National Grid

The Narragansett Electric Company

FY 2018 Gas Infrastructure, Safety and Reliability Plan

Annual Reconciliation

August 1, 2018

Docket No. 4678

Submitted to:
Rhode Island Public Utilities Commission

Submitted by:

nationalgrid

Filing Letter

nationalgrid

Robert J. Humm
Senior Counsel

August 1, 2018

VIA HAND DELIVERY & ELECTRONIC MAIL

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

RE: Docket 4678 - Gas Infrastructure, Safety, and Reliability Plan Fiscal Year 2018 <u>Reconciliation Filing</u>

Dear Ms. Massaro:

In accordance with National Grid's[1] gas tariff, RIPUC NG-GAS No. 101, at Section 3, Schedule A, Sheet 6, subpart 3.4.3, I have enclosed 10 copies of National Grid's fiscal year (FY) 2018 Gas Infrastructure, Safety, and Reliability (ISR) Plan Reconciliation filing, which relates to National Grid's FY 2018 Gas ISR Plan filing in the above-referenced docket. This filing provides an overview and description of the $106.97 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 $101.76 million, as approved by the Public Utilities Commission (PUC) in Docket No. 4678.

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 2018 Gas ISR Plan Annual Report and Reconciliation filing, including the actual spending for the period April 1, 2017 to March 31, 2018. 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 2018 ISR revenue requirement associated with actual capital investment levels for each of FY 2012 through FY 2018, actual tax deductibility percentages for FY 2017 capital additions, and updated O&M expenses. As explained in Ms. Little's testimony, actual tax deductibility percentages for FY 2018 capital investment will not be known until National Grid files its FY 2018 income tax return in December 2018, 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 2018, so no net operating loss offset to accumulated deferred income taxes has been included in the vintage FY 2018 rate base calculation. The actual tax deductibility percentages for FY 2018 capital investment will be reflected in National Grid's FY 2019 Gas ISR Plan Reconciliation filing next year and will generate a true up adjustment in that filing. The updated FY 2018 revenue requirement also includes an adjustment associated with the ISR property tax recovery formula approved in Docket No. 4323. Finally, the Company's FY 2018 revenue requirement includes the impact of the Tax Cuts and Jobs Act of 2017, which went into effect on

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

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Decmeber 22, 2017, on vintage FY 2012 through FY 2018 investment. In particular, the revenue requirement reflects (1) the reduction of the federal income tax rate from 35 percent to 21 percent commencing January 1, 2018; and (2) the changes to the bonus depreciation rules eliminating bonus depreciation for certain capital investments, including ISR-eligible investments, effective September 28, 2017.

As explained in Ms. Little's testimony, the updated FY 2018 revenue requirement associated with the above-referenced items totals $34,438,608, which consists of $557,714 in O&M expenses and $33,880,894 of capital-related revenue requirement. This includes the full-year revenue requirement on vintage FY 2012 through FY 2018 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 2018 ISR revenue requirement of $36,550,952, which went into effect on April 1, 2017.

Please note that the FY 2018 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. 4846, 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 4678 Service List
LeoWold, Esq.
Al Mancini, Division
John Bell, Division

**Testimony of
John B. Currie**

DIRECT TESTIMONY

OF

JOHN B. CURRIE

August 1, 2018

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is John B. Currie. My business address is 40 Sylvan Road, Waltham, MA 02451.

Q. By whom are you employed and in what capacity?

A. I am employed by National Grid USA Service Company, Inc. (Service Company) as the Director of New England Gas Network Strategy. I am the Rhode Island state Jurisdictional Lead for all gas issues, including those related to The Narragansett Electric Company's (the Company) capital investment strategy. In my role, I work closely with the Rhode Island Jurisdictional President and staff on all local issues related to the Company's Rhode Island gas system. My responsibilities also include working with regulators on issues related to the gas system, developing strategies to support Company objectives regarding investment in the gas system, and providing testimony regarding capital investments in the Company's gas system during state regulatory proceedings.

Q. Please describe your educational background and professional experience.

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

From 1987 to 1989, I worked as a staff accountant at Price Waterhouse (now PricewaterhouseCoopers). In 1989, I was employed by New England Electric System, a predecessor company to National Grid, in internal audit. From 1997 to 2016, I held roles of increasing responsibility related to Plant Accounting, Finance, and Regulation. I assumed my current position in October 2016.

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

A. Yes. I testified before the PUC in support of the Company's fiscal year (FY) 2018 and FY 2019 Gas Infrastructure, Safety, and Reliability (ISR) Plans in Docket Nos. 4678 and 4781, respectively. I also sponsored written testimony in support of the Company's FY 2017 Gas ISR Plan Reconciliation filing. In addition, I have testified before the Massachusetts Department of Public Utilities on several occasions, including in support of the 2017 and 2018 leak-prone pipe replacement plans of the Boston Gas Company and Colonial Gas Company, each d/b/a National Grid, which are designed to implement a gas system enhancement plan focused on the replacement of proactive mains and services.

II. <u>PURPOSE OF TESTIMONY</u>

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present the Company's FY 2018 Annual Report and Reconciliation filing for the Gas ISR Plan (also referred to as the Plan), including the actual spending for the period April 1, 2017 to March 31, 2018. As part of this filing, I also provide detailed information regarding the major spending variances by specific Plan categories for this time period. As discussed in her pre-filed direct testimony, Company witness Melissa A. Little uses the actual spending information to calculate the FY 2018 Plan revenue requirement, which is then reconciled with the Company's actual Plan revenues for FY 2018. The reconciliation balance will then be included in the Company's annual Distribution Adjustment Charge (DAC) filing, which will be reflected in rates effective November 1, 2018.

Q. Are you sponsoring any attachments with your testimony?

A. Yes. I am sponsoring the following attachment that accompanies my testimony:

- Attachment JBC-1 Gas Infrastructure, Safety, and Reliability Plan Fiscal Year 2018 Annual Report and Reconciliation

III. <u>FY 2018 GAS ISR PLAN ANNUAL REPORT AND ACTUAL SPENDING</u>

Q. Please summarize the results of the Company's Gas ISR Plan actual spending for FY 2018 to the FY 2018 budget.

A. Attachment JBC-1 to my testimony is the Company's FY 2018 Gas ISR Plan Annual Report and Reconciliation of actual spending for the period April 1, 2017 to March 31, 2018. As set forth in Table 1 of that Attachment, for FY 2018, the Company spent $106.97 million for capital investment and operation and maintenance (O&M) expense under the Plan. This amount represents a variance of approximately $5.21 million more than the approved Plan annual budget of $101.76 million. The $5.21 million over-budget variance for the year is discussed below in more detail for each specific category of the Plan.

A total of 61.6 miles of leak-prone pipe were abandoned under all ISR categories, which is slightly above the plan of 61 miles. In addition, the Company also abandoned 1.6 miles of non-ISR leak-prone pipe as a result of Gas System Reinforcement main replacement projects, bringing total FY 2018 abandonments to 63.2 miles. Elimination of cast and wrought iron and unprotected steel pipe (i.e., leak-prone pipe) remains a key element of the Company's overall ISR plan and provides for further enhanced safety and reliability of the gas distribution system through removal of leak-prone pipe. These materials have been identified in the Company's Distribution Integrity Management Plan (DIMP) as riskier assets and have been targeted for replacement through a 20-year replacement plan. The DIMP provides a structured approach to identification, evaluation, and mitigation of risks associated with the gas distribution system. The Company has eliminated more than 178 gas leaks through abandonment of the 61.6 miles of leak-prone gas main.

I would like to point out that the Company's fourth quarter report for the FY 2018 Gas ISR Plan indicated adjusted total spending of $108.32 million. In preparation of this annual ISR Plan Reconciliation filing, the Company finalized adjustments totaling $1.35

million, which resulted in total spending of $106.97 million. Total spending included a $1.86 million Administrative and General (A&G) adjustment that originated from an A&G activity time study completed by a third party consulting firm. As a result of that review and supporting time study, the Company determined that an adjustment was necessary to capitalize work activity performed in direct or indirect support of construction, consistent with commonly accepted industry practices and allowed for by the Federal Energy Regulatory Commission (FERC) Uniform System of Accounts. The total adjustment to be credited to expense and debited to capital is $2.06 million. Final assignment of these adjustments resulted in a $1.86 million increase to the Plan. This is consistent with the Company's related O&M expense adjustment reflected in Docket No. 4770.

As noted above, the total spending of $106.97 million was $5.21 million over the approved Plan budget. Absent the A&G adjustment, the over-spend would have been $3.35 million.

Q. What were the primary drivers for the $5.21 million over-budget variance in FY 2018?

A. As shown in Attachment JBC-1 at Table 2, the following drivers primarily contributed to the $5.21 million over-budget variance in FY 2018. First, there was an over-budget variance of $5.35 million in the Non-Discretionary category, including increased spending of $2.37 million for the Public Works program, increased spending of $3.18 million for Pipeline Integrity projects, increased spending of $1.36 million for the Damage/Failure program, and decreased spending of $1.81 million for the decommissioning of the Cumberland liquefied natural gas (LNG) tank. Second, there was an under-budget variance of $0.12 million in the Discretionary category, including under-spending of $1.72 million for the Proactive Main Replacement program, under-spending of $0.90 million for the Proactive Service Replacement program, and increased spending of $2.50 million for Reliability projects.

A. NON-DISCRETIONARY WORK

Q. Please explain the over-budget variance of $2.37 million for the Public Works program in FY 2018.

A. For FY 2018, the Company incurred net spending of $14.59 million for the Public Works program against a plan of $12.22 million, resulting in an over-spending variance of $2.37 million. The key drivers for this over-spend include actual miles of leak-prone pipe replaced exceeding plan and timing associated with reimbursements on billable jobs. The Company installed 12.4 miles against a plan of 11.0 miles for new gas main and abandoned 12.1 miles against a plan of 10.0 miles of leak-prone pipe through the Public Works program. Significant projects completed during the year include those on Musket Road in Lincoln (5,273 feet), Blackstone Boulevard in Providence (5,225 feet), and Cole Avenue in Providence (4,519 feet).

Q. Please explain the over-budget variance of $3.18 million for the Pipeline Integrity program in FY 2018.

A. Higher spending within the Pipeline Integrity program is largely due to $1.26 million of cost increases associated with the Laten Knight Road Take Station in Cranston as a result of large diameter heavy wall pipe welding and hydrostatic testing not anticipated in the original budget. Carryover of the Providence River Crossing signage project for a total of $0.95 million also contributed to the spending increase. In particular, weather issues, gas safety coordination, and the need to coordinate with the FY 2018 riser replacements contributed to the carryover of the signage project. In addition, project costs increased to address severe corrosion issues identified in the signage structural members, along with modifications to the existing foundations to carry additional load from heavier structural members. The Company also incurred over-spending of $0.76 million for design and permitting costs associated with the 200 pounds per square inch (psig) main replacement projects at Allens Avenue in Providence and Veterans Memorial Parkway in East Providence. These costs were necessary to prepare for FY 2019 construction of these projects, which were included in the FY 2019 Gas ISR Plan.

Q. Please explain the over-budget variance of $1.36 million for the Damage/Failure program in FY 2018.

A. The primary driver for the $1.36 million over-spend for the Damage/Failure program in FY 2018 is the replacement of the Admiral Street at Charles Street Regulator Station in

Providence for a total of $1.35 million. This project relates to a cinder block regulator station vault that the Company found had been significantly damaged by a City of Providence contractor following a sewer main replacement job. Prior to the initiation of the sewer project, the Company worked closely with the City and the contractor to agree on a damage prevention plan. While the damage prevention plan was followed, settlement occurred around the vault, which unexpectedly affected the Company's facilities. The replacement of the Admiral Street at Charles Street Regulator Station was required for the 2017-18 heating season. By November 2017, construction was completed and the new station was operational. Abandonment of the existing station will be completed in FY 2019. This category also includes $0.23 million to fund two remote operated valves at the Manchester Street Take Station in Providence, providing the Gas Control center with remote shutdown capability. This capability will enable the Company to immediately take action in the event of abnormal operating conditions, which will significantly decrease response time. Additionally, in the event that abnormal operating conditions make the site unsafe for personnel access, the remote shutdown option can still be exercised safely.

Q. Please explain the under-budget variance of $1.81 million for the Cumberland LNG Decommissioning project in FY 2018.

A. For FY 2018, the Company spent $1.78 million of a budget of $3.59 million for the Cumberland LNG decommissioning project, resulting in an under-spending variance of

$1.71 million. This includes a reduction of $0.10 million in FY 2018 costs to reflect the Company and the Division of Public Utilities and Carriers' (Division) resolution of the capital costs associated with the decommissioning of the Cumberland LNG tank. The remaining $1.20 million reduction in costs will be reflected as a retroactive FY 2017 adjustment in this Reconciliation filing. The FY 2018 work on the Cumberland LNG facility included all demolition activity and installation of remaining vaporization piping. The primary driver of the under-spend is the contractor bid process resulting in lower pricing than the amounts assumed in the budget. At this time, the project has been completed. No additional capital work related to the decommissioning of the Cumberland LNG tank will be required.

In addition, the Company met with the Division in May 2017 to review disposition plans associated with a listing of major Cumberland LNG plant components. Disposition methods typically include internal use, scrap, or third party sale. To date, proceeds have been limited to a $13,000 salvage credit from the demolition contractor, Costello Dismantling Company, Inc. This credit covered items that were not identified to be retained for internal use or for potential sale to a third party. Any proceeds from third party sales will be credited back to customers in future reconciliation flings. The Company will continue to update the Division as additional information becomes available.

B. DISCRETIONARY WORK

Q. Please explain the under-budget variance of $1.72 million for the Proactive Main Replacement program in FY 2018.

A. For FY 2018, the Company spent approximately $52.38 million of a budget of $54.11 million for the Proactive Main Replacement program, resulting in an under-spending variance of $1.72 million. The primary driver of this under-spend is that abandonment miles came in under plan. In FY 2018, the Company installed 46.0 miles of new main and abandoned 48.5 miles of leak-prone pipe within the Proactive Main Replacement program. This represents completion of 97.0 percent of the planned total of 50 abandonment miles. The shortfall of abandonment miles was offset by the Public Works program exceeding plan in regard to delivery of leak-prone pipe abandonment miles.

Q. Please explain the $0.90 million under-budget variance for the Proactive Service Replacement program.

A. For FY 2018, the Company spent approximately $0.002 million of a budget of $0.90 million for the Proactive Service Replacement program, resulting in an under-spending variance of $0.90 million. As explained in more detail in the Company's FY 2019 Gas ISR Plan filing in Docket No. 4781, the Company and the Division have determined that the Proactive Service Replacement program overlaps with other programs in the Gas ISR Plan and should be discontinued.

Q. Please explain the $2.50 million over-budget variance for the Reliability programs in FY 2018.

A. For FY 2018, the Company spent approximately $13.95 million against a budget of $11.45 million for the Reliability program, resulting in an over-spending variance of $2.50 million. The primary drivers of this over-spending variance are related to the Allens Avenue Multi Station Rebuild project and Take Station Refurbishment projects. These projects were partially offset by the deferral of work associated with two Pressure Regulating Facilities projects at Roger Williams Avenue in East Providence. Prior year carryover, design changes, and environmental mitigation factors have contributed to higher costs for the Allens Avenue Multi Station Rebuild project, which are partially offset by cost reductions associated with the deferral of elements of the FY 2018 work plan and the deferral of long lead materials purchased for future year construction. The over-spend for Take Station Refurbishment projects was primarily caused by scope changes on the Dey Street Regulation Station project. The Company completed 1.0 mile of leak-prone pipe abandonment through the Reliability program.

IV. ANNUAL RECONCILIATION

Q. What is the amount of FY 2018 capital spending that the Company is seeking to reconcile in this filing?

A. The Company is seeking to reconcile its FY 2018 actual capital spending of $106.41 million in this filing. As noted in prior Gas ISR Plan filings, in implementing the Gas

ISR Plan in any fiscal year, the circumstances encountered during the year may require reasonable deviations from the original Plan approved by the PUC.[1] The primary drivers of the $5.23 million net capital over-spending variance for FY 2018 were in the Non-Discretionary Work category, which accounted for $5.35 million of over-spend towards the net capital over-spend. This included over-spending of $1.36 million for reactive Damage/Failure projects, over-spending of $2.37 million for Public Works projects, over-spending of $3.18 million for Pipeline Integrity projects, and under-spending of $1.81 million on the Cumberland LNG Decommissioning project. These programs were partially offset by a $0.12 million under-spending in Discretionary programs, which included $1.72 million of under-spend in the Proactive Main Replacement program; $0.90 million of under-spend in the Proactive Service Replacement program; and $2.50 million of over-spend in the Reliability program, which is largely due to the Allens Aveue Multi Station Rebuild project. The reasons for the $5.23 million net capital over-spending variance for FY 2018 are clearly consistent with the intent of the Gas ISR Plan to maintain the overall safety and reliability of the Company's gas system and to ensure that customers are charged only for the appropriate Plan costs in the ISR annual reconciliation filing.

