The Narragansett Electric Company
d/b/a National Grid

Gas Infrastructure, Safety and Reliability Plan FY 2017 Proposal

November 24, 2015

Submitted to:
Rhode Island Public Utilities Commission

nationalgrid

Filing Letter

Jennifer Brooks Hutchinson
Senior Counsel

November 24, 2015

BY HAND DELIVERY & ELECTRONIC MAIL

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

RE: National Grid's Proposed FY 2017 Gas Infrastructure, Safety, and Reliability Plan Docket No. _____

Dear Ms. Massaro:

On behalf of National Grid,[1] I have enclosed ten (10) copies of the Company's proposed Gas Infrastructure, Safety, and Reliability Plan (Gas ISR Plan or Plan) for fiscal year 2017.[2] This proposed Gas ISR Plan is designed to enhance the safety and reliability of the Company's natural gas distribution system. As required by law, the Company submitted the proposed Plan to the Rhode Island Division of Public Utilities and Carriers (Division) for review. In refining the proposed Plan, the Company met with the Division's representatives regarding the proposed Plan.

The Gas ISR Plan is designed to protect and improve the gas delivery system through proactively replacing leak-prone gas mains and services, accelerating the Company's replacement of leak-prone facilities, upgrading the system's pressure regulating systems, and addressing conflicts that arise out of municipal and water and sewer projects. The Plan is intended to achieve these safety and reliability goals through a cost-effective, coordinated work plan. The level of work that the Plan provides will sustain and enhance the safety and reliability of the Rhode Island gas pipeline infrastructure and directly benefit all Rhode Island gas customers.

The Plan includes a description of the categories of work the Company proposes to perform in fiscal year 2017 as well as the proposed targeted spending levels for each work category. This filing includes the pre-filed direct testimony of three witnesses: Mr. David Iseler introduces the Plan document and describes the program components of the Plan; Ms. Melissa A. Little describes the calculation of the Company's revenue requirement; and Ms. Suhila Nouri Nutile describes the calculation of the Gas ISR factors proposed in this filing and provides the bill impacts from the proposed rate changes. For the average residential heating customer using 846 therms annually,

[1] The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).
[2] The Gas ISR Plan is submitted in compliance with the provisions of R.I. Gen. Laws § 39-1-27.7.1.

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implementation of the proposed ISR factors for the period of April 1, 2016 through March 31, 2017 will result in an annual increase of $23.59 or 2.1 percent.

This Gas ISR Plan presents an opportunity to facilitate and encourage investment in the Company's gas utility infrastructure and enhance its ability to provide safe, reliable, and efficient gas service to customers.

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

Very truly yours,

Jennifer Brooks Hutchinson

Enclosures

cc: Steve Scialabba
Leo Wold, Esq.
James Lanni
Don Ledversis

Testimony of
David G. Iseler

THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
RIPUC DOCKET NO. _____
RE: FY 2017 GAS INFRASTRUCTURE,
SAFETY, AND RELIABILITY PLAN
WITNESS: DAVID G. ISELER

DIRECT TESTIMONY

OF

DAVID G. ISELER

November 24, 2015

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I. INTRODUCTION AND QUALIFICATIONS

Q. Mr. Iseler, please state your name, business address, title and areas of responsibility.

A. My name is David G. Iseler. My business address is 40 Sylvan Road, Waltham, MA 02451. I am employed by National Grid Corporate Services LLC as the Director of New England Gas Network Strategy. I am the Rhode Island Jurisdictional Lead for all gas Network Strategy issues for the gas division of The Narragansett Electric Company d/b/a National Grid (Company), including those related to the Company's 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 Rhode Island regulators on issues related to the gas system, development of strategies to support Company objectives regarding investment in the gas system, and to provide testimony regarding capital investments to National Grid's gas distribution system during state regulatory proceedings.

Q. Please describe your educational background and professional experience.

A. I earned a B.S. in Electrical Engineering from the University of Massachusetts at Amherst in 1986 and a M.B.A with a concentration in finance from Boston College in 1991. I have worked for National Grid and/or its predecessor companies for the past 28 years. My experience during that time includes working in the field along with various

engineering aspects associated with the gas distribution system. In 2007, I was the Manager of Reliability Engineering and Planning for New England and in 2008 I was promoted to Director of Gas Reliability for National Grid. Beginning in 2010, I worked as the Director of Project Engineering and Design for National Grid and in August of 2014, I assumed my current position as Director of Gas Network Strategy for New England. In these roles, I have been responsible for gas system reliability planning, long-term system planning in support of growth, engineering and design of complex capital projects and public works. In addition, I have also worked with regulatory and jurisdiction personnel regarding the development and communication of gas network strategy and capital planning.

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

A. Yes, I previously testified before the PUC in Docket No. 4219 in support of the Company's FY 2012 Gas ISR filing. I have also filed testimony in support of the Rhode Island FY 2015 Gas ISR Reconciliation proceeding in Docket No. 4474 and the FY 2016 Gas ISR Plan in Docket No. 4540. In addition, I have filed testimony with the Massachusetts Department of Public Utilities in support of the Boston and Colonial Gas Company's leak-prone pipe replacement plan mandated by recent legislation designed to implement a gas system enhancement and proactive main replacement program similar to

the Rhode Island Infrastructure, Safety and Reliability (ISR) Plan.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony?

A. The purpose of this testimony is to describe the Company's proposed Fiscal Year (FY) 2017 Gas ISR Plan (Gas ISR Plan or Plan)[1]. Throughout my testimony, I present the Company's proposed Gas ISR Plan, which details the work to be done under the proposed Gas ISR Plan and the anticipated capital investments associated with that work. Company Witness Melissa Little is providing testimony on the calculation of the revenue requirement associated with the Company's proposed Gas ISR Plan, and Company Witness Suhila Nouri Nutile is providing testimony relative to (1) how the rate design was calculated for the ISR mechanism; (2) the calculation of the ISR factors; and (3) the customer bill impacts of the proposed ISR factors.

III. OVERVIEW

Q. How was the Gas ISR Plan prepared?

[1] Pursuant to Rhode Island statutory provisions, the Company is required to annually file an infrastructure, safety and reliability spending plan with the PUC for review and approval. See R.I. G. L. §39-1-27.7.1. In addition to budgeted spending, the annual Gas ISR Plan is to contain a reconcilable allowance for the anticipated capital investments and other spending for the upcoming fiscal year. The Company's fiscal year 2017 is for the period of April 1, 2016 through March 31, 2017, and the proposed Gas ISR Plan would be effective April 1, 2016.

A. The Company prepared the Gas ISR Plan and submitted it to the Division for review.[2] The Company met with the Division and responded to questions from the Division about each of the components of the Plan, including the Gas Expansion Pilot Program. The Division indicated general concurrence with the proposed Gas ISR Plan, including the programs and projects outlined. The proposed Gas ISR Plan will allow the Company to meet state and federal safety and reliability requirements and to maintain its gas distribution system in a safe and reliable condition. The Gas ISR Plan has been developed to improve the safety and reliability of the Company's gas system for the immediate and long-term benefit of Rhode Island's natural gas customers.

Q. What is the Gas ISR Plan designed to accomplish?

A. The Gas ISR Plan is designed to establish a spending plan, together with a reconcilable allowance for the anticipated capital investments and other spending needed to maintain and upgrade the Company's gas delivery system, such as proactively replacing leak-prone gas mains and services, upgrading the system's plant, pressure regulating systems and piping, responding to emergency leak situations, and addressing conflicts that arise out of public works projects. The Plan attempts to attain these safety and reliability goals

[2] Pursuant to R.I.G.L. § 39-1-27.7.1 (d), the Company and the Division are to work together over the course of 60 days in an attempt to reach an agreement on a proposed plan, which is then submitted to the PUC for review and approval.

through a cost-effective, coordinated work plan. The level of work that the Plan provides will sustain and enhance the safety and reliability of the Rhode Island gas pipeline infrastructure and directly benefit Rhode Island gas customers. The Company now submits this Plan to the PUC for review and approval in accordance with Rhode Island law.[3]

Q. Are you sponsoring any exhibits through your testimony?

A. The proposed Gas ISR Plan is attached as Exhibit 1 to my testimony. It is organized as follows:

Section 1 – Introduction and Summary

Section 2 – Gas Capital Investment Plan (including major categories of work)

Section 3 – Revenue Requirement Calculation

Section 4 – Rate Design and Bill Impacts

As noted above, Ms. Little is sponsoring the revenue requirement calculation included in Section 3, while Ms. Nutile is sponsoring the rate design and bill impacts included in Section 4.

Q. What types of infrastructure, safety and reliability work does the proposed Gas ISR Plan include?

[3] See R.I.G.L. § 39-1-27.7.1 (d).

A. The Plan seeks not only to maintain the system, but also to proactively upgrade its condition to address problems before they arise. A safe and reliable gas delivery system in Rhode Island is essential to the health, safety, and well-being of its citizens, and for maintaining a healthy economy and continuing to attract new residents and businesses to the state. The PUC embarked on a course of addressing Rhode Island's aging gas infrastructure in 2008, with the establishment of the Accelerated Replacement Plan (ARP). In addition to the type of infrastructure, safety and reliability work performed under the ARP, the proposed Gas ISR Plan contains spending related to safety and reliability for public works, mandated programs, special projects, and reliability programs. Included in the Gas ISR Plan document is a description of the Company's proposed budget for capital investment for FY 2017 and a capital forecast for FY 2017 through FY 2021.

IV. CAPITAL INVESTMENT PLAN

Q. What levels of spending are proposed in the Gas ISR Plan?

A. For FY 2017, the Company proposes ISR spending totaling $86.05 million. The Gas ISR Plan is broken down into categories of programs designed to maintain the safety and reliability of the Company's gas delivery infrastructure. For each program category in the Plan, the Company proposes the following levels of spending:

- $49.63 million combined for proactive Main and Service Replacement Program

- $12.56 million for Public Works Programs, including $1.33 million in reimbursable work

- $15.36 million for Mandated Programs (reactive main replacement, pipeline integrity management, capital leak repairs, meter replacements, corrosion and non-leak other)

- $9.25 million for Gas System Reliability, including work relative to System Automation and Gas Control, Pressure Regulating Facilities, System Reliability Enhancement, LNG facilities, Valve installation/replacements and capital tools and equipment.

- $0.57 million incremental O&M expense for the continued payment of sixteen additional personnel hired to support the increase in leak-prone pipe replacement

The Company will continue to file quarterly reports with the Division and PUC detailing the progress of its Gas ISR Plan programs for FY 2017.

Q. What does the Company's proposed Gas ISR Plan include for incremental O&M costs?

A. To support the increase in the Proactive Main Replacement Program, in FY 2015 and FY 2016 the Company hired and trained 16 additional personnel to work on the Main Replacement Program (i.e. $0.4 million for the 11 FY 2015 hires and $0.16 for the FY 2016 new hires). For FY 2017, the Company is proposing to include $0.57 million of O&M expense related to paying for these needed resources to address leak-prone pipe

replacement. As in FY 2015 and FY2016, this total amount of O&M expense will be tracked and reconciled to actual O&M in the next annual Gas ISR reconciliation filing.

Q. Is the Company proposing to include any spending for the Gas Expansion Pilot Program for FY 2017?

A. No, the Company is not proposing any additional spending for the Gas Expansion Pilot Program for FY 2017. As indicated in Section E, "Special Projects," of the proposed Plan, the Company recognizes the need to prioritize limited capital resources, and therefore, is proposing to suspend the Gas Expansion Pilot Program for one year while it focuses on delivering the primary safety and reliability components of proposed Gas ISR Plan. The Company recognizes the value of the program to customers and residents of Rhode Island, and will continue to track progress in areas served and communicate the benefits of the program going forward. The Company has included the program in its five-year spending forecast, as shown in Table 2 of the Plan.

Q. Does the FY 2017 Gas ISR Plan fulfill the statutory requirements for the safety and reliability of the Company's gas distribution system in Rhode Island?

A. Yes. The Gas ISR Plan for FY 2017 is designed to establish the capital investment in Rhode Island that is necessary to meet the needs of its customers, together with a

spending and work plan to maintain the overall safety and reliability of the Company's Rhode Island gas distribution system.

Q. Does this conclude your testimony?

A. Yes, it does.

Exhibit 1 – DGI
Gas ISR Plan FY2017

Section 1

Introduction and Summary
FY 2017 Proposal

Section 1
Introduction & Summary

Introduction and Summary
FY 2017 Proposal

In consultation with the Rhode Island Division of Public Utilities and Carriers (Division), National Grid[1] has developed the following proposed fiscal year (FY) 2017 gas infrastructure, safety, and reliability (Gas ISR Plan or Plan) in compliance with R.I.Gen.Laws.§39-1-27.7.1, *An Act Relating to Public Utilities and Carriers – Revenue Decoupling* (the Act), which provides for an annual "gas infrastructure, safety and reliability spending plan for each fiscal year and an annual rate reconciliation mechanism that includes a reconcilable allowance for the anticipated capital investments and other spending pursuant to the annual pre-approved budget."[2] The proposed Gas ISR Plan addresses capital spending on gas infrastructure and other costs related to maintaining the safety and reliability of the gas distribution system. The proposed Plan that the Company is submitting for its gas distribution operations is the product of a collaborative effort with the Division. The Gas ISR Plan is designed to maintain and upgrade the Company's gas delivery system through proactively replacing leak-prone gas mains and services, accelerating the Company's replacement of leak-prone facilities, upgrading the system's custody transfer stations, pressure regulating systems and peak shaving plants, responding to emergency leak situations, and addressing conflicts that arise out of public works projects. The Plan attempts to attain these safety and reliability goals through a cost-effective, coordinated work plan. The level of work that the plan provides will sustain and enhance the safety and reliability of the Rhode Island gas pipeline infrastructure and directly benefit Rhode Island gas customers. The

1 The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).
2 R.I. Gen. Laws § 39-1-27.7.1 of the Decoupling Act.

Company now submits this Plan to the Rhode Island Public Utilities Commission (PUC) for final review and approval.[3]

This Introduction and Summary presents an overview of the proposed FY 2017 Plan for the statutory categories of costs, the resulting FY 2017 revenue requirement associated with the proposed Gas ISR Plan, an illustrative rate design, and the estimated typical bill impacts resulting from the illustrative rate design.

The proposed Gas ISR Plan describes the Company's safety and reliability activities and the multi-year plan upon which its FY 2017 Plan is based, and the Plan also addresses capital investment in utility infrastructure for the upcoming fiscal year. The proposed Plan itemizes the recommended work activities by general category and provides budgets for capital investment and associated Operations and Maintenance (O&M) expenses.

As envisioned in the Act, after the end of the fiscal year, the Company will true up the Gas ISR Plan's budgeted levels to actual investment and expenditures and reconcile the revenue requirement associated with the actual investment and expenditures to the revenue billed from the rate adjustments implemented at the beginning of each fiscal year. The Company will continue to file quarterly reports with the Division and PUC concerning the progress of its Gas ISR programs. In addition, when the Company makes its reconciliation and rate adjustment filing described below, the Company will file an annual report on the prior fiscal year's activities. In implementing the Gas ISR Plan in any fiscal year, the circumstances encountered during the year may require reasonable deviations from the original Gas ISR Plan. In such cases, the Company would include an explanation of any significant deviations in its quarterly reports.

[3] Pursuant to R.I. Gen. Laws § 39-1-27.7.1(d), the Company and the Division must work together over the course of 60 days in an attempt to reach an agreement on a proposed Plan, which must then be submitted for PUC review and approval.

The FY 2017 level of capital and related O&M spending provided in the Gas ISR Plan to maintain the safety and reliability of the Company's gas delivery infrastructure is $86.05 million. A description of the Company's proposed capital investment plan for FY 2017 is provided in Section 2. The revenue requirement description and calculations are contained in Section 3. A description of the rate design and bill impacts are provided in Section 4.

Gas Capital Investment Plan

The Company's proposed gas capital investment plan is contained in Section 2 which summarizes capital investments in terms of the following key categories:

A. Main and Service Replacements
B. Public Works
C. Mandated Programs
D. Gas System Reliability
E. Special Projects

Section 2 itemizes the proposed activities by sub-categories and provides budgets for capital investment. The Company has included its capital budget, identified the relevant projects that would be part of the FY 2017 Gas ISR Plan, and provided its rationale for the need for and benefit of performing that work to provide safe and reliable service to its customers. The Company has also provided a five-year capital plan to provide a longer-term approach to infrastructure, safety, and reliability and to demonstrate how the FY 2017 Plan would be incorporated into that longer-term planning approach.

Operations and Maintenance Expense

As discussed in greater detail in Section 2, the Company is requesting $0.57 million of incremental O&M expense dollars (a) to continue paying for the 11 full-time equivalents (FTEs) that were hired in FY 2015 to support the increase in Main Replacement work, and (b) to continue paying for the additional five FTEs that were hired in FY 2016 to support the additional increase in Main Replacement work. The Company's FY 2017 Gas ISR Plan includes the elimination of a total of 65 miles of leak-prone pipe (54 miles of Proactive Main Replacement work, 10 miles of Public Works replacement work and one mile of reliability work). This is the same rate of replacement of leak-prone pipe authorized by the PUC in the FY 2016 Gas ISR Plan.

Revenue Requirement

Based upon the estimated amounts for the proposed Plan, the Company has provided a calculation of the proposed cumulative revenue requirement resulting from the proposed FY 2017 capital investment plan. Section 3 contains a description of the revenue requirement model for FY 2017 and an illustrative calculation for FY 2018. This calculation would form the basis for the Gas ISR rate adjustment, which would become effective April 1, 2016, upon PUC approval. As provided in Section 3, in accordance with RIPUC No. 101, Schedule A, Sheet 6 of the Company's gas tariff, the Company will reconcile this rate adjustment as part of its annual Distribution Adjustment Charge (DAC) filing. The pre-tax rate of return on rate base would be that rate of return approved by the PUC in the Company's last general rate case, and in the future it would change to reflect changes to the rate of return approved by the PUC in future rate case

proceedings. Any change in the rate of return would be applicable on a prospective basis, effective on the date on which the change is effective.

Rate Design

For purposes of rate design, the revenue requirement associated with the capital investment is allocated to rate classes based upon the latest rate base allocator approved in the Company's Amended Settlement Agreement in Docket No. 4323. For each rate class, the allocated revenue requirement is divided by the applicable fiscal year forecasted therm deliveries to arrive at a per-therm factor unique to each rate class. The Company is allocating other related costs associated with incremental O&M costs to all rate classes on a per-unit basis.

The estimated typical bill impacts associated with the rate design and bill impacts are provided in Section 4. The bill impact of the proposed Gas ISR Plan for the average residential heating customer for the period April 1, 2016 through March 31, 2017 would be an annual increase of $23.59 or 2.1 percent.

Section 2
Gas Capital
Investment Plan

Section 2

Gas Capital Investment Plan
FY 2017 Proposal

Gas Capital Investment Plan
FY 2017 Proposal

The Company and the Division have worked diligently to arrive at a Gas ISR Plan that meets the Act's goals of providing a safe and reliable gas distribution system for Rhode Island.

Background

The Company developed its proposed capital investment and associated O&M expense plan to meet its obligation to provide safe, reliable, and efficient gas distribution service for customers at reasonable costs.[4] The Gas ISR Plan includes capital investment spending needed to meet state and federal regulatory requirements applicable to the Company's gas system and to maintain its distribution infrastructure in a safe and reliable condition. To address the replacement of leak-prone gas main and at-risk services, the Plan includes infrastructure safety and reliability work for cast-iron and non-cathodically protected steel mains and services. The Plan also contains capital spending related to safety and reliability for public works, mandated programs, gas reliability, and special projects.

Consistent with the goals of the Act, in order to continue to provide safe and reliable gas delivery service to customers, it is critical that the Company remain vigilant with respect to investing in its infrastructure and have appropriate and timely cost recovery. To that end, the Company's proposed FY 2017 Plan,[5] identifies the capital spending investment that it expects to complete during FY 2017. Table 1 contains a description of the proposed budget for the FY

[4] The Company delivers natural gas to about 259,000 Rhode Island residential and commercial and industrial customers in 33 cities and towns in Rhode Island. To provide this service, the Company owns and maintains approximately 3,200 miles of mains and approximately 194,000 services.

[5] FY 2017 is defined as the twelve months ending March 31, 2017.

2017 Plan. Table 2 contains a proposed five-year spending forecast for FY 2017 through FY 2021. The Company proposes to invest a total of $86.05 million of Gas ISR Plan investments ($85.48 million in capital expenditures and $0.57 million in O&M expenditures), which would be included in the FY 2017 Gas ISR recovery mechanism.[6] The FY 2017 Gas ISR Plan is designed to maintain the safety and reliability of the Company's gas delivery infrastructure.

As set forth on Table 1, of the $86.05 million that the Company proposes for its FY 2017 Gas ISR Plan spending, the Company proposes the following levels of spending for each category of programs:

- $49.63 million combined for proactive Main and Service Replacement Program
- $12.56 million for Public Works Programs, including $1.33 million in reimbursable work
- $15.36 million for Mandated Programs (reactive main replacement, capital leak repairs, meter replacements, corrosion and non-leak other)
- $9.25 million for Gas System Reliability, including work relative to System Automation and Gas Control, Pressure Regulating Facilities, System Reliability Enhancement, LNG facilities and Valve installation/replacements
- $0.57 million incremental O&M expense for the continued payment of sixteen additional personnel hired to support the increase in leak-prone pipe replacement

[6] For FY 2017, the Company plans to make $113.35 million of total capital investment. Of that total amount, $27.88 million will be for projected growth and allocated spending, which is not included for recovery in the FY 2016 Gas ISR Plan.

As noted above, the Company will continue to file quarterly reports with the Division and PUC detailing the progress of its Gas ISR Plan programs.

Description of Large Programs and Projects

The proposed FY 2017 Gas ISR Plan includes several programs that account for the total amount of Plan spending. Those programs are described in detail below.

A. Main Replacement Program and Service Replacement Program

The value of and need for targeted spending on the replacement of leak-prone gas main and services is well-documented, and has been accepted by both the Division and the PUC. For FY 2017, the Company forecasts spending $49.63 million on its main replacement program (approximately 54 miles of leak-prone gas main and 3,300 service relay, inserts or tie-ins, of which approximately 64% are expected to be leak-prone pipe).

Pro-active main replacement program costs have increased over the past several years, in part, because the proportion of cast iron gas mains that the Company replaced has increased. Moreover, the costs for replacement of cast iron main is typically greater than unprotected bare steel due to several key factors, which include the following: cast iron is predominant on low and intermediate pressure systems consisting of larger diameter mains; and cast iron facilities are typically centralized in urban areas where costs are driven by higher customer density, greater underground congestion (e.g., excavation), and increased restoration and traffic control.

National Grid has analyzed costs associated with work performed in FY 2015, and has developed budget projections based on main replacement candidates identified for completion in the program.

B. Public Works

The purpose of the Public Works program is to address existing gas infrastructure conflicts, as appropriate, and to improve the safety and reliability of the Company's natural gas distribution system in conjunction with municipal reconstruction and water & sewer projects, providing significant incremental benefits to customers and communities. Municipal and water & sewer work affords the Company an opportunity to replace additional leak-prone pipe, and reduce paving costs by coordinating the Company's main replacement work with these planned third-party construction projects, while also benefitting customers and communities by improving service delivery and minimizing construction impacts and inconvenience. National Grid has an ongoing plan to replace targeted (integrity-based selections) mains on a risk-based approach. Coordinating the Company's Integrity programs with planned municipal and water & sewer projects has yielded increased system reliability, system integrity, and optimized capital spending. Although one of the primary purposes of Public Works spending is to address direct conflicts between planned third-party projects and existing gas infrastructure, Public Works spending also provides the opportunity to coordinate other system improvement work, such as replacement of leak-prone pipe, system reliability upgrades, elimination of redundant main, and regulator station upgrades.

The Company will manage multiple projects to address the dynamic nature of the public works process through effective liaison activity. While municipal schedules and plans change due largely to funding, it must be recognized that other factors also contribute to the scheduling of these projects (e.g., political, demand maintenance, etc.). Changes in municipal projects can and do create additional work in developing and coordinating the Company's planning and

budgeting processes. Using the Company's five-year work planning process, the Company can provide some flexibility in scheduling, coordinating, and engineering projects in concert with municipal public works initiatives. For FY 2017, the proposed plan incorporates $12.56 million in spending under the Public Works category which includes $1.33 million in reimbursable projects. Overall, the Public Works budget provides for the replacement of approximately ten miles of leak-prone gas main consisting primarily of cast iron main.

C. Mandated Programs

Spending for Mandated Programs falls into seven categories: Reactive Main Replacement, Corrosion, CI Joint Encapsulation, Pipeline Integrity Programs, Meter Purchases, Service Leak Repairs, and Non-leak Other.

1. **Reactive Main Replacement** – This category of work consists of emergency main replacements because of leaks or other unplanned work where main conditions dictate immediate replacement and/or gas facilities are subject to water intrusion and require remedy. Over the past few years, the Company has received minimal requests in this category, primarily because the Company's increased Proactive Main Replacement Program work has made the need for this work unnecessary in many areas. The Company proposes to spend $0.3million in this area.

2. **Corrosion Program** – Cathodic protection effectively extends the service life of buried steel facilities (as compared to unprotected buried steel facilities), and can

prolong replacement by twenty years or more. In 1971, the Code of Federal Regulations, Part 192, was amended to require the cathodic protection of all new buried steel gas facilities. This is accomplished in part through ensuring proper coating, establishing proper conditions on pipe segments through installation of rectifiers, anodes, insulators and test stations. In addition, the Corrosion Program includes control line work at existing regulator stations and cathodic protection upgrades. For FY 2017, the Company proposes to spend $0.70 million on this program.

3. **CI Joint Encapsulation** – This program provides funding for the leak sealing of cast iron bell joints that are discovered during proactive leak surveys, public odor calls or other activities. For FY 2017, the Company proposes to spend $3.05 million.

4. **Pipeline Integrity - IMP** – This program is to develop a plan for the testing and/or replacement of the Company's higher pressure facilities and pipelines (i.e., >124 psig). For FY 2017, this will include engineering and design work for testing and/or replacement of sections of pipe under the program. In addition, the program will include the reconstruction of warning signage for three high-pressure pipeline crossings under the Providence River in the vicinity of the Providence LNG plant. The sign replacement is necessary to ensure the safety of the Company's facilities underneath a navigable waterway. For FY 2017, the Company proposes to spend a total of $0.80 million for these projects.

5. **Meter Replacement Program** – Capital costs for the Meter Replacement Program are required for the procurement of replacement meters. For FY 2017, the Company is proposing to replace approximately 8,100 meters, which represents 0.03 percent of the existing meter population in Rhode Island, at a cost of $2.26 million.

6. **Service Leak Repairs** – The Service Leak Repair Program addresses leaking gas services through insertion, replacement and/or abandonment. For FY 2017, the Company proposes to spend $6.00 million for the service leak program.

7. **Non-leak Other Program** – The Non-leak Other program contains the capital costs for service relocations, meter protection, service abandonments and the installation of curb valves. The Company's agreement with the Division to continue curb-valve installations will provide additional public safety benefits, and assist in improving collection and meter reading opportunities in those situations where Company personnel have encountered difficulty gaining access to meters. For FY 2017, the Company proposes to spend $2.25 million on this program.

In total, for FY 2017, the proposed Plan contains $15.36 million for all categories of mandated work.

D. Gas System Reliability

Reliability spending includes programs to address system automation and control, system pressure regulating facilities, Instrumentation and Pressure Regulation, Gas Reliability Planning, liquefied natural gas (LNG) facilities, valve installation and/or replacements, capital tools and equipment. The proposed FY 2017 Gas ISR Plan contains $9.25 million in spending for Reliability. A summary of each major program is provided below:

1. System Automation and Control

The primary purpose of this program is to meet the DOT code requirements under 49 CFR Part 192, Docket ID 2007-27954, which were issued on December 3, 2009. These code provisions contain the following pipeline safety requirements: (a) Control Room Management/Human Factors, (b) modernization of the Company's system data and telemetry recording, and (c) increasing the level of system automation and control. The overall program will increase the safety, reliability, and efficiency of the gas system and, by extension, the level of service the Company provides to its customers.

National Grid's ability to provide safe and reliable service is governed to a large extent by the Company's ability to maintain adequate pressure in its gas mains. To accomplish this task, National Grid has approximately 180 gas pressure regulator stations disbursed throughout its Rhode Island gas service territory. Although a limited number of these regulator stations have full system telemetry and control capability, most do not. In addition to monitoring and controlling the regulator stations, National Grid must also monitor system end points to ensure that adequate system pressures are being maintained

in remote areas under a variety of operating conditions. For FY 2017, the Company is proposing to level fund spending of $1.00 million for its system automation and control program. National Grid's proposal would provide AC power, telemetry and /or remote control to approximately 40 sites, including the upgrade of eight regulator stations.

2. Pressure Regulating Facilities

The pressure regulating facilities have been designed to reliably control gas distribution system pressures and maintain continuity of supply during normal and critical gas demand periods. Each station has specific requirements for flows and pressures based on the anticipated needs of the station. A facility includes both pressure-regulating piping and equipment, as well as control lines, but it may also include a heater or a scrubber. A program has been instituted which provides for condition-based assessments of all stations. Accepted engineering guidelines provide for design, planning, and operation of these gas distribution facilities. Applicable state and federal codes are followed to help ensure safe and continuous supply of natural gas to our customers and the communities we serve. As shown in the table below, National Grid's proposed Plan would include enhancements in response to station work prioritized through condition-based assessments. Enhancements are planned for the following facilities in FY 2017 at a cost of $1.50 million, and these enhancements will address station accessibility, pipe condition (i.e., corrosion), water intrusion, redundancy, station isolation, and common mode failure:

Type of Work	City	Location	Projected Cost ($)
Regulator Replacement	East Providence	Roger Williams @ Puritan	475,000
Regulator Replacement	East Providence	Roger Williams @ Whitaker	475,000
Take Station Upgrade	East Providence	Wampanoag Trail TS	500,000
Engineering & Design	Various	Various	50,000
TOTAL			**1,500,000**

3. Instrumentation & Regulation (I&R) Reactive Program

The I&R Reactive Program is established to address capital project requirements over and above what the Pressure Regulation Capital budget provides. Projects range from instrumentation replacement, due to weather or vehicular damage, replacement of obsolete/unreliable equipment, such as regulators, pilots, boilers, heat exchangers, odorant equipment, station valves, and replacement of building roofs, or doors due to deterioration. The Company is proposing to spend $1.00 million in this program.

4. Gas Planning Program

The Gas Planning Program identifies projects that support system reliability through standardization and simplification of system operations (e.g., system up-ratings and de-ratings and regulator elimination), integration of systems (e.g., tie-ins), and new supply sources (e.g., take stations). For FY 2017, the Company is proposing to spend approximately $1.50 million for four projects in its Gas Planning Program. Three of

these projects will assist in eliminating single-feed systems, and one will involve the activation of a new supply point in Providence. These projects include the added benefit of replacement of approximately one mile of leak-prone pipe in Bristol and Lincoln.

5. LNG Facilities

LNG facility upgrades include replacement of aging equipment and infrastructure at the Rhode Island stations, excluding the Providence facility. The Company has budgeted $1.70 million for FY 2017 for this work, which include, in part, engineering and design for emergency generator replacement and Emergency Shutdown System (ESD) in Cumberland, and control board/SCADA upgrades at the Exeter facility.

6. Valve Installation / Replacement

Valves are used to sectionalize portions of the gas network when required to support both planned and unplanned field activities. Replacement of inoperable valves is necessary to ensure the Company's continued ability to effectively isolate portions of the distribution system. New valve installations are also occasionally needed to provide the capability to reduce the size of an isolation area where existing valves would result in broader shutdown than desired. For FY 2017, the Company has budgeted $0.20 million for this work.

7. Allens Avenue Project

The Allens Avenue project is a multi-year project designed to replace or retire eight existing pressure regulating facilities, including the removal of obsolete pipe and

equipment in support of the safety and reliability of the Company's system at this location. For FY 2017, the Company proposes to spend $1.75 million.

8. Capital Tools & Equipment

Capital tools includes tools and equipment required to support performance of work contained in the ISR plan and provide for safety and reliability of the gas distribution system.

E. Special Projects

In Docket No. 4380, the PUC approved a Gas Expansion Pilot Program, which was funded at a level of $3.0 million. In Docket No. 4474, the PUC approved changes and modifications in the FY2015 pilot program. These changes were designed to simplify the program process and better address the barriers to customer participation in the program. In Docket No. 4540, the Commission modified the funding level of this program to the actual FY 2015 spending of $1.30 million. The Company recognizes the need to prioritize limited capital resources, and therefore, has chosen to suspend the gas growth expansion program for one year while it focuses on delivering the primary safety and reliability components of proposed ISR Plan. The Company will continue to assess the benefits of the program to customers and has proposed its continuation in the long-term plan. As a result, for FY 2017, the Company is proposing no additional spending for the pilot program.

O&M Spending:

To support the increase in the Proactive Main Replacement Program in FY 2015 and FY 2016, the Company hired and trained 16 additional personnel to work on the Main Replacement Program. ($0.4 million for the 11 FY 2015 hires and $0.16 for the FY 2016 new hires) For FY 2017, the Company is proposing to include $0.57 million of O&M expense related to paying for these needed resources to address leak-prone pipe replacement. As in FY 2015 and FY2016, this total amount of O&M expense will be tracked and reconciled to actual O&M in the next annual Gas ISR reconciliation filing.

Five Year Gas ISR Investment Plan

As of December 31, 2014, approximately 1,305 miles, or 41%, of the 3,188 miles in the Company's gas distribution system in Rhode Island is made up of leak-prone pipe (LPP). These 1,305 miles of LLP are comprised of 483 miles of unprotected steel, and 822 miles of cast iron, and wrought iron gas main. At the current pace of proposed replacement, the Company will eliminate all cast iron, wrought iron and unprotected steel main, and services within the next 20 years.

The Company's proposed five-year Rhode Island Gas ISR investment plan is provided in Table 2. This plan reflects spending projected within each of the primary categories for the period FY 2017 through FY 2021.

Table 1

Narragansett Gas FY 2017 ($000)		
	Budget	**Total**
Proactive Main Replacement	$49,632,000	**$49,632,000**
Public Works		
City State Construction - Non Reimbursable	$11,230,000	
City State Construction - Reimbursable	$1,327,000	
City State Construction - Reimbursments	($1,327,000)	
Public Works - Total		**$11,230,000**
Mandated Programs		
Reactive Main Replacement	$300,000	
Corrosion	$700,000	
CI Joint Encapsulation	$3,050,000	
Leaks	$6,000,000	
Non-Leaks- Other	$2,250,000	
Pipeline Integrity - IMP & Signage	$800,000	
Meter Purchases	$2,264,000	
Mandated Totals		**$15,364,000**
Reliability		
Gas System Control	$100,000	
I&R Reactive/CNG	$1,000,000	
LNG - Blanket	$800,000	
LNG Cumberland SCADA	$800,000	
LNG Cumberland Emergency Generator	$100,000	
Pressure Regulating Facilities-Proactive	$1,500,000	
Valve Installation/Replacement	$200,000	
Gas Planning	$1,500,000	
System Automation	$1,000,000	
Allens Ave.	$1,750,000	
Tools - Construction	$150,000	
Tools - Maintenance	$250,000	
Tools - Customer	$100,000	
Reliability Total		**$9,250,000**
Special Projects		
Gas Expansion Pilot		
Special Project Total		**$0**
Capital Spending Total		**$85,476,000**
O&M		**$571,000**
Gas ISR Plan Total		**$86,047,000**

Table 2

RI Gas ISR Spending Forecast ($000)						
Investment Categories	**FY17**	**FY18**	**FY19**	**FY20**	**FY21**	**FY17 to FY21 TOTAL**
Proactive Main Replacement	$ 49,632	$ 54,967	$ 60,591	$ 65,028	$ 69,208	$299,426
Public Works	$ 11,230	$ 11,792	$ 12,381	$ 13,000	$ 13,650	$62,053
Mandated Programs	$ 15,364	$ 15,918	$ 16,283	$ 16,658	$ 17,051	$81,275
Reliability	$ 9,250	$ 12,056	$ 11,402	$ 11,457	$ 14,652	$58,818
Special Projects	$ -	$ 2,500	$ 3,000	$ 3,000	$ 3,000	$11,500
Capital Total (Excluding Growth)	$ 85,476	$ 97,233	$ 103,657	$ 109,144	$ 117,561	$513,071
O&M Total	$ 571	$582	$594	$606	$618	$2,971
GAS ISR TOTAL	**$86,047**	**$97,816**	**$104,251**	**$109,750**	**$118,179**	**$516,043**
Leak Prone Pipe Replacement for FY 2017 is 65 miles.						
Leak Prone Pipe Replacement for FY 2018 and beyond is 65 miles per year.						
Proactive Service Replacement is included in Proactive Main Replacement						
Reactive Main is included in Mandated Programs						

Section 3
Revenue Requirement

Section 3

Revenue Requirement
FY 2017 Proposal

Revenue Requirement
FY 2017 Proposal

The attached proposed revenue requirement calculation reflects the revenue requirement related to the Company's proposed investment in its Gas ISR Plan for the fiscal year FY ended March 31, 2017.

As shown on Page 1, Column (b) of Attachment 1, the Company's FY 2017 ISR Plan cumulative revenue requirement totals $23,656,294, or an incremental $7,486,532 over the amount currently being billed for the Gas ISR Plan, and consists of the following elements: (1) operation and maintenance (O&M) expenses of $571,000 associated with hiring, training, and supervision of additional personnel to support the increase in leak-prone pipe replacement for FY 2017, as described in Section 2 of this ISR Plan; (2) the revenue requirement of $3,234,197 on FY 2017 proposed non-growth ISR capital investment of $85,476,000 as calculated on Attachment 1, Page 2, plus the FY 2017 revenue requirement on incremental non-growth ISR capital investment of $5,358,825, $4,911,949, $3,439,565, $305,675 , and $1,074,212 for FY 2016, FY 2015, FY 2014, FY 2013, and FY 2012 incremental investments, from Pages 4, 6, 8, 10, and 12 respectively; and (3) property tax expense of $4,760,871 as shown on Page 16 of Attachment 1, in accordance with the property tax recovery mechanism included in the Docket No. 4323 rate case settlement. Importantly, the incremental capital investment for the FY 2017 ISR revenue requirement excludes capital investment embedded in base rates in Docket No. 4323 for FYs 2012, 2013, and 2014. Incremental non-growth capital investment for this purpose is intended to represent the net change in net plant for non-growth infrastructure investments during the relevant FY and is defined as capital additions plus cost of removal, less annual

depreciation expense ultimately embedded in the Company's base rates (excluding depreciation expense attributable to general plant which is not eligible for inclusion in the Gas ISR Plan).

For illustration purposes only, Column (c) of Page 1 of Attachment 1, provides the FY 2018 revenue requirement for the respective vintage year capital investments as calculated on Attachment 1, Pages 2, 4, 6, 8, 10, and 12. Notably, these amounts will be trued up to actual investment activity after the conclusion of the FY, with rate adjustments for the revenue requirement differences incorporated in future ISR filings.

Gas Infrastructure Investment

Incremental Capital Investment

As noted above, Page 2 of Attachment 1, calculates the revenue requirement of incremental capital investment associated with the Company's FY 2017 ISR Plan, that is, gas infrastructure investment (net of general plant) incremental to the amounts embedded in the Company's base distribution rates. The proposed capital investment, including cost of removal, was obtained from Table 1 of Section 2 of this ISR Plan. The FY 2017 revenue requirement also includes the incremental capital investment associated with the Company's 2016, 2015, 2014, 2013, and 2012 ISR Plan, excluding investments reflected in rate base in Docket No. 4323 for each of those fiscal years, as shown on pages 8, 10, and 12, respectively.

Page 14 of Attachment 1, calculates the incremental FY 2012 through FY 2014 ISR capital investment and the related incremental cost of removal and incremental retirements for the FY 2017 ISR revenue requirement. The calculations on Page 14 compare ISR-eligible

capital investment, cost of removal, and retirements for FY 2012 through FY 2014, to the corresponding amounts reflected in rate base in Docket No. 4323.

Gas Infrastructure Revenue Requirement

The revenue requirement calculation on incremental gas infrastructure investment for vintage year FY 2017 is shown on Page 2 of Attachment 1. The revenue requirement calculation incorporates the incremental ISR Plan capital investment, cost of removal, and retirements, which are the basis for determining the three components of the revenue requirement: (1) the return on investment (i.e., average ISR Plan rate base at the weighted average cost of capital); (2) depreciation expense; and (3) property taxes. The calculation on Page 2 begins with the determination of the depreciable net incremental capital that will be included in the ISR Plan rate base. Because depreciation expense is affected by plant retirements, retirements have been deducted from the total allowed capital included in ISR Plan rate base in determining depreciation expense. Retirements, however, do not affect rate base as both plant-in-service and the depreciation reserve are reduced by the installed value of the plant being retired, and therefore, have no impact on net plant. For purposes of calculating the revenue requirement, plant retirements have been estimated based on the percentage of actual retirements to additions during FY 2015 of 7.43 percent, and have been deducted from the total depreciable capital amount as shown on Lines 1 through 3. Incremental book depreciation expense on Line 12 is computed based on the net depreciable additions from Line 3 at the 3.38 percent composite depreciation rate as approved in RIPUC Docket No. 3943, reaffirmed in RIPUC Docket No.

4323[7] and as shown on Line 9. The Company has assumed a half-year convention for the year of installation. Unlike retirements, cost of removal affects rate base but not depreciation expense. Consequently, the cost of removal, as shown on Line 7, is combined with the incremental depreciable amount from Line 6 (vintage year ISR Plan allowable capital additions less non-general plant depreciation expense included in base distribution rates) to arrive at the incremental investment on Line 8 to be included in the rate base upon which the return component of the annual revenue requirement is calculated.

The rate base calculation incorporates net plant from Line 8 and accumulated depreciation and accumulated deferred tax reserves as shown on Lines 13 and 18, respectively. The deferred tax amount arising from the capital investment, as calculated on Lines 14 through 18, equals the difference between book depreciation and tax depreciation on the capital investment, times the effective tax rate, net of any tax net operating losses (NOL). The calculation of tax depreciation is described below. The average rate base is shown on Line 23. This amount is multiplied by the pre-tax rate of return approved by the PUC in Docket No. 4323, as shown on Line 24, to compute the return and tax portion of the incremental revenue requirement, as shown on Line 25. To this, incremental depreciation expense is added to this amount on Line 26. The sum of these amounts reflects the annual revenue requirement associated with the capital investment portion of the Company's ISR Plan on Line 28, which is carried forward to Page 1 as part of the total ISR Plan revenue requirement. Similar revenue requirement calculations for the vintage FY 2016, FY 2015, FY 2014, FY 2013, and FY 2012

[7] The Company did not change depreciation rates in its base rate filing in Docket No. 4323.

incremental ISR Plan capital investment are shown on Pages 4, 6, 8, 10, and 12, respectively. These capital investment revenue requirement amounts are added to the total O&M expense on Line 1, Page 1, and the total property tax recovery on Line 9, Page 1 to derive the total FY 2017 ISR Plan revenue requirement of $23,656,294 as shown on Line 11, Page 1, and represents an incremental $7,486,532 increase from the FY 2016 ISR Plan revenue requirement, as shown on Line 12.

Tax Depreciation Calculation

The tax depreciation calculations for FY 2017 through FY 2012 are provided on Pages 3, 5, 7, 9, 11, and 13 of Attachment 1. The tax depreciation amount assumes that a portion of the capital investment, as shown on Line 1 of those pages, will be eligible for immediate deduction on the Company's corresponding FY federal income tax return. This immediate deductibility is referred to as the capital repairs deduction.[8] In addition, plant additions not subject to the capital repairs deduction may be subject to bonus depreciation as shown on Lines 4 through 12 on Page 7 for FY 2015; Lines 4 through 12 on Page 9 for FY 2014; Lines 4 through 18 on Page 11 for FY 2013; and Lines 4 through 12 on Page 13 for FY 2012. The Company assumes no bonus depreciation for FY 2017 and FY 2016. During 2010, Congress passed the Tax Relief,

[8] During 2009, the Internal Revenue Service (IRS) issued additional guidance, under Internal Revenue Code Section 162, related to certain work considered to be repair and maintenance expense, and eligible for immediate tax deduction for income tax purposes, but capitalized by the Company for book purposes. As a result of this additional guidance, the Company recorded a one-time tax expense for repair and maintenance costs in its FY 2009 federal income tax return filed on December 11, 2009 by National Grid Holdings, Inc. Since that time, the Company has taken a capital repairs deduction on all subsequent FY tax returns. This has formed the basis for the capital repairs deduction assumed in the Company's revenue requirement. This tax deduction has the effect of increasing deferred taxes and lowering the revenue requirement that customers will pay under the capital investment reconciliation mechanism. The Company's federal income tax returns are subject to audit by the IRS. If it is determined in the future that the Company's position on its tax returns on this matter was incorrect, the Company will reflect any related IRS disallowances, plus any associated interest assessed by the IRS, in a subsequent reconciliation filing under the ISR Plan.

Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (Act) which provided for an extension of bonus depreciation. Specifically, the Act provided for the application of 100 percent bonus depreciation for investment constructed and placed into service after September 8, 2010 through December 31, 2011, and then 50 percent bonus depreciation for similar capital investment placed into service after December 31, 2011 through December 2012. The 50 percent bonus depreciation rate was later extended through December 31, 2013 and then extended further through December 31, 2014. In accordance with the Act, capital investments made from January 2012 through December 2014 are eligible for 50 percent bonus depreciation, as shown on Page 7, Line 12 for FY 2015; Page 9, Line 12 for FY 2014; Page 11, Line 18 for FY 2013; and Page 13, Line 12 for FY 2012.[9] The Company has assumed no bonus depreciation for its vintage years FY 2017 and FY 2016 capital investments. Finally, the remaining plant additions not deducted as bonus depreciation are then subject to the IRS Modified Accelerated Cost-Recovery System, or MACRS tax depreciation rate. The amount of depreciation deducted for MACRS is added to the amount of capital repairs deduction plus the bonus depreciation deduction and cost of removal to arrive at total tax depreciation. These annual total tax depreciation amounts are carried forward to Line 10 of Pages 2, 4, 6, and 8 and Line 8 of Pages 12 of Attachment 1, for the respective years and incorporated in the deferred tax calculation.

[9] The Company anticipates that the IRS will issue further guidance on this issue and, to the extent such guidance differs from the Company's interpretation of the 2010 Act, will reflect any resulting differences in a subsequent reconciliation filing under the ISR Plan.

Federal Net Operating Loss

Tax NOLs are generated when the Company has tax deductions on its income tax returns that exceed its taxable income. This does not mean that the Company is suffering losses in its financial statements; instead, the Company's tax NOLs are the result of the significant tax deductions that have been generated in recent years by the bonus depreciation and capital repairs tax deductions. In addition to first-year bonus tax depreciation, the US tax code allows the Company to classify certain costs as repairs expense which the Company takes as an immediate deduction on its income tax return; however, these costs are recorded as plant investment on the Company's books. These significant bonus depreciation and capital repairs tax deductions have exceeded the amount of taxable income reported in tax returns filed for FY 2009 to FY 2014, with the exception of FY 2011. NOLs are recorded as non-cash assets on the Company's balance sheet and represent a benefit that the Company and customers will receive when the Company is able to realize actual cash savings and applies these NOLs against taxable income in the future.

NOLs are an offset to the Company's accumulated deferred income taxes. Accumulated deferred income taxes, which equal the difference between book depreciation and tax depreciation on ISR capital investment, times the effective tax rate, are included as a credit or reduction in the calculation of rate base. However, since the Company was not able to fully utilize all of its tax deductions, tax NOLs were recorded which offset a portion of the rate base reduction for accumulated deferred income taxes . These amounts can be found in the FY 2012, FY 2013, and FY 2014 revenue requirement calculations on Pages, 8, 10, & 12, respectively. The revenue requirement calculations on FY 2015, FY 2016, and FY 2017 capital investment do

not currently include NOLs , and will not until the tax returns for those years are filed and the determination is made that there is NOL to be reflected. Conversely, if the Company is able to utilize any of its currently accumulated NOLs in future tax years, that benefit will be flowed through to customers.

Property Tax Recovery Adjustment

The Property Tax Recovery Adjustment is shown on Pages 15 through 17 of Attachment 1. The method used to recover property tax expense under the ISR has been modified by the Company's 2012 rate case settlement agreement. In determining the base on which property tax expense is calculated for purposes of the ISR revenue requirement, the Company includes an amount equal to the base-rate allowance for depreciation expense and depreciation expense on incremental ISR plant additions in the accumulated reserve for depreciation that is deducted from plant-in-service. The ISR property tax recovery adjustment also includes the impact of any changes in the Company's effective property tax rates on base-rate embedded property, plus cumulative ISR net additions. Property tax impacts associated with non-ISR plant additions are excluded from the property tax recovery formula. This provision of the settlement agreement took effect for ISR property tax recovery periods subsequent to the end of the rate year, or January 31, 2014. The FY 2017 revenue requirement includes $4,760,871 for the net property tax recovery adjustment.

The Narragansett Electric Company
d/b/a National Grid
Gas Infrastructure, Safety, and Reliability (ISR) Plan
Annual Revenue Requirement Summary

Line No.		As Approved Fiscal Year 2016 (a)	Fiscal Year 2017 (b)	Fiscal Year 2018 (c)
	Operation and Maintenance Expenses			
1	Forecasted Gas Infrastructure, Safety, and Reliability O&M Expenses	$560,000	$571,000	
	Capital Investment:			
2	Actual Revenue Requirement on Incremental FY 2012 Capital included in ISR Rate Base	$1,116,536	$1,074,212	$1,058,571
3	Actual Revenue Requirement on Incremental FY 2013 Capital included in ISR Rate Base	$296,587	$305,675	$318,973
4	Actual Revenue Requirement on Incremental FY 2014 Capital included in ISR Rate Base	$3,518,349	$3,439,565	$3,387,537
5	Actual Revenue Requirement on FY 2015 Capital Included in ISR Rate Base	$4,582,368	$4,911,949	$4,913,289
6	Forecasted Revenue Requirement on FY 2016 Capital Included in ISR Rate Base	$2,730,212	$5,358,825	$5,179,774
7	Forecasted Revenue Requirement on FY 2017 Capital Included in ISR Rate Base		$3,234,197	$6,352,752
8	Total Capital Investment Revenue Requirement	$12,244,052	$18,324,423	$21,210,896
9	Forecasted Annual Property Tax Recovery Mechanism	$3,365,710	$4,760,871	
10	Total Capital Investment Component of the Revenue Requirement	$15,609,762	$23,085,294	
11	Total Fiscal Year Revenue Requirement	$16,169,762	**$23,656,294**	
12	**Total Incremental Fiscal Year Rate Adjustment**		**$7,486,532**	

Column Notes

(a) As approved in Docket No. RIPUC 4540

Line Notes

1	O&M Expense per Exhibit DGI-1 Section 2, Table 1.
2(b)-(c)	From Page 12 of 20, Line 32
3(b -(c)	From Page 10 of 20, Line 30
4(b)-(c)	From Page 8 of 20, Line 32
5(b)-(c)	From Page 6 of 20, Line 28
6(b)-(c)	From Page 4 of 20, Line 28
7(b)-(c)	From Page 2 of 20, Line 28
8	Sum of Lines 2 through 7
9	From Page 16 of 20, Line 90(c)
10	Line 8 + Line 9
11	Line 1 + Line 10
12	Line 11(b) - Line 11(a)

The Narragansett Electric Company
d/b/a National Grid
FY 2017 Gas ISR Plan Revenue Requirement
Computation of Revenue Requirement on FY 2017 Forecasted 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 Company's books		$82,515,000	$0
2	Retirements	Line 1 * Retirement rate	1/	$6,130,865	$0
3	Net Depreciable Capital Included in ISR Rate Base	Column (a) = Line 1 - Line 2; Column (b) = Prior Year Line 3		$76,384,135	$76,384,135
	Change in Net Capital Included in ISR Rate Base				
4	Capital Included in ISR Rate Base	Line 1		$82,515,000	$0
5	Depreciation Expense	Per Settlement Agreement Docket No. 4323, excluding General Plant		$24,356,183	$0
6	Incremental Depreciable Amount	Column (a) = Line 4 - Line 5; Column (b) = Prior Year Line 6		$58,158,817	$58,158,817
7	Cost of Removal	Per Company's books		$2,961,000	$2,961,000
8	**Net Plant Amount**	**Line 6 + Line 7**		**$61,119,817**	**$61,119,817**
	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	Page 3 of 20, Line 10		$61,737,157	$1,780,475
11	Cumulative Tax Depreciation	Prior Year Line 11 + Current Year Line 10		$61,737,157	$63,517,632
12	Book Depreciation	Column (a) = Line 3 * Line 9 * 50% ; Column (b) = Line 3 * Line 9		$1,290,892	$2,581,784
13	Cumulative Book Depreciation	Prior Year Line 13 + Current Year Line 12		$1,290,892	$3,872,676
14	Cumulative Book / Tax Timer	Line 11 - Line 13		$60,446,265	$59,644,956
15	Effective Tax Rate			35.00%	35.00%
16	Deferred Tax Reserve	Line 14 * Line 15		$21,156,193	$20,875,735
17	Less: FY 2017 Federal NOL	TBD upon filing of FY 2017 tax return		$0	$0
18	Net Deferred Tax Reserve	Line 16 + Line 17		$21,156,193	$20,875,735
	ISR Rate Base Calculation:				
19	Cumulative Incremental Capital Included in ISR Rate Base	Line 8		$61,119,817	$61,119,817
20	Accumulated Depreciation	- Line 13		($1,290,892)	($3,872,676)
21	Deferred Tax Reserve	- Line 18		($21,156,193)	($20,875,735)
22	Year End Rate Base	Sum of Lines 19 through 21		$38,672,732	$36,371,407
	Revenue Requirement Calculation:				
23	Average ISR Rate Base	Column (a) = Current Year Line 22 ÷ 2; Column (b) = (Prior Year Line 22 + Current Year Line 22) ÷ 2		$19,336,366	$37,522,070
24	Pre-Tax ROR		2/	10.05%	10.05%
25	Return and Taxes	Line 23 * Line 24		$1,943,305	$3,770,968
26	Book Depreciation	Line 12		$1,290,892	$2,581,784
27	Property Taxes		3/	$0	$0
28	**Annual Revenue Requirement**	**Sum of Lines 25 through 27**		**$3,234,197**	**$6,352,752**

1/ Assumes 7.43% retirement rate based on FY 2015 actual retirements (Per Page 6 of 21, Line 2(a) ÷ Line 1(a))

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

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

3/ Property taxes calculated on Pages 15 through 17 of 20 for all vintage years commencing with FY14 and reflected in total on Page 1 at Line 9.

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

Line No.				Fiscal Year 2017 (a)	Fiscal Year 2018 (b)
	Capital Repairs Deduction				
1	Plant Additions	Page 2 of 20, Line 1		$82,515,000	
2	Capital Repairs Deduction Rate	Per Tax Department	1/	70.11%	
3	Capital Repairs Deduction	Line 2 * Line 3		$57,851,267	
	Remaining Tax Depreciation				
4	Plant Additions	Line 1		$82,515,000	
5	Less Capital Repairs Deduction	Line 3		$57,851,267	
6	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 4 - 5		$24,663,733	$24,663,733
7	20 YR MACRS Tax Depreciation Rates	IRS Publication 946		3.750%	7.219%
8	Remaining Tax Depreciation	Line 6 * Line 7		$924,890	$1,780,475
9	Cost of Removal	Page 2 of 20, Line 7		$2,961,000	
10	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 8, & 9		$61,737,157	$1,780,475

1/ Capital Repairs percentage is based on a three-year average of FYs 2012, 2013 and 2014 capital repairs rates.

The Narragansett Electric Company
d/b/a National Grid
FY 2017 Gas ISR Plan Revenue Requirement
Computation of Revenue Requirement on FY 2016 Forecasted 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 Company's books		$72,528,000	$0	$0
2	Retirements	Line 1 * Retirement rate	1/	$5,432,347	$0	$0
3	Net Depreciable Capital Included in ISR Rate Base	Column (a) = Line 1 - Line 2; Column (b) = Prior Year Line 3		$67,095,653	$67,095,653	$67,095,653
	Change in Net Capital Included in ISR Rate Base					
4	Capital Included in ISR Rate Base	Line 1		$72,528,000	$0	$0
5	Depreciation Expense	Per Settlement Agreement Docket No. 4323, excluding General Plant		$24,356,183	$0	$0
6	Incremental Depreciable Amount	Column (a) = Line 4 - Line 5; Column (b) = Prior Year Line 6		$48,171,817	$48,171,817	$48,171,817
7	Cost of Removal	Per Company's books		$3,714,000	$3,714,000	$3,714,000
8	**Net Plant Amount**	**Line 6 + Line 7**		**$51,885,817**	**$51,885,817**	**$51,885,817**
	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	Page 5 of 20, Line 10		$55,376,329	$1,564,980	$192,241
11	Cumulative Tax Depreciation	Prior Year Line 11 + Current Year Line 10		$55,376,329	$56,941,309	$57,133,550
12	Book Depreciation	Column (a) = Line 3 * Line 9 * 50% ; Column (b) = Line 3 * Line 9		$1,133,917	$2,267,833	$2,267,833
13	Cumulative Book Depreciation	Prior Year Line 13 + Current Year Line 12		$1,133,917	$3,401,750	$5,669,583
14	Cumulative Book / Tax Timer	Line 11 - Line 13		$54,242,412	$53,539,559	$51,463,967
15	Effective Tax Rate			35.00%	35.00%	35.000%
16	Deferred Tax Reserve	Line 14 * Line 15		$18,984,844	$18,738,846	$18,012,388
17	Less: FY 2016 Federal NOL	TBD upon filing of FY 2016 tax return		$0	$0	$0
18	Net Deferred Tax Reserve	Line 16 + Line 17		$18,984,844	$18,738,846	$18,012,388
	ISR Rate Base Calculation:					
19	Cumulative Incremental Capital Included in ISR Rate Base	Line 8		$51,885,817	$51,885,817	$51,885,817
20	Accumulated Depreciation	- Line 13		($1,133,917)	($3,401,750)	($5,669,583)
21	Deferred Tax Reserve	- Line 18		($18,984,844)	($18,738,846)	($18,012,388)
22	Year End Rate Base	Sum of Lines 19 through 21		$31,767,056	$29,745,222	$28,203,846
	Revenue Requirement Calculation:					
23	Average ISR Rate Base	Column (a) = Current Year Line 22 ÷ 2; Column (b) = (Prior Year Line 22 + Current Year Line 22) ÷ 2		$15,883,528	$30,756,139	$28,974,534
24	Pre-Tax ROR		2/	10.05%	10.05%	10.05%
25	Return and Taxes	Line 23 * Line 24		$1,596,295	$3,090,992	$2,911,941
26	Book Depreciation	Line 12		$1,133,917	$2,267,833	$2,267,833
27	Property Taxes		3/	$0	$0	$0
28	**Annual Revenue Requirement**	**Sum of Lines 25 through 27**		**$2,730,212**	**$5,358,825**	**$5,179,774**

1/ Assumes 7.49% retirement rate based on FY 2014 actual retirements (Per Page 12 of 20, Line 7(c) ÷ Line 1(c))

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

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

3/ Property taxes calculated on Pages 15 through 17 of 20 for all vintage years commencing with FY14 and reflected in total on Page 1 at Line 9.

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

Line No.				Fiscal Year 2016 (a)	Fiscal Year 2017 (b)	Fiscal Year 2018 (c)
	Capital Repairs Deduction					
1	Plant Additions	Page 4 of 20, Line 1		$72,528,000		
2	Capital Repairs Deduction Rate	Per Tax Department	1/	70.11%		
3	Capital Repairs Deduction	Line 2 * Line 3		$50,849,381		
	Remaining Tax Depreciation					
4	Plant Additions	Line 1		$72,528,000		
5	Less Capital Repairs Deduction	Line 3		$50,849,381		
6	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 4 - 5		$21,678,619	$21,678,619	$21,678,619
7	20 YR MACRS Tax Depreciation Rates	IRS Publication 946		3.750%	7.219%	6.677%
8	Remaining Tax Depreciation	Line 6 * Line 7		$812,948	$1,564,980	$1,447,481
9	Cost of Removal	Page 4 of 20, Line 7		$3,714,000		
10	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 8, & 9		$55,376,329	$1,564,980	$1,447,481

1/ Agrees to FY2016 Gas ISR Plan compliance filing. Capital Repairs percentage is based on a three-year average of FYs 2012, 2013 and 2014 capital repairs rates.

The Narragansett Electric Company
d/b/a National Grid
FY 2017 Gas ISR Plan Revenue Requirement
Computation of Revenue Requirement on FY 2015 Actual 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 Attachment DGI-1, Table 2 less Line 7		$74,915,000	$0	$0	$0
2	Retirements		1/	$5,566,546	$0	$0	$0
3	Net Depreciable Capital Included in ISR Rate Base	Line 1 - Line 2		$69,348,454	$69,348,454	$69,348,454	$69,348,454
	Change in Net Capital Included in ISR Rate Base						
4	Capital Included in ISR Rate Base	Line 1		$74,915,000	$0	$0	$0
5	Depreciation Expense	Per Settlement Agreement Docket No. 4323, excluding General Plant		$24,356,183	$0	$0	$0
6	Incremental Depreciable Amount	Line 4 - Line 5		$50,558,817	$50,558,817	$50,558,817	$50,558,817
7	Cost of Removal		2/	$2,425,000	$2,425,000	$2,425,000	$2,425,000
8	**Net Plant Amount**	**Line 6 + Line 7**		**$52,983,817**	**$52,983,817**	**$52,983,817**	**$52,983,817**
	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	Page 3, Line 20		$62,663,710	$1,100,760	$1,018,115	$941,875
11	Cumulative Tax Depreciation	Current Year Line 10		$62,663,710	$1,100,760	$1,018,115	$941,875
12	Book Depreciation	Line 3 * Line 9 * 50%		$1,171,989	$2,343,978	$2,343,978	$2,343,978
13	Cumulative Book Depreciation	Current Year Line 12		$1,171,989	$2,343,978	$2,343,978	$2,343,978
14	Cumulative Book / Tax Timer	Line 11 - Line 13		$61,491,721	($1,243,218)	($1,325,863)	($1,402,103)
15	Effective Tax Rate			35.00%	35.00%	35.00%	35.00%
16	Deferred Tax Reserve	Line 14 * Line 15		$21,522,102	($435,126)	($464,052)	($490,736)
17	Less: FY 2015 NOL	TBD upon filing of FY 2015 tax return		$0	$0	$0	$0
18	Net Deferred Tax Reserve	Line 16 + Line 17		$21,522,102	($435,126)	($464,052)	($490,736)
	ISR Rate Base Calculation:						
19	Cumulative Incremental Capital Included in ISR Rate Base	Line 8		$52,983,817	$52,983,817	$52,983,817	$52,983,817
20	Accumulated Depreciation	- Line 13		($1,171,989)	($2,343,978)	($2,343,978)	($2,343,978)
21	Deferred Tax Reserve	- Line 18		($21,522,102)	$435,126	$464,052	$490,736
22	Year End Rate Base	Sum of Lines 19 through 21		$30,289,726	$51,074,966	$51,103,891	$51,130,575
	Revenue Requirement Calculation:						
23	Average ISR Rate Base	Column (a) = Current Year Line 22/2; Column (b) = (Prior Year Line 20 + Current Year Line 20) ÷ 2		$15,144,863	$25,537,483	$25,551,946	$25,565,288
24	Pre-Tax ROR		3/	10.05%	10.05%	10.05%	10.05%
25	Return and Taxes	Line 23 * Line 24		$1,522,059	$2,566,517	$2,567,971	$2,569,311
26	Book Depreciation	Line 12		$1,171,989	$2,343,978	$2,343,978	$2,343,978
27	Property Taxes		4/	$0	$0	$0	$0
28	**Annual Revenue Requirement**	**Sum of Lines 25 through 27**		**$2,694,048**	**$4,910,495**	**$4,911,949**	**$4,913,289**

1/ Actual FY 2015 retirements per Company's books
2/ Actual FY 2015 Cost of Removal per Company's books
3/ Weighted Average Cost of Capital per Settlement Agreement R.I.P.U.C. Docket No. 4323

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

4/ Property taxes calculated on Pages 15 through 17 of 20 for all vintage years commencing with FY14 and reflected in total on Page 1 at Line 9.

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

Line No.				Fiscal Year 2015 (a)	Fiscal Year 2016 (b)	Fiscal Year 2017 (c)	Fiscal Year 2018 (d)
	Capital Repairs Deduction						
1	Plant Additions	Page 2 Line 1		$74,915,000			
2	Capital Repairs Deduction Rate	Per Tax Department	1/	67.43%			
3	Capital Repairs Deduction	Line 2 * Line 3		$50,518,050			
	Bonus Depreciation						
4	Plant Additions	Line 1		$74,915,000			
5	Less Capital Repairs Deduction	Line 3		$50,518,050			
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5		$24,396,950			
7	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department		100.00%			
8	Plant Eligible for Bonus Depreciation	Line 6 x Line 7		$24,396,950			
9	Bonus Depreciation Rate (April 2014 - December 2014)	1 * 75% * 50%		37.50%			
10	Bonus Depreciation Rate (January 2015 - March 2015)	1 * 25% * 0%		0.00%			
11	Total Bonus Depreciation Rate	Line 9 + Line 10		37.50%			
12	Bonus Depreciation	Line 8 x Line 11		$9,148,856			
	Remaining Tax Depreciation						
13	Plant Additions	Line 1		$74,915,000			
14	Less Capital Repairs Deduction	Line 3		$50,518,050			
15	Less Bonus Depreciation	Line 12		$9,148,856			
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 13 - Line 14 - Line 15		$15,248,094	$15,248,094	$15,248,094	$15,248,094
17	20 YR MACRS Tax Depreciation Rates	IRS Publication 946		3.750%	7.219%	6.677%	6.177%
18	Remaining Tax Depreciation	Line 16 * Line 17		$571,804	$1,100,760	$1,018,115	$941,875
19	Cost of Removal	Page 2 Line 7		$2,425,000			
20	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 19		$62,663,710	$1,100,760	$1,018,115	$941,875

1/ Agrees to FY 2015 ISR Plan Proposal filing. Capital Repairs percentage is based on a three year average, 2010, 2011, and 2012. 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 gas 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 2017 Gas ISR Plan Revenue Requirement
Computation of Revenue Requirement on FY 2014 Actual Incremental Gas Capital Investment

Line No.				Fiscal Year 2014 (a)	Fiscal Year 2015 (b)	Fiscal Year 2016 (b)	Fiscal Year 2017 (b)	Fiscal Year 2018 (b)
	Depreciable Net Capital Included in Rate Base							
1	Total Allowed Capital Included in Rate Base in Current Year	Page 14 of 20, Line 3, Column (c)		$22,483,868	$0	$0	$0	$0
2	Retirements	Page 14 of 20, Line 9, Column (c)	1/	1,615,155	$0	$0	$0	$0
3	Net Depreciable Capital Included in Rate Base	Column (a) = Line 1 - Line 2; Column (b) = Prior Year Line 3		$20,868,713	$20,868,713	$20,868,713	$20,868,713	$20,868,713
	Change in Net Capital Included in Rate Base							
4	Capital Included in Rate Base	Line 1		$22,483,868	$0	$0	$0	$0
5	Depreciation expense	Per Compliance filing Docket No. 4323, excluding General Plant	2/	$4,060,176	$0	$0	$0	$0
6	Incremental Depreciable Amount	Column (a) = Line 4 - Line 5; Column (b) = Prior Year Line 6		$18,423,692	$18,423,692	$18,423,692	$18,423,692	$18,423,692
7	Cost of Removal	Page 14 of 20, Line 6, Column (c)	3/	($1,210,006)	($1,210,006)	($1,210,006)	($1,210,006)	($1,210,006)
8	**Net Plant Amount**	**Line 6 + Line 7**		**$17,213,686**	**$17,213,686**	**$17,213,686**	**$17,213,686**	**$17,213,686**
	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%	3.38%	3.38%
10	Tax Depreciation	Page 5 of 13, Line 20		$18,535,165	$205,409	$189,987	$175,760	$162,558
11	Cumulative Tax Depreciation	Prior Year Line 11 + Current Year Line 10		$18,535,165	$18,740,574	$18,930,561	$19,106,321	$19,268,879
12	Book Depreciation	Column (a) = Line 3 * Line 9 * 50% ; Column (b) = Line 3 * Line 9		$352,681	$705,362	$705,362	$705,362	$705,362
13	Cumulative Book Depreciation	Prior Year Line 13 + Current Year Line 12		$352,681	$1,058,044	$1,763,406	$2,468,769	$3,174,131
14	Cumulative Book / Tax Timer	Line 11 - Line 13		$18,182,484	$17,682,530	$17,167,155	$16,637,552	$16,094,748
15	Effective Tax Rate			35.00%	35.00%	35.00%	35.00%	35.00%
16	Deferred Tax Reserve	Line 14 * Line 15		$6,363,869	$6,188,886	$6,008,504	$5,823,143	$5,633,162
17	Less: FY 2014 Federal NOL	Lessor of Line 16 or Page 18 of 20, Line 10		($6,363,869)	($6,363,869)	($6,363,869)	($6,363,869)	($6,363,869)
18	Net Deferred Tax Reserve	Line 16 + Line 17		$0	($174,984)	($355,365)	($540,726)	($730,708)
	Rate Base Calculation:							
17	Cumulative Incremental Capital Included in Rate Base	Line 8		$17,213,686	$17,213,686	$17,213,686	$17,213,686	$17,213,686
18	Accumulated Depreciation	- Line 13		($352,681)	($1,058,044)	($1,763,406)	($2,468,769)	($3,174,131)
19	Deferred Tax Reserve	- Line 16		$0	$174,984	$355,365	$540,726	$730,708
20	Year End Rate Base	Sum of Lines 17 through 19		$16,861,005	$16,330,626	$15,805,645	$15,285,643	$14,770,263
	Revenue Requirement Calculation:							
21	Average Rate Base	Col (a) = Line 20 * Page 19, Line 16; Col (b) = (Prior Year Line 20 + Current Year Line 20) ÷ 2		$5,452,494	$16,595,816	$16,068,136	$15,545,644	$15,027,953
22	Pre-Tax ROR		4/	10.05%	10.05%	10.05%	10.05%	10.05%
23	Return and Taxes	Line 21 * Line 22		$547,976	$1,667,879	$1,614,848	$1,562,337	$1,510,309
24	Book Depreciation	Line 12		$352,681	$705,362	$705,362	$705,362	$705,362
25	Property Taxes		5/	$0	$0	$0	$0	$0
26	**Annual Revenue Requirement on Incremental FY14 Investment**	**Sum of Lines 23 through 25**		**$900,657**	**$2,373,242**	**$2,320,210**	**$2,267,700**	**$2,215,672**
27	Remaining FY14 NOL attributable to embedded rate base in RIPUC Docket 4323	Per Page 18 of 20, Line 10 less Line 17		$11,660,349	$11,660,349	$11,660,349	$11,660,349	$11,660,349
28	Average Rate Base	Col (a) = Line 27 * Page 20, Line 15; Col (b) = (Prior Year Line 27 + Current Year Line 27) ÷ 2		$6,801,870	$11,660,349	$11,660,349	$11,660,349	$11,660,349
29	Pre-Tax ROR		4/	10.05%	10.05%	10.05%	10.05%	10.05%
30	Return and Taxes	Line 27 * Line 28		$683,588	$1,171,865	$1,171,865	$1,171,865	$1,171,865
31	**Annual Revenue Requirement adjustment to base rates related to NOL**	**Line 30**		**$683,588**	**$1,171,865**	**$1,171,865**	**$1,171,865**	**$1,171,865**
32	**Total Annual Revenue Requirement**	**Line 26 + Line 31**		**$1,584,245**	**$3,545,107**	**$3,492,075**	**$3,439,565**	**$3,387,537**

1/ Actual Incremental Retirements
2/ Depreciation expense has been prorated for two months (February - March 2014).
3/ Actual Incremental Cost of Removal
4/ Weighted Average Cost of Capital as approved in R.I.P.U.C. Docket No. 4323

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

5/ Property taxes calculated on Pages 15 through 17 of 20 for all vintage years commencing with FY14 and reflected in total on Page 1 at Line 9.

The Narragansett Electric Company
d/b/a National Grid
FY 2017 Gas ISR Plan Revenue Requirement
Calculation of Tax Depreciation and Repairs Deduction on FY 2014 Capital Investments

Line No.				Fiscal Year 2014 (a)	Fiscal Year 2015 (b)	Fiscal Year 2016 (c)	Fiscal Year 2017 (d)	Fiscal Year 2018 (e)
	Capital Repairs Deduction							
1	Plant Additions	Page 4, Line 1		$22,483,868				
2	Capital Repairs Deduction Rate	Per Tax Department	1/	74.94%				
3	Capital Repairs Deduction	Line 1 x Line 2		$16,849,411				
	Bonus Depreciation							
4	Plant Additions	Line 1		$22,483,868				
5	Less Capital Repairs Deduction	Line 3		$16,849,411				
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5		$5,634,457				
7	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department		99.00%				
8	Plant Eligible for Bonus Depreciation	Line 6 x Line 7		$5,578,113				
9	Bonus Depreciation Rate (April 2013 - December 2013)	1 * 75% * 50%		37.50%				
10	Bonus Depreciation Rate (January 2014 - March 2014)	1 * 25% * 50%		12.50%				
11	Total Bonus Depreciation Rate	Line 9 + Line 10		50.00%				
12	Bonus Depreciation	Line 8 x Line 11		$2,789,057				
	Remaining Tax Depreciation							
13	Plant Additions	Line 1		$22,483,868				
14	Less Capital Repairs Deduction	Line 3		$16,849,411				
15	Less Bonus Depreciation	Line 12		$2,789,057				
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 13 - 14 - 15		$2,845,400	$2,845,400	$2,845,400	$2,845,400	$2,845,400
17	20 YR MACRS Tax Depreciation Rates	IRS Publication 946		3.750%	7.219%	6.677%	6.177%	5.713%
18	Remaining Tax Depreciation	Line 16 x Line 17		$106,703	$205,409	$189,987	$175,760	$162,558
19	Cost of Removal	Page 4, Line 7		($1,210,006)				
20	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 19		$18,535,165	$205,409	$189,987	$175,760	$162,558

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 2017 Gas ISR Plan Revenue Requirement
Computation of Revenue Requirement on FY2013 Actual Incremental Capital Investment

Line No.				Fiscal Year 2013 (a)	Fiscal Year 2014 (b)	Fiscal Year 2015 (c)	Fiscal Year 2016 (c)	Fiscal Year 2017 (c)	Fiscal Year 2018 (c)
	Depreciable Net Capital Included in Rate Base								
1	Total Allowed Capital Included in Rate Base in Current Year	Page 14 of 20, Line 3, Column (b)		($768,090)	$0	$0	$0	$0	$0
2	Retirements	Page 14 of 20, Line 9, Column (b)	1/	3,276,842	$0	$0	$0	$0	$0
3	Net Depreciable Capital Included in Rate Base	Line 1 - Line 2		($4,044,932)	($4,044,932)	($4,044,932)	($4,044,932)	($4,044,932)	($4,044,932)
	Change in Net Capital Included in Rate Base								
4	Capital Included in Rate Base	Line 1		($768,090)	($768,090)	($768,090)	($768,090)	($768,090)	($768,090)
5	Cost of Removal	Page 14 of 20, Line 6, Column (b)	2/	($1,548,831)	($1,548,831)	($1,548,831)	($1,548,831)	($1,548,831)	($1,548,831)
6	**Net Plant Amount**	**Line 4 + Line 5**		**($2,316,922)**	**($2,316,922)**	**($2,316,922)**	**($2,316,922)**	**($2,316,922)**	**($2,316,922)**
	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%	3.38%	3.38%	3.38%
8	Tax Depreciation	Page 5 of 13, Line 26		($2,205,165)	($8,382)	($7,753)	($7,172)	($6,633)	($6,136)
9	Cumulative Tax Depreciation	Col (a)= Current Yr Line 8; Col (b)= Prior Yr Line 9 + Current Yr Line 8		($2,205,165)	($2,213,547)	($2,221,300)	($2,228,472)	($2,235,105)	($2,241,242)
10	Book Depreciation	Column (a) = Line 3 * Line 7 * 50%; Column (b) = Line 3 * Line 7		($68,359)	($136,719)	($136,719)	($136,719)	($136,719)	($136,719)
11	Cumulative Book Depreciation	Line 10		($68,359)	($205,078)	($341,797)	($478,515)	($615,234)	($751,953)
12	Cumulative Book / Tax Timer	Line 9 - Line 11		($2,136,806)	($2,008,469)	($1,879,503)	($1,749,956)	($1,619,871)	($1,489,289)
13	Effective Tax Rate			35.00%	35.00%	35.000%	35.000%	35.000%	35.000%
14	Deferred Tax Reserve	Line 12 * Line 13		($747,882)	($702,964)	($657,826)	($612,485)	($566,955)	($521,251)
15	Less: FY 2013 Federal NOL			$0	$0	$0	$0	$0	$0
16	Net Deferred Tax Reserve	Line 14 - Line 15		($747,882)	($702,964)	($657,826)	($612,485)	($566,955)	($521,251)
	Rate Base Calculation:								
15	Cumulative Incremental Capital Included in Rate Base	Line 6		($2,316,922)	($2,316,922)	($2,316,922)	($2,316,922)	($2,316,922)	($2,316,922)
16	Accumulated Depreciation	- Line 11		$68,359	$205,078	$341,797	$478,515	$615,234	$751,953
17	Deferred Tax Reserve	- Line 14		$747,882	$702,964	$657,826	$612,485	$566,955	$521,251
18	Year End Rate Base	Sum of Lines 15 through 17		($1,500,680)	($1,408,879)	($1,317,299)	($1,225,921)	($1,134,733)	($1,043,718)
	Revenue Requirement Calculation:								
19	Average Rate Base	Col (a)= Current Yr Line 18 ÷ 2; Col (b) = (Prior Yr Line 18 + Current Yr Line 18) ÷ 2		($750,339)	($1,454,778)	($1,363,089)	($1,271,610)	($1,180,327)	($1,089,225)
20	Pre-Tax ROR		3/	11.18%	10.05%	10.05%	10.05%	10.05%	10.05%
21	Return and Taxes	Line 19 * Line 20		($83,888)	($146,205)	($136,990)	($127,797)	($118,623)	($109,467)
22	Book Depreciation	Line 10		($68,359)	($136,719)	($136,719)	($136,719)	($136,719)	($136,719)
23	Property Taxes	$0 in Year 1, then Prior Year (Line 6 - Line 11) * Property Tax Rate	4/	$0	($75,327)	($63,989)	($61,229)	($55,704)	($51,561)
24	**Annual Revenue Requirement on Incremental FY 2013 Investment**	**Sum of Lines 21 through 23**		**($152,247)**	**($358,251)**	**($337,698)**	**($325,744)**	**($311,045)**	**($297,747)**
25	Remaining FY13 NOL attributable to embedded rate base in RIPUC Docket 4323	Per Page 18 of 20, Line 10		$6,136,520	$6,136,520	$6,136,520	$6,136,520	$6,136,520	$6,136,520
26	Average Rate Base	Col (a) = Line 25 * 50%; Col (b) = (Prior Year Line 25 + Current Year Line 25) ÷ 2		$3,068,260	$6,136,520	$6,136,520	$6,136,520	$6,136,520	$6,136,520
27	Pre-Tax ROR		3/	11.18%	10.05%	10.05%	10.05%	10.05%	10.05%
28	Return and Taxes	Line 26 * Line 27		$343,031	$616,720	$616,720	$616,720	$616,720	$616,720
29	**Annual Revenue Requirement adjustment to base rates related to NOL**	**Line 28**		**$343,031**	**$616,720**	**$616,720**	**$616,720**	**$616,720**	**$616,720**
30	**Total Annual Revenue Requirement**	**Line 24 + Line 29**		**$190,784**	**$258,470**	**$279,022**	**$290,976**	**$305,675**	**$318,973**

1/ Actual Incremental Retirements
2/ Actual Incremental Cost of Removal
3/ Weighted Average Cost of Capital as approved in R.I.P.U.C. Docket No. 4323

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

4/ FY 2017 effective property tax rate of 3.03% per Page 16 of 20 at Line 67(h)

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

Line No.				Fiscal Year 2013 (a)	Fiscal Year 2014 (b)	Fiscal Year 2015 (c)	Fiscal Year 2016 (c)	Fiscal Year 2017 (c)	Fiscal Year 2018 (c)
	Capital Repairs Deduction								
1	Plant Additions	Page 4, Line 1(a)		($768,090)					
2	Capital Repairs Deduction Rate	Per Tax Department	1/	67.95%					
3	Capital Repairs Deduction	Line 1 x Line 2		($521,917)					
	Bonus Depreciation								
4	Plant Additions	Line 1		($768,090)					
5	Less Capital Repairs Deduction	Line 3		($521,917)					
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5		($246,173)					
7	Percent of Plant Eligible for 100% Bonus Depreciation	Per Tax Department	2/	5.67%					
8	Plant Eligible for 100% Bonus Depreciation	Line 6 x Line 7		($13,952)					
9	Bonus Depreciation Rate (April 2012 - December 2012)	1 * 75% * 100%		75.00%					
10	Bonus Depreciation Rate (January 2013 - March 2013)	1 * 25% * 100%		25.00%					
11	Total Bonus Depreciation Rate	Line 9 + Line 10		100.00%					
12	100% Bonus Depreciation	Line 8 x Line 11		($13,952)					
13	Plant Additions Net of Capital Repairs Deduction and 100% Bonus Depreciation	Line 6 - Line 12		($232,221)					
14	Plant Eligible for 50% Bonus Depreciation	Per Tax Department		100.00%					
15	Bonus Depreciation Rate (April 2012 - December 2012)	1 * 75% * 50%		37.50%					
16	Bonus Depreciation Rate (January 2013 - March 2013)	1 * 25% * 50%		12.50%					
17	Total Bonus Depreciation Rate	Line 9 + Line 10		50.00%					
18	50% Bonus Depreciation	Line 13 x Line 17		($116,111)					
	Remaining Tax Depreciation								
19	Plant Additions	Line 1		($768,090)					
20	Less Capital Repairs Deduction	Line 3		($521,917)					
21	Less Bonus Depreciation	Line 12 + Line 18		($130,063)					
22	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 19 - 20 - 21		($116,111)	($116,111)	($116,111)	($116,111)	($116,111)	($116,111)
23	20 YR MACRS Tax Depreciation Rates	IRS Publication 946		3.750%	7.219%	6.677%	6.177%	5.713%	5.285%
24	Remaining Tax Depreciation	Line 22 x Line 23		($4,354)	($8,382)	($7,753)	($7,172)	($6,633)	($6,136)
25	Cost of Removal	Page 4, Line 5(a)		($1,548,831)					
26	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 24, & 25		($2,205,165)	($8,382)	($7,753)	($7,172)	($6,633)	($6,136)

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

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

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

Line No.				Fiscal Year 2012 (a)	Fiscal Year 2013 (b)	Fiscal Year 2014 (c)	Fiscal Year 2015 (d)	Fiscal Year 2016 (e)	Fiscal Year 2017 (f)	Fiscal Year 2018 (g)
	Depreciable Net Capital Included in Rate Base									
1	Total Allowed Capital Included in Rate Base in Current Year	Page 14 of 20, Line 3, Column (a)		$6,816,729	$0	$0	$0	$0	$0	$0
2	Retirements	Page 14 of 20, Line 9, Column (a)	1/	2,292,446	$0	$0	$0	$0	$0	$0
3	Net Depreciable Capital Included in Rate Base	Column (a) = Line 1 - Line 2; Column (b) = Prior Year Line 3		$4,524,283	$4,524,283	$4,524,283	$4,524,283	$4,524,283	$4,524,283	$4,524,283
	Change in Net Capital Included in Rate Base									
4	Capital Included in Rate Base	Line 1		$6,816,729	$6,816,729	$6,816,729	$6,816,729	$6,816,729	$6,816,729	$6,816,729
5	Cost of Removal	Page 14 of 20, Line 6, Column (a)	2/	($3,171,476)	($3,171,476)	($3,171,476)	($3,171,476)	($3,171,476)	($3,171,476)	($3,171,476)
6	**Net Plant Amount**	**Line 4 + Line 5**		**$3,645,253**	**$3,645,253**	**$3,645,253**	**$3,645,253**	**$3,645,253**	**$3,645,253**	**$3,645,253**
	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%	3.38%	3.38%	3.38%	3.38%
8	Tax Depreciation	Page 8 of 13, Line 20		$3,097,659	$41,071	$37,987	$35,143	$32,503	$30,068	$27,809
9	Cumulative Tax Depreciation	Prior Year Line 9 + Current Year Line 8		$3,097,659	$3,138,730	$3,176,717	$3,211,860	$3,244,363	$3,274,431	$3,302,240
10	Book Depreciation	Column (a) = Line 3 * Line 7 * 50%; Columns (b) & (c) = Line 3 * Line 7		$76,460	$152,921	$152,921	$152,921	$152,921	$152,921	$152,921
11	Cumulative Book Depreciation	Prior Year Line 11 + Current Year Line 10		$76,460	$229,381	$382,302	$535,223	$688,143	$841,064	$993,985
12	Cumulative Book / Tax Timer	Line 9 - Line 11		$3,021,199	$2,909,349	$2,794,415	$2,676,637	$2,556,220	$2,433,367	$2,308,255
13	Effective Tax Rate			35.00%	35.00%	35.000%	35.000%	35.000%	35.000%	35.000%
14	Deferred Tax Reserve	Line 12 * Line 13		$1,057,420	$1,018,272	$978,045	$936,823	$894,677	$851,678	$807,889
15	Less: FY 2012 Federal NOL	Lessor of Line 15 or Page 18 of 20, Line 10		($1,057,420)	($1,057,420)	($1,057,420)	($1,057,420)	($1,057,420)	($1,057,420)	($1,057,420)
16	Net Deferred Tax Reserve	Line 14 + Line 15		$0	($39,147)	($79,374)	($120,596)	($162,743)	($205,741)	($249,530)
	Rate Base Calculation:									
17	Cumulative Incremental Capital Included in Rate Base	Line 6		$3,645,253	$3,645,253	$3,645,253	$3,645,253	$3,645,253	$3,645,253	$3,645,253
18	Accumulated Depreciation	- Line 11		($76,460)	($229,381)	($382,302)	($535,223)	($688,143)	($841,064)	($993,985)
19	Deferred Tax Reserve	- Line 16		$0	$39,147	$79,374	$120,596	$162,743	$205,741	$249,530
20	Year End Rate Base	Sum of Lines 17 through 19		$3,568,792	$3,455,019	$3,342,325	$3,230,626	$3,119,852	$3,009,930	$2,900,798
	Revenue Requirement Calculation:									
21	Average Rate Base	Column (a) = Current Yr Line 120 ÷ 2; Column (b) & (c) = (Prior Yr Line 20 + Current Yr Line 20) ÷ 2		$1,784,396	$3,511,906	$3,398,672	$3,286,476	$3,175,239	$3,064,891	$2,955,364
22	Pre-Tax ROR		3/	11.41%	11.18%	10.05%	10.05%	10.05%	10.05%	10.05%
23	Return and Taxes	Line 21 * Line 22		$203,600	$392,631	$341,567	$330,291	$319,112	$308,022	$297,014
24	Book Depreciation	Line 10		$76,460	$152,921	$152,921	$152,921	$152,921	$152,921	$152,921
25	Property Taxes	$0 in Year 1, then Prior Year (Line 6- Line 11) * Property Tax Rate	4/	$0	$48,144	$114,432	$98,867	$96,411	$89,600	$84,967
26	**Annual Revenue Requirement**	**Sum of Lines 23 through 25**		**$280,060**	**$593,696**	**$608,919**	**$582,079**	**$568,443**	**$550,543**	**$534,902**
27	Remaining FY12 NOL attributable to embedded rate base in RIPUC Docket 4323	Per Page 18 of 20, Line 10 less Line 15		$5,210,642	$5,210,642	$5,210,642	$5,210,642	$5,210,642	$5,210,642	$5,210,642
28	Average Rate Base	Col (a) = Line 27 * 50%; Col (b) = (Prior Year Line 27 + Current Year Line 27) ÷ 2		$2,605,321	$5,210,642	$5,210,642	$5,210,642	$5,210,642	$5,210,642	$5,210,642
29	Pre-Tax ROR		3/	11.41%	11.18%	10.05%	10.05%	10.05%	10.05%	10.05%
30	Return and Taxes	Line 28 * Line 29		$297,267	$582,550	$523,670	$523,670	$523,670	$523,670	$523,670
31	**Annual Revenue Requirement adjustment to base rates related to NOL**	**Line 30**		**$297,267**	**$582,550**	**$523,670**	**$523,670**	**$523,670**	**$523,670**	**$523,670**
32	**Total Annual Revenue Requirement**	**Line 26 + Line 31**		**$577,327**	**$1,176,246**	**$1,132,588**	**$1,105,748**	**$1,092,113**	**$1,074,212**	**$1,058,571**

1/ Actual Incremental Retirements
2/ Actual Incremental Cost of Removal
3/ Weighted Average Cost of Capital as approved in R.I.P.U.C. Docket No. 4323

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

4/ FY 2017 effective property tax rate of 3.03% per Page 16 of 20 at Line 67(h)

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

Line No.				Fiscal Year 2012 (a)	Fiscal Year 2013 (b)	Fiscal Year 2014 (c)	Fiscal Year 2015 (d)	Fiscal Year 2016 (e)	Fiscal Year 2017 (f)	Fiscal Year 2018 (g)
	Capital Repairs Deduction									
1	Plant Additions	Page 7, Line 1		$6,816,729						
2	Capital Repairs Deduction Rate	Per Tax Department	1/	67.43%						
3	Capital Repairs Deduction	Line 1 x Line 2		$4,596,520						
	Bonus Depreciation									
4	Plant Additions	Line 1		$6,816,729						
5	Less Capital Repairs Deduction	Line 3		$4,596,520						
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5		$2,220,209						
7	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department	2/	85.00%						
8	Plant Eligible for Bonus Depreciation	Line 6 x Line 7		$1,887,177						
9	Bonus Depreciation Rate (April 2011 - December 2011)	1 * 75% * 100%		75.00%						
10	Bonus Depreciation Rate (January 2012 - March 2012)	1 * 25% * 50%		12.50%						
11	Total Bonus Depreciation Rate	Line 9 + Line 10		87.50%						
12	Bonus Depreciation	Line 8 x Line 11		$1,651,280						
	Remaining Tax Depreciation									
13	Plant Additions	Line 1		$6,816,729						
14	Less Capital Repairs Deduction	Line 3		$4,596,520						
15	Less Bonus Depreciation	Line 12		$1,651,280						
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 13 - 14 - 15		$568,929	$568,929	$568,929	$568,929	$568,929	$568,929	$568,929
17	20 YR MACRS Tax Depreciation Rates	IRS Publication 946		3.750%	7.219%	6.677%	6.177%	5.713%	5.285%	4.888%
18	Remaining Tax Depreciation	Line 16 x Line 17		$21,335	$41,071	$37,987	$35,143	$32,503	$30,068	$27,809
19	Cost of Removal	Page 7, Line 5		($3,171,476)						
20	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 19		$3,097,659	$41,071	$37,987	$35,143	$32,503	$30,068	$27,809

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

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

The Narragansett Electric Company
d/b/a National Grid
FY 2017 Gas ISR Plan Revenue Requirement
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; Col (b) Docket No. 4306 FY 2013 ISR Reconciliation Filing; Col (c) Actual FY2014 ISR Gas Capital Investment per Company's Books	$54,681,347	$56,460,955	$70,404,045
2a	Less: Internal Audit Adjustments	Per Docket No. 4474	($203,902)	($44,855)	($266,685)
2b	ISR-eligible Capital Investment adjusted	Line 1 + Line 2a	$54,477,445	$56,416,101	$70,137,361
2c	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 2b - Line 2c	$6,816,729	($768,090)	$22,483,868
	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
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 5	($3,171,476)	($1,548,831)	($1,210,006)
	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 2017 Gas ISR Plan Revenue Requirement
Forecasted FY 2017 Property Tax Recovery Adjustment
($000s)

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line	Effective Tax Rate Calculation	RY End	ISR Additions	Non-ISR Add's	Total Add's	Bk Depr	Retirements	COR	End of FY14
									As filed
1	Plant In Service	$805,721	$11,734	$994	$12,728		($879)		$817,569
2									
3	Accumulated Depr	$347,664				$4,691	($879)	($451)	$351,025
4									
5	Net Plant	$458,057							$466,544
6									
7	Property Tax Expense	$13,995							$15,624
8									
9	Effective Prop tax Rate	3.06%							3.35%
10									
11									
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	$74,915	$21,927	$96,842		($7,969)		$906,442
15									
16	Accumulated Depr	$351,025				$30,032	($7,969)	($2,425)	$370,663
17									
18	Net Plant	$466,544							$535,779
19									
20	Property Tax Expense	$15,624							$16,221
21									
22	Effective Prop tax Rate	3.35%							3.03%
23									
24									
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	$906,442	$72,528	$25,749	$98,277		($5,432)		$999,287
28									
29	Accumulated Depr	$370,663				$33,103	($5,432)	($3,714)	$394,620
30									
31	Net Plant	$535,779							$604,666
32									
33	Property Tax Expense	$16,221							$18,745
34									
35	Effective Prop tax Rate	3.03%							3.10%
36									

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
37												
38	**Property Tax Recovery Calculation**											
39		Cumulative Incremental ISR Property Tax for FY14				Cumulative Incremental ISR Property Tax for FY15				Cumulative Incremental ISR Property Tax for FY16		
40												
41	ISR Additions		$11,734				$74,915				$72,528	
42	Book Depreciation: base allowance on ISR eligible plant		($4,060)				($24,356)				($24,356)	
43	Book Depreciation: current year ISR additions		($631)				($1,172)				($1,134)	
44	COR		$451				$2,425				$3,714	
45												
46	Net Plant Additions		$7,494				$51,812				$50,752	
47												
48	Rate Year Effective Tax Rate		3.06%				3.06%				3.06%	
49	Property Tax Recovery on 2 mos FY14 vintage investment			$229				$236				$225
50	Property Tax Recovery on FY15 vintage investment							$1,583				$1,514
51	Property Tax Recovery on FY16 investment											$1,551
52												
53	ISR Year Effective Tax Rate	3.35%				3.03%				3.10%		
54	RY Effective Tax Rate & differential	3.06%	0.29%			3.06%	-0.03%			3.06%	0.04%	
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	* 0.04%	$205
57	2 mos FY14 Net Adds times ISR Year Effective Tax rate	$7,494	* 0.29%	$22		$7,727	* -0.03%	($2)		$7,360	* 0.04%	$3
58	FY15 Net Adds times ISR Year Effective Tax rate					$51,812	* -0.03%	($13)		$49,549	* 0.04%	$22
59	FY16 Net Adds times ISR Year Effective Tax rate									$50,752	* 0.04%	$23
60	Total Property Tax related to rate differential			$247				($131)				$253
61												
62	Total ISR Property Tax Recovery			$476				$1,688				$3,542

The Narragansett Electric Company
d/b/a National Grid
FY 2017 Gas ISR Plan Revenue Requirement
Forecasted FY 2017 Property Tax Recovery Adjustment (continued)
($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
63	Plant In Service	$999,287	$82,515	$29,226	$111,741		($6,131)		$1,104,897
64	Accumulated Depr	$394,620				$36,457	($6,131)	$2,961	$427,908
65	Net Plant	$604,666							$676,989
66	Property Tax Expense	$18,745							$20,513
67	Effective Prop tax Rate	3.10%							3.03%

	Property Tax Recovery Calculation	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
			Cumulative Incremental ISR Property Tax for FY17									
68	ISR Additions		$82,515									
69	Book Depreciation: base allowance on ISR eligible plant		($24,356)									
70	Book Depreciation: current year ISR additions		($1,291)									
71	COR		$2,961									
72												
73	Net Plant Additions		$59,830	$61,799								
74												
75	Rate Year Effective Tax Rate		3.06%									
76	Property Tax Recovery on 2 mos FY14 vintage investment			$213								
77	Property Tax Recovery on FY15 vintage investment			$1,422								
78	Property Tax Recovery on FY16 investment			$1,455								
79	Property Tax Recovery on FY17 investment			$1,828								
80												
81	ISR Year Effective Tax Rate	3.03%										
82	RY Effective Tax Rate & differential	3.06%	-0.03%									
83	RY Net Plant times Tax Rate differential	$458,057	* -0.03%	($116)								
84	2 mos FY14 Net Adds times ISR Year Effective Tax rate	$6,960	* -0.03%	($2)								
85	FY15 Net Adds times ISR Year Effective Tax rate	$46,545	* -0.03%	($12)								
86	FY16 Net Adds times ISR Year Effective Tax rate	$47,614	* -0.03%	($12)								
87	FY17 Net Adds times ISR Year Effective Tax rate	$59,830	* -0.03%	($15)								
88	Total Property Tax related to rate differential			($157)								
89												
90	Total ISR Property Tax Recovery			$4,761								

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

Line	Notes
1(a) - 9(a)	Per Rate Year cost of service per Compliance filing Attachment 6 at Docket No. 4323.
1(b) - 9(h)	Per Docket 4380 FY 2014 Gas ISR Plan Reconciliation filing at Page 10 of 13.
12(a) - 22(h)	Per Docket 4474 FY 2015 Gas ISR Plan Reconciliation filing at Page 12 of 17.
27(a)-35(h)	Per Docket 4540 FY 2016 Gas ISR Plan Proposal Compliance filing at Page 13 of 15.
41(a) - 62(c)	Per Docket 4380 FY 2014 Gas ISR Plan Reconciliation filing at Page 10 of 13.
41(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 Proposal Compliance filing at Page 13 of 15.
63(a)	Per Line 27(h)
63(b)	Per Page 2 of 20, Line 1
63(c)	FY 2017 forecasted Growth investment of $27,876k and General Plant of $1,350k.
63(d)	Line 63(b) + Line 63(c)
63(f)	Per Page 2 of 20, Line 2
63(h)	Line 63(a) + Line 63(d) +Line 63(f)
64(a)	Per Line 29(h)
64(e)	Rate Year depn allowance of $28,130k + (Line 1(d)+Line 1(f)* composite depn rate of 3.38%) + (Line 14(d)+Line 14(f)*3.38%) +(Line 27(d)+Line 27(f)* 3.38%)+(Line 63(d)+Line 63(f)*3.38%*50%)
64(f)	Line 63(f)
64(g)	Per Page 2 of 20, Line 7
64(h)	Line 64(a) + Line 64(e) + Line 64(f) + Line 64(g)
65	Line 63 - Line 64
66(a)	Line 33(h)
66(h)	Line 65(h) * Line 67(h)
67(a)	Line 35(h)
67(h)	Line 22(h); effective tax rate per FY 2015 Gas ISR reconciliation filing
68	Line 63(b)
69	Per Page 2 of 20, Line 5
70	Per Page 2 of 20, Line 12
71	Per Line 64(g)
73	Sum of Lines 68 through 71
75	Line 9(a)
76	Line 75*Line 84(a)
77	Line 75*Line 85(a)
78	Line 75*Line 86(a)
79	Line 75*Line 87(a)
81	Line 67(h)
82(a)	Line 9(a)
82(b)	Line 81 - Line 82(a)
83(a)	Line 5(a)
84(a)	Line 57(i) - ((Line 1(d)+Line 1(f))*3.38%)
85(a)	Line 58(i) - ((Line 14(d)+Line 14(f))*3.38%)
86(a)	Line 59(i) - ((Line 27(d)+Line27(f))*3.38%)
87(a)	Line 73
83(b)-87(b)	Line 82(b)
83(c)-87(c)	Lines 83 through 87, Col (a) * Col (b)
88	Sum of Lines 83(c) through 87(c)
90	Sum of Lines 76 through 79 + Line 88

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

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
							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 2012	FY 2013	FY 2014	FY 2015	FY 2016
2	Total Base Rate Plant DIT Provision						$17,193,641	$18,309,741	$11,577,639	$0	$0
3	Incremental FY 12	$1,121,846	$1,080,717	$1,038,476	$995,209	$950,991	$1,121,846	($41,129)	($42,241)	($43,267)	($44,218)
4	Incremental FY 13	$0	($734,732)	($690,174)	($645,408)	($600,451)	$0	($734,732)	$44,558	$44,766	$44,957
5	Incremental FY 14	$0	$0	$6,444,262	$6,266,976	$6,084,229	$0	$0	$6,444,262	($177,286)	($182,747)
6	FY 2015	$0	$0	$0	$19,944,225	$19,572,840	$0	$0	$0	$19,944,225	($371,385)
7	FY 2016	$0	$0	$0	$0	$19,399,366	$0	$0	$0	$0	$19,399,366
8	TOTAL Plant DIT Provision	$ 1,121,846	$ 345,985	$ 6,792,564	$ 26,561,002	$ 45,406,975	$ 18,315,487	$ 17,533,880	$ 18,024,218	$ 19,768,438	$ 18,845,973
9	NOL						$ 6,268,061	$ 6,136,520	$ 23,775,494	TBD	TBD
10	Lesser of NOL or DIT Provision						$ 6,268,061	$ 6,136,520	$ 18,024,218	TBD	TBD

Line Notes:

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

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

Line No.	Month No.	Month	FY 2014 ISR Additions (a)	In Rates (b)	Not In Rates (c) = (a) - (b)	Weight (d)	Weighted Average (e) = (d) * (c)
1				$57,184,191			
2	1	Apr-13	$5,844,780	4,765,349	$1,079,431	0.958	$1,034,455
3	2	May-13	5,844,780	4,765,349	1,079,431	0.875	944,502
4	3	Jun-13	5,844,780	4,765,349	1,079,431	0.792	854,549
5	4	Jul-13	5,844,780	4,765,349	1,079,431	0.708	764,597
6	5	Aug-13	5,844,780	4,765,349	1,079,431	0.625	674,644
7	6	Sep-13	5,844,780	4,765,349	1,079,431	0.542	584,692
8	7	Oct-13	5,844,780	4,765,349	1,079,431	0.458	494,739
9	8	Nov-13	5,844,780	4,765,349	1,079,431	0.375	404,787
10	9	Dec-13	5,844,780	4,765,349	1,079,431	0.292	314,834
11	10	Jan-14	5,844,780	4,765,349	1,079,431	0.208	224,881
12	11	Feb-14	5,844,780	-	5,844,780	0.125	730,598
13	12	Mar-14	5,844,780	-	5,844,780	0.042	243,533
14	Total FY 2014		$70,137,361	$47,653,493	$22,483,868		$7,270,810
15	**Total Additions February & March 2014**				**$11,689,560**		
16	**FY 2014 Weighted Average Incremental Rate Base Percentage**						**32.34%**

Column (a) = Page 9 Line 1 (c)
Column (b) = Page 9 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 2017 Gas ISR Plan Revenue Requirement
Weighted ISR Deferred Tax Provision FY 2014

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

Column (a) = Page 4 Line 18(a)
Column (b) = Page 14 Line 1(i) and Line 2(h). Lines 2 through 11 = 1/12th of Line 1.
Column (d) = (12.5 - Month No.) ÷ 12
Line 15 = Line 14(e)/Line 14(c)

Section 4
Rate Design & Bill Impacts

Section 4

Rate Design and Bill Impacts
FY 2017 Proposal

Rate Design and Bill Impacts
FY 2017 Proposal

Like the revenue requirement, the proposed ISR rate design for FY 2017 is based on incremental capital investment in excess of capital investment that has been reflected in rate base in the Company's latest base rate case, Docket No. 4323, as well as incremental O&M as described in Section 2, and the property tax described in Section 3 in accordance with the property tax recovery mechanism included in the rate case settlement. For purposes of rate design, the revenue requirement associated with the capital investment and the property tax recovery is allocated to rate classes based upon the rate base allocator from the Company's Settlement agreement in Docket No. 4323. The incremental O&M expense associated with hiring, training, and supervising additional personnel to support an increase in Main Replacement work for FY 2017 has been allocated to all rate classes on a per-unit basis. The throughput has been updated for the April 2016 through March 2017 period based upon the most recent forecast filed in the Company's Gas Cost Recovery filing in Docket No. 4576. Attachment 1 of this section provides the proposed ISR factors by rate class. Attachment 2 of this section provides the FY 2017 ISR bill impact[10] associated with the rate design in Attachment 1 by rate class. For the average residential heating customer utilizing 846 therms, the cumulative impact of the FY 2017 ISR Plan will represent an annual increase of $23.59, or 2.1%.

[10] Bill impacts are provided using rates approved and currently in effect as of November 1, 2015.

Line No.

Line No.	FY 2017 Revenue Requirement	Rate Class	Rate Base Allocator (%)	Allocation to Rate Class ($)	Throughput (dth)	CapEx Factor (dth)	CapEx Factor (therm)	O&M Allocation (therm)	Total ISR Factor (therm)	Uncollectible %	ISR Factor (therm)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	$23,085,294										
2	$571,000										
3		Res-NH	3.73%	$861,315	680,857	$1.2650	$0.1265	$0.0014	$0.1279	3.18%	$0.1321
4		Res-H	61.56%	$14,210,879	18,618,817	$0.7632	$0.0763	$0.0014	$0.0777	3.18%	$0.0802
5		Small	8.19%	$1,889,998	2,744,538	$0.6886	$0.0688	$0.0014	$0.0702	3.18%	$0.0725
6		Medium	13.58%	$3,135,751	6,208,427	$0.5050	$0.0505	$0.0014	$0.0519	3.18%	$0.0536
7		Large LL	6.04%	$1,393,655	2,976,064	$0.4682	$0.0468	$0.0014	$0.0482	3.18%	$0.0497
8		Large HL	2.35%	$543,504	1,217,231	$0.4465	$0.0446	$0.0014	$0.0460	3.18%	$0.0475
9		XL-LL	0.77%	$177,509	1,289,288	$0.1376	$0.0137	$0.0014	$0.0151	3.18%	$0.0155
10		XL-HL	3.78%	$872,683	6,070,062	$0.1437	$0.0143	$0.0014	$0.0157	3.18%	$0.0162
11		Total	100.00%	$23,085,294	39,805,284						

(a) Line 1: Proposed Capital Revenue Requirement & Forecasted Annual Property Tax Recovery Mechanism (Section 3, Attachment 1, Page 1, Line 8 + Line 9)
(a) Line 2: Proposed O&M (Section 3, Attachment 1, Page 1, Line 1)
(c) Docket 4323, RI 2012 Rate Case
(d) Column (a) Line 1 * Column (c)
(e) Page 2, Column (m), Line 9
(f) Column (d) / Column (e), truncated to 4 decimal places
(g) Column (d) / (Column (e)*10), truncated to 4 decimal places
(h) Column (a) Line 2 / (Column (e) Line 11 * 10)
(i) Column (g) + Column (h)
(j) Docket 4323, RI 2012 Rate Case
(k) Column (i) / (1- Column (j)), truncated to 4 decimal places

Forecasted Throughput April 2016 - March 2017

Line No.		Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Total
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1	Res-NH	87,291	46,799	31,200	24,471	22,307	24,221	28,799	47,133	70,003	85,641	105,392	107,599	680,857
2	Res-H	2,124,881	1,241,085	751,389	425,245	352,061	402,675	561,110	1,498,992	2,397,176	2,958,981	3,134,868	2,770,354	18,618,817
3	Small	284,086	183,207	98,723	59,708	45,820	48,939	71,448	162,701	432,914	499,494	449,249	408,248	2,744,538
4	Medium	646,050	395,507	243,192	202,482	178,069	180,123	246,393	433,330	745,366	960,916	1,052,200	924,798	6,208,427
5	Large LL	277,780	177,316	90,375	57,303	47,629	62,819	133,210	254,753	460,575	531,859	465,202	417,244	2,976,064
6	Large HL	106,329	87,434	81,426	76,676	77,128	74,285	82,377	92,588	122,454	142,977	142,821	130,735	1,217,231
7	X-Large LL	109,943	77,210	40,969	28,653	20,455	25,797	88,741	129,903	201,866	227,069	178,581	160,100	1,289,288
8	X-Large HL	465,429	426,966	412,940	410,885	456,167	473,724	505,396	545,911	605,333	653,980	569,555	543,778	6,070,062
9		4,101,788	2,635,524	1,750,213	1,285,422	1,199,637	1,292,583	1,717,475	3,165,312	5,035,687	6,060,918	6,097,869	5,462,856	39,805,284

Source: Company forecast

National Grid - RI Gas
Infrastructure, Safety, and Reliability (ISR) Filing
Bill Impact Analysis with Various Levels of Consumption:

Residential Heating:

Line No.		Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Difference due to: GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
(1)												
(2)												
(3)												
(4)			---	---	---	---	---	---	---	---	---	---
(5)		550	$819.19	$803.85	$15.34	1.9%	$0.00	$0.00	$14.88	$0.00	$0.00	$0.46
(6)		608	$887.19	$870.22	$16.97	1.9%	$0.00	$0.00	$16.46	$0.00	$0.00	$0.51
(7)		667	$956.24	$937.62	$18.62	2.0%	$0.00	$0.00	$18.06	$0.00	$0.00	$0.56
(8)		727	$1,025.49	$1,005.19	$20.30	2.0%	$0.00	$0.00	$19.69	$0.00	$0.00	$0.61
(9)		788	$1,092.76	$1,070.74	$22.02	2.1%	$0.00	$0.00	$21.36	$0.00	$0.00	$0.66
(10)	**Average Customer**	846	$1,155.38	$1,131.79	$23.59	2.1%	$0.00	$0.00	$22.88	$0.00	$0.00	$0.71
(11)		904	$1,218.19	$1,192.94	$25.25	2.1%	$0.00	$0.00	$24.49	$0.00	$0.00	$0.76
(12)		966	$1,285.13	$1,258.16	$26.98	2.1%	$0.00	$0.00	$26.17	$0.00	$0.00	$0.81
(13)		1,023	$1,346.52	$1,317.97	$28.55	2.2%	$0.00	$0.00	$27.69	$0.00	$0.00	$0.86
(14)		1,081	$1,408.19	$1,377.97	$30.22	2.2%	$0.00	$0.00	$29.31	$0.00	$0.00	$0.91
(15)		1,145	$1,475.30	$1,443.29	$32.01	2.2%	$0.00	$0.00	$31.05	$0.00	$0.00	$0.96

Residential Heating Low Income:

		Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Difference due to: GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
(16)												
(17)												
(18)												
(19)			---	---	---	---	---	---	---	---	---	---
(20)		550	$776.70	$761.36	$15.34	2.0%	$0.00	$0.00	$14.88	$0.00	$0.00	$0.46
(21)		608	$841.96	$824.99	$16.97	2.1%	$0.00	$0.00	$16.46	$0.00	$0.00	$0.51
(22)		667	$908.23	$889.62	$18.62	2.1%	$0.00	$0.00	$18.06	$0.00	$0.00	$0.56
(23)		727	$974.76	$954.47	$20.30	2.1%	$0.00	$0.00	$19.69	$0.00	$0.00	$0.61
(24)		788	$1,039.58	$1,017.56	$22.02	2.2%	$0.00	$0.00	$21.36	$0.00	$0.00	$0.66
(25)	**Average Customer**	846	$1,099.98	$1,076.39	$23.59	2.2%	$0.00	$0.00	$22.88	$0.00	$0.00	$0.71
(26)		904	$1,160.59	$1,135.34	$25.25	2.2%	$0.00	$0.00	$24.49	$0.00	$0.00	$0.76
(27)		966	$1,225.18	$1,198.20	$26.98	2.3%	$0.00	$0.00	$26.17	$0.00	$0.00	$0.81
(28)		1,023	$1,284.42	$1,255.87	$28.55	2.3%	$0.00	$0.00	$27.69	$0.00	$0.00	$0.86
(29)		1,081	$1,343.98	$1,313.77	$30.22	2.3%	$0.00	$0.00	$29.31	$0.00	$0.00	$0.91
(30)		1,145	$1,408.87	$1,376.86	$32.01	2.3%	$0.00	$0.00	$31.05	$0.00	$0.00	$0.96

Note: Bill impacts are based on rates approved and currently in effect as of November 1, 2015.

National Grid - RI Gas
Infrastructure, Safety, and Reliability (ISR) Filing
Bill Impact Analysis with Various Levels of Consumption:

Line No.

Residential Non-Heating:

						Difference due to:					
	Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
(35)	140	$336.96	$329.30	$7.66	2.3%	$0.00	$0.00	$7.43	$0.00	$0.00	$0.23
(36)	155	$354.83	$346.36	$8.46	2.4%	$0.00	$0.00	$8.21	$0.00	$0.00	$0.25
(37)	171	$374.02	$364.64	$9.38	2.6%	$0.00	$0.00	$9.10	$0.00	$0.00	$0.28
(38)	184	$389.44	$379.37	$10.06	2.7%	$0.00	$0.00	$9.76	$0.00	$0.00	$0.30
(39)	198	$406.16	$395.35	$10.80	2.7%	$0.00	$0.00	$10.48	$0.00	$0.00	$0.32
(40) **Average Customer**	214	$424.88	$413.20	$11.68	2.8%	$0.00	$0.00	$11.33	$0.00	$0.00	$0.35
(41)	228	$441.98	$429.51	$12.47	2.9%	$0.00	$0.00	$12.10	$0.00	$0.00	$0.37
(42)	244	$461.09	$447.75	$13.34	3.0%	$0.00	$0.00	$12.94	$0.00	$0.00	$0.40
(43)	258	$477.83	$463.74	$14.09	3.0%	$0.00	$0.00	$13.67	$0.00	$0.00	$0.42
(44)	275	$498.07	$483.05	$15.02	3.1%	$0.00	$0.00	$14.57	$0.00	$0.00	$0.45
(45)	288	$513.63	$497.87	$15.75	3.2%	$0.00	$0.00	$15.28	$0.00	$0.00	$0.47

Residential Non-Heating Low Income:

						Difference due to:					
	Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
(50)	140	$314.54	$306.88	$7.66	2.5%	$0.00	$0.00	$7.43	$0.00	$0.00	$0.23
(51)	155	$331.73	$323.27	$8.46	2.6%	$0.00	$0.00	$8.21	$0.00	$0.00	$0.25
(52)	171	$350.20	$340.82	$9.38	2.8%	$0.00	$0.00	$9.10	$0.00	$0.00	$0.28
(53)	184	$365.03	$354.96	$10.06	2.8%	$0.00	$0.00	$9.76	$0.00	$0.00	$0.30
(54)	198	$381.11	$370.31	$10.80	2.9%	$0.00	$0.00	$10.48	$0.00	$0.00	$0.32
(55) **Average Customer**	214	$399.13	$387.45	$11.68	3.0%	$0.00	$0.00	$11.33	$0.00	$0.00	$0.35
(56)	228	$415.58	$403.10	$12.47	3.1%	$0.00	$0.00	$12.10	$0.00	$0.00	$0.37
(57)	244	$433.97	$420.63	$13.34	3.2%	$0.00	$0.00	$12.94	$0.00	$0.00	$0.40
(58)	258	$450.07	$435.98	$14.09	3.2%	$0.00	$0.00	$13.67	$0.00	$0.00	$0.42
(59)	275	$469.54	$454.52	$15.02	3.3%	$0.00	$0.00	$14.57	$0.00	$0.00	$0.45
(60)	288	$484.51	$468.76	$15.75	3.4%	$0.00	$0.00	$15.28	$0.00	$0.00	$0.47

Note: Bill impacts are based on rates approved and currently in effect as of November 1, 2015.

National Grid - RI Gas
Infrastructure, Safety, and Reliability (ISR) Filing
Bill Impact Analysis with Various Levels of Consumption:

C & I Small:

Line No.		Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Difference due to: GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
(61)												
(62)												
(63)												
(64)			---	---	---	---	---	---	---	---	---	---
(65)		880	$1,323.89	$1,305.48	$18.41	1.4%	$0.00	$0.00	$17.86	$0.00	$0.00	$0.55
(66)		973	$1,420.27	$1,399.90	$20.37	1.5%	$0.00	$0.00	$19.76	$0.00	$0.00	$0.61
(67)		1,067	$1,516.94	$1,494.58	$22.36	1.5%	$0.00	$0.00	$21.69	$0.00	$0.00	$0.67
(68)		1,162	$1,612.22	$1,587.89	$24.33	1.5%	$0.00	$0.00	$23.60	$0.00	$0.00	$0.73
(69)		1,258	$1,702.76	$1,676.42	$26.34	1.6%	$0.00	$0.00	$25.55	$0.00	$0.00	$0.79
(70)	**Average Customer**	1,352	$1,790.28	$1,762.02	$28.27	1.6%	$0.00	$0.00	$27.42	$0.00	$0.00	$0.85
(71)		1,446	$1,878.68	$1,848.39	$30.29	1.6%	$0.00	$0.00	$29.38	$0.00	$0.00	$0.91
(72)		1,542	$1,968.19	$1,935.92	$32.27	1.7%	$0.00	$0.00	$31.30	$0.00	$0.00	$0.97
(73)		1,635	$2,055.08	$2,020.85	$34.23	1.7%	$0.00	$0.00	$33.20	$0.00	$0.00	$1.03
(74)		1,730	$2,142.77	$2,106.56	$36.22	1.7%	$0.00	$0.00	$35.13	$0.00	$0.00	$1.09
(75)		1,825	$2,230.46	$2,192.26	$38.20	1.7%	$0.00	$0.00	$37.05	$0.00	$0.00	$1.15

C & I Medium:

		Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Difference due to: GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
(76)												
(77)												
(78)												
(79)			---	---	---	---	---	---	---	---	---	---
(80)		7,941	$8,302.36	$8,211.49	$90.87	1.1%	$0.00	$0.00	$88.14	$0.00	$0.00	$2.73
(81)		8,796	$9,102.45	$9,001.78	$100.67	1.1%	$0.00	$0.00	$97.65	$0.00	$0.00	$3.02
(82)		9,650	$9,901.01	$9,790.62	$110.39	1.1%	$0.00	$0.00	$107.08	$0.00	$0.00	$3.31
(83)		10,505	$10,701.12	$10,580.92	$120.20	1.1%	$0.00	$0.00	$116.59	$0.00	$0.00	$3.61
(84)		11,361	$11,501.46	$11,371.49	$129.97	1.1%	$0.00	$0.00	$126.07	$0.00	$0.00	$3.90
(85)	**Average Customer**	12,217	$12,302.08	$12,162.27	$139.80	1.1%	$0.00	$0.00	$135.61	$0.00	$0.00	$4.19
(86)		13,073	$13,102.66	$12,953.08	$149.58	1.2%	$0.00	$0.00	$145.09	$0.00	$0.00	$4.49
(87)		13,928	$13,902.19	$13,742.81	$159.38	1.2%	$0.00	$0.00	$154.60	$0.00	$0.00	$4.78
(88)		14,782	$14,701.43	$14,532.27	$169.15	1.2%	$0.00	$0.00	$164.08	$0.00	$0.00	$5.07
(89)		15,637	$15,500.91	$15,321.98	$178.93	1.2%	$0.00	$0.00	$173.56	$0.00	$0.00	$5.37
(90)		16,492	$16,300.99	$16,112.30	$188.69	1.2%	$0.00	$0.00	$183.03	$0.00	$0.00	$5.66

Note: Bill impacts are based on rates approved and currently in effect as of November 1, 2015.

National Grid - RI Gas
Infrastructure, Safety, and Reliability (ISR) Filing
Bill Impact Analysis with Various Levels of Consumption:

Line No.

C & I LLF Large:

Line		Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Difference due to: GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
(91)												
(92)												
(93)												
(94)			---	---	---	---	---	---	---	---	---	---
(95)		41,066	$42,174.13	$41,488.29	$685.85	1.7%	$0.00	$0.00	$665.27	$0.00	$0.00	$20.58
(96)		45,488	$46,481.37	$45,721.64	$759.72	1.7%	$0.00	$0.00	$736.93	$0.00	$0.00	$22.79
(97)		49,910	$50,788.60	$49,955.08	$833.52	1.7%	$0.00	$0.00	$808.51	$0.00	$0.00	$25.01
(98)		54,334	$55,097.57	$54,190.14	$907.42	1.7%	$0.00	$0.00	$880.20	$0.00	$0.00	$27.22
(99)		58,757	$59,405.67	$58,424.37	$981.30	1.7%	$0.00	$0.00	$951.86	$0.00	$0.00	$29.44
(100)	**Average Customer**	63,179	$63,713.07	$62,657.93	$1,055.13	1.7%	$0.00	$0.00	$1,023.48	$0.00	$0.00	$31.65
(101)		67,600	$68,019.30	$66,890.35	$1,128.96	1.7%	$0.00	$0.00	$1,095.09	$0.00	$0.00	$33.87
(102)		72,023	$72,327.43	$71,124.57	$1,202.86	1.7%	$0.00	$0.00	$1,166.77	$0.00	$0.00	$36.09
(103)		76,447	$76,636.95	$75,360.22	$1,276.73	1.7%	$0.00	$0.00	$1,238.43	$0.00	$0.00	$38.30
(104)		80,870	$80,945.08	$79,594.45	$1,350.63	1.7%	$0.00	$0.00	$1,310.11	$0.00	$0.00	$40.52
(105)		85,292	$85,252.34	$83,827.87	$1,424.47	1.7%	$0.00	$0.00	$1,381.74	$0.00	$0.00	$42.73

C & I HLF Large:

Line		Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Difference due to: GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
(106)												
(107)												
(108)												
(109)			---	---	---	---	---	---	---	---	---	---
(110)		50,411	$45,372.69	$44,613.91	$758.77	1.7%	$0.00	$0.00	$736.01	$0.00	$0.00	$22.76
(111)		55,841	$50,025.78	$49,185.26	$840.52	1.7%	$0.00	$0.00	$815.30	$0.00	$0.00	$25.22
(112)		61,273	$54,680.41	$53,758.12	$922.29	1.7%	$0.00	$0.00	$894.62	$0.00	$0.00	$27.67
(113)		66,699	$59,330.49	$58,326.55	$1,003.94	1.7%	$0.00	$0.00	$973.82	$0.00	$0.00	$30.12
(114)		72,129	$63,983.60	$62,897.91	$1,085.68	1.7%	$0.00	$0.00	$1,053.11	$0.00	$0.00	$32.57
(115)	**Average Customer**	77,558	$68,635.91	$67,468.52	$1,167.39	1.7%	$0.00	$0.00	$1,132.37	$0.00	$0.00	$35.02
(116)		82,989	$73,289.02	$72,039.89	$1,249.12	1.7%	$0.00	$0.00	$1,211.65	$0.00	$0.00	$37.47
(117)		88,416	$77,939.84	$76,609.05	$1,330.79	1.7%	$0.00	$0.00	$1,290.87	$0.00	$0.00	$39.92
(118)		93,847	$82,593.71	$81,181.16	$1,412.55	1.7%	$0.00	$0.00	$1,370.17	$0.00	$0.00	$42.38
(119)		99,275	$87,245.33	$85,751.05	$1,494.28	1.7%	$0.00	$0.00	$1,449.45	$0.00	$0.00	$44.83
(120)		104,705	$91,898.41	$90,322.40	$1,576.01	1.7%	$0.00	$0.00	$1,528.73	$0.00	$0.00	$47.28

Note: Bill impacts are based on rates approved and currently in effect as of November 1, 2015.

National Grid - RI Gas
Infrastructure, Safety, and Reliability (ISR) Filing
Bill Impact Analysis with Various Levels of Consumption:

C & I LLF Extra-Large:

Line No.		Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Difference due to: GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
(121)												
(122)												
(123)												
(124)			---	---	---	---	---	---	---	---	---	---
(125)		174,357	$141,081.25	$140,631.88	$449.37	0.3%	$0.00	$0.00	$435.89	$0.00	$0.00	$13.48
(126)		193,136	$155,708.65	$155,210.89	$497.76	0.3%	$0.00	$0.00	$482.83	$0.00	$0.00	$14.93
(127)		211,912	$170,334.02	$169,787.86	$546.15	0.3%	$0.00	$0.00	$529.77	$0.00	$0.00	$16.38
(128)		230,688	$184,959.99	$184,365.45	$594.55	0.3%	$0.00	$0.00	$576.71	$0.00	$0.00	$17.84
(129)		249,466	$199,586.78	$198,943.83	$642.95	0.3%	$0.00	$0.00	$623.66	$0.00	$0.00	$19.29
(130)	**Average Customer**	268,243	$214,212.73	$213,521.39	$691.34	0.3%	$0.00	$0.00	$670.60	$0.00	$0.00	$20.74
(131)		287,018	$228,837.54	$228,097.81	$739.73	0.3%	$0.00	$0.00	$717.54	$0.00	$0.00	$22.19
(132)		305,796	$243,464.93	$242,676.82	$788.11	0.3%	$0.00	$0.00	$764.47	$0.00	$0.00	$23.64
(133)		324,573	$258,090.97	$257,254.47	$836.49	0.3%	$0.00	$0.00	$811.40	$0.00	$0.00	$25.09
(134)		343,350	$272,717.02	$271,832.08	$884.94	0.3%	$0.00	$0.00	$858.39	$0.00	$0.00	$26.55
(135)		362,127	$287,343.11	$286,409.80	$933.31	0.3%	$0.00	$0.00	$905.31	$0.00	$0.00	$28.00

C & I HLF Extra-Large:

Line No.		Annual Consumption (Therms)	Proposed Rates	Current Rates	Difference	% Chg	Difference due to: GCR	DAC Base DAC	DAC ISR	EE	LIHEAP	GET
(136)												
(137)												
(138)												
(139)			---	---	---	---	---	---	---	---	---	---
(140)		447,421	$330,377.67	$328,809.37	$1,568.30	0.5%	$0.00	$0.00	$1,521.25	$0.00	$0.00	$47.05
(141)		495,605	$365,389.42	$363,652.22	$1,737.20	0.5%	$0.00	$0.00	$1,685.08	$0.00	$0.00	$52.12
(142)		543,789	$400,401.99	$398,495.93	$1,906.06	0.5%	$0.00	$0.00	$1,848.88	$0.00	$0.00	$57.18
(143)		591,972	$435,413.05	$433,338.10	$2,074.95	0.5%	$0.00	$0.00	$2,012.70	$0.00	$0.00	$62.25
(144)		640,155	$470,424.19	$468,180.35	$2,243.85	0.5%	$0.00	$0.00	$2,176.53	$0.00	$0.00	$67.32
(145)	**Average Customer**	688,340	$505,437.09	$503,024.35	$2,412.74	0.5%	$0.00	$0.00	$2,340.36	$0.00	$0.00	$72.38
(146)		736,523	$540,448.49	$537,866.87	$2,581.62	0.5%	$0.00	$0.00	$2,504.17	$0.00	$0.00	$77.45
(147)		784,708	$575,460.95	$572,710.43	$2,750.52	0.5%	$0.00	$0.00	$2,668.00	$0.00	$0.00	$82.52
(148)		832,891	$610,472.85	$607,553.43	$2,919.41	0.5%	$0.00	$0.00	$2,831.83	$0.00	$0.00	$87.58
(149)		881,074	$645,483.99	$642,395.68	$3,088.31	0.5%	$0.00	$0.00	$2,995.66	$0.00	$0.00	$92.65
(150)		929,259	$680,497.17	$677,239.98	$3,257.20	0.5%	$0.00	$0.00	$3,159.48	$0.00	$0.00	$97.72

Note: Bill impacts are based on rates approved and currently in effect as of November 1, 2015.

Testimony of
Melissa A. Little

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

DIRECT TESTIMONY

OF

MELISSA A. LITTLE

November 24, 2015

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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.

A. I am a Lead Specialist for New England Revenue Requirements in the Regulation and Pricing department of National Grid USA Service Company, Inc. (Service Company). Service Company provides engineering, financial, administrative, and other technical support to subsidiary companies of National Grid USA (National Grid). My current duties include revenue requirements 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 (Company).

Q. Please describe your education and professional experience.

A. In 2000, I earned a Bachelor of Science degree in Accounting Information Systems from Bentley College (now Bentley University) in Waltham, Massachusetts. In September 2000, I joined PricewaterhouseCoopers 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. After moving to the New England revenue requirement team, I was promoted to my current position in July 2011.

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

A. Yes, I submitted pre-filed testimony in the Company's annual Revenue Decoupling Adjustment factor filing in RIPUC Docket No. 4515 as well as the Company's Fiscal Year (FY) 2015 Gas Infrastructure, Safety, and Reliability Plan (Gas ISR Plan) reconciliation filing in RIPUC Docket No. 4473. In addition, I appeared before the PUC in RIPUC Docket 4540 supporting the revenue requirement included in the FY 2016 Gas ISR Plan.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to sponsor Section 3 of the FY 2017Gas ISR Plan, which describes the calculation of the Company's revenue requirement for FY 2017 in Attachment 1 of that section. This revenue requirement is based on the Gas ISR Plan capital investment and associated operation and maintenance (O&M) expenses described in the testimony of Company Witness David G. Iseler.

II. ISR PLAN REVENUE REQUIREMENT

Q. Please summarize the revenue requirement for the Company's FY 2017 Gas ISR Plan.

A. As shown on Page 1, Column (b) of Attachment 1, the Company's FY 2017 Gas ISR Plan revenue requirement amounts to $23,656,294, or an incremental $7,486,532 over the amount currently being billed for the Gas ISR Plan and consists of the following elements: (1) $571,000 of incremental O&M expense for the hiring, training and supervision of additional personnel to support the increase in leak-prone pipe replacement for FY 2017, (2) a revenue requirement of $3,234,197 comprised of the Company's return, taxes and depreciation expense associated with FY 2017 proposed non-growth ISR capital investment in gas utility infrastructure of $85,476,000 plus the FY 2017 revenue requirement on incremental non-growth ISR capital investment of $5,358,825, $4,911,949, $3,439,565, $305,675, and $1,074,212 for FY 2016, FY 2015, FY 2014, FY 2013, and FY 2012 incremental investments, respectively, and (3) FY 2017 property tax expense of $4,760,871 as shown on Page 16 of Attachment 1. Importantly, these amounts will be trued up to actual O&M and capital investment activity after the conclusion of the FY, with rate adjustments for the revenue requirement differences incorporated in future ISR filings.

For illustration purposes only, Column (c) of Page 1 provides the FY 2018 revenue requirement. A detailed description of the calculation of the Company's revenue

requirement for FY 2017 can be found in Section 3 of the FY 2017 Gas ISR Plan.

Q. Does this conclude your testimony?

A. Yes, it does.

Testimony of
Suhila Nouri Nutile

THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
RIPUC DOCKET NO. _____
RE: FY 2017 GAS INFRASTRUCTURE,
SAFETY, AND RELIABILITY PLAN
WITNESS: SUHILA NOURI NUTILE

DIRECT TESTIMONY

OF

SUHILA NOURI NUTILE

November 24, 2015

Table of Contents

I. INTRODUCTION

Q. Please state your names and business address.

A. My name is Suhila Nouri Nutile, and my business address is 40 Sylvan Road, Waltham, Massachusetts 02451.

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

A. I am a Senior Analyst in the New England Pricing group of the Regulation and Pricing Department of National Grid USA Service Company, Inc. (Service Company). Service Company provides engineering, financial, administrative, and other technical support to subsidiary companies of National Grid USA. My responsibilities include the design, implementation, and administration of rates and tariffs for the gas division of The Narragansett Electric Company d/b/a National Grid (Company).

Q. Please provide your educational background.

A. I received a Bachelor of Science in Mathematics with a concentration in Computer Science from the University of New Hampshire in Durham, NH and a Master of Science in Financial Mathematics from Worcester Polytechnic Institute in Worcester, MA.

Q. Please provide your professional background.

A. I was employed by John Hancock in Boston from July 2006 through November 2012 as a Senior Analyst in the Pension Pricing Department. Beginning in November 2012, I was employed by Computer Science Corporation as a Lead Analyst in the Cloud Business Unit. In these roles, I designed and developed pricing strategies and provided cost analyses. In October 2013, I became a Senior Analyst at National Grid in Regulation and Pricing, the position I hold today.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to sponsor Section 4 of the Fiscal Year (FY) 2017 Gas Infrastructure, Safety, and Reliability Plan (Gas ISR Plan), which describe the rate design calculations of the FY 2017 ISR factors and the customer bill impacts of the proposed ISR factor.

II. RATE DESIGN

Q. Please summarize the rate design used to develop the ISR factors presented as part of this filing.

A. Like the revenue requirement, the proposed Gas ISR Plan rate design for FY 2017 is based on the revenue requirement of incremental capital investment in excess of capital investment that has been reflected in rate base in the Company's latest base rate case in Docket No. 4323, as well as incremental O&M and a property tax expense as described in Section 2 of this Gas ISR Plan. The Company allocated the revenue requirement

associated with the capital investment to each rate class based on the rate base allocator from the Company's Amended Settlement Agreement in Docket No. 4323. The Company allocated the proposed incremental O&M expense described by Company Witness Mr. David Iseler to all rate classes volumetrically, such that the Company proposed to assess all rate classes the same per-unit factor. The Company also utilized the most recently available forecasted throughput for the period April 2016 through March 2017 that had been developed for the Company's 2015-2016 Gas Cost Recovery (GCR) filing (Docket No. 4576). That data was compiled by rate class and summarized as set forth in Section 4, Attachment 1, Page 2, of the Gas ISR Plan. As shown in Section 4, Attachment 1, Page 1, of the Gas ISR Plan, the Company divided the allocated rate class revenue requirement, as multiplied by the rate base allocation, by the forecasted throughput for each rate class to develop separate ISR capital factors per rate class on a per therm basis. Finally, the Company divided the total incremental O&M expense of $571,000 by the total forecasted throughput to derive the O&M factor for all rate classes on a per therm basis. The Company then adjusted each rate class's total ISR factor (capital and O&M factors) to reflect the 3.18 percent uncollectible factor from the Amended Settlement Agreement approved by the Commission in Docket No. 4323.

III. ISR FACTORS

Q. Please provide the ISR rate factors proposed by the Company.

A. The ISR factors proposed by the Company are shown in the table below and in Section 4, Attachment 1.

Table 3-1 FY 2017 ISR factors per rate class

Rate Class	ISR Rate ($/therm)
Res- NH	$0.1321
Res-H	$0.0802
Small C&I	$0.0725
Medium C&I	$0.0536
Large LL	$0.0497
Large HL	$0.0475
XL-LL	$0.0155
XL-HL	$0.0162

*Rates include uncollectible allowance.

The same factors noted above for Residential Heating and Residential Non-Heating customers would also apply to each of the Low-Income customer rate classes.

IV. BILL IMPACTS

Q. Please describe the impact of the proposed ISR factors on customers' bills.

A. For the average residential heating customer using 846 therms annually, the ISR factor will result in an annual bill increase of $23.59, or 2.1 percent[1]. The annual impact of the proposed ISR factors for the period April 1, 2016 to March 31, 2017 for all rate classes are shown in Section 4, Bill Impacts, of the Gas ISR Plan.

[1] Please note that the bill impact includes the Rhode Island Gross Earnings Tax of 3 percent.

Q. Does this conclude your testimony?

A. Yes, it does.