

January 13, 2022

BY ELECTRONIC MAIL

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

RE: Docket 5210 - Proposed FY 2023 Gas Infrastructure, Safety and Reliability Plan Responses to PUC Data Requests – Set 1

Dear Ms. Massaro:

I have enclosed the electronic version of National Grid's¹ responses to the Public Utilities Commission's First Set of Data Requests in the above-referenced matter.²

Thank you for your attention to this matter. If you have any questions, please contact me at 781-472-0531.

Very truly yours,



Raquel J. Webster

Enclosures

cc: Docket 5210 Service List
Leo Wold, Esq.
Al Mancini, Division
John Bell, Division
Rod Walker, Division

¹ The Narragansett Electric Company d/b/a National Grid.

² Per a communication from Commission counsel on October 4, 2021, the Company is submitting an electronic version of this filing followed by six (6) hard copies filed with the Clerk within 24 hours of the electronic filing.

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.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.

Joanne M. Scanlon

January 13, 2022 D
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Docket No. 5210 - National Grid's FY 2023 Gas Infrastructure, Safety and Reliability (ISR) Plan - Service List 12/22/2021

Name/Address	E-mail Distribution	Phone
Raquel J. Webster, Esq. National Grid 40 Sylvan Road Waltham, MA 02451	raquel.webster@nationalgrid.com ;	781-907-2121
	celia.obrien@nationalgrid.com ;	
	Joanne.scanlon@nationalgrid.com ;	
	Jennifer.Hutchinson@nationalgrid.com ;	
National Grid Amy Smith Melissa Little Lee Gresham Ryan Scheib	Amy.smith@nationalgrid.com ;	
	Melissa.Little@nationalgrid.com ;	
	mei.sun@nationalgrid.com ;	
	Theresa.Burns@nationalgrid.com ;	
	Michael.Pini@nationalgrid.com ;	
	Nathan.Kocon@nationalgrid.com ;	
Division of Public Utilities & Carriers Leo Wold, Esq.	Leo.Wold@dpuc.ri.gov ;	401-780-2130
	Margaret.l.hogan@dpuc.ri.gov ;	
	Al.mancini@dpuc.ri.gov ;	
	John.bell@dpuc.ri.gov ;	
	Linda.george@dpuc.ri.gov ;	
	Robert.Bailey@dpuc.ri.gov ;	
	eullucci@riag.ri.gov ;	
MFolcarelli@riag.ri.gov ;		
Rod Walter, CEO/President Rod Walker & Associates	Rwalker@RWalkerConsultancy.com ;	706-244-0894
File an original and five copies Luly E. Massaro, Commission Clerk Public Utilities Commission 89 Jefferson Blvd. Warwick RI 02888	Luly.massaro@puc.ri.gov ;	401-780-2107
	Patricia.lucarelli@puc.ri.gov ;	
	Todd.bianco@puc.ri.gov ;	
	Alan.nault@puc.ri.gov ;	
PPL Electric Utilities	rjreybitz@pplweb.com ;	

Ronald Reybitz
Stephen Breininger

skbreininger@pplweb.com

The Narragansett Electric Company
d/b/a National Grid
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PUC 1-1

Request:

Referring to the Atwells Avenue project:

- a. Please provide the original total forecasted cost by year for the project.
- b. Please provide the current total forecasted cost by year for the project.
- c. Please provide an explanation for any variance in timeline and cost from the original forecast and current forecast.

Response:

- a. The Company's original forecast included in the FY 2020 ISR filing for the Atwells Ave project was a total of \$7.54 million over the three-year period, FY 2020 through FY 2022. See table PUC 1-1(a) below for the by year forecast of costs made in FY 2020. Table PUC 1-1(b) also contains the actual spending on the project by year.
- b. The current forecasted budget for the project (as of FY 2023) is \$9.31 million. This total is comprised of FY 2019 through FY 2021 Actuals, the FY 2022 Forecasted spend, and the Proposed spend for FY 2023 through FY 2024. Please see table PUC 1-1a below for the current by year cost forecast. Table 1-1b also contains the actual spending on the project by year.
- c. With regards to the timeline variance, the Company notes that the construction work associated with the Atwells Ave project will be completed in FY 2023, with only final restoration work remaining to be completed in FY 2024. The project timeline has been extended out due to the complexity of discussions with the City of Providence concerning minimizing disruptions to businesses in the neighborhood over the course of the project, as well as settlement of scope and responsibility for final restoration efforts. The variance in cost is due to increased paving and restoration requirements, historical district requirements, increase in the scope of work around the DePasquale Square area, and cost increases associated with restricted work hours. The table below summarizes the changes in the Company's estimated total cost for the Atwells Ave project. National Grid notes that after the initial projected cost increase in its FY 2021 ISR proposal, the Company subsequently lowered the projected cost in its ISR proposals for FY 2022 and FY 2023.

