-2 in RIPUC Docket 4678)	(\$188,779)
11	FY 2017 Property Tax recovery adjustment	<u>\$5,607,229</u>
12	<b>Total FY 2017 Capital Component of Revenue Requirement</b>	<b><u>\$28,625,305</u></b>
13	<b>Total FY 2017 Revenue Requirement</b>	<b><u>\$29,113,213</u></b>
14	FY 2017 Plan Revenue Requirement as filed on March 18, 2016	\$25,586,451
15	Increase in FY 2017 Revenue Requirement	\$3,526,762

Line Notes

1	From Attachment JBC-1, Page 2 of 8, Table 1
2	From Page 2 of 23, Line 28
3	From Page 4 of 23, Line 28(b)
4	From Page 6 of 23, Line 27(c)
5	From Page 8 of 23, Line 34(d)
6	From Page 10 of 23, Line 32(e)
7	From Page 12 of 23, Line 32(f)
8	Sum of Line 2 through Line 7
9	From Page 14 of 23, Line 6
10	Page 20 of 23, Line 12
10a	From Page 16 of 23, Line 62b , column (c) + column (g) + column (k)
10b	From Page 23 of 23, Line 10(e)
11	From Page 17 of 23, Line 90(c)
12	Sum of Lines 8 through 11
13	Line 1 + Line 12
14	Per Docket 4590 FY 2017 Gas ISR Plan Filing: Section 3, Attachment 1, Compliance Filing, Page 1, Line 3 plus Line 4
15	Line 13 - Line 14

The Narragansett Electric Company  
d/b/a National Grid  
FY 2017 Gas ISR Revenue Requirement Reconciliation  
Computation of Revenue Requirement on FY 2017 Actual Incremental Gas Capital Investment

Line No.			Fiscal Year 2017 (a)
<u>Depreciable Net Capital Included in ISR Rate Base</u>			
1	Total Allowed Capital Included in ISR Rate Base in Current Year	Per Company's books	\$81,160,614
2	Retirements	Per Company's books	1/ \$8,094,426
3	Net Depreciable Capital Included in ISR Rate Base	Line 1 - Line 2	\$73,066,188
<u>Change in Net Capital Included in ISR Rate Base</u>			
4	Capital Included in ISR Rate Base	Line 1	\$81,160,614
5	Depreciation Expense	Per Settlement Agreement Docket No. 4323, excluding General Plant	\$24,356,183
6	Incremental Depreciable Amount	Line 4 - Line 5	\$56,804,431
7	Cost of Removal	Per Company's books	\$6,100,390
8	<b>Net Plant Amount</b>	<b>Line 6 + Line 7</b>	<b>\$62,904,821</b>
<u>Deferred Tax Calculation:</u>			
9	Composite Book Depreciation Rate	As Approved in R.I.P.U.C. Docket No. 3943 & 4323	3.38%
10	Tax Depreciation	Page 3 of 23, Line 21	\$75,825,033
11	Cumulative Tax Depreciation	Prior Year Line 11 + Current Year Line 10	\$75,825,033
12	Book Depreciation	Column (a) = Line 3 * Line 9 * 50% ; Column (b) = Line 3 * Line 9	\$1,234,819
13	Cumulative Book Depreciation	Prior Year Line 13 + Current Year Line 12	\$1,234,819
14	Cumulative Book / Tax Timer	Line 11 - Line 13	\$74,590,214
15	Effective Tax Rate		35.00%
16	Deferred Tax Reserve	Line 14 * Line 15	\$26,106,575
17	Less: FY 2017 Federal NOL	Per Tax Department	\$0
18	Net Deferred Tax Reserve	Line 16 + Line 17	\$26,106,575
<u>ISR Rate Base Calculation:</u>			
19	Cumulative Incremental Capital Included in ISR Rate Base	Line 8	\$62,904,821
20	Accumulated Depreciation	- Line 13	(\$1,234,819)
21	Deferred Tax Reserve	- Line 18	(\$26,106,575)
22	Year End Rate Base	Sum of Lines 19 through 21	\$35,563,427
<u>Revenue Requirement Calculation:</u>			
23	Average ISR Rate Base	Column (a) = Current Year Line 22 ÷ 2; Column (b) = (Prior Year Line 22 + Current Year Line 22) ÷ 2	\$17,781,714
24	Pre-Tax ROR		2/ 10.05%
25	Return and Taxes	Line 23 * Line 24	\$1,787,062
26	Book Depreciation	Line 12	\$1,234,819
27	Property Taxes		3/ \$0
28	<b>Annual Revenue Requirement</b>	<b>Sum of Lines 25 through 27</b>	<b>\$3,021,881</b>

1/ Actual FY 2017 retirements per Company's books

2/ Weighted Average Cost of Capital per Settlement Agreement R.I.P.U.C. Docket No. 4323

	Ratio	Rate	Weighted Rate	Taxes	Return
Long Term Debt	49.95%	5.70%	2.85%		2.85%
Short Term Debt	0.76%	0.80%	0.01%		0.01%
Preferred Stock	0.15%	4.50%	0.01%		0.01%
Common Equity	49.14%	9.50%	4.67%	2.51%	7.18%
	100.00%		7.54%	2.51%	10.05%

3/ Property taxes calculated on Pages 16 through 18 for all vintage years commencing with FY14 and reflected in total on Page 1 at Line 11.

**The Narragansett Electric Company**  
**d/b/a National Grid**  
**FY 2017 Gas ISR Revenue Requirement Reconciliation**  
**Calculation of Tax Depreciation and Repairs Deduction on FY 2017 Capital Investments**

Line No.			Fiscal Year <u>2017</u> (a)
	<u>Capital Repairs Deduction</u>		
1	Plant Additions	Page 2 of 23, Line 1	\$81,160,614
2	Capital Repairs Deduction Rate	Per Tax Department	1/ 70.11%
3	Capital Repairs Deduction	Line 2 * Line 3	<u>\$56,901,706</u>
	<u>Remaining Tax Depreciation</u>		
4	Plant Additions	Line 1	\$81,160,614
5	Less Capital Repairs Deduction	Line 3	<u>\$56,901,706</u>
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - 5	\$24,258,908
7	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department	<u>100.00%</u>
8	Plant Eligible for Bonus Depreciation	Line 6 * Line 7	\$24,258,908
9	Bonus Depreciation Rate (April 2016 - December 2016)	1 * 75% * 50%	37.50%
10	Bonus Depreciation Rate (January 2017 - March 2017)	1 * 25% * 50%	<u>12.50%</u>
11	Total Bonus Depreciation Rate	Line 9 + Line 10	50.00%
12	Bonus Depreciation	Line 8 * Line 11	\$12,129,454
	<u>Remaining Tax Depreciation</u>		
13	Plant Additions	Line 1	\$81,160,614
14	Less Capital Repairs Deduction	Line 3	\$56,901,706
15	Less Bonus Depreciation	Line 12	<u>\$12,129,454</u>
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 13 - Line 14 - Line 15	\$12,129,454
17	20 YR MACRS Tax Depreciation Rates	IRS Publication 946	3.750%
18	Remaining Tax Depreciation	Line 6 * Line 7	<u>\$454,855</u>
19	FY17 tax (gain)/loss on retirements	Per Tax Department	\$238,628
20	Cost of Removal	Page 2 of 23, Line 7	\$6,100,390
21	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 19 & 20	<u><u>\$75,825,033</u></u>

1/ Agrees to the FY 2017 Gas Plan Proposal in RIPUC Docket 4590. Capital Repairs percentage is based on a three-year average of FYs 2012, 2013 and 2014 capital repairs rates.

The Narragansett Electric Company  
d/b/a National Grid  
FY 2017 Gas ISR Revenue Requirement Reconciliation  
Computation of Revenue Requirement on FY 2016 Actual Incremental Gas Capital Investment

