Raquel J. Webster
Senior Counsel

May 14, 2020

BY ELECTRONIC MAIL

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

RE: Docket 4916 – FY2020 Gas Infrastructure, Safety, and Reliability Plan
<u>Quarterly Update – Fourth Quarter Ending March 31, 2020</u>

Dear Ms. Massaro:

On behalf of National Grid,[1] I have attached an electronic version[2] of the Company's fiscal year (FY) 2020 Gas Infrastructure, Safety, and Reliability (ISR) Plan quarterly update for the fourth quarter ending March 31, 2020.

Pursuant to the provisions of the approved FY 2018 Gas ISR Plan, the Company committed to providing quarterly updates on the progress of its Gas ISR program to the Rhode Island Public Utilities Commission and the Rhode Island Division of Public Utilities and Carriers.

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

Very truly yours,

Raquel J. Webster

Enclosures

cc: Docket 4916 Service List
Leo Wold, Esq.
John Bell, Division
Al Mancini, Division

[1]The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).
[2] Per practice during the COVID-19 emergency period, the Company is providing a PDF version of the above-referenced quarterly update. The Company will provide the Commission Clerk with a hard copy and, if needed, additional hard copies of this quarterly update at a later date.

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Certificate of Service

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

___________________________________ May 14, 2020

Joanne M. Scanlon Date

Docket No. 4916 - National Grid's FY 2020 Gas Infrastructure, Safety and Reliability (ISR) Plan - Service List 8/15/2019

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Gas Infrastructure, Safety, and Reliability Plan

The Narragansett Electric Company

FY 2020 Quarterly Update

Fourth Quarter - Ending March 31, 2020

Executive Summary

Fiscal year (FY) 2020 Gas Infrastructure, Safety, and Reliability (ISR) results through the fourth quarter (Attachment A) reflect that the Company[1] spent approximately $112.56 million of an annual budget of $118.00 million, resulting in a fiscal year under-spending variance of $5.45 million.[2] The spend through the fourth quarter includes actual spending of $36.54 million of an annual budget of $36.59 million for Non-Discretionary work, resulting in a fiscal year under-spending variance of $0.54 million. In addition, the spend through the fourth quarter includes actual spending of $76.02 million of an annual budget of $81.41 million on Discretionary work, resulting in a fiscal year under-spending variance of $5.39 million. The $112.56 million of actual spend represents approximately 95 percent of the total FY 2020 annual Gas ISR budget of $118.00 million, resulting in an approximate 5% under-spending variance for the fiscal year. The under-spending for the Proactive Main Replacement and Reliability programs were partially offset by over-spending in the Mandated programs. A summary of budget to actual spending is provided in Attachment A. Additional details supporting the budget to actual spending are provided in Attachment B. In the sections below, the Company explains in more detail the fiscal year spending for each category.

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

[2] This excludes the Southern Rhode Island Gas Expansion Project.

FY 2020 Gas ISR results through the fourth quarter (Attachment A) reflect that the Company's Southern Rhode Island Gas Expansion Project (Gas Expansion Project) was slightly below the fiscal year budget. In total, for the Gas Expansion Project for the fiscal year, the Company spent approximately $42.73 million of an annual budget of $44.46 million, resulting in a fiscal year under-spending variance of $1.73 million. Fiscal year results (Attachment B & C) reflect the Company spent approximately $40.18 million for Construction – Pipeline compared to a fiscal year budget of $39.92 million, resulting in a fiscal year over-spending variance of $0.26 million. To start the fiscal year, the Main Installation encountered more ledge than was originally anticipated, which delayed the pipe installation schedule. The Company and its contractor took measures to increase the weekly pipe install rate and the project was able to install the full 12,640 feet of pipeline scheduled for Phase 1, out of which, natural gas has been introduced into 11,550 feet of the newly installed pipe, which helped meet the forecasted gas demand before the winter weather. The remaining footage of pipeline, approximately 1,090 feet, has been installed and capped in Phase 1 and will be gassed-in during Phase 2 of the project. This approach was followed to ensure gas customers would not be impacted during the heating season.

