

The Narragansett Electric Company
d/b/a National Grid

**Gas Infrastructure,
Safety, and Reliability Plan
FY 2022 Proposal**

**Responses to Division's Data
Requests**

Book 2 of 2

December 18, 2020

Docket No. 5099

Submitted to:
Rhode Island Public Utilities Commission

Submitted by:

nationalgrid

**Filing Letter & Motion
To PUC**

December 18, 2020

BY HAND DELIVERY & ELECTRONIC MAIL

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

**RE: National Grid's Proposed FY 2022 Gas Infrastructure, Safety, and Reliability Plan
Docket No. 5099**

Dear Ms. Massaro:

In compliance with R.I. Gen. Laws § 39-1-27.7.1, I have enclosed 10 copies of National Grid's¹ proposed Gas Infrastructure, Safety, and Reliability ("ISR") Plan ("Gas ISR Plan" or "Plan") for fiscal year ("FY") 2022. The Gas ISR Plan is designed to enhance the safety and reliability of National Grid's natural gas distribution system. As required by law, National Grid submitted the proposed Plan to the Division of Public Utilities and Carriers (Division) for review. The Division undertook a comprehensive review of the initial plan, which included issuing numerous informal and formal discovery requests to the Company, review of responses to those requests, discussions with Company representatives, and outside consultant review. After further discussions with the Company, the Division and the Company were able to mutually agree on the budget for the Plan. Based on its review of the initial Plan and discussions with the Company, the Division supports the Plan's budget and has indicated its general concurrence with the Plan, including the programs and projects outlined in the Plan. Consistent with prior Gas ISR filings, the Division will continue to review the Plan and its costs after filing.

The Gas ISR Plan is designed to protect and improve the gas delivery system through proactively replacing leak-prone pipe; upgrading the system's custody transfer stations, pressure regulating facilities, and peak shaving plants; responding to emergency leak situations; and addressing infrastructure conflicts that arise out of state, municipal, and third-party construction projects. The Plan is intended to achieve these safety and reliability goals through a cost-effective, coordinated work plan. The level of work that the Plan provides will sustain and enhance the safety and reliability of the Rhode Island gas distribution infrastructure and directly benefit all Rhode Island gas customers.

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

Luly Massaro, Commission Clerk
Docket 5099 – FY 2022 Gas ISR Plan
December 18, 2020
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The Plan includes a description of the categories of work National Grid proposes to perform in FY 2022 and the proposed targeted spending levels for each work category. In addition to the Plan, this filing includes the pre-filed direct testimony of five witnesses. Amy S. Smith and Nathan Kocon introduce the Plan document and describes the program components of the Plan; Melissa A. Little describes the revenue requirement for the Plan; and Tomi A. Uyehara describes the calculation of the Gas ISR factors proposed in the Plan and provides the bill impacts from the proposed rate changes.

For the average residential heating customer using 845 therms annually, implementation of the proposed ISR factors for the period of April 1, 2020 through March 31, 2021 will result in an annual increase of \$49.12, or 3.7 percent.

For the PUC's convenience, the Company has also included copies of its responses to Division Data Requests Set 1. In connection with the Data Requests, this filing contains a Motion for Protective Treatment of Confidential Information in accordance with 810-RICR-00-00-1-1.3(H)(3) (Rule 1.3(H)) of the PUC's Rules of Practice and Procedure and R.I. Gen. Laws § 38-2-2(4)(B). National Grid seeks protection from public disclosure of certain confidential and privileged information in Attachment DIV 1-3. In compliance with Rule 1.3(H), National Grid has provided the PUC with one complete, unredacted copy of Attachment DIV 1-3 in an envelope marked, **"HIGHLY CONFIDENTIAL INFORMATION - DO NOT RELEASE!"**

The Gas ISR Plan presents an opportunity to facilitate and encourage investment in National Grid's gas utility infrastructure and enhance National Grid's ability to provide safe, reliable, and efficient gas service to customers.

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: Leo Wold, Esq.
Al Mancini, Division
John Bell, Division
Rod Walker, Division

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

RHODE ISLAND PUBLIC UTILITIES COMMISSION

Fiscal Year 2022 Gas Infrastructure, Safety, and Reliability Plan))))	Docket No. 5099
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**NATIONAL GRID’S MOTION FOR PROTECTIVE
TREATMENT OF CONFIDENTIAL INFORMATION**

National Grid¹ hereby requests that the Rhode Island Public Utilities Commission (PUC) grant protection from public disclosure certain confidential, competitively sensitive, and proprietary information submitted in this proceeding, as permitted by PUC Rule 810-RICR-00-00-1-1.3(H)(3) (Rule 1.3(H)) and R.I. Gen. Laws § 38-2-2(4)(B). National Grid also requests that, pending entry of that finding, the PUC preliminarily grant National Grid’s request for confidential treatment pursuant to Rule 1.3(H)(2).