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

Q. What is the amount of FY 2018 O&M spending that the Company is seeking to reconcile in this filing?

A. The Company is seeking to reconcile approximately $0.56 million of actual O&M spending for FY 2018. In the 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 2018. Similar to FY 2015 through FY 2017, the Company had also agreed to track and reconcile the amount of actual O&M expense associated with these new hires for FY 2018. For FY 2018, the O&M expense associated with the 16 FTEs required in support of the expanded main replacement program totaled approximately $0.56 million, resulting in an under-budget variance of $0.01 million.

V. CONCLUSION

Q. Does this conclude your testimony?

A. Yes.

Gas Infrastructure, Safety, and Reliability Plan

Fiscal Year 2018 Annual Report and Reconciliation Filing

EXECUTIVE SUMMARY

In accordance with its tariff, RIPUC NG-GAS No. 101, at Section 3, Schedule A, Sheet 6, subpart 3.4.3, The Narragansett Electric Company d/b/a/ National Grid (Company) submits this Annual Report and Reconciliation filing for the fiscal year (FY) 2018 Gas Infrastructure, Safety, and Reliability (ISR) Plan, which the Rhode Island Public Utilities Commission (PUC) approved in Docket No. 4678. This filing provides an overview and description of the $106.97 million[1] 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 $101.76 million approved in Docket No. 4678.

FY 2018 Actual Results

As set forth in Table 1 below, in FY 2018, the Company spent $40.08 million for Non-Discretionary capital work (i.e., work required by legal, regulatory code, and/or agreement, with limited exceptions), $66.33 million for Discretionary capital work, and $0.56 million for O&M expense under the Gas ISR Plan. These amounts are approximately $5.35 million more than planned on Non-Discretionary programs and approximately $0.12 million less than planned on Discretionary programs compared to the approved annual Gas ISR capital budget of $34.73 for Non-Discretionary programs and $66.46 million for Discretionary programs, and approximately $0.01 million less than the O&M budget of $0.57 million approved in Docket No. 4678. A total of 61.6 miles of leak-prone pipe was abandoned from all ISR categories, which is slightly above the plan of 61 miles. The Company eliminated more than 178 gas leaks through abandonment of the leak-prone gas main in FY 2018. 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.

[1] The Company's fourth quarter report for the FY 2018 Gas ISR Plan (also referred to as the Plan) indicated an adjusted total spending of $108.32 million. In preparation of this annual reconciliation filing, the Company finalized adjustments totaling approximately $1.35 million, which resulted in total spending of $106.97 million.

Table 1

Narragansett Gas			
FY 2018			
in Millions			
Category	**Budget**	**Actual**	**Variance**
NON-DISCRETIONARY			
Public Works*	$12.22	$14.59	$2.37
Mandated Programs	$18.67	$22.11	$3.43
Damage / Failure Reactive			
Cumberland LNG Decommissioning	$3.59	$1.78	($1.81)
NON-DISCRETIONARY SUB-TOTAL	$34.73	$40.08	$5.35
DISCRETIONARY			
Proactive Main Replacement	$54.11	$52.38	($1.72)
Proactive Service Replacement			
Reliability	$11.45	$13.95	$2.50
DISCRETIONARY SUB-TOTAL	$66.46	$66.33	($0.12)
Capital Total	$101.19	$106.41	$5.23
O&M	$0.57	$0.56	($0.01)
TOTAL	**$101.76**	**$106.97**	**$5.21**
*Public works includes reimbursements			

Non-Discretionary Work[2]

Public Works Program - $2.37 million over-budget variance

For FY 2018, the Company incurred net spending of $14.59 million for the Public Works program against a plan of $12.22 million, resulting in an over-spending variance of $2.37 million. In particular, the Public Works program includes total spend of approximately $14.70 million against a fiscal year budget of $13.55 million, and reimbursement of $0.12 million against a reimbursement budget of $1.33 million. The key drivers for the over-spend include actual miles of leak-prone pipe replaced exceeding plan and timing associated with reimbursements on billable jobs. The Company installed 12.4 miles against a plan of 11.0 miles for new gas main and abandoned 12.1 miles against a plan of 10.0 miles of leak-prone pipe through the Public Works program. Significant projects completed during the year include those on Musket Road in Lincoln (5,273 feet), Blackstone Boulevard in Providence (5,225 feet), and Cole Avenue in Providence (4,519 feet). Public Works cost detail is provided in the table below.

Public Works

Category	FY18 Actuals	% of Total Spend
Base Labor, Overtime & Employee Expenses	$1,664,009	11%
Benefits	$1,031,491	7%
Clearing Burdens	$3,458,537	24%
Contractor/Consultants	$5,058,724	34%
Restoration/Police/Permits	$2,916,911	20%
Materials	$641,663	4%
Other	($70,539)	0%
Sub-total	$14,700,797	100%
City State Construction Reimbursements	($115,155)	
Total Public Works	$14,585,642	

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

Mandated Programs – $3.43 million over-budget variance

Spending for Mandated Programs was $3.43 million over-budget for FY 2018. This variance was driven primarily by spending in the following categories:

- Purchase Meters – For FY 2018, actual spending for meter purchases was $3.56 million, which is $1.20 million higher than the budget of $2.37 million. The Company's meter change program impacts the number of meters required for purchase on an annual basis. The increase in FY 2018 was due to a methodology change in how capital clearing is applied to individual projects, along with the number of actual meters purchased exceeding plan. The capital clearing methodology change was a redistribution of costs rather than an overall increase to the results.

- Pipeline Integrity (Integrity Management Program) – For FY 2018, actual spending for the Pipeline Integrity program was $3.93 million, which is $3.18 million higher than budget. Higher spending within the pipeline integrity program is largely due to $1.26 million of cost increases associated with the Laten Knight Road Take Station in Cranston as a result of large diameter heavy wall pipe welding and hydrostatic testing not anticipated in the original budget. Carryover into FY 2018 of the Providence River Crossing signage project also contributed $0.95 million to the spending increase. In particular, weather issues, gas safety coordination, and the need to coordinate with the FY 2018 riser replacements contributed to the carryover of the signage project. In addition, project costs increased to address severe corrosion issues identified in the signage structural members, along with modifications to the existing foundations to carry additional load from heavier structural members. The Company also incurred additional over-spend of $0.76 million for design and permitting costs associated with the 200 pounds per square inch gauge (psig) main replacement projects at Allens Avenue in Providence and Veterans Memorial Parkway in East Providence. These costs were necessary to prepare for FY 2019 construction of these projects, which were included in the FY 2019 Gas ISR Plan.

- Reactive Leaks – The Reactive Leaks category includes Main Replacement (Reactive) – Cast Iron (CI) Joint Encapsulation; Service Replacement (Reactive) – Leaks; and Main Replacement (Reactive) – Maintenance. For FY 2018, the Company spent $11.93 million against a plan of $11.51 million. Variances within the individual programs are largely attributed to changes in how the Company classifies leaks for cost management purposes within the three programs. The number of leaks repaired was 1,732 compared to a plan of 1,728 leaks.

Damage/Failure – $1.36 million over-budget variance

The primary driver for the $1.36 million over-spend for the Damage/Failure program in FY 2018 is the replacement of the Admiral Street at Charles Street Regulator Station in Providence for a total of $1.35 million. This project relates to a cinder block regulator station vault that the Company found had been significantly damaged by a City of Providence contractor following a sewer main replacement job. Prior to the initiation of the sewer project, the Company worked closely with the City and the contractor to agree on a damage prevention plan. While the damage prevention plan was followed, settlement occurred around the vault, which unexpectedly affected the Company's facilities. The replacement of the Admiral Street at Charles Street Regulator Station was required for the 2017-18 heating season. By November 2017, construction was completed and the new station was operational. Abandonment of the existing station will be completed in FY 2019. This category also includes $0.23 million to fund two remote operated valves at the Manchester Street Take Station in Providence, providing the Gas Control center with remote shutdown capability. This capability will enable the Company to immediately take action in the event of abnormal operating conditions, which will significantly decrease response time. Additionally, in the event that abnormal operating conditions make the site unsafe for personnel access, the remote shutdown option can still be exercised safely.

Cumberland LNG Decommissioning Project – $1.81 million under-budget variance

For FY 2018, the Company spent $1.78 million of a budget of $3.59 million for the Cumberland liquefied natural gas (LNG) decommissioning project, resulting in an under-spending variance of $1.81 million. This includes a reduction of $0.10 million in FY 2018 costs to reflect the Company and the Division of Public Utilities and Carriers' (Division) resolution of the capital costs associated with the decommissioning of the LNG tank in Cumberland. The remaining $1.20 million reduction in costs will be reflected as a retroactive FY 2017 adjustment in this Reconciliation filing. The FY 2018 work on the Cumberland LNG facility included all demolition activity and installation of remaining vaporization piping. The primary driver of the under-spend is the contractor bid process resulting in lower pricing than the amounts assumed in the budget. At this time, the project has been completed. No additional capital work related to the decommissioning of the Cumberland LNG tank will be required. In addition, the Company met with the Division in May 2017 to review disposition plans associated with a listing of major Cumberland LNG plant components. Disposition methods typically include internal use, scrap, or third party sale. To date, proceeds have been limited to a $13,000 salvage credit from the demolition contractor, Costello Dismantling Company, Inc. This credit covered items that were not identified to be retained for internal use or for potential sale to a third party. Any proceeds from third party sales will be credited back to customers in future reconciliation flings. The Company will continue to update the Division as additional information becomes available.

Discretionary Work[3]

Proactive Main Replacement Program – $1.72 million under-budget variance

For FY 2018, the Company spent approximately $52.38 million of a budget of $54.11 million for the Proactive Main Replacement program, resulting in an under-spending variance of $1.72 million. The primary driver of this under-spend is that abandonment miles came in under plan. In FY 2018, the Company installed 46.0 miles of new main and abandoned 48.5 miles of leak-prone pipe within the Proactive Main Replacement program. This represents completion of 97.0 percent of the planned total of 50 abandonment miles. The shortfall of abandonment miles was offset by the Public Works program exceeding plan in regard to delivery of leak-prone pipe abandonment miles. Proactive Main Replacement cost detail is provided in the table below.

Proactive Main Replacement

Category	FY18 Actuals	% of Total Spend
Base Labor, Overtime & Employee Expenses	$5,082,757	10%
Benefits	$3,438,586	7%
Clearing Burdens	$10,921,724	21%
Contractor/Consultants	$18,660,609	36%
Restoration/Police/Permits	$12,277,617	23%
Materials	$2,042,927	4%
Other	($41,027)	0%
Total	$52,383,192	100%

[3] Discretionary programs are not required by legal, regulatory code, or agreement, or a result of damage or failure, with limited exceptions.

Proactive Service Replacement Program – $0.90 million under-budget variance

For FY 2018, the Company spent approximately $0.002 million of a budget of $0.90 million for the Proactive Service Replacement program, resulting in an under-spending variance of $0.90 million. As explained in more detail in the Company's FY 2019 Gas ISR Plan filing in Docket No. 4781, the Company and the Division have determined that the Proactive Service Replacement program overlaps with other programs in the Gas ISR Plan and should be discontinued.

Reliability Program – $2.50 million over-budget variance

For FY 2018, the Company spent approximately $13.95 million against a budget of $11.45 million for the Reliability program, resulting in an over-spending variance of $2.50 million. The over-spend includes higher spending on Allens Avenue Multi Station Rebuild project and Take Station Refurbishment projects. These projects were partially offset by lower spending on Pressure Regulation Facilities projects.

- Allens Avenue Multi Station Rebuild – For FY 2018, actual spending was $5.43 million against a plan of $2.97 million, resulting in an over-spending variance of $2.46 million. Prior year carryover, design changes, and environmental mitigation factors have contributed to higher costs for the Allens Avenue Multi Station Rebuild project, which are partially offset by cost reductions associated with the deferral of elements of the FY 2018 work plan and the deferral of long lead materials purchased for future year construction. The Allens Avenue Multi Station Rebuild project is a multi-year project consisting of rebuilding and replacing multiple regulator stations, piping, and appurtenances both at the current site and within the local distribution system.

- Take Station Refurbishment – For FY 2018, actual spending was $1.44 million against a plan of $0.80 million, resulting in an over-spending variance of $0.64 million. The over-spend for Take Station Refurbishment projects was primarily caused by scope changes on the Dey Street Regulation Station project in East Providence, including increasing the size of the outlet piping from the take station from 12 inches to 20 inches and an increase in the size of valves downstream of the pressure regulating devices.

- Pressure Regulating Facilities – For FY 2018, actual spending was $0.91 million of a plan of $1.64 million, resulting in an under-spending variance of $0.73 million. Deferral of completion of the majority of work associated with two Pressure Regulating Facilities projects at Roger Williams Avenue in East Providence contributed to this under-spend.

O&M – $0.01 million under-budget variance

In the 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 2018. Similar to FY 2015 through FY 2017, the Company also had agreed to track and reconcile the amount of actual O&M expense associated with these new hires for FY 2018. For FY 2018, the O&M expense associated with these 16 FTEs required in support of the expanded main replacement program totaled approximately $0.56 million, resulting in an under-budget variance of $0.01 million.

Table 2
Narragansett Gas FY2017
In Millions

Category	Budget	Actual	Variance
NON-DISCRETIONARY			
Public Works			
City State Construction - Non-Reimbursable	$12.22	$13.33	$1.11
City State Construction - Reimbursable	$1.33	$1.37	$0.04
City State Consturction - Reimbursements	($1.33)	($0.12)	$1.21
Sub-Total	**$12.22**	**$14.59**	**$2.37**
Mandated Programs			
Corrosion	$1.04	$0.58	($0.46)
Purchase Meter (Replacements)	$2.37	$3.56	$1.20
Pipeline Integrity IMP (Integrity Management Program)	$0.75	$3.93	$3.18
Cross Bore Remediation	$0.50	$0.20	($0.29)
Service Replacements (Reactive) - Non-Leaks/Other	$2.50	$1.90	($0.60)
Main Repacement (Reactive) - CI Joint Encapsulation	$3.52	$5.75	$2.23
Service Replacement (Reactive) - Leaks	$7.26	$5.75	($1.51)
Main Replacement (Reactive) - Maintenance	$0.75	$0.43	($0.32)
Sub-Total Reactive Leaks	**$11.52**	**$11.93**	**$0.41**
Sub-Total	**$18.67**	**$22.11**	**$3.43**
Damage /Failure (Reactive)	$0.25	$1.61	$1.36
Cumberland LNG Decommissioning	**$3.59**	**$1.78**	**($1.81)**
NON-DISCRETIONARY SUBTOTAL	**$34.73**	**$40.08**	**$5.35**
DISCRETIONARY			
Proactive Main Replacement			
Main Replacement (Proactive) - Leak Prone Pipe	$52.11	$51.21	($0.90)
Main Replacement (Proactive) - Large Diameter LPCI	$2.00	$1.18	($0.82)
Sub-Total	**$54.11**	**$52.38**	**($1.72)**
Proactive Service Replacement			
Sub-Total	**$0.90**	**$0.00**	**($0.90)**
Reliability			
Gas System Control	$0.00	$0.34	$0.34
Valve Installation/Replacement	$0.20	$0.01	($0.19)
System Automation	$1.00	$0.85	($0.15)
Heater Program	$0.20	$0.11	($0.09)
Pressure Regulating Facilities	$1.64	$0.91	($0.73)
Allens Ave Multi Station Rebuild	$2.97	$5.43	$2.46
Take Station Refurbishment	$0.80	$1.44	$0.64
Gas System Reliability - Gas Planning	$2.25	$2.23	($0.02)
I&R Reactive	$1.30	$1.55	$0.25
LNG - Blanket	$0.59	$0.66	$0.07
Tools & Equipment	$0.50	$0.40	($0.10)
Sub-Total	**$11.45**	**$13.95**	**$2.50**
DISCRETIONARY SUBTOTAL	**$66.46**	**$66.33**	**($0.12)**
Capital Total	**$101.19**	**$106.41**	**$5.23**
O&M	**$0.57**	**$0.56**	**($0.01)**
TOTAL	**$101.76**	**$106.97**	**$5.21**

DIRECT TESTIMONY

OF

MELISSA A. LITTLE

August 1, 2018

Table of Contents

I. INTRODUCTION

Q. Please state your full name and business address.

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

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

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

Q. Please describe your educational and professional experience.

A. In 2000, I received a Bachelor of Science degree in Accounting Information Systems from Bentley College (now Bentley University). In September 2000, I joined Pricewaterhouse Coopers LLP in Boston, Massachusetts, where I worked as an associate in the Assurance practice. In November 2004, I joined National Grid in the Service Company as an Analyst in the General Accounting group. After the merger of National Grid and KeySpan in 2007, I joined the Regulation and Pricing department as a Senior Analyst in the Regulatory Accounting function, also supporting the Niagara Mohawk Power Corporation Revenue Requirement team. I was promoted to Lead Specialist in July 2011 and moved to the New England Revenue Requirement team. In August 2017, I was promoted to my current position.