Line No.			Fiscal Year 2016 (a)	Fiscal Year 2017 (b)
<b>Depreciable Net Capital Included in ISR Rate Base</b>				
1	Total Allowed Capital Included in ISR Rate Base in Current Year	As Approved in RIPUC Docket No. 4540	1/ \$90,072,473	\$0
1a	Work Order Write Off Adjustment	Per Company's books	\$597,976	\$0
1b	New Service Installation and Service Relocations, Growth (per Informal Request Division 1-2)	Per Company's books	\$151,092	\$0
2	Retirements		2/ \$3,177,067	\$0
3	Net Depreciable Capital Included in ISR Rate Base	Column (a) = Line 1 - Line 1a - Line 1b - Line 2; Column (b) = Prior Year Line 3	\$86,146,338	\$86,146,338
<b>Change in Net Capital Included in ISR Rate Base</b>				
4	Capital Included in ISR Rate Base	Line 1 - Line 1a - Line 1b	\$89,323,405	\$0
5	Depreciation Expense	Per Settlement Agreement Docket No. 4323, excluding General Plant	\$24,356,183	\$0
6	Incremental Capital Amount	Line 4 - Line 5	\$64,967,222	\$64,967,222
7	Cost of Removal	As Approved in RIPUC Docket No. 4540	1/ \$3,796,440	\$3,796,440
7a	Work Order Write Off Adjustment	Per Company's books	\$94,829	\$94,829
7b	New Service Installation and Service Relocations, Growth (per Informal Request Division 1-2)	Per Company's books	\$17,740	\$0
8	<b>Net Plant Amount</b>	<b>Line 6 + Line 7 - Line 7a - Line 7b</b>	<b>\$68,651,094</b>	<b>\$68,668,834</b>
<b>Deferred Tax Calculation:</b>				
9	Composite Book Depreciation Rate	As Approved in R.I.P.U.C. Docket No. 3943 & 4323	3.38%	3.38%
10	Tax Depreciation	Per Page 5 of 23, Line 21	\$82,938,193	\$786,495
11	Cumulative Tax Depreciation	Column (a) = Line 10; Column (b) = Prior Year Line 11 + Current Year Line 10	\$82,938,193	\$83,724,688
12	Book Depreciation	Column (a) = Line 3 * Line 9 * 50%; Column (b) = Line 3 * Line 9	\$1,455,873	\$2,911,746
13	Cumulative Book Depreciation	Column (a) = Line 12; Column (b) = Prior Year Line 13 + Current Year Line 12	\$1,455,873	\$4,367,619
14	Cumulative Book / Tax Timer	Line 11 - Line 13	\$81,482,320	\$79,357,069
15	Effective Tax Rate		35.00%	35.00%
16	Deferred Tax Reserve	Line 14 * Line 15	\$28,518,812	\$27,774,974
17	Less: FY 2016 Federal NOL	Per Page 19 of 23, Line 11	(\$11,594,940)	(\$11,594,940)
18	Net Deferred Tax Reserve	Line 16 + Line 17	\$16,923,872	\$16,180,034
<b>ISR Rate Base Calculation:</b>				
19	Cumulative Incremental Capital Included in ISR Rate Base	Line 8	\$68,651,094	\$68,668,834
20	Accumulated Depreciation	- Line 13	(\$1,455,873)	(\$4,367,619)
21	Deferred Tax Reserve	- Line 18	(\$16,923,872)	(\$16,180,034)
22	Year End Rate Base	Sum of Lines 19 through 21	\$50,271,349	\$48,121,180
<b>Revenue Requirement Calculation:</b>				
23	Average ISR Rate Base	Column (a) = Current Year Line 22 ÷ 2; Column (b) = (Prior Year Line 22 + Current Year Line 22) ÷ 2	\$25,135,674	\$49,196,264
24	Pre-Tax ROR		3/ 10.05%	10.05%
25	Return and Taxes	Line 23 * Line 24	\$2,526,135	\$4,944,225
26	Book Depreciation	Line 12	\$1,455,873	\$2,911,746
27	Property Taxes		4/ \$0	\$0
28	<b>Annual Revenue Requirement</b>	<b>Sum of Lines 25 through 27</b>	<b>\$3,982,008</b>	<b>\$7,855,971</b>
29	<b>As Approved in RIPUC Docket No. 4540 (FY 2016 Reconciliation)</b>		<b>\$4,218,540</b>	
30	<b>Total increase/(decrease) in revenue requirement</b>		<b>(\$236,532)</b>	
31	Work Order Write Off	Refunded to customers in RIPUC Docket No. 4678 (FY 2018 Plan), Section 3, Attachment 1S, Page 6, Line 31	(\$33,917)	
32	NOL adjustment from RIPUC Docket No. 4678 (FY 2018 Plan)	RIPUC Docket No. 4678 (FY 2018 Plan), Section 3, Attachment 1S, Page 6, Line 30(a)	(\$149,557)	
33	Tax assumptions updated to actual	Per Page 14 of 23, Line 8	(\$42,104)	
34	New Service Installations and Service Relocations Adjustment		(\$10,954)	
35	<b>Total Increase (Decrease) in Revenue Requirement</b>		<b>(\$236,532)</b>	

1/ As Approved in RIPUC Docket No. 4540

2/ Actual FY 2016 retirements per Company's books

3/ Weighted Average Cost of Capital per Settlement Agreement R.I.P.U.C. Docket No. 4323

	Ratio	Rate	Rate	Taxes	Return
Long Term Debt	49.95%	5.70%	2.85%		2.85%
Short Term Debt	0.76%	0.80%	0.01%		0.01%
Preferred Stock	0.15%	4.50%	0.01%		0.01%
Common Equity	49.14%	9.50%	4.67%	2.51%	7.18%
	100.00%		7.54%	2.51%	10.05%

4/ Property taxes calculated on Pages 16 through 18 for all vintage years commencing with FY14 and reflected in total on Page 1 at Line 11.

**The Narragansett Electric Company**  
**d/b/a National Grid**  
**RIPUC Docket No. 4590**  
**FY 2017 Gas Infrastructure, Safety,**  
**and Reliability Plan Reconciliation Filing**  
**Attachment MAL-1**  
**Page 5 of 23**

**The Narragansett Electric Company**  
**d/b/a National Grid**  
**FY 2017 Gas ISR Revenue Requirement Reconciliation**  
**Calculation of Tax Depreciation and Repairs Deduction on FY 2016 Capital Investments**

Line No.			Fiscal Year <u>2016</u> (a)	Fiscal Year <u>2017</u> (b)
	<u>Capital Repairs Deduction</u>			
1	Plant Additions	Page 4 of 23, Line 1 minus Line 1a	\$89,474,497	
2	Capital Repairs Deduction Rate	Per Tax Department	1/ 75.72%	
3	Capital Repairs Deduction	Line 2 * Line 3	<u>\$67,750,089</u>	
	<u>Bonus Depreciation</u>			
4	Plant Additions	Line 1	\$89,474,497	
5	Less Capital Repairs Deduction	Line 3	<u>\$67,750,089</u>	
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5	\$21,724,408	
7	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department	<u>99.70%</u>	
8	Plant Eligible for Bonus Depreciation	Line 6 * Line 7	\$21,659,235	
9	Bonus Depreciation Rate (April 2015- December 2015)	1 * 75% * 50%	37.50%	
10	Bonus Depreciation Rate (January 2016 - March 2016)	1 * 25% * 50%	<u>12.50%</u>	
11	Total Bonus Depreciation Rate	Line 9 + Line 10	50.00%	
12	Bonus Depreciation	Line 8 * Line 11	\$10,829,617	
	<u>Remaining Tax Depreciation</u>			
13	Plant Additions	Line 1	\$89,474,497	
14	Less Capital Repairs Deduction	Line 3	\$67,750,089	
15	Less Bonus Depreciation	Line 12	<u>\$10,829,617</u>	
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 13 - Line 14- Line 15	\$10,894,791	\$10,894,791
17	20 YR MACRS Tax Depreciation Rates	IRS Publication 946	<u>3.750%</u>	<u>7.219%</u>
18	Remaining Tax Depreciation	Line 16 * Line 17	\$408,555	\$786,495
19	FY16 tax (gain)/loss on retirements	Per Tax Department	\$248,321	
20	Cost of Removal	Page 4 of 23, Line 7 minus Line 7a	\$3,701,611	
21	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 19 & 20	<u>\$82,938,193</u>	<u>\$786,495</u>

1/ Agrees to the FY 2016 Gas Plan Proposal in RIPUC Docket 4540. Capital Repairs percentage is based on a three-year average of FYs 2012, 2013 and 2014 capital repairs rates.

The Narragansett Electric Company  
d/b/a National Grid  
FY 2017 Gas ISR Revenue Requirement Reconciliation  
Computation of Revenue Requirement on FY 2015 Actual Incremental Gas Capital Investment

Line No.			Fiscal Year 2015 (a)	Fiscal Year 2016 (b)	Fiscal Year 2017 (c)
<b>Depreciable Net Capital Included in ISR Rate Base</b>					
1	Total Allowed Capital Included in ISR Rate Base in Current Year	Per RIPUC Docket 4474	\$74,915,000	\$0	\$0
1a	Work Order Write Off Adjustment	Per Company's books	\$323,217	\$0	\$0
1b	New Service Installation and Service Relocations, Growth (per Informal Request Division 1-2)	Per Company's books	\$87,115	\$0	\$0
2	Retirements		1/ \$5,566,546	\$0	\$0
3	Net Depreciable Capital Included in ISR Rate Base	Column (a) = Line 1 - Line 1a - Line 2; Column (b) = Prior	\$68,938,122	\$68,938,122	\$68,938,122
<b>Change in Net Capital Included in ISR Rate Base</b>					
4	Capital Included in ISR Rate Base	Line 1 - Line 1a - Line 1b	\$74,504,668	\$0	\$0
5	Depreciation Expense	Per Settlement Agreement Docket No. 4323, excluding General Plant	\$24,356,183	\$0	\$0
6	Incremental Capital Amount	Line 4 - Line 5	\$50,148,485	\$50,148,485	\$50,148,485
7	Cost of Removal		2/ \$2,425,000	\$2,425,000	\$2,425,000
7a	Work Order Write Off Adjustment	Per Company's books	\$253,782	\$253,782	\$253,782
7b	New Service Installation and Service Relocations, Growth (per Informal Request Division 1-2)	Per Company's books	\$6,782	\$0	\$0
8	<b>Net Plant Amount</b>	<b>Line 6 + Line 7 - Line 7a - 7b</b>	<b>\$52,312,921</b>	<b>\$52,319,703</b>	<b>\$52,319,703</b>
<b>Deferred Tax Calculation:</b>					
9	Composite Book Depreciation Rate	As Approved in R.I.P.U.C. Docket No. 3943 & 4323	3.38%	3.38%	3.38%
10	Tax Depreciation	Per Page 7 of 23, Line 22	\$68,843,570	\$979,151	\$905,637
11	Cumulative Tax Depreciation	Prior Year Line 11 + Current Year Line 10	\$68,843,570	\$69,822,721	\$70,728,358
12	Book Depreciation	Column (a) = Line 3 * Line 9 * 50% ; Column (b) = Line 3 * Line 9	\$1,165,054	\$2,330,109	\$2,330,109
13	Cumulative Book Depreciation	Prior Year Line 13 + Current Year Line 12	\$1,165,054	\$3,495,163	\$5,825,271
14	Cumulative Book / Tax Timer	Line 11 - Line 13	\$67,678,516	\$66,327,558	\$64,903,087
15	Effective Tax Rate		35.00%	35.00%	35.00%
16	Deferred Tax Reserve	Line 14 * Line 15	\$23,687,481	\$23,214,645	\$22,716,080
17	Less: FY 2015 NOL	Per Page 19 of 23, Line 11	(\$19,205,538)	(\$19,205,538)	(\$19,205,538)
18	Net Deferred Tax Reserve	Line 16 + Line 17	\$4,481,943	\$4,009,108	\$3,510,543
<b>ISR Rate Base Calculation:</b>					
19	Cumulative Incremental Capital Included in ISR Rate Base	Line 8	\$52,312,921	\$52,319,703	\$52,319,703
20	Accumulated Depreciation	- Line 13	(\$1,165,054)	(\$3,495,163)	(\$5,825,271)
21	Deferred Tax Reserve	- Line 18	(\$4,481,943)	(\$4,009,108)	(\$3,510,543)
22	Year End Rate Base	Sum of Lines 19 through 21	\$46,665,924	\$44,815,433	\$42,983,889
<b>Revenue Requirement Calculation:</b>					
23	Average ISR Rate Base	Column (a) = Current Year Line 22 ÷ 2; Column (b) = (Prior Year Line 22 + Current Year Line 22) ÷ 2	\$23,332,962	\$45,740,679	\$43,899,661
24	Pre-Tax ROR		3/ 10.05%	10.05%	10.05%
25	Return and Taxes	Line 23 * Line 24	\$2,344,963	\$4,596,938	\$4,411,916
26	Book Depreciation	Line 12	\$1,165,054	\$2,330,109	\$2,330,109
27	Property taxes		4/ \$0	\$0	\$0
27	<b>Annual Revenue Requirement</b>	<b>Sum of Lines 25 through 27</b>	<b>\$3,510,017</b>	<b>\$6,927,047</b>	<b>\$6,742,024</b>
28	<b>As Approved in RIPUC Docket No. 4540 (FY 2016 Reconciliation)</b>		<b>\$3,541,285</b>	<b>\$6,988,713</b>	
29	<b>Total increase/(decrease) in revenue requirement</b>		<b>(\$31,268)</b>	<b>(\$61,666)</b>	
Refunded to customers in RIPUC Docket No. 4678 (FY 2018 Plan), Section 3, Attachment 1S, Page 8, Line 31					
30	Work Order Write Off Adjustment		(\$25,125)	(\$49,818)	
31	New Service Installations and Service Relocations Adjustment		(\$6,143)	(\$11,848)	
32	Total increase/(decrease) in revenue requirement		(\$31,268)	(\$61,666)	

