

National Grid

The Narragansett Electric Company

FY 2021 Gas Infrastructure,
Safety and Reliability Plan

Annual Reconciliation

July 30, 2021

Docket No. 4996

Submitted to:
Rhode Island Public Utilities Commission

Submitted by:

nationalgrid

July 30, 2021

BY HAND DELIVERY & ELECTRONIC MAIL

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

RE: Docket 4996 - Gas Infrastructure, Safety, and Reliability Plan Fiscal Year 2021 Reconciliation Filing

Dear Ms. Massaro:

I have enclosed National Grid's fiscal year (FY) 2021 Gas Infrastructure, Safety, and Reliability (ISR) Plan Reconciliation filing, which relates to National Grid's FY 2021 Gas ISR Plan filing in the above-referenced docket.¹ This filing provides an overview and description of the \$165.27 million of actual capital investment spending by category and an explanation by category of major variances to the budget of \$198.61 million, as approved by the Public Utilities Commission (PUC) in Docket No. 4996.

The pre-filed direct testimonies of Amy S. Smith, Nathan Kocon, and Melissa A. Little are enclosed with this filing. Ms. Smith and Mr. Kocon present National Grid's FY 2021 Gas ISR Plan Annual Reconciliation filing, including the actual spending for the period April 1, 2020 to March 31, 2021. Ms. Smith and Mr. Kocon also provide details concerning the major spending variances by specific ISR Plan categories for this time period. Ms. Little's testimony presents the updated FY 2021 ISR revenue requirement associated with actual capital spending levels for each of FY 2018 through FY 2020 and actual capital spending placed into service during FY 2021, which is incremental to the estimated revenue requirement that was included in base rates effective September 1, 2018, and actual tax deductibility percentages for FY 2020 capital investment.

As explained in Ms. Little's testimony, the updated FY 2021 revenue requirement associated with the above-referenced items totals \$14,851,995 which is comprised of (1) the FY 2021 revenue requirement on vintages FY 2018 through FY 2021 ISR capital investments above or below the level of capital investment reflected in base distribution rates in Docket No. 4770, (2) the property tax recovery mechanism component, and (3) a true-up to the FY 2020 ISR revenue requirement to reflect actual income tax deductibility as reported on the Company's FY 2020 federal income tax return.

¹ Per Commission counsel's update on October 2, 2020, concerning the COVID-19 emergency period, the Company is submitting an electronic version of this filing followed by ten hard copies filed with the Clerk within 24 hours of the electronic filing.

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Please note that the FY 2021 Gas ISR Reconciliation has been included in the calculation of the Gas ISR factor contained in National Grid's annual Distribution Adjustment Charge (DAC) filing in Docket No. 5165, which National Grid will be filing with the PUC on August 2, 2021 under separate cover. The DAC filing includes a reconciliation of forecasted collections to actual collections.

Thank you for your attention to this filing. If you have any questions, please contact me at 781-907-2121.

Very truly yours,



Raquel J. Webster

Enclosures

cc: Docket 4996 Service List
Leo Wold, Esq.
Al Mancini, Division
John Bell, Division

**THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
R.I.P.U.C. DOCKET NO. 4996
FY 2021 GAS INFRASTRUCTURE, SAFETY, AND RELIABILITY PLAN
ANNUAL RECONCILIATION FILING
WITNESSES: AMY S. SMITH AND NATHAN A. KOCON**

JOINT PRE-FILED DIRECT TESTIMONY

OF

AMY SMITH

AND

NATHAN KOCON

July 30, 2021

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1 **I. Introduction**

2 **Q. Ms. Smith, please state your name and business address.**

3 A. My name is Amy Smith. My business address is 40 Sylvan Road, Waltham, MA 02451.

4

5 **Q. Ms. Smith, by whom are you employed and in what capacity?**

6 A. I am employed by National Grid USA Service Company, Inc. (Service Company) as
7 Director, Regulatory Gas New England. I am the New England state jurisdictional lead
8 for all gas system regulatory issues, including those related to the capital investment
9 strategies for Narragansett Electric Company, d/b/a National Grid (National Grid or the
10 Company). In my role, I work closely with the Chief Operating Officer Gas, New
11 England and her staff on all local gas regulatory matters related to the Company's
12 Massachusetts gas system. My responsibilities include working with regulators on issues
13 related to the gas system, developing strategies to support Company objectives regarding
14 investment in the gas system, and providing testimony regarding capital investments in
15 National Grid's gas system during state regulatory proceedings.

16

17 **Q. Ms. Smith, please describe your educational background and professional
18 experience.**

19 A. In 1982, I graduated from Simmons College with a Bachelor of Arts in Economics and
20 Mathematics. In 1991, I joined Boston Gas Company (now National Grid) as an analyst in
21 Gas Supply Planning. Since that time, I have held a variety of positions in Rates and

1 Regulation, Performance Measurement, Credit and Collections, Customer Regulatory
2 Relations, Emergency Dispatch, Gas Resource Planning, Network Strategy, Construction,
3 Gas Pipeline Safety and Compliance and Gas Investment, Resource and Rate Case Planning
4 and Gas Business Planning and Performance. I assumed my current position on April 1,
5 2021. In addition, from 1984 to 1989, I worked for the Massachusetts Department of Public
6 Utilities (the Department).

7
8 **Q. Ms. Smith, have you previously testified before the Rhode Island Public Utilities
9 Commission (PUC)?**

10 A. Yes. I have testified before the PUC in numerous proceedings from 2011 to 2021
11 involving Gas Infrastructure, Safety, and Reliability Plans. I have also testified before
12 the PUC in support of the Company's 2020 Distribution Adjustment Clause filing in
13 Docket 5040.

14
15 **Nathan Kocon**

16 **Q. Mr. Kocon, please state your name and business address.**

17 A. My name is Nathan Kocon. My business address is 280 Melrose Street, Providence, RI
18 02907.

19

1 **Q. Mr. Kocon, by whom are you employed and in what capacity?**

2 A. I am employed by the Service Company as the Principal Analyst, Rhode Island
3 Jurisdiction. I support the Rhode Island jurisdiction for all gas system issues, with a
4 focus on those related to the capital investment strategies for National Grid. In my role, I
5 work closely with the Rhode Island Jurisdictional President and Jurisdiction staff on all
6 local gas issues related to the Rhode Island gas system in the Rhode Island service
7 territory. My responsibilities include working with regulators on issues related to the gas
8 system, developing strategies to support Company objectives regarding investment in the
9 gas system, and providing testimony regarding capital investments in National Grid's gas
10 system during state regulatory proceedings.

11

12 **Q. Mr. Kocon, please describe your educational background and professional**
13 **experience.**

14 A. In 2005, I graduated from Northeastern University with a Bachelor of Science in Business
15 Administration with a dual concentration in Finance and Marketing. In 2013, I joined
16 National Grid as a Lead Analyst in the Process and Performance group within the Customer
17 Organization. Since that time, I completed the Company's Performance Excellence
18 Practitioner, Senior Practitioner, and Coach Practitioner Trainings and led several process
19 and performance improvement initiatives. I assumed my current position in February 2019.
20 In addition, from 2010 to 2013, I worked for Ernst & Young in the Financial Investigations

1 and Dispute Services – Government Contract Services group. I am also a Certified Fraud
2 Examiner.

3
4 **Q. Mr. Kocon, have you previously testified before the PUC?**

5 A. Yes, in 2021, I filed testimony with the PUC in support of the Company's FY 2022
6 Infrastructure, Safety, and Reliability Plan.

7
8 **II. Purpose of Testimony**

9 **Q. What is the purpose of your joint testimony?**

10 A. The purpose of our testimony is to present the Company's FY 2021 Annual
11 Reconciliation filing for the Gas ISR Plan (also referred to as the Plan), including the
12 actual spending for the period April 1, 2020 through March 31, 2021, and the Adjusted
13 Capital Additions In-Service in FY 2021. As part of this filing, we will also provide
14 detailed information regarding the major spending variances by specific Plan categories
15 for the period April 1, 2020 through March 31, 2021. As discussed in the pre-filed direct
16 testimony of Company witness, Melissa A. Little, the Company uses the FY 2021
17 Adjusted Capital Additions In-Service total to calculate the FY 2021 Plan revenue
18 requirement, which is then reconciled with the Company's actual Plan revenues for FY
19 2021. The reconciliation balance is then included in the Company's annual Distribution
20 Adjustment Charge (DAC) filing, which will be reflected in rates effective November 1,
21 2021.

1 **Q. Are you sponsoring any attachments with your testimony?**

2 A. Yes. We are sponsoring the following attachment:

- 3 • Attachment ASNK-1 Gas Infrastructure, Safety, and Reliability Plan Fiscal Year
4 2021 Annual Reconciliation
5

6 **III. FY 2021 Gas ISR Plan Actual Spending**

7 **Q. Please summarize the results of the Company's Gas ISR Plan actual spending for**
8 **FY 2021 to the FY 2021 budget.**

9 A. Attachment ASNK-1 to our testimony is the Company's FY 2021 Gas ISR Plan Annual
10 Report and Reconciliation of actual spending for the period April 1, 2020 to March 31,
11 2021. As set forth in Table A of Attachment ASNK-1, for FY 2021, the Company spent
12 \$165.27 million for capital investments under the Plan, which is comprised of
13 \$123.52 million for Gas ISR excluding the Southern Rhode Island Gas Expansion Project
14 (Gas ISR) and \$41.76 million for the Southern RI Gas Expansion Project (Gas Expansion
15 Project). These amounts represent a variance of approximately \$33.34 million less than
16 the approved Plan annual budget of \$198.61 million (including incremental paving and
17 professional engineering costs), which is comprised of \$155.54 million for Gas ISR and
18 \$43.07 million for the Gas Expansion Project. The \$33.34 million under-budget variance
19 for the year is discussed below in more detail for each specific category of the Plan, but
20 the primary driver of the underspend was the COVID-19 Pandemic (Pandemic).

21
22 A total of 30.1 miles of leak-prone pipe were abandoned across all programs, which is
23 below the plan of 62.0 miles for FY 2021. This amount includes 5.4 miles for the Public

1 Works program, 23.4 miles for the Proactive Leak-Prone Pipe program and 1.3 from
2 Reliability and Reinforcement programs. The Pandemic impacted the Company's ability
3 to complete portions of the meter service work associated with main replacement work,
4 which ultimately prevented the Company from abandoning some segments of the existing
5 main because it was still serving customers. Although the Company fell short of the FY
6 2021 leak-prone pipe target for FY 2021, the elimination of cast and wrought iron and
7 unprotected steel pipe (i.e., leak-prone pipe) remains a key element of the Company's
8 overall ISR Plan and provides for further enhanced safety and reliability of the gas
9 distribution system through removal of leak-prone pipe. These materials have been
10 identified in the Company's Distribution Integrity Management Plan (DIMP) as riskier
11 assets and have been targeted for replacement through a 20-year replacement plan. The
12 DIMP provides a structured approach to identification, evaluation, and mitigation of risks
13 associated with the gas distribution system. The Company has eliminated approximately
14 79 gas leaks through abandonment of the 30.1 miles of leak-prone gas main in FY 2021.

15
16 **Q. What were the primary drivers for the \$33.34 million under-budget variance in FY**
17 **2021?**

18 A. As shown in Attachment ASNK-1 at Tables A and B, the Pandemic was the primary
19 driver of the FY 2021 underspend of \$33.34 million, which included underspending in
20 the Public Works, Mandated, Proactive Main Replacement, Proactive Service
21 Replacement, and Reliability programs. Summarizing by category, first, there was an

1 under-budget variance of \$8.79 million in the Non-Discretionary category, including an
2 under-budget variance of \$4.37 million for the Public Works program, underspending of
3 \$4.17 million for Mandated programs, and the Company spent \$0 of a fiscal year budget
4 of \$0.25 million for the Damage/Failure Reactive program, resulting in an under-budget
5 variance of \$0.25 million. Second, there was an under-budget variance of \$11.32 million
6 in the Discretionary category, excluding the Gas Expansion Project. The Discretionary
7 underspend was primarily driven by underspending of \$11.41 million in the Reliability
8 category and was slightly offset by a net overspend of \$0.20 million in the Proactive
9 Main Replacement category (excluding the incremental paving budget). Third, all
10 incremental costs for PE Stamps and Incremental Paving were appropriately charged
11 directly to their applicable projects. Therefore, the Incremental Costs category shows a
12 spend of \$0, resulting in an underspending variance of \$14.53 million for the Incremental
13 Costs category. The Company did incur costs related to those Incremental Cost
14 budgets, but they were charged directly to the applicable ISR categories. Detail
15 regarding these costs is included below and in Attachment ASNK-1. Finally, the FY
16 2021 underspend was slightly offset by the Southern Rhode Island Gas Expansion
17 Project, which had an over-budget variance of \$1.30 million (excluding the incremental
18 paving budget). For comparison, including incremental paving in the Southern Rhode
19 Island Gas Expansion Project budget would result in an under-budget variance of \$1.32
20 million.

21

1 A. Non-Discretionary Work

2 **Q. Please explain the under-budget variance of \$4.37 million for the Public Works**
3 **program in FY 2021.**

4 A. For FY 2021, the Company spent a net of \$13.00 million, net of reimbursements,
5 compared to an annual budget of \$17.37 million for the Public Works program, resulting
6 in a variance of \$4.37 million less than budget. The Company spent \$14.00 million in the
7 Non-Reimbursable sub-category against a fiscal year budget of \$17.37 million, resulting
8 in a variance of \$3.37 million less than budget. For FY 2021, the Company installed 9.9
9 miles of a plan of 13.0 miles for new gas main and abandoned 5.4 miles of a plan of 13.0
10 miles of leak-prone pipe through the Public Works program. The Pandemic impacted the
11 Company's ability to complete meter service work associated with the Public Works jobs
12 because this type of work is customer facing and typically includes relighting equipment
13 and appliances inside buildings after the transfer to the new service line and meter has
14 been completed. Thus, the limitations on meter service work impacted the Company's
15 ability to abandon the forecasted miles for leak-prone pipe. Although service work
16 resumed in the second quarter, the Company was unable to achieve the fiscal year
17 abandonment target for FY 2021. For FY 2021, the Public Works Program incurred costs
18 of \$0.56 million related to Professional Engineer (PE) Stamps, which is detailed below in
19 the Incremental Cost – Professional Engineer Stamp testimony. Significant projects
20 completed during the year include Manville Bridge project (installed 385 feet and

1 abandoned 309 feet) and multiple relays located within the following Providence Water
2 Work Areas: Cranston Auburn Project Area (installed 1,362 feet and abandoned 1,095
3 feet); North Providence Marienville Project Area (installed 5,998 feet and abandonment is
4 planned for FY 2022); and Providence Blackstone Area (installed 11,235 feet and
5 additional installation and abandonment is planned for FY 2022).

6
7 **Q. Please explain the under-budget variance of \$4.17 million for the Mandated**
8 **Programs category in FY 2021.**

9 A. For FY 2021, the Company spent a net of \$17.52 million, net prior year write-offs of
10 \$1.21 million, against a fiscal year budget of \$21.68 million for Mandated Programs,
11 resulting in a variance of \$4.17 million less than budget. The primary driver of the
12 underspending is a lower number of Reactive Leaks and Reactive Service Replacements
13 than planned. An additional driver of the underspending is lower volumes of work than
14 planned for the Transmission Station Integrity program. The majority of this work has
15 been deferred until FY 2022. This deferral of the Transmission Station Integrity work is
16 due to the pausing of the associated physical records review at Company locations due to
17 the the Pandemic. The underspend was partially offset by overspending in the Reactive
18 Main Replacement – Maintenance category, which incurred higher than anticipated
19 project costs, along with incremental patch paving costs. Additionally, the Purchase

1 Meters program was over budget by approximately \$0.28 million because the purchase of
2 approximately 9,000 meters for FY 2022 was advanced into FY 2021 before a FY 2022
3 price increase with the meter supplier went into effect.

4
5 The FY 2021 budget also included \$4.08 million for Incremental Paving for Patches
6 primarily associated with the Mandated Programs. The costs of the patches were tracked
7 directly in the associated ISR categories. Through the close of FY 2021, Central Falls,
8 Woonsocket and Providence have each required some version of larger patch sizes, and
9 the City of Pawtucket required curb-to-curb patches on roads that had a five-year
10 moratorium.

11
12 For FY 2021, the Mandated Programs incurred costs of \$0.12 million related to PE
13 Stamps, which is detailed below in the Incremental Cost – Professional Engineer Stamp
14 section.

15
16 **Q. Please explain the under-budget variance of \$0.25 million for the Damage/Failure**
17 **program in FY 2021.**

18 A. For FY 2021, the Company spent \$0 of an annual budget of \$0.25 million for the
19 Damage/Failure Reactive program, resulting in an under-budget variance of \$0.25
20 million. The Company did not have any reactive projects that qualified for this program
21 in FY 2021.

1 **B. Discretionary Work**

2 **Q. Please explain the over-budget variance of \$0.20 million for the Proactive Main**
3 **Replacement program in FY 2021.**

4 A. For FY 2021, the Company spent approximately \$67.93 million of a fiscal year budget of
5 \$67.73 million (excluding incremental paving) for the Proactive Main Replacement
6 program, resulting in a variance of approximately \$0.20 million more than budget. For
7 comparison, including incremental paving in this category results in a fiscal year budget
8 of \$73.33 million, which results in a fiscal year variance of approximately \$5.40 million
9 lower than budget. As shown in Attachment ASNK-1, in the Proactive Main
10 Replacement section, the Company’s analysis shows that an estimated \$1.17 million was
11 spent on Incremental Curb-to-Curb paving for final restoration of main installation in FY
12 2021. Additionally, in FY 2021, the Proactive Main Replacement programs incurred
13 costs of \$1.67 million related to PE Stamps, which is detailed below in the Incremental
14 Cost – Professional Engineer Stamp section. In FY 2021, within the Proactive Main
15 Replacement categories, the Company installed 45.1 miles of new main against a plan of
16 42.9 miles and abandoned 23.4 miles of leak-prone pipe against a plan of 48.0. Across
17 all programs, the Company abandoned 30.1 miles of leak-prone pipe against a plan of
18 62.0 miles for FY 2021. As noted above in the Public Works section, the Pandemic
19 impacted the Company’s ability to complete portions of the meter service work
20 associated with main replacement work, which ultimately prevented the Company from
21 abandoning some segments of the existing main because it was still serving customers.

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1 The chart below lists the FY 2021 installed and abandoned mileage of leak prone pipe
2 across each category.

3

FY21 Program	Abandonment		Installation	
	Target	Actual	Target	Actual
CSC	13.0	5.4	13.0	9.9
MRP	48.0	23.4	42.9	45.1
Reliability	-	0.2	-	2.2
Reinforcement (Non-ISR Spend)	1.0	1.1	-	-
Total	62.0	30.1	55.9	57.2

4

5

6 The Company completed the Atwells Avenue – Segments 1A and 1B main installation
7 ahead of the original schedule although the Company projected that this main installation
8 would extend into the Fall of calendar year 2020. For FY 2021, the project was over-
9 budget by \$0.53 million because the scope of work for the project was expanded to
10 include replacing gas service inside DePasquale Square, which is located in the center of
11 Federal Hill and is home to several restaurants that had ongoing indoor dining restrictions
12 due to the Pandemic. This provided the Company an opportunity to replace aged leak
13 prone pipe with minimal added disruption to businesses in that area. The scope of work
14 for the project was also expanded slightly to replace services on several side streets that
15 intersect with Atwells Avenue. The Company completed final restoration related to
16 Segment 2 in the third quarter of FY 2021. The Company plans to commence final
17 restoration for Segments 1A and 1B in FY 2022 and will follow a construction schedule

1 that includes paving in segments as the City of Providence completes its sidewalk
2 restoration. The Company anticipates that the first segment of paving will begin in
3 August 2021.

4
5 For the Proactive Main Replacement – Large Diameter LPCI Program, the Company
6 spent approximately \$1.42 million of a fiscal year budget of \$3.40 million, resulting in a
7 variance of \$1.98 million less than budget. Cast Iron Sealing Robot (CISBOT) projects
8 were deferred for FY 2021 due to the Pandemic, which impacted the Company’s ability
9 to complete the associated service work. The Cast Iron Lining (CI Lining) projects also
10 experienced delays due to the Pandemic, which impacted the Company’s ability to
11 complete associated service work. Additionally, the lining project planned for
12 Blackstone Street in Providence was deferred to eliminate potential impact to hospitals in
13 the project area during the Pandemic; this deferral also contributed to the FY 2021
14 underspend. For FY 2021, the Company completed CI Lining field work on the Bucklin
15 Street project in Providence, with final restoration planned for late Spring (FY 2022). In
16 FY 2021, there has also been some final development for the Moore Street project in
17 Providence, which will be constructed in FY 2022. Lining construction for the Russell
18 Street project in Providence has been deferred until FY 2023. Therefore, the
19 development work will now primarily occur in FY 2022 instead of FY 2021.

20

1 **Q. Please explain the \$11.41 million under-budget variance for the Reliability**
2 **programs in FY 2021.**

3 A. For FY 2021, the Company spent \$24.84 million of a fiscal year budget of \$36.25 million
4 for Reliability programs, resulting in a variance of \$11.41 million less than budget for
5 this category. Several categories contribute to the underspending, but the primary driver
6 in all underspent categories is work delays due to the Pandemic. First, the LNG category
7 was underspent due primarily to Pandemic-related travel restrictions for Company
8 personnel and contractors that caused delays on the Exeter LNG project sub-categories
9 and ultimately caused a portion of FY 2021 planned work to be deferred until FY 2022.
10 The FY 2022 budget incorporated the impact of the FY 2021 deferred work.

11
12 Second, the Pressure Regulating Facilities category experienced program-wide delays
13 due to the Pandemic. The Company also had easement issues at two project locations,
14 which delayed three projects (Park Avenue at Old Park Avenue in Cranston and two
15 stations at Willet Avenue at Forbes Street in East Providence). In addition, there were
16 permitting issues that affected two stations in Newport (Wellington Avenue and Thames
17 Street LP and HP). The overall impact of the Pandemic, the easement issues and
18 permitting issues, resulted in the deferral of five pressure regulating station replacements
19 into future years. The Pressure Regulating Facilities category also includes the secondary
20 bypass valve installation work. Installations were completed at two stations; one in
21 Providence (Ives Street at Trenton Street) and the second in East Providence (Martin

1 Street at Dodge Street). Six additional projects were deferred to FY 2022 and four of
2 those six are shovel ready and ready for field work in FY 2022.

3
4 The third category that drove underspending was the Distribution Station Over Pressure
5 Protection category, which experienced delays due to the Pandemic and had a fiscal year
6 underspending variance of \$2.26 million. In addition, relief valve siting was delayed due
7 to the need to implement process safety measures regarding setback requirements to
8 address distances from building and sidewalks identified during the preliminary survey
9 and design stages. Those setback requirements are now better understood and are
10 incorporated into the current and future processes used to select relief valve locations.

11
12 The fourth category that drove underspending was the Replace Pipe on Bridges category.
13 This category was underspent by \$1.51 million mainly because the Rhode Island
14 Department of Transportation (RIDOT) deferred the Goat Island bridge project, which
15 RIDOT may now reconstruct in FY 2023 or 2024.