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

A. Yes. Among other testimony, I testified in support of the Company's revenue requirement (1) in the 2017 general rate case filing in Docket No. 4770; (2) in the Fiscal Year (FY) 2018 Electric Infrastructure, Safety, and Reliability (ISR) Plan filing in Docket No. 4682; and (3) in the Gas ISR Plan and reconciliation filings for FY 2016 in Docket No. 4540 and FY 2017 in Docket No. 4590, and the Gas ISR Plan filing for FY 2018 in Docket No. 4678.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. In this docket, the PUC approved a Gas ISR factor that went into effect April 1, 2017. The ISR factor was based on a projected FY 2018 Gas ISR revenue requirement of $36,550,952 associated with the Company's estimated ISR capital investment for FY 2018 and FY 2017, and actual ISR capital investment during each fiscal year ended March 31 in FY 2012 through FY 2016[1] that were incremental to the levels reflected in rate base in the Company's last base rate case (Docket No. 4323); and an estimate

[1] The Company's fiscal year is the 12 months ending March 31 of each year.

of operation and maintenance (O&M) expenses associated with additional personnel to support main replacement work for FY 2018. Thus, the purpose of my testimony is to present an updated FY 2018 Gas ISR revenue requirement associated with actual capital investment levels for each of FY 2012 through FY 2018, actual tax deductibility percentages for FY 2017 capital additions, and updated O&M expenses.

At this time, the Company's Tax department estimates the Company will earn taxable income in FY 2018, and therefore the revenue requirement was calculated assuming no tax net operating loss (NOL) offset to accumulated deferred income taxes has been estimated for FY 2018. The Company's Tax department calculated taxable income when the Company closed its books for FY 2018, which has formed the basis for the estimate in this reconciliation. Actual tax deductibility percentages for FY 2018 capital investment will not be known until the Company files its FY 2018 income tax return in December of this year. Consequently, the actual tax deductibility percentages for FY 2018 capital investment will be reflected in the Company's FY 2019 Gas ISR Reconciliation filing next year and will generate a true up adjustment in that filing.

The updated FY 2018 revenue requirement also includes an adjustment associated with the ISR property tax recovery formula that was approved in Docket No. 4323. The ISR property tax recovery adjustment became effective for periods subsequent to the rate year in Docket No. 4323 that ended on January 31, 2014. Consequently, the

ISR property tax recovery adjustment covers only the months of February and March of 2014 and the 12 months ended March 31 in 2015, 2016, 2017, and 2018.

As shown in Attachment MAL-1 on Page 1, Line 15, the updated FY 2018 Gas ISR revenue requirement collectible through the Company's ISR factor for the FY 2018 period amounts to $34,438,608, which is a decrease of $2,112,344 from the projected FY 2018 ISR revenue requirement of $36,550,952 previously approved by the PUC. This revenue requirement includes updated tax deductibility percentages for FY 2017 and the catch-up adjustment related to a write-off of capital charges to certain work orders for vintage years FY 2013 through FY 2016 (discussed below) on prior fiscal years' revenue requirements. The decrease in the projected to actual revenue requirement is primarily attributable to adjustments for the capital work order write-offs previously described in Docket No. 4678, as well as a decrease in income taxes due to the change in the federal income tax rate from 35 percent to 21 percent, partially offset by an increase to the revenue requirement for actual capital investment spending in excess of projected capital investment for FY 2018, as described in the testimony of Company witness John B. Currie.

Q. Are there any schedules attached to your testimony?

A. Yes, I am sponsoring the following attachment:

- Attachment MAL-1: Gas Infrastructure, Safety, and Reliability Plan Revenue Requirement Reconciliation Filing

II. GAS ISR PLAN FY 2018 REVENUE REQUIREMENT

Q. Did the Company calculate the updated FY 2018 Gas ISR Plan revenue requirement in the same fashion as calculated in the previous ISR factor submissions and the FY 2017 ISR factor reconciliation?

A. Yes, the Company calculated the FY 2018 Gas ISR Plan revenue requirement in the same fashion as calculated in the previous Gas ISR factor submissions with the following exceptions:

As noted in Section 3 of the FY 2018 Gas ISR Plan, the Company's FY 2018 revenue requirement includes the impact of the Tax Cuts and Jobs Act of 2017 (Tax Act) on vintage FY 2012 through FY 2018 investment. The Tax Act went into effect on December 22, 2017. The Tax Act has many elements, but two aspects in particular have an impact on the Gas ISR revenue requirement. The first aspect is the reduction of the federal income tax rate from 35 percent to 21 percent commencing January 1, 2018. The second aspect is changes to the bonus depreciation rules eliminating bonus depreciation for certain capital investments, including ISR-eligible investments, effective September 28, 2017. The change in the bonus depreciation rules specifically impacts the tax depreciation that the Company calculated in its original Gas ISR filing for its vintage FY 2018 revenue requirement calculation. Unlike the reduction to the Company's revenue requirement for the decrease in the federal income tax rate, the change to the bonus depreciation rules has an increasing effect on the Gas ISR revenue requirement, which I discuss later in my testimony.

Other than these changes, the updated FY 2018 ISR revenue requirement calculation is identical to the ISR revenue requirement used for purposes of developing the approved ISR factors that became effective April 1, 2017 and, as described previously in the testimony in this proceeding, incorporates updated ISR investment amounts and known tax deductibility percentages. I will rely on the testimony included in the Company's FY 2018 ISR Plan filing in this docket for the detailed description of the revenue requirement calculation, and will limit my testimony here to summarizing the revenue requirement and the update for the known tax deductibility percentages.

Q. How was the Gas ISR revenue requirement revised for the change in the federal income tax rate from 35 percent to 21 percent?

A. The decrease in the federal income tax rate from 35 percent to 21 percent reduced the amount of income tax to be recovered from customers on the return on equity component of each Gas ISR vintage year revenue requirement. The return on rate base in each revenue requirement is calculated by multiplying the Gas ISR rate base by the weighted average cost of capital (WACC). The equity component of the return on rate base is the taxable component of the Gas ISR revenue requirement. The federal income taxes that the Company recovers from customers are derived by grossing up the WACC to a pre-tax rate of return. Consequently, the Company revised the pre-tax WACC to reflect the change in the federal income tax rate. The calculation of the revised pre-tax WACC is shown on Page 23 of Attachment MAL-1. The pre-tax WACC approved in Docket No. 4323 was 10.05 percent at the 35 percent tax rate. The new pre-tax WACC at the 21 percent tax rate, which became effective January 1, 2018, is 8.78 percent. The Company used a blended WACC of 9.73 percent to calculate the return on rate base on the FY 2018 column of each vintage year revenue requirement calculation, as the 35 percent federal income tax rate was in effect for nine months of FY 2018 (April to December) and the 21 percent federal income tax rate was in effect for three months of FY 2018 (January to March).

Q. Were there any other revisions to the Gas ISR revenue requirement that were the result of the change in the federal income tax rate from 35 percent to 21 percent?

Yes. Effective December 31, 2017, the Company has restated all of its deferred tax balances based on the new 21 percent federal income tax rate because the Company will be paying income taxes as the book/tax timing differences reverse at the 21 percent federal income tax rate. However, because deferred taxes are an offset to rate base in the Gas ISR revenue requirement, reducing the deferred tax balances based on the 21 percent federal income tax rate has the effect of artificially increasing rate base. To counteract this artificial increase to rate base, a new line item called Excess Deferred Income Taxes has been added to each vintage year's revenue requirement calculation reflecting the value of the decrease to ISR rate base as of December 31, 2017. The excess deferred income taxes represent the net benefit as of December 31, 2017 that will eventually be earned by the Company through reduced future income taxes, and ultimately passed back to customers through base rates, along with non-ISR embedded plant-related excess deferred taxes and non-plant excess deferred taxes.

The period of time which the pass back of the plant-related excess deferred taxes to customers will take place will be over the average life of the Company's plant assets, in accordance with the "protected" plant-related excess deferred tax provisions of the Tax Act. The Company is currently in the process of calculating the amount of excess deferred taxes and the period of time to return that amount to customers in connection with the Company's pending general base distribution rate case in Docket No. 4770.

Q. Please describe the calculation of the excess deferred income tax amounts.

A. The excess deferred income taxes are calculated on Page 24 of Attachment MAL-1. The Company derived the excess deferred income tax amounts by calculating the balance of ISR deferred taxes as of December 31, 2017 by vintage fiscal year, and multiplying that amount by the 14 percent change in the tax rate (35 percent minus 21 percent). Although calculated on Page 24, ISR deferred taxes for vintage FY 2012 and FY 2014 are fully offset by tax net operating loss deferred tax assets. Therefore, the adjustment to re-set deferred taxes based on the 21 percent federal income tax rate had no impact on ISR rate base, so no excess deferred tax offset was necessary in the revenue requirement calculation for those vintage years. Similarly, proration adjustments that were reflected in the originally-filed revenue requirement calculation for vintage FY 2012 and FY 2014 have been set to $0 in this revised attachment.

Q. How was the Gas ISR revenue requirement revised for the change in the bonus depreciation rules resulting from the Tax Act?

A. Bonus depreciation, sometimes known as first year bonus depreciation, is an accelerated tax depreciation method that was first established in 2002 as an economic stimulus to incent United States corporations to increase capital investments. Bonus depreciation allows companies to take an immediate tax deduction for some portion of certain qualified capital investments based on the bonus depreciation rates in effect for that year of investment. Bonus depreciation rates have ranged from a high of 100 percent in some years to as low as 30 percent for calendar year 2019, as specified in the tax laws prior to the passage of the Tax Act. Pursuant to those prior tax laws, bonus depreciation was set to expire at the end of calendar year 2019. As described previously in my testimony, the Tax Act changed the rules for bonus depreciation by eliminating bonus depreciation for certain capital investments, including ISR-eligible investments, effective September 28, 2017. Accordingly, the tax depreciation calculation on Attachment MAL-1, Page 3 has been updated to modify the calculation of bonus depreciation on actual vintage FY 2018 Gas ISR Plan capital investment. Bonus depreciation for FY 2018 in the Company's FY18 ISR Plan filing was based on bonus depreciation rates of 50 percent and 40 percent for calendar years 2017 to 2018, respectively. However, pursuant to the Tax Act, bonus depreciation is no longer an eligible deduction as of September 28, 2017. Investment in vintage FY 2018 Gas ISR capital projects occurred over the period April 1, 2017 through March 31, 2018. Because the September 28, 2017 effective date of the change to the bonus depreciation rules occurred during FY 2018, the Company adjusted its calculation of vintage FY 2018 tax depreciation on Page 4 of Attachment MAL-1 to reflect bonus depreciation eligibility for only a portion of FY 2018.

Q. You stated earlier in your testimony that the change to the federal income tax rate from 35 percent to 21 percent reduced the amount of revenue needed to recover from customers, but the change to the bonus depreciation rules under the Tax Act has the opposite effect on the revenue requirement. Please explain how the bonus depreciation rule changes increase the revenue requirement.

A. As I described earlier, bonus depreciation is a form of accelerated depreciation. This means the Company is able to depreciate assets on its income tax returns faster than it depreciates those assets on its books. The difference between tax depreciation and book depreciation is referred to as book/tax timing differences. Deferred income taxes are calculated by multiplying book/tax timing differences by the federal income tax rate. ISR-related deferred income taxes are liabilities for income taxes that will eventually be paid to the federal government when the underlying book/tax timing difference reverses. Deferred income taxes reflect the net cash benefit that the Company receives as a result of accelerated tax depreciation, and this benefit is passed along to customers as a reduction to rate base upon which the Company earns a return in the Gas ISR revenue requirement calculation. Lower deferred taxes results in a lower reduction to rate base, which results in an increase in rate base over the levels included in the originally-filed FY 2018 Gas ISR Plan. The change in the bonus depreciation rules pursuant to the Tax Act have reduced the amount of bonus depreciation in the vintage FY 2018 tax depreciation calculation from the amount of bonus depreciation reflected in the original FY 2018 Gas ISR Plan. This lower level of deferred income taxes results in a reduced offset to Gas ISR rate base, thereby increasing Gas ISR rate base, which increases the corresponding return on rate base. The increase in the return on rate base, in turn, increases the revenue requirement on vintage FY 2018 Gas ISR investment, partially mitigating the decrease in the revenue requirement for that year as a result of the decrease in the federal income tax rate from 35 percent to 21 percent.

Q. Are there any updates to the FY 2017 revenue requirement that are being trued up in the FY 2018 Gas ISR Reconciliation?

A. Yes. The Company filed its FY 2017 Gas ISR Reconciliation on August 1, 2017. However, the Company had not filed its FY 2017 income tax return until later that year in December. As a result, the Company used certain tax assumptions at the time of its FY 2017 ISR Reconciliation filing. The Company has revised its vintage FY 2017 revenue requirement to reflect the following updates in Attachment MAL-1: (1) actual capital repairs deduction rate of 73.82 percent, as shown on Page 5, Line 2; (2) actual percentage of plant eligible for bonus depreciation of 97.53 percent, as shown on Page 5, Line 7; (3) actual tax loss on retirements of $466,074, as shown on Page 5, Line 19; and (4) actual NOL of $0, as shown on Page 4, Line 17. In addition, the Company has reduced its FY 2017 capital investment by $1.2 million to reflect the

Company and Division of Public Utilities and Carriers' resolution of the capital costs associated with the decommissioning of the liquefied natural gas (LNG) tank in Cumberland.[2] Furthermore, the Company revised its vintage FY 2016 revenue requirement to reflect a work order write-off adjustment of $86,975, as shown on Page 4, Line 33.

Q. Please summarize the updated FY 2018 ISR revenue requirement.

A. As shown in Attachment MAL-1 at Page 1, Line 15, the updated FY 2018 ISR revenue requirement amounts to $34,438,608, which consists of $557,714 in O&M expenses and $33,880,894 of capital-related revenue requirement. As previously described, it includes the full year revenue requirement on vintage FY 2012 through FY 2018 ISR capital investments above or below the level of capital investment reflected in base distribution rates, as well as the property tax component.

Q. How is Attachment MAL-1 structured?

A. Page 1 of Attachment MAL-1 summarizes the individual components of the updated FY 2018 Gas ISR revenue requirement. Page 1, Line 1 shows the O&M expenses associated with an additional 16 full time equivalent personnel to support main replacement work for FY 2018, as described in the pre-filed direct testimony of Mr. Currie. Page 1, Lines 2 through 8 represent the full year 2018 ISR revenue

[2] The Company provided a refund of $61,849 in its FY 2019 Gas ISR Plan filing dated March 2, 2018 to return to customers the revenue requirement it had previously recovered during FY 2017 associated with the $1.2 million of Cumberland LNG decommissioning costs that the Company agreed to exclude from the ISR.

requirements for incremental FY 2012 through FY 2018 ISR investments – meaning those investments not included in the Company's base rates – and as supported with detailed calculations on Pages 2, 4, 6, 8, 10, 12, and 14, respectively. Page 1, Line 11 reflects the reconciliation of the approved FY 2017 ISR revenue requirement for vintage FY 2017 investments with a revised vintage FY 2017 revenue requirement on those investments. This reconciliation is necessary because the actual level of tax deductibility on FY 2017 investments was not known at the time of filing the FY 2017 ISR Reconciliation factor or the FY 2018 ISR Plan filing. Finally, Page 1, Line 12 reflects a true-up to address an adjustment that was recorded in the Company's FY 2016 annual report, in which it wrote off certain work orders that had been charged to plant in FY 2013 through FY 2016 that should have been charged to expense. Line 13 reflects the adjustment to property taxes associated with the work order write off adjustment. Detailed calculations of the updated FY 2017 and FY 2018 revenue requirements on vintage FY 2017 investments and the updated FY 2017 tax depreciation on vintage FY 2017 ISR investments are presented on Pages 4 and 5, respectively, of Attachment MAL-1.