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PUC 1-1, page 2

Table PUC 1-1(a)

Remaining Project Forecasts by Fiscal Year \$(000)	FY19	FY20	FY21	FY22	FY23	FY24	Remaining Forecast	Remaining Forecast plus Actual Spend (1-1b)
FY19*	\$ -							\$ 81
FY20		\$ 1,280	\$ 2,260	\$ 4,000			\$ 7,540	\$ 7,621
FY21			\$ 5,081	\$ 5,190			\$ 10,271	\$ 11,258
FY22				\$ 4,000			\$ 4,000	\$ 10,675
FY23					\$ 1,464	\$ 173	\$ 1,637	\$ 9,313

*Project forecast was first included in the FY 2020 ISR Proposal.

Table PUC 1-1(b)

Actual Spend by Fiscal Year \$(000)	FY19 Actuals	FY20 Actuals	FY21 Actuals	FY22 Forecasted Actuals	FY23 Actuals	FY24 Actuals	Total Actual Spend
FY19	\$ 81						\$ 81
FY20	\$ 81	\$ 906					\$ 987
FY21	\$ 81	\$ 906	\$ 5,688				\$ 6,675
FY22	\$ 81	\$ 906	\$ 5,688	\$ 1,000			\$ 7,675

PUC 1-2

Request:

On Bates page 20, the Company explains the heaters at the Wampanoag Trail and Tiverton gate stations have outlived their useful lives and the safety and control systems do not meet current National Grid standards.

How long have the heaters safety and control systems been outside of current National Grid standards?

Response:

The heaters have been outside of National Grid's heater design standards since the standards were updated and published in 2018 based on related National Fire Protection Association and American Society Mechanical Engineer codes as well as recommended industry practices. Prior to publishing the new standards, National Grid successfully installed, tested, and operated the new heater design in 2017. The design of the old heaters had pneumatic controls and a limited number of pneumatic temperature safety devices. The new standards include added reliability operability with more efficient electronic controls. The burner management system also has additional safety shutdowns to mitigate process excursions.

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PUC 1-3

Request:

On Bates page 20, the Company explains that the expected useful life of the heaters was 25 years and that the Wampanoag heaters were installed in 1967. Why were they not replaced sooner if their expected useful life expired before the end of the 20th century?

Response:

National Grid did not replace the heaters sooner because the Company did not own the heaters and could not make asset management decisions, including replacement decisions or design changes. Although beyond their expected useful life, the heaters were technically within operational life because they were able to meet temperature setpoint up until the last few years.

The Company began to inquire about the heaters when they were no longer able to meet Gas Control's desired gas temperature. At this time, due to the potential downstream effects, the ownership transfer was discussed, and an agreement was made.

PUC 1-4

Request:

On Bates page 22, the Company explains that Enbridge will construct the heaters and National Grid will take ownership.

- a. Please explain why this is preferable to National Grid building and owning the heaters.
- b. What type of cost control will National Grid have over the project if Enbridge is doing the construction?

Response:

- a. It is more efficient for Enbridge to perform construction because they own the property and will have to replace part of their transmission pressure inlet piping at the station while the heaters are replaced. This piping is connected to the existing heaters and Enbridge's pressure regulation equipment. In addition, the best siting option is to construct the new heaters where the existing equipment is located which requires Enbridge to remove their old equipment. Rather than having two companies mobilize, demobilize, and construct in the same location, Enbridge will construct with National Grid support in the form of design reviews, forecast reviews, construction oversight, and damage prevention activities.
- b. National Grid will have a construction supervisor on-site that will ensure that the project is being performed in National Grid's best interest in both safety and construction methods. The company will also periodically review and approve invoices, receive forecasts from Enbridge project managers, and review change orders prior to reimbursing Enbridge.

