

February 12, 2021

BY ELECTRONIC MAIL

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

RE: Docket 4996 – FY2021 Gas Infrastructure, Safety, and Reliability Plan Quarterly Update – Third Quarter Ending December 31, 2020

Dear Ms. Massaro:

On behalf of National Grid,¹ I have enclosed an electronic version of the Company's fiscal year (FY) 2020 Gas Infrastructure, Safety, and Reliability (ISR) Plan quarterly update for the third quarter ending December 31, 2020.²

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 4996 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 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 five (5) 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

February 12, 2021

Date

Docket No. 4996 - National Grid's FY 2021 Gas Infrastructure, Safety and Reliability (ISR) Plan - Service List 1/7/2020

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Fiscal Year 2021 Gas Infrastructure, Safety, and Reliability Plan The Narragansett Electric Company Fiscal Year 2021 Quarterly Update Third Quarter - Ending December 31, 2020

Executive Summary

Fiscal year (FY) 2021 Gas Infrastructure, Safety, and Reliability (ISR) third quarter results (Attachment A) reflect that the Company¹ has spent approximately \$101.11 million of an estimated year-to-date (YTD) budget of \$138.35 million, resulting in a YTD underspending variance of \$37.24 million. This spending does not include the Southern Rhode Island Gas Expansion Project. The third quarter spend includes actual spending of \$22.78 million out of an estimated YTD budget of \$34.98 million for Non-Discretionary work, resulting in a YTD underspending variance of \$12.20 million. In addition, the third quarter spend includes actual spending of \$78.33 million of an estimated YTD budget of \$94.16 million on Discretionary work, resulting in a YTD underspending variance of \$15.84 million.

To date, the \$101.11 million of actual spend represents approximately 70 percent of the total FY 2021 annual Gas ISR budget of \$143.63 million (excluding incremental costs), or approximately 65 percent of the total annual Gas ISR budget of \$155.54 million (including incremental costs). The current forecasted total year-end spend is \$121.85 million, which is \$33.68 million below the total budget of \$155.54 million (including incremental costs). The COVID-19 Pandemic (Pandemic) is the primary driver of the projected underspend for the Public Works, Mandated, Proactive Main Replacement, and Reliability programs. A summary forecast is provided in

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

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Attachment A. Additional details supporting this forecast are provided in Attachment B. In the sections below, the Company explains in more detail the primary drivers for spending to-date and the forecast for each category.

FY 2021 Gas ISR third quarter results (Attachment A) reflect that the Company has spent \$35.05 million of an estimated YTD budget of \$34.69 million for the Southern Rhode Island Gas Expansion Project (Gas Expansion Project). This results in a YTD overspending variance of \$0.36 million. YTD results (Attachment B) reflect that the Company spent approximately \$34.32 million for Construction – Pipeline compared to a YTD budget of \$33.36 million, resulting in a fiscal YTD overspending variance of \$0.96 million. YTD results also reflect that the Company spent approximately \$0.66 million for the Other Upgrades/Investments category, resulting in YTD overspending variance of \$0.07 million. Additionally, YTD results reflect that the Company spent approximately \$0.07 million for the Regulator Station Investment category, resulting in a YTD underspending variance of \$0.67 million.

FY 2021 Capital Spending by Category

Non-Discretionary Work²

Public Works Program – \$6.70 million underspending variance to budget year-to-date

Through the third quarter of FY 2021, the Company spent \$9.98 million, net reimbursements, against a projected year-to-date budget of \$16.68 million for the Public Works program, resulting in an underspending variance of \$6.70 million. To date, for FY 2021, the Company has installed 7.4 miles of a plan of 14.0 miles for new gas main and has abandoned 3.9 miles of a plan of 12.0 miles of leak-prone pipe through the Public Works program. The Pandemic has

² 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.

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impacted the Company's ability to complete meter service work 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, as applicable. The limitations on meter service work has impacted the Company's ability to abandon leak-prone pipe. Although service work resumed in the second quarter, it is unlikely that the fiscal year abandonment target will be achieved for FY 2021. Additionally, the delayed timing of receiving work requests and associated permitting issues is also contributing the YTD underspending variance. YTD, the Public Works Program has incurred costs of \$0.53 million related to Professional Engineer (PE) Stamps, which is detailed below in the Incremental Cost – Professional Engineer Stamp section. At this time, the Public Works Program category is projected to be under-budget by \$3.05 million at fiscal year-end.