I. BACKGROUND

On December 18, 2020, National Grid submitted its Proposed Fiscal Year 2022 Gas Infrastructure, Safety, and Reliability Plan (Gas ISR or the Plan) with the PUC. For the PUC’s convenience, the Company also included its responses to the Rhode Island Division of Public Utilities and Carriers’ First Set of Data Requests regarding the Plan. In Data Request Division 1-3, the Division requested that the Company explain the Model’s risk ranking algorithm and how the Company believed the proactive main replacement program would address the riskiest mains and services collectively. The request further requested that the Company overlay the main and service risk in GIS for system areas being considered for

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

replacement in the 2022 Gas ISR program. In responding to Data Request Division 1-3, National Grid included a confidential risk ranking map for the Company's FY 2022 proactive main replacement program as Attachment DIV 1-3. The Company seeks confidential treatment of Attachment DIV 1-3 because it includes highly confidential and sensitive critical infrastructure energy information ("CEII").

For the reasons described below, the Company requests that, pursuant to R.I. Gen. Laws § 38-2-2(4)(B) and Rule 1.3(H), the PUC afford confidential treatment to the confidential and proprietary information included in confidential Attachment Division 1-3.

II. LEGAL STANDARD

Rule 1.3(H) of the PUC's Rules of Practice and Procedure provides that access to public records shall be granted in accordance with the Access to Public Records Act (APRA), R.I. Gen. Laws § 38-2-1, *et seq.* Under APRA, all documents and materials submitted in connection with the transaction of official business by an agency is deemed to be a "public record," unless the information contained in such documents and materials falls within one of the exceptions specifically identified in R.I. Gen. Laws § 38-2-2(4). To the extent that information provided to the PUC falls within one of the designated exceptions to the public records law, the PUC has the authority under the terms of APRA to deem such information as confidential and to protect that information from public disclosure.

In that regard, R.I. Gen. Laws § 38-2-2(4)(B) provides that the following types of records shall not be deemed public:

Trade secrets and commercial or financial information obtained from a person, firm, or corporation which is of a privileged or confidential nature.

The Rhode Island Supreme Court has held that this confidential information exemption applies where the disclosure of information would be likely either (1) to impair the government's ability to obtain necessary information in the future; or (2) to cause substantial harm to the competitive position of the person from whom the information was obtained. *Providence Journal Company v. Convention Center Authority*, 774 A.2d 40 (R.I. 2001).

The first prong of the test is satisfied when information is voluntarily provided to the governmental agency and that information is of a kind that would customarily not be released to the public by the person from whom it was obtained. *Providence Journal*, 774 A.2d at 47.

National Grid meets the first and second prongs of this test, which apply here.

III. BASIS FOR CONFIDENTIALITY

The risk ranking map in Attachment DIV 1-3 is commercially sensitive and contains highly confidential information of the type that National Grid would not ordinarily make public. As such, the information should be protected from public disclosure. Public disclosure of such critical infrastructure information could cause serious harm to National Grid and compromise the safety and security of its infrastructure. Accordingly, National Grid respectfully requests that the PUC provide confidential treatment to the information contained in confidential Attachment DIV 1-3.

IV. CONCLUSION

For the foregoing reasons, National Grid respectfully requests that the PUC grant its Motion for Protective Treatment of Confidential Information.

[Signature Page following]

Respectfully submitted,

**THE NARRAGANSETT ELECTRIC
COMPANY d/b/a NATIONAL GRID**

By its attorney,



Raquel J. Webster, Esq. (#9064)
National Grid
40 Sylvan Road
Waltham, MA 02451
781-907-2121

Dated: December 18, 2020

**Filing Letter(s) & Motion
To Division**

November 6, 2020

BY ELECTRONIC MAIL

Luly E. Massaro, Clerk
Rhode Island Division of Public Utilities and Carriers
89 Jefferson Boulevard
Warwick, RI 02888

RE: National Grid's Proposed Fiscal Year 2022 Gas Infrastructure, Safety, and Reliability Plan Responses to Division Data Requests – Set 1

Dear Ms. Massaro:

I have enclosed three copies of National Grid's¹ responses to the following questions from the Rhode Island Division of Public Utilities and Carriers' First Set of Data Requests in the above-referenced matter: 1-1, 1-4, 1-7, 1-8, 1-10, 1-11, 1-15, 1-17, 1-21, 1-22, 1-23, 1-25 and 1-31. The Company's responses to the remaining data requests are pending.

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: Leo Wold, Esq.
John Bell, Division
Al Mancini, Division

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

November 10, 2020

BY ELECTRONIC MAIL

Luly E. Massaro, Clerk
Rhode Island Division of Public Utilities and Carriers
89 Jefferson Boulevard
Warwick, RI 02888

RE: National Grid's Proposed Fiscal Year 2022 Gas Infrastructure, Safety, and Reliability Plan Responses to Division Data Requests – Set 1

Dear Ms. Massaro:

I have enclosed three copies of National Grid's¹ responses to the following questions from the Rhode Island Division of Public Utilities and Carriers' First Set of Data Requests in the above-referenced matter: 1-5, 1-6, 1-9, 1-12, 1-13, 1-14, 1-16, 1-18, 1-19, 1-20, 1-27, and 1-32. The Company's responses to the remaining data requests are pending.