16
17 The fifth category that drove underspending was the Gas System Reliability category,
18 which was partially underspent because most of the budgeted station work for the Wood
19 at Woodlawn regulator station project in Bristol was completed in FY 2020. In addition,
20 there were design challenges associated with the East Providence 35 psig distribution
21 system downrating.

1 The sixth category that contributed to the underspend was the Take State Refurbishment
2 category, which was partially underspent because the scope of work for the planned Scott
3 Road (Cumberland) project was changed to a station replacement that will begin
4 development in FY 2022. The station will need to be rebuilt to address new Maximum
5 Allowable Operating Pressure (MAOP) and materials records confirmation requirements
6 of the new PHMSA rule-making, meet the Company’s current station design standards,
7 and mitigate reliability concerns with new regulator runs and equipment. The Company
8 completed Take Station work at the Lincoln Gate Station and Diamond Hill
9 (Cumberland); and the Company installed a third layer of overpressure protection at the
10 Portsmouth Gate Station. The Company also spent \$0.14 million on the Aquidneck
11 Island Long Term Capacity Options category. Additionally, the Company spent \$0.15
12 million of the ISR approved budget of \$0.20 million on the Cumberland LNG Tank
13 Replacement Project. The Company does not expect that the spending for Aquidneck
14 and Cumberland will generate in-service plant additions for several years. Therefore, in
15 accordance with the PUC’s Order in Docket 5099 regarding the FY 2022 Gas ISR, the
16 Company has excluded the Aquidneck and Cumberland LNG Tank Replacement
17 spending from the revenue requirement proposed in this FY 2021 reconciliation process.

18
19 The underspending in several reliability categories was partially offset by the fiscal year
20 overspend of \$3.46 million for Allens Avenue Multi Station Rebuild project for items
21 such as a chromatograph enclosure/sulfur analyzer and environmental dewatering and

1 oversight. The project achieved some major milestones in FY 2021 with the 200 to 99-
2 pound building on the Allens Avenue property now operational (commissioned), this is
3 the major gas interchange of the project. Additionally, as part of this project, two new
4 regulator stations in Providence were tied-in during FY 2021 (Melrose Street at Thackery
5 Street and Allens Avenue at Georgia Avenue) and a third pre-fabricated regulator station
6 (Ontario Street at Niagara Street) was installed and piping was completed in FY 2021,
7 and it was tied-in in June 2021 (FY 2022).

8
9 In FY 2021, the Reliability programs incurred costs of approximately \$0.27 million
10 related to PE Stamps, which is detailed below in the Incremental Cost – Professional
11 Engineer Stamp section.

12
13 **Q. Please summarize the Incremental Costs incurred for Professional Engineering**
14 **Stamps in FY 2021.**

15 A. The FY 2021 ISR Plan includes a fiscal year budget of \$1.52 million to fund new
16 Professional Engineer Stamp requirements. The State of Rhode Island implemented new
17 statutory requirements, which mandate that natural gas infrastructure design plans and
18 specifications must be approved by a Rhode Island registered Professional Engineer
19 when the work could pose a material risk to public safety. The actual spend for PE
20 Stamps is tracked directly in the applicable ISR cost categories. For FY 2021, the total
21 costs to complete 267 PE Stamps was \$2.67 million. The costs per job were higher than

1 forecast as additional main connections (over two per job) increased the cost per PE
2 Stamp. Additionally, some non-incremental standard construction activities related to
3 permitting were completed by the contractors and those costs are included in the PE
4 Stamp total. The PE Stamp requirement is still relatively new, and the Company's ability
5 to estimate forecasted costs per job accurately will continue to improve over time. For
6 details of the spend by ISR category, please see the chart in the PE Stamp section in
7 Attachment ASNK-1.

8
9 **Q. Please explain the under-budget variance of \$0.84 million for Pipeline on the**
10 **Southern Rhode Island Gas Expansion Project in FY 2021.**

11 A. For FY 2021, the Company spent approximately \$40.57 million for Construction –
12 Pipeline compared to an annual budget of \$41.36 million (including \$2.57 million for
13 incremental paving), resulting in a variance of \$0.84 million less than budget. Through
14 the end of FY 2021, the Company installed approximately 10,800-feet of pipe, which is
15 approximately 96% of the 11,200-feet planned for Phase 2; the remaining footage and tie-
16 ins were installed and hydrotested in April 2021 (FY 2022). The project gassed in 6,600
17 feet of the planned 11,200 feet by November 1, 2020, which exceeded the minimum gas
18 in footage required to meet the winter demand. The 6,600 feet of gas pipe lead up to the
19 starting location of Horizontal Directional Drill 1 (HDD1). The HDD1 drilling began in
20 July 2020. The Company encountered extensive ledge during the drilling, which delayed
21 the completion of the full scope of HDD1 work. Despite the project delay, the Company

1 was able to gas in (place in-service) the available 6,600 feet of main needed to meet
2 winter demand requirements. The sections of HDD1 footage that were installed but not
3 gassed in were capped along with another section of pipe located south of HDD1; these
4 sections of pipe will be connected to the main line pipe and gassed in during FY 2022.
5 Through the end of the fourth quarter, the Company also installed approximately 2,400-
6 feet of pipe of the 2,800-feet planned for Phase 3, which included the main footage for
7 HDD2; the remaining footage and tie-ins were also installed and hydrotested in April
8 2021 (FY 2022).

9
10 **Q. Please explain the over-budget variance of \$0.22 million for Other**
11 **Upgrades/Investments in FY 2021.**

12 A. For FY 2021, the Company spent \$0.73 million of a fiscal year budget of \$0.50 million
13 (including \$0.05 million for incremental paving) for the Other Upgrades/Investments
14 category, resulting in a variance of \$0.22 million greater than budget for this category.
15 The Company completed MOP field investigations at two dig sites during the first
16 quarter, and field investigations were completed at the Cranston Take Station in the
17 second quarter. The Company will complete repairs to the pipeline in the Spring at two
18 locations as the result of leak survey results, and those repair costs will be tracked under
19 the Mandated program category. The Company has evaluated results of the MOP testing
20 and the pressure increase to 200 pounds per square inch gauge (psig) is on track to be
21 completed in FY 2022.

1 **Q. Please explain the under-budget variance of \$0.75 million for Regulator Station**
2 **Investments in FY 2021.**

3 A. For FY 2021, the Company spent \$0.46 million of a fiscal year budget of \$1.21 million
4 for the Regulator Station Investment category, resulting in a variance of \$0.75 million
5 less than budget for this category. In the second and third quarter, the Company
6 continued engineering and field investigation work related to the Cowesett Regulator
7 Station, but during FY 2022 budgeting process, a decision was made to defer the field
8 work until FY 2023 and thus the FY 2021 planned purchase of materials was deferred
9 until FY 2022.

10

11 **IV. Plant In-Service Method Implementation and Annual Reconciliation**

12 **Q. What is the amount of Adjusted Capital Additions Placed In-Service for FY 2021**
13 **that the Company is seeking to reconcile in this filing?**

14 A. The Company is seeking to reconcile its Adjusted Capital Additions of \$110.18 million
15 Placed In-Service for FY 2021 in this filing. In accordance with the PUC's Order in
16 Docket 5099 (FY 2022 Gas ISR), effective as of April 1, 2021, the Company has aligned
17 "the calculation of its Gas ISR revenue requirement with the Electric ISR¹" and
18 implemented the plant-in-service method to calculate the FY 2021 Gas ISR revenue
19 requirement. As stated above, based on the Company's interpretation of the Order, the
20 Company determined that any Gas ISR spending related to capital for asset additions that

¹ PUC Order 24042 in Docket No. 5099 dated May 6, 2021.

1 are not yet “in-service” should be removed from the FY 2021 capital investment revenue
2 requirement. The Company identified \$45.12 million² that was spent but not yet in-
3 service as of March 31, 2021, which is also known as Construction Work in Progress
4 (CWIP). For the FY 2021 reconciliation, the Company performed a one-time “cut-over”
5 calculation to arrive at the FY 2021 Adjusted Capital Additions In-Service total of
6 \$110.18 million.

7
8 The calculation starts with FY 2021 ISR Spending of \$165.27 million. Of this total,
9 \$155.30 million is capital additions after excluding cost of removal. The \$45.12 million
10 CWIP balance is then subtracted from the \$155.30 million to arrive at the \$110.18
11 million Adjusted Capital Additions In-Service for FY 2021, which will be used as the FY
12 2021 ISR eligible capital investment for the FY 2021 revenue requirement calculation.
13 By applying this one-time cut-over calculation for FY 2021 vintage year capital
14 investment, the Company will be able to report any ISR capital additions placed “in-
15 service” for FY 2022 (and years forward) regardless of what fiscal year the spending
16 occurred in because the historical spend but not in-service amounts will have already
17 been adjusted out of the FY 2021 revenue requirement. In addition to following the
18 in-service revenue requirement principles, this method eliminates the potential for a
19 double count of capital in-service in future ISR reconciliation filings.

² See Attachment ASNK-1, Table C for CWIP balances by category.

1 V. Conclusion

2 Q. Does this conclude your testimony?

3 A. Yes.

**THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
R.I.P.U.C. DOCKET NO. 4996
FY 2020 GAS INFRASTRUCTURE, SAFETY, AND RELIABILITY PLAN
ANNUAL RECONCILIATION FILING
ATTACHMENT**

Attachment ASNK-1

FY 2021 Gas Infrastructure, Safety and Reliability Plan Annual Reconciliation Filing

Fiscal Year 2021 Gas Infrastructure, Safety, and Reliability Plan

The Narragansett Electric Company

Fiscal Year 2021 Annual Reconciliation Filing

Period Ending March 31, 2021

Executive Summary

The Narragansett Electric Company d/b/a National Grid (National Grid or the Company) submits this Annual Reconciliation filing for the fiscal year (FY) 2021 Gas Infrastructure, Safety, and Reliability (ISR) Plan, which the Rhode Island Public Utilities Commission (PUC) approved in Docket No. 4996. This filing provides an overview and description of the reconciled \$165.27 million of actual capital investment spending by category and an explanation by category of major variances to the plan budget of \$198.61 million. The total spending of \$165.27 million (see Tables A & B) is comprised of \$123.52 million for Gas ISR excluding the Southern Rhode Island Gas Expansion Project (Gas ISR) and \$41.76 for the Southern Rhode Island Gas Expansion (Gas Expansion Project). The total spend of \$165.27 million represents an underspending variance of approximately \$33.34 million against the FY 2021 plan budget of \$198.61 million.

As set forth in Tables A & B, in FY 2021, the Company spent \$30.52 million for Non-Discretionary¹ capital work, \$93.00 million for Discretionary capital work (without the Gas Expansion Project), and \$41.76 million for the Gas Expansion Project under the total Gas ISR Plan, resulting in a total spend of \$165.27 million. The \$165.27 of actual spend represents approximately 83 percent of the total FY 2021 annual Gas ISR budget of \$198.61 million

¹ Non-Discretionary programs include projects that are required by legal, regulatory code, and/or agreement, or are the result of damage or failure, with limited exceptions.

(including \$14.53 million for incremental paving and professional engineering stamp costs), resulting in an approximate 17 percent underspending variance for the fiscal year. The COVID-19 Pandemic (Pandemic) is the primary driver of the underspend for the Public Works, Mandated, Proactive Main Replacement, Proactive Service Replacement, and Reliability programs. A summary of budget to actual spending is provided in Table A. Additional details supporting the budget to actual spending are provided in Table B. In the sections below, the Company explains in more detail the fiscal year spending for each category.

Additionally, in accordance with the PUC's Order in Docket 5099 (FY 2022 Gas ISR), effective as of April 1, 2021, the Company has aligned "the calculation of its Gas ISR revenue requirement with the Electric ISR²" and implemented the plant-in-service method to calculate the FY 2021 Gas ISR revenue requirement. Based on the Company's interpretation of the Order, the Company determined that any Gas ISR spending related to capital for asset additions that are not yet "in-service" should be removed from the FY 2021 capital investment revenue requirement. The Company identified \$45.12 million³ that was spent but not yet in-service as of March 31, 2021, which is also known as Construction Work in Progress (CWIP). For the FY 2021 reconciliation, the Company performed a one-time "cut-over" calculation to arrive at the FY 2021 Adjusted Capital Additions In-Service total of \$110.18 million.

The calculation starts with FY 2021 ISR Spending of \$165.27 million. Of this total, \$155.30 million is capital additions after excluding cost of removal. The \$45.12 million CWIP balance is then subtracted from the \$155.30 million to arrive at the \$110.18 million Adjusted Capital Additions In-Service for FY 2021, which will be used as the FY 2021 ISR eligible capital investment for the FY 2021 revenue requirement calculation. By applying this one-time cut-over

² PUC Order 24042 in Docket No. 5099 dated May 6, 2021.

³ See Table C below for CWIP balances by category.

calculation for FY 2021 vintage year capital investment, the Company will be able to report any ISR capital additions placed “in-service” for FY 2022 (and years forward) regardless of what fiscal year the spending occurred in because the historical spend but not in-service amounts will have already been adjusted out of the FY 2021 revenue requirement. In addition to following the in-service revenue requirement principles, this method eliminates the potential for a double count of capital in-service in future ISR reconciliation filings.

FY 2021 Capital Spending by Category

Non-Discretionary Work⁴

Public Works Program – \$4.37 million variance to fiscal year budget

For FY 2021, the Company spent \$13.00 million, net of reimbursements, against an annual budget of \$17.37 million for the Public Works program, resulting in a variance of \$4.37 million less than budget. The Company spent \$14.00 million in the Non-Reimbursable sub-category against a fiscal year budget of \$17.37 million, resulting in a variance of \$3.37 million less than budget. For FY 2021, the Company installed 9.9 miles of the 13.0 miles planned for new gas main and has abandoned 5.4 miles of the 13.0 miles of planned leak-prone pipe for the Public Works program. The Pandemic impacted the Company’s ability to complete meter service work associated with the Public Works jobs because this type of work is customer facing and typically includes relighting equipment and appliances inside buildings after the transfer to the new service line and meter set has been completed. Thus, the limitations on meter service work impacted the Company’s ability to abandon the forecasted miles for leak-prone pipe. Although service work resumed in the second quarter, the Company was unable to achieve the fiscal year abandonment target for FY 2021. For FY 2021, the Public Works Program incurred costs of

⁴ Non-Discretionary programs include projects that are required by legal, regulatory code, and/or agreement, or are the result of damage or failure, with limited exceptions.

\$0.56 million related to Professional Engineer (PE) Stamps, which is detailed below in the Incremental Cost – Professional Engineer Stamp section. Significant projects completed during the year include the Manville Bridge project (installed 385 feet and abandoned 309 feet) and multiple relays located within the following Providence Water Work Areas: Cranston Auburn Project Area (installed 1,362 feet and abandoned 1,095 feet); North Providence Marieville Project Area (installed 5,998 feet and abandonment is planned for FY 2022); and Providence Blackstone Area (Installed 11,235 feet and additional installation and abandonment is planned for FY 2022). The FY 2021 cost details for Public Works is provided in the table below.

Public Works		
Category	FY 21 Actuals	% of Total Spend
Base Labor, Overtime, Employee Expenses	\$1,216,257	8%
Benefits	\$764,330	5%
Clearing Burdens	\$2,617,531	18%
Contractor/Consultants	\$7,716,167	53%
Restoration/Police/Permits	\$1,475,561	10%
Materials	\$1,037,688	7%
Other	(\$135,286)	-1%
Subtotal	\$14,692,248	100%
City State Construction Reimbursements	(\$1,694,800)	
Public Works Total	\$12,997,448	

Mandated Programs – \$4.17 million variance to budget

For FY 2021, the Company spent a net of \$17.52 million, net prior year write-offs of \$1.21 million, against a fiscal year budget of \$21.68 million for Mandated Programs, resulting in a variance of \$4.17 million less than budget. The primary driver of the underspending is a lower number of Reactive Leaks and Reactive Service Replacements than planned. An additional driver of the underspending is lower volumes of work than planned for the Transmission Station Integrity program. The majority of this work has been deferred until FY 2022. This deferral of the Transmission Station Integrity work is due to the pausing of the associated physical records

review at Company locations due to the Pandemic. The underspend was partially offset by overspending in the Reactive Main Replacement – Maintenance category, which incurred higher than anticipated project costs, along with incremental patch paving costs. Additionally, the Purchase Meters program was over budget by approximately \$0.28 million because the purchase of approximately 9,000 meters for FY 2022 was advanced into FY 2021 before a FY 2022 price increase with the meter supplier went into effect.

The FY 2021 budget also included \$4.08 million for Incremental Paving for Patches primarily associated with the Mandated Programs. The costs of the patches were tracked directly in the associated ISR categories. Through the close of FY 2021, Central Falls, Woonsocket and Providence have each required some version of larger patch sizes, and the City of Pawtucket required curb-to-curb patches on roads that had a five-year moratorium.

For FY 2021, the Mandated Programs incurred costs of \$0.12 million related to PE Stamps, which is detailed below in the Incremental Cost – Professional Engineer Stamp section.

Damage/Failure Reactive Program – \$0.25 million variance to budget

For FY 2021, the Company spent \$0 of a fiscal year budget of \$0.25 million for the Damage/Failure Reactive program, resulting in an under-budget variance of \$0.25 million. The Company did not have any reactive projects that qualified for this program in FY 2021.

Discretionary Work⁵

Proactive Main Replacement Program – \$0.20 million over-budget variance

For FY 2021, the Company spent approximately \$67.93 million of a fiscal year budget of \$67.73 million (excluding incremental paving) for the Proactive Main Replacement programs, resulting in a variance of approximately \$0.20 million more than budget. For comparison, including incremental paving in this category results in a fiscal year budget of \$73.33 million, which results in a fiscal year variance of approximately \$5.40 million lower than budget.

In FY 2021, within the Proactive Main Replacement categories, the Company installed 45.1 miles of new main against a plan of 42.9 miles. The Company abandoned 23.4 miles of leak-prone pipe out of a plan for 48.0 miles. As noted above in the Public Works section, the Pandemic impacted the Company's ability to complete portions of the meter service work associated with main replacement work, which ultimately prevented the Company from abandoning some segments of the existing main because it was still serving customers. The chart below lists the FY 2021 installed and abandoned mileage of leak prone pipe across each category. In FY 2021, the Proactive Main Replacement programs incurred costs of \$1.67 million related to PE Stamps, which is detailed below in the Incremental Cost – Professional Engineer Stamp section.

⁵ Discretionary programs are programs that are not required by legal, regulatory code, or agreement; they are also not the result of damage or failure, with limited exceptions.

FY21	Abandonment		Installation	
Program	Target	Actual	Target	Actual
CSC	13.0	5.4	13.0	9.9
MRP	48.0	23.4	42.9	45.1
Reliability	-	0.2	-	2.2
Reinforcement (Non-ISR Spend)	1.0	1.1	-	-
Total	62.0	30.1	55.9	57.2

The FY 2021 ISR Plan included a budget of \$5.60 million for Incremental Paving – Main Installation, which was funding for the anticipated cost increases associated with the new 2019 Rhode Island Utility Fair Share Roadway Repair Act (Curb-to-Curb Paving Law). All paving costs were captured in the standard ISR program categories with which the final restoration paving was associated (i.e. Proactive Main Replacement – Leak Prone Pipe). The final paving restoration requirements for projects in FY 2021 varied by project and municipality, including some projects where the paving requirements were set in calendar year 2019, prior to some municipalities implementing new curb-to-curb paving requirements. The Company has reviewed all paving completed for municipalities that required curb-to-curb paving in FY 2021 along with their associated costs and then estimated what the costs would have been relative to the requirements prior to enactment of the Curb-to-Curb Paving. The chart below provides a summary of the analysis and shows that an estimated \$1.17 million was spent on Incremental Curb-to-Curb paving for final restoration of main installation in FY 2021.

Through March 31, 2021

The municipalities in the table below required curb-to-curb paving in FY 2021. This table sums paving cost estimates for all paving work completed in FY 2021, prior to when the curb-to-curb paving law was enacted (pre curb-to-curb paving law) and after the curb-to-curb paving law was enacted (post curb-to-curb paving law) in each town.

Town*	Estimate Paving Cost Pre-Curb-to-Curb Paving Law	Estimated Paving Cost Post-Curb-to- Curb Paving Law	Incremental Paving Cost Post-Curb-to- Curb Paving Law
Bristol	\$101,537	\$308,467	\$206,930
Cranston	\$181,157	\$550,349	\$369,193
Johnston	\$58,071	\$176,419	\$118,348
Lincoln	\$51,810	\$157,397	\$105,587
North Kingstown	\$125,356	\$380,828	\$255,472
North Providence	\$639	\$1,941	\$1,302
Providence	\$36,185	\$109,928	\$73,743
Woonsocket	\$17,880	\$54,320	\$36,440
Grand Total	\$572,635	\$1,739,649	\$1,167,015

* The following municipalities also currently require curb-to-curb paving but incurred no incremental paving costs as a result of the curb-to-curb paving law in FY21: Central Falls, Coventry, Cumberland, East Providence, Pawtucket, Warwick, and West Warwick.

The Company completed the Atwells Avenue – Segments 1A and 1B main installation ahead of the original schedule although the Company projected that this main installation would extend into the Fall of calendar year 2020. For FY 2021, the project was over-budget by \$0.53 million because the scope of work for the project was expanded to include replacing gas services inside DePasquale Square, which is located in the center of Federal Hill and is home to several restaurants that had ongoing indoor dining restrictions due to the Pandemic. This provided the Company an opportunity to replace aged leak prone pipe with minimal added disruption to businesses in that area. The scope of work for the project was also expanded slightly to replace services on several side streets that intersect with Atwells Avenue. The Company completed

final restoration related to Segment 2 in the third quarter of FY 2021. The Company plans to commence final restoration for Segments 1A and 1B in FY 2022 and will follow a construction schedule that includes paving in segments as the City of Providence completes its sidewalk restoration. The Company anticipates that the first segment of paving will begin in August 2021.

For the Proactive Main Replacement – Large Diameter LPCI Program, the Company spent approximately \$1.42 million of a fiscal year budget of \$3.40 million, resulting in a variance of \$1.98 million less than budget. Cast Iron Sealing Robot (CISBOT) projects were deferred for FY 2021 due to the Pandemic which impacted the Company’s ability to complete the associated service work. The Cast Iron Lining (CI Lining) projects also experienced delays due to the Pandemic which impacted the Company’s ability to complete the associated service work. Additionally, the lining project planned for Blackstone Street in Providence was deferred to eliminate potential impact to hospitals in the project area during the Pandemic; his deferral also contributed to the FY 2021 underspend. For FY 2021, the Company completed CI Lining field work on the Bucklin Street project in Providence, with final restoration planned for late Spring (FY 2022). In FY 2021, there has also been some final development for the Moore Street project in Providence, which will be constructed in FY 2022. Lining construction for the Russell Street project in Providence has been deferred until FY 2023. Therefore, the development work will now primarily occur in FY 2022 instead of in FY 2021.

The Proactive Main Replacement cost detail for FY 2021 is provided in the table below.