Q. Has the Company provided support for the actual level of FY 2018 ISR-eligible plant investments?

A. Yes. The description of the FY 2018 Gas ISR program and the amount of the incremental non-growth capital investment eligible for inclusion in the ISR mechanism are supported by the pre-filed direct testimony and supporting attachment of Mr. Currie. The ultimate revenue requirement on the incremental non-growth capital investment equals the return on the investment (i.e., average rate base at the WACC), plus depreciation expense and property taxes associated with the investment. Incremental non-growth capital investment for this purpose is intended to represent the net change in rate base for non-growth infrastructure investments since the establishment of the Company's ISR mechanism effective April 1, 2011, and is defined as capital additions plus cost of removal, less annual depreciation expense embedded in the Company's rates, net of depreciation expense attributable to general plant. The actual ISR-eligible non-growth capital investment for FY 2018 amounts to $97.8 million[3] associated with the Company's FY 2018 ISR Plan (non-growth infrastructure investment net of general plant).

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

A. The updated FY 2018 revenue requirement associated with the Company's actual FY 2012 through FY 2018 eligible plant investments amounts to $33,880,894. This figure includes the updated FY 2018 revenue requirement on FY 2012 through FY 2018 investment and the reconciliation of the approved FY 2017 ISR revenue requirement for vintage FY 2017 investment with the actual FY 2017 revenue requirement on that vintage investment.

[3] Total ISR-eligible capital investment for FY 2018 of $97.8 million plus total ISR-eligible cost of removal of $8.6 million reflects $106.4 million of actual capital spending, as referenced in the pre-filed testimony of Mr. Currie (Attachment JBC-1, Page 2, Table 1).

III. CONCLUSION

Q. Does this conclude your testimony?

A. Yes.

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
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Annual Revenue Requirement Summary

Line No.		Fiscal Year 2018 Actuals
	Operation and Maintenance Expenses	
1	FY 2018 Operation and Maintenance Expense	$557,714
	Capital Investment:	
2	FY 2018 Revenue Requirement on FY 2012 Actual Incremental Capital Investment	$1,033,040
3	FY 2018 Revenue Requirement on FY 2013 Actual Incremental Capital Investment	$243,183
4	FY 2018 Revenue Requirement on FY 2014 Actual Incremental Capital Investment	$3,295,349
5	FY 2018 Revenue Requirement on FY 2015 Actual Capital Investment	$6,407,467
6	FY 2018 Revenue Requirement on FY 2016 Actual Capital Investment	$7,465,317
7	FY 2018 Revenue Requirement on FY 2017 Actual Capital Investment	$5,652,566
8	FY 2018 Revenue Requirement on FY 2018 Actual Capital Investment	$4,019,737
9	Total Capital Investment Revenue Requirement	$28,116,659
10	FY18 Property Tax Adjustment	$6,535,314
11	True-Up for Capital Repairs Deduction Rate, Tax Loss on Retirements, NOL, and Service Relocations in FY 2017 Revenue Requirement on FY 2017 Capital Investment in RIPUC Docket No. 4590	($24,733)
12	True up for FY13-FY16 Work order write off - Capital	(721,829)
13	True up for FY13-FY16 Work order write off - Property Tax	(24,518)
14	**Total Capital Investment Component of the Revenue Requirement**	**$33,880,894**
15	Total Fiscal Year Revenue Requirement	**$34,438,608**
16	FY 2018 Plan Revenue Requirement as filed on January 26, 2017	**$36,550,952**
17	Increase/Decrease in FY 2018 Revenue Requirement	($2,112,344)

1 Exhibit JBC-1, Section 2, Table 1.
2 Page 14 of 25, Line 33
3 Page 12 of 25, Line 34
4 Page 10 of 25, Line 36
5 Page 8 of 25, Line 30
6 Page 6 of 25, Line 30
7 Page 4 of 25, Line 30
8 Page 2 of 25, Line 30
9 Sum of Lines 2 through 8
10 Page 18 of 25, Line 96(g)
11 Page 4 of 25, Line 32
12 Page 25 of 25, Line 12
13 Page 17 of 25, Line 66
14 Line 9 + Line 10 + Line 11 + Line 12 + Line 13
15 Line 1 + Line 14
16 FY 2018 Plan Revenue Requirement as filed on January 26, 2017
17 Line 15 - Line 16

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Computation of Revenue Requirement on FY 2018 Forecasted Gas Capital Investment

Line No.				Fiscal Year 2018
	Depreciable Net Capital Included in ISR Rate Base			
1	Total Allowed Capital Included in ISR Rate Base in Current Year	Per Company's books		$97,809,718
2	Retirements	Per Company's books		$24,056,661
3	Net Depreciable Capital Included in ISR Rate Base	Line 1 - Line 2		$73,753,057
	Change in Net Capital Included in ISR Rate Base			
4	Capital Included in ISR Rate Base	Line 1		$97,809,718
5	Depreciation Expense	Per Settlement Agreement Docket No. 4323, excluding General Plant		$24,356,183
6	Incremental Capital Amount	Line 4 - Line 5		$73,453,535
7	Cost of Removal	Per Company's books		$8,603,224
8	**Net Plant Amount**	**Line 6 + Line 7**		**$82,056,759**
	Deferred Tax Calculation:			
9	Composite Book Depreciation Rate	As Approved in R.I.P.U.C. Docket No. 3943 & 4323		3.38%
10	Tax Depreciation	Year 1: Page 3 of 25, Line 21(a), then Page 3 of 25, Line 4(d) and below		$84,692,978
11	Cumulative Tax Depreciation	Prior Year Line 11 + Current Year Line 10		$84,692,978
12	Book Depreciation	Line 3 * Line 9		$1,246,427
13	Cumulative Book Depreciation	Prior Year Line 13 + Current Year Line 12		$1,246,427
14	Cumulative Book / Tax Timer	Line 11 - Line 13		$83,446,551
15	Effective Tax Rate			21.00%
16	Deferred Tax Reserve	Line 14 * Line 15		$17,523,776
17	Less: FY 2018 Federal NOL		1/	$0
18	Proration Adjustment	Page 22 of 25, Line 40(b)		($2,480,673)
19	Excess Deferred Tax			$8,761,888
20	Net Deferred Tax Reserve	Line 16 + Line 17 + Line 18		$23,804,991
	ISR Rate Base Calculation:			
21	Cumulative Incremental Capital Included in ISR Rate Base	Line 8		$82,056,759
22	Accumulated Depreciation	- Line 13		($1,246,427)
23	Deferred Tax Reserve	- Line 20		($23,804,991)
24	Year End Rate Base	Sum of Lines 21 through 23		$57,005,341
	Revenue Requirement Calculation:			
25	Average ISR Rate Base	Column (a) = Current Year Line 23 ÷ 2; Column (b) = (Prior Year Line 23 + Current Year Line 22) ÷ 2		$28,502,671
26	Pre-Tax ROR	Page 23, Line 8e, 19e, 34e		9.73%
27	Return and Taxes	Line 25 * Line 26		$2,773,310
28	Book Depreciation	Line 12		$1,246,427
29	Property Taxes		2/	$0
30	**Annual Revenue Requirement**	**Sum of Lines 27 through 29**		**$4,019,737**

1/ As provided by Tax Department

2/ Property taxes calculated on Pages 17 through 19 of 25 for all vintage years commencing with FY14 and reflected in total on Page 1 at Line 10.

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Calculation of Tax Depreciation and Repairs Deduction on FY 2018 Capital Investments

Line No.				Fiscal Year 2018 (a)	(b)	(c)	(d)
	Capital Repairs Deduction						
1	Plant Additions	Page 2 of 25, Line 1		$97,809,718	20 Year MACRS Depreciation		
2	Capital Repairs Deduction Rate	Per Tax Department	1/	68.90%			
3	Capital Repairs Deduction	Line 2 * Line 3		$67,390,889	MACRS basis:		$22,814,122
					Fiscal Year		
	Bonus Depreciation				2018	3.750%	$855,530
4	Plant Additions	Line 1		$97,809,718	2019	7.219%	$1,646,951
5	Less Capital Repairs Deduction	Line 3		$67,390,889	2020	6.677%	$1,523,299
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5		$30,418,829	2021	6.177%	$1,409,228
7	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department		100.00%	2022	5.713%	$1,303,371
8	Plant Eligible for Bonus Depreciation	Line 6 * Line 7		$30,418,829	2023	5.285%	$1,205,726
9	Bonus Depreciation Rate (April 2017 - September 2017)	1 * 50% * 50%		25.00%	2024	4.888%	$1,115,154
10	Bonus Depreciation Rate (October 2017 - March 2018)	1 * 50% *0%		0.00%	2025	4.522%	$1,031,655
11	Total Bonus Depreciation Rate	Line 9 + Line 10		25.00%	2026	4.462%	$1,017,966
12	Bonus Depreciation	Line 8 * Line 11		$7,604,707	2027	4.461%	$1,017,738
					2028	4.462%	$1,017,966
	Remaining Tax Depreciation				2029	4.461%	$1,017,738
13	Plant Additions	Line 1		$97,809,718	2030	4.462%	$1,017,966
14	Less Capital Repairs Deduction	Line 3		$67,390,889	2031	4.461%	$1,017,738
15	Less Bonus Depreciation	Line 12		$7,604,707	2032	4.462%	$1,017,966
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 13 - Line 14 - Line 15		$22,814,122	2033	4.461%	$1,017,738
17	20 YR MACRS Tax Depreciation Rates	IRS Publication 946		3.750%	2034	4.462%	$1,017,966
18	Remaining Tax Depreciation	Line 16 * Line 17		$855,530	2035	4.461%	$1,017,738
					2036	4.462%	$1,017,966
19	FY18 tax (gain)/loss on retirements	Per Tax Department	2/	$238,628	2037	4.461%	$1,017,738
20	Cost of Removal	Page 2 of 25, Line 7		$8,603,224	2038	2.231%	$508,983
						100.000%	$22,814,122
21	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 19 & 20		$84,692,978			

1/ Capital Repairs percentage is based on a three-year average of FYs 2013, 2014 and 2015 capital repairs rates.

2/ FY 2018 estimated tax loss on retirements

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Computation of Revenue Requirement on FY 2017 Actual Incremental Gas Capital Investment

Line No.				Fiscal Year 2017 (a)	Fiscal Year 2018 (b)
	Depreciable Net Capital Included in ISR Rate Base				
1	Total Allowed Capital Included in ISR Rate Base in Current Year	Per RIPUC Docket No. 4590		$79,960,614	$0
2	Retirements	Per Company Books		$8,094,426	$0
3	Net Depreciable Capital Included in ISR Rate Base	Line 1 - Line 2		$71,866,188	$71,866,188
	Change in Net Capital Included in ISR Rate Base				
4	Capital Included in ISR Rate Base	Line 1		$79,960,614	$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		$55,604,431	$55,604,431
7	Cost of Removal	Per Company's books		$6,100,390	$6,100,390
8	**Net Plant Amount**	**Line 6 + Line 7**		**$61,704,821**	**$61,704,821**
	Deferred Tax Calculation:				
9	Composite Book Depreciation Rate	As Approved in R.I.P.U.C. Docket No. 3943 & 4323		3.38%	3.38%
10	Tax Depreciation	Year 1: Page 5 of 25, Line 21(a), then Page 5 of 25, Line 4(d) and below		$76,203,904	$774,265
11	Cumulative Tax Depreciation	Prior Year Line 11 + Current Year Line 10		$76,203,904	$76,978,169
12	Book Depreciation	Line 3 * Line 9 * 50%		$1,214,539	$2,429,077
13	Cumulative Book Depreciation	Prior Year Line 13 + Current Year Line 12		$1,214,539	$3,643,616
14	Cumulative Book / Tax Timer	Line 11 - Line 13		$74,989,365	$73,334,553
15	Effective Tax Rate			35.00%	21.00%
16	Deferred Tax Reserve	Line 14 * Line 15		$26,246,278	$15,400,256
17	Less: FY 2017 Federal NOL	Per Tax Department		$0	$0
18	Proration Adjustment	Page 22 of 25, Line 40(c)		$0	$321,433
19	Excess Deferred Tax	Col (b) = Page 25 of 28, Line 8(e)		$0	$10,324,756
20	Net Deferred Tax Reserve	Line 16 + Line 17 + Line 18 + Line19		$26,246,278	$26,046,444
	ISR Rate Base Calculation:				
21	Cumulative Incremental Capital Included in ISR Rate Base	Line 8		$61,704,821	$61,704,821
22	Accumulated Depreciation	- Line 13		($1,214,539)	($3,643,616)
23	Deferred Tax Reserve	- Line 20		($26,246,278)	($26,046,444)
24	Year End Rate Base	Sum of Lines 21 through 23		$34,244,004	$32,014,760
	Revenue Requirement Calculation:				
25	Average ISR Rate Base	Column (a) = Line 24(a) ÷ 2. Column (b) = (Prior Year Line 24(a) + Current Year Line 24(b) ÷ 2		$17,122,002	$33,129,382
26	Pre-Tax ROR	Page 23, Line 8e, 19e, 34e		10.05%	9.73%
27	Return and Taxes	Line 25 * 26		$1,720,761	$3,223,489
28	Book Depreciation	Line 12		$1,214,539	$2,429,077
29	**Property Taxes**		1/	$0	$0
30	**Annual Revenue Requirement**	**Sum of Lines 27 through 29**		**$2,935,300**	**$5,652,566**
31	**Annual Revenue Requirement as reported in FY19 Plan filing Mar 1, 2018**			**$2,960,033**	
32	**True-Up FY 2017 Revenue Requirement**	**Sum of Lines 30 through 31**		**($24,733)**	

1/ Property taxes calculated on Pages 17 through 19 of 25 for all vintage years commencing with FY14 and reflected in total on Page 1 at Line 10.