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: Leo Wold, Esq.
John Bell, Division
Al Mancini, Division

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

November 10, 2020

BY ELECTRONIC MAIL

Luly E. Massaro, Clerk
Rhode Island Division of Public Utilities and Carriers
89 Jefferson Boulevard
Warwick, RI 02888

RE: National Grid's Proposed Fiscal Year 2022 Gas Infrastructure, Safety, and Reliability Plan Responses to Division Data Requests – Set 1

Dear Ms. Massaro:

I have enclosed three copies of National Grid's¹ responses to Division 1-2, 1-3, 1-24, 1-26, 1-28 and 1-30.

This filing also contains a Request for Protective Treatment of Confidential Information pursuant to Rule 810-RICR-00-00-1.3(D) of the Division of Public Utilities and Carriers' Rules of Practice and Procedure and R.I. Gen. Laws § 38-2-2(4)(B).

National Grid seeks protection from public disclosure of confidential information related to Attachment DIV 1-3.

This transmittal completes the Company's responses to the Division's First Set of Data Requests in the above-referenced matter.

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

Enclosure

cc: Leo Wold, Esq.
John Bell, Division
Al Mancini, Division

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

sensitive critical infrastructure energy information (“CEII”). Therefore, the Company requests that, pursuant to Rule 1.3(H), the PUC afford confidential treatment to the information contained in Attachment DIV 1-3.

II. LEGAL STANDARD

Rule 1.3(H) provides that access to public records shall be granted in accordance with the Access to Public Records Act (APRA), R.I. Gen. Laws § 38-2-1, *et seq.* Under the APRA, all documents and materials submitted in connection with the transaction of official business by an agency is deemed to be a “public record,” unless the information contained in such documents and materials falls within one of the exceptions specifically identified in R.I. Gen. Laws § 38-2-2(4). To the extent that information provided to the DPUC falls within one of the designated exceptions to the public records law, the DPUC has the authority under the terms of APRA to deem such information as confidential and to protect that information from public disclosure.

In that regard, R.I. Gen. Laws § 38-2-2(4)(B) provides that the following types of records shall not be deemed public:

Trade secrets and commercial or financial information obtained from a person, firm, or corporation which is of a privileged or confidential nature.

The Rhode Island Supreme Court has held that this confidential information exemption applies where the disclosure of information would be likely either (1) to impair the government’s ability to obtain necessary information in the future; or (2) to cause substantial harm to the competitive position of the person from whom the information was obtained. *Providence Journal*, 774 A.2d 40 (R.I. 2001).

The first prong of the test is satisfied when information is provided to the governmental agency and that information is of a kind that would customarily not be released to the public by the person from whom it was obtained. *Providence Journal*, 774 A.2d at 47.

III. BASIS FOR CONFIDENTIALITY

The risk ranking map in Attachment DIV 1-3 is commercially sensitive and contains highly confidential information of the type that National Grid would not ordinarily make public. As such, the information should be protected from public disclosure. Public disclosure of such critical infrastructure information could cause serious harm to National Grid and compromise the safety and security of its infrastructure. Accordingly, National Grid respectfully requests that the DPUC provide confidential treatment to the information contained in Attachment DIV 1-3.

IV. CONCLUSION

For the foregoing reasons, National Grid respectfully requests that the DPUC grant its Motion for Protective Treatment of Confidential Information.

Respectfully submitted,

**THE NARRAGANSETT ELECTRIC
COMPANY d/b/a NATIONAL GRID**

By its attorney,



Raquel J. Webster (Bar #9064)
National Grid
40Sylvan Road
Waltham, MA 02451
Tel. 781-907-2121
Raquel.webster@nationalgrid.com

Dated: November 10, 2020

The Narragansett Electric Company
d/b/a National Grid
In Re: Division's Review of FY 2022 Proposed Gas ISR Plan
Responses to Division's First Set of Data Requests
Issued October 20, 2020

Division 1-1

Request:

Please provide a breakdown of all leak prone pipe and services by material as of FY2020 year end (March 31, 2020).

Response:

Below is a breakdown of all leak prone mains and services as of December 31, 2019.

RI Leak Prone Mains	
Material	Miles
Bare Steel	191
Unprotected Coated Steel	156
CI/WI/DI	666
Alydl-A Plastic*	50
Total	1,063

*Estimated

RI Leak Prone Services	
Material	# of Services
Bare Steel	38,382
Unprotected Coated Steel	5,721
CI/WI/DI	23
Copper	132
Other	1,010
Total	45,268

Division 1-2

Request:

Paragraph No. 3 on Page 22 of Order No. 23880 provides, "The Company shall develop and maintain a comprehensive inventory of aging leak prone pipes." Paragraph No. 5 of the Order on Page 23 provides, "The Company shall prepare to present at a technical session in July 2020. The Company should be prepared to discuss and demonstrate the methodology for assessing the reduction of risk resulting from its replacement efforts." Please provide: (i) a copy of the Company's risk analysis on its inventory of all segments of leak prone mains using the SynerGi Pipeline Risk Model (Model) as discussed on page 8 of the proposed FY2022 ISR Plan, and (ii) the methodology the Company has devised for assessing the reduction of risk resulting from its replacement efforts.