Proactive Main Replacement		
Category	FY 21 Actuals	% of Total Spend
Base Labor, Overtime, Employee Expenses	\$4,248,184	6%
Benefits	\$2,637,933	4%
Clearing Burdens	\$12,348,931	18%
Contractor/Consultants	\$37,001,689	54%
Restoration/Police/Permits	\$7,485,514	11%
Materials	\$4,206,749	6%
Other	(\$2,082)	0%
Total	\$67,926,918	100%

Reliability Programs – \$11.41 million underspending variance

For FY 2021, the Company spent \$24.84 million of a fiscal year budget of \$36.25 million for Reliability programs, resulting in a variance of \$11.41 million less than budget for this category. Several categories contribute to the underspending, but the primary driver in all underspent categories is work delays due to the Pandemic. First, the LNG category was underspent due primarily to Pandemic-related travel restrictions for Company personnel and contractors that caused delays on the Exeter LNG project sub-categories and ultimately caused a portion of FY 2021 planned work to be deferred until FY 2022. The FY 2022 budget incorporated the impact of the FY 2021 deferred work.

Second, the Pressure Regulating Facilities category experienced program-wide delays due to the Pandemic. The Company also had easement issues at two project locations, which delayed three projects (Park Avenue at Old Park Avenue in Cranston and two stations at Willet Avenue at Forbes Street in East Providence). In addition, there were permitting issues that affected two stations in Newport (Wellington Avenue and Thames Street LP and HP). The overall impact of the Pandemic, the easement issues and permitting issues, resulted in the deferral of five pressure regulating station replacements into future years. The Pressure Regulating Facilities category

also includes the secondary bypass valve installation work. Installations were completed at two stations; one in Providence (Ives Street at Trenton Street) and the second in East Providence (Martin Street at Dodge Street). Six additional projects were deferred to FY 2022 and four of those six are shovel ready and ready for field work in FY 2022.

The third category that drove underspending was the Distribution Station Over Pressure Protection category, which experienced delays due to the Pandemic and had a fiscal year underspending variance of \$2.26 million. In addition, relief valve siting was delayed due to the need to implement process safety measures regarding setback requirements to address distances from building and sidewalks identified during the preliminary survey and design stages. Those setback requirements are now better understood and are incorporated into the current and future processes used to select relief valve locations.

The fourth category that drove underspending was the Replace Pipe on Bridges category. This category was underspent by \$1.51 million mainly because the Rhode Island Department of Transportation (RIDOT) deferred the Goat Island bridge project, which RIDOT may now reconstruct in FY 2023 or 2024.

The fifth category that drove underspending was the Gas System Reliability category, which was partially underspent because most of the budgeted station work for the Wood at Woodlawn regulator station project in Bristol was completed in FY 2020. In addition, there were design challenges associated with the East Providence 35 psig distribution system downrating.

The sixth category that contributed to the underspend was the Take State Refurbishment category, which was partially underspent because the scope of work for the planned Scott Road (Cumberland) project was changed to a station replacement that will begin development in FY 2022. The station will need to be rebuilt to address new Maximum Allowable Operating

Pressure (MAOP) and materials records confirmation requirements of the new PHMSA rule-making, meet the Company's current station design standards, and mitigate reliability concerns with new regulator runs and equipment. The Company completed Take Station work at the Lincoln Gate Station and Diamond Hill (Cumberland); and the Company installed a third layer of overpressure protection at the Portsmouth Gate Station. The Company also spent \$0.14 million on the Aquidneck Island Long Term Capacity Options category. Additionally, the Company spent \$0.15 million of the ISR approved budget of \$0.20 million on the Cumberland LNG Tank Replacement Project. The Company does not expect that the spending for Aquidneck and Cumberland will generate in-service plant additions for several years. Therefore, in accordance with the PUC's Order in Docket 5099 regarding the FY 2022 Gas ISR, the Company has excluded the Aquidneck and Cumberland LNG Tank Replacement spending from the revenue requirement proposed in this FY 2021 reconciliation process.

The underspending in several reliability categories was partially offset by the fiscal year overspend of \$3.46 million for Allens Avenue Multi Station Rebuild project for items such as a chromatograph enclosure/sulfur analyzer and environmental dewatering and oversight. The project achieved some major milestones in FY 2021 with the 200 to 99-pound building on the Allens Avenue property now operational (commissioned), this is the major gas interchange of the project. Additionally, as part of this project, two new regulator stations in Providence were tied-in during FY 2021 (Melrose Street at Thackery Street and Allens Avenue at Georgia Avenue) and a third pre-fabricated regulator station (Ontario Street at Niagara Street) was installed and piping was completed in FY 2021, and it was tied-in in June 2021 (FY 2022).

In FY 2021, the Reliability programs incurred costs of approximately \$0.27 million related to PE Stamps, which is detailed below in the Incremental Cost – Professional Engineer Stamp section.

Incremental Costs – Professional Engineer Stamp

The FY 2021 ISR Plan includes a fiscal year budget of \$1.52 million to fund new Professional Engineer Stamp requirements. The State of Rhode Island has implemented new statutory requirements, which mandate that natural gas infrastructure design plans and specifications must be approved by a Rhode Island registered Professional Engineer when the work could pose a material risk to public safety. The actual spend for PE Stamps is tracked directly in the applicable ISR cost categories. For FY 2021, the total incurred costs to complete 267 PE Stamps was \$2.67 million. The costs per job were higher than forecast as additional main connections (over two per job) increased the cost per PE Stamp. Additionally, some non-incremental standard construction activities related to permitting were completed by the contractors and those costs are included in the PE Stamp total. The PE Stamp requirement is still relatively new, and the Company's ability to estimate forecasted costs per job accurately will continue to improve over time. Details of the spending by category is listed in the chart below.

Category	Actual Cost FY 2021 \$(000)
CSC/Public Works - Non-Reimbursable	\$501
CSC/Public Works - Reimbursable	\$63
Corrosion	\$65
Service Replacements (Reactive) - Non-Leaks/Other	\$19
Main Replacement (Reactive) - Maintenance	\$32
Main Replacement (Proactive) - Leak Prone Pipe	\$1,641
Main Replacement (Proactive) - Large Diameter LPCI Program	\$2
Service Replacements (Proactive)	\$10
Atwells Avenue	\$31
Heater Installation Program	\$8
Pressure Regulating Facilities	\$67
Aquidneck LNG-Portable LNG Relo	\$36
Valve Installation/Replacement	\$86
Gas System Reliability	\$14
Replace Pipe on Bridges	\$7
Access Protection Remediation	\$56
Southern RI Gas Expansion - Pipeline	\$32
Total	\$2,671

FY 2021 Southern Rhode Island Gas Expansion Project Spending by Category

Construction

Pipeline – \$0.79 million underspending variance

For FY 2021, the Company spent approximately \$40.57 million for Construction – Pipeline compared to an annual budget of \$41.36 million (including \$2.57 million for incremental paving), resulting in a variance of \$0.79 million less than budget. Through the end of FY 2021, the Company installed approximately 10,800-feet of pipe, which is approximately 96% of the 11,200-feet planned for Phase 2; the remaining footage and tie-ins were installed and hydrotested in April 2021 (FY 2022). The project gassed in (placed in-service) 6,600 feet of the planned 11,200 feet by November 1, 2020, which exceeded the minimum gas in footage required to meet the winter demand. The 6,600 feet of gas pipe lead up to the starting location of Horizontal Directional Drill 1 (HDD1). The HDD1 drilling began in July 2020. The Company encountered

extensive ledge during the drilling which delayed the completion of the full scope of HDD1 work. Despite the project delay, the Company was able to gas in the available 6,600 feet of main needed to meet winter demand requirements. The sections of HDD1 footage that were installed but not gassed in were capped along with another section of pipe located south of HDD1; these sections of pipe will be connected to the main line pipe and gassed in during FY 2022. Through the end of the fourth quarter, the Company also installed approximately 2,400-feet of pipe of the 2,800-feet planned for Phase 3, which included the main footage for HDD2; the remaining footage and tie-ins were also installed and hydrotested in April 2021 (FY 2022). Pipeline cost detail for FY 2021 is provided in the table below:

Pipeline		
Category	FY 21 Actuals	% of Total Spend
Base Labor, Overtime, Employee Expenses	\$948,494	2%
Benefits	\$496,642	1%
Clearing Burdens	\$8,177,823	20%
Contractor/Consultants	\$27,994,818	69%
Materials	\$2,631,464	6%
Other	\$318,512	1%
Total	\$40,567,753	100%

Other Upgrades/Investments

Maximum Operating Pressure (MOP) Project, Launcher/Receiver, Installation of Remote Operating Valve (ROV) – \$0.22 million overspending variance

For FY 2021, the Company spent \$0.73 million of a fiscal year budget of \$0.50 million (including \$0.05 million for incremental paving) for the Other Upgrades/Investments category, resulting in a variance of \$0.22 million greater than budget for this category. The Company completed MOP field investigations at two dig sites during the first quarter, and field investigations were completed at the Cranston Take Station in the second quarter. The Company

will complete repairs to the pipeline in the Spring at two locations as the result of leak survey results, and those repair costs will be tracked under the Mandated program category. The Company has evaluated results of the MOP testing, and the pressure increase to 200 pounds per square inch gauge (psig) is on track to be completed in FY 2022. Other Upgrade/Investments cost detail for FY 2021 is provided in the table below.

Other Upgrades/Investments		
Category	FY 21 Actuals	% of Total Spend
Base Labor, Overtime, Employee Expenses	\$90,817	13%
Benefits	\$47,640	7%
Clearing Burdens	\$151,098	21%
Contractor/Consultants	\$449,608	62%
Materials	\$19,144	3%
Other	(\$33,064)	-5%
Total	\$725,243	100%

Regulator Station Investment

Upgrades to Cranston Take Station, Cowesett Regulator Station, and New Regulator Station – \$0.75 million underspending variance

For FY 2021, the Company spent \$0.46 million of a fiscal year budget of \$1.21 million for the Regulator Station Investment category, resulting in a variance of \$0.75 million less than budget for this category. In the second and third quarter, the Company continued engineering and field investigation work related to the Cowesett Regulator Station, but during FY 2022 budgeting process, a decision was made to defer the field work until FY 2023 and thus the FY 2021 planned purchase of materials was deferred until FY 2022. In accordance with the plant in-service method, any CWIP balance in this category (or other ISR categories) will be excluded from the FY 2021 reconciled revenue requirement. Regulator Station Investment cost detail for FY 2021 is provided in the table below.

Regulator Station Investment		
Category	FY 21 Actuals	% of Total Spend
Base Labor, Overtime, Employee Expenses	\$85,007	18%
Benefits	\$41,804	9%
Clearing Burdens	\$105,549	23%
Contractor/Consultants	\$114,511	25%
Materials	\$115,874	25%
Other	(\$685)	0%
Total	\$462,060	100%

Plant In-Service Method Implementation

Adjusted Capital Additions of \$110.18 million Placed In-Service for FY 2021

In accordance with the PUC’s Order in Docket 5099 (FY 2022 Gas ISR), effective as of April 1, 2021, the Company has aligned “the calculation of its Gas ISR revenue requirement with the Electric ISR⁶” and implemented the plant-in-service method to calculate the FY 2021 Gas ISR revenue requirement. As stated above, based on the Company’s interpretation of the Order, the Company determined that any Gas ISR spending related to capital for asset additions that are not yet “in-service” should be removed from the FY 2021 capital investment revenue requirement. The Company identified \$45.12 million⁷ that was spent but not yet in-service as of March 31, 2021, which is also known as the Construction Work in Progress (CWIP). For the FY 2021 reconciliation, the Company performed a one-time “cut-over” calculation to arrive at the FY 2021 Adjusted Capital Additions In-Service total of \$110.18 million.

The calculation starts with FY 2021 ISR Spending of \$165.27 million. Of this total, \$155.30 million is capital additions after excluding cost of removal. The \$45.12 million CWIP balance is

⁶ PUC Order 24042 in Docket No. 5099 dated May 6, 2021.

⁷ See Table C for CWIP balances by category.

then subtracted from the \$155.30 million to arrive at the \$110.18 million Adjusted Capital Additions In-Service for FY 2021, which will be used as the FY 2021 ISR eligible capital investment for the FY 2021 revenue requirement calculation. By applying this one-time cut-over calculation for FY 2021 vintage year capital investment, the Company will be able to report any ISR capital additions placed “in-service” for FY 2022 (and years forward) regardless of what fiscal year the spending occurred in because the historical spend but not in-service amounts will have already been adjusted out of the FY 2021 revenue requirement. In addition to following the in-service revenue requirement principles, this method eliminates the potential for a double count of capital in-service in future ISR reconciliation filings. Table C, below, provides the FY 2021 actual spending by ISR category along with a breakout of the March 31, 2021 CWIP balances by ISR category. The attachment also provides the resulting Adjusted Capital Additions Placed In-Service for FY 2021 by ISR category.

Table A
R.I.P.U.C. Docket No. 4996
FY 2021 Gas Infrastructure, Safety, and Reliability Plan
Annual Reconciliation Filing

Table A - Summary

**The Narragansett Electric Company
d/b/a National Grid - RI Gas
Capital Spending by Investment Categories - Summary
FY21 Gas Capital Plan - FY21 Reconciled Actuals vs ISR Final Approved as of (3-17-20)
(\$000)**

Categories	A Budget	B FYTD Actual	C = B - A Variance
NON-DISCRETIONARY			
Public Works ¹	\$17,368	\$12,997	(\$4,371)
Mandated Programs	\$21,684	\$17,518	(\$4,166)
Damage / Failure (Reactive)	\$249	\$0	(\$249)
NON-DISCRETIONARY TOTAL	\$39,301	\$30,516	(\$8,785)
DISCRETIONARY			
Proactive Main Replacement	\$67,729	\$67,927	\$198
Proactive Service Replacement	\$350	\$240	(\$110)
Reliability	\$36,246	\$24,836	(\$11,410)
SUBTOTAL DISCRETIONARY (Without Gas Expansion)	\$104,325	\$93,003	(\$11,322)
Southern RI Gas Expansion Project	\$40,460	\$41,755	\$1,295
DISCRETIONARY TOTAL (With Gas Expansion)	\$144,785	\$134,758	(\$10,027)
CAPITAL ISR TOTAL (Base Capital - Without Gas Expansion)	\$143,626	\$123,519	(\$20,107)
CAPITAL ISR TOTAL (With Gas Expansion)			
Budgets do not include incremental paving associated with new RI Paving Law or PE Stamps	\$184,086	\$165,274	(\$18,812)
Incremental Costs²	\$14,526	\$0	(\$14,526)
CAPITAL ISR TOTAL (with Gas Expansion, PE Stamps, and Incremental Paving)	\$198,612	\$165,274	(\$33,338)

() in Variance column denotes an underspend

- Public Works Program includes reimbursements which will be credited as received throughout the year.
- The actual costs for incremental costs are included within the applicable ISR categories that incur the costs, above.

Table B
R.I.P.U.C. Docket No. 4996
FY 2021 Gas Infrastructure, Safety, and Reliability Plan
Annual Reconciliation Filing

Table B - Breakout

The Narragansett Electric Company
d/b/a National Grid - RI Gas
Capital Spending by Investment Categories - Breakout
FY21 Gas Capital Plan - FY21 Reconciled Actuals vs ISR Final Approved as of (3-17-20)
(\$000)

Categories	A Budget	B Capital Additions	C Cost of Removal (COR)	D = B + C Total ISR Actual Spend	E = D - A Variance
NON-DISCRETIONARY					
Public Works					
<i>CSC/Public Works - Non-Reimbursable</i>	\$17,368	\$12,441	\$1,558	\$14,000	(\$3,368)
<i>CSC/Public Works - Reimbursable</i>	\$1,403	\$587	\$105	\$693	(\$710)
<i>CSC/Public Works - Reimbursements</i>	(\$1,403)	(\$1,695)	\$0	(\$1,695)	(\$292)
Public Works Total	\$17,368	\$11,334	\$1,664	\$12,997	(\$4,371)
Mandated Programs					
<i>Corrosion</i>	\$1,166	\$2,141	(\$0)	\$2,141	\$975
<i>Purchase Meters (Replacements)</i>	\$4,852	\$5,091	\$38	\$5,129	\$277
<i>Reactive Leaks (CI Joint Encapsulation/Service Replacement)</i>	\$12,280	\$7,683	\$68	\$7,751	(\$4,529)
<i>Service Replacements (Reactive) - Non-Leaks/Other</i>	\$2,096	\$487	\$840	\$1,327	(\$769)
<i>Main Replacement (Reactive) - Maintenance (incl Water Intrusion)</i>	\$680	\$873	\$246	\$1,119	\$439
<i>Transmission Station Integrity</i>	\$610	\$43	\$0	\$43	(\$567)
<i>Other Mandated</i>	\$0	\$9	\$0	\$9	\$9
Mandated Total	\$21,684	\$16,326	\$1,192	\$17,518	(\$4,166)
Damage / Failure (Reactive)					
<i>Damage / Failure (Reactive)</i>	\$249	\$0	\$0	\$0	(\$249)
NON-DISCRETIONARY TOTAL	\$39,301	\$27,660	\$2,856	\$30,516	(\$8,785)
DISCRETIONARY					
Proactive Main Replacement					
<i>Main Replacement (Proactive) - Leak Prone Pipe</i>	\$59,250	\$54,635	\$6,261	\$60,896	\$1,646
<i>Main Replacement (Proactive) - Large Diameter LPCI Program</i>	\$3,398	\$1,412	\$7	\$1,419	(\$1,979)
<i>Arwells Avenue</i>	\$5,081	\$5,155	\$456	\$5,612	\$531
Proactive Main Replacement Total	\$67,729	\$61,203	\$6,724	\$67,927	\$198
Proactive Service Replacement					
Proactive Service Replacement Total	\$350	\$250	(\$10)	\$240	(\$110)
Reliability					
<i>Gas System Control</i>	\$118	\$19	\$0	\$19	(\$99)
<i>System Automation</i>	\$1,252	\$955	\$11	\$966	(\$286)
<i>Heater Installation Program</i>	\$2,961	\$2,616	\$0	\$2,616	(\$345)
<i>Pressure Regulating Facilities</i>	\$7,849	\$4,264	\$82	\$4,345	(\$3,504)
<i>Allens Ave Multi Station Rebuild</i>	\$6,200	\$9,664	\$0	\$9,664	\$3,464
<i>Take Station Refurbishment</i>	\$995	\$277	\$134	\$411	(\$584)
<i>Valve Installation/Replacement (incl Storm Hardening & Gas System Reliability)</i>	\$676	\$155	\$1	\$156	(\$520)
<i>I&R - Reactive</i>	\$2,371	\$456	\$100	\$556	(\$1,815)
<i>Distribution Station Over Pressure Protection</i>	\$1,392	\$1,514	\$33	\$1,546	\$154
<i>LNG</i>	\$3,636	\$1,378	\$1	\$1,379	(\$2,257)
<i>Replace Pipe on Bridges</i>	\$6,433	\$2,638	\$0	\$2,638	(\$3,795)
<i>Access Protection Remediation</i>	\$1,500	(\$4)	\$31	(\$13)	(\$1,513)
<i>Tools & Equipment</i>	\$260	\$71	\$0	\$71	(\$189)
<i>Reliability Total</i>	\$603	\$482	\$0	\$482	(\$121)
Reliability Total	\$36,246	\$24,444	\$392	\$24,836	(\$11,410)
SUBTOTAL DISCRETIONARY (Without Gas Expansion)	\$104,325	\$85,897	\$7,106	\$93,003	(\$11,322)
Southern RI Gas Expansion Project					
<i>Pipeline</i>	\$38,798	\$40,566	\$2	\$40,568	\$1,770
<i>Other Upgrades/Investments</i>	\$451	\$714	\$11	\$725	\$274
<i>Regulator Station Investment</i>	\$1,211	\$462	\$0	\$462	(\$749)
Southern RI Gas Expansion Project Total	\$40,460	\$41,742	\$13	\$41,755	\$1,295
DISCRETIONARY TOTAL (With Gas Expansion)	\$144,785	\$127,639	\$7,119	\$134,758	(\$10,027)
CAPITAL ISR TOTAL (Base Capital - Without Gas Expansion)	\$143,626	\$113,557	\$9,962	\$123,519	(\$20,107)
CAPITAL ISR TOTAL (With Gas Expansion)					
Budgets do not include incremental paving associated with new RI Paving Law or PE Stamps	\$184,086	\$155,299	\$9,975	\$165,274	(\$18,812)
Incremental Costs¹					
<i>PE Stamps</i>	\$1,515	\$0	\$0	\$0	(\$1,515)
<i>Incremental Paving - Main Installation</i>	\$5,596	\$0	\$0	\$0	(\$5,596)
<i>Incremental Paving - Patches</i>	\$4,801	\$0	\$0	\$0	(\$4,801)
<i>Incremental Paving - Southern RI Gas Expansion</i>	\$2,614	\$0	\$0	\$0	(\$2,614)
Incremental Costs Total	\$14,526	\$0	\$0	\$0	(\$14,526)
CAPITAL ISR TOTAL (with Gas Expansion, PE Stamps, and Incremental Paving)	\$198,612	\$155,299	\$9,975	\$165,274	(\$33,338)

() in Variance column denotes an underspend

1. The actual costs for incremental costs are included within the applicable ISR categories that incur the costs, above.

Table C
R.I.P.U.C. Docket No. 4996
FY 2021 Gas Infrastructure, Safety, and Reliability Plan
Annual Reconciliation Filing

Attachment C - Adjusted Capital Additions and CWIP Balances

The Narragansett Electric Company
d/b/a National Grid - RI Gas

FY21 Assumed Capital Additions and March 31, 2021 Construction Work in Progress Balances by Investment Category
(\$000)