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Calculation of Tax Depreciation and Repairs Deduction on FY 2017 Capital Investments

Line No.				Fiscal Year 2017 (a)	(b)	(c)	(d)
	Capital Repairs Deduction						
1	Plant Additions	Page 4 of 25, Line 1		$79,960,614	20 Year MACRS Depreciation		
2	Capital Repairs Deduction Rate	Per Tax Department	1/	73.82%			
3	Capital Repairs Deduction	Line 2 * Line 3		$59,026,925	MACRS basis:		$10,725,376
					Fiscal Year		
	Bonus Depreciation				2017	3.750%	$402,202
4	Plant Additions	Line 1		$79,960,614	2018	7.219%	$774,265
5	Less Capital Repairs Deduction	Line 3		$59,026,925	2019	6.677%	$716,133
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5		$20,933,689	2020	6.177%	$662,506
7	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department		97.53%	2021	5.713%	$612,741
8	Plant Eligible for Bonus Depreciation	Line 6 * Line 7		$20,416,627	2022	5.285%	$566,836
9	Bonus Depreciation Rate (April 2016 - December 2016)	1 * 75% * 50%		37.50%	2023	4.888%	$524,256
10	Bonus Depreciation Rate (January 2017 - March 2017)	1 * 25% * 50%		12.50%	2024	4.522%	$485,002
11	Total Bonus Depreciation Rate	Line 9 + Line 10		50.00%	2025	4.462%	$478,566
12	Bonus Depreciation	Line 8 * Line 11		$10,208,313	2026	4.461%	$478,459
					2027	4.462%	$478,566
	Remaining Tax Depreciation				2028	4.461%	$478,459
13	Plant Additions	Line 1		$79,960,614	2029	4.462%	$478,566
14	Less Capital Repairs Deduction	Line 3		$59,026,925	2030	4.461%	$478,459
15	Less Bonus Depreciation	Line 12		$10,208,313	2031	4.462%	$478,566
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 13 - Line 14 - Line 15		$10,725,376	2032	4.461%	$478,459
17	20 YR MACRS Tax Depreciation Rates	IRS Publication 946		3.750%	2033	4.462%	$478,566
18	Remaining Tax Depreciation	Line 6 * Line 7		$402,202	2034	4.461%	$478,459
					2035	4.462%	$478,566
19	FY17 tax (gain)/loss on retirements	Per Tax Department	2/	$466,074	2036	4.461%	$478,459
20	Cost of Removal	Page 4 of 25, Line 7		$6,100,390	2037	2.231%	$239,283
						100.000%	$10,725,376
21	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 19 & 20		$76,203,904			

1/ Agrees to the FY 2017 actuals

2/ FY 2017 actual tax loss on retirements

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan 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)	Fiscal Year 2018 (c)
	Depreciable Net Capital Included in ISR Rate Base					
1	Total Allowed Capital Included in ISR Rate Base in Current Year	Per RIPUC Docket No. 4540		$90,072,473	$0	$0
1a	Work Order Write Off Adjustment	Per Company's books		$597,976	$0	$0
1b	New Service Installation and Service Relocations, Growth (per informal Request Division 1-2)	Per Company's books		$151,092		
2	Retirements		1/	$3,177,067	$0	$0
3	Net Depreciable Capital Included in ISR Rate Base	Column (a) = Line 1 - Line 1a - Line 2; Column (b) and (c) = Prior Year Line 3		$86,146,338	$86,146,338	$86,146,338
	Change in Net Capital Included in ISR Rate Base					
4	Capital Included in ISR Rate Base	Line 1 - Line 1(a)- Line 1(b)		$89,323,405	$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		$64,967,222	$64,967,222	$64,967,222
7	Cost of Removal	Per Company's books	2/	$3,796,440	$3,796,440	$3,796,440
7a	Work Order Write Off Adjustment	Per Company's books		$94,829	$0	$0
7b	New Service Installation and Service Relocations, Growth (per informal Request Division 1-2)	Per Company's books		$17,740		
8	**Net Plant Amount**	**Line 6 + Line 7 - Line 7(a) -Line 7(b)**		**$68,651,094**	**$68,651,094**	**$68,651,094**
	Deferred Tax Calculation:					
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	Year 1: Page 7 of 25, Line 21(a), then Page 7 of 25, Line 4(d) and below		$82,938,193	$786,495	$727,445
11	Cumulative Tax Depreciation	Prior Year Line 11 + Current Year Line 10		$82,938,193	$83,724,688	$84,452,133
12	Book Depreciation	Line 3 * Line 9 * 50%		$1,455,873	$2,911,746	$2,911,746
13	Cumulative Book Depreciation	Prior Year Line 13 + Current Year Line 12		$1,455,873	$4,367,619	$7,279,366
14	Cumulative Book / Tax Timer	Line 11 - Line 13		$81,482,320	$79,357,069	$77,172,768
15	Effective Tax Rate			35.00%	35.00%	21.000%
16	Deferred Tax Reserve	Line 14 * Line 15		$28,518,812	$27,774,974	$16,206,281
17	Less: FY 2016 Federal NOL	Per Page 20 of 25, Line 12		($11,594,940)	($11,594,940)	($11,594,940)
18	Proration Adjustment	Page 22 of 25, Line 40		$0	$0	$384,608
19	Excess Deferred Tax			$0	$0	$10,880,638
20	Net Deferred Tax Reserve	Line 16 + Line 17 + Line 18 + Line19		$16,923,872	$16,180,034	$15,876,587
	ISR Rate Base Calculation:					
21	Cumulative Incremental Capital Included in ISR Rate Base	Line 8		$68,651,094	$68,651,094	$68,651,094
22	Accumulated Depreciation	- Line 13		($1,455,873)	($4,367,619)	($7,279,366)
23	Deferred Tax Reserve	- Line 20		($16,923,872)	($16,180,034)	($15,876,587)
24	Year End Rate Base	Sum of Lines 21 through 23		$50,271,349	$48,103,440	$45,495,141
	Revenue Requirement Calculation:					
25	Average ISR Rate Base	Column (a) = Current Year Line 24 ÷ 2; Column (b) through (d) = (Prior Year Line 24 + Current Year Line 24 ÷ 2)		$25,135,674	$49,187,394	$46,799,291
26	Pre-Tax ROR	Page 23, Line 8e, 19e, 34e		10.05%	10.05%	9.73%
27	Return and Taxes	Line 25 * 26		$2,526,135	$4,943,333	$4,553,571
28	Book Depreciation	Line 12		$1,455,873	$2,911,746	$2,911,746
29	Property Taxes		3/	$0	$0	$0
30	**Annual Revenue Requirement**	**Sum of Lines 27 through 29**		**$3,982,008**	**$7,855,079**	**$7,465,317**
31	As Approved in RIPUC Docket No. 4540			**$4,218,540**		
32	Add Back: Revenue Requirement Impact of NOL True-Up			**$149,557**		
33	Work Order Write Off Adjustment			**($86,975)**		

1/ Actual FY 2016 retirements per Company's books
2/ Actual FY 2016 Cost of Removal per Company's books

3/ Property taxes calculated on Pages 17 through 19 of 25 for all vintage years commencing with FY14 and reflected in total on Page 1 at Line 10.

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Calculation of Tax Depreciation and Repairs Deduction on FY 2016 Capital Investments

Line No.				Fiscal Year 2016 (a)	(b)	(c)	(d)
	Capital Repairs Deduction						
1	Plant Additions	Page 6 of 25, Line 1 minus Line 1a		$89,474,497	20 Year MACRS Depreciation		
2	Capital Repairs Deduction Rate	Per Tax Department	1/	75.72%			
3	Capital Repairs Deduction	Line 2 * Line 3		$67,750,089	MACRS basis:		$10,894,791
					Fiscal Year		
	Bonus Depreciation				2016	3.750%	$408,555
4	Plant Additions	Line 1		$89,474,497	2017	7.219%	$786,495
5	Less Capital Repairs Deduction	Line 3		$67,750,089	2018	6.677%	$727,445
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5		$21,724,408	2019	6.177%	$672,971
7	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department		99.70%	2020	5.713%	$622,419
8	Plant Eligible for Bonus Depreciation	Line 6 * Line 7		$21,659,235	2021	5.285%	$575,790
9	Bonus Depreciation Rate (April 2015- December 2015)	1 * 75% * 50%		37.50%	2022	4.888%	$532,537
10	Bonus Depreciation Rate (January 2016 - March 2016)	1 * 25% * 50%		12.50%	2023	4.522%	$492,662
11	Total Bonus Depreciation Rate	Line 9 + Line 10		50.00%	2024	4.462%	$486,126
12	Bonus Depreciation	Line 8 * Line 11		$10,829,617	2025	4.461%	$486,017
					2026	4.462%	$486,126
	Remaining Tax Depreciation				2027	4.461%	$486,017
13	Plant Additions	Line 1		$89,474,497	2028	4.462%	$486,126
14	Less Capital Repairs Deduction	Line 3		$67,750,089	2029	4.461%	$486,017
15	Less Bonus Depreciation	Line 12		$10,829,617	2030	4.462%	$486,126
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 13 - Line 14 - Line 15		$10,894,791	2031	4.461%	$486,017
17	20 YR MACRS Tax Depreciation Rates	IRS Publication 946		3.750%	2032	4.462%	$486,126
18	Remaining Tax Depreciation	Line 16 * Line 17		$408,555	2033	4.461%	$486,017
					2034	4.462%	$486,126
19	FY16 tax (gain)/loss on retirements	Per Tax Department		$248,321	2035	4.461%	$486,017
20	Cost of Removal	Page 6 of 25, Line 7 minus Line 7a		$3,701,611	2036	2.231%	$243,063
						100.000%	$10,894,791
21	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 19 & 20		$82,938,193			

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 2018 Gas ISR Plan 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)	Fiscal Year 2018 (d)
	Depreciable Net Capital Included in ISR Rate Base						
1	Total Allowed Capital Included in ISR Rate Base in Current Year	Per RIPUC Docket No. 4474		$74,915,000	$0	$0	$0
1a	Work Order Write Off Adjustment	Per Company's books		$323,217	$0	$0	$0
1b	New Service Installation and Service Relocations, Growth (per informal Request Division 1-2)	Per Company's books		$87,115			
2	Retirements		1/	$5,566,546	$0	$0	$0
3	Net Depreciable Capital Included in ISR Rate Base	Column (a) = Line 1 - Line 1a - Line 2; Column (b) through (e) = Prior Year Line 3		$68,938,122	$68,938,122	$68,938,122	$68,938,122
	Change in Net Capital Included in ISR Rate Base						
4	Capital Included in ISR Rate Base	Line 1 - Line 1a		$74,504,668	$0	$0	$0
5	Depreciation Expense	Per Settlement Agreement Docket No. 4323, excluding General Plant		$24,356,183	$0	$0	$0
6	Incremental Capital Amount	Line 4 - Line 5		$50,148,485	$50,148,485	$50,148,485	$50,148,485
7	Cost of Removal		2/	$2,425,000	$2,425,000	$2,425,000	$2,425,000
7a	Work Order Write Off Adjustment	Per Company's books		$253,782	$0	$0	$0
7b	New Service Installation and Service Relocations, Growth (per informal Request Division 1-2)			$6,782			
8	**Net Plant Amount**	**Line 6 + Line 7 - Line 7a**		**$52,312,921**	**$52,312,921**	**$52,312,921**	**$52,312,921**
	Deferred Tax Calculation:						
9	Composite Book Depreciation Rate	As Approved in R.I.P.U.C. Docket No. 3943 & 4323		3.38%	3.38%	3.38%	3.38%
10	Tax Depreciation	Year 1: Page 9 of 25, Line 21(a), then Page 9 of 25, Line 4(d) and below		$68,843,570	$979,151	$905,637	$837,819
11	Cumulative Tax Depreciation	Prior Year Line 11 + Current Year Line 10		$68,843,570	$69,822,721	$70,728,358	$71,566,177
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	$2,330,109
13	Cumulative Book Depreciation	Prior Year Line 13 + Current Year Line 12		$1,165,054	$3,495,163	$5,825,271	$8,155,380
14	Cumulative Book / Tax Timer	Line 11 - Line 13		$67,678,516	$66,327,558	$64,903,087	$63,410,797
15	Effective Tax Rate			35.00%	35.00%	35.00%	21.00%
16	Deferred Tax Reserve	Line 14 * Line 15		$23,687,481	$23,214,645	$22,716,080	$13,316,267
17	Less: FY 2015 NOL	Per Page 20 of 25, Line 12		($19,205,538)	($19,205,538)	($19,205,538)	($19,205,538)
18	Proration Adjustment	Page 22 of 25, Line 40		$0	$0	$0	$284,129
19	Excess Deferred Tax						$8,929,742
20	Net Deferred Tax Reserve	Line 16 + Line 17 + Line 18		$4,481,943	$4,009,108	$3,510,543	$3,324,600
	ISR Rate Base Calculation:						
21	Cumulative Incremental Capital Included in ISR Rate Base	Line 8		$52,312,921	$52,312,921	$52,312,921	$52,312,921
22	Accumulated Depreciation	- Line 13		($1,165,054)	($3,495,163)	($5,825,271)	($8,155,380)
23	Deferred Tax Reserve	- Line 20		($4,481,943)	($4,009,108)	($3,510,543)	($3,324,600)
24	Year End Rate Base	Sum of Lines 21 through 23		$46,665,924	$44,808,651	$42,977,107	$40,832,942
	Revenue Requirement Calculation:						
25	Average ISR Rate	Column (a) = Current Year Line 24 ÷ 2; Column (b) through (d) = (Prior Year Line 24 + Current Year Line 24 ÷ 2)		$23,332,962	$45,737,288	$43,892,879	$41,905,025
26	Pre-Tax ROR	Page 23, Line 8e, 19e, 34e		10.05%	10.05%	10.05%	9.73%
27	Return and Taxes	Line 25 * 26		$2,344,963	$4,596,597	$4,411,234	$4,077,359
28	Book Depreciation	Line 12		$1,165,054	$2,330,109	$2,330,109	$2,330,109
29	Property taxes		3/	$0	$0	$0	$0
30	**Annual Revenue Requirement**	**Sum of Lines 27 through 29**		**$3,510,017**	**$6,926,706**	**$6,741,343**	**$6,407,467**
31	As Approved in RIPUC Docket No. 4540			**$3,541,285**	**$6,988,713**		
32	Work Order Write Off Adjustment			**($31,268)**	**($62,007)**		

1/ Actual FY 2015 retirements per Company's books
2/ Actual FY 2015 Cost of Removal per Company's books
3/ Property taxes calculated on Pages 17 through 19 of 25 for all vintage years commencing with FY14 and reflected in total on Page 1 at Line 10.

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Calculation of Tax Depreciation and Repairs Deduction on FY 2015 Capital Investments

Line No.				Fiscal Year 2015 (a)	(b)	(c)	(d)
	Capital Repairs Deduction						
1	Plant Additions	Per Page 8 of 25, Line 1 minus Line 1a		$74,591,783	20 Year MACRS Depreciation		
2	Capital Repairs Deduction Rate	Per Tax Department	1/	63.81%			
3	Capital Repairs Deduction	Line 1 * Line 2		$47,597,001	MACRS basis:		$13,563,528
					Fiscal Year		
	Bonus Depreciation				2015	3.750%	$508,632
4	Plant Additions	Line 1		$74,591,783	2016	7.219%	$979,151
5	Less Capital Repairs Deduction	Line 3		$47,597,001	2017	6.677%	$905,637
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5		$26,994,782	2018	6.177%	$837,819
7	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department		99.51%	2019	5.713%	$774,884
8	Plant Eligible for Bonus Depreciation	Line 6 * Line 7		$26,862,508	2020	5.285%	$716,832
9	Bonus Depreciation Rate (April 2014 - December 2014)	1 * 75% * 50%		37.50%	2021	4.888%	$662,985
10	Bonus Depreciation Rate (January 2015 - March 2015)	1 * 25% * 50%		12.50%	2022	4.522%	$613,343
11	Total Bonus Depreciation Rate	Line 9 + Line 10		50.00%	2023	4.462%	$605,205
12	Bonus Depreciation	Line 8 * Line 11		$13,431,254	2024	4.461%	$605,069
					2025	4.462%	$605,205
	Remaining Tax Depreciation				2026	4.461%	$605,069
13	Plant Additions	Line 1		$74,591,783	2027	4.462%	$605,205
14	Less Capital Repairs Deduction	Line 3		$47,597,001	2028	4.461%	$605,069
15	Less Bonus Depreciation	Line 12		$13,431,254	2029	4.462%	$605,205
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 13 - Line 14 - Line 15		$13,563,528	2030	4.461%	$605,069
17	20 YR MACRS Tax Depreciation Rates	Per IRS Pub. 946		3.750%	2031	4.462%	$605,205
18	Remaining Tax Depreciation	Line 16 * Line 17		$508,632	2032	4.461%	$605,069
					2033	4.462%	$605,205
19	§481(a) FY09- FY14 adjustment for tax (gain)/loss on retirements	Per Tax Department		$4,311,849	2034	4.461%	$605,069
20	FY15 tax (gain)/loss on retirements	Per Tax Department		$823,616	2035	2.231%	$302,602
21	Cost of Removal	Per Page 8 of 25, Line 7 minus Line 7a		$2,171,218		100.000%	$13,563,528
22	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 19, 20 & 21		$68,843,570			

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 addtions in those categories that are considered as potentially qualifying for Capital Repairs deduction.