Response:





- i. An electronic version of the Company's Synergi output will be provided to the Division in a separate electronic file given the size of the Synergi output file. The Company assess its key performance indicators annually based on 10-year trend and documents in system integrity report. Reduction in the leak receipts that excludes damages and normalized to weather fluctuations correlates with reduction in risk resulting from mitigation programs.

The Narragansett Electric Company
d/b/a National Grid
In Re: Division's Review of FY 2022 Proposed Gas ISR Plan
Responses to Division's First Set of Data Requests
Issued October 20, 2020

Attachment DIV 1-2

Due to the very large file size of the electronic versions of the Company's Synergi Output files, the files will be provided to the Division in a separate link.

The files are listed below.

Name	Size
 Gas ISR FY2022-DIV 1-2 Synergi 1.xlsx	33,597 KB
 Gas ISR FY2022-DIV 1-2 Synergi 2.xlsx	19,049 KB
 Gas ISR FY2022-DIV 1-2 Synergi 3.xlsx	32,527 KB
 Gas ISR FY2022-DIV 1-2 Synergi 4.xlsx	60,240 KB

Division 1-3

Request:

Explain the Model's risk ranking algorithm and how the Company believes the proactive main replacement program will address the riskiest mains and services collectively. If possible, overlay the main and service risk in GIS for system areas being considered for replacement in the 2022 Gas ISR program.

Response:

The current risk ranking model for leak prone pipe ("LPP") replacement incorporates the service corrosion leaks along the segment of mains. As validation that the model works to incorporate the highest risk services, the Company notes that 70 percent of the services connected to gas mains in the FY2022 proactive main replacement have risk scores higher than the average risk score of the remaining leak prone services.

Please see Attachment Gas ISR FY2022-DIV 1-3 for a map with services overlaid in the FY2022 proposed proactive main replacement plan.

The Narragansett Electric Company
d/b/a National Grid
In Re: Division's Review of FY 2022 Proposed Gas ISR Plan
Responses to Division's First Set of Data Requests
Issued October 20, 2020

HIGHLY CONFIDENTIAL
CONTAINS CEII INFORMATION – DO NOT RELEASE.

Attachment Gas ISR FY2022-DIV 1-3

Please be advised that the above-referenced attachment is approximately five (5) GB large and will be transmitted to the Division in a separate link.

The Narragansett Electric Company
d/b/a National Grid
In Re: Division's Review of FY 2022 Proposed Gas ISR Plan
Responses to Division's First Set of Data Requests
Issued October 20, 2020

Division 1-4

Request:

Please provide a risk-score calculation table for all leak prone services including size, age, material, pressure and meter location.

Response:

Please see Attachment Gas ISR FY2022-DIV 1-4 for the risk-score calculation table for leak prone services.

The Narragansett Electric Company
d/b/a National Grid
In Re: Division's Review of FY 2022 Proposed Gas ISR Plan
Responses to Division's First Set of Data Requests
Issued October 20, 2020

Attachment DIV 1-4

Please be advised that due to the large electronic file size (50 MB) and the voluminous nature of this attachment (700+ pages), the Company is providing Attachment DIV 1-4 as a separate electronic file.

Division 1-5

Request:

Please provide details on the program to replace all leak prone services including how many per year, approximate cost and approximate number of years to complete replacement of these services.

Response:

There are currently six targeted programs to replace leak prone services.

- a. **Proactive Service Replacement Program:** This is a 10-year program starting in FY 2021 where company will replace leak prone pipe services on non-leak prone pipe mains including the services connected to large diameter mains (>12"). The approximate cost to replace a service under this program is approximately \$6,300 per service.

Proactive Service Replacement Program	
Isolated Services	234
Isolated Services on Large Diameter LPP	765
HP BS Inside Sets	855
Copper Services	180
Total	2,034

Note: Data is currently being validated, and field verified if required.

- b. **Proactive Main Replacement Program:** This is a 20-year program starting in FY 2015 where the company will replace leak prone pipe (mains and associated services). The service leak rate is embedded into the existing main prioritization algorithm to prioritize the replacement of distribution network based on the holistic risk of mains and services. The average number of services replaced per year is approximately 3,600 (2- year average). The cost to replace these services is captured under the main replacement.
- c. **Service Replacement Reactive – Leaks:** This is a reactive program, where the company will replace services that have leaks. Approximately 415 services are replaced each year due to corrosion leaks; approximately 630 services are replaced each year due to leaks of all causes (6-year average).
- d. **Service Replacement Reactive – Non-leaks:** This is a reactive program, where the company will replace services that are non-discretionary work randomly generated through compliance and mandated activities.

- e. **Reactive Main Replacement Program:** This is a reactive main replacement program, where we replace a section of main due to integrity concerns that arise in the field conditions. The associated leak prone services are also replaced as part of the main replacement. Approximately 48 services are replaced each year through this program.
- f. **City State Construction (CSC):** This program consists of work driven by numerous municipal and state, as well as third party private entities, utility and road reconstruction projects in communities served by National Grid. Work completed under this program qualifies as Leak Prone Pipe abandonment and is reimbursed through the State of RI's Integrity, Safety, and Reliability (ISR) program. The average number of services replaced per year through this program is approximately 1,082 (2-year average).