PUC 1-5

Request:

Referring to the Southern RI Gas Expansion project:

- a. Please provide the original total forecasted cost by year for the project.
- b. Please provide the current total forecasted cost by year for the project.
- c. Please provide an explanation for any variance in timeline and cost from the original forecast and current forecast.

Response:

For the Southern RI Gas Expansion project:

- a. The original forecasted budget (as of FY 2020) was \$112.37 million. Please see table PUC 1-5(a) below for the by year forecast of costs. Table PUC 1-5(b) also contains the actual spending on the project by year.
- b. The current forecasted budget (as of FY 2023) is \$131.48 million. This total is comprised of FY 2019 through FY 2021 Actuals, the FY 2022 Forecasted spend, and the Proposed spend for FY 2023 through FY 2026. Please see table PUC 1-5(a) below for the by year forecast of costs. Table PUC 1-5(b) also contains the actual spending on the project by year.
- c. Variance Explanations:
 - i. The main installation was delayed and the costs increased due to higher contractor bids, significant increase in ledge, internal resource issues, and implementation of the RI Fair Share Roadway Repair Act.
 - ii. Estimates provided prior to the FY 2022 plan for the Regulator Station construction and upgrades and associated projects were considered preliminary. Engineering and development of these projects took longer than originally expected as the same pool of engineers were assigned to different components of the full project. The needs analysis was revisited, and the results of this allowed the estimates related to the FY 2023 work to be confidently updated as part of the Company's FY 2023 Gas ISR Plan.

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PUC 1-5, page 2

Table PUC 1-5(a)

Remaining Project Forecasts by Fiscal Year \$(000)	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Remaining Forecast	Remaining Forecast plus Actual Spend (1-5b)
FY19	\$ 1,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,500	\$ 1,500
FY20	\$ -	\$ 44,459	\$ 33,723	\$ 31,800	\$ -	\$ -	\$ -	\$ -	\$ 109,982	\$ 112,372
FY21	\$ -	\$ -	\$ 43,074	\$ 27,022	\$ 11,703	\$ 50	\$ -	\$ -	\$ 81,849	\$ 126,968
FY22	\$ -	\$ -	\$ -	\$ 19,438	\$ 7,295	\$ 15,972	\$ 450	\$ -	\$ 43,155	\$ 130,029
FY23	\$ -	\$ -	\$ -	\$ -	\$ 6,789	\$ 7,900	\$ 14,123	\$ 350	\$ 29,162	\$ 131,484

Table PUC 1-5(b)

Actual Spend by Fiscal Year \$(000)	FY19 Actuals	FY20 Actuals	FY21 Actuals	FY22 Forecasted Actuals	FY23 Actuals	FY24 Actuals	FY25 Actuals	FY26 Actuals	Total Actual Spend
FY19	\$ 2,390								\$ 2,390
FY20	\$ 2,390	\$ 42,729							\$ 45,119
FY21	\$ 2,390	\$ 42,729	\$ 41,755						\$ 86,874
FY22	\$ 2,390	\$ 42,729	\$ 41,755	\$ 15,448					\$ 102,322

PUC 1-6

Request:

On Bates page 12, the Company states in part “The Company believes that the FY 2023 leak prone pipe abandonment target of 64.5 miles aligns with the resources that are forecasted to be available to perform the abandonments.” This statement seems to indicate that resource constraints exist that limit the amount of pipe related work that can be accomplished in a given time period. However, on Bates pages 70 and 71, the Company is projecting the following spending in the upcoming fiscal years:

Proactive Main Replacement

FY 22	\$ 70 million	
FY 23	\$ 79 million	(increase of 13% over prior year)
FY 24	\$102 million	(increase of 29% over prior year)
FY 25	\$111 million	(increase of 9% over prior year)

Please provide evidence that this level of replacement is achievable given resource constraints (i.e., labor & material), New England’s limited construction season, permitting issues, coordination issues with other utilities and municipalities, etc.?