Fiscal year results (Attachment B & C) reflect that the Company spent approximately $2.55 million for Existing Facilities projects compared to a fiscal year budget of $4.54 million, resulting in a fiscal year under-spending variance of $1.99 million. The majority of the material testing for the Maximum Operating Pressure (MOP) project was completed, but some work and the corresponding spending will carry into FY 2021. Additionally, although some Existing Facilities and New Regulator Station planning activities for future years were able to be accelerated into FY 2020, the field work start date for several projects was able to be deferred into FY 2022 and FY 2023, because of demand forecast changes. Thus, the corresponding preparation for those projects will primarily occur in the fiscal year before the start of the field work, which is the primary driver for under-spending in FY 2020.

FY 2020 Capital Spending by Category

Non-Discretionary Work[3]

Public Works Program – $0.38 million variance to fiscal year budget

For FY 2020, the Company spent a net of $16.56 million, net reimbursements, compared to an annual budget of $16.94 million for the Public Works program, resulting in an under-budget variance of $0.38 million. The Non-Reimbursable sub-category spent $16.33 million against a fiscal year budget of $16.94 million, resulting in an under-spending variance of $0.61 million. The Non-Reimbursable under-spending variance was due to the timing of when work requests were received and permitting issues in Providence. For FY 2020, the Company installed 14.6 miles of a plan of 14.0 miles for new gas main and has abandoned 11.8 miles of a plan of 14.0 miles of leak-prone pipe through the Public Works program. The under-spend for Public Works is primarily the result of the Company receiving and starting work later than originally forecasted and the timing of when the Company was able to receive permits from cities and towns, which the Company applied for later in the construction season due to when the Company received the work requests. Significant projects completed during the year include Route 6 & 10 Phases 3A & 4 Westminster Street Bridge Relays (installed 364 feet and abandoned 445 feet), Route 6 & 10 Phase 3B Broadway Bridge Relay (installed 503 feet and abandoned 503 feet), Butler Street in Cranston (installed 2,957 feet and abandoned 2,515 feet), and Mauran Street in Cranston (installed 8,356 feet and abandoned 7,495 feet).

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

Mandated Programs – $0.58 million over-spending variance to fiscal year budget

For FY 2020, the Company spent approximately $19.98 million of an annual budget of $19.40 million for Mandated Programs, resulting in an over-spending variance of $0.58 million. There were three primary drivers of the over-spend in this category. The first is the purchase meters category, which has incurred higher than forecasted spend because the Company received some meters in FY 2020 instead of FY 2019, higher meter shop costs as the result of hiring two new employees in advance of upcoming employee retirements in that department, along with higher unit costs for meters purchased from alternate suppliers because of a meter shortage from a primary supplier. The second is the Reactive Main Replacement category, which saw more reactive main replacement work materialize than originally forecasted. The third is the Pipeline Integrity Verification Program (IVP), which did not have a budget for FY 2020 but incurred closeout costs, primarily for work performed in FY 2019 with the invoices paid in FY 2020. The fiscal year over-spend in these categories is partially offset by budget under-spend in several categories including the Reactive Leaks and Reactive Service Replacement category and the Corrosion category. The under-spend in the Reactive Leaks and Reactive Service Replacement category was because there were fewer leaks and the Company only needed to repair fewer leaks than forecasted. Under-spending in the Corrosion category was the result of corrosion surveys, which revealed that the condition of pipes was in more favorable shape. Consequently, there was a higher percentage of operating expense repair work and a lower percentage of capitalized pipe replacement work.

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

For FY 2020, the Company spent $0.00 million of an annual budget of $0.25 million for the Damage/Failure Reactive program, resulting in an under-spending variance of $0.25 million. The Company did not experience any reactive projects that qualified for this program in FY 2020.