1/ Actual FY 2015 retirements per Company's books

2/ Actual FY 2015 Cost of Removal per Company's books

3/ Weighted Average Cost of Capital per Settlement Agreement R.I.P.U.C. Docket No. 4323

	Ratio	Rate	Rate	Taxes	Return
Long Term Debt	49.95%	5.70%	2.85%		2.85%
Short Term Debt	0.76%	0.80%	0.01%		0.01%
Preferred Stock	0.15%	4.50%	0.01%		0.01%
Common Equity	49.14%	9.50%	4.67%	2.51%	7.18%
	100.00%		7.54%	2.51%	10.05%

4/ Property taxes calculated on Pages 16 through 18 for all vintage years commencing with FY14 and reflected in total on Page 1 at Line 11.

**The Narragansett Electric Company  
d/b/a National Grid  
FY 2017 Gas ISR Revenue Requirement Reconciliation  
Calculation of Tax Depreciation and Repairs Deduction on FY 2015 Capital Investments**

Line No.		Fiscal Year <u>2015</u> (a)	Fiscal Year <u>2016</u> (b)	Fiscal Year <u>2017</u> (c)
<u>Capital Repairs Deduction</u>				
1	Plant Additions	Per Page 6 of 23, Line 1 minus Line 1a	\$74,591,783	
2	Capital Repairs Deduction Rate	Per Tax Department	63.81%	
3	Capital Repairs Deduction	Line 1 * Line 2	\$47,597,001	
 <u>Bonus Depreciation</u>				
4	Plant Additions	Line 1	\$74,591,783	
5	Less Capital Repairs Deduction	Line 3	\$47,597,001	
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5	\$26,994,782	
7	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department	99.51%	
8	Plant Eligible for Bonus Depreciation	Line 6 * Line 7	\$26,862,508	
9	Bonus Depreciation Rate (April 2014 - December 2014)	1 * 75% * 50%	37.50%	
10	Bonus Depreciation Rate (January 2015 - March 2015)	1 * 25% * 50%	12.50%	
11	Total Bonus Depreciation Rate	Line 9 + Line 10	50.00%	
12	Bonus Depreciation	Line 8 * Line 11	\$13,431,254	
 <u>Remaining Tax Depreciation</u>				
13	Plant Additions	Line 1	\$74,591,783	
14	Less Capital Repairs Deduction	Line 3	\$47,597,001	
15	Less Bonus Depreciation	Line 12	\$13,431,254	
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 13 - Line 14 - Line 15	\$13,563,528	\$13,563,528
17	20 YR MACRS Tax Depreciation Rates	Per IRS Pub. 946	3.750%	7.219%
18	Remaining Tax Depreciation	Line 16 * Line 17	\$508,632	\$979,151
19	\$481(a) FY09- FY14 adjustment for tax (gain)/loss on retirements	Per Tax Department	\$4,311,849	
20	FY15 tax (gain)/loss on retirements	Per Tax Department	\$823,616	
21	Cost of Removal	Per Page 6 of 23, Line 7 minus Line 7a	\$2,171,218	
22	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 19, 20 & 21	\$68,843,570	\$979,151
				\$905,637

1/ Capital Repairs percentage is based on the actual results of the FY 2015 tax return. Since growth is not included in the ISR, the percentage was derived by taking property qualifying for the repairs deduction as a percentage of the total annual plant additions in those categories that are considered as potentially qualifying for Capital Repairs deduction.

The Narragansett Electric Company  
d/b/a National Grid  
FY 2017 Gas ISR Revenue Requirement Reconciliation  
Computation of Revenue Requirement on FY 2014 Actual Incremental Gas Capital Investment

Line No.		Fiscal Year 2014 (a)	Fiscal Year 2015 (b)	Fiscal Year 2016 (c)	Fiscal Year 2017 (d)
<b>Depreciable Net Capital Included in Rate Base</b>					
		Page 15 of 23, Line 3, Column (c); (Includes Work Order Write Off Adjustment & New Service Installations and Service Relocations, Growth)			
1	Total Allowed Capital Included in Rate Base in Current Year	\$21,360,998	\$0	\$0	\$0
2	Retirements	1/ 1,615,155	\$0	\$0	\$0
3	Net Depreciable Capital Included in Rate Base	\$19,745,842	\$19,745,842	\$19,745,842	\$19,745,842
<b>Change in Net Capital Included in Rate Base</b>					
4	Capital Included in Rate Base	Line 1	\$21,360,998	\$0	\$0
5	Depreciation expense	Per Compliance filing Docket No. 4323, excluding General Plant	2/ \$4,060,176	\$0	\$0
6	Incremental Capital Amount	Line 4 - Line 5	\$17,300,822	\$17,300,822	\$17,300,822
7	Cost of Removal	Page 15 of 23, Line 6, Column (c); (Includes Work Order Write Off Adjustment)	3/ (\$1,319,752)	(\$1,319,752)	(\$1,319,752)
8	<b>Net Plant Amount</b>	<b>Line 6 + Line 7</b>	<b>\$15,981,069</b>	<b>\$15,981,069</b>	<b>\$15,981,069</b>
<b>Deferred Tax Calculation:</b>					
9	Composite Book Depreciation Rate	As Approved in R.I.P.U.C. Docket No. 4323 and 3943	3.38%	3.38%	3.38%
10	Tax Depreciation	Page 9 of 23, Line 20	\$17,439,322	\$195,151	\$180,499
11	Cumulative Tax Depreciation	Prior Year Line 11 + Current Year Line 10	\$17,439,322	\$17,634,473	\$17,814,972
12	Book Depreciation	Column (a) = Line 3 * Line 9 * 50% ; Columns (b)&(c) = Line 3 *	Line 9 \$333,705	\$667,409	\$667,409
13	Cumulative Book Depreciation	Prior Year Line 13 + Current Year Line 12	\$333,705	\$1,001,114	\$1,668,524
14	Cumulative Book / Tax Timer	Line 11 - Line 13	\$17,105,617	\$16,633,358	\$16,146,448
15	Effective Tax Rate		35.00%	35.00%	35.00%
16	Deferred Tax Reserve	Line 14 * Line 15	\$5,986,966	\$5,821,675	\$5,651,257
17	Less: FY 2014 Federal NOL	Lessor of Line 16 or Page 19 of 23, Line 10	(\$5,986,966)	(\$5,821,675)	(\$5,651,257)
18	Net Deferred Tax Reserve	Line 16 + Line 17	\$0	\$0	\$0
<b>Rate Base Calculation:</b>					
19	Cumulative Incremental Capital Included in Rate Base	Line 8	\$15,981,069	\$15,981,069	\$15,981,069
20	Accumulated Depreciation	- Line 13	(\$333,705)	(\$1,001,114)	(\$2,335,933)
21	Deferred Tax Reserve	- Line 18	\$0	\$0	\$0
22	Year End Rate Base	Sum of Lines 19 through 21	\$15,647,365	\$14,979,955	\$14,312,546
<b>Revenue Requirement Calculation:</b>					
23	Average Rate Base	Col (a) = Line 22 * Page 18, Line 16; Col (b)&(c) = (Prior Year Line 22 + Current Year Line 22) ÷ 2	\$4,914,753	\$15,313,660	\$14,646,250
24	Pre-Tax ROR		4/ 10.05%	10.05%	10.05%
25	Return and Taxes	Line 23 * Line 24	\$493,933	\$1,539,023	\$1,471,948
26	Book Depreciation	Line 12	\$333,705	\$667,409	\$667,409
27	Property Taxes		5/ \$0	\$0	\$0
28	<b>Annual Revenue Requirement on Incremental FY14 Investment</b>	<b>Sum of Lines 25 through 27</b>	<b>\$827,637</b>	<b>\$2,206,432</b>	<b>\$2,139,358</b>
29	Remaining FY14 NOL attributable to embedded rate base in RIPUC Docket 4323	Per Page 19 of 23, Line 11 less Line 17	\$12,037,252	\$12,202,543	\$12,372,961
30	Average Rate Base	Col (a) = Line 29 * Page 19, Line 15; Col (b)&(c) = (Prior Year Line 29 + Current Year Line 29) ÷ 2	\$7,021,730	\$12,119,897	\$12,287,752
31	Pre-Tax ROR		4/ 10.05%	10.05%	10.05%
32	Return and Taxes	Line 30 * Line 31	\$705,684	\$1,218,050	\$1,234,919
33	<b>Annual Revenue Requirement adjustment to base rates relate</b>	<b>Line 32</b>	<b>\$705,684</b>	<b>\$1,218,050</b>	<b>\$1,234,919</b>
34	<b>Total Annual Revenue Requirement</b>	<b>Line 28 + Line 33</b>	<b>\$1,533,321</b>	<b>\$3,424,482</b>	<b>\$3,374,277</b>
35	<b>As Approved in RIPUC Docket No. 4540 (FY 2016 Reconciliation)</b>		<b>\$1,584,245</b>	<b>\$3,545,107</b>	<b>\$3,492,075</b>
36	<b>Total increase/(decrease) in revenue requirement</b>		<b>(\$50,924)</b>	<b>(\$120,625)</b>	<b>(\$117,798)</b>
37	Work Order Write Off Adjustment	Refunded to customers in RIPUC Docket No. 4678 (FY 2018 Plan), Section 3, Attachment IS, Page 10, Line 37	(\$35,417)	(\$84,872)	(\$82,930)
38	New Service Installations and Service Relocations Adjustment		(\$15,507)	(\$35,753)	(\$34,868)
39	Total increase/(decrease) in revenue requirement		(\$50,924)	(\$120,625)	(\$117,798)