Mandated Programs – \$5.32 million underspending variance to budget year-to-date

Through the third quarter of FY 2021, the Company has spent a net of \$12.80 million, net prior year write-offs of \$0.73 million, against a projected YTD budget of \$18.12 million for Mandated Programs, resulting in an underspending variance of \$5.32 million. The primary drivers of the underspend include a reduced YTD volume of Reactive Leaks and Reactive Service Replacements; both programs are now forecast to be under-budget at fiscal year-end. Additionally, the Purchase Meters program is underspent through the third quarter by \$0.47 million, however, the Company anticipates being overspent in this category as purchases of approximately 9,000 meters for FY 2022 are being advanced into FY 2021 before a FY 2022 price increase with the meter supplier goes into effect. Another driver of the underspending variance is the work associated with the Transmission Station Integrity program, which has primarily been deferred until FY 2022. This delay is due in part to the associated physical records review, which was paused at the onset of the Pandemic. The underspend is partially offset by YTD overspending in the Reactive Main Replacement – Maintenance category. As of the end of Q2 FY 2021, the Company forecasts that the Mandated programs category will have

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an underspending variance of \$3.22 million at fiscal year-end (out of the FY 2021 budget of \$21.68 million, which excludes incremental paving for patches). The fiscal year budget of \$4.08 million for Incremental Paving for Patches is primarily associated with Mandated Programs. The year-end forecast line item for Incremental Patches – Paving has been reduced to \$0 million and the spending is being tracked directly in the associated ISR categories. As of December 2020, Central Falls, Woonsocket, and Providence have each required some version of larger patch sizes and the City of Pawtucket is requiring curb-to-curb patches on roads that had a five-year moratorium. YTD, the Mandated Programs have incurred costs of \$0.09 million related to PE Stamps, which is detailed below in the Incremental Cost – Professional Engineer Stamp section.

Damage/Failure Reactive Program - \$0.19 million variance to budget year-to-date

Through the third quarter of FY 2021, the Company spent \$0 of a projected year-to-date budget of \$0.18 million for the Damage/Failure Reactive program, resulting in an underspending variance of \$0.18 million. At this time, the Damage/Failure Reactive program category is forecasted to be under-budget by \$0.16 million at fiscal year-end.

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Discretionary Work³

Proactive Main Replacement Program – \$4.09 million underspending variance to budget year-to-date

Through the third quarter of FY 2021, the Company spent approximately \$59.05 million of a YTD budget of \$63.15 million for the Proactive Main Replacement programs, resulting in an underspending variance of approximately \$4.09 million. To date, for FY 2021, the Company has installed 44.9 miles of new main against a plan of 43.4 miles. The Company abandoned 17.3 miles of leak-prone pipe out of a plan for 40.0 miles. YTD, the Proactive Main Replacement programs have incurred costs of \$1.34 million related to PE Stamps, which is detailed below in the Incremental Cost – Professional Engineer Stamp section. At this time, the overall Proactive Main Replacement programs are projected to be under-budget by \$3.96 million at fiscal year-end.

As noted above in the Public Works section, the Pandemic has impacted the Company's ability to complete the meter service work associated with main replacement work. Through the first quarter, the Pandemic significantly limited the abandonment of leak-prone pipe, although the work resumed in the second and third quarters. The Company's ability to complete all planned service work related to main replacement is impacted by challenges with completing the backlog of service work and the difficulties with gaining access to some customers' premises. These challenges will be a primary factor in the Company's challenge of achieving the FY 2021 abandonment target; it is unlikely that the FY 2021 abandonment target will be achieved. By the end of FY 2021, the Company currently estimates that 4-5 miles will be abandoned in the Public Works category, 30-32 miles in the Proactive Main Replacement category, and 1 mile in the Reliability category, for an abandonment total of approximately 35-38 miles.

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

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The FY 2021 ISR Plan includes a budget of \$5.60 million for Incremental Paving – Main Installation, which is 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 YTD paving costs are captured in the standard ISR program categories with which the final restoration paving is associated (i.e. Proactive Main Replacement – Leak Prone Pipe). The final paving restoration requirements for projects in FY 2021 varies 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 has been spent on Incremental Curb-to-Curb paving for final restoration of main installation YTD in FY 2021.