Discretionary Work[4]

Proactive Main Replacement Program – $2.83 million under-spending variance to fiscal year budget

For FY 2020, the Company spent approximately $60.06 million of an annual budget of $62.88 million, resulting in an under-spending variance of $2.83 million. In FY 2020, the Company installed 46.9 miles of new main against a plan of 44.0 miles and abandoned 48.3 miles of leak-prone pipe of a plan of 45 miles within the Proactive Main Replacement program; approximately 15.4 miles were abandoned in the fourth quarter of FY 2020. Across all programs, the Company was able to abandon 61.6 miles of leak-prone pipe of a plan of 60 miles for FY 2020. The primary driver of the under-spending variance was the Large Diameter LPCI sub-category, which experienced delays in receiving Providence permits and resulted in a majority of the planned FY 2020 work being deferred until FY 2021. In addition, there was under-spending for the Atwells Avenue project because the final restoration of Segment 2 was not completed in FY 2020. The under-spending was partially offset by over-spending in the Proactive Main Replacement Leak Prone Pipe subcategory. Due to favorable weather conditions, the Company was able to complete some final restoration paving earlier than forecasted and begin some FY 2021 work in FY2020.

Reliability Programs – $2.56 million under-spending variance to fiscal year budget

For FY 2020, the Company spent $15.96 million of an annual budget of $18.53 million for Reliability programs, resulting in an under-spending variance of $2.56 million for this category. There are several drivers of this under-spending variance. The first driver is the Pressure Regulating Facilities projects located in Providence and East Providence, which were delayed

[4] With limited exceptions, discretionary programs are not required by legal, regulatory code, or agreement, or a result of damage or failure.

and eventually deferred until FY 2021 due to the permitting issues and the fact that funds were either not spent or were allocated to other Reliability programs in FY 2020. Pressure Regulating Facilities was also under-spent because of a project delay in Pawtucket due to an easement issue and that project was deferred until FY 2021. The second driver was under-spending in the Gas System Reliability – Gas Planning category, which was due to the deferral of the Scott Road Take Station until FY 2021. Please note that for the Gas System Reliability – Gas Planning category, most of the station work was completed for the Wood at Woodlawn regulator station project in Bristol, and the remaining work to be completed in FY 2021 is related site abandonment and final site restoration. The third driver was under-spending in the LNG program due to delays associated with vendor contract negotiations and timing of project start dates. The fourth driver is the Take Stations category, which was under-spent versus budget because some FY 2020 work was pulled forward into FY 2019 and potential work to replace it was not able to be completed in FY 2020. The Company was able to accelerate, and complete take station work at the George Washington Highway location in Lincoln. The fifth driver is the deferral until FY 2021 of a portion of the Heater Program at the Laten Knight Take Station for contractor availability and pricing. The sixth driver was the System Automation program which experienced lower than anticipated installation costs for some locations. The System Automation program also experienced some timing delays with installing telemetry at some regulator stations, resulting in a partial deferral until FY 2021. The under-spend in several categories, as described above, was partially offset by over-spend of $3.87 million on the Allens Avenue Multi Station Rebuild project, which incurred higher than expected costs for the project, but separately was also able to accelerate a portion of the project timeline, which pulled forward a $1.30 million scope of project work from FY 2021 into FY 2020; the $1.30 budget reduction is reflected in the FY 2021 ISR Budget approved by the Rhode Island Public Utilities Commission on March 17, 2020. The Company was also able to move forward from FY 2021 to FY2020 an additional scope of work valued at approximately $1.60 million for the Allen’s Avenue Multi-Station Rebuild project. However, due to the timing of contractor invoicing and payments, approximately $1.40 million of those charges will be incurred in the FY 2021 ISR. The reliability under-spend was also partially offset by over-spend in the Replace Pipe on Bridges category, which incurred site preparation and excavation costs, that were not included in the original budget, related to lining repair work for pipe on the bridge at Scituate Avenue in Johnston. The lining repair work was covered under warranty by the original contractor; however, the site preparation and excavation costs were not covered under warranty. Additionally, the Replace Pipe on Bridges category incurred preparation expenses related to the Goat Island project in Newport.