1/ Actual Incremental Retirements

2/ Depreciation expense has been prorated for two months (February - March 2014).

3/ Actual Incremental Cost of Removal

4/ Weighted Average Cost of Capital as approved in R.I.P.U.C. Docket No. 4323

	Ratio	Rate	Rate	Taxes	Return
Long Term Debt	49.95%	5.70%	2.85%		2.85%
Short Term Debt	0.76%	0.80%	0.01%		0.01%
Preferred Stock	0.15%	4.50%	0.01%		0.01%
Common Equity	49.14%	9.50%	4.67%	2.51%	7.18%
	<u>100.00%</u>		<u>7.54%</u>	<u>2.51%</u>	<u>10.05%</u>

5/ Property taxes calculated on Pages 16 through 18 for all vintage years commencing with FY14 and reflected in total on Page 1 at Line 11.

The Narragansett Electric Company  
d/b/a National Grid  
FY 2017 Gas ISR Revenue Requirement Reconciliation  
Computation of Revenue Requirement on FY 2014 Actual Incremental Gas Capital Investment

Line No.			Fiscal Year 2014 (a)	Fiscal Year 2015 (b)	Fiscal Year 2016 (c)	Fiscal Year 2017 (d)
<u>Capital Repairs Deduction</u>						
1	Plant Additions	Per Page 8 of 23, Line 1	\$21,360,998			
2	Capital Repairs Deduction Rate	Per Tax Department 1/	74.94%			
3	Capital Repairs Deduction	Line 1 * Line 2	\$16,007,932			
<u>Bonus Depreciation</u>						
4	Plant Additions	Line 1	\$21,360,998			
5	Less Capital Repairs Deduction	Line 3	\$16,007,932			
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5	\$5,353,066			
7	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department	99.00%			
8	Plant Eligible for Bonus Depreciation	Line 6 * Line 7	\$5,299,535			
9	Bonus Depreciation Rate (April 2013 - December 2013)	1 * 75% * 50%	37.50%			
10	Bonus Depreciation Rate (January 2014 - March 2014)	1 * 25% * 50%	12.50%			
11	Total Bonus Depreciation Rate	Line 9 + Line 10	50.00%			
12	Bonus Depreciation	Line 8 * Line 11	\$2,649,768			
<u>Remaining Tax Depreciation</u>						
13	Plant Additions	Line 1	\$21,360,998			
14	Less Capital Repairs Deduction	Line 3	\$16,007,932			
15	Less Bonus Depreciation	Line 12	\$2,649,768			
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 13 - 14 - 15	\$2,703,298	\$2,703,298	\$2,703,298	\$2,703,298
17	20 YR MACRS Tax Depreciation Rates	Per IRS Pub. 946	3.750%	7.219%	6.677%	6.177%
18	Remaining Tax Depreciation	Line 16 * Line 17	\$101,374	\$195,151	\$180,499	\$166,983
19	Cost of Removal	Per Page 8 of 23, Line 7	(\$1,319,752)			
20	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 19	\$17,439,322	\$195,151	\$180,499	\$166,983

1/ Capital Repairs percentage is based on the actual results of the FY 2014 tax return. Since growth is not included in the ISR, the percentage was derived by taking property qualifying for the repairs deduction as a percentage of the total annual plant additions in those categories that are considered as potentially qualifying for Capital Repairs deduction.



The Narragansett Electric Company  
d/b/a National Grid  
FY 2017 Gas ISR Revenue Requirement Reconciliation  
Calculation of Tax Depreciation and Repairs Deduction on FY 2013 Capital Investments

Line No.			Fiscal Year 2013 (a)	Fiscal Year 2014 (b)	Fiscal Year 2015 (c)	Fiscal Year 2016 (d)	Fiscal Year 2017 (e)
<u>Capital Repairs Deduction</u>							
1	Plant Additions	Per Page 10 of 23, Line 1	(\$1,197,129)				
2	Capital Repairs Deduction Rate	Per Tax Department	1/ 67.95%				
3	Capital Repairs Deduction	Line 1 * Line 2	(\$813,449)				
<u>Bonus Depreciation</u>							
4	Plant Additions	Line 1	(\$1,197,129)				
5	Less Capital Repairs Deduction	Line 3	(\$813,449)				
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5	(\$383,680)				
7	Percent of Plant Eligible for 100% Bonus Depreciation	Per Tax Department	2/ 5.67%				
8	Plant Eligible for 100% Bonus Depreciation	Line 6 * Line 7	(\$21,763)				
9	Bonus Depreciation Rate (April 2012 - December 2012)	1 * 75% * 100%	75.00%				
10	Bonus Depreciation Rate (January 2013 - March 2013)	1 * 25% * 100%	25.00%				
11	Total Bonus Depreciation Rate	Line 9 + Line 10	100.00%				
12	100% Bonus Depreciation	Line 8 * Line 11	(\$21,763)				
13	Plant Additions Net of Capital Repairs Deduction and 100% Bonus Depreciation	Line 6 - Line 12	(\$361,917)				
14	Plant Eligible for 50% Bonus Depreciation	Per Tax Department	100.00%				
15	Bonus Depreciation Rate (April 2012 - December 2012)	1 * 75% * 50%	37.50%				
16	Bonus Depreciation Rate (January 2013 - March 2013)	1 * 25% * 50%	12.50%				
17	Total Bonus Depreciation Rate	Line 9 + Line 10	50.00%				
18	50% Bonus Depreciation	Line 13 * Line 17	(\$180,958)				
<u>Remaining Tax Depreciation</u>							
19	Plant Additions	Line 1	(\$1,197,129)				
20	Less Capital Repairs Deduction	Line 3	(\$813,449)				
21	Less Bonus Depreciation	Line 12 + Line 18	(\$202,721)				
22	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 19 - 20 - 21	(\$180,958)	(\$180,958)	(\$180,958)	(\$180,958)	(\$180,958)
23	20 YR MACRS Tax Depreciation Rates	Per IRS Pub. 946	3.750%	7.219%	6.677%	6.177%	5.713%
24	Remaining Tax Depreciation	Line 22 * Line 23	(\$6,786)	(\$13,063)	(\$12,083)	(\$11,178)	(\$10,338)
25	Cost of Removal	Per Page 10 of 23, Line 5	(\$1,701,046)				
26	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 24, & 25	(\$2,724,002)	(\$13,063)	(\$12,083)	(\$11,178)	(\$10,338)

1/ Capital Repairs percentage is based on the actual results of the FY 2013 tax return.

2/ Long period production assets qualifying for 100% bonus depreciation in FY 2013 totaled \$3.2 million, taken over total FY13 ISR-eligible capital investment of \$56.4 million equals 5.67%.