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Through December 31, 2020

The following municipalities required curb-to-curb paving during 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 Atwells Avenue – Segments 1A and 1B main installation were completed ahead of the original schedule, which was projected to extend into the Fall of calendar year 2020. This resulted in a YTD budget overspend of \$0.54 million. The project is forecast to be over-budget by \$0.44 million at year-end as 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 during a time when outdoor dining was restricted due to the Pandemic. The scope of work for the project was also expanded slightly to replace services on several side streets that intersect with Atwells Avenue. Final restoration related to Segment 2 was completed in the third quarter of FY 2021. The Company is working with the City of

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Providence regarding final restoration plans for Segments 1A and 1B, which is anticipated to be completed in FY 2022.

For the Proactive Main Replacement – Large Diameter LPCI Program, the Company spent approximately \$1.38 million of a projected YTD budget of \$3.21 million, resulting in an underspending variance of \$1.84 million. Cast Iron Sealing Robot (CISBOT) projects were deferred for FY 2021 due to the Pandemic and the inability to complete the associated service work. The Cast Iron Lining (CI Lining) projects also experienced delays due to the Pandemic and inability to complete the associated service work. Additionally, the lining project planned for Blackstone Street in Providence was deferred due to its proximity to local hospitals and that deferral is a contributing factor in the FY 2021 underspend forecast. For FY 2021, CI Lining field work has been completed on the Bucklin Street project in Providence, with final restoration planned for the Spring. 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 FY 2021.

Reliability Programs - \$11.57 million underspending variance to budget year-to-date

Through the third quarter of FY 2021, the Company spent \$19.09 million of a projected YTD budget of \$30.66 million for Reliability programs, resulting in an underspending variance of \$11.57 million for this category. Several categories contribute to the underspending variance, but the primary driver in all underspent categories is work delays due to the Pandemic. First, the actual and forecasted spend for the LNG category is underspent due primarily to Pandemic related travel restrictions 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 proposed budget currently incorporates the impact of the FY 2021 deferred work. Second, the Pressure Regulating Facilities category experienced initial delays due to the Pandemic.

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Additionally, for this category, the Company experienced easement issues at two locations (Park Avenue at Old Park Avenue in Cranston and two stations at Willet Avenue at Forbes Street in East Providence), impacting three stations. Further for this category, there were permitting issues that affected two stations in Newport (Wellington Avenue and Thames Street). With the combination of the Pandemic delaying the projected start and end dates for FY 2021, the easement issues, and permitting issues, five pressure regulating stations have been deferred into future years. Work has been completed at stations in Pawtucket and Providence. Additionally, for this category, second bypass valve installation work has been completed at one station in Providence and is progressing at seven stations. The third category driving underspend is the Distribution Station Over Pressure Protection category, which experienced delays due to the Pandemic, has a YTD underspending variance of \$2.46 million, and is forecast to be underbudget by \$2.02 million at year-end. In addition, relief valve siting was delayed due to process safety restrictions regarding setback requirements, including distances from building and sidewalks, which were 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 driving underspending is the Replace Pipe on Bridges category. This category is currently underspent by \$1.47 million, and the Company forecasts that this category will be underspent by \$1.35 million at year-end because the Rhode Island Department of Transportation (RIDOT) has deferred the Goat Island bridge project, which RIDOT may now reconstruct in FY 2023 or 2024. The forecasted underspend on the Goat Island bridge project will partially be offset by spending for bridge work in Lincoln, North Smithfield, Providence, and East Greenwich. The fifth category driving the underspending is the Gas System Reliability category, which is 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 contributing to the underspend is the Take State Refurbishment category, which is partially underspent because the

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scope of work for the planned Scott Road (Cumberland) project was changed to a station replacement that will begin development in FY 2022. Take Station work was completed at the Lincoln Gate Station, Diamond Hill (Cumberland), and a third layer of overpressure protection was installed at the Portsmouth Gate Station. As of the end of the Q3 FY 2021, the Company forecasts that the Reliability programs will be underspent by \$10.79 million at year-end, which includes an allocated forecast of \$0.70 million for Aquidneck Island Long Term Capacity Options and the forecasted budget overspend of \$2.22 million for Allens Avenue Multi Station Rebuild project for items such as a chromatograph enclosure/ sulfur analyzer and environmental dewatering and oversight. YTD, the Reliability programs have incurred costs of \$0.20 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 to have natural gas infrastructure design plans and specifications approved by a Rhode Island registered Professional Engineer when the work could post a material risk to public safety. The actual spend for PE Stamps is tracked directly in the applicable ISR cost categories. YTD, the total incurred costs to complete 213 PE Stamps is \$2.19 million. Details of the spending by category is listed in the chart, below.