FY 2020 Southern Rhode Island Gas Expansion Project Spending by Category

Construction

Pipeline – $0.26 million over-spending variance to fiscal year budget

For FY 2020, the Company spent $40.18 million of an annual budget of $39.92 million related to pipeline on the Southern Rhode Island Gas Expansion Project (the project). The Company entered into a contract with Bond Brothers, Inc. (Bond) for constructing all three phases of the Project. Phase 1 (12,640 feet) of construction commenced on April 22, 2019. At the beginning of the fiscal year, the forecast anticipated having 12,640 feet installed by November 1, 2019. On June 22, 2019, the Company and Bond implemented a Recovery Plan which expected to have 12,640-feet installed by November 15, 2019; the need for a schedule Recovery Plan was primarily driven by schedule delays necessary to remove excess bedrock, which exceeded the original project assumptions.

With the implementation of the Recovery Plan, the project was able to install the full 12,640 feet of pipeline scheduled for Phase 1, out of which, natural gas was introduced into 11,550 feet of the newly installed pipe on November 25, 2019, which helped meet the forecasted gas demand before the winter weather. The remaining footage of pipeline, approximately 1,090 feet, was installed and capped in Phase 1 and will be gassed in during Phase 2 of the project. This approach was followed to ensure gas customers would not be impacted during the heating season.

In the fourth quarter, the project activities primarily focused on preparation for Phase 2, which included permitting, means and methods for upcoming jack and bore pipe installations, coordination with the Rhode Island Department of Transportation (RIDOT), and test pitting to confirm and determine pipe center line locations. Leading into the fourth quarter, the project anticipated receiving Phase 2 manufactured pipe at the end of March 2020. However, due to the COVID-19 Pandemic, manufacturing of that pipe was temporarily shut down and delivery was delayed by one month. The project team was able to source pipe from various vendors that continued to meet the Company's standards for the project, which was received in the first quarter of FY 2021, to keep the project moving forward and prevent the project contractor from experiencing idle time of its workforce. The pipe manufacturers have resumed their operations and additional pipe is available for delivery as of the end of April 2020.

Additionally, in FY 2020, the project incurred incremental paving expenses of approximately $0.34 million to comply with RIDOT permits, requests, and new concrete base standards.

Existing Facilities

Maximum Operating Pressure (MOP) Project - Material Testing of Cranston and West Warwick Line (Cranston Line) to increase MOP from 150 psig to 200 psig – $1.16 million under-spending variance to $3.56 million fiscal year budget

For FY 2020, the Project incurred costs of $2.40 million of an annual budget of $3.56 million, resulting in an under-spending variance of $1.16 million. FY 2020 project activities included project scoping, preparation, and completing the majority of material testing in the field. There are two drivers of the $1.16 million under-spending variance. The first is that the completed work went smoothly, and actual incurred costs were slightly lower than originally estimated, as no sites encountered the need for dewatering and the team was able to open multiple locations at the same time. The second was that due to the later than initially forecasted field work start date, the material verification work and excavation at 2 of the 26 excavation locations (of 43 total locations) originally planned for FY 2020, was not completed and was deferred until FY 2021. Additionally, retesting will be conducted at 2 test sites in FY 2021. From the Existing Facilities FY 2020 budget of $4.54 million, this project has been allocated a fiscal year budget of $3.56 million. The remaining $0.98 million has been allocated equally to the two projects for Existing Facilities – Project Development, which are described below.

To maximize the benefit of the Project, which will have an MOP of 200 psig, the pressure of the existing 5.2 miles (27,578 feet) of main making up the Cranston Line must be increased from 150 psig to 200 psig. The purpose of this Project is to perform material verification on the existing Cranston Line to confirm the line can operate at 200 psig, prior to increasing the MOP to 200 psig. The Project calls for material verification at 43 locations consisting of 26 excavation sites.

The Company's FY 2020 Gas ISR plan in Docket No. 4916 included $4.54 million of material testing work to be completed in FY 2020. Upon further review of the existing facilities portfolio, the Company decided to complete the material verification work in FY 2020 as planned and shift the actual pressure increase to FY 2021. The shift did not change the total anticipated cost of $4.537 million but was forecasted to cause an under-spending variance of $0.98 million in FY 2020 based on the excavation and material verification pricing agreements which were reached with two contractors in July 2019.