The Narragansett Electric Company  
d/b/a National Grid  
FY 2017 Gas ISR Revenue Requirement Reconciliation  
Computation of Revenue Requirement on FY 2012 Gas Capital Investment

Line No.			Fiscal Year 2012 (a)	Fiscal Year 2013 (b)	Fiscal Year 2014 (c)	Fiscal Year 2015 (d)	Fiscal Year 2016 (e)	Fiscal Year 2017 (f)
<b>Depreciable Net Capital Included in Rate Base</b>								
1	Total Allowed Capital Included in Rate Base in Current Year	Page 15 of 23, Line 3, Column (b); (Includes Work Order Write Off Adjustment & New Service Installations and Service Relocations, Growth)	\$6,721,626	\$0	\$0	\$0	\$0	\$0
2	Retirements	Page 15 of 23, Line 9, Column (a) 1/	2,292,446	\$0	\$0	\$0	\$0	\$0
3	Net Depreciable Capital Included in Rate Base	Column (a) = Line 1 - Line 2; Column (b)-(e) = Prior Year Line 3	\$4,429,180	\$4,429,180	\$4,429,180	\$4,429,180	\$4,429,180	\$4,429,180
<b>Change in Net Capital Included in Rate Base</b>								
4	Capital Included in Rate Base	Line 1	\$6,721,626	\$6,721,626	\$6,721,626	\$6,721,626	\$6,721,626	\$6,721,626
5	Cost of Removal	Page 15 of 23, Line 6, Column (a) 2/	(\$3,180,470)	(\$3,180,470)	(\$3,180,470)	(\$3,180,470)	(\$3,180,470)	(\$3,180,470)
6	<b>Net Plant Amount</b>	<b>Line 4 + Line 5</b>	<b>\$3,541,156</b>	<b>\$3,541,156</b>	<b>\$3,541,156</b>	<b>\$3,541,156</b>	<b>\$3,541,156</b>	<b>\$3,541,156</b>
<b>Deferred Tax Calculation:</b>								
7	Composite Book Depreciation Rate	As Approved in R.I.P.U.C. Docket No. 3943	3.38%	3.38%	3.38%	3.38%	3.38%	3.38%
8	Tax Depreciation	Page 13 of 23, Line 20	\$3,001,202	\$40,498	\$37,457	\$34,652	\$32,049	\$29,648
9	Cumulative Tax Depreciation	Prior Year Line 9 + Current Year Line 8	\$3,001,202	\$3,041,700	\$3,079,157	\$3,113,810	\$3,145,859	\$3,175,507
10	Book Depreciation	Column (a) = Line 3 * Line 7 * 50%; Columns (b)-(e) = Line 3 * Line 7	\$74,853	\$149,706	\$149,706	\$149,706	\$149,706	\$149,706
11	Cumulative Book Depreciation	Prior Year Line 11 + Current Year Line 10	\$74,853	\$224,559	\$374,266	\$523,972	\$673,678	\$823,385
12	Cumulative Book / Tax Timer	Line 9 - Line 11	\$2,926,349	\$2,817,141	\$2,704,892	\$2,589,838	\$2,472,181	\$2,352,123
13	Effective Tax Rate		35.00%	35.00%	35.00%	35.00%	35.00%	35.00%
14	Deferred Tax Reserve	Line 12 * Line 13	\$1,024,222	\$985,999	\$946,712	\$906,443	\$865,263	\$823,243
15	Less: FY 2012 Federal NOL	Per Page 19 of 23, Line 11	(\$1,024,222)	(\$985,999)	(\$946,712)	(\$906,443)	(\$865,263)	(\$823,243)
16	Net Deferred Tax Reserve	Line 14 + Line 15	\$0	\$0	\$0	\$0	\$0	\$0
<b>Rate Base Calculation:</b>								
17	Cumulative Incremental Capital Included in Rate Base	Line 6	\$3,541,156	\$3,541,156	\$3,541,156	\$3,541,156	\$3,541,156	\$3,541,156
18	Accumulated Depreciation	- Line 11	(\$74,853)	(\$224,559)	(\$374,266)	(\$523,972)	(\$673,678)	(\$823,385)
19	Deferred Tax Reserve	- Line 16	\$0	\$0	\$0	\$0	\$0	\$0
20	Year End Rate Base	Sum of Lines 17 through 19	\$3,466,303	\$3,316,596	\$3,166,890	\$3,017,184	\$2,867,477	\$2,717,771
<b>Revenue Requirement Calculation:</b>								
21	Average Rate Base	Column (a) = Current Yr Line 20 ÷ 2; Columns (b)-(e) = (Prior Yr Line 20 + Current Yr Line 20) ÷ 2	\$1,733,151	\$3,391,449	\$3,241,743	\$3,092,037	\$2,942,331	\$2,792,624
22	Pre-Tax ROR		11.41%	11.18%	10.05%	10.05%	10.05%	10.05%
23	Return and Taxes	Line 21 * Line 22 3/	\$197,753	\$379,164	\$325,795	\$310,750	\$295,704	\$280,659
24	Book Depreciation	Line 10	\$74,853	\$149,706	\$149,706	\$149,706	\$149,706	\$149,706
25	Property Taxes	\$0 in Year 1, then Prior Year (Line 6- Line 11) * Property Tax Rate 4/	\$0	\$48,144	\$111,106	\$95,957	\$93,690	\$88,445
26	<b>Annual Revenue Requirement</b>	<b>Sum of Lines 23 through 25</b>	<b>\$272,606</b>	<b>\$577,014</b>	<b>\$586,607</b>	<b>\$556,413</b>	<b>\$539,101</b>	<b>\$518,810</b>
27	Remaining FY12 NOL attributable to embedded rate base in RIPUC Docket 4323	Per Page 19 of 23, Line 11 less Line 15 Col (a) = Line 27 * 50%; Col (b)-(e) = (Prior Year Line 27 + Current Year Line 27) ÷ 2	\$5,243,839	\$5,282,062	\$5,321,349	\$5,361,618	\$5,402,798	\$5,444,818
28	Average Rate Base		\$2,621,920	\$5,262,951	\$5,301,706	\$5,341,484	\$5,382,208	\$5,423,808
29	Pre-Tax ROR		11.41%	11.18%	10.05%	10.05%	10.05%	10.05%
30	Return and Taxes	Line 28 * Line 29 5/	\$299,161	\$588,398	\$532,821	\$536,819	\$540,912	\$545,093
31	<b>Annual Revenue Requirement adjustment to base rates related to NOL</b>	<b>Line 30</b>	<b>\$299,161</b>	<b>\$588,398</b>	<b>\$532,821</b>	<b>\$536,819</b>	<b>\$540,912</b>	<b>\$545,093</b>
32	<b>Total Annual Revenue Requirement</b>	<b>Line 26 + Line 31</b>	<b>\$571,767</b>	<b>\$1,165,412</b>	<b>\$1,119,429</b>	<b>\$1,093,232</b>	<b>\$1,080,013</b>	<b>\$1,063,902</b>
33	<b>As Approved in RIPUC Docket No. 4540 (FY 2016 Reconciliation)</b>		<b>\$577,327</b>	<b>\$1,176,246</b>	<b>\$1,132,588</b>	<b>\$1,105,748</b>	<b>\$1,092,079</b>	
34	<b>Total increase/(decrease) in revenue requirement</b>		<b>(\$5,560)</b>	<b>(\$10,834)</b>	<b>(\$13,159)</b>	<b>(\$12,516)</b>	<b>(\$12,066)</b>	
35	Work Order Write Off Adjustment	Refunded to customers in RIPUC Docket No. 4678 (FY 2018 Plan), Section 3, Attachment 1S, Page 14, Line 35	\$0	\$0	\$0	\$0	\$140	
36	New Service Installations and Service Relocations Adjustment		(\$5,560)	(\$10,834)	(\$13,159)	(\$12,516)	(\$12,206)	
37	Total increase/(decrease)		(\$5,560)	(\$10,834)	(\$13,159)	(\$12,516)	(\$12,066)	

1/ Actual Incremental Retirements

2/ Actual Incremental Cost of Removal

3/ Weighted Average Cost of Capital as approved in R.I.P.U.C. Docket No. 4323

	Ratio	Rate	Rate	Taxes	Return
Long Term Debt	49.95%	5.70%	2.85%		
Short Term Debt	0.76%	0.80%	0.01%		0.01%
Preferred Stock	0.15%	4.50%	0.01%		0.01%
Common Equity	49.14%	9.50%	4.67%	2.51%	7.18%
	100.00%		7.54%	2.51%	10.05%

4/ FY 2016 effective property tax rate of 3.11% per Page 16 of 23 at Line 35(b).

5/ Cols (a) & (b) - Per Page 20 of 23, Line 1; Cols (c) & (d) - Per Note 3 above

The Narragansett Electric Company  
d/b/a National Grid  
FY 2017 Gas ISR Revenue Requirement Reconciliation  
Calculation of Tax Depreciation and Repairs Deduction on FY 2012 Capital Investments

Line No.			Fiscal Year 2012 (a)	Fiscal Year 2013 (b)	Fiscal Year 2014 (c)	Fiscal Year 2015 (d)	Fiscal Year 2016 (e)	Fiscal Year 2017 (f)
<u>Capital Repairs Deduction</u>								
1	Plant Additions	Per Page 12 of 23, Line 1	\$6,721,626					
2	Capital Repairs Deduction Rate	Per Tax Department	1/ 67.43%					
3	Capital Repairs Deduction	Line 1 * Line 2	\$4,532,392					
<u>Bonus Depreciation</u>								
4	Plant Additions	Line 1	\$6,721,626					
5	Less Capital Repairs Deduction	Line 3	\$4,532,392					
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5	\$2,189,234					
7	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department	2/ 85.00%					
8	Plant Eligible for Bonus Depreciation	Line 6 * Line 7	\$1,860,849					
9	Bonus Depreciation Rate (April 2011 - December 2011)	1 * 75% * 100%	75.00%					
10	Bonus Depreciation Rate (January 2012 - March 2012)	1 * 25% * 50%	12.50%					
11	Total Bonus Depreciation Rate	Line 9 + Line 10	87.50%					
12	Bonus Depreciation	Line 8 * Line 11	\$1,628,243					
<u>Remaining Tax Depreciation</u>								
13	Plant Additions	Line 1	\$6,721,626					
14	Less Capital Repairs Deduction	Line 3	\$4,532,392					
15	Less Bonus Depreciation	Line 12	\$1,628,243					
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 13 - 14 - 15	\$560,991	\$560,991	\$560,991	\$560,991	\$560,991	\$560,991
17	20 YR MACRS Tax Depreciation Rates	Per IRS Pub. 946	3.750%	7.219%	6.677%	6.177%	5.713%	5.285%
18	Remaining Tax Depreciation	Line 16 * Line 17	\$21,037	\$40,498	\$37,457	\$34,652	\$32,049	\$29,648
19	Cost of Removal	Per Page 12 of 23, Line 5	(\$3,180,470)					
20	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 19	\$3,001,202	\$40,498	\$37,457	\$34,652	\$32,049	\$29,648

1/ Capital Repairs percentage is based on the actual results of the FY 2012 tax return. Since growth is not included in the ISR, the percentage was derived by taking property qualifying for the repairs deduction as a percentage of the total annual plant additions in those categories that are considered as potentially qualifying for Capital Repairs deduction.