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Computation of Revenue Requirement on FY 2014 Actual Incremental Gas Capital Investment

Line No.				Fiscal Year 2014 (a)	Cumulative FY15-FY16 (d)	Fiscal Year 2017 (e)	Fiscal Year 2018 (f)
	Depreciable Net Capital Included in Rate Base						
1	Total Allowed Capital Included in Rate Base in Current Year	Page 16 of 25, Line 3, Column (c); (Includes Work Order Write Off Adjustment)		$21,360,998		$0	$0
2	Retirements	Page 16 of 25, Line 9, Column (c)	1/	1,615,155		$0	$0
3	Net Depreciable Capital Included in Rate Base	Column (a) = Line 1 - Line 1a - Line 2; Column (b) through (f) = Prior Year Line 3		$19,745,842		$19,745,842	$19,745,842
	Change in Net Capital Included in Rate Base						
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 16 of 25, Line 6, Column (c); (Includes Work Order Write Off Adjustment)	3/	($1,319,752)		($1,319,752)	($1,319,752)
8	**Net Plant Amount**	**Line 6 + Line 7**		**$15,981,069**	**$15,981,069**	**$15,981,069**	**$15,981,069**
	Deferred Tax Calculation:						
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	Year 1: Page 11 of 25, Line 21(a), then Page 11 of 25, Line 5(d) and below		$17,439,322		$166,983	$154,439
11	Cumulative Tax Depreciation	Prior Year Line 11 + Current Year Line 10		$17,439,322	$17,814,972	$17,981,955	$18,136,394
12	Book Depreciation	Column (a) = Line 3 * Line 9 * 50% ; Columns (b)-(f) = Line 3 * Line 9		$333,705		$667,409	$667,409
13	Cumulative Book Depreciation	Prior Year Line 13 + Current Year Line 12		$333,705	$1,668,524	$2,335,933	$3,003,343
14	Cumulative Book / Tax Timer	Line 11 - Line 13		$17,105,617	$16,146,448	$15,646,021	$15,133,051
15	Effective Tax Rate			35.00%	35.00%	35.00%	21.00%
16	Deferred Tax Reserve	Line 14 * Line 15		$5,986,966	$5,651,257	$5,476,107	$3,177,941
17	Less: FY 2014 Federal NOL	Lessor of Line 16 or Page 20 of 25, Line 11		($5,986,966)	($5,651,257)	($5,476,107)	($3,177,941)
18	Proration Adjustment	Page 22 of 25, Line 40		$0	$0	$0	$0
19	Excess Deferred Tax						$0
20	Net Deferred Tax Reserve	Sum of Lines 16 through Line 18		$0	$0	$0	$0
	Rate Base Calculation:						
21	Cumulative Incremental Capital Included in Rate Base	Line 8		$15,981,069	$15,981,069	$15,981,069	$15,981,069
22	Accumulated Depreciation	- Line 13		($333,705)	($1,668,524)	($2,335,933)	($3,003,343)
23	Deferred Tax Reserve	- Line 20		$0	$0	$0	$0
24	Year End Rate Base	Sum of Lines 21 through 23		$15,647,365	$14,312,546	$13,645,136	$12,977,727
	Revenue Requirement Calculation:						
25	Average ISR Rate Base	Column (a) = Current Year Line 24 * 31.41%; Column (b) through (f) = (Prior Year Line 24 + Current Year Line 24 ÷ 2)	4/	$4,914,753		$13,978,841	$13,311,432
26	Pre-Tax ROR	Page 23, Line 8e, 19e, 34e		10.05%		10.05%	9.73%
27	Return and Taxes	Line 25 * Line 26		$493,933		$1,404,874	$1,295,202
28	Book Depreciation	Line 12		$333,705		$667,409	$667,409
29	Property Taxes		5/	$0		$0	$0
30	**Annual Revenue Requirement on Incremental FY14 Investment**	**Sum of Lines 27 through 29**		**$827,637**		**$2,072,283**	**$1,962,612**
31	Remaining FY14 NOL attributable to embedded rate base in RIPUC Docket 4323	Per Page 20 of 25, Line 12 less Line 17		$12,037,252		$12,548,111	$14,846,277
32	Average Rate Base	Col (a) = Current Year Line 31 * 58.33%; Col (b) through (f) = (Prior Year Line 31 + Current Year Line 31) ÷ 2	6/	$7,021,730		$12,460,536	$13,697,194
33	Pre-Tax ROR	Page 23, Line 8e, 19e, 34e		10.05%		10.05%	9.73%
34	Return and Taxes	Line 32 * Line 33		$705,684		$1,252,284	$1,332,737
35	**Annual Revenue Requirement adjustment to base rates related to NOL**	**Line 34**		**$705,684**		**$1,252,284**	**$1,332,737**
36	**Total Annual Revenue Requirement**	**Line 30 + Line 35**		**$1,533,321**		**$3,324,567**	**$3,295,349**
37	As Approved in RIPUC Docket No. 4540			$1,584,245			
38	Work Order Write Off Adjustment			($50,924)			

1/ Actual Incremental Retirements
2/ Depreciation expense has been prorated for two months (February - March 2014).
3/ Actual Incremental Cost of Removal
4/ 31.71% per Page 25 of 25
5/ Property taxes calculated on Pages 17 through 19 of 25 for all vintage years commencing with FY14 and reflected in total on Page 1 at Line 10.
6/ 58.33% per Docket No. 4474

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Calculation of Tax Depreciation and Repairs Deduction on FY 2014 Capital Investments

Line No.				Fiscal Year 2014 (a)	(b)	(c)	(d)
	Capital Repairs Deduction						
1	Plant Additions	Per Page 10 of 25, Line 1		$21,360,998	20 Year MACRS Depreciation		
2	Capital Repairs Deduction Rate	Per Tax Department	1/	74.94%			
3	Capital Repairs Deduction	Line 1 * Line 2		$16,007,932	MACRS basis:		$2,703,298
	Bonus Depreciation				Fiscal Year		
4	Plant Additions	Line 1		$21,360,998	2014	3.750%	$101,374
5	Less Capital Repairs Deduction	Line 3		$16,007,932	2015	7.219%	$195,151
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5		$5,353,066	2016	6.677%	$180,499
7	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department		99.00%	2017	6.177%	$166,983
8	Plant Eligible for Bonus Depreciation	Line 6 * Line 7		$5,299,535	2018	5.713%	$154,439
9	Bonus Depreciation Rate (April 2013 - December 2013)	1 * 75% * 50%		37.50%	2019	5.285%	$142,869
10	Bonus Depreciation Rate (January 2014 - March 2014)	1 * 25% * 50%		12.50%	2020	4.888%	$132,137
11	Total Bonus Depreciation Rate	Line 9 + Line 10		50.00%	2021	4.522%	$122,243
12	Bonus Depreciation	Line 8 * Line 11		$2,649,768	2022	4.462%	$120,621
					2023	4.461%	$120,594
	Remaining Tax Depreciation				2024	4.462%	$120,621
13	Plant Additions	Line 1		$21,360,998	2025	4.461%	$120,594
14	Less Capital Repairs Deduction	Line 3		$16,007,932	2026	4.462%	$120,621
15	Less Bonus Depreciation	Line 12		$2,649,768	2027	4.461%	$120,594
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 13 - 14 - 15		$2,703,298	2028	4.462%	$120,621
17	20 YR MACRS Tax Depreciation Rates	Per IRS Pub. 946		3.750%	2029	4.461%	$120,594
18	Remaining Tax Depreciation	Line 16 * Line 17		$101,374	2030	4.462%	$120,621
					2031	4.461%	$120,594
19	Cost of Removal	Per Page 10 of 25, Line 7		($1,319,752)	2032	4.462%	$120,621
					2033	4.461%	$120,594
20	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 19		$17,439,322	2034	2.231%	$60,311
						100.000%	$2,703,298

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 addtions in those categories that are considered as potentially qualifying for Capital Repairs deduction.

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Computation of Revenue Requirement on FY2013 Actual Incremental Capital Investment

Line No.				Fiscal Year 2013 (a)	Cumulative FY14-FY16 (e)	Fiscal Year 2017 (f)	Fiscal Year 2018 (g)
	Depreciable Net Capital Included in Rate Base						
1	Total Allowed Capital Included in Rate Base in Current Year	Page 16 of 25, Line 3, Column (b); (Includes Work Order Write Off Adjustment)		($1,197,129)		($1,197,129)	($1,197,129)
2	Retirements	Page 16 of 25, Line 9, Column (b)	1/	3,276,842		3,276,842	3,276,842
3	Net Depreciable Capital Included in Rate Base	Column (a) = Line 1 - Line 2; Column (b) through (g) = Prior Year Line 3		($4,473,971)		($4,473,971)	($4,473,971)
	Change in Net Capital Included in Rate Base						
4	Capital Included in Rate Base	Line 1		($1,197,129)			
5	Cost of Removal	Page 16 of 25, Line 6, Column (b); (Includes Work Order Write Off Adjustment)	2/	($1,701,046)			
6	**Net Plant Amount**	**Line 4 + Line 5**		**($2,898,175)**	**($2,898,175)**	**($2,898,175)**	**($2,898,175)**
	Deferred Tax Calculation:						
7	Composite Book Depreciation Rate	As Approved in R.I.P.U.C. Docket No. 4323 and 3943		3.38%		3.38%	3.38%
8	Tax Depreciation	Year 1: Page 13 of 25, Line 21(a), then Page 13 of 25, Line 5(d) and below		($2,724,002)		($10,338)	($9,564)
9	Cumulative Tax Depreciation	Col (a)= Current Yr Line 8; Col (b)-(d)= Prior Yr Line 9 + Current Yr Line 8		($2,724,002)	($2,760,326)	($2,770,664)	($2,780,228)
10	Book Depreciation	Column (a) = Line 3 * Line 7 * 50%; Column (b)-(d) = Line 3 * Line 7		($75,610)		($151,220)	($151,220)
11	Cumulative Book Depreciation	Col (a) =Current Yr Line 10; Col (b)-(d) = Prior Yr Line 9 + Current Yr Line 10		($75,610)	($529,271)	($680,491)	($831,711)
12	Cumulative Book / Tax Timer	Line 9 - Line 11		($2,648,392)	($3,289,597)	($2,090,173)	($1,948,516)
13	Effective Tax Rate			35.00%	35.000%	35.00%	21.00%
14	Deferred Tax Reserve	Line 12 * Line 13		($926,937)	($1,151,359)	($731,561)	($409,188)
15	Less: FY 2013 Federal NOL	Per Page 20 of 25, Line 12		$0	$0	$0	$0
16	Proration Adjustment	Page 22 of 25, Line 40		$0	$0	$0	($26,743)
17	Excess Deferred Tax						($277,750)
18	Net Deferred Tax Reserve	Sum of Lines 14 through 16		($926,937)	($1,151,359)	($731,561)	($713,681)
	Rate Base Calculation:						
19	Cumulative Incremental Capital Included in Rate Base	Line 6		($2,898,175)	($2,898,175)	($2,898,175)	($2,898,175)
20	Accumulated Depreciation	- Line 11		$75,610	$529,271	$680,491	$831,711
21	Deferred Tax Reserve	- Line 18		$926,937	$1,151,359	$731,561	$713,681
22	Year End Rate Base	Sum of Lines 19 through 21		($1,895,627)	($1,217,545)	($1,486,123)	($1,352,782)
	Revenue Requirement Calculation:						
23	Average ISR Rate Base	Col (a) = Current Yr Line 22 ÷ 2; Col (b) through (g) = (Prior Yr Line 22 + Current Yr Line 22) ÷ 2		($947,814)		($1,537,079)	($1,419,453)
24	Pre-Tax ROR	Page 23, Line 8e, 19e, 34e		11.18%		10.05%	9.73%
25	Return and Taxes	Line 23 * Line 24		($105,966)		($154,476)	($138,113)
26	Book Depreciation	Line 10		($75,610)		($151,220)	($151,220)
27	Property Taxes	$0 in Year 1, then Prior Year (Line 6 - Line 11) * Property Tax Rate	3/	$0		($73,066)	($64,568)
28	**Annual Revenue Requirement on Incremental FY 2013 Investment**	**Sum of Lines 25 through 27**		**($181,576)**		**($378,763)**	**($353,901)**
29	Remaining FY13 NOL attributable to embedded rate base in RIPUC Docket 4323	Per Page 20 of 25, Line 12 less Line 15		$6,136,520		$6,136,520	$6,136,520
30	Average Rate Base	Col (a) = Line 29 * 50%; Col (b) through (g) = (Prior Year Line 29 + Current Year Line 29) ÷ 2		$3,068,260		$6,136,520	$6,136,520
31	Pre-Tax ROR	Page 23, Line 8e, 19e, 34e		11.18%		10.05%	9.73%
32	Return and Taxes	Line 30 * Line 31		$343,031		$616,720	$597,083
33	**Annual Revenue Requirement adjustment to base rates related to NOL**	**Line 32**		**$343,031**		**$616,720**	**$597,083**
34	**Total Annual Revenue Requirement**	**Line 28 + Line 33**		**$161,456**		**$237,958**	**$243,183**
35	**As Approved in RIPUC Docket No. 4540**			**$190,784**			
36	**Work Order Write off Adjustment**			**($29,328)**			

1/ Actual Incremental Retirements
2/ Actual Incremental Cost of Removal
3/ FY 2018 effective property tax rate of 2.91% per at Line 76(h).

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Calculation of Tax Depreciation and Repairs Deduction on FY 2013 Capital Investments

Line No.				Fiscal Year 2013 (a)	(b)	(c)	(d)
	Capital Repairs Deduction						
1	Plant Additions	Per Page 12 of 25, Line 1		($1,197,129)	20 Year MACRS Depreciation		
2	Capital Repairs Deduction Rate	Per Tax Department	1/	67.95%			
3	Capital Repairs Deduction	Line 1 * Line 2		($813,449)	MACRS basis:		($180,958)
	Bonus Depreciation				Fiscal Year		
4	Plant Additions	Line 1		($1,197,129)	2013	3.750%	($6,786)
5	Less Capital Repairs Deduction	Line 3		($813,449)	2014	7.219%	($13,063)
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5		($383,680)	2015	6.677%	($12,083)
7	Percent of Plant Eligible for 100% Bonus Depreciation	Per Tax Department	2/	5.67%	2016	6.177%	($11,178)
8	Plant Eligible for 100% Bonus Depreciation	Line 6 * Line 7		($21,763)	2017	5.713%	($10,338)
9	Bonus Depreciation Rate (April 2012 - December 2012)	1 * 75% * 100%		75.00%	2018	5.285%	($9,564)
10	Bonus Depreciation Rate (January 2013 - March 2013)	1 * 25% * 100%		25.00%	2019	4.888%	($8,845)
11	Total Bonus Depreciation Rate	Line 9 + Line 10		100.00%	2020	4.522%	($8,183)
12	100% Bonus Depreciation	Line 8 * Line 11		($21,763)	2021	4.462%	($8,074)
					2022	4.461%	($8,073)
13	Plant Additions Net of Capital Repairs Deduction and 100% Bonus Depreciation	Line 6 - Line 12		($361,917)	2023	4.462%	($8,074)
14	Plant Eligible for 50% Bonus Depreciation	Per Tax Department		100.00%	2024	4.461%	($8,073)
15	Bonus Depreciation Rate (April 2012 - December 2012)	1 * 75% * 50%		37.50%	2025	4.462%	($8,074)
16	Bonus Depreciation Rate (January 2013 - March 2013)	1 * 25% * 50%		12.50%	2026	4.461%	($8,073)
17	Total Bonus Depreciation Rate	Line 9 + Line 10		50.00%	2027	4.462%	($8,074)
18	50% Bonus Depreciation	Line 13 * Line 17		($180,958)	2028	4.461%	($8,073)
					2029	4.462%	($8,074)
	Remaining Tax Depreciation				2030	4.461%	($8,073)
19	Plant Additions	Line 1		($1,197,129)	2031	4.462%	($8,074)
20	Less Capital Repairs Deduction	Line 3		($813,449)	2032	4.461%	($8,073)
21	Less Bonus Depreciation	Line 12 + Line 18		($202,721)	2033	2.231%	($4,037)
22	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 19 - 20 - 21		($180,958)		100.000%	($180,958)
23	20 YR MACRS Tax Depreciation Rates	Per IRS Pub. 946		3.750%			
24	Remaining Tax Depreciation	Line 22 * Line 23		($6,786)			
25	Cost of Removal	Per Page 12 of 25, Line 5		($1,701,046)			
26	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 24, & 25		($2,724,002)			

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 2018 Gas ISR Plan Revenue Requirement Reconciliation
Computation of Revenue Requirement on FY 2012 Actual Incremental Gas Capital Investment