The remaining FY 2020 budgeted funds or forecasted under-spend of $0.98 million were allocated equally to fund anticipated preparation work in two associated categories, Regulator Station Investment projects and a Proposed New Regulator Station, all of which were beneficial to start in FY 2020 and are part of the same overall "Existing Facilities" portfolio. As of the beginning of FY 2020, these two categories were set to begin field work in FY 2021 and FY 2022, although the work has now been deferred until FY 2022 and FY 2023 and did not have budgeted funding in FY 2020 for the preparation work.

To complete the FY 2020 Material Verification MOP Project work, the Company entered into pricing agreements with two contractors, M.S.R. Utility Maintenance Corporation (MSR) for excavation and Massachusetts Material Technologies (MMT) for materials verification testing. The excavation work generally consists of creating 5-foot x 8-foot holes around and 2-feet below the section of pipe being tested. Once a section of pipe is exposed, any protective coating is being removed prior to material verification testing. The material verification work generally consists of strapping test equipment onto the live pipeline and collecting mechanical and chemical data to confirm the pipe can handle the 200 psig.

Existing Facilities - Project Development

Regulator Station Investment - Upgrades to Existing Pressure Regulating Facilities and Remote Operating Valve Installation– $0.36 million under-spending variance to allocated fiscal year budget of $0.49 million

In FY 2020, the Company completed the needs analysis and the options analysis, and completed the conceptual designs to support the options analysis. The project started the design for the Regulator Station Investment – Upgrades to Existing Pressure Regulating Facilities at Cranston Take Station and Cowesett Regulator Station and plans to continue that work along with project development in FY 2021. Although some planning activities for future years were able to be accelerated into FY 2020, the field work start date for several projects was able to be deferred into FY 2022 and FY 2023 because of demand forecast changes and the corresponding preparation for those projects will primarily occur in the fiscal year before the start of the field work. Additionally, the initial planning for the Remote Operating Valve Installation is now forecasted to occur in FY 2021.

New Regulator Station Installation – $0.47 million under-spending variance to allocated fiscal year budget of $0.49 million

For FY 2020, the Company completed an initial site analysis and incurred costs of $0.02 million of an allocated fiscal year budget of $0.491 million. In FY 2021 and FY 2022, the Company will be performing the needs analysis and the options analysis for the New Regulator Installation project.

Attachment A - Summary

The Narragansett Electric Company
d/b/a National Grid - RI Gas
Capital Spending by Investment Categories - Summary
FY 2020 through March 31, 2020
($000)

Investment Categories	**Budget**	**Actual**	**Variance**
NON-DISCRETIONARY			
Public Works*	$16,940	$16,559	($380)
Mandated Programs	$19,403	$19,979	$576
Damage / Failure (Reactive)	$250	$0	($250)
NON-DISCRETIONARY SUB-TOTAL	**$36,593**	**$36,539**	**($54)**
DISCRETIONARY			
Proactive Main Replacement	$62,881	$60,055	($2,826)
Reliability Programs	$18,528	$15,964	($2,565)
SUBTOTAL DISCRETIONARY (Without Gas Expansion)	**$81,410**	**$76,019**	**($5,391)**
Southern RI Gas Expansion Project	$44,459	$42,729	($1,731)
DISCRETIONARY TOTAL (With Gas Expansion)	**$125,869**	**$118,748**	**($7,121)**
GAS ISR TOTAL (Without Gas Expansion)	**$118,003**	**$112,558**	**($5,445)**
GAS ISR TOTAL (With Gas Expansion)	**$162,462**	**$155,286**	**($7,176)**

( ) in Variance column denotes an under-spend
*Public Works Program includes reimbursements which were credited as received throughout the year.