2/ Since not all property additions qualify for bonus depreciation and because a project must be started after the beginning of the bonus period, January 1, 2008, an estimate of 85% is used rather than 100%.

**The Narragansett Electric Company**  
**d/b/a National Grid**  
**FY 2017 Gas ISR Revenue Requirement Reconciliation**  
**True-up for Capital Repairs, Bonus Depreciation Deduction, and NOL on FY 2016 Capital Investments**

<u>Line</u> <u>No.</u>	<u>Update Capital Repairs Rate, Bonus Depreciation, and NOL in FY 2016 Revenue Requirement on</u> <u>FY 2016 Capital Investment</u>	(a)
1	FY 2016 Revenue Requirement using estimated capital repairs deduction rate of 70.11%, estimated percentage of plant eligible for bonus depreciation of 100%, estimated bonus depreciation rate of 50.00%, estimated tax loss on retirements of \$238,628, NOL of \$14,571,198, work order write off adjustment of \$0 and new service installation and service relocations of \$0, per RIPUC Docket 4540	\$4,218,540
2	FY 2016 Revenue Requirement using actual capital repairs deduction rate of 75.72%, actual percentage of plant eligible for bonus depreciation of 99.7%, actual bonus depreciation rate of 50.00%, actual tax loss on retirements of \$248,321, actual NOL of \$11,594,940, work order write off adjustment of \$33,917 and new service installation and service relocations of \$168,832	<u>\$3,982,008</u>
3	<b>Increase/(Decrease) in revenue requirement</b>	<b>(\$236,532)</b>
4	FY 2016 Work Order Write Off Adjustment	(\$33,917)
5	New Service Installations and Service Relocations Adjustment	<u>(\$10,954)</u>
6	<b>Total increase/(decrease) in revenue requirement related to tax</b>	<b><u>(\$191,661)</u></b>
7	NOL adjustment from RIPUC Docket No. 4678 (FY 2018 Plan)	(\$149,557)
8	Tax assumptions updated to actual	<u>(\$42,104)</u>
9	<b>Total increase/(decrease) in revenue requirement related to tax</b>	<b><u>(\$191,661)</u></b>

Line Notes

- 1 RIPUC Docket No. 4540, Attachment MAL-1 Supplemental, Page 1, Line 2
- 2 From Page 4 of 23, Line 28(a)
- 3 Line 2 - Line 1
- 4 RIPUC Docket No. 4678, Section 3, Attachment 1, Page 24, Line 8(d)
- 5 From Page 23 of 23, Line 8(e)
- 6 Line 3 - Line 4 - Line 5
- 7 RIPUC Docket No. 4678 (FY 2018 Plan), Section 3, Attachment 1S, Page 6, Line 31
- 8 Page 4 of 23, Line 33

**The Narragansett Electric Company  
d/b/a National Grid  
FY 2017 Gas ISR Revenue Requirement Reconciliation  
FY 2012 - FY 2014 Incremental Capital Investment Summary**

Line No.		Actual Fiscal Year <u>2012</u> (a)	Actual Fiscal Year <u>2013</u> (b)	Actual Fiscal Year <u>2014</u> (c)
<b><u>Capital Investment</u></b>				
1	ISR-eligible Capital Investment	\$ 54,477,445	\$56,416,101	\$70,137,361
Col (a) Docket No. 4219 FY 2012 ISR Reconciliation Filing less audit adjustment of \$203,902; Col (b) Docket No. 4306 FY 2013 ISR Reconciliation Filing less audit adjustment of \$44,855; Col (c) Docket No. 4380 FY 2014 ISR Reconciliation Filing less audit adjustment of \$266,685				
1a	Work Order Write Off Adjustment	\$0	\$393,288	\$771,673
Per Company's books				
1b	New Service Installation and Service Relocations, Growth (per Informal Request Division 1-2)	\$95,103	\$35,750	\$351,197
Per Company's books				
2	ISR-eligible Capital Additions included in Rate Base per R.I.P.U.C. Docket No. 4323	\$47,660,716	\$57,184,191	\$47,653,493
Docket No. 4323 Schedule MDL-3-Gas Page 51, Line Notes 1(a), 2(b) and 3(e)				
3	Incremental ISR Capital Investment	\$6,721,626	(\$1,197,129)	\$21,360,998
Line 1 - Line 1a - Line 1b - Line 2				
<b><u>Cost of Removal</u></b>				
4	ISR-eligible Cost of Removal	\$2,583,612	\$3,152,565	\$2,707,824
Col (a) Docket No. 4219 FY 2012 ISR Reconciliation Filing; Col (b) Docket No. 4306 FY 2013 ISR Reconciliation Filing; Col (c) Actual FY 2014 ISR Gas Cost of Removal per Company's Books				
4a	Work Order Write Off Adjustment	\$0	\$141,414	\$105,654
Per Company's Books				
4b	New Service Installation and Service Relocations, Growth (per Informal Request Division 1-2)	\$8,994	\$10,801	\$4,092
Per Company's books				
5	ISR-eligible Cost of Removal in Rate Base per R.I.P.U.C. Docket No. 4323	\$5,755,088	\$4,701,396	\$3,917,830
Docket No. 4323, Workpaper MDL-19-GAS, Page 3				
6	Incremental Cost of Removal	(\$3,180,470)	(\$1,701,046)	(\$1,319,752)
Line 4 - Line 4a - Line 4b - Line 5				
<b><u>Retirements</u></b>				
7	ISR-eligible Retirements	\$5,366,562	5,775,791	\$5,274,944
Col (a) Docket No. 4219 FY 2012 ISR Reconciliation filing; Col (b) Docket No. 4306 FY 2013 ISR Reconciliation filing; Col (c) Actual FY 2014 ISR Gas Retirements				
8	ISR-eligible Retirements per R.I.P.U.C. Docket No. 4323	\$3,074,116	\$2,498,949	\$3,659,788
Col (a) Docket No. 4219 Supplemental Testimony 2-17-2011; Col (b) Docket No. 4306 FY 2013 ISR Proposal Filing; Col (c)= Line 2(c) * 7.68% Retirement rate per Docket No. 4323 (Workpaper MDL-19-GAS p 4)				
9	Incremental Retirements	\$2,292,446	\$3,276,842	\$1,615,155
Line 7- Line 8				

The Narragansett Electric Company  
d/b/a National Grid  
FY 2017 Gas ISR Revenue Requirement Reconciliation  
FY 2017 Property Tax Recovery Adjustment  
(\$000s)

Line	Effective Tax Rate Calculation	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)			
		<u>RY End</u>	<u>ISR Additions</u>	<u>Non-ISR Add's</u>	<u>Total Add's</u>	<u>Bk Depr</u>	<u>Retirements</u>	<u>COR</u>	<u>End of FY14</u>			
1	Plant In Service	\$805,721	\$11,502	\$1,052	\$12,555				As filed			
2									\$817,396			
3	Accumulated Depr	\$347,664				\$4,691	(\$879)	(\$433)	\$351,043			
4												
5	Net Plant	\$458,057							\$466,353			
6												
7	Property Tax Expense	\$13,995							\$15,624			
8												
9	Effective Prop tax Rate	3.06%							3.35%			
10												
11		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)			
12		<u>End of FY14</u>	<u>ISR Additions</u>	<u>Non-ISR Add's</u>	<u>Total Add's</u>	<u>Bk Depr</u>	<u>Retirements</u>	<u>COR</u>	<u>End of FY15</u>			
13												
14	Plant In Service	\$817,569	\$74,505	\$22,014	\$96,519				\$906,119			
15												
16	Accumulated Depr	\$351,043				\$30,021	(\$7,969)	(\$2,164)	\$370,930			
17												
18	Net Plant	\$466,526							\$535,189			
19												
20	Property Tax Expense	\$15,624							\$16,221			
21												
22	Effective Prop tax Rate	3.35%							3.03%			
23												
24		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)			
25		<u>End of FY15</u>	<u>ISR Additions</u>	<u>Non-ISR Add's</u>	<u>Total Add's</u>	<u>Bk Depr</u>	<u>Retirements</u>	<u>COR</u>	<u>End of FY16</u>			
26												
27	Plant In Service	\$906,119	\$89,323	\$27,286	\$116,610				\$1,019,550			
28												
29	Accumulated Depr	\$370,930				\$33,435	(\$3,178)	(\$3,684)	\$397,503			
30												
31	Net Plant	\$535,189							\$622,048			
32												
33	Property Tax Expense	\$16,221							\$19,316			
34												
35	Effective Prop tax Rate	3.03%							3.11%			
36												
37												
38	<b>Property Tax Recovery Calculation</b>	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
39		<u>Cumulative Incremental ISR Property Tax for FY14</u>				<u>Cumulative Incremental ISR Property Tax for FY15</u>				<u>Cumulative Incremental ISR Property Tax for FY16</u>		
40												
41	ISR Additions		\$11,502				\$74,505				\$89,323	
42	Book Depreciation: base allowance on ISR eligible plant		(\$4,060)				(\$24,356)				(\$24,356)	
43	Book Depreciation: current year ISR additions		(\$631)				(\$1,165)				(\$1,456)	
44	COR		\$433				\$2,164				\$3,684	
45												
46	Net Plant Additions		\$7,244				\$51,148				\$67,195	
47												
48	Rate Year Effective Tax Rate		3.06%				3.06%				3.06%	
49	Property Tax Recovery on 2 mos FY14 vintage investment			\$221				\$229				\$218
50	Property Tax Recovery on FY15 vintage investment							\$1,563				\$1,494
51	Property Tax Recovery on FY16 vintage investment											\$2,053
52												
53	ISR Year Effective Tax Rate	3.35%				3.03%				3.11%		
54	RY Effective Tax Rate & differential	3.06%	0.29%			3.06%	-0.03%			3.06%	0.05%	
55	RY Effective Tax Rate differential for 2 months FY 2014		0.05%									
56	RY Net Plant times Tax Rate differential	\$458,057	* 0.05%	\$225		\$458,057	* -0.03%	(\$116)		\$458,057	* 0.05%	\$229
57	2 mos FY14 Net Adds times ISR Year Effective Tax rate	\$7,244	* 0.29%	\$21		\$7,486	* -0.03%	(\$2)		\$7,127	* 0.05%	\$4
58	FY15 Net Adds times ISR Year Effective Tax rate					\$51,148	* -0.03%	(\$13)		\$48,899	* 0.05%	\$24
59	FY16 Net Adds times ISR Year Effective Tax rate									\$67,195	* 0.05%	\$34
60	Total Property Tax related to rate differential			\$246				(\$131)				\$290
61												
62	Total ISR Property Tax Recovery			\$468				\$1,661				\$4,055
62a	As Approved in RIPUC Docket No. 4678 (FY 2018 Plan)			\$470				\$1,673				\$4,065
62b	COR Adjustment & New Service Installation and Service Relocations			(\$2)				(\$12)				(\$10)