The Narragansett Electric Company
d/b/a National Grid
In Re: Division's Review of FY 2022 Proposed Gas ISR Plan
Responses to Division's First Set of Data Requests
Issued October 20, 2020

Division 1-6

Request:

Paragraph No. 4 on Page 23 of Order No. 23880 provides, "The Company shall develop and propose for the FY 2022, a proactive service replacement program for its 42,000 bare and copper services." Please provide details of the program the Company proposes in its FY 2022 Gas ISR Plan Proposal to comply with this provision of Order No. 23880.

Response:

Please see the Company's response to Data Request Gas ISR FY022-DIV 1-5.

The Narragansett Electric Company
d/b/a National Grid
In Re: Division's Review of FY 2022 Proposed Gas ISR Plan
Responses to Division's First Set of Data Requests
Issued October 20, 2020

Division 1-7

Request:

Please provide a list of the remaining 233 isolated bare steel services by date of installation.

Response:

Please see Attachment Gas ISR FY2022 DIV 1-7.

The Narragansett Electric Company
d/b/a National Grid
In Re: Division's Review of FY 2022 Proposed Gas ISR Plan
Attachment DIV 1-7
Page 1 of 4

ID	Street address	ZIP	PO_NAME	STATE	DATE_INST	OWNERSHIP	DECIMAL	MATERIAL	PRESSURE
176596	14 CRAIG RD	02886	Warwick	RI	4/8/1968	Providence	0.75	Wrapped	High 35#
176605	356 TOLLGATE RD	02886	Warwick	RI	4/23/1968	Providence	0.75	Wrapped	High 35#
212732	43 PENDER AVE	02889	Warwick	RI	5/12/1971	Providence	0.75	Wrapped	High 35#
338127	55 ELMDALE AVE	02889	Warwick	RI	4/30/1951	Providence	1	Bare Steel	High 35#
3527671	82 SEAVIEW AVE	02905	Providence	RI	1/1/1940	Providence	1.25	Bare Steel	Low
4944993	Building between 33 and 75 Minnesota Ave	02888	Warwick	RI	10/10/1939	Providence	1	Bare Steel	High 35#
5181116	16 FRATERNITY CIR	02881	Kingston	RI	12/27/1966	Providence	0.75	Wrapped	High 35#
10467719	80-90 Narragansett Park Dr	02916	Rumford	RI	4/2/1962	Providence	1.25	Bare Steel	Low
29053746	164 ROUNDS AVE	02907	Providence	RI	10/13/1923	Providence	1.5	Bare Steel	Low
33754053	45 CAROVILLI ST	02904	Providence	RI	1/1/1951	Cumberland	1.5	Bare Steel	Low
33778708	66 ATLANTIC AVE	02904	Providence	RI	1/1/1966	Cumberland	0.75	Bare Steel	High 60#
33780454	49 CAROVELLI ST	02904	Providence	RI	1/1/1968	Cumberland	1.5	Bare Steel	Low
33780596	1108 CHARLES ST	02904	Providence	RI	1/1/1966	Cumberland	2	Bare Steel	Low
33780843	3 BORAH ST	02904	Providence	RI	1/1/1940	Cumberland	1.5	Bare Steel	Low
34015849	48 W ST	02863	Central Falls	RI	1/1/1940	Cumberland	1.5	Bare Steel	Low
34027806	87 HADWIN ST	02863	Central Falls	RI	10/17/1921	Cumberland	1.25	Bare Steel	Low
34029123	24 W ST	02863	Central Falls	RI	1/1/1931	Cumberland	1.5	Bare Steel	Low
34030804	1060 LONSDALE AVE	02863	Central Falls	RI	1/1/1936	Cumberland	1.5	Bare Steel	Low
34039076	769 LONSDALE AVE	02863	Central Falls	RI	1/1/1921	Cumberland	1.5	Bare Steel	Low
36157588	193 NEWELL AVE	02860	Pawtucket	RI	5/20/1926	Cumberland	1.5	Bare Steel	Low
36165348	33 COLUMBIA AVE	02860	Pawtucket	RI	1/1/1935	Cumberland	1.5	Bare Steel	Low
36168320	30 COLUMBIA AVE	02860	Pawtucket	RI	1/1/1940	Cumberland	1.5	Bare Steel	Low
36178718	56 ARMISTICE BLVD	02860	Pawtucket	RI	1/1/1931	Cumberland	2	Bare Steel	Low
36179626	24 SPRING ST	02860	Pawtucket	RI	1/1/1929	Cumberland	1.5	Bare Steel	Low
36195541	99 FORTIN AVE	02860	Pawtucket	RI	1/1/1956	Cumberland	1.5	Bare Steel	Low
36202287	278 LAFAYETTE ST	02860	Pawtucket	RI	1/1/1955	Cumberland	1.5	Bare Steel	Low
36203481	220 DUNNELL AVE	02860	Pawtucket	RI	1/1/1925	Cumberland	1.5	Bare Steel	Low
36209890	24-28 Spring St	02860	Pawtucket	RI	1/1/1929	Cumberland	1.5	Bare Steel	Low