Attachment B - Breakout

The Narragansett Electric Company
d/b/a National Grid - RI Gas
Capital Spending by Investment Categories - Detail
FY 2020 through March 31, 2020
($000)

Investment Categories	Budget	Actual	Variance
NON-DISCRETIONARY			
Public Works			
CSC/Public Works - Non-Reimbursable	$16,940	$16,330	($610)
CSC/Public Works - Reimbursable	$1,381	$1,038	($343)
CSC/Public Works - Reimbursements	($1,381)	($809)	$572
Public Works Total	**$16,940**	**$16,559**	**($380)**
Mandated Programs			
Corrosion	$1,166	$940	($226)
Purchase Meters (Replacements)	$3,400	$5,125	$1,726
Pipeline Integrity IVP (Integrity Verification Program)	$0	$180	$180
Reactive Leaks (CI Joint and Service Replacment)	$12,104	$10,294	($1,810)
Service Replacements (Reactive) - Non-Leaks/Other	$2,063	$1,928	($135)
Main Replacement (Reactive) - Maintenance (incl Water Intrusion)	$670	$1,478	$808
Other Mandated	$0	$33	$33
Mandated Total	**$19,403**	**$19,979**	**$576**
Damage / Failure (Reactive)			
Damage / Failure Total	**$250**	**$0**	**($250)**
NON-DISCRETIONARY TOTAL	**$36,593**	**$36,539**	**($54)**
DISCRETIONARY			
Proactive Main Replacement			
Main Replacement (Proactive) - Leak Prone Pipe	$57,184	$58,034	$850
Main Replacement (Proactive) - Large Diameter LPCI Program	$4,418	$1,115	($3,302)
Atwells Avenue	$1,280	$906	($374)
Proactive Main Replacement Total	**$62,881**	**$60,055**	**($2,826)**
Reliability			
Gas System Control	$571	$362	($209)
System Automation	$1,198	$967	($231)
Heater Program	$1,250	$887	($363)
Pressure Regulating Facilities	$4,695	$1,516	($3,180)
Allens Ave Multi Station Rebuild	$4,437	$8,311	$3,873
Take Stations	$1,050	$186	($864)
Valve Installation/Replacement	$159	$1	($158)
Gas System Reliability - Gas Planning	$1,303	$475	($828)
I&R - Reactive	$1,372	$1,218	($154)
Distribution Station Overpressure Protection	$0	$102	$102
LNG	$1,434	$560	($874)
Replace Pipe on Bridges	$200	$697	$498
Access Protection Remediation	$256	$17	($239)
Tools & Equipment	$603	$666	$63
Reliability Total	**$18,528**	**$15,964**	**($2,565)**
SUBTOTAL DISCRETIONARY (Without Gas Expansion)	**$81,410**	**$76,019**	**($5,391)**
Southern RI Gas Expansion Project			
Pipeline	$39,922	$40,179	$257
Existing Facilities	$4,537	$2,550	($1,987)
Southern RI Gas Expansion Project Total	**$44,459**	**$42,729**	**($1,731)**
DISCRETIONARY TOTAL (With Gas Expansion)	**$125,869**	**$118,748**	**($7,121)**
GAS ISR TOTAL (Without Gas Expansion)	**$118,003**	**$112,558**	**($5,445)**
GAS ISR TOTAL (With Gas Expansion)	**$162,462**	**$155,286**	**($7,176)**

( ) in Variance column denotes an under-spend

Attachment C - Gas Expansion Cost Detail

The Narragansett Electric Company
d/b/a National Grid - RI Gas
Southern Rhode Island Gas Expansion Project - Cost Detail by Category
FY 2020 through March 31, 2019

Pipeline

Cost Element	Actual	Budget	Variance
Internal Labor	$791,409		
Contractors	$29,260,941		
Materials	$2,410,911		
Other/Overhead	$7,715,720		
Grand Total	**$40,178,981**	**$39,922,433**	**$256,548**

Existing Facilities

Cost Element	Actual	Budget	Variance
Internal Labor	$111,555		
Contractors	$1,896,232		
Materials	$126		
Other/Overhead	$541,871		
Grand Total	**$2,549,784**	**$4,537,000**	**($1,987,216)**

( ) in Variance column denotes an under-spend