The Narragansett Electric Company  
d/b/a National Grid  
FY 2017 Property Tax Recovery Adjustment  
FY 2017 Property Tax Recovery Adjustment (continued)  
(\$000s)

Line Notes

1(a) - 9(a) Per Rate Year cost of service per Compliance filing Attachment 6 at Docket No. 4323.  
1(b) - 9(h) Per Docket 4380 FY 2014 Gas ISR Plan Reconciliation filing at Page 10 of 13.  
12(a) - 22(h) Per Docket 4474 FY 2015 Gas ISR Plan Reconciliation filing at Page 12 of 17.  
27(a)-35(h) Per Docket 4540 FY 2016 Gas ISR Plan Proposal Compliance filing at Page 13 of 15.  
41(a) - 62(c) Per Docket 4380 FY 2014 Gas ISR Plan Reconciliation filing at Page 10 of 13.  
41(c)-62(g) Per Docket 4474 FY 2015 Gas ISR Plan Reconciliation filing at Page 12 of 17.  
41(i)-62(k) Per Docket 4540 FY 2016 Gas ISR Plan Proposal Compliance filing at Page 13 of 15.  
62b COR adjustment includes work order write off adjustment not previously included in COR  
63(a) Per Line 27(h)  
63(b) Per Page 2 of 23, Line 1  
63(c) FY 2017 forecasted Growth investment of \$27,876k and General Plant of \$1,350k.  
63(d) Line 63(b) + Line 63(c)  
63(f) Per Page 2 of 23, Line 2  
63(h) Line 63(a) + Line 63(d) +Line 63(f)  
64(a) Per Line 29(h)  
64(e) Rate Year depn allowance of \$28,130k + (Line 1(d)+Line 1(f)\* composite depn rate of 3.38%) + (Line 14(d)+Line 14(f)\*3.38%) +(Line 27(d)+Line 27(f)\* 3.38%)+(Line 63(d)+Line 63(f)\*3.38%\*50%)  
64(f) Line 63(f)  
64(g) Per Page 2 of 23, Line 7  
64(h) Line 64(a) + Line 64(e) + Line 64(f) + Line 64(g)  
65 Line 63 - Line 64  
66(a) Line 33(h)  
66(h) Line 65(h) \* Line 67(h)

Line Notes

67(h) Line 22(h); effective tax rate per FY 2015 Gas ISR reconciliation filing  
68 Line 63(b)  
69 Per Page 2 of 23, Line 5  
70 Per Page 2 of 23, Line 12  
71 Per Line 64(g)  
73 Sum of Lines 68 through 71  
75 Line 9(a)  
76 Line 75\*Line 84(a)  
77 Line 75\*Line 85(a)  
78 Line 75\*Line 86(a)  
79 Line 75\*Line 87(a)  
81 Line 67(h)  
82(a) Line 9(a)  
82(b) Line 81 - Line 82(a)  
83(a) Line 5(a)  
84(a) Line 57(i) - ((Line 1(d)+Line 1(f))\*3.38%)  
85(a) Line 58(i) - ((Line 14(d)+Line 14(f))\*3.38%)  
86(a) Line 59(i) - ((Line 27(d)+Line 27(f))\*3.38%)  
87(a) Line 73  
83(b)-87(b) Line 82(b)  
83(c)-87(c) Lines 83 through 87, Col (a) \* Col (b)  
88 Sum of Lines 83(c) through 87(c)  
90 Sum of Lines 76 through 79 + Line 88

The Narragansett Electric Company  
d/b/a National Grid  
FY 2017 Gas ISR Revenue Requirement Reconciliation  
Deferred Income Tax ("DIT") Provisions and Net Operating Losses ("NOL")

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
							CY 2011	CY 2012	Jan-2013	Feb 13 - Jan 14		
1 Total Base Rate Plant DIT Provision							\$ 16,572,023	\$ 19,058,494	\$ 1,700,343	\$ 13,893,167		
	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
2 Total Base Rate Plant DIT Provision							\$17,193,641	\$18,309,741	\$11,577,639	\$0	\$0	\$0
3 Incremental FY 12	\$1,121,846	\$1,080,717	\$1,038,476	\$906,443	\$865,263	\$823,243	\$1,121,846	(\$41,129)	(\$42,241)	(\$132,033)	(\$41,180)	(\$42,020)
4 Incremental FY 13	\$0	(\$734,732)	(\$690,174)	(\$829,884)	(\$780,869)	(\$731,561)	\$0	(\$734,732)	\$44,558	(\$139,710)	\$49,015	\$49,309
5 Incremental FY 14	\$0	\$0	\$6,444,262	\$5,821,675	\$5,651,257	\$5,476,107	\$0	\$0	\$6,444,262	(\$622,587)	(\$170,419)	(\$175,149)
6 FY 2015	\$0	\$0	\$0	\$23,687,481	\$23,214,645	\$22,716,080	\$0	\$0	\$0	\$23,687,481	(\$472,835)	(\$498,565)
7 FY 2016	\$0	\$0	\$0	\$0	\$28,518,812	\$27,774,974	\$0	\$0	\$0	\$0	\$28,518,812	(\$743,838)
8 FY 2017	\$0	\$0	\$0	\$0	\$0	\$26,106,575	\$0	\$0	\$0	\$0	\$0	\$26,106,575
9 TOTAL Plant DIT Provision	\$ 1,121,846	\$ 345,985	\$ 6,792,564	\$ 29,585,715	\$ 57,469,108	\$ 82,165,419	\$ 18,315,487	\$ 17,533,880	\$ 18,024,218	\$ 22,793,151	\$ 27,883,393	\$ 24,696,311
10 NOL							\$ 6,268,061	\$ 6,136,520	\$ 23,775,494	\$ 19,205,538	\$ 11,594,940	\$ -
11 Lesser of NOL or DIT Provision							\$ 6,268,061	\$ 6,136,520	\$ 18,024,218	\$ 19,205,538	\$ 11,594,940	\$ -

Line Notes:

- 1(f) Per Dkt 4323 Compliance filing Attachment 6, Page 59 of 65, Line 18(e) less Line 18(a)
- 1(g)-1(i) Per Dkt 4323 Compliance filing Attachment 6, Page 64 of 65, Lines 32, 38, and 44
- 2 Col (f)= Line 1(f) \* 75% + Line 1(g) \* 25% ; Col (g)= Line 1(g) \* 75% + Line 1(h) + Line 1(i) \* 2/12ths; Col (h) = Line 1(i) \* 10/12ths
- 3(a)-7(e) Cumulative DIT per vintage year ISR revenue requirement calculations (Page 10, Line 14; Page 8, Line 14; Page 6, Line 16; Page 4, Line 16 ; Page 2, Line 16)
- 3(f) -7(j) Year over year change in cumulative DIT shown in Cols (a) through (e)
- 9 Sum of Lines 2 through 8
- 10 Per Tax dept
- 11 Lesser of Line 9 or Line 10

**The Narragansett Electric Company  
d/b/a National Grid  
FY 2017 Gas ISR Revenue Requirement Reconciliation  
True-Up for FY 2012 through FY 2016 Net Operating Losses ("NOL")**

	(a)	(b)	(c)	(d)	(e)	(f)
	Revenue Requirement Year					
	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
1 Return on Rate Base	11.41%	11.18%	10.05%	10.05%	10.05%	10.05%
	Vintage Capital Investment Year					
	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
2 Lesser of NOL or DIT Provision	\$ 6,268,061	\$ 6,136,520	\$ 18,024,218	\$ 19,205,538	\$ 11,594,940	\$ -

Revenue Requirement Increase due to NOL

	Revenue Requirement Year					
	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
3 FY 2012	\$ 357,593	\$ 700,769	\$ 629,940	\$ 629,940	\$ 629,940	\$ 629,940
4 FY 2013	\$ -	\$ 343,031	\$ 616,720	\$ 616,720	\$ 616,720	\$ 616,720
5 FY 2014	\$ -	\$ -	\$ 882,298	\$ 1,811,434	\$ 1,811,434	\$ 1,811,434
6 FY 2015	\$ -	\$ -	\$ -	\$ 965,078	\$ 1,930,157	\$ 1,930,157
7 FY 2016	\$ -	\$ -	\$ -	\$ -	\$ 582,646	\$ 1,165,291
8 FY 2017	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9 TOTAL	<u>\$ 357,593</u>	<u>\$ 1,043,801</u>	<u>\$ 2,128,958</u>	<u>\$ 4,023,173</u>	<u>\$ 5,570,897</u>	<u>\$ 6,153,542</u>
10 Total FY 2012 through FY 2014 revenue requirement impact to be recovered over three years						\$ 3,530,352
11 Recovery period in years						3
12 Amount to be included in FY 2017 reconciliation						\$ 1,176,784

Line Notes:

- 1 Col (a) - per Docket 4219, Attachment WRR-1 at Page 2; Col (b) - per Docket 4306, Attachment WRR-1 at Page 2; Col (c) through (f) - Weighted Average Cost of Capital per Settlement Agreement RIPUC Docket No. 4323
- 2 Per Page 19 of 23, Line 11
- 3 Line 2(a) \* Line 1(a) \* 50%; Line 2(a) \* Line 1(b); Line 2(a) \* Line 1(c); Line 2(a) \* Line 1(d); Line 2(a) \* Line 1(e)
- 4 Line 2(b) \* Line 1(b) \* 50%; Line 2(b) \* Line 1(c); Line 2(b) \* Line 1(d); Line 2(b) \* Line 1(e)
- 5 Col (c) =
- |   |                   |   |
|---|-------------------|---|
| a) NOL applied to FY 2014 ISR DIT                         | \$ 6,444,262      | Page 19 of 23 Line 2(i)                     |
| b) FY 2014 ISR weighted average additions rate            | 31.41%            | Page 21 of 23 Line 16                       |
| c) FY 2014 ISR weighted average NOL                       | \$ 2,024,108      | Line (a) * Line (b)                         |
| d) FY 2014 Rate of Return                                 | 10.05%            | Line 1(c) above                             |
| e) FY 2014 Return on weighted average ISR NOL             | \$ 203,423        | Line (c) * Line (d)                         |
| f) NOL applied to base rate deferred tax provision        | \$ 11,579,956     | Page 19 of 23 Line 9(i) less Line (a) above |
| g) FY 2014 weighted average base rate DIT rate            | 58.33%            | Per Page 22 of 23 Line 15                   |
| h) FY 2014 base rate weighted average NOL                 | \$ 6,754,974      | Line (f) * Line (g)                         |
| i) FY 2014 Rate of Return                                 | 10.05%            | Line 1                                      |
| j) FY 2014 Return on weighted average base rate NOL       | \$ 678,875        | Line (h) * Line (i)                         |
| k) Total FY 2014 NOL impact on vintage FY 2014 investment | <u>\$ 882,298</u> | Line (e) + Line (j)                         |
- 5 cont. Col (d) = Line 2(c) \* Line 1(d); Col (e) = Line 2(c) \* Line 1(e)
- 6 Col (d) = Line 1(d) \* Line 2(d) \* 50%; Col (e) = Line 1(d) \* Line 2(d)
- 7 Col (e) = Line 1(e) \* Line 2(e) \* 50%
- 8 Cof (f) = Line 1(f) \* Line 2(f) \* 50%
- 9 Sum of Lines 3 through 8
- 10 Line 6(a) + Line 6(b) + Line 6(c)
- 11 Three year recovery period as approved in Docket RIPUC 4474.
- 12 Line 9 ÷ Line 10

**The Narragansett Electric Company**  
**d/b/a National Grid**  
**RIPUC Docket No. 4590**  
**FY 2017 Gas Infrastructure, Safety,**  
**and Reliability Plan Reconciliation Filing**  
**Attachment MAL-1**  
**Page 21 of 23**

**The Narragansett Electric Company**  
**d/b/a National Grid**  
**FY 2017 Gas ISR Revenue Requirement Reconciliation**  
**Weighted ISR Additions FY 2014**

<u>Line No.</u>	<u>Month No.</u>	<u>Month</u>	<u>FY 2014 ISR Additions</u> (a)	<u>In Rates</u> (b)	<u>Not In Rates</u> (c) = (a) - (b)	<u>Weight</u> (d)	<u>Weighted Average</u> (e) = (d) * (c)
1				\$57,184,191			
2	1	Apr-13	\$5,751,208	4,765,349	\$985,858	0.958	\$944,781
3	2	May-13	5,751,208	4,765,349	985,858	0.875	862,626
4	3	Jun-13	5,751,208	4,765,349	985,858	0.792	780,471
5	4	Jul-13	5,751,208	4,765,349	985,858	0.708	698,316
6	5	Aug-13	5,751,208	4,765,349	985,858	0.625	616,161
7	6	Sep-13	5,751,208	4,765,349	985,858	0.542	534,007
8	7	Oct-13	5,751,208	4,765,349	985,858	0.458	451,852
9	8	Nov-13	5,751,208	4,765,349	985,858	0.375	369,697
10	9	Dec-13	5,751,208	4,765,349	985,858	0.292	287,542
11	10	Jan-14	5,751,208	4,765,349	985,858	0.208	205,387
12	11	Feb-14	5,751,208	-	5,751,208	0.125	718,901
13	12	Mar-14	5,751,208	-	5,751,208	0.042	239,634
14	Total FY 2014		<u>\$69,014,490</u>	<u>\$47,653,493</u>	<u>\$21,360,998</u>		<u>\$6,709,374</u>
15	<b>Total Additions February &amp; March 2014</b>				<b>\$11,502,415</b>		
16	<b>FY 2014 Weighted Average Incremental Rate Base Percentage</b>						<b>31.41%</b>

Column (a) = Page 15 of 23, Line 1(c) - Line 1a(c) - Line 1b(c)

Column (b) = Page 15 of 23, Line 2(c)

Column (d) = (12.5 - Month No.) ÷ 12

Line 15 = Line 12(c) + Line 13(c)

Line 16 = Line 14(e)/Line 14(c)

**The Narragansett Electric Company**  
**d/b/a National Grid**  
**Weighted ISR Deferred Tax Provision FY 2014**  
**(\$000s)**

<u>Line No.</u>	<u>Month No.</u>	<u>Month</u>	<u>FY 2014 ISR Deferred Tax</u> (a)	<u>In Rates</u> (b)	<u>Not In Rates</u> (c) = (a) - (b)	<u>Weight</u> (d)	<u>Weighted Average</u> (e) = (d) * (c)
1				\$13,893,167			
2	1	Apr-13	\$ -	1,157,764	(\$1,157,764)	0.958	(\$1,109,524)
3	2	May-13	-	1,157,764	(1,157,764)	0.875	(1,013,043)
4	3	Jun-13	-	1,157,764	(1,157,764)	0.792	(916,563)
5	4	Jul-13	-	1,157,764	(1,157,764)	0.708	(820,083)
6	5	Aug-13	-	1,157,764	(1,157,764)	0.625	(723,602)
7	6	Sep-13	-	1,157,764	(1,157,764)	0.542	(627,122)
8	7	Oct-13	-	1,157,764	(1,157,764)	0.458	(530,642)
9	8	Nov-13	-	1,157,764	(1,157,764)	0.375	(434,161)
10	9	Dec-13	-	1,157,764	(1,157,764)	0.292	(337,681)
11	10	Jan-14	-	1,157,764	(1,157,764)	0.208	(241,201)
12	11	Feb-14	-	-	-	0.125	-
13	12	Mar-14	-	-	-	0.042	-
14	Total FY 2014		<u>\$ -</u>	<u>\$11,577,639</u>	<u>(\$11,577,639)</u>		<u>(\$6,753,623)</u>
15	<b>FY 2014 Weighted Average Deferred Tax Provision Percentage</b>						<b>58.33%</b>

Column (a) = Page 4 Line 18(a)

Column (b) = Page 19 of 23, Line 1(j). Lines 2 through 11 = 1/12th of Line 1.

Column (d) = (12.5 - Month No.) ÷ 12

Line 15 = Line 14(e)/Line 14(c)

The Narragansett Electric Company  
d/b/a National Grid  
FY 2017 Gas ISR Revenue Requirement Reconciliation  
True-Up for FY 2012 through FY 2016 New Service Installations and Service Relocations

	(a)	(b)	(c)	(d)	(e)
	<u>Vintage Capital Investment Year</u>				
	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>
1 Total Net Plant in Service	\$3,541,156	(\$2,898,175)	\$15,981,069	\$52,312,921	\$68,651,094
2 Total Net Plant in Service (as previously filed)	\$3,645,253	(\$2,851,624)	\$16,336,358	\$52,406,818	\$68,819,926
3 Impact of New Service Installations and Service Relocations Adjustment	(\$104,097)	(\$46,551)	(\$355,289)	(\$93,897)	(\$168,832)
<u>Revenue Requirement Decrease due to New Service Installations and Service Relocations</u>					
	<u>Revenue Requirement Year</u>				
Vintage Capital Investment Year	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>
4 FY 2012	(5,560)	(10,834)	(13,159)	(12,516)	(12,206)
5 FY 2013	0	(2,375)	(5,885)	(5,610)	(5,560)
6 FY 2014	0	0	(15,507)	(35,753)	(34,868)
7 FY 2015	0	0	0	(6,143)	(11,848)
8 FY 2016	0	0	0	0	(10,954)
9 <b>TOTAL</b>	<b>(5,560)</b>	<b>(13,209)</b>	<b>(34,551)</b>	<b>(60,022)</b>	<b>(75,436)</b>
10 <b>Total FY 2012 through FY 2016 revenue requirement impact</b>					<b>(188,779)</b>

Line Notes:

- 1 Col (b) = Page 10 of 23, Line 6; Col (c) = Page 8 of 23, Line 8; Col (d) = Page 6 of 23, Line 8; Col (e) = Page 4 of 23, Line 8; Col (f) = Page 2 of 23, Line 8
- 2 Col (a) through Col (e) = As approved in RIPUC Docket No. 4678 (FY 2018 Plan)
- 3 Col (a) through Col (e) = Line 1 - Line 2
- 4 Col (a) through Col (e) = Page 12 of 23, Line 36
- 5 Col (a) through Col (e) = Page 10 of 23, Line 36
- 6 Col (a) through Col (e) = Page 8 of 23, Line 38
- 7 Col (a) through Col (e) = Page 6 of 23, Line 31
- 8 Col (a) through Col (e) = Page 4 of 23, Line 34
- 9 Col (a) through Col (e) = Sum of Lines 4 through 8
- 10 Sum of Col (a) through Col (e)