Line No.				Fiscal Year 2012 (a)	Cumulative FY13-FY16 (f)	Fiscal Year 2017 (g)	Fiscal Year 2018 (h)
	Depreciable Net Capital Included in Rate Base						
1	Total Allowed Capital Included in Rate Base in Current Year	Page 16 of 25, Line 3, Column (a)		$6,721,626		$0	$0
2	Retirements	Page 16 of 25, Line 9, Column (a)	1/	2,292,446		$0	$0
3	Net Depreciable Capital Included in Rate Base	Column (a) = Line 1 - Line 1a - Line 2; Column (b) through (h) = Prior Year Line 3		$4,429,180		$4,429,180	$4,429,180
	Change in Net Capital Included in Rate Base						
4	Capital Included in Rate Base	Line 1		$6,721,626		$6,721,626	$6,721,626
5	Cost of Removal	Page 16 of 25, Line 6, Column (a)	2/	($3,180,470)		($3,180,470)	($3,180,470)
6	**Net Plant Amount**	**Line 4 + Line 5**		**$3,541,156**	**$3,541,156**	**$3,541,156**	**$3,541,156**
	Deferred Tax Calculation:						
7	Composite Book Depreciation Rate	As Approved in R.I.P.U.C. Docket No. 3943		3.38%		3.38%	3.38%
8	Tax Depreciation	Year 1: Page 15 of 25, Line 21(a), then Page 15 of 25, Line 5(d) and below		$3,001,202		$29,648	$27,421
9	Cumulative Tax Depreciation	Prior Year Line 9 + Current Year Line 8		$3,001,202	$3,145,859	$3,175,507	$3,202,929
10	Book Depreciation	Column (a) = Line 3 * Line 7 * 50%; Columns (b)-(e) = Line 3 * Line 7		$74,853		$149,706	$149,706
11	Cumulative Book Depreciation	Prior Year Line 11 + Current Year Line 10		$74,853	$673,678	$823,385	$973,091
12	Cumulative Book / Tax Timer	Line 9 - Line 11		$2,926,349	$2,472,181	$2,352,123	$2,229,838
13	Effective Tax Rate			35.00%	35.000%	35.000%	21.000%
14	Deferred Tax Reserve	Line 12 * Line 13		$1,024,222	$865,263	$823,243	$468,266
15	Less: FY 2012 Federal NOL	Lessor of Line 14 or Page 20 of 25, Line 11		($1,024,222)	($865,263)	($823,243)	($468,266)
16	Proration Adjustment	Page 22 of 25, Line 40					$0
17	Excess Deferred Tax						$0
17	Net Deferred Tax Reserve	Sum of Lines 14 through 16		$0	$0	$0	$0
	Rate Base Calculation:						
18	Cumulative Incremental Capital Included in Rate Base	Line 6		$3,541,156	$3,541,156	$3,541,156	$3,541,156
19	Accumulated Depreciation	- Line 11		($74,853)	($673,678)	($823,385)	($973,091)
20	Deferred Tax Reserve	- Line 17		$0	$0	$0	$0
21	Year End Rate Base	Sum of Lines 18 through 20		$3,466,303	$2,867,477	$2,717,771	$2,568,065
	Revenue Requirement Calculation:						
22	Average ISR Rate Base	Column (a) = Current Yr Line 21 ÷ 2; Columns (b)-(e) = (Prior Yr Line 21 + Current Yr Line 21) ÷ 2		$1,733,151		$2,792,624	$2,642,918
23	Pre-Tax ROR	Page 23, Line 8e, 19e, 34e		11.41%		10.05%	9.73%
24	Return and Taxes	Line 22 * Line 23		$197,753		$280,659	$257,156
25	Book Depreciation	Line 10		$74,853		$149,706	$149,706
26	Property Taxes	$0 in Year 1, then Prior Year (Line 6 - Line 11) * Property Tax Rate	3/	$0		$88,444	$79,128
27	**Annual Revenue Requirement**	**Sum of Lines 24 through 26**		**$272,606**		**$518,809**	**$485,990**
28	Remaining FY12 NOL attributable to embedded rate base in RIPUC Docket 4323	Per Page 20 of 25, Line 12 less Line 15		$5,243,839		$5,444,818	$5,799,795
29	Average Rate Base	Col (a) = Line 28 * 50%; Col (b) through (g) = (Prior Year Line 28 + Current Year Line 28) ÷ 2		$2,621,920		$5,423,808	$5,622,307
30	Pre-Tax ROR	Page 23, Line 8e, 19e, 34e		11.41%		10.05%	9.73%
31	Return and Taxes	Line 29 * Line 30		$299,161		$545,093	$547,050
32	**Annual Revenue Requirement adjustment to base rates related to NOL**	**Line 31**		**$299,161**		**$545,093**	**$547,050**
33	**Total Annual Revenue Requirement**	**Line 27 + Line 32**		**$571,767**		**$1,063,902**	**$1,033,040**
34	**As Approved in RIPUC Docket No. 4540**			**$577,327**			
35	**Work Order Write off Adjustment**			**($5,560)**			

1/ Actual Incremental Retirements

2/ Actual Incremental Cost of Removal

3/ FY 2018 effective property tax rate of 2.91% per at Line 76(h).

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Calculation of Tax Depreciation and Repairs Deduction on FY 2012 Capital Investments

Line No.				Fiscal Year 2012 (a)	(b)	(c)	(d)
	Capital Repairs Deduction						
1	Plant Additions	Per Page 14 of 25, Line 1		$6,721,626	20 Year MACRS Depreciation		
2	Capital Repairs Deduction Rate	Per Tax Department	1/	67.43%			
3	Capital Repairs Deduction	Line 1 * Line 2		$4,532,392	MACRS basis:		$560,991
	Bonus Depreciation				Fiscal Year		
4	Plant Additions	Line 1		$6,721,626	2012	3.750%	$21,037
5	Less Capital Repairs Deduction	Line 3		$4,532,392	2013	7.219%	$40,498
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5		$2,189,234	2014	6.677%	$37,457
7	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department	2/	85.00%	2015	6.177%	$34,652
8	Plant Eligible for Bonus Depreciation	Line 6 * Line 7		$1,860,849	2016	5.713%	$32,049
9	Bonus Depreciation Rate (April 2011 - December 2011)	1 * 75% * 100%		75.00%	2017	5.285%	$29,648
10	Bonus Depreciation Rate (January 2012 - March 2012)	1 * 25% * 50%		12.50%	2018	4.888%	$27,421
11	Total Bonus Depreciation Rate	Line 9 + Line 10		87.50%	2019	4.522%	$25,368
12	Bonus Depreciation	Line 8 * Line 11		$1,628,243	2020	4.462%	$25,031
					2021	4.461%	$25,026
	Remaining Tax Depreciation				2022	4.462%	$25,031
13	Plant Additions	Line 1		$6,721,626	2023	4.461%	$25,026
14	Less Capital Repairs Deduction	Line 3		$4,532,392	2024	4.462%	$25,031
15	Less Bonus Depreciation	Line 12		$1,628,243	2025	4.461%	$25,026
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 13 - 14 - 15		$560,991	2026	4.462%	$25,031
17	20 YR MACRS Tax Depreciation Rates	Per IRS Pub. 946		3.750%	2027	4.461%	$25,026
18	Remaining Tax Depreciation	Line 16 * Line 17		$21,037	2028	4.462%	$25,031
					2029	4.461%	$25,026
19	Cost of Removal	Per Page 14 of 25, Line 5		($3,180,470)	2030	4.462%	$25,031
					2031	4.461%	$25,026
20	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 19		$3,001,202	2032	2.231%	$12,516
						100.000%	$560,991

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

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 2018 Gas ISR Plan Revenue Requirement Reconciliation
FY 2012 - FY 2014 Incremental Capital Investment Summary

Line No.			Actual Fiscal Year 2012 (a)	Actual Fiscal Year 2013 (b)	Actual Fiscal Year 2014 (c)
	Capital Investment				
1	ISR-eligible Capital Investment	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	$ 54,477,445	$56,416,101	$70,137,361
1a	Work Order Write Off Adjustment	Per Company's books	$0	$393,288	$771,673
1b	Growth (per Informal Request Division 1-2)	Per Company's books	$95,103	$35,750	$351,197
2	ISR-eligible Capital Additions included in Rate Base per R.I.P.U.C. Docket No. 4323	Docket No. 4323 Schedule MDL-3-Gas Page 51, Line Notes 1(a), 2(b) and 3(e)	$47,660,716	$57,184,191	$47,653,493
3	Incremental ISR Capital Investment	Line 1 - Line 1a - Line 1b - Line 2	$6,721,626	($1,197,129)	$21,360,998
	Cost of Removal				
4	ISR-eligible Cost of Removal	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	$2,583,612	$3,152,565	$2,707,824
4a	Work Order Write Off Adjustment	Per Company's books	$0	$141,414	105,654.38
4b	Growth (per Informal Request Division 1-2)	Per Company's books	$8,994	$10,801	4,092
5	ISR-eligible Cost of Removal in Rate Base per R.I.P.U.C. Docket No. 4323	Docket No. 4323, Workpaper MDL-19-GAS, Page 3	$5,755,088	$4,701,396	$3,917,830
6	Incremental Cost of Removal	Line 4 - Line 4a - Line 4b - Line 5	($3,180,470)	($1,701,046)	($1,319,752)
	Retirements				
7	ISR-eligible Retirements	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	$5,366,562	5,775,791	$5,274,944
8	ISR-eligible Retirements per R.I.P.U.C. Docket No. 4323	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)	$3,074,116	$2,498,949	$3,659,788
9	Incremental Retirements	Line 7 - Line 8	$2,292,446	$3,276,842	$1,615,155

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Forecasted FY 2018 Property Tax Recovery Adjustment
($000s)

Line	Effective Tax Rate Calculation	(a) RY End	(b) ISR Additions	(c) Non-ISR Add's	(d) Total Add's	(e) Bk Depr	(f) Retirements	(g) COR	(h) End of FY14 As filed			
1	Plant In Service	$805,721	$11,502	$994	$12,496		($879)		$817,337			
2												
3	Accumulated Depr	$347,664				$4,690	($879)	($434)	$351,041			
4												
5	Net Plant	$458,057							$466,296			
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		End of FY14	ISR Additions	Non-ISR Add's	Total Add's	Bk Depr	Retirements	COR	End of FY15			
13												
14	Plant In Service	$817,569	$74,505	$22,014	$96,519		($7,969)		$906,119			
15												
16	Accumulated Depr	$351,041				$30,019	($7,969)	($2,164)	$370,926			
17												
18	Net Plant	$466,528							$535,192			
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		End of FY15	ISR Additions	Non-ISR Add's	Total Add's	Bk Depr	Retirements	COR	End of FY16			
26												
27	Plant In Service	$906,119	$89,323	$27,286	$116,610		($3,178)		$1,019,550			
28												
29	Accumulated Depr	$370,926				$33,433	($3,178)	($3,684)	$397,497			
30												
31	Net Plant	$535,192							$622,053			
32												
33	Property Tax Expense	$16,221							$19,316			
34												
35	Effective Prop tax Rate	3.03%							3.11%			
36												
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		$434				$2,164				$3,684	
45												
46	Net Plant Additions		$7,245				$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	$7,245	* 0.29%	$21		$7,487	* -0.03%	($2)		$7,128	* 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
63	**As Approved in RIPUC Docket No. 4540**			$475				$1,687				$4,071
64	**True up made in FY17 Reconciliation Docket No. 4590**			($2)				($12)				($10)
65	**Adjusted Property Tax**			$473				$1,675				$4,061
66	**True up required in this filing**			($5)				($14)				($6)

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Forecasted FY 2018 Property Tax Recovery Adjustment
($000s)

		(a) End of FY16	(b) ISR Additions	(c) Non-ISR Add's	(d) Total Add's	(e) Bk Depr	(f) Retirements	(g) COR	(h) End of FY17
67	Plant In Service	$1,019,550	$81,161	$22,407	$103,568		$20,507		$1,143,625
68	Accumulated Depr	$397,497				$37,446	$20,507	($6,100)	$449,350
69	Net Plant	$622,053							$694,276
70	Property Tax Expense	$19,316							$21,414
71	Effective Prop tax Rate	3.11%							3.08%

		(a) End of FY17	(b) ISR Additions	(c) Non-ISR Add's	(d) Total Add's	(e) Bk Depr	(f) Retirements	(g) COR	(h) End of FY18
72	Plant In Service	$1,143,625	$97,810	$19,341	$117,151		($24,057)		$1,236,719
73	Accumulated Depr	$449,350				$41,117	($24,057)	($8,603)	$457,806
74	Net Plant	$694,276							$778,913
75	Property Tax Expense	$21,414							$22,678
76	Effective Prop tax Rate	3.08%							2.91%

	Property Tax Recovery Calculation	(a)	(b)	(c)	(d)	(e)	(f)	(g)
		Cumulative Incremental ISR Property Tax for FY17				**Cumulative Incremental ISR Property Tax for FY18**		
77	ISR Additions		$81,161				$97,810	
78	Book Depreciation: base allowance on ISR eligible plant		($24,356)				($24,356)	
79	Book Depreciation: current year ISR additions		($1,215)				($1,246)	
80	COR		$6,100				$8,603	
81								
82	Net Plant Additions		$61,691				$80,810	
83								
84	Rate Year Effective Tax Rate		3.06%				3.06%	
85	Property Tax Recovery on 2 mos FY14 vintage investment			$206				$194
86	Property Tax Recovery on FY15 vintage investment			$1,403				$1,311
87	Property Tax Recovery on FY16 investment			$1,936				$1,819
88	Property Tax Recovery on FY17 investment			$1,885				$1,757
89	Property Tax Recovery on FY18 investment							$2,469
90	ISR Year Effective Tax Rate	3.08%				2.91%		
91	RY Effective Tax Rate & differential	3.06%	0.03%			3.06%	-0.14%	
92	RY Net Plant times Tax Rate differential	$458,057	* 0.03%	$133		$458,057	* -0.14%	($659)
93	2 mos FY14 Net Adds times ISR Year Effective Tax rat	$6,735	* 0.03%	$2		$6,343	* -0.14%	($9)
94	FY15 Net Adds times ISR Year Effective Tax rate	$45,906	* 0.03%	$13		$42,913	* -0.14%	($62)
95	FY16 Net Adds times ISR Year Effective Tax rate	$63,361	* 0.03%	$18		$59,527	* -0.14%	($86)
96	FY17 Net Adds times ISR Year Effective Tax rate	$61,691	* 0.03%	$18		$57,497	* -0.14%	($83)
97	FY18 Net Adds times ISR Year Effective Tax rate					$80,810	* -0.14%	($116)
98	Total Property Tax related to rate differential			$185				($1,014)
99								
100	Total ISR Property Tax Recovery			$5,614				$6,535

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Forecasted FY 2018 Property Tax Recovery Adjustment
($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
14(a)-22(h)	Per Docket 4474 FY 2015 Gas ISR Plan Reconciliation filing at Page 12 of 18
27(a)-35(h)	Per Docket 4540 FY 2016 Gas ISR Plan Reconciliation filing at Page 14 of 19
41(a) - 62(c)	Per Docket 4380 FY 2014 Gas ISR Plan Reconciliation filing at Page 10 of 13
41(e)-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 Reconciliation filing at Page 14 of 19
63(c)-63(k)	As Approved in RIPUC Docket No. 4540
64(c)-64(k)	True-up made in Docket 4540 FY17 Reconciliation filing
65(c)-65(k)	Line 63 + Line 64
66(k)	Line 62 - Line 65
67(a) - 71(h)	Per Docket 4590 FY 2017 Gas ISR Plan Proposal Compliance filing at Page 16 of 20
72(a)	Per Line 67(h)
72(b)	Per Page 2 of 25, Line 1
72(c)	Per Company's book
72(d)	Line 72(b) + Line 72(c)
72(f)	Per Page 2 of 25, Line 2
72(h)	Line 72(a) + Line 72(d) +Line 72(f)
73(a)	Per Line 68(h)
73(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 67(d)+Line 67(f)*3.38%) +(Line 72(d)+Line 72(f)*3.38%*50%)
73(f)	Line 72(f)
73(g)	Per Page 2 of 25, Line 7
73(h)	Line 73(a) + Line 73(e) + Line 73(f) + Line 73(g)
75(a)	Line 70(h)
75(h)	Per Company's book
76(a)	Line 71(h)
76(h)	Line 71(h)