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Category	Actual Cost FYTD - Through December (\$000)
CSC/Public Works - Non-Reimbursable	\$473
CSC/Public Works - Reimbursable	\$59
Corrosion	\$53
Service Replacements (Reactive) - Non-Leaks/Other	\$15
Main Replacement (Reactive) - Maintenance	\$19
Main Replacement (Proactive) - Leak Prone Pipe	\$1,305
Main Replacement (Proactive) - Large Diameter LPCI Program	\$2
Atwells Avenue	\$29
Proactive Service Replacement	\$10
Heater Installation Program	\$8
Pressure Regulating Facilities	\$48
Valve Installation/Replacement	\$69
Gas System Reliability	\$14
Replace Pipe on Bridges	\$7
Access Protection Remediation	\$56
Southern RI Gas Expansion - Pipeline	\$22
Total	\$2,192

FY 2021 Southern Rhode Island Gas Expansion Project Spending by Category

Construction

Pipeline – \$0.96 million overspending variance to budget year-to-date

Through the third quarter of FY 2021, the Company spent \$34.32 million of a YTD budget of \$33.36 million for the Gas Expansion Project – Main Installation, resulting in an overspending variance of \$0.96 million for this category. Through the end of Q3 FY 2021, the Company has installed 8,700-feet of pipe, which is approximately 78% of the 11,200-feet planned for Phase 2. The project gassed in 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

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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 which were installed but not gassed in was 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. In the third quarter, the Company also began the installation of main footage for HDD2 and a segment of associated Phase 3 pipe. At this time, the Company projects that the Gas Expansion Project – Main Installation category will be under-budget by \$1.11 million at fiscal year-end, when the \$2.57 million portion of incremental paving is included in this budget category.

Other Upgrades/Investments

Maximum Operating Pressure (MOP) Project, Launcher/Receiver, Installation of Remote Operating Valve (ROV) – \$0.07 million overspending variance to budget year-to-date

Through the third quarter of FY 2021, the Company spent \$0.66 million of a projected YTD budget of \$0.60 million for the Other Upgrades/Investments category, resulting in an overspending variance of \$0.07 million for this category. MOP field investigations were completed at two dig sites during the first quarter, and field investigations were completed at the Cranston Take Station in the second quarter. Repairs to the pipeline will be completed 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. Results of the MOP testing have been evaluated, and the pressure increase to 200 pounds per square inch gauge (psig) is on track to be completed in FY 2022. At this time, the Other Upgrades/Investments category is projected to be over-budget by \$0.21 million at fiscal year-end, when the \$0.049 million for incremental paving is included in this budget category.

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Regulator Station Investment

Upgrades to Cranston Take Station, Cowesett Regulator Station, and New Regulator Station – \$0.67 million underspending variance to budget year-to-date

Through the third quarter of FY 2021, the Company spent \$0.07 million of a YTD budget of \$0.74 million for the Regulator Station Investment category, resulting in an underspending variance of \$0.67 million 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. Additionally, the Company has completed initial engineering and environmental site inspection work related to the Cranston Take Station. At this time, the Regulator Station Investment category is projected to be under-budget by \$0.79 million at fiscal year-end.

Attachment A - Summary

The Narragansett Electric Company d/b/a National Grid - RI Gas Capital Spending by Investment Categories - Summary FY 2021 through December 31, 2020 (\$000)

FYTD FY 2021 - Total

		TIID			112021-10001			
Categories	Budget	Actual	Variance	Budget	Forecast	Variance		
NON-DISCRETIONARY								
Public Works ¹	\$16,681	\$9,979	(\$6,702)	\$17,368	\$14,322	(\$3,046)		
Mandated Programs	\$18,116	\$12,800	(\$5,316)	\$21,684	\$18,552	(\$3,217)		
Damage / Failure (Reactive)	\$187	\$0	(\$187)	\$249	\$93	(\$156)		
NON-DISCRETIONARY TOTAL	\$34,984	\$22,780	(\$12,204)	\$39,301	\$32,967	(\$6,419)		
DISCRETIONARY Proactive Main Replacement	\$63,149	\$59,054	(\$4,095)	\$67,729	\$63,766	(\$3,963)		
Floatuve Main Replacement	\$03,149	\$39,034	(\$4,093)	\$07,729	\$03,700	(\$3,903)		
Proactive Service Replacement	\$349	\$180	(\$169)	\$350	\$160	(\$190)		
Reliability	\$30,664	\$19,093	(\$11,571)	\$36,246	\$25,451	(\$10,795)		
SUBTOTAL DISCRETIONARY (Without Gas Expansion)	\$94,162	\$78,327	(\$15,835)	\$104,325	\$89,377	(\$14,948)		
Southern RI Gas Expansion Project	\$34,691	\$35,052	(\$581)	\$40,460	\$41,382	\$922		
DISCRETIONARY TOTAL (With Gas Expansion)	\$128,853	\$113,379	(\$15,474)	\$144,785	\$130,759	(\$14,026)		
CAPITAL ISR TOTAL (Base Capital - Without Gas Expansion)	\$129,146	\$101,106	(\$28,040)	\$143,626	\$122,344	(\$21,367)		
CAPITAL ISR TOTAL (With Gas Expansion) Amount does not include incremental paving associated with new								
RI Paving Law or PE Stamps	\$163,837	\$136,158	(\$27,678)	\$184,086	\$163,726	(\$20,445)		
Incremental Costs ²	\$11,814	\$0	(\$11,814)	\$14,526	\$0	(\$14,526)		
CAPITAL ISR TOTAL (with Gas Expansion, PE Stamps, and Incremental Paving)	\$175,651	\$136,158	(\$39,493)	\$198,612	\$163,726	(\$34,971)		