Response:

The COVID-19 Pandemic created some resource constraints that impacted the amount of work that was completed in the prior two years. Adjustments have been made to the FY2023 plan to reduce installed miles and increase carryover abandonment miles. This change will allow the Company to catch up on the backlogged work in FY2023 and get back on track by FY2024 to meet the Company’s goals. The forecasted budgets for FY 2024 and FY 2025 align with the installation and abandonment miles in the Company’s 20-year Leak Prone Pipe Replacement plan and the projected costs to complete the work. However, in the coming year, the Company plans to complete a deep-dive into replacing the remaining miles of leak prone pipe on the Rhode Island gas system. The Company will consider risk on the system, the remaining miles, the remaining timeline of the existing 20-year plan (currently slated to be completed in FY 2035), availability of internal and contractor resources, customer bill impacts, permitting and other factors.

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PUC 1-6, page 2

To formulate the Proactive Main Replacement budgets for FY 2023 through FY 2027 (5-year Capital Plan), the Company has analyzed recent costs and developed budget projections based on those costs plus other factors, including the impact of updated pricing following contract negotiations, local paving requirements, increased use of professional engineers and a higher proportion of cast iron main replacement. The current plan adjusts the material mix over future years to maximize the completion of cast iron while maintaining a relatively flat rate of installation and minimizing large budget swings through the forecasted completion of the program in 2035.

PUC 1-7

Request:

On Bates pages 70 and 71, the Company makes the following spending projections for upcoming fiscal year

Mandated Programs

FY 22 \$22 million

FY 23 \$28 million

FY 24 \$39 million

FY 25 \$46 million

FY 26 \$41 million

FY 27 \$63 million

Please explain the expectation that the cost of mandated programs will increase to these levels in upcoming fiscal years given that the average annual cost for this category has been roughly \$19 million from FY 17 to FY 22.

Response:

National Grid plans to execute two specific projects, which contribute to increased Mandated Program spending through FY 2027.

These projects are:

- Pipeline Integrity – IVP – Wampanoag Trail Pipeline Replacement
- Transmission Station Integrity – Scott Road Take Station Enhancement

In addition, the Company plans to increase work volumes for the on-going Transmission Station Integrity Program over the next five years and anticipates replacing one station every two years. The Pipeline Integrity – IVP – 200 psig System Replacement Blanket funds projects that may arise following In-Line Inspections (ILI). For example, in FY 2023, an ILI is planned for the Providence River Crossing. If the results indicate that replacement is necessary, the blanket is in place to cover a significant cost of the project while minimizing the impact to the budget.

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PUC 1-7, page 2

The IVP work is necessary to upgrade and maintain the Company’s gas system to ensure the safety, reliability and compliance of the gas distribution system and to provide safe and efficient service to customers.

Please see the table below for the increased spending for mandated programs for FY 2023 through FY 2027.

Investment Name \$(000)	FY23	FY24	FY25	FY26	FY27
Pipeline Integrity - IVP - 200 psig system replacement	\$0	\$1,000	\$2,500	\$5,000	\$25,000
Pipeline Integrity - IVP - Wampanoag Trail Pipeline Replacement	\$500	\$500	\$5,000	\$5,000	\$250
Transmission Station Integrity	\$1,010	\$4,685	\$11,759	\$5,205	\$12,234
Transmission Station Integrity - Scott Road Take Station (Cumberland)	\$3,500	\$9,000	\$2,100	\$0	\$0
Other Mandated Programs	\$23,350	\$24,588	\$25,080	\$25,581	\$26,094
Total	\$28,360	\$39,772	\$46,440	\$40,787	\$63,578

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PUC 1-8

Request:

Does the FY 2023 plan include any incremental capital investments related to Gas Business Enablement (GBE)?

If yes, please identify.

Response:

No. The FY 2023 Gas ISR Plan does not include any incremental capital investments related to Gas Business Enablement (GBE).

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PUC 1-9

Request:

Please identify any amounts that will be billed to the Narragansett Electric Company by the Service Company in FY 2023 related to GBE.

Response:

National Grid did not include any incremental capital investments related to Gas Business Enablement (GBE) in its proposed FY 2023 ISR plan. Therefore, there will be no amounts billed by the Service Company for GBE that are included in the ISR revenue requirement.