36229273	76 SPRING ST	02860	Pawtucket	RI	1/1/1958	Cumberland	1.5	Bare Steel	Low
36233648	35 SPRING ST	02860	Pawtucket	RI	1/1/1928	Cumberland	1.5	Bare Steel	Low
36236046	156 BROAD ST	02860	Pawtucket	RI	1/1/1940	Cumberland	UNKNOWN	Bare Steel	Low
36239067	110 FORTIN AVE	02860	Pawtucket	RI	1/1/1949	Cumberland	1.5	Bare Steel	Low
36245271	88 BELMONT ST	02860	Pawtucket	RI	1/1/1928	Cumberland	1.5	Bare Steel	Low
36252415	318 Lafayette St	02860	Pawtucket	RI	1/1/1926	Cumberland	2	Bare Steel	Low
36260582	208 RANDALL ST	02860	Pawtucket	RI	1/1/1937	Cumberland	1.5	Bare Steel	Low
36263521	57 Spring St	02860	Pawtucket	RI	1/1/1958	Cumberland	1.5	Bare Steel	Low
36265644	104 FAIRVIEW AVE	02860	Pawtucket	RI	1/1/1938	Cumberland	1.5	Bare Steel	Low
36271217	7 Denver St	02860	Pawtucket	RI	1/1/1958	Cumberland	2	Bare Steel	Low
36274780	52 SPRING ST	02860	Pawtucket	RI	1/1/1958	Cumberland	2	Bare Steel	Low
36278897	27 SPRING ST	02860	Pawtucket	RI	1/1/1928	Cumberland	2	Bare Steel	Low
36304991	55 ARMISTICE BLVD	02860	Pawtucket	RI	1/1/1931	Cumberland	2	Bare Steel	Low
36305875	204 RANDALL ST	02860	Pawtucket	RI	1/1/1937	Cumberland	1.5	Bare Steel	Low
36310700	592 PAWTUCKET AVE	02860	Pawtucket	RI	1/1/1926	Cumberland	3	Bare Steel	Low
36311717	54 SPRING ST	02860	Pawtucket	RI	1/1/1958	Cumberland	1.5	Bare Steel	Low
36314928	41 COLUMBIA AVE	02860	Pawtucket	RI	2/7/1951	Cumberland	1.5	Bare Steel	Low
36319814	16 APPLETON AVE	02860	Pawtucket	RI	1/1/1953	Cumberland	1.5	Bare Steel	Low
36320004	62 SPRING ST	02860	Pawtucket	RI	1/1/1929	Cumberland	1.5	Bare Steel	Low
36216510	20 HYDE AVE	02861	Pawtucket	RI	1/1/1966	Cumberland	1.5	Bare Steel	Low
36325417	109 FAIRVIEW AVE	02860	Pawtucket	RI	1/1/1938	Cumberland	1.5	Bare Steel	Low
36338171	297 LAFAYETTE ST	02860	Pawtucket	RI	1/1/1937	Cumberland	2	Bare Steel	Low
36348625	21 MCCUSKER CT	02860	Pawtucket	RI	1/1/1923	Cumberland	1.25	Bare Steel	Low
36305333	98 BENEFIT ST	02861	Pawtucket	RI	1/1/1922	Cumberland	1.5	Bare Steel	Low
36350193	30 APPLETON AVE	02860	Pawtucket	RI	1/1/1942	Cumberland	1.5	Bare Steel	Low
36352710	53 ANDERTON AVE	02860	Pawtucket	RI	1/1/1958	Cumberland	1.5	Bare Steel	Low
36353719	234 SENECA AVE	02860	Pawtucket	RI	1/1/1966	Cumberland	1.5	Bare Steel	Low
37029440	225-227 Front St	02865	Lincoln	RI	1/1/1941	Cumberland	1.5	Bare Steel	Low
37034975	5 Church Lane	02838	Manville	RI	1/1/1945	Cumberland	1.5	Bare Steel	Low
37040973	1 PLEASANT-VIEW AVE	02865	Lincoln	RI	1/1/1957	Cumberland	1.5	Bare Steel	Low
37048999	112 OLD-MAIN ST	02838	Manville	RI	1/1/1963	Cumberland	1.5	Bare Steel	Low
37052769	44 NEW RD	02838	Manville	RI	1/1/1954	Cumberland	1.5	Bare Steel	Low
37060157	174 Lonsdale St	02865	Lincoln	RI	1/1/1953	Cumberland	1.5	Bare Steel	Low
37065158	3 COBBLE-HILL RD	02865	Lincoln	RI	1/1/1925	Cumberland	1.5	Bare Steel	Low
37066793	32 KNOWLES ST	02865	Lincoln	RI	1/1/1954	Cumberland	1.5	Bare Steel	Low
37071592	114 OLD-MAIN ST	02838	Manville	RI	1/1/1925	Cumberland	1.5	Bare Steel	Low
37074767	3 Farnwoth Dr	02865	Lincoln	RI	1/1/1940	Cumberland	UNKNOWN	Bare Steel	Low
37078429	36 GRANDVIEW AVE	02865	Lincoln	RI	1/1/1936	Cumberland	1.5	Bare Steel	Low
37080497	141-143 Lonsdale Main St	02865	Lincoln	RI	1/1/1949	Cumberland	1.5	Bare Steel	Low
37082315	44 PLEASANT ST	02865	Lincoln	RI	1/1/1927	Cumberland	1.5	Bare Steel	Low
38093048	69 PROVIDENCE PIKE	02896	North Smithfield	RI	1/1/1959	Cumberland	0.75	Bare Steel	High 60#
38297787	98 HIGH ST	02864	Cumberland	RI	1/1/1929	Cumberland	1.5	Bare Steel	Low
38299416	119 HIGH ST	02864	Cumberland	RI	1/1/1965	Cumberland	1.5	Bare Steel	Low
38299928	105 HIGH ST	02864	Cumberland	RI	1/1/1926	Cumberland	1.5	Bare Steel	Low