⁽⁾ in Variance column denotes an underspend

^{1.} Public Works Program includes reimbursements which will be credited as received throughout the year.

^{2.} The actual costs and forecasts for incremental costs are included within the applicable ISR categories that incur the costs, above.

Attachment B - Breakout

The Narragansett Electric Company d/b/a National Grid - RI Gas Capital Spending by Investment Categories - Detail FY 2021 through December 31, 2020

FYTD FY 2021 - Total

		FYTD		FY	Y 2021 - Tot	<u>11 </u>	
Categories	Budget	Actual	Variance	Budget	Forecast	Variance	
NON-DISCRETIONARY							
Public Works							
CSC/Public Works - Non-Reimbursable	\$16,681	\$10,583	(\$6,098)	\$17,368	\$15,122	(\$2,246	
CSC/Public Works - Reimbursable	\$1,052	\$562	(\$490)	\$1,403	\$850	(\$553	
CSC/Public Works - Reimbursements	(\$1,052)	(\$1,166)	(\$114)	(\$1,403)	(\$1,650)	(\$247	
Public Works Total	\$16,681	\$9,979	(\$6,702)	\$17,368	\$14,322	(\$3,046)	
Mandated Programs		,			,		
Corrosion	\$1,049	\$1,066	\$17	\$1,166	\$1,166	\$0	
Purchase Meters (Replacements)	\$4,100	\$3,631	(\$469)	\$4,852	\$5,423	\$57	
Reactive Leaks (CI Joint Encapsulation/Service Replacement)	\$10,016	\$5,883	(\$4,133)	\$12,280	\$9,097	(\$3,183	
Service Replacements (Reactive) - Non-Leaks/Other	\$1,856	\$1,243	(\$612)	\$2,096	\$1,600	(\$496	
Main Replacement (Reactive) - Maintenance (incl Water Intrusion)	\$510	\$936	\$426	\$680	\$1,139	\$459	
Transmission Station Integrity	\$586	\$43	(\$543)	\$610	\$42	(\$568	
Other Mandated	\$0	(\$2)	(\$2)	\$0	\$85	\$85	
Mandated Total	\$18,116	\$12,800	(\$5,316)	\$21,684	\$18,552	(\$3,217)	
Damage / Failure (Reactive)							
Damage / Failure (Reactive)	\$187	\$0	(\$187)	\$249	\$93	(\$156)	
						-	
NON-DISCRETIONARY TOTAL	\$34,984	\$22,780	(\$12,204)	\$39,301	\$32,967	(\$6,419	
DISCRETIONARY							
Proactive Main Replacement							
Main Replacement (Proactive) - Leak Prone Pipe	\$54,856	\$52,056	(\$2,799)	\$59,250	\$56,808	(\$2,442	
Main Replacement (Proactive) - Large Diameter LPCI Program	\$3,212	\$1,377	(\$1,835)	\$3,398	\$1,438	(\$1,960	
Atwells Avenue	\$5,081	\$5,621	\$539	\$5,081	\$5,520	\$439	
Proactive Main Replacement Total	\$63,149	\$59,054	(\$4,095)	\$67,729	\$63,766	(\$3,963)	
Proactive Service Replacement							
Proactive Service Replacement Total	<i>\$349</i>	\$180	(\$169)	\$350	\$160	(\$190)	
Reliability							
Gas System Control	\$59	\$19	(\$40)	\$118	\$64	(\$54)	
System Automation	\$1,139	\$904	(\$235)	\$1,252	\$1,115	(\$137)	
Heater Installation Program	\$2,273	\$2,340	\$67	\$2,961	\$2,524	(\$438)	
Pressure Regulating Facilities	\$7,602	\$3,705	(\$3,898)	\$7,849	\$4,297	(\$3,552)	
Allens Ave Multi Station Rebuild	\$6,200	\$7,779	\$1,579	\$6,200	\$8,421	\$2,221	