Line Notes	
77(a) - 100(c)	Per Docket 4590 FY 2017 Gas ISR Plan Proposal Compliance filing at Page 16 of 20
77(f)	Line 72(b)
78(f)	Per Page 2 of 25, Line 5
79(f)	Per Page 2 of 25, Line 12
80(f)	Per Line 73(g)
82(f)	Sum of Lines 77 through 80
84(f)	Line 9(a)
85(g)	Line 84(f) * Line 93(e)
86(g)	Line 84(f) * Line 94(e)
87(g)	Line 84(f) * Line 95(e)
88(g)	Line 84(f) * Line 96(e)
89	Line 82 * Line 84
90(e)	Line 76(h)
91(e)	Line 9(a)
91(f)	Line 90(e) - Line 91(e)
92(e)	Line 5(a)
93(e)	Line 93(a) - ((Line 1(d)+Line 1(f))*3.38%)
94(e)	Line 94(a) - ((Line 14(d)+Line 14(f))*3.38%)
95(e)	Line 95(a) - ((Line 27(d)+Line 27(f))*3.38%)
96(e)	Line 96(a) - ((Line 63(d)+Line 63(f))*3.38%)
97(e)	Line 82(f)
92(f)-97(f)	Line 91(f)
92(g)-97(g)	Lines 92(e) through 97(e), Col (e) * Col (f)
98(g)	Sum of Lines 92(g) through 97(g)
100(g)	Sum of Lines 85(g) through 89(g) + Line 98(g)

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan 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)	(m)	(n)
									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 2018	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
2	Total Base Rate Plant DIT Provision								$17,193,641	$18,309,741	$11,577,639	$0	$0	$0	$0
3	Incremental FY 12	$1,121,846	$1,080,717	$1,038,476	$906,443	$865,263	$823,243	$468,266	$1,121,846	($41,129)	($42,241)	($132,033)	($41,180)	($42,020)	($354,977)
4	Incremental FY 13	$0	($734,732)	($690,174)	($829,884)	($780,869)	($731,561)	($409,188)	$0	($734,732)	$44,558	($139,710)	$49,015	$49,309	$322,372
5	Incremental FY 14	$0	$0	$6,444,262	$5,821,675	$5,651,257	$5,476,107	$3,177,941	$0	$0	$6,444,262	($622,587)	($170,419)	($175,149)	($2,298,167)
6	FY 2015	$0	$0	$0	$23,687,481	$23,214,645	$22,716,080	$13,316,267	$0	$0	$0	$23,687,481	($472,835)	($498,565)	($9,399,813)
7	FY 2016	$0	$0	$0	$0	$28,518,812	$27,774,974	$16,206,281	$0	$0	$0	$0	$28,518,812	($743,838)	($11,568,693)
8	FY 2017	$0	$0	$0	$0	$0	$26,246,278	$15,400,256	$0	$0	$0	$0	$0	$26,246,278	($10,846,022)
9	FY 2018	$0	$0	$0	$0	$0	$0	$17,523,776	$0	$0	$0	$0	$0	$0	$17,523,776
10	TOTAL Plant DIT Provision	$ 1,121,846	$ 345,985	$ 6,792,564	$ 29,585,715	$ 57,469,108	$ 82,305,122	$ 65,683,599	$ 18,315,487	$ 17,533,880	$ 18,024,218	$ 22,793,151	$ 27,883,393	$ 24,836,014	$ (16,621,523)
11	NOL								$ 6,268,061	$ 6,136,520	$ 23,775,494	$ 19,205,538	$ 11,594,940	$ -	$ -
12	Lesser of NOL or DIT Provision								$ 6,268,061	$ 6,136,520	$ 18,024,218	$ 19,205,538	$ 11,594,940	$ -	$ (16,621,523)

Line Notes:

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

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement
Calculation of FY 2018 Net Deferred Tax Reserve Proration

Line No.				(a)=Sum of (b) through (h) Total	(b) Vintage Year 2018	(c) Vintage Year 2017	(d) Vintage Year 2016	(e) Vintage Year 2015	(f) Vintage Year 2014	(g) Vintage Year 2013	(h) Vintage Year 2012
	Deferred Tax Subject to Proration										
1	Book Depreciation	Col (b) = Page 2 of 25, Line 12; Col (c) = Page 4 of 25, Line 12; Col (d) = Page 6 of 25, Line 12; Col (e) = Page 8 of 25, Line 12; Col (f) = Page 10 of 25, Line 12; Col (g) = Page 12 of 25, Line 10; Col (h) = Page 14 of 25, Line 10		$10,032,984	$1,519,105	$2,581,784	$2,916,853	$2,333,053	$679,280	($150,012)	$152,921
2	Bonus Depreciation	Page 3 of 25, Line 12		($13,764,576)	($13,764,576)	$0	$0	$0	$0	$0	$0
3	Remaining MACRS Tax Depreciation	Col (b) = Page 3 of 25, Line 18; Col (c) = Page 4 of 25, Line 10; Col (d) = Page 6 of 25, Line 10; Col (e) = Page 8 of 25, Line 10; Col (f) = Page 10 of 25, Line 10; Col (g) = Page 12 of 25, Line 8; Col (h) = Page 14 of 25, Line 8		($3,366,917)	($570,505)	($890,237)	($892,846)	($837,819)	($156,979)	$9,278	($27,809)
4	FY18 tax (gain)/loss on retirements	Page 3 of 25, Line 19		($238,628)	($238,628)	$0	$0	$0	$0	$0	$0
5	Cumulative Book / Tax Timer	Sum of Lines 1 through 4		($7,337,137)	($13,054,604)	$1,691,547	$2,024,007	$1,495,234	$522,301	($140,734)	$125,112
6	Effective Tax Rate			35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%
7	Deferred Tax Reserve	Line 5 * Line 6		($2,567,998)	($4,569,111)	$592,041	$708,402	$523,332	$182,805	($49,257)	$43,789
	Deferred Tax Not Subject to Proration										
8	Capital Repairs Deduction	Page 3 of 25, Line 5		($64,198,946)	($64,198,946)						
9	Cost of Removal	Page 3 of 25, Line 20		($8,008,000)	($8,008,000)						
10	Book/Tax Depreciation Timing Difference at 3/31/2017			$0	$0						
11	Cumulative Book / Tax Timer	Line 8 + Line 9 + Line 10		($72,206,946)	($72,206,946)						
12	Effective Tax Rate			35.00%	35.00%						
13	Deferred Tax Reserve	Line 11 * Line 12		($25,272,431)	($25,272,431)						
14	Total Deferred Tax Reserve	Line 7 + Line 13		($27,840,429)	($29,841,543)	$592,041	$708,402	$523,332	$182,805	($49,257)	$43,789
15	Net Operating Loss	Page 2 of 25, Line 7		$0	$0						
16	Net Deferred Tax Reserve	Line 14 + Line 15		($27,840,429)	($29,841,543)	$592,041	$708,402	$523,332	$182,805	($49,257)	$43,789
	Allocation of FY 2018 Estimated Federal NOL										
17	Cumulative Book/Tax Timer Subject to Proration	Col (b) = Line 5		($13,054,604)	($13,054,604)						
18	Cumulative Book/Tax Timer Not Subject to Proration	Line 11		($72,206,946)	($72,206,946)						
19	Total Cumulative Book/Tax Timer	Line 17 + Line 18		($85,261,550)	($85,261,550)						
20	Total FY 2018 Federal NOL	(Page 2 of 25, Line 17) / 35%		$0	$0						
21	Allocated FY 2018 Federal NOL Not Subject to Proration	(Line 18 / Line 19) * Line 20		$0	$0						
22	Allocated FY 2018 Federal NOL Subject to Proration	(Line 17 / Line 19) * Line 20		$0	$0						
23	Effective Tax Rate			35.00%	35.00%						
24	Deferred Tax Benefit subject to proration	Line 22 * Line 23		$0	$0						
25	Net Deferred Tax Reserve subject to proration	Line 7 + Line 24		($2,567,998)	($4,569,111)	$592,041	$708,402	$523,332	$182,805	($49,257)	$43,789
		(i) Number of Days in Month	(j) Proration Percentage	(k)= Sum of (l) through (r)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
	Proration Calculation										
26	April 2017	30	91.78%	($196,411)	($349,464)	$45,282	$54,181	$40,027	$13,982	($3,767)	$3,349
27	May 2017	31	83.29%	($178,235)	($317,126)	$41,091	$49,168	$36,323	$12,688	($3,419)	$3,039
28	June 2017	30	75.07%	($160,646)	($285,830)	$37,036	$44,316	$32,738	$11,436	($3,081)	$2,739
29	July 2017	31	66.58%	($142,471)	($253,492)	$32,846	$39,302	$29,034	$10,142	($2,733)	$2,429
30	August 2017	31	58.08%	($124,296)	($221,153)	$28,656	$34,288	$25,330	$8,848	($2,384)	$2,119
31	September 2017	30	49.86%	($106,707)	($189,858)	$24,601	$29,436	$21,746	$7,596	($2,047)	$1,820
32	October 2017	31	41.37%	($88,531)	($157,520)	$20,411	$24,422	$18,042	$6,302	($1,698)	$1,510
33	November 2017	30	33.15%	($70,942)	($126,224)	$16,355	$19,570	$14,457	$5,050	($1,361)	$1,210
34	December 2017	31	24.66%	($52,767)	($93,886)	$12,165	$14,556	$10,753	$3,756	($1,012)	$900
35	January 2018	31	16.16%	($34,592)	($61,547)	$7,975	$9,542	$7,049	$2,462	($664)	$590
36	February 2018	28	8.49%	($18,175)	($32,338)	$4,190	$5,014	$3,704	$1,294	($349)	$310
37	March 2018	31	0.00%	$0	$0	$0	$0	$0	$0	$0	$0
38	Total	365		($1,173,774)	($2,088,439)	$270,609	$323,795	$239,203	$83,556	($22,514)	$20,015
39	Deferred Tax Without Proration	Line 25		($2,567,998)	($4,569,111)	$592,041	$708,402	$523,332	$182,805	($49,257)	$43,789
40	Proration Adjustment	Line 38 - Line 39		$1,394,224	$2,480,673	($321,433)	($384,608)	($284,129)	($99,249)	$26,743	($23,774)

Column Notes:
(j) Sum of remaining days in the year (Col (i)) divided by 365
(l) through (r) = Current Year Line 25 * Current Month Col (j)

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Weighted ISR Additions FY 2014

Line No.	Month No.	Month	FY 2014 ISR Additions	In Rates	Not In Rates	Weight	Weighted Average
			(a)	(b)	(c) = (a) - (b)	(d)	(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		$69,014,490	$47,653,493	$21,360,998		$6,709,374
15	**Total Additions February & March 2014**				**$11,502,415**		
16	**FY 2014 Weighted Average Incremental Rate Base Percentage**						**31.41%**

Column (a) = Page 16 of 25, Line 1(c)
Column (b) = Page 16 of 25, 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
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Calculation of Weighted Average Cost of Capital

Line No.						
1	Weighted Average Cost of Capital as approved in R.I.P.U.C. Docket No. 3943					
2		(a)	(b)	(c)	(d)	(e)
3		Ratio	Rate	Weighted Rate	Taxes	Return
4	Long Term Debt	40.63%	7.99%	3.25%		3.25%
5	Short Term Debt	11.66%	3.91%	0.45%		0.45%
6	Preferred Stock	0.00%	0.00%	0.00%		0.00%
7	Common Equity	47.71%	10.50%	5.01%	2.70%	7.71%
8		100.00%		8.71%	2.70%	11.41%
9						
10	(d) - Column (c) x 35% divided by (1 - 35%)					
11						
12	Weighted Average Cost of Capital as approved in R.I.P.U.C. Docket No. 4323 at 35% income tax rate					
13		(a)	(b)	(c)	(d)	(e)
14		Ratio	Rate	Weighted Rate	Taxes	Return
15	Long Term Debt	49.95%	5.70%	2.85%		2.85%
16	Short Term Debt	0.76%	0.80%	0.01%		0.01%
17	Preferred Stock	0.15%	4.50%	0.01%		0.01%
18	Common Equity	49.14%	9.50%	4.67%	2.51%	7.18%
19		100.00%		7.54%	2.51%	10.05%
20						
21	(d) - Column (c) x 35% divided by (1 - 35%)					
22						
23						
24	Weighted Average Cost of Capital as approved in R.I.P.U.C. Docket No. 4323 at 21% income tax rate					
25		(a)	(b)	(c)	(d)	(e)
26		Ratio	Rate	Weighted Rate	Taxes	Return
27	Long Term Debt	49.95%	5.70%	2.85%		2.85%
28	Short Term Debt	0.76%	0.80%	0.01%		0.01%
29	Preferred Stock	0.15%	4.50%	0.01%		0.01%
30	Common Equity	49.14%	9.50%	4.67%	1.24%	5.91%
31		100.00%		7.54%	1.24%	8.78%
32	(d) - Column (c) x 21% divided by (1 - 21%)					
33						FY18 Blended Rate
34	Line 19(e) x 75% + Line 31(e) x 25%					9.73%

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
Calculation of Excess Deferred Taxes at 12/31/17

Line No		(a) Cumulative Book/Tax Difference at FY17	(b) Projected Book/Tax Difference at FY18	(c) = (b) - (a) Difference	(d) Prorated Change as of 12/31/17	(e) = (a) + (d) Cumulative Timing Difference through 12/31/17	(g) Excess Deferred Taxes at 12/31/17
1		35%					
2	Vintage Year						
3	2012	$2,352,123	$2,229,838	($122,285)	($91,714)	$2,260,409	$316,457
4	2013	($2,090,173)	($1,948,516)	$141,657	$106,242	($1,983,931)	($277,750)
5	2014	$15,646,021	$15,133,051	($512,970)	($384,728)	$15,261,294	$2,136,581
6	2015	$64,903,087	$63,410,797	($1,492,290)	($1,119,217)	$63,783,870	$8,929,742
7	2016	$79,357,069	$77,172,768	($2,184,301)	($1,638,226)	$77,718,843	$10,880,638
8	2017	$74,989,365	$73,334,553	($1,654,812)	($1,241,109)	$73,748,256	$10,324,756
9	2018	0	$83,446,551	$83,446,551	$62,584,913	$62,584,913	$8,761,888

The Narragansett Electric Company
d/b/a National Grid
FY 2018 Gas ISR Plan Revenue Requirement Reconciliation
True-Up for FY 2013 through FY 2016 Work Order Write Off Adjustment

		(a)	(b)	(c)	(d)
			Vintage Capital Investment Year		
		FY 2013	FY 2014	FY 2015	FY 2016
1	Total Net Plant in Service	($2,898,175)	$15,981,069	$52,312,921	$68,651,094
2	Total Net Plant in Service (as previously filed)	($2,316,922)	$17,213,686	$52,983,817	$69,512,731
3	Work Order Write Off Adjustment	($581,253)	($1,232,617)	($670,896)	($861,637)
	Revenue Requirement Decrease due to Work Order Write Off				
			Revenue Requirement Year		
	Vintage Capital Investment Year	FY 2013	FY 2014	FY 2015	FY 2016
4	FY 2012	0	0	0	(12,065)
5	FY 2013	(29,328)	(72,867)	(69,485)	(68,486)
6	FY 2014	0	(50,924)	(120,625)	(117,798)
7	FY 2015	0	0	(31,268)	(62,007)
8	FY 2016	0	0	0	(86,975)
9	**TOTAL**	**(29,328)**	**(123,791)**	**(221,378)**	**(347,332)**
10	**Total FY 2013 through FY 2016 revenue requirement impact**				**(721,829)**

Line Notes:

1 Col (a) = Page 12 of 25, Line 6; Col (b) = Page 10 of 25, Line 8; Col (c) = Page 8 of 25, Line 8; Col (d) = Page 6 of 25, Line 8; Col (e) = Page 4 of 25; Col (f) =Page 2 of 25, Line 8
2 Col (a) through Col (d) = As approved in RIPUC Docket No. 4540
3 Col (a) through Col (d) = Line 1 - Line 2
4 Col (a) through Col (d) = Page 14 of 28, Line 35
5 Col (a) through Col (d) = Page 12 of 28, Line 36
6 Col (a) through Col (d) = Page 10 of 28, Line 38
7 Col (a) through Col (d) = Page 8 of 28, Line 32
8 Col (a) through Col (d) = Page 6 of 28, Line 33
9 Col (a) through Col (d) = Sum of Lines 4 through 8
10 Sum of Col (a) through Col (d)