38300850	109 HIGH ST	02864	Cumberland	RI	1/1/1931	Cumberland	1.5	Bare Steel	Low
38301386	119 HIGH ST	02864	Cumberland	RI	1/1/1925	Cumberland	1.5	Bare Steel	Low
38303813	107 HIGH ST	02864	Cumberland	RI	1/1/1926	Cumberland	1.5	Bare Steel	Low
38307784	30 MEETING ST	02864	Cumberland	RI	1/1/1957	Cumberland	4	Bare Steel	Low
38312094	72 FAIRHAVEN RD	02864	Cumberland	RI	1/1/1968	Cumberland	0.75	Bare Steel	High 60#
38339545	19 HARDWICK ST	02864	Cumberland	RI	1/1/1971	Cumberland	0.75	Bare Steel	High 60#
38339837	11 HARDWICK ST	02864	Cumberland	RI	1/1/1968	Cumberland	0.75	Bare Steel	High 60#
38344531	296 Mendon St	02864	Cumberland	RI	1/1/1969	Cumberland	0.75	Bare Steel	High 60#
38344574	180 Dexter St	02864	Cumberland	RI	1/1/1957	Cumberland	1.5	Bare Steel	Low
38345207	177 DEXTER ST	02864	Cumberland	RI	1/1/1949	Cumberland	1.5	Bare Steel	Low
38345216	226 DEXTER ST	02864	Cumberland	RI	1/1/1935	Cumberland	2	Bare Steel	Low
38346525	232 DEXTER ST	02864	Cumberland	RI	1/1/1949	Cumberland	1.5	Bare Steel	Low
38346534	165 DEXTER ST	02864	Cumberland	RI	1/1/1957	Cumberland	1.5	Bare Steel	Low
38353365	182 DEXTER ST	02864	Cumberland	RI	1/1/1925	Cumberland	1.5	Bare Steel	Low
38361170	13 Eli St	02864	Cumberland	RI	1/1/1945	Cumberland	1.5	Bare Steel	Low
38361899	7 Eli St	02864	Cumberland	RI	1/1/1935	Cumberland	1.5	Bare Steel	Low
38363909	15 Eli St	02864	Cumberland	RI	1/1/1945	Cumberland	1.5	Bare Steel	Low
38364625	9 Eli St	02864	Cumberland	RI	1/1/1932	Cumberland	1.5	Bare Steel	Low
38365180	50 MT-PLEASANT-VW AVE	02864	Cumberland	RI	1/1/1939	Cumberland	0.75	Bare Steel	High 60#
38365248	22 Eli St	02864	Cumberland	RI	1/1/1926	Cumberland	1.5	Bare Steel	Low
38365966	10 Eli St	02864	Cumberland	RI	1/1/1962	Cumberland	1.5	Bare Steel	Low
38366607	23 Eli St	02864	Cumberland	RI	1/1/1926	Cumberland	1.5	Bare Steel	Low
38369303	18 ELI ST	02864	Cumberland	RI	1/1/1925	Cumberland	1.5	Bare Steel	Low
39511057	Woon Pump Station, Highland Corporate Drive	02895	Woonsocket	RI	1/1/1940	Cumberland	UNKNOWN	Bare Steel	High 60#
39511980	84 NORTHEAST ST	02895	Woonsocket	RI	1/1/1959	Cumberland	1.5	Bare Steel	Low
39513958	227 CHAPEL ST	02895	Woonsocket	RI	1/1/1963	Cumberland	1.5	Bare Steel	Low
39517882	457 DIAMOND-HILL RD	02895	Woonsocket	RI	1/1/1966	Cumberland	2	Bare Steel	Low
39536313	60 WELLES ST	02895	Woonsocket	RI	1/1/1957	Cumberland	1.5	Bare Steel	Low
39536583	113 HAZEL ST	02895	Woonsocket	RI	1/1/1955	Cumberland	1.5	Bare Steel	Low
39536636	32 WELLES ST	02895	Woonsocket	RI	1/1/1922	Cumberland	1.5	Bare Steel	Low
39537764	105 HAMLET AVE	02895	Woonsocket	RI	1/1/1916	Cumberland	1.5	Bare Steel	Low
39550351	308 CARRINGTON AVE	02895	Woonsocket	RI	1/1/1922	Cumberland	2	Bare Steel	Low
39550634	31 WELLES ST	02895	Woonsocket	RI	1/1/1925	Cumberland	1.5	Bare Steel	Low
39559519	221 SEVENTH AVE	02895	Woonsocket	RI	1/1/1911	Cumberland	1.25	Bare Steel	Low
39579230	531 HARRIS AVE	02895	Woonsocket	RI	1/1/1940	Cumberland	3	Bare Steel	Low