Take Station Refurbishment	\$746	\$383	(\$363)	\$995	\$666	(\$329)	
Valve Installation/Replacement (incl Storm Hardening & Middletown/Newport)	\$531	\$113	(\$417)	\$676	\$376	(\$300)	
Gas System Reliability	\$2,132	\$476	(\$1,656)	\$2,371	\$598	(\$1,773)	
I&R - Reactive	\$1,044	\$1,018	(\$26)	\$1,392	\$1,399	\$7	
Distribution Station Over Pressure Protection	\$3,381	\$919	(\$2,462)	\$3,636	\$1,620	(\$2,016	
LNG	\$3,482	\$1,161	(\$2,321)	\$6,433	\$2,657	(\$3,776	
Aquidneck Island Long Term Capacity Options	\$0	\$3	\$3	\$0	\$700	\$700	
Replace Pipe on Bridges	\$1,460	(\$13)	(\$1,472)	\$1,500	\$151	(\$1,349)	
Access Protection Remediation	\$229	\$71	(\$158)	\$260	\$260	\$0	
Tools & Equipment	\$384	\$214	(\$170)	\$603	\$603	\$(
Reliability Total	\$30,664	\$19,093	(\$11,571)	\$36,246	\$25,451	(\$10,795)	
SUBTOTAL DISCRETIONARY (Without Gas Expansion)	\$94,162	\$78,327	(\$15,835)	\$104,325	\$89,377	(\$14,948)	
Southern RI Gas Expansion Project	\$22.255	¢24217	¢0.61	#20.700	640.050	61.45	
Pipeline	\$33,356	\$34,317	\$961	\$38,798	\$40,252	\$1,454 \$259	
Other Upgrades/Investments	\$598 \$737	\$663 \$72	\$65	\$451	\$710		
Regulator Station Investment			(\$665)	\$1,211	\$420	(\$791	
Southern RI Gas Expansion Project Total	\$34,691 \$129.952	\$35,052 \$112,370	\$361	\$40,460	\$41,382 \$130,750	\$922	
DISCRETIONARY TOTAL (With Gas Expansion)		\$113,379	(\$15,474)	\$144,785	\$130,759	(\$14,026	
CAPITAL ISR TOTAL (Base Capital - Without Gas Expansion)	\$129,146	\$101,106	(\$28,040)	\$143,626	\$122,344	(\$21,367	
CAPITAL ISR TOTAL (With Gas Expansion)							
Amount does not include incremental paving associated with new RI Paving Law or PE Stamps	\$163,837	\$136,158	(\$27,678)	\$184,086	\$163,726	(\$20,445	
	φ103,83 <i>/</i>	φ130,13δ	(\$\pu_1,078)	\$104,000	φ105,/20	(\$20,445	
Incremental Costs ¹ PE Stamps	\$1,403	\$0	(\$1,403)	¢1 515	See Note 1	(\$1,515	
P.E. Stamps Incremental Paving - Main Installation	\$1,403 \$4,197	\$0 \$0	(\$1,403)	\$1,515 \$5,596	See Note 1	(\$1,515	
incremental Paving - Main Installation Incremental Paving - Patches	\$4,197	\$0 \$0	(\$4,197)	\$5,596 \$4,801	See Note 1	(\$3,396	
Incremental Paving - Patches Incremental Paving - Southern RI Gas Expansion	\$3,601	\$0 \$0	(\$3,601)	\$2,614	See Note 1	(\$4,801	
incremental Paving - Solutiern Ri Gas Expansion Incremental Costs Total		\$0 \$0		\$2,614 \$14,526	\$0		
	\$11,814 \$175,651		(\$11,814) (\$20,402)			(\$14,526)	
CAPITAL ISR TOTAL (with Gas Expansion, PE Stamps, and Incremental Paving)	\$175,051	\$136,158	(\$39,493)	\$198,612	\$163,726	(\$34,971)	

^() in Variance column denotes an underspend

^{1.} The actual costs and forecasts for incremental costs are included within the applicable ISR categories that incur the costs, above.