Categories	A = B - C	B	C = D + E	D	E
	Adjusted Capital Additions Placed In-Service for FY21	Capital Additions From FY21 Spend	CWIP Balance as of 3/31/21	CWIP Pre FY21 Spend	CWIP FY21 Spend
NON-DISCRETIONARY					
Public Works					
<i>CSC/Public Works - Non-Reimbursable</i>	\$8,150	\$12,441	\$4,292	\$1,124	\$3,168
<i>CSC/Public Works - Reimbursable</i>	\$190	\$587	\$397	\$126	\$271
<i>CSC/Public Works - Reimbursements</i>	(\$1,587)	(\$1,695)	(\$108)	(\$104)	(\$4)
Public Works Total	\$6,753	\$11,334	\$4,580	\$1,146	\$3,434
Mandated Programs					
<i>Corrosion</i>	\$1,604	\$2,141	\$537	\$21	\$516
<i>Purchase Meters (Replacements)</i>	\$5,091	\$5,091	\$0	\$0	\$0
<i>Reactive Leaks (CI Joint Encapsulation/Service Replacement)</i>	\$6,857	\$7,683	\$826	\$827	(\$1)
<i>Service Replacements (Reactive) - Non-Leaks/Other</i>	(\$179)	\$487	\$666	\$256	\$410
<i>Main Replacement (Reactive) - Maintenance (incl Water Intrusion)</i>	\$607	\$873	\$266	\$10	\$255
<i>Transmission Station Integrity</i>	(\$0)	\$43	\$43	\$0	\$43
<i>Other Mandated</i>	(\$87)	\$9	\$96	\$297	(\$202)
Mandated Total	\$13,892	\$16,326	\$2,434	\$1,412	\$1,022
Damage / Failure (Reactive)					
<i>Damage / Failure (Reactive)</i>	\$0	\$0	\$0	\$0	\$0
NON-DISCRETIONARY TOTAL	\$20,645	\$27,660	\$7,014	\$2,558	\$4,456
DISCRETIONARY					
Proactive Main Replacement					
<i>Main Replacement (Proactive) - Leak Prone Pipe</i>	\$44,692	\$54,635	\$9,942	\$4,924	\$5,019
<i>Main Replacement (Proactive) - Large Diameter LPCI Program</i>	\$220	\$1,412	\$1,193	\$867	\$325
<i>Atwells Avenue</i>	\$5,155	\$5,155	\$0	\$0	\$0
Proactive Main Replacement Total	\$50,067	\$61,203	\$11,135	\$5,791	\$5,344
Proactive Service Replacement					
Proactive Service Replacement Total	\$35	\$250	\$215	\$8	\$207
Reliability					
<i>Gas System Control</i>	\$19	\$19	\$0	\$0	\$0
<i>System Automation</i>	(\$30)	\$955	\$985	\$769	\$216
<i>Heater Installation Program</i>	\$2,585	\$2,616	\$31	\$1,544	(\$1,513)
<i>Pressure Regulating Facilities</i>	\$183	\$4,264	\$4,081	\$1,790	\$2,291
<i>Allens Ave Multi Station Rebuild</i>	\$8,038	\$9,664	\$1,626	\$12,610	(\$10,984)
<i>Take Station Refurbishment</i>	\$200	\$277	\$77	\$22	\$55
<i>Valve Installation/Replacement (incl Storm Hardening & Gas System Reliability)</i>	\$81	\$155	\$75	\$1	\$74
<i>I&R - Reactive</i>	\$428	\$456	\$28	\$20	\$8
<i>Distribution Station Over Pressure Protection</i>	\$212	\$1,514	\$1,301	\$409	\$893
<i>LNG</i>	\$331	\$1,378	\$1,047	\$104	\$943
<i>Replace Pipe on Bridges</i>	(\$307)	\$2,638	\$2,945	\$404	\$2,541
<i>Access Protection Remediation</i>	(\$46)	(\$44)	\$2	\$47	(\$45)
<i>Tools & Equipment</i>	\$71	\$71	\$0	\$0	\$0
<i>Reliability Total</i>	\$147	\$482	\$335	\$382	(\$47)
Reliability Total	\$11,911	\$24,444	\$12,533	\$18,101	(\$5,568)
SUBTOTAL DISCRETIONARY (Without Gas Expansion)	\$62,014	\$85,897	\$23,883	\$23,900	(\$17)
Southern RI Gas Expansion Project					
<i>Pipeline</i>	\$30,031	\$40,566	\$10,535	\$0	\$10,535
<i>Other Upgrades/Investments</i>	(\$2,602)	\$714	\$3,316	\$2,500	\$816
<i>Regulator Station Investment</i>	\$89	\$462	\$372	\$47	\$325
Southern RI Gas Expansion Project Total	\$27,518	\$41,742	\$14,224	\$2,547	\$11,676
DISCRETIONARY TOTAL (With Gas Expansion)	\$89,532	\$127,639	\$38,107	\$26,447	\$11,660
CAPITAL ISR TOTAL (Base Capital - Without Gas Expansion)	\$82,659	\$113,557	\$30,897	\$26,458	\$4,440
CAPITAL ISR TOTAL (With Gas Expansion)					
Budgets do not include incremental paving associated with new RI Paving Law or PE Stamps	\$110,178	\$155,299	\$45,121	\$29,005	\$16,116
Incremental Costs¹					
<i>PE Stamps</i>	\$0	\$0	\$0	\$0	\$0
<i>Incremental Paving - Main Installation</i>	\$0	\$0	\$0	\$0	\$0
<i>Incremental Paving - Patches</i>	\$0	\$0	\$0	\$0	\$0
<i>Incremental Paving - Southern RI Gas Expansion</i>	\$0	\$0	\$0	\$0	\$0
Incremental Costs Total	\$0	\$0	\$0	\$0	\$0
CAPITAL ISR TOTAL (with Gas Expansion, PE Stamps, and Incremental Paving)	\$110,178	\$155,299	\$45,121	\$29,005	\$16,116

() in Variance column denotes an underspend

1. The actual costs for incremental costs are included within the applicable ISR categories that incur the costs, above.

PRE-FILED DIRECT TESTIMONY

OF

MELISSA A. LITTLE

July 30, 2021

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1 **I. Introduction**

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

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

5

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

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

15

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

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

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

6

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

9 A. Yes. Among other testimony, I testified in support of the Company's revenue
10 requirement (1) in the 2017 general rate case filing in Docket No. 4770; (2) for
11 Narragansett Electric, in the Fiscal Year (FY) 2018 Electric Infrastructure, Safety, and
12 Reliability (ISR) Plan and reconciliation filings in Docket No. 4682, FY 2019 in Docket
13 4783, FY 2020 in Docket No. 4915, FY 2021 in Docket No. 4995 and FY 2022 in Docket
14 No. 5098; and (3) for Narragansett Gas, in the Gas ISR Plan and reconciliation filings for
15 FY 2016 in Docket No. 4540, FY 2017 in Docket No. 4590, FY 2018 in Docket No.
16 4678, FY 2019 in Docket No. 4781, FY 2020 in Docket No. 4916, FY 2021 in Docket
17 No. 4996 and FY 2022 in Docket No. 5099.

18

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

20 A. In this docket, the PUC approved a Gas ISR factor that went into effect April 1, 2020.
21 The ISR factor was based on a projected FY 2021 Gas ISR revenue requirement of

1 \$22,761,529 associated with the Company’s estimated ISR capital investment for
2 FY 2021 and FY 2020, and actual ISR capital investment in FY 2018 and FY 2019¹ that
3 was incremental to the levels reflected in rate base in the Company’s recent base rate case
4 (Docket No. 4770). On September 1, 2018, new distribution base rates approved in
5 Docket No. 4770 became effective. The revenue requirements on actual ISR additions
6 made from FY 2012 through FY 2017 plus forecasted ISR additions for FY 2018,
7 FY 2019 and a portion of FY 2020 were included in these new base rates. Thus, the
8 purpose of my testimony is to present an updated FY 2021 Gas ISR revenue requirement
9 associated with the actual capital investment levels for each of FY 2018 through FY 2021
10 incremental to the level of investment assumed in Docket No. 4770, and actual tax
11 deductibility percentages for FY 2020 capital additions.

12
13 At this time, the Company’s Tax Department estimates that the Company will earn
14 taxable income and will utilize prior years’ tax net operating losses (NOL) in FY 2021.
15 In Docket No. 4770, the accumulated deferred income taxes included in rate base
16 assumed estimated NOL utilization. Therefore, the difference between the new estimated
17 NOL utilization and the NOL utilization assumed in base rates has been included in the
18 vintage year FY 2021 ISR revenue requirement based on this most recent estimate of
19 FY 2021 tax deductibility. Actual tax deductibility percentages for FY 2021 capital
20 investment will not be known until the Company files its FY 2021 income tax return in

¹ The Company’s fiscal year is the 12 months ending on March 31 of each year.

1 December of this year. Consequently, the actual tax deductibility percentages for
2 FY 2021 capital investment will be reflected in the Company's FY 2022 Gas ISR
3 Reconciliation filing and will generate a true-up adjustment in that filing.

4
5 The updated FY 2021 revenue requirement also includes an adjustment associated with
6 the ISR property tax recovery formula that was approved in Docket No. 4323 and
7 Docket No. 4770. As the vintage years FY 2012 through FY 2017 were rolled into the
8 base rates approved in Docket No. 4770 that became effective on September 1, 2018, the
9 ISR property tax recovery adjustment covers only the months of September 2018 through
10 March 31, 2021.

11
12 As shown in Attachment MAL-1 on Page 1, Line 10, the updated FY 2021 Gas ISR
13 revenue requirement collectible through the Company's ISR factor for the FY 2021
14 period is \$14,851,995. This is a decrease of \$7,909,534 from the projected FY 2021 ISR
15 revenue requirement of \$22,761,529 previously approved by the PUC in this docket.

16 This revenue requirement includes updated tax deductibility percentages for FY 2020.

17 The decrease in the projected to actual revenue requirement is mainly attributable to
18 revisions made to RIPUC NG-GAS No. 101 Twelfth Revision, Section 3, dated
19 March 17, 2021, pursuant to the PUC's decision in Docket No. 5066 (FY 2022 Gas ISR
20 Plan). Beginning in FY 2021, recovery of the revenue requirement on incremental Gas
21 ISR capital investment will commence when Gas ISR capital investment is placed into

1 service, rather than when the capital spending is incurred. Other factors contributing to a
2 lower actual FY 2021 revenue requirement compared to the projected FY 2021 Plan
3 include: underspending of ISR capital investment against the approved FY 2020 and
4 FY 2021 ISR Plans; a decrease in the actual effective FY 2021 property tax rate
5 compared with the projected effective FY 2021 property tax rate in FY 2021 ISR Plan; an
6 increase in FY 2021 estimated NOL utilization from the projected FY 2021 NOL
7 utilization, which was partially offset by decrease in FY 2020 actual NOL utilization
8 compared with the projected FY 2020 included in the FY 2021 Plan; and the FY 2020
9 revenue requirement income tax true up.

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

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

- 13 • Attachment MAL-1: FY 2021 Gas Infrastructure, Safety and Reliability Plan Revenue
14 Requirement Calculation

15
16
17 **II. Gas ISR Plan FY 2021 Revenue Requirement**

18 **Q. Did the Company calculate the updated FY 2021 Gas ISR Plan revenue requirement**
19 **in the same fashion as calculated in the previous ISR factor submissions and the FY**
20 **2020 ISR factor reconciliation?**

21 A. Yes, with one exception. The FY 2021 ISR eligible capital investment is calculated
22 differently. Per the PUC's Order in Docket No. 5099 (FY 2022 Gas ISR Plan) and the
23 resulting revisions to the Company's Gas tariff, RIPUC NG-GAS No. 101 at Section 3,

1 Schedule A, Sheets 4 and 5, the definition of ISR capital investment changed from “non-
2 growth capital spending” to “non-growth capital investment recorded as in service”
3 effective April 1, 2021. As stated in Ms. Smith and Mr. Kocon’s testimony that
4 accompanies this reconciliation filing, the Company has aligned “the calculation of its
5 Gas ISR revenue requirement with the Electric ISR²” and implemented the plant-in-
6 service methodology to calculate the FY 2021 Gas ISR revenue requirement. The
7 FY 2021 vintage year ISR capital investment is calculated as the difference between
8 FY 2021 ISR capital spending and the cumulative ISR capital spending included in the
9 Construction Work in Progress (CWIP) balance as of March 31, 2021.

10
11 Other than the change described above, the updated FY 2021 ISR revenue requirement
12 calculation is identical to the ISR revenue requirement used to develop the approved ISR
13 factors that became effective April 1, 2020 and, as described previously in my testimony
14 in this proceeding, and incorporates updated ISR investment amounts and known tax
15 deductibility percentages. I will rely on my testimony included in the Company’s
16 FY 2021 ISR Plan Proposal filing in this docket for the detailed description of the
17 revenue requirement calculation and will limit this testimony to the following:

- 18 (1) a description of the impact of Docket No. 4770 to the Gas ISR revenue requirement;
19 (2) a summary of the revenue requirement update shown on Page 1 of Attachment

² PUC Order 24042, Docket No. 5099 Final Order, dated May 6, 2021.

1 MAL-1; and (3) a summary of FY 2020 revenue requirement income tax true-up shown
2 on Page 1 of Attachment MAL-1 and the update for the tax deductibility percentages.

3
4 This filing includes both the FY 2021 capital investment reconciliation and FY 2020
5 income tax true-up. As both the FY 2020 and FY 2021 periods commenced after the
6 effective date (September 1, 2018) of Docket No. 4770, the weighted average cost of
7 capital and depreciation rates applied to incremental ISR capital investment are all based
8 on rates approved in Docket No. 4770; therefore, the two-part revenue requirement
9 calculation submitted with the Company's FY 2020 ISR reconciliation filing is no longer
10 necessary because FY 2018 and FY 2019 have since been fully reconciled.

11
12 **Q. Please summarize the change in the FY 2021 ISR revenue requirement proposed in**
13 **this reconciliation filing as compared to the FY 2021 revenue requirement effective**
14 **April 1, 2020, which was based on projected capital spending approved in the**
15 **FY 2020 and FY 2021 ISR Plans.**

16 A. As shown in Attachment MAL-1, Page 1, Line 9 (c), the FY 2021 ISR reconciliation
17 results in a reduction to the FY 2021 ISR Plan revenue requirement of \$7,909,534, which
18 is the net impact of the following: (1) a \$607,081 decrease in the FY 2021 revenue
19 requirement on vintage FY 2020 ISR capital spending caused by the \$10 million lower
20 actual FY 2020 capital spending compared to the estimated FY 2020 capital spending
21 approved in the Plan, which was partially offset by the actual income tax deductibility

1 update, particularly a \$2.4 million decrease in NOL utilization; (2) a \$3,520,172 decrease
2 in the FY 2021 ISR revenue requirement on vintage 2021 ISR capital investment due to
3 lower FY 2021 capital spending compared to the Plan, the tariff change discussed above,
4 and an increase in estimated FY 2021 NOL utilization; (3) a \$3,740,845 reduction in the
5 FY 2021 property tax recovery adjustment as the actual FY 2021 effective property tax
6 rate was lower than the estimated effective rate assumed in the FY 2021 plan, in addition
7 to the underspend of FY 2021 capital investment against the FY 2021 Plan and the tariff
8 change; and (4) a \$41,437 decrease to the FY 2020 revenue requirement on vintage FY
9 2020 capital spending to reflect actual FY 2020 tax deductibility as described in detail
10 later in this testimony.

11
12 **Q. Would you describe the impact on the FY 2021 ISR revenue requirement**
13 **recoverable through the FY 2021 ISR factor resulting from the implementation of**
14 **new gas base distribution rates that were approved by the PUC in Docket No. 4770**
15 **and put into effect on September 1, 2018?**

16 A. The ISR mechanism was established to allow the Company to recover outside of base
17 rates its costs associated with capital investment incurred to expand its gas infrastructure
18 and improve the reliability and safety of its gas facilities. When new base rates are
19 implemented, as was the case in Docket No. 4770, the costs that are recovered and
20 associated with pre-rate case ISR capital investment cease to be recovered through a
21 separate ISR factor. Instead, these costs are recovered through base rates, and the

1 underlying ISR capital investment becomes a component of base distribution rate base
2 from that point forward. In November 2017, the Company filed an application with the
3 PUC seeking a change in base rates for its gas and electric distribution businesses. The
4 proceeding culminated with the PUC's approval of a settlement agreement with the
5 Division and numerous intervenors establishing new base rates for the Company. The
6 Company's rate base in that request reflected projected capital investments through
7 August 31, 2019. In its base rate request, the Company proposed to maintain consistency
8 with the existing ISR mechanism for the FY 2019 and FY 2020 periods. Consequently,
9 the forecast used to develop rate base in the first year of the distribution rate case
10 included actual capital investment through the test year ending June 30, 2017, nine
11 months of the approved ISR capital investment levels for vintage FY 2018, 12 months of
12 vintage FY 2019 investment, and five months of vintage FY 2020 investment (using the
13 FY 2018 ISR approved capital spending level as a proxy for FY 2018, FY 2019 and FY
14 2020).

15
16 As a result of the implementation of new base rates pursuant to Docket No. 4770
17 effective September 1, 2018, the cumulative amount of forecasted ISR capital
18 investments was rolled into base rates effective at that date. Consequently, the FY 2020
19 revenue requirement for incremental FY 2018 through FY 2020 ISR investments that are
20 incremental to the estimated level of investment assumed in base rates reflects a full year
21

1 of revenue requirement as none of these incremental investments are included in the
2 Company's base rate rate-base. These incremental FY vintage amounts are to remain in
3 the ISR recovery mechanism as provided for in the terms of the Docket No. 4770
4 approved Settlement Agreement. Therefore, the FY 2021 ISR revenue requirement
5 includes only one Attachment: Attachment MAL-1.

6
7 **Q. How was the Gas ISR revenue requirement revised for the change in the federal**
8 **income tax rate from 35 percent to 21 percent?**

9 A. The decrease in the federal income tax rate from 35 percent to 21 percent reduced the
10 amount of income tax to be recovered from customers on the return on equity component
11 of each Gas ISR vintage year revenue requirement. The return on rate base in each
12 revenue requirement is calculated by multiplying the Gas ISR rate base by the weighted
13 average cost of capital (WACC). The equity component of the return on rate base is the
14 taxable component of the Gas ISR revenue requirement. The federal income taxes that
15 the Company recovers from customers are derived by grossing up the WACC to a pre-tax
16 rate of return. Consequently, the Company revised the pre-tax WACC to reflect the
17 change in the federal income tax rate. The calculation of the revised pre-tax WACC in
18 Docket No. 4323 is shown on Page 22 of Attachment MAL-1 The pre-tax WACC
19 approved in Docket No. 4770 is 8.41 percent effective September 1, 2018.

20

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

3 A. Yes. Effective December 31, 2017, the Company has restated its deferred tax balances
4 based on the new 21 percent federal income tax rate because the Company is paying
5 income taxes as the book/tax timing differences reverse at the 21 percent federal income
6 tax rate. However, because deferred taxes are an offset to rate base in the Gas ISR
7 revenue requirement, reducing the deferred tax balances based on the 21 percent federal
8 income tax rate has the effect of artificially increasing rate base. To counteract this
9 artificial increase to rate base, a new line item called Excess Deferred Income Taxes has
10 been added to FY 2018 vintage year's revenue requirement calculation reflecting the
11 value of the decrease to ISR rate base as of December 31, 2017. The excess deferred
12 income taxes represent the net benefit as of December 31, 2017 that will eventually be
13 earned by the Company through reduced future income taxes and must ultimately be
14 passed back to customers. The pass back of excess deferred income taxes to customers is
15 fully reflected in base distribution rates under Docket No. 4770 per the Company's
16 Excess Deferred Income Tax True-Up Second Compliance filing dated May 30, 2019,
17 which the PUC approved on June 17, 2019. Therefore, there is no need to adjust the
18 excess deferred tax balance in the ISR revenue requirements.

19

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

2 A. As a result of the implementation of new base rates pursuant to Docket No. 4770
3 effective September 1, 2018, the cumulative amount of forecasted ISR capital
4 investments was rolled into base rates effective at that date. Consequently, the ISR
5 revenue requirements after FY 2019 reflect the revenue requirement of incremental ISR
6 investments of FY 2018 and after. Among the vintage years, only FY 2018 incremental
7 ISR investment created excess deferred tax. The excess deferred income taxes are
8 calculated on Line 18, Page 2 of Attachment MAL-1. The Company derived the excess
9 deferred income tax amounts by multiplying the cumulative balance of ISR book to tax
10 depreciation differences as of March 31, 2018 by the 10.55 percent change in the tax rate
11 (31.55 percent average rate for FY 2018 minus 21 percent).

12

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

15 A. Bonus depreciation, sometimes known as first year bonus depreciation, is an
16 accelerated tax depreciation method that was first established in 2002 as an economic
17 stimulus to incent United States corporations to increase capital investments. Bonus
18 depreciation allows companies to take an immediate tax deduction for some portion of
19 certain qualified capital investments based on the bonus depreciation rates in effect for
20 that year of investment. Bonus depreciation rates have ranged from a high of 100 percent
21 in some years to as low as 30 percent for calendar year 2019, as specified in the tax laws

1 prior to the passage of the Tax Act. Pursuant to those prior tax laws, bonus depreciation
2 was set to expire at the end of calendar year 2019. However, the Tax Act changed the
3 rules for bonus depreciation for certain capital investments, including ISR-eligible
4 investments, effective September 28, 2017. Based on the 2017 Tax Act, property
5 acquired prior to September 28, 2017 and placed in service during tax years beginning
6 after December 31, 2017 are allowed bonus depreciation. As indicated in the Company's
7 FY 2021 ISR Plan Section 3, the Company's original interpretation of the 2017 Tax Act
8 was that no deduction for bonus depreciation would be allowed in FY 2019 and FY 2020.
9 However, based on current industry practice, the Company has included actual FY 2019
10 and FY 2020 bonus depreciation in its calculation of accumulated deferred income taxes
11 in the respective vintage year's rate base. The Company's FY 2021 revenue requirement
12 includes the impact of the 2017 Tax Act on vintage FY 2018 through FY 2021
13 investments.

14
15 **Q. Are there any updates to the FY 2020 revenue requirement reflected in the FY 2021**
16 **Gas ISR Reconciliation?**

17 A. Yes. The Company filed its FY 2020 Gas ISR Reconciliation on July 31, 2020.
18 However, the Company had not filed its FY 2020 income tax return until later that year in
19 December. Consequently, the Company used certain tax assumptions at the time of its
20 FY 2020 ISR Reconciliation filing. The Company has revised its vintage FY 2020

21

1 revenue requirement to reflect the following updates in Attachment MAL-1, Pages 9
2 and 15: (1) actual capital repairs deduction rate of 76.14 percent, as shown on
3 Attachment MAL-1 at Page 9, Line 2; (2) actual percentage of plant eligible for bonus
4 depreciation of 3.33 percent, as shown on Attachment MAL-1 at Page 9, Line 11;
5 (3) actual tax loss on retirements of \$557,081, as shown on Attachment MAL-1 at Page 9,
6 Line 19; (4) actual NOL utilization of \$nil, as shown on Attachment MAL-1 at Page 15,
7 Line 10 (c). The net result of these tax deductibility updates is an decrease to the FY
8 2020 ISR revenue requirement of \$41,437, as shown on Attachment MAL-1, Page 1 at
9 Line 8.

10
11 **Q. Please summarize the updated FY 2020 ISR revenue requirement.**

12 A. As shown in Attachment MAL-1 at Page 1, Line 10, the updated FY 2021 ISR revenue
13 requirement amounts to \$14,851,995 which is comprised of (1) the FY 2021 revenue
14 requirement on vintages FY 2018, FY 2019, FY 2020 and FY 2021 ISR capital
15 investments above or below the level of capital investment reflected in base distribution
16 rates in Docket No. 4770, (2) the property tax recovery mechanism component, and (3) a
17 true-up to the FY 2020 ISR revenue requirement to reflect actual income tax deductibility
18 as reported on the Company's FY 2020 federal income tax return.

19

1 **Q. Please describe how the attachment to your testimony is structured.**

2 A. Page 1 of Attachment MAL-1 summarizes the individual components of the updated FY
3 2021 Gas ISR revenue requirement as compared to the approved FY 2021 Gas ISR Plan
4 revenue requirement effective April 1, 2020. Page 1, Column (a) reflects the approved
5 FY 2021 Gas ISR Plan revenue requirement on projected incremental ISR capital
6 spending and the projected FY 2021 property tax recovery adjustment. Page 1, Column
7 (b) represents: (1) the FY 2021 ISR revenue requirements on actual incremental FY 2018,
8 FY 2019, FY 2020 and FY 2021 ISR capital investments not included in the Company's
9 base rates in Docket No. 4770 and as supported with detailed calculations on Attachment
10 MAL-1, Pages 2, 5, 8, and 12, respectively; (2) the FY 2021 property tax adjustment on
11 incremental capital not included in the Company's base rates in Docket No. 4770 and the
12 change in the effective property rate applied to embedded net plant in Docket No. 4770;
13 and (3) the reconciliation of the approved FY 2020 Gas ISR revenue requirement for
14 vintage FY 2020 plant investment with the actual vintage FY 2020 revenue requirement
15 on those investments. This reconciliation is necessary because the actual level of tax
16 deductibility on FY 2020 investments was not known when the Company filed the FY
17 2020 ISR reconciliation and FY 2021 ISR Plan proposals. Detailed calculations of the
18 updated FY 2020 revenue requirements reflecting actual FY 2020 tax depreciation on
19 vintage FY 2020 ISR investments are presented on Column (a), Page 8 of Attachment
20 MAL-1.