39591600	309 Baxter St	02895	Woonsocket	RI	1/2/1970	Cumberland	1.5	Bare Steel	Low
39593361	122 BAXTER ST	02895	Woonsocket	RI	1/1/1953	Cumberland	1.5	Bare Steel	Low
39593968	123 BAXTER ST	02895	Woonsocket	RI	1/1/1969	Cumberland	1.5	Bare Steel	Low
39595990	78 Hamlet Ave	02895	Woonsocket	RI	1/1/1938	Cumberland	1.5	Bare Steel	Low
39596179	68 NORTHEAST ST	02895	Woonsocket	RI	1/1/1916	Cumberland	1.25	Bare Steel	Low
39598544	33 BREAUULT AVE	02895	Woonsocket	RI	1/1/1967	Cumberland	1.5	Bare Steel	Low
41968043	6665-6667 Post Rd	02852	North Kingstown	RI	11/23/1963	Providence	0.75	Bare Steel	High 35#
119157316	253 SUMMIT AVE	02906	Providence	RI	10/31/1962	Providence	1.25	Bare Steel	Low
119172574	46 Paul St	02904	Providence	RI	7/30/1929	Providence	1.5	Bare Steel	Low
119407484	84 PROSPECT ST	02906	Providence	RI	10/1/1928	Providence	3	Bare Steel	Low
119407493	86 Prospect St	02906	Providence	RI	1/1/1940	Providence	1.5	Bare Steel	Low
119408212	134 Bowen St	02906	Providence	RI	9/25/1911	Providence	1.25	Bare Steel	Low
183116250	51 FAIRWOOD DR	02920	Cranston	RI	6/9/1971	Providence	0.75	Wrapped \$	High 35#
183464456	40 RED-CEDAR DR	02920	Cranston	RI	2/24/1961	Providence	0.75	Wrapped \$	High 35#
183912909	64 OCEAN AVE	02905	Providence	RI	1/1/1940	Providence	UNKNOWN	Bare Steel	Low
184017356	188 WESTERN-PROMENADE ST	02905	Providence	RI	11/9/1965	Providence	1.25	Wrapped \$	Low
247885030	129 East Avenue	02911	North Providence	RI	8/28/1924	Providence	1.5	Bare Steel	Low
247885039	? East Avenue (across from 129 East Ave)	02911	North Providence	RI	11/27/1928	Providence	1.5	Bare Steel	Low
247924769	Building between 15 and 17 Nelson St	02911	North Providence	RI	8/5/1931	Providence	1.5	Bare Steel	Low
274087525	39 King St	02886	Warwick	RI	5/4/1967	Providence	0.75	Wrapped \$	High 35#
274098262	7 Eastman St	02886	Warwick	RI	7/14/1970	Providence	0.75	Wrapped \$	High 35#
274103288	30 GUILFORD DR	02886	Warwick	RI	10/23/1969	Providence	0.75	Wrapped \$	High 35#
274123474	62 Minnesota Ave	02888	Warwick	RI	10/13/1939	Providence	1	Bare Steel	High 35#
274244335	49 CARLTON AVE	02889	Warwick	RI	2/19/1963	Providence	0.75	Wrapped \$	High 35#
274296441	24 Suburban Parkway	02889	Warwick	RI	6/25/1948	Providence	1	Bare Steel	High 35#
274296450	25 Suburban Parkway	02889	Warwick	RI	3/31/1939	Providence	1	Bare Steel	High 35#
274349139	587 Oakland Beach Avenue	02889	Warwick	RI	11/29/1946	Providence	1	Bare Steel	High 35#
274462912	131 CROSS ST	02891	Westerly	RI	4/14/1970	Providence	1.25	Bare Steel	Low
274515403	56 SPRUCE ST	02891	Westerly	RI	1/1/1940	Providence	2	Bare Steel	Low
281034980	10 Viola Ave	02915	Riverside	RI	7/2/1929	Providence	0.75	Bare Steel	High 25#
281034989	14 Viola Ave	02915	Riverside	RI	2/19/1959	Providence	1	Bare Steel	High 25#
281035007	16 VIOLA AVE	02915	Riverside	RI	7/18/1968	Providence	0.75	Wrapped \$	High 25#
281158778	137 ESTRELL DR	