21

1 **Q. Has the Company provided support for the actual level of FY 2021 ISR-eligible**
2 **plant investments?**

3 A. Yes. The description of the FY 2021 Gas ISR program and the amount of the
4 incremental non-growth capital investment eligible for inclusion in the ISR mechanism
5 are supported by the pre-filed direct testimony and supporting attachment of Ms. Smith
6 and Mr. Kocon. The ultimate revenue requirement on the incremental non-growth capital
7 investment equals the return on the investment (i.e., average rate base at the WACC),
8 plus depreciation expense and property taxes associated with the investment. Incremental
9 non-growth capital investment for this purpose is intended to represent the net change in
10 rate base for non-growth infrastructure investments since the establishment of the
11 Company's ISR mechanism effective April 1, 2011 and is defined as capital additions
12 plus cost of removal, less annual depreciation expense embedded in the Company's rates,
13 net of depreciation expense attributable to general plant. In accordance with the PUC's
14 Order in Docket 5099 (FY 2022 Gas ISR), effective as of April 1, 2021, the Company
15 has aligned "the calculation of its Gas ISR revenue requirement with the Electric ISR³"
16 and implemented the plant-in-service method to calculate the FY 2021 Gas ISR revenue
17 requirement. For the FY 2021 reconciliation, the Company performed a one-time "cut-
18 over" calculation to arrive at the FY 2021 Adjusted Capital Additions In-Service total of
19 \$110.18 million. This calculation follows the plant-in-service principle and also
20 eliminates the double counting risk for future years.

³ PUC order 24042 in Docket No. 5099 dated May 6, 2021.

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

2 A. The updated FY 2021 revenue requirement associated with the Company's actual
3 incremental FY 2018 through FY 2021 eligible plant investments is \$14,851,995. This
4 amount includes the updated FY 2021 revenue requirement of \$13,923,110 on actual FY
5 2018 through FY 2021 incremental investment, the FY 2021 property tax recovery
6 adjustment of \$970,322, and the reconciliation of the approved FY 2020 ISR revenue
7 requirement for vintage FY 2020 investment with the actual FY 2020 revenue
8 requirement of \$41,437.

9

10 **III. Conclusion**

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

12 A. Yes.

**THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
R.I.P.U.C. DOCKET NO. 4996
FY 2021 GAS INFRASTRUCTURE, SAFETY, AND RELIABILITY PLAN
ANNUAL RECONCILIATION FILING
WITNESS: MELISSA A. LITTLE
ATTACHMENTS**

Index of Attachments

Attachment MAL-1	FY 2021 Gas Infrastructure, Safety and Reliability Plan Revenue Requirement Calculation
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**THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
R.I.P.U.C. DOCKET NO. 4996
FY 2021 GAS INFRASTRUCTURE, SAFETY, AND RELIABILITY PLAN
ANNUAL RECONCILIATION FILING
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Attachment MAL-1

FY 2021 Gas Infrastructure, Safety and Reliability Plan Revenue Requirement Calculation

The Narragansett Electric Company
d/b/a National Grid
FY 2021 Gas ISR Revenue Requirement Reconciliation
FY 2021 Annual Revenue Requirement Summary

Line No.		Approved Fiscal Year 2021 (a)	Actual Fiscal Year 2021 (b)	Variance Fiscal Year 2021 (c)=(b)-(a)
	<u>Operation and Maintenance Expenses</u>			
1	FY 2021 Operation and Maintenance Expense	\$0	\$0	\$0
	<u>Capital Investment:</u>			
2	Actual Revenue Requirement on FY 2018 Incremental Capital Included in ISR Rate Base	\$676,445	\$676,445	\$0
3	Actual Revenue Requirement on FY 2019 Incremental Capital Included in ISR Rate Base	\$292,352	\$292,352	\$0
4	Actual Revenue Requirement on FY 2020 Incremental Capital Included in ISR Rate Base	\$9,556,813	\$8,949,732	(\$607,081)
5	Actual Revenue Requirement on FY 2021 Incremental Capital Included in ISR Rate Base	\$7,524,753	\$4,004,580	(\$3,520,172)
6	Total Capital Investment Revenue Requirement	<u>\$18,050,363</u>	<u>\$13,923,110</u>	<u>(\$4,127,253)</u>
7	FY 2021 Property Tax Recovery Adjustment	\$4,711,167	\$970,322	(\$3,740,845)
8	True-Up for FY 2020 Income Tax		(\$41,437)	(\$41,437)
9	Total Capital Investment Component of Revenue Requirement	<u>\$22,761,529</u>	<u>\$14,851,995</u>	<u>(\$7,909,535)</u>
10	Total Fiscal Year Revenue Requirement	<u>\$22,761,529</u>	<u>\$14,851,995</u>	<u>(\$7,909,535)</u>
11	Incremental Fiscal Year Rate Adjustment		(\$7,909,534)	

Column Notes:

(a) RIPUC Docket No. 4916, Revised Section 3, Attachment 1R, Page 1 of 22, Column (b)

Line Notes for Columns (b) only:

2 Page 2 of 22, Line 30, Col. (d)
3 Page 5 of 22, Line 29, Col. (c)
4 Page 8 of 22, Line 29, Col. (b)
5 Page 12 of 22, Line 29, Col. (a)
6 Sum of Lines 2 through 5
7 Page 21 of 22, Line 50, Column (k) × 1,000
8 Page 8 of 22, Line 31, Col. (a)
9 Sum of Line 6 through Line 8
10 Line 1 + Line 9
11 Line 10 Col (b) - Line 10 Col (a)

The Narragansett Electric Company
d/b/a National Grid
FY 2021 Gas ISR Revenue Requirement Reconciliation
FY 2021 Revenue Requirement FY 2018 Actual Incremental Gas Capital Investment

Line No.		Fiscal Year 2018 (a)	Fiscal Year 2019 (b)	Fiscal Year 2020 (c)	Fiscal Year 2021 (d)
Depreciable Net Capital Included in ISR Rate Base					
1	Total Allowed Capital Included in ISR Rate Base in Current Year	Page 15 of 22, Line 3, Col (a) \$4,632,718	\$0	\$0	\$0
2	Retirements	Page 15 of 22, Line 9, Col (a) \$12,059,428	\$0	\$0	\$0
3	Net Depreciable Capital Included in ISR Rate Base	Year 1 = Line 1 - Line 2; then = Prior Year Line 3 (\$7,426,710)	(\$7,426,710)	(\$7,426,710)	(\$7,426,710)
Change in Net Capital Included in ISR Rate Base					
4	Capital Included in ISR Rate Base	Line 1 \$4,632,718	\$0	\$0	\$0
5	Depreciation Expense	\$0	\$0	\$0	\$0
6	Incremental Capital Amount	Year 1 = Line 4 - Line 5; then = Prior Year Line 4 \$4,632,718	\$4,632,718	\$4,632,718	\$4,632,718
7	Cost of Removal	Page 15 of 22, Line 6, Col (a) \$1,941,168			
8	Net Plant Amount	Year 1 = Line 6 + Line 7, Then = Prior Year \$6,573,886	\$6,573,886	\$6,573,886	\$6,573,886
Deferred Tax Calculation:					
9	Composite Book Depreciation Rate	1/	3.38%	3.15%	2.99%
10	Tax Depreciation	Year 1=Page 3 of 22, Line 24, Col (a); then = Page 3 of 22, Col (d) \$7,820,728	\$21,720	\$20,089	\$18,585
11	Cumulative Tax Depreciation	Year 1 = Line 10; then = Prior Year Line 11 + Current Year Line 10 \$7,820,728	\$7,842,448	\$7,862,538	\$7,881,123
12	Book Depreciation	Year 1 = Line 3 × Line 9 × 50%; then = Line 3 × Line 9 (\$125,511)	(\$234,127)	(\$222,059)	(\$222,059)
13	Cumulative Book Depreciation	Year 1 = Line 12; then = Prior Year Line 13 + Current Year Line 12 (\$125,511)	(\$359,638)	(\$581,697)	(\$803,756)
14	Cumulative Book / Tax Timer	Line 11 - Line 13 \$7,946,239	\$8,202,087	\$8,444,235	\$8,684,878
15	Effective Tax Rate	2/ 21.00%	21.00%	21.00%	21.00%
16	Deferred Tax Reserve	Line 14 × Line 15 \$1,668,710	\$1,722,438	\$1,773,289	\$1,823,824
17	Less: FY 2018 Federal NOL	-Page 16 of 22, Line 10, Col (e) (\$6,051,855)	(\$6,051,855)	(\$6,051,855)	(\$6,051,855)
18	Excess Deferred Tax	(Line 14 × 31.55% blended FY18 tax rate) - Line 16; then = Prior Year Line 18 \$838,328	\$838,328	\$838,328	\$838,328
19	Net Deferred Tax Reserve before Proration Adjustment	Line 16 + Line 17 + Line 18 (\$3,544,817)	(\$3,491,089)	(\$3,440,238)	(\$3,389,703)
ISR Rate Base Calculation:					
20	Cumulative Incremental Capital Included in ISR Rate Base	Line 8 \$6,573,886	\$6,573,886	\$6,573,886	\$6,573,886
21	Accumulated Depreciation	- Line 13 \$125,511	\$359,638	\$581,697	\$803,756
22	Deferred Tax Reserve	- Line 19 \$3,544,817	\$3,491,089	\$3,440,238	\$3,389,703
23	Year End Rate Base before Deferred Tax Proration	Sum of Lines 20 through 22 \$10,244,214	\$10,424,613	\$10,595,821	\$10,767,344
Revenue Requirement Calculation:					
24	Average Rate Base before Deferred Tax Proration Adjustment	Year 1 = 0; then Average of (Prior + Current Year Line 23) \$10,510,217		\$10,510,217	\$10,681,583
25	Proration Adjustment	Year 1 and 2 = 0; then = Page 4 of 22, Line 41, Col (I) \$2,183		\$2,183	\$2,169
26	Average ISR Rate Base after Deferred Tax Proration	Line 24 + Line 25 \$10,512,400		\$10,512,400	\$10,683,752
27	Pre-Tax ROR	Page 22 of 22, Line 30, Column (e) 8.41%		8.41%	8.41%
28	Return and Taxes	Line 26 × Line 27 \$884,093		\$884,093	\$898,504
29	Book Depreciation	Year 1 = N/A; then = Line 12 (\$222,059)		(\$222,059)	(\$222,059)
30	Annual Revenue Requirement	Sum of Lines 28 through 29 N/A	N/A	\$662,034	\$676,445

1/ 3.38%, Composite Book Depreciation Rate approved per RIPUC Docket No. 4323, in effect until Aug 31, 2018
2.99%, Composite Book Depreciation Rate approved per RIPUC Docket No. 4770, effective on Sep 1, 2018
FY 19 Composite Book Depreciation Rate = 3.38% × 5 / 12 + 2.99% × 7 / 12
2/ The Federal Income Tax rate changed from 35% to 21% on January 1, 2018 per the Tax Cuts and Jobs Act of 2017

FY 2021 Gas ISR Revenue Requirement Reconciliation
Calculation of Tax Depreciation and Repairs Deduction on FY 2018 Incremental Capital Investment

Line No.		Fiscal Year 2018 (a)	(b)	(c)	(d)	(e)
	Capital Repairs Deduction					
1	Plant Additions	\$4,632,718				
2	Capital Repairs Deduction Rate	85.43%				
3	Capital Repairs Deduction	\$3,957,731				
			Page 2 of 22, Line 1			
			Per Tax Department			
			Line 1 × Line 2			
4	Bonus Depreciation		Line 1			
5	Plant Additions	\$4,632,718	Line 3			
6	Less Capital Repairs Deduction	\$3,957,731	Line 5 - Line 6			
7	Plant Additions Net of Capital Repairs Deduction	\$674,987	Per Tax Department			
8	Percent of Plant Eligible for Bonus Depreciation	100.00%	Line 7 × Line 8			
9	Plant Eligible for Bonus Depreciation	\$674,987	100% × 15.86%			
10	Bonus depreciation 100% category	15.86%	50% × 58.05%			
11	Bonus depreciation 50% category	29.03%	40% × 26.35%			
12	Bonus depreciation 40% category	10.54%	1 × 50% × 0%			
13	Bonus Depreciation Rate (October 2017 - March 2018)	0.00%	Line 10 + Line 11 + Line 12 + Line 13			
14	Total Bonus Depreciation Rate	55.43%	Line 9 × Line 14			
15	Bonus Depreciation	\$374,112				
	Remaining Tax Depreciation		Line 1			
16	Plant Additions	\$4,632,718	Line 3			
17	Less Capital Repairs Deduction	\$3,957,731	Line 15			
18	Less Bonus Depreciation	\$374,112				
	Remaining Plant Additions Subject to 20 YR MACRS Tax		Line 16 - Line 17 - Line 18			
19	Depreciation	\$300,875	IRS Publication 946			
20	20 YR MACRS Tax Depreciation Rates	3.75%	Line 19 × Line 20			
21	Remaining Tax Depreciation	\$11,283	Per Tax Department			
22	FY18 tax (gain)/loss on retirements	\$1,536,434	Page 2 of 22, Line 7			
23	Cost of Removal	\$1,941,168				
24	Total Tax Depreciation and Repairs Deduction	\$7,820,728	Sum of Lines 3, 15, 21, 22 & 23			

20 Year MACRS Depreciation		(b)	(c)	(d)	(e)
MACRS basis:	Annual				Cumulative
Fiscal Year					
2018	\$300,875				\$7,820,728
2019	\$11,283	3.75%			\$7,842,448
2020	\$21,720	7.22%			\$7,862,538
2021	\$20,089	6.68%			\$7,881,123
2022	\$18,585	6.18%			\$7,898,312
2023	\$17,189	5.71%			\$7,914,213
2024	\$15,901	5.29%			\$7,928,920
2025	\$14,707	4.89%			\$7,942,525
2026	\$13,606	4.52%			\$7,955,950
2027	\$13,425	4.46%			\$7,969,372
2028	\$13,422	4.46%			\$7,982,797
2029	\$13,422	4.46%			\$7,996,219
2030	\$13,425	4.46%			\$8,009,644
2031	\$13,422	4.46%			\$8,023,066
2032	\$13,425	4.46%			\$8,036,491
2033	\$13,422	4.46%			\$8,049,913
2034	\$13,425	4.46%			\$8,063,338
2035	\$13,422	4.46%			\$8,076,761
2036	\$13,425	4.46%			\$8,090,186
2037	\$13,422	4.46%			\$8,103,608
2038	\$6,713	2.23%			\$8,110,320
	\$300,875	100.00%			

1/ Capital Repairs percentage is based on the actual results of the FY 2018 tax return.

2/ Percent of Plant Eligible for Bonus Depreciation is the actual result of FY2018 tax return

3/ Actual Loss for FY2018

The Narragansett Electric Company
d/b/a National Grid
FY 2021 Gas ISR Revenue Requirement Reconciliation
Calculation of Net Deferred Tax Reserve Proration on FY 2018 Incremental Capital Investment

Line No.	Deferred Tax Subject to Proration		(a) FY20	(b) FY21	
		Col (a): Docket 4916, R.S. 3, Att. 1R, page 4 Col (a), Col (b): Docket 4996, R.S. 3, Att. 1R, page 4 Col (b)			
1	Book Depreciation		(\$222,059)	(\$222,059)	
2	Bonus Depreciation		\$0	\$0	
		Col (a): Docket 4916, R.S. 3, Att. 1R, page 4 Col (a), Col (b): Docket 4996, R.S. 3, Att. 1R, page 4 Col (b)			
3	Remaining MACRS Tax Depreciation		(\$20,089)	(\$18,585)	
4	FY18 tax (gain)/loss on retirements		\$0	\$0	
5	Cumulative Book / Tax Timer	Sum of Lines 1 through 4	(\$242,148)	(\$240,644)	
6	Effective Tax Rate		21%	21%	
7	Deferred Tax Reserve	Line 5 × Line 6	(\$50,851)	(\$50,535)	
	Deferred Tax Not Subject to Proration				
8	Capital Repairs Deduction				
9	Cost of Removal				
10	Book/Tax Depreciation Timing Difference at 3/31/2017				
11	Cumulative Book / Tax Timer	Line 8 + Line 9 + Line 10			
12	Effective Tax Rate				
13	Deferred Tax Reserve	Line 11 × Line 12			
14	Total Deferred Tax Reserve	Line 7 + Line 13	(\$50,851)	(\$50,535)	
15	Net Operating Loss		\$0	\$0	
16	Net Deferred Tax Reserve	Line 14 + Line 15	(\$50,851)	(\$50,535)	
	Allocation of FY 2018 Estimated Federal NOL				
17	Cumulative Book/Tax Timer Subject to Proration	Line 5	(\$242,148)	(\$240,644)	
18	Cumulative Book/Tax Timer Not Subject to Proration	Line 11	\$0	\$0	
19	Total Cumulative Book/Tax Timer	Line 17 + Line 18	(\$242,148)	(\$240,644)	
20	Total FY 2018 Federal NOL		\$0	\$0	
21	Allocated FY 2018 Federal NOL Not Subject to Proration	(Line 18 ÷ Line 19) × Line 20	\$0	\$0	
22	Allocated FY 2018 Federal NOL Subject to Proration	(Line 17 ÷ Line 19) × Line 20	\$0	\$0	
23	Effective Tax Rate		21%	21%	
24	Deferred Tax Benefit subject to proration	Line 22 × Line 23	\$0	\$0	
25	Net Deferred Tax Reserve subject to proration	Line 7 + Line 24	(\$50,851)	(\$50,535)	
	Proration Calculation				
		(h) <u>Number of Days in Month</u>	(i) <u>Proration Percentage</u>	(j) <u>FY20</u>	(k) <u>FY21</u>
26	April	30	91.78%	(\$3,889)	(\$3,865)
27	May	31	83.29%	(\$3,529)	(\$3,507)
28	June	30	75.07%	(\$3,181)	(\$3,161)
29	July	31	66.58%	(\$2,821)	(\$2,804)
30	August	31	58.08%	(\$2,461)	(\$2,446)
31	September	30	49.86%	(\$2,113)	(\$2,100)
32	October	31	41.37%	(\$1,753)	(\$1,742)
33	November	30	33.15%	(\$1,405)	(\$1,396)
34	December	31	24.66%	(\$1,045)	(\$1,038)
35	January	31	16.16%	(\$685)	(\$681)
36	February	28	8.49%	(\$360)	(\$358)
37	March	31	0.00%	\$0	\$0
38	Total	365		(\$23,243)	(\$23,098)
39	Deferred Tax Without Proration	Line 25	(\$50,851)	(\$50,535)	
40	Average Deferred Tax without Proration	Line 39 × 50%	(\$25,426)	(\$25,268)	
41	Proration Adjustment	Line 38 - Line 40	\$2,183	\$2,169	

Column Notes:

- (i) Sum of remaining days in the year (Col (h)) ÷ 365
- (j)&(k) Current Year Line 25 ÷ 12 × Current Month Col (i)

The Narragansett Electric Company
d/b/a National Grid
FY 2021 Gas ISR Revenue Requirement Reconciliation
FY 2021 Revenue Requirement FY 2019 Actual Incremental Gas Capital Investment

Line No.		Fiscal Year 2019 (a)	Fiscal Year 2020 (b)	Fiscal Year 2021 (c)
<u>Depreciable Net Capital Included in ISR Rate Base</u>				
1	Total Allowed Capital Included in ISR Rate Base in Current Year			
2	Retirements	Page 15 of 22 , Line 3 ,Col (b) (\$914,000)	\$0	\$0
3	Net Depreciable Capital Included in ISR Rate Base	Page 15 of 22 , Line 9 ,Col (b) Year 1 = Line 1 - Line 2; then = Prior Year Line 3 \$454,021	\$0 \$454,021	\$0 \$454,021
<u>Change in Net Capital Included in ISR Rate Base</u>				
4	Capital Included in ISR Rate Base	Line 1	(\$914,000)	\$0
5	Depreciation Expense		\$0	\$0
6	Incremental Capital Amount	Year 1 = Line 4 - Line 5; then = Prior Year Line 6	(\$914,000)	(\$914,000)
7	Cost of Removal	Page 15 of 22 , Line 6 ,Col (b)	\$5,626,564	
8	Net Plant Amount	Line 1 = Line 6+7; Then = Prior Year	\$4,712,564	\$4,712,564
<u>Deferred Tax Calculation:</u>				
9	Composite Book Depreciation Rate	As Approved in RIPUC Docket No. 4323 & 4770	1/ 3.15%	2.99%
10	Tax Depreciation			
11	Cumulative Tax Depreciation	Year 1 = Page 6 of 22, Line 21, Col (a); then = Page 6 of 22, Col (d) Year 1 = Line 10; then = Prior Year Line 11 + Current Year Line 10	\$5,200,130 \$5,200,130	(\$8,390) \$5,191,739
12	Book Depreciation	Year 1 = Line 3 × Line 9 × 50%; then = Line 3 × Line 9	\$7,157	\$13,575
13	Cumulative Book Depreciation	Year 1 = Line 12; then = Prior Year Line 13 + Current Year Line 12	\$7,157	\$20,732
14	Cumulative Book / Tax Timer	Line 11 - Line 13	\$5,192,973	\$5,171,007
15	Effective Tax Rate		21.00%	21.00%
16	Deferred Tax Reserve	Line 14 × Line 15	\$1,090,524	\$1,085,911
17	Add: FY 2019 Federal NOL incremental utilization	Page 15 of 22, Line 12, Col (b)	\$286,350	\$286,350
18	Net Deferred Tax Reserve before Proration Adjustment	Line 16 + Line 17	\$1,376,874	\$1,372,261
<u>ISR Rate Base Calculation:</u>				
19	Cumulative Incremental Capital Included in ISR Rate Base	Line 8	\$4,712,564	\$4,712,564
20	Accumulated Depreciation	- Line 13	(\$7,157)	(\$20,732)
21	Deferred Tax Reserve	- Line 18	(\$1,376,874)	(\$1,372,261)
22	Year End Rate Base before Deferred Tax Proration	Sum of Lines 19 through 21	\$3,328,533	\$3,319,570
<u>Revenue Requirement Calculation:</u>				
23	Average Rate Base before Deferred Tax Proration Adjustment	Year 1 = Current Year Line 22 ÷ 2; then = (Prior Year Line 22 + Current Year Line 22) ÷ 2		\$3,324,051
24	Proration Adjustment	Year 1 = 0; then = Page 7 of 22, Line 41, Col (j)		(\$58)
25	Average ISR Rate Base after Deferred Tax Proration	Line 23 + Line 24	\$3,323,993	\$3,314,831
26	Pre-Tax ROR	Page 22 of 22, Line 30, Column (e)	8.41%	8.41%
27	Return and Taxes	Line 25 × Line 26	\$279,548	\$278,777
28	Book Depreciation	Line 12	\$13,575	\$13,575
29	Annual Revenue Requirement	Sum of Lines 27 through 28	N/A	\$293,123

1/ 3.38%, Composite Book Depreciation Rate approved per RIPUC Docket No. 4323, in effect until Aug 31, 2018
2.99%, Composite Book Depreciation Rate approved per RIPUC Docket No. 4770, effective on Sep 1, 2018
FY 19 Composite Book Depreciation Rate = 3.38% × 5 / 12 + 2.99% × 7 / 12

The Narragansett Electric Company
d/b/a National Grid
FY 2021 Gas ISR Revenue Requirement Reconciliation
Calculation of Tax Depreciation and Repairs Deduction on FY 2019 Incremental Capital Investment

Line No.			Fiscal Year				
			2019	(b)	(c)	(d)	(e)
			(a)				
Capital Repairs Deduction							
1	Plant Additions	Page 5 of 22, Line 1	(\$914,000)				
2	Capital Repairs Deduction Rate	Per Tax Department 1/	85.18%				
3	Capital Repairs Deduction	Line 1 × Line 2	(\$778,545)				
						MACRS basis: (\$116,227)	
						Annual	Cumulative
Bonus Depreciation							
4	Plant Additions	Line 1	(\$914,000)	2019	3.75%	(\$4,359)	\$5,200,130
5	Less Capital Repairs Deduction	Line 3	(\$778,545)	2020	7.22%	(\$8,390)	\$5,191,739
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5	(\$135,455)	2021	6.68%	(\$7,760)	\$5,183,979
7	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department	100.00%	2022	6.18%	(\$7,179)	\$5,176,799
8	Plant Eligible for Bonus Depreciation	Line 6 × Line 7	(\$135,455)	2023	5.71%	(\$6,640)	\$5,170,159
9	Bonus Depreciation Rate (30% Eligible)	1 × 30% × 11.65%	3.50%	2024	5.29%	(\$6,143)	\$5,164,017
10	Bonus Depreciation Rate (40% Eligible)	1 × 40% × 26.75%	10.70%	2025	4.89%	(\$5,681)	\$5,158,335
11	Total Bonus Depreciation Rate	Line 9 + Line 10	14.20%	2026	4.52%	(\$5,256)	\$5,153,080
12	Bonus Depreciation	Line 8 × Line 11	(\$19,228)	2027	4.46%	(\$5,186)	\$5,147,894
				2028	4.46%	(\$5,185)	\$5,142,709
				2029	4.46%	(\$5,186)	\$5,137,523
				2030	4.46%	(\$5,185)	\$5,132,338
Remaining Tax Depreciation							
13	Plant Additions	Line 1	(\$914,000)	2031	4.46%	(\$5,186)	\$5,127,152
14	Less Capital Repairs Deduction	Line 3	(\$778,545)	2032	4.46%	(\$5,185)	\$5,121,967
15	Less Bonus Depreciation	Line 12	(\$19,228)	2033	4.46%	(\$5,186)	\$5,116,781
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 13 - Line 14 - Line 15	(\$116,227)	2034	4.46%	(\$5,185)	\$5,111,596
17	20 YR MACRS Tax Depreciation Rates	IRS Publication 946	3.75%	2035	4.46%	(\$5,186)	\$5,106,410
18	Remaining Tax Depreciation	Line 16 × Line 17	(\$4,359)	2036	4.46%	(\$5,185)	\$5,101,225
				2037	4.46%	(\$5,186)	\$5,096,039
19	FY19 tax (gain)/loss on retirements	Per Tax Department 3/	\$375,698	2038	4.46%	(\$5,185)	\$5,090,854
20	Cost of Removal	Page 5 of 22, Line 7	\$5,626,564	2039	2.23%	(\$2,593)	\$5,088,261
21	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 19 & 20	\$5,200,130		100.00%	(\$116,227)	\$0

1/ Capital Repairs percentage is the actual result of FY2019 tax return
2/ Percent of Plant Eligible for Bonus Depreciation is the actual result of FY2019 tax return
3/ Actual Loss the actual result of FY2019 tax return

The Narragansett Electric Company
d/b/a National Grid
FY 2021 Gas ISR Revenue Requirement Reconciliation
Calculation of Net Deferred Tax Reserve Proration on FY 2019 Incremental Capital Investment

Line No.	Deferred Tax Subject to Proration		(a) FY20	(b) FY21
1	Book Depreciation	Col (a): Docket 4916, R.S. 3, Att. 1R, page 7 Col (a),	\$162,791	\$13,575
2	Bonus Depreciation	Col (b): Docket 4996, R.S. 3, Att. 1R, page 7 Col (b)	\$0	\$0
3	Remaining MACRS Tax Depreciation	Col (a): Docket 4916, R.S. 3, Att. 1R, page 7 Col (a),	(\$156,315)	\$7,760
4	FY19 tax (gain)/loss on retirements	Col (b): Docket 4996, R.S. 3, Att. 1R, page 7 Col (b)	\$0	\$0
5	Cumulative Book / Tax Timer	Sum of Lines 1 through 4	\$6,476	\$21,336
6	Effective Tax Rate		21%	21%
7	Deferred Tax Reserve	Line 5 × Line 6	\$1,360	\$4,480
8	Deferred Tax Not Subject to Proration			
9	Capital Repairs Deduction			
10	Cost of Removal			
11	Book/Tax Depreciation Timing Difference at 3/31/2019			
12	Cumulative Book / Tax Timer	Line 8 + Line 9 + Line 10	\$0	\$0
13	Deferred Tax Reserve	Line 11 × Line 12	\$0	\$0
14	Total Deferred Tax Reserve	Line 7 + Line 13	\$1,360	\$4,480
15	Net Operating Loss		\$0	\$0
16	Net Deferred Tax Reserve	Line 14 + Line 15	\$1,360	\$4,480
17	Allocation of FY 2019 Estimated Federal NOL			
18	Cumulative Book/Tax Timer Subject to Proration	Line 5	\$6,476	\$21,336
19	Cumulative Book/Tax Timer Not Subject to Proration	Line 11	\$0	\$0
20	Total Cumulative Book/Tax Timer	Line 17 + Line 18	\$6,476	\$21,336
21	Total FY 2019 Federal NOL		\$0	\$0
22	Allocated FY 2019 Federal NOL Not Subject to Proration	(Line 18 ÷ Line 19) × Line 20	\$0	\$0
23	Allocated FY 2019 Federal NOL Subject to Proration	(Line 17 ÷ Line 19) × Line 20	\$0	\$0
24	Deferred Tax Benefit subject to proration	Line 22 × Line 23	\$0	\$0
25	Net Deferred Tax Reserve subject to proration	Line 7 + Line 24	\$1,360	\$4,480
		(h) Number of Days in Month	(j) FY20	(k) FY21
26	Proration Calculation			
27	April	30	91.78%	\$104
28	May	31	83.29%	\$94
29	June	30	75.07%	\$85
30	July	31	66.58%	\$75
31	August	31	58.08%	\$66
32	September	30	49.86%	\$57
33	October	31	41.37%	\$47
34	November	30	33.15%	\$38
35	December	31	24.66%	\$28
36	January	31	16.16%	\$18
37	February	28	8.49%	\$10
38	March	31	0.00%	\$0
39	Total	365		\$622
39	Deferred Tax Without Proration	Line 25	\$1,360	\$4,480
40	Average Deferred Tax without Proration	Line 39 × 50%	\$680	\$2,240
41	Proration Adjustment	Line 38 - Line 40	(\$58)	(\$192)

Column Notes:

- (i) Sum of remaining days in the year (Col (h)) ÷ 365
- (j)&(k) Current Year Line 25 ÷ 12 × Current Month Col (i)

The Narragansett Electric Company
d/b/a National Grid
FY 2021 Gas ISR Revenue Requirement Reconciliation
FY 2021 Revenue Requirement FY 2020 Actual Incremental Gas Capital Investment

Line No.			Fiscal Year 2020 (a)	Fiscal Year 2021 (b)
<u>Depreciable Net Capital Included in ISR Rate Base</u>				
1	Total Allowed Capital Included in ISR Rate Base in Current Year	Page 15 of 22 , Line 3 ,Col (c)	\$105,296,046	\$0
2	Retirements	Page 15 of 22 , Line 9 ,Col (c)	1/ \$4,276,135	\$0
3	Net Depreciable Capital Included in ISR Rate Base	Year 1 = Line 1 - Line 2; then = Prior Year Line 3	\$101,019,911	\$101,019,911
<u>Change in Net Capital Included in ISR Rate Base</u>				
4	Capital Included in ISR Rate Base	Line 1	\$105,296,046	\$0
5	Depreciation Expense	Page 19 of 22, Line 72(c)	\$23,534,853	\$0
6	Incremental Capital Amount	Year 1 = Line 4 - Line 5; then = Prior Year Line 6	\$81,761,193	\$81,761,193
7	Cost of Removal	Page 15 of 22 , Line 6 ,Col (c)	\$7,055,630	
8	Net Plant Amount	Line 1 = Line 6+7; Then = Prior Year	\$88,816,823	\$88,816,823
<u>Deferred Tax Calculation:</u>				
9	Composite Book Depreciation Rate	Page 17 of 22, Line 86(e)	1/ 2.99%	2.99%
10	Tax Depreciation	Year 1 =Page 9 of 22, Line 21, Col (a); then =Page 9 of 22, Col (d)	\$89,531,414	\$1,753,362
11	Cumulative Tax Depreciation	Year 1 = Line 10; then = Prior Year Line 11 + Current Year Line 10	\$89,531,414	\$91,284,775
12	Book Depreciation	Year 1 = Line 3 × Line 9 × 50% ; then = Line 3 × Line 9	\$1,510,248	\$3,020,495
13	Cumulative Book Depreciation	Year 1 = Line 12; then = Prior Year Line 13 + Current Year Line 12	\$1,510,248	\$4,530,743
14	Cumulative Book / Tax Timer	Line 11 - Line 13	\$88,021,166	\$86,754,032
15	Effective Tax Rate		21.00%	21.00%
16	Deferred Tax Reserve	Line 14 × Line 15	\$18,484,445	\$18,218,347
17	Add: FY 2020 Federal NOL utilization	Page 15 of 22, Line 12, Col (c)	(\$3,063,059)	(\$3,063,059)
18	Net Deferred Tax Reserve before Proration Adjustment	Line 16 + Line 17	\$15,421,386	\$15,155,288
<u>ISR Rate Base Calculation:</u>				
19	Cumulative Incremental Capital Included in ISR Rate Base	Line 8	\$88,816,823	\$88,816,823
20	Accumulated Depreciation	- Line 13	(\$1,510,248)	(\$4,530,743)
21	Deferred Tax Reserve	- Line 18	(\$15,421,386)	(\$15,155,288)
22	Year End Rate Base before Deferred Tax Proration	Sum of Lines 19 through 21	\$71,885,189	\$69,130,792
<u>Revenue Requirement Calculation:</u>				
23	Average Rate Base before Deferred Tax Proration Adjustment	Year 1 = Line 22 × Page 11 of 22, Line 16; then = Average of (Prior Year Line 22 + Current Year Line 22/2)	\$28,214,937	\$70,507,990
24	Proration Adjustment	Page 10 of 22, Line 41, Col (j)	\$11,181	(\$5,774)
25	Average ISR Rate Base after Deferred Tax Proration	Line 23 + Line 24	\$28,226,118	\$70,502,216
26	Pre-Tax ROR	Page 22 of 22, Line 30, Column (e)	8.41%	8.41%
27	Return and Taxes	Line 25 × Line 26	\$2,373,816	\$5,929,236
28	Book Depreciation	Line 12	\$1,510,248	\$3,020,495
29	Annual Revenue Requirement	Sum of Lines 27 through 28	\$3,884,064	\$8,949,732
30	Docket No. 4916, FY 2020 Gas ISR Reconciliation, Page 1, Line 4(b)		\$3,925,501	
31	2020 Tax TrueUp		(\$41,437)	

1/ 2.99%, Composite Book Depreciation Rate of Distribution Plant approved per RIPUC Docket No. 4770, effective on Sep 1, 2018

The Narragansett Electric Company
d/b/a National Grid
FY 2021 Gas ISR Revenue Requirement Reconciliation
Calculation of Tax Depreciation and Repairs Deduction on FY 2020 Incremental Capital Investments

Line No.	Description	Fiscal Year 2020 (a)	(b)	(c)	(d)	(e)
						0.14400
Capital Repairs Deduction						
1	Plant Additions	\$105,296,046	Page 8 of 22, Line 1			
2	Capital Repairs Deduction Rate	76.14%	Per Tax Department			
3	Capital Repairs Deduction	\$80,172,409	Line 1 × Line 2			
Bonus Depreciation						
4	Plant Additions	\$105,296,046	Line 1			
5	Less Capital Repairs Deduction	\$80,172,409	Line 3			
6	Plant Additions Net of Capital Repairs Deduction	\$25,123,637	Line 4 - Line 5			
7	Percent of Plant Eligible for Bonus Depreciation	100.00%	Per Tax Department			
8	Plant Eligible for Bonus Depreciation	\$25,123,637	Line 6 × Line 7			
9	Bonus Depreciation Rate 30%, up to December 31, 2019	3.33%	14.78% × 30% × 75%			
10	Bonus Depreciation Rate 0%, after December 31, 2019	0.00%				
11	Total Bonus Depreciation Rate	3.33%	Line 9 + Line 10			
12	Bonus Depreciation	\$835,487	Line 8 × Line 11			
Remaining Tax Depreciation						
13	Plant Additions	\$105,296,046	Line 1			
14	Less Capital Repairs Deduction	\$80,172,409	Line 3			
15	Less Bonus Depreciation	\$835,487	Line 12			
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	\$24,288,150	Line 13 - Line 14 - Line 15			
17	20 YR MACRS Tax Depreciation Rates	3.75%	IRS Publication 946			
18	Remaining Tax Depreciation	\$910,806	Line 16 × Line 17			
19	FY20 tax (gain)/loss on retirements	\$557,081	Per Tax Department			
20	Cost of Removal	\$7,055,630	Page 8 of 22, Line 7			
21	Total Tax Depreciation and Repairs Deduction	\$89,531,414	Sum of Lines 3, 12, 18, 19 & 20			

1/ Capital Repairs percentage is the actual result of FY2020 tax return
2/ Percent of Plant Eligible for Bonus Depreciation is the actual result of FY2020 tax return
3/ Actual Loss based on FY2020 tax return

The Narragansett Electric Company
d/b/a National Grid
FY 2021 Gas ISR Revenue Requirement Reconciliation
Calculation of Net Deferred Tax Reserve Proration on FY 2020 Incremental Capital Investments

Line No.		(a) FY20	(b) FY21
Deferred Tax Subject to Proration			
1	Book Depreciation	Col (a): Docket 4916, R.S. 3, Att. 1R, page 10 Col (a), Col (b): Docket 4996, R.S. 3, Att. 1R, page 10 Col (b)	\$1,571,147
2	Bonus Depreciation		\$0
3	Remaining MACRS Tax Depreciation	Col (a): Docket 4916, R.S. 3, Att. 1R, page 10 Col (a), Col (b): Docket 4996, R.S. 3, Att. 1R, page 10 Col (b) Year 1 = Docket no. 4916, R.S. 3, Att. 1R, page 10 Col (a); then = 0	(\$1,349,676)
4	FY20 tax (gain)/loss on retirements		\$0
5	Cumulative Book / Tax Timer	Sum of Lines 1 through 4	\$656,320
6	Effective Tax Rate		21%
7	Deferred Tax Reserve	Line 5 × Line 6	(\$238,978)
Deferred Tax Not Subject to Proration			
8	Capital Repairs Deduction	Year 1 = Docket no. 4916, R.S. 3, Att. 1R, page 10 Col (a); then = 0	(\$79,736,483)
9	Cost of Removal	Year 1 = Docket no. 4916, R.S. 3, Att. 1R, page 10 Col (a); then = 0	(\$4,804,530)
10	Book/Tax Depreciation Timing Difference at 3/31/2020		
11	Cumulative Book / Tax Timer	Line 8 + Line 9 + Line 10	(\$84,541,013)
12	Effective Tax Rate		21%
13	Deferred Tax Reserve	Line 11 × Line 12	(\$17,753,613)
14	Total Deferred Tax Reserve	Line 7 + Line 13	(\$17,992,590)
15	Net Operating Loss		\$137,827
16	Net Deferred Tax Reserve	Line 14 + Line 15	(\$17,992,590)
Allocation of FY 2018 Estimated Federal NOL			
17	Cumulative Book/Tax Timer Subject to Proration	Line 5	(\$1,137,989)
18	Cumulative Book/Tax Timer Not Subject to Proration	Line 11	(\$84,541,013)
19	Total Cumulative Book/Tax Timer	Line 17 + Line 18	(\$85,679,002)
20	Total FY 2020 Federal NOL	Year 1 = Docket no. 4916, R.S. 3, Att. 1R, page 10 Col (a); then = 0	(\$9,513,316)
21	Allocated FY 2020 Federal NOL Not Subject to Proration	(Line 18 ÷ Line 19) × Line 20	(\$9,386,960)
22	Allocated FY 2020 Federal NOL Subject to Proration	(Line 17 ÷ Line 19) × Line 20	(\$126,356)
23	Effective Tax Rate		21%
24	Deferred Tax Benefit subject to proration	Line 22 × Line 23	(\$26,535)
25	Net Deferred Tax Reserve subject to proration	Line 7 + Line 24	(\$265,512)
Proration Calculation			
		(h) Number of Days in Month	(i) Proration Percentage
26	April	30	91.80%
27	May	31	83.33%
28	June	30	75.14%
29	July	31	66.67%
30	August	31	58.20%
31	September	30	50.00%
32	October	31	41.53%
33	November	30	33.33%
34	December	31	24.86%
35	January	31	16.39%
36	February	29	8.47%
37	March	31	0.00%
38	Total	366	
39	Deferred Tax Without Proration	Line 25	(\$265,512)
40	Average Deferred Tax without Proration		\$137,827
41	Proration Adjustment	Per RIPUC Docket No. 4996, FY2021 Gas ISR Plan Filing, revised Section 3, Attachment 1R, Page 10 of 22 Line 38 - Line 40	(\$106,789)
			\$11,181
			(\$5,774)

Column Notes:

- (i) Sum of remaining days in the year (Col (h)) divided by 365
- (j) Docket no. 4916, R.S. 3, Att. 1R, page 10 Col (j)
- (j) & (k) Current Year Line 25 ÷ 12 × Current Month Col (i)

The Narragansett Electric Company
d/b/a National Grid
FY 2021 Gas ISR Revenue Requirement Reconciliation
ISR Additions April through August 2019

Line No.	Month No.	Month	FY 2020 ISR Additions (a)	In Rates (b)	Not In Rates (c) = (a) - (b)	Weight for Days (d)	Weighted Average (e) = (d) × (c)	Weight for Investment (f) = (c) ÷ Total(c)
1								
2	1	Apr-19	\$12,009,983	\$7,764,750	\$4,245,233	0.958	\$4,068,348	4.03%
3	2	May-19	\$12,009,983	\$7,764,750	\$4,245,233	0.875	\$3,714,579	4.03%
4	3	Jun-19	\$12,009,983	\$7,764,750	\$4,245,233	0.792	\$3,360,809	4.03%
5	4	Jul-19	\$12,009,983	\$7,764,750	\$4,245,233	0.708	\$3,007,040	4.03%
6	5	Aug-19	\$12,009,983	\$7,764,750	\$4,245,233	0.625	\$2,653,271	4.03%
7	6	Sep-19	\$12,009,983	\$0	\$12,009,983	0.542	\$6,505,407	11.41%
8	7	Oct-19	\$12,009,983	\$0	\$12,009,983	0.458	\$5,504,576	11.41%
9	8	Nov-19	\$12,009,983	\$0	\$12,009,983	0.375	\$4,503,744	11.41%
10	9	Dec-19	\$12,009,983	\$0	\$12,009,983	0.292	\$3,502,912	11.41%
11	10	Jan-20	\$12,009,983	\$0	\$12,009,983	0.208	\$2,502,080	11.41%
12	11	Feb-20	\$12,009,983	\$0	\$12,009,983	0.125	\$1,501,248	11.41%
13	12	Mar-20	\$12,009,983	\$0	\$12,009,983	0.042	\$500,416	11.41%
14		Total	\$144,119,796	\$38,823,750	\$105,296,046		\$41,324,429	100.00%
15		Total Additions September 2019 through March 2020			\$84,069,881			
16		FY 2020 Weighted Average Incremental Rate Base Percentage					39.25%	

Column (a)=Page 15 of 22 , Line 1 ,Col (c)
Column (b)=Page 15 of 22 , Line 2 ,Col (c)
Column (d) = (12.5 - Month No.) ÷ 12
Line 14 = Page 15 of 22 Line 1 Col (c)
Line 15 = Sum of Lines 7(c) through 13(c)
Line 16 = Line 14(e)/Line 14(c)

The Narragansett Electric Company
d/b/a National Grid
FY 2021 Gas ISR Revenue Requirement Reconciliation
FY 2021 Revenue Requirement FY 2021 Forecasted Incremental Gas Capital Investment

Line No.			Fiscal Year 2021 (a)
<u>Depreciable Net Capital Included in ISR Rate Base</u>			
1	Total Allowed Capital Included in ISR Rate Base in Current Year	Page 15 of 22 , Line 3 ,Col (d)	\$110,177,659
2	Retirements	Page 15 of 22 , Line 9 ,Col (d)	1/ \$3,860,987
3	Net Depreciable Capital Included in ISR Rate Base	Year 1 = Line 1 - Line 2; then = Prior Year Line 3	\$106,316,672
<u>Change in Net Capital Included in ISR Rate Base</u>			
4	Capital Included in ISR Rate Base	Line 1	\$110,177,659
5	Depreciation Expense	Page 18 of 22, Line 78(e)	\$40,700,586
6	Incremental Capital Amount	Year 1 = Line 4 - Line 5; then = Prior Year Line 6	\$69,477,072
7	Cost of Removal	Page 15 of 22 , Line 6 ,Col (d)	\$8,861,636
8	Net Plant Amount	Line 6 + Line 7	\$78,338,709
<u>Deferred Tax Calculation:</u>			
9	Composite Book Depreciation Rate	Page 16 of 22, Line 86(e)	1/ 2.99%
10	Tax Depreciation	Year 1 =Page 13 of 22, Line 21, Col (a); then = Page 13 of 22, Col (d)	\$104,986,185
11	Cumulative Tax Depreciation	Year 1 = Line 10; then = Prior Year Line 11 + Current Year Line 10	\$104,986,185
12	Book Depreciation	Year 1 = Line 3 × Line 9 × 50% ; then = Line 3 × Line 9	\$1,589,434
13	Cumulative Book Depreciation	Year 1 = Line 12; then = Prior Year Line 13 + Current Year Line 12	\$1,589,434
14	Cumulative Book / Tax Timer	Line 11 - Line 13	\$103,396,751
15	Effective Tax Rate		21.00%
16	Deferred Tax Reserve	Line 14 × Line 15	\$21,713,318
17	Add: FY 2021 Federal NOL utilization	Page 15 of 22 , Line 12 ,Col (d)	(\$2,395,810)
18	Net Deferred Tax Reserve before Proration Adjustment	Line 16 + Line 17	\$19,317,507
<u>ISR Rate Base Calculation:</u>			
19	Cumulative Incremental Capital Included in ISR Rate Base	Line 8	\$78,338,709
20	Accumulated Depreciation	- Line 13	(\$1,589,434)
21	Deferred Tax Reserve	- Line 18	(\$19,317,507)
22	Year End Rate Base before Deferred Tax Proration	Sum of Lines 19 through 21	\$57,431,767
<u>Revenue Requirement Calculation:</u>			
23	Average Rate Base before Deferred Tax Proration Adjustment	Year 1 = Current Year Line 22 ÷ 2; then = (Prior Year Line 22 + Current Year Line 22) ÷ 2	\$28,715,884
24	Proration Adjustment	Page 14 of 22, Line 41, Col (j) and Col (k)	\$1,670
25	Average ISR Rate Base after Deferred Tax Proration	Line 23 + Line 24	\$28,717,553
26	Pre-Tax ROR	Page 22 of 22, Line 30, Column (e)	8.41%
27	Return and Taxes	Line 25 × Line 26	\$2,415,146
28	Book Depreciation	Line 12	\$1,589,434
29	Annual Revenue Requirement	Sum of Lines 27 through 28	\$4,004,580

1/ 2.99%, Composite Book Depreciation Rate approved per RIPUC Docket No. 4770, effective on Sep 1, 2018

The Narragansett Electric Company
d/b/a National Grid
FY 2021 Gas ISR Revenue Requirement Reconciliation
Calculation of Tax Depreciation and Repairs Deduction on FY 2021 Incremental Capital Investments

Line No.			Fiscal Year	(b)	(c)	(d)	(e)
			2021 (a)				
	Capital Repairs Deduction						
1	Plant Additions	Page 12 of 22, Line 1	\$110,177,659				
2	Capital Repairs Deduction Rate	Per Tax Department	1/ 85.28%				
3	Capital Repairs Deduction	Line 1 × Line 2	\$93,959,507				
	Bonus Depreciation						
4	Plant Additions	Line 1	\$110,177,659				
5	Less Capital Repairs Deduction	Line 3	\$93,959,507				
6	Plant Additions Net of Capital Repairs Deduction	Line 4 - Line 5	\$16,218,152				
7	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department	0.00%				
8	Plant Eligible for Bonus Depreciation	Line 6 × Line 7	\$0				
9	Bonus Depreciation Rate ()	Per Tax Department	0.00%				
10	Bonus Depreciation Rate ()	Per Tax Department	0.00%				
11	Total Bonus Depreciation Rate	Line 9 + Line 10	0.00%				
12	Bonus Depreciation	Line 8 × Line 11	\$0				
	Remaining Tax Depreciation						
13	Plant Additions	Line 1	\$110,177,659				
14	Less Capital Repairs Deduction	Line 3	\$93,959,507				
15	Less Bonus Depreciation	Line 12	\$0				
16	Remaining Plant Additions Subject to 20 YR MACRS Tax Depreciation	Line 13 - Line 14 - Line 15	\$16,218,152				
17	20 YR MACRS Tax Depreciation Rates	IRS Publication 946	3.75%				
18	Remaining Tax Depreciation	Line 16 × Line 17	\$608,181				
19	FY21 tax (gain)/loss on retirements	Per Tax Department	2/ 1,556,861				
20	Cost of Removal	Page 12 of 22, Line 7	\$8,861,636				
21	Total Tax Depreciation and Repairs Deduction	Sum of Lines 3, 12, 18, 19 & 20	\$104,986,185				

20 Year MACRS Depreciation			
MACRS basis:	\$16,218,152		
	Annual	Cumulative	
Fiscal Year			
2021	3.75%	\$608,181	\$104,986,185
2022	7.22%	\$1,170,788	\$106,156,974
2023	6.68%	\$1,082,886	\$107,239,860
2024	6.18%	\$1,001,795	\$108,241,655
2025	5.71%	\$926,543	\$109,168,198
2026	5.29%	\$857,129	\$110,025,327
2027	4.89%	\$792,743	\$110,818,071
2028	4.52%	\$733,385	\$111,551,455
2029	4.46%	\$723,654	\$112,275,109
2030	4.46%	\$723,492	\$112,998,601
2031	4.46%	\$723,654	\$113,722,255
2032	4.46%	\$723,492	\$114,445,747
2033	4.46%	\$723,654	\$115,169,401
2034	4.46%	\$723,492	\$115,892,892
2035	4.46%	\$723,654	\$116,616,546
2036	4.46%	\$723,492	\$117,340,038
2037	4.46%	\$723,654	\$118,063,692
2038	4.46%	\$723,492	\$118,787,184
2039	4.46%	\$723,654	\$119,510,838
2040	4.46%	\$723,492	\$120,234,329
2041	2.23%	\$361,827	\$120,596,156
	100.00%	\$16,218,152	

1/ Capital Repairs percentage is based on a three-year average of FYs 2017, 2018 and 2019 capital repairs rates.
2/ FY 2021 estimated tax loss on retirements is tax department estimate

The Narragansett Electric Company
d/b/a National Grid
FY 2021 Gas ISR Revenue Requirement Reconciliation
Calculation of Net Deferred Tax Reserve Proration on FY 2021 Incremental Capital Investments

Line No.	Deferred Tax Subject to Proration	(a) FY21
1	Book Depreciation	Col (a): Docket 4996, R.S. 3, Att. 1R, page 14 Col (a) \$2,333,833
2	Bonus Depreciation	Col (a): Docket 4996, R.S. 3, Att. 1R, page 14 Col (a) \$0
3	Remaining MACRS Tax Depreciation	Col (a): Docket 4996, R.S. 3, Att. 1R, page 14 Col (a) (\$991,748)
4	FY21 tax (gain)/loss on retirements	Col (a): Docket 4996, R.S. 3, Att. 1R, page 14 Col (a) (\$1,556,861)
5	Cumulative Book / Tax Timer	Sum of Lines 1 through 4 (\$214,776)
6	Effective Tax Rate	21%
7	Deferred Tax Reserve	Line 5 × Line 6 (\$45,103)
	Deferred Tax Not Subject to Proration	
8	Capital Repairs Deduction	Col (a): Docket 4996, R.S. 3, Att. 1R, page 14 Col (a) (\$153,217,875)
9	Cost of Removal	Col (a): Docket 4996, R.S. 3, Att. 1R, page 14 Col (a) (\$17,833,998)
10	Book/Tax Depreciation Timing Difference at 3/31/2021	
11	Cumulative Book / Tax Timer	Line 8 + Line 9 + Line 10 (\$171,051,873)
12	Effective Tax Rate	21%
13	Deferred Tax Reserve	Line 11 × Line 12 (\$35,920,893)
14	Total Deferred Tax Reserve	Line 7 + Line 13 (\$35,965,996)
15	Net Operating Loss	Col (a): Docket 4996, R.S. 3, Att. 1R, page 14 Col (a) \$4,944,950
16	Net Deferred Tax Reserve	Line 14 + Line 15 (\$31,021,046)
	Allocation of FY 2021 Estimated Federal NOL	
17	Cumulative Book/Tax Timer Subject to Proration	Line 5 (\$214,776)
18	Cumulative Book/Tax Timer Not Subject to Proration	Line 11 (\$171,051,873)
19	Total Cumulative Book/Tax Timer	Line 17 + Line 18 (\$171,266,649)
20	Total FY 2021 Federal NOL	Col (a): Docket 4996, R.S. 3, Att. 1R, page 14 Col (a) \$23,547,380
21	Allocated FY 2021 Federal NOL Not Subject to Proration	(Line 18 ÷ Line 19) × Line 20 \$23,517,851
22	Allocated FY 2021 Federal NOL Subject to Proration	(Line 17 ÷ Line 19) × Line 20 \$29,529
23	Effective Tax Rate	21%
24	Deferred Tax Benefit subject to proration	Line 22 × Line 23 \$6,201
25	Net Deferred Tax Reserve subject to proration	Line 7 + Line 24 (\$38,902)
	Proration Calculation	
		(h) (i) (j)
		<u>Number of Days in</u> <u>Proration Percentage</u> <u>FY21</u>
		<u>Month</u>
26	April	30 91.78% (\$2,975)
27	May	31 83.29% (\$2,700)
28	June	30 75.07% (\$2,434)
29	July	31 66.58% (\$2,158)
30	August	31 58.08% (\$1,883)
31	September	30 49.86% (\$1,616)
32	October	31 41.37% (\$1,341)
33	November	30 33.15% (\$1,075)
34	December	31 24.66% (\$799)
35	January	31 16.16% (\$524)
36	February	28 8.49% (\$275)
37	March	31 0.00% \$0
38	Total	365 (\$17,781)
39	Deferred Tax Without Proration	Line 25 (\$38,902)
40	Average Deferred Tax without Proration	
41	Proration Adjustment	Line 39 × 0.5 (\$19,451) Line 38 - Line 40 \$1,670

Column Notes:
(i) Sum of remaining days in the year (Col (h)) divided by 365
(j) Current Year Line 25 ÷ 12 × Current Month Col (i)

The Narragansett Electric Company
d/b/a National Grid
FY 2021 Gas ISR Revenue Requirement Reconciliation
FY 2018 - FY 2021 Incremental Capital Investment Summary

Line No.		Actual Fiscal Year 2018 (a)	Actual Fiscal Year 2019 (b)	Actual Fiscal Year 2020 (c)	Actual Fiscal Year 2021 (d)	
<u>Capital Investment</u>						
1	ISR-eligible Capital Investment	Col (a)=Docket No. 4678 FY18 ISR Reconciliation Filing; Col (b)=Docket No. 4781 FY19 ISR Reconciliation Filing; Col (c)=Docket No. 4916 FY20 ISR Reconciliation Filing; Col(d)= Attachment ASNK-1, Table C	\$97,809,718	\$92,263,000	\$144,119,796	\$110,177,659
2	ISR-eligible Capital Additions included in Rate Base per RIPUC Docket No. 4770	Docket No. 4770 Schedule MAL-11-Gas Page 5, Col (a)=Lines 1(a) + 1(b); Col(b)=Lines 1(c) + 1(d); Col(c)= Line 1(e); Col(d) = Line 1(h) + 1(j)	\$93,177,000	\$93,177,000	\$38,823,750	\$0
3	Incremental ISR Capital Investment	Line 1 - Line 2	\$4,632,718	(\$914,000)	\$105,296,046	\$110,177,659
<u>Cost of Removal</u>						
4	ISR-eligible Cost of Removal	Col (a)=Docket No. 4678 FY18 ISR Reconciliation Filing; Col (b)=Docket No. 4781 FY19 ISR Reconciliation Filing; Col (c)=Docket No. 4916 FY20 ISR Reconciliation Filing; Col(d)= Attachment ASNK-1, Table B	\$8,603,224	\$11,583,085	\$10,161,508	\$9,975,152
5	ISR-eligible Cost of Removal in Rate Base per RIPUC Docket No. 4770	Schedule 6-GAS, Docket No. 4770: Col(a)=[P1]L23+L42×7÷12+Docket 4678 Page 2, Line 7×3÷12; Col(b)=[P1]L42×5÷12+[P2]L18×7÷12; Col (c)=[P2]L18×5÷12+L39×7÷12; Col (d) = [P2] L39×5÷12+L60×7÷12	\$6,662,056	\$5,956,522	\$3,105,878	\$1,113,515
6	Incremental Cost of Removal	Line 4 - Line 5	\$1,941,168	\$5,626,564	\$7,055,630	\$8,861,636
<u>Retirements</u>						
7	ISR-eligible Retirements	Col (a)=Docket No. 4678 FY18 ISR Reconciliation Filing; Col (b)=Docket No. 4781 FY19 ISR Reconciliation Filing; Col (c)=Docket No. 4916 FY20 ISR Reconciliation Filing; Col(d)=Actual per Company's Book	\$24,056,661	\$6,531,844	\$8,395,321	\$5,337,792
8	ISR-eligible Retirements per RIPUC Docket No. 4770	Col(a)=[P1]L24+L43×7÷12+ Docket 4678 Page 2, Line 2×3÷12; Col(b)=[P1]L43×5÷12+[P2]L19×7÷12 Col (c)=[P2]L19×5÷12+L40×7÷12; Col (d) = [P2]L40×5÷12+L61×7÷12; Col (e) = L61×5÷12	\$11,997,233	\$7,899,865	\$4,119,186	\$1,476,805
9	Incremental Retirements	Line 7 - Line 8	\$12,059,428	(\$1,368,021)	\$4,276,135	\$3,860,987
<u>(NOL)/NOL Utilization</u>						
10	ISR (NOL)/NOL Utilization Per ISR	Page 16 of 22, Line 10	(\$6,051,855)	\$1,091,119	\$0	\$5,202,372
11	ISR NOL Utilization Per Docket 4770	Schedule 11-Gas Page 11, Docket No. 4770: Col (a)= L40×5÷12; Col (b) = L40×5÷12+L48×7÷12; Col (c) = P11,L48×5÷12+P12,L39×7÷12; Col (d) = P12,L39×5÷12+P12,L49×7÷12	\$0	\$804,769	\$3,063,059	\$7,598,182
12	Incremental (NOL)/NOL Utilization	Line 10 - Line 11	(\$6,051,855)	\$286,350	(\$3,063,059)	(\$2,395,810)

The Narragansett Electric Company
d/b/a National Grid
FY 2021 Gas ISR Revenue Requirement Reconciliation
Deferred Income Tax ("DIT"), Provisions and Net Operating Losses ("NOL")

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	FY 2018	Test Year July 2016 - June 2017	FY 2019	FY 2020	FY 2021	2018	2019	2020	2021
						12 Mths Aug 31			
						2018	2019	2020	2021
1 Total Base Rate Plant DIT Provision	\$2,507,039	\$29,439,421	\$2,560,766	\$1,773,289	\$1,823,824	\$20,453,237	\$16,078,372	\$5,085,206	\$7,746,916
2 Excess DIT amortization	\$0	\$0	\$1,090,524	\$1,085,911	\$1,081,431	\$0	(\$1,470,238)	(\$1,470,238)	(\$1,470,238)
	\$0	\$0	\$0	\$18,484,445	\$18,218,347	\$0	\$0	(\$266,098)	\$0
3 Total Base Rate Plant DIT Provision	\$2,507,039	\$29,439,421	\$2,560,766	\$1,773,289	\$1,823,824	\$20,453,237	\$16,078,372	\$5,085,206	\$7,746,916
4 Incremental FY 18	\$0	\$0	\$1,090,524	\$1,085,911	\$1,081,431	\$0	(\$1,470,238)	(\$1,470,238)	(\$1,470,238)
5 Incremental FY 19	\$0	\$0	\$0	\$18,484,445	\$18,218,347	\$0	\$0	(\$266,098)	\$0
6 Incremental FY 20	\$0	\$0	\$0	\$18,484,445	\$18,218,347	\$0	\$0	(\$266,098)	\$0
7 Incremental FY 21	\$0	\$0	\$0	\$21,713,318	\$21,713,318	\$0	\$0	\$21,713,318	\$0
8 TOTAL Plant DIT Provision	\$2,507,039	\$29,439,421	\$2,560,766	\$1,773,289	\$1,823,824	\$20,453,237	\$16,078,372	\$5,085,206	\$7,746,916
9 NOL (Utilization)									
10 Lesser of NOL or DIT Provision									

Line Notes:

- 1(b) RIPUC Docket Nos. 4770/4780, Compliance, Revised Rebuttal Attachment 1, Schedule 11-GAS, Page 2 of 23, Line 29, Col (e) minus Col (b)
- 1(c) RIPUC Docket Nos. 4770/4780, Compliance, Revised Rebuttal Attachment 1, Schedule 11-GAS, Page 11 of 23, Line 3 plus Line 4
- 1(f) RIPUC Docket Nos. 4770/4780, Compliance, Revised Rebuttal Attachment 1, Schedule 11-GAS, Page 11 of 23, Line 7
- 1(g) RIPUC Docket Nos. 4770/4780, Compliance, Revised Rebuttal Attachment 1, Schedule 11-GAS, Page 11 of 23, Line 50
- 1(h) RIPUC Docket Nos. 4770/4780, Compliance, Revised Rebuttal Attachment 1, Schedule 11-GAS, Page 12 of 23, Line 41
- 2(e)-(h) RIPUC Docket Nos. 4770/4780, Compliance, Revised Rebuttal Attachment 1, Schedule 11-GAS, Page 11 of 23, Line 51
- 2(h) RIPUC Docket Nos. 4770/4780, Compliance, Revised Rebuttal Attachment 1, Schedule 11-GAS, Page 12 of 23, Line 42
- 3 Col (e) = Line 1(b) x 25% + Line 1(e) + Line 1(f) x 7/12; Col (f) = Line 1(f) x 5/12 + Line 1(g) x 7/12 + Line 2(g) x 7/12; Col (g) = Line 1(g) x 5/12 + Line 1(h) x 7/12 + Line 2(h) x 7/12; Col (h) = Line 1(h) x 5/12 + Line 1(i) x 7/12 + Line 2(i) x 7/12; Col (i) = Line 1(i) x 5/12 + Line 2(i) x 7/12
- 4(a)-7(d) Cumulative DIT plus Deferred Income Tax (Page 2, Line 16 + Line 18; Page 5, Line 16; Page 8, Line 16; Page 12, Line 16)
- 4(e)-7(h) Year over year change in cumulative DIT shown in Cols (a) through (d)
- 8 Sum of Lines 3 through 7
- 9 Col (e)-(g) = Docket no. 4916 FY 20 ISR Rec, Att. MAL-1, p.19, L. 8; Col (h) ~Col (h) Per Tax Department
- 10 Lesser of Line 9 or Line 10

The Narragansett Electric Company
d/b/a National Grid
ISR Depreciation Expense per Rate Case RIPUC Docket No. 4770

Account No.	Account Title	Test Year June 30, 2017 (a)	1/ ARO Adjustment (b)	Adjustments June 30, 2017 (c)	Adjusted Balance (d) = (a) + (b) + (c)	Proposed Rate (e)	Depreciation Expense (f) = (d) x (e)
Intangible Plant							
1	302.00 Franchises And Consents	\$213,499	\$0	\$0	\$213,499	0.00%	\$0
2	303.00 Misc. Intangible Plant	\$25,427	\$0	\$0	\$25,427	0.00%	\$0
3	303.01 Misc. Int Cap Software	\$19,833,570	\$0	\$9,991,374	\$29,824,944	0.00%	\$0
4							
5	Total Intangible Plant	\$20,072,496	\$0	\$9,991,374	\$30,063,870		\$0
6							
Production Plant							
9	304.00 Production Land Land Rights	\$364,912	\$0	\$0	\$364,912	0.00%	\$0
10	305.00 Prod. Structures & Improvements	\$2,693,397	\$0	\$0	\$2,693,397	15.05%	\$405,356
11	307.00 Production Other Power	\$46,159	\$0	\$0	\$46,159	7.16%	\$3,305
12	311.00 Production LNG Equipme	\$3,167,445	\$0	\$0	\$3,167,445	11.40%	\$361,089
13	320.00 Prod. Other Equipment	\$1,106,368	\$0	\$0	\$1,106,368	6.69%	\$74,016
14							
15	Total Production Plant	\$7,378,281	\$0	\$0	\$7,378,281		\$843,766
16							
Storage Plant							
19	360.00 Stor Land & Land Rights	\$261,151	\$0	\$0	\$261,151	0.00%	\$0
20	361.03 Storage Structures Improvements	\$3,385,049	\$0	\$0	\$3,385,049	0.99%	\$33,512
21	362.04 Storage Gas Holders	\$4,606,338	\$0	\$0	\$4,606,338	0.04%	\$1,843
22	363.00 Stor. Purification Equipment	\$13,891,210	\$0	\$0	\$13,891,210	3.37%	\$468,134
23							
24	Total Storage Plant	\$22,143,748	\$0	\$0	\$22,143,748		\$503,488
25							
Distribution Plant							
28	374.00 Dist. Land & Land Rights	\$956,717	\$0	\$0	\$956,717	0.00%	\$0
29	375.00 Gas Dist Station Structure	\$10,642,632	\$0	\$0	\$10,642,632	1.15%	\$122,390
30	376.00 Distribution Mains	\$46,080,760	\$0	\$0	\$46,080,760	3.61%	\$1,663,515
31	376.03 Dist. River Crossing Main	\$695,165	\$0	\$0	\$695,165	3.61%	\$25,095
32	376.04 Mains - Steel And Other - SI	\$4,190	\$0	\$0	\$4,190	0.00%	\$0
33	376.06 Dist. District Regulator	\$14,213,837	\$0	\$0	\$14,213,837	3.61%	\$513,120
34	376.11 Gas Mains Steel	\$57,759,572	\$0	\$0	\$57,759,572	3.31%	\$1,908,954
35	376.12 Gas Mains Plastic	\$382,797,443	\$0	\$0	\$382,797,443	2.70%	\$10,316,391
36	376.13 Gas Mains Cast Iron	\$5,556,209	\$0	\$0	\$5,556,209	8.39%	\$465,888
37	376.14 Gas Mains Valves	\$222,104	\$0	\$0	\$222,104	3.61%	\$8,018
38	376.15 Propane Lines	\$0	\$0	\$0	\$0	3.61%	\$0
39	376.16 Dist. Cathodic Protect	\$1,569,576	\$0	\$0	\$1,569,576	3.61%	\$56,662
40	376.17 Dist. Joint Seals	\$63,067,055	\$0	\$0	\$63,067,055	4.63%	\$2,920,005
41	377.00 T&D Compressor Sta Equipment	\$248,656	\$0	\$0	\$248,656	1.07%	\$26,661
42	377.62 1/ 5360-Tanks ARO	\$299	(\$299)	\$0	\$0	0.00%	\$0
43	378.10 Gas Measur & Reg Sta Equipment	\$19,586,255	\$0	\$0	\$19,586,255	2.08%	\$407,394
44	378.55 Gas M&Reg Sta Eqp RTU	\$372,772	\$0	\$0	\$372,772	6.35%	\$23,671
45	379.00 Dist. Measur. Reg. Gs	\$11,033,164	\$0	\$0	\$11,033,164	2.22%	\$244,936
46	379.01 Dist. Meas. Reg. Gs Eq	\$1,399,586	\$0	\$0	\$1,399,586	0.00%	\$0
47	380.00 Gas Services All Sizes	\$331,205,854	\$0	\$0	\$331,205,854	3.05%	\$10,101,779
48	381.10 Sml Meter& Reg Bare Co	\$26,829,565	\$0	\$0	\$26,829,565	1.76%	\$472,200
49	381.30 Lrg Meter& Reg Bare Co	\$15,779,214	\$0	\$0	\$15,779,214	1.76%	\$277,714
50	381.40 Meters	\$9,332,227	\$0	\$0	\$9,332,227	0.96%	\$89,589
51	382.00 Meter Installations	\$675,201	\$0	\$0	\$675,201	3.66%	\$24,712
52	382.20 Sml Meter& Reg Installation	\$43,145,998	\$0	\$0	\$43,145,998	3.66%	\$1,579,144
53	382.30 Lrg Meter&Reg Installation	\$2,524,025	\$0	\$0	\$2,524,025	3.66%	\$92,379
54	383.00 Dist. House Regulators	\$937,222	\$0	\$0	\$937,222	0.67%	\$6,279
55	384.00 T&D Gas Reg Installs	\$1,216,551	\$0	\$0	\$1,216,551	1.56%	\$18,978
56	385.00 Industrial Measuring And Regulating Station Equipment	\$540,187	\$0	\$0	\$540,187	4.18%	\$22,580
57	385.01 Industrial Measuring And Regulating Station Equipment	\$255,921	\$0	\$0	\$255,921	0.00%	\$0
58	386.00 Other Property On Customer Premises	\$271,765	\$0	\$0	\$271,765	0.23%	\$625
59	386.02 Dist. Consumer Prem Equipment	\$110,131	\$0	\$0	\$110,131	0.00%	\$0
60	387.00 Dist. Other Equipment	\$930,079	\$0	\$0	\$930,079	2.15%	\$19,997
61	388.00 1/ ARO	\$5,736,827	(\$5,736,827)	\$0	\$0	0.00%	\$0
62							
63	Total Distribution Plant	\$1,055,696,761	(\$5,737,126)	\$0	\$1,049,959,635	2.99%	\$31,384,677
64							
General Plant							
67	389.01 General Plant Land Lan	\$285,357	\$0	\$0	\$285,357	0.00%	\$0
68	390.00 Structures And Improvements	\$7,094,532	\$0	\$0	\$7,094,532	3.12%	\$221,349
69	391.01 Gas Office Furniture & Fixture	\$274,719	\$0	\$0	\$274,719	6.67%	\$18,324
70	394.00 General Plant Tools Shop (Fully Dep)	\$26,487	\$0	\$0	\$26,487	0.00%	\$0
71	394.00 General Plant Tools Shop	\$5,513,613	\$0	\$0	\$5,513,613	5.00%	\$275,681
72	395.00 General Plant Laboratory	\$221,565	\$0	\$0	\$221,565	6.67%	\$14,778
73	397.30 Communication Radio Site Specific	\$387,650	\$0	\$0	\$387,650	5.00%	\$19,383
74	397.42 Communication Equip Tel Site	\$63,481	\$0	\$0	\$63,481	20.00%	\$12,696
75	398.10 Miscellaneous Equipment (Fully Dep)	\$1,341,386	\$0	\$0	\$1,341,386	0.00%	\$0
76	398.10 Miscellaneous Equipment	\$2,789,499	\$0	\$0	\$2,789,499	6.67%	\$186,060
77	399.10 1/ ARO	\$342,146	(\$342,146)	\$0	\$0	0.00%	\$0
78							
79	Total General Plant	\$18,340,436	(\$342,146)	\$0	\$17,998,289	4.16%	\$748,271
80							
81	Grand Total - All Categories	\$1,123,631,722	(\$6,079,273)	\$9,991,374	\$1,127,543,823	3.05%	\$33,480,202
82						2.97%	
83	Other Utility Plant Assets						
84		Line 63		Total Distribution Plant	\$1,049,959,635	2.99%	\$31,384,677
85		Line 73 + Line 74		Communication Equipment	\$451,132	7.11%	\$32,079
86				Total ISR Tangible Plant	\$1,050,410,767	2.99%	\$31,416,756
					Non ISR Assets		\$77,133,057

THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
RIPUC Docket Nos. 4770/4780
Compliance Attachment 2
Schedule 6-GAS
Page 1 of 5

The Narragansett Electric Company d/b/a National Grid
Depreciation Expense - Gas
For the Test Year Ended June 30, 2017 and the Rate Year Ending August 31, 2019

The Narragansett Electric Company
d/b/a National Grid
Gas ISR Depreciation Expense

Line No	Description	Reference	Amount	Less non-ISR eligible	
				Plant (b)	ISR Amount (c)
1	Total Company Rate Year Depreciation	Sum of Page 2, Line 16 and Line 17	\$39,136,909		
2	Total Company Test Year Depreciation	Per Company Books	\$33,311,851		
3	Less: Reserve adjustments	Page 4, Line 29, Col (b) + Col (c)	(\$15,649)		
4	Adjusted Total Company Test Year Depreciation Expense	Line 2 + Line 3	\$33,296,202		
5	Depreciation Expense Adjustment	Line 1 - Line 4	\$5,840,707		
6					
7					
8	Test Year Depreciation Expense 12 Months Ended 06/30/17:		Per Book Amount		
9	Total Gas Utility Plant 06/30/17	Page 4, Line 27, Col (d)	\$1,405,994,678	(\$77,133,057)	\$1,328,861,622
10	Less Non Depreciable Plant	Sum of Page 3, Line 5, Col (d) and Page 4, Line 25, Col (e)	(\$308,514,725)		(\$308,514,725)
11	Depreciable Utility Plant 06/30/17	Line 9 + Line 10	\$1,097,479,953	(\$77,133,057)	\$1,020,346,897
12					
13	Plus: Added Plant 2 Mos Ended 08/31/17	Schedule 11-GAS, Page 3, Line 4	\$19,592,266		\$19,592,266
14	Less: Retired Plant 2 Months Ended 08/31/17	1/ Line 13 x Retirement Rate	(\$1,345,989)		(\$1,345,989)
15	Depreciable Utility Plant 08/31/17	Line 11 + Line 13 + Line 14	\$1,115,726,231	(\$77,133,057)	\$1,020,346,897
16					
17	Average Depreciable Plant for Year Ended 08/31/17	(Line 11 + Line 15)/2	\$1,106,603,092		\$1,106,603,092
18					
19	Composite Book Rate %	As Approved in RIPUC Docket No. 4323	3.38%		
20					
21	Book Depreciation Reserve 06/30/17	Page 5, Line 72, Col (d)	\$357,576,825		\$357,576,825
22	Plus: Book Depreciation Expense	Line 17 x Line 19	\$6,233,864		\$6,233,864
23	Less: Net Cost of Removal/(Salvage)	2/ Line 13 x Cost of Removal Rate	(\$1,014,879)		(\$1,014,879)
24	Less: Retired Plant	Line 14	(\$1,345,989)		(\$1,345,989)
25	Book Depreciation Reserve 08/31/17	Sum of Line 21 through Line 24	\$361,449,821		
26					
27	Depreciation Expense 12 Months Ended 08/31/18				
28	Total Utility Plant 08/31/17	Line 9 + Line 13 + Line 14	\$1,424,240,956	(\$77,133,057)	\$1,347,107,900
29	Less Non Depreciable Plant	Line 10	(\$308,514,725)		(\$308,514,725)
30	Depreciable Utility Plant 08/31/17	Line 28 + Line 29	\$1,115,726,231		\$1,038,593,175
31					
32	Plus: Plant Added in 12 Months Ended 08/31/18	Schedule 11-GAS, Page 3, Line 11	\$115,710,016		\$115,710,016
33	Less: Plant Retired in 12 Months Ended 08/31/18	Line 32 x Retirement rate	(\$7,949,278)		(\$7,949,278)
34	Depreciable Utility Plant 08/31/18	Sum of Line 30 through Line 33	\$1,223,486,969		\$1,146,353,912
35					
36	Average Depreciable Plant for 12 Months Ended 08/31/18	(Line 30 + Line 34)/2	\$1,169,606,600		\$1,092,473,543
37					
38	Composite Book Rate %	As Approved in RIPUC Docket No. 4323	3.38%		3.38%
39					
40	Book Depreciation Reserve 08/31/17	Line 25	\$361,449,821		
41	Plus: Book Depreciation 08/31/18	Line 36 x Line 38	\$39,532,703		\$36,925,606
42	Less: Net Cost of Removal/(Salvage)	Line 32 x Cost of Removal Rate	(\$5,993,779)		
43	Less: Retired Plant	Line 33	(\$7,949,278)		
44	Book Depreciation Reserve 08/31/18	Sum of Line 40 through Line 43	\$387,039,467		
1/	3 year average retirement over plant addition in service FY 15 ~ FY17		6.87%	Retirements	
2/	3 year average Cost of Removal over plant addition in service FY 15 ~ FY17		5.18%	COR	

			THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID RIPUC Docket Nos. 4770/4780 Compliance Attachment 2 Schedule 6-GAS Page 2 of 5	
The Narragansett Electric Company d/b/a National Grid Depreciation Expense - Gas For the Test Year Ended June 30, 2017 and the Rate Year Ending August 31, 2021			The Narragansett Electric Company d/b/a National Grid Gas ISR Depreciation Expense	
Line No	Description	Reference	Amount (a)	Less non-ISR eligible Plant (b) ISR Amount (c)
1	Rate Year Depreciation Expense 12 Months Ended 08/31/19:			
2	Total Utility Plant 08/31/18	Page 1, Line 28 + Line 32 + Line 33	\$1,532,001,694	(\$77,133,057) \$1,454,868,637
3	Less Non-Depreciable Plant	Page 1, Line 10	(\$308,514,725)	(\$308,514,725)
4	Depreciable Utility Plant 08/31/18	Line 2 + Line 3	\$1,223,486,969	\$1,146,353,912
5				
6	Plus: Added Plant 12 Months Ended 08/31/19	Schedule 11-GAS, Page 3, Line 35	\$114,477,000	(\$1,348,000) \$113,129,000
7	Less: Depreciable Retired Plant	1/ Line 6 x Retirement rate	(\$7,864,570)	\$92,608 (\$7,771,962)
8				
9	Depreciable Utility Plant 08/31/19	Sum of Line 4 through Line 7	\$1,330,099,399	(\$78,388,449) \$1,251,710,950
10				
11	Average Depreciable Plant for Rate Year Ended 08/31/19	(Line 4 + Line 9)/2	\$1,276,793,184	\$1,199,032,431
12				
13	Proposed Composite Rate %	Page 4, Line 17, Col (e)	3.05%	2.99%
14				
15	Book Depreciation Reserve 08/31/18	Page 1, Line 44	\$387,039,467	\$0
16	Plus: Book Depreciation Expense	Line 11 x Line 13	\$38,950,409	\$35,851,070
17	Plus: Unrecovered Reserve Adjustment	Schedule NWA-1-GAS, Part VI, Page 6	\$186,500	\$186,500
18	Less: Net Cost of Removal/(Salvage)	2/ Line 6 x Cost of Removal Rate	(\$5,929,909)	\$0
19	Less: Retired Plant	Line 7	(\$7,864,570)	\$0
20	Book Depreciation Reserve 08/31/19	Sum of Line 15 through Line 19	\$412,381,898	\$36,037,570
21				
22	Rate Year Depreciation Expense 12 Months Ended 08/31/20:			
23	Total Utility Plant 08/31/19	Line 2 + Line 6 + Line 7	\$1,638,614,124	(\$78,388,449) \$1,560,225,675
24	Less Non-Depreciable Plant	Page 1, Line 10	(\$308,514,725)	(\$308,514,725)
25	Depreciable Utility Plant 08/31/19	Line 23 + Line 24	\$1,330,099,399	\$1,251,710,950
26				
27	Plus: Added Plant 12 Months Ended 08/31/20	Schedule 11-GAS, Page 5, Line 11(i)	\$21,017,630	(\$750,000) \$20,267,630
28	Less: Depreciable Retired Plant	1/ Line 27 x Retirement rate	(\$1,443,911)	\$51,525 (\$1,392,386)
29				\$0
30	Depreciable Utility Plant 08/31/20	Sum of Line 25 through Line 28	\$1,349,673,118	(\$79,086,924) \$1,270,586,194
31				
32	Average Depreciable Plant for Rate Year Ended 08/31/20	(Line 25 + Line 30)/2	\$1,339,886,258	\$1,261,148,572
33				
34	Proposed Composite Rate %	Page 4, Line 17, Col (e)	3.05%	2.99%
35				
36	Book Depreciation Reserve 08/31/20	Line 20	\$412,381,898	\$0
37	Plus: Book Depreciation Expense	Line 32 x Line 34	\$40,875,154	\$37,708,342
38	Plus: Unrecovered Reserve Adjustment	Schedule NWA-1-GAS, Part VI, Page 6	\$186,500	\$186,500
39	Less: Net Cost of Removal/(Salvage)	2/ Line 27 x Cost of Removal Rate	(\$1,088,713)	\$0
40	Less: Retired Plant	Line 28	(\$1,443,911)	\$0
41	Book Depreciation Reserve 08/31/20	Sum of Line 36 through Line 40	\$450,910,927	\$37,894,842
42				
43	Rate Year Depreciation Expense 12 Months Ended 08/31/21:			
44	Total Utility Plant 08/31/20	Line 23 + Line 27 + Line 28	\$1,658,187,843	(\$79,086,924) \$1,579,100,919
45	Less Non-Depreciable Plant	Page 1, Line 10	(\$308,514,725)	(\$308,514,725)
46	Depreciable Utility Plant 08/31/20	Line 44 + Line 45	\$1,349,673,118	\$1,270,586,194
47				
48	Plus: Added Plant 12 Months Ended 08/31/21	Schedule 11-GAS, Page 5, Line 11(i)	\$21,838,436	(\$750,000) \$21,088,436
49	Less: Depreciable Retired Plant	1/ Line 48 x Retirement rate	(\$1,500,301)	\$51,525 (\$1,448,776)
50				
51	Depreciable Utility Plant 08/31/21	Sum of Line 46 through Line 49	\$1,370,011,253	(\$79,785,399) \$1,290,225,854
52				
53	Average Depreciable Plant for Rate Year Ended 08/31/21	(Line 46 + Line 51)/2	\$1,359,842,185	\$1,280,406,024
54				
55	Proposed Composite Rate %	Page 4, Line 17, Col (e)	3.05%	2.99%
56				
57	Book Depreciation Reserve 08/31/20	Line 41	\$450,910,927	\$0
58	Plus: Book Depreciation Expense	Line 53 x Line 55	\$41,483,938	\$38,284,140
59	Plus: Unrecovered Reserve Adjustment	Schedule NWA-1-GAS, Part VI, Page 6	\$186,500	\$186,500
60	Less: Net Cost of Removal/(Salvage)	2/ Line 48 x Cost of Removal Rate	(\$1,131,231)	\$0
61	Less: Retired Plant	Line 49	(\$1,500,301)	\$0
62	Book Depreciation Reserve 08/31/21	Sum of Line 57 through Line 61	\$489,949,834	\$38,470,640
63				
64	1/ 3 year average retirement over plant addition in service FY 15 ~ FY17	0.0687 Retirements		
65	2/ 3 year average Cost of Removal over plant addition in service FY 15 ~ FY17	0.0518 COR		
66				
67	Book Depreciation RY2	Line 37 (a) + Line 38 (b)		\$41,061,654
68	Less: General Plant Depreciation (assuming add=retirement)	Page 10, Line 79(f)		(\$748,271)
69	Plus: Comm Equipment Depreciation	Page 10, Line 73 + Line 74		\$32,079
70	Total			\$40,345,462
71	7 Months			x7/12
72	FY 2020 Depreciation Expense			\$23,534,853
73				
74	Book Depreciation RY3	Line 58 (a) + Line 59 (b)		\$41,670,438
75	Less: General Plant Depreciation	Page 10, Line 79(f)		(\$748,271)
76	Plus: Comm Equipment Depreciation	Page 10, Line 73 + Line 74		\$32,079
77	Total			\$40,954,246
78	FY 2021 Depreciation Expense	5 Months of RY 2 and 7 Months of RY 3		\$40,700,586

The Narragansett Electric Company
d/b/a National Grid
FY 2021 ISR Property Tax Recovery Adjustment
(000s)

Line	(a) End of FY 2018	(b) ISR Additions	(c) Non-ISR Add's	(d) Total Add's	(e) Bk.Depr.(I)	(f) Retirements	(g) COR	(h) Adjustment	(i) End of FY 2019
1	Plant In Service	\$1,195,705	\$92,263	\$24,845	\$117,108	(\$6,844)	(\$6,123)	\$0	\$1,305,969
2	Accumulated Depr	\$414,713				(\$6,844)			\$442,604
3	Net Plant	\$780,992							\$863,364
4	Property Tax Expense	\$22,678							\$23,283
5	Effective Prop tax Rate	2.90%							2.70%
6	Plant In Service	\$1,305,969	\$144,120	\$22,074	\$166,193	(\$8,567)	(\$10,162)	\$0	\$1,463,595
7	Accumulated Depr	\$442,604				(\$8,567)			\$465,463
8	Net Plant	\$863,364			\$41,588				\$998,132
9	Property Tax Expense	\$23,283							\$25,959
10	Effective Prop tax Rate	2.70%							2.60%
11	Plant In Service	\$1,463,595	\$110,178	\$97,667	\$207,844	(\$5,766)	(\$11,566)	(\$26,386)	\$1,639,288
12	Accumulated Depr	\$465,463				(\$5,766)		(\$32,599)	\$461,185
13	Net Plant	\$998,132			\$45,652				\$1,178,103
14	Property Tax Expense	\$25,959							\$28,846
15	Effective Prop tax Rate	2.60%							2.45%

Cumulative Incom. ISR Prop. Tax for FY2019 1st 5 month

16	Incremental ISR Additions	\$97,810							\$92,263
17	Book Depreciation: base allowance on ISR eligible plant	(\$24,356)							(\$24,356)
18	Book Depreciation: current year ISR additions	(\$1,246)							(\$1,449)
19	COR	\$8,603							\$11,583
20	Net Plant Additions	\$80,811							\$78,041
21	RY Effective Tax Rate	3.06%							3.06%
22	ISR Year Effective Tax Rate	2.90%							2.70%
23	RY Effective Tax Rate	3.06%							3.06%
24	RY Effective Tax Rate 5 mos for FY 2019	-0.15%							-0.36%
25	RY Effective Tax Rate 5 m/7 month	-0.15%							-0.15%
26	FY 2014 Net Adds time 7 month	\$458,057			\$458,057				(\$684)
27	FY 2015 Net Adds time 7 month	\$6,343			\$5,950				\$67
28	FY 2016 Net Adds times ISR Year Effective Ta	\$42,913			\$39,920				\$449
29	FY 2017 Net Adds times ISR Year Effective Ta	\$59,527			\$55,693				\$626
30	FY 2018 Net Adds times ISR Year Effective Ta	\$58,883			\$56,076				\$630
31	FY 2019 Net Adds times ISR Year Effective Tax rate	\$80,810			\$77,664				\$873
32	Total ISR Property Tax Recovery				\$78,041				\$877
									\$2,837

The Narragansett Electric Company
d/b/a National Grid
FY 2020 ISR Property Tax Recovery Adjustment
FY 2021 ISR Property Tax Recovery Adjustment (cont)

	(a) Cumulative Incr. ISR Prop. Tax for FY2019 7 months	(b)	(c)	(d)	(e) Cumulative Incr. ISR Prop. Tax for FY2020	(f)	(g) Cumulative Incr. ISR Prop. Tax for FY2021	(h)
33	Incremental ISR Additions							
34	Book Depreciation: base allowance on ISR eligible plant	(\$914)			\$105,296		\$110,178	
35	Book Depreciation: current year ISR additions	\$0			\$0		\$0	
36	COO	(\$7)			(\$1,510)		(\$1,589)	
		\$5,627			\$7,056		\$8,862	
37	Net Plant Additions	\$4,705			\$110,841		\$117,450	
38	RY Effective Tax Rate	2.92%			2.96%		3.02%	
39	Property Tax Recovery on Growth and non-ISR 7 mos	1.70%						
40								
41	ISR Year Effective Tax Rate	2.70%			2.60%		2.45%	
42	RY Effective Tax Rate	2.92%			2.96%		3.02%	
43	RY Effective Tax Rate 7 mos for FY 2019	-0.22%			-0.36%		-0.57%	
44	RY Net Plant times Rat 7 month	-0.13%			-0.36%		-0.57%	
45	Growth and non-ISR Incremental times rate difference	\$919,892	(\$1,203)		\$908,586	(\$3,246)	\$889,353	(\$5,080)
46	FY 2018 Net Incremental times rate difference	\$6,934	\$0		(\$20,407)	\$73	(\$41,336)	\$236
47	FY 2019 Net Incremental times rate difference	\$4,705	\$109		\$7,156	\$186	\$7,378	\$181
48	FY 2020 Net Incremental times rate difference	\$4,705	\$74		\$4,692	\$122	\$4,678	\$115
49	FY 2021 Net Adds times rate difference				\$110,841	\$2,882	\$107,821	\$2,642
50	Total ISR Property Tax Recovery		(\$1,020)			\$17	\$117,450	\$970

Line Notes	Line Notes	Line Notes
1(a) - 5(f)	14(f)	44(f)
6(f) - 10(f)	15(f)	
11(a) - 15(a)	16(f) - 32(b)	
11(b)	33(a)-50 (c)	
11(c)	33(e)-50(g)	
11(d)	34(f)	
11(e)	35(f)	
11(f)	36(f)	
11(g)	37(f)	
12(a)	39(f)	
12(b)	41(f)	
12(c)	42(f)	
12(d)	43(f)	
12(e)		
12(f)		
12(g)		
12(h)		
12(i)		
13(a)		

Per Company's Book
Line 14(f) - 13(f)
Docket No. 4781 Rec, Attachment MAL-1, Page 29 of 35, 82(e) to 107(k)
Docket No. 4781 Rec, Attachment MAL-2, Page 10 of 13, 31(a) to 50 (c)
Docket No. 4916 Rec, Attachment MAL-1, Page 18 of 20, 28(e) to 48 (g)
Page 12 of 22, Line 4(a)=1000
FY21 depreciation is reflected in the NBY at 44(f)
- Page 12 of 22, Line 12(a)=1000
Page 12 of 22, Line 7(a)=1000
Sum of Lines 33(f) through 36(f)
- Rate Case, Docket 4770, Compliance, Revised Rebuttal.
= 15(f)
= 39(f)
41(f)-42(f)
=42(f)

Rate Case, Docket 4770, Compliance, Revised Rebuttal, Att. 1:
44(f) * 5+12 + (Sch 6-G, P2, L30 - L41 + P3, L5(d) - P5, L4(d)
44(f)*43(f)
- Att. 1, Sch 11-G, P5, L3(e)+L3(g)+L7(e)+L7(e)
45(f)*43(f)
(Line 46(f) - Page 2 of 22, Line 12(d))+1000
=46(f)+41(f)
(Line 47(f) - Page 5 of 22, Line 12(e))+1000
=47(f)+41(f)
(Line 48(f) - Page 8 of 22, Line 12(b))+1000
=48(f)+41(f)
=49(f)+41(f)
=49(f)+41(f)
sum of 44(f) through 49(k)

The Narragansett Electric Company
d/b/a National Grid
FY 2021 Gas ISR Revenue Requirement Reconciliation
Calculation of Weighted Average Cost of Capital

Line No.

Weighted Average Cost of Capital as approved in RIPUC Docket No. 4323 at 35% income tax rate effective April 1, 2013

	(a)	(b)	(c)	(d)	(e)
	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%

(d) - Column (c) x 35% divided by (1 - 35%)

Weighted Average Cost of Capital as approved in RIPUC Docket No. 4323 at 21% income tax rate effective January 1, 2018

	(a)	(b)	(c)	(d)	(e)
	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%	1.24%	5.91%
	100.00%		7.54%	1.24%	8.78%

(d) - Column (c) x 21% divided by (1 - 21%)

Weighted Average Cost of Capital as approved in RIPUC Docket No. 4770 effective September 1, 2018

	(a)	(b)	(c)	(d)	(e)
	Ratio	Rate	Weighted Rate	Taxes	Return
Long Term Debt	48.35%	4.98%	2.41%		2.41%
Short Term Debt	0.60%	1.76%	0.01%		0.01%
Preferred Stock	0.10%	4.50%	0.00%		0.00%
Common Equity	50.95%	9.28%	4.73%	1.26%	5.99%
	100.00%		7.15%	1.26%	8.41%

(d) - Column (c) x 21% divided by (1 - 21%)

FY18 Blended Rate		Line 8(e) × 75% + Line 20(e) × 25%			9.73%
FY19 Blended Rate		Line 20 x 5 ÷ 12 + Line 30 x 7 ÷ 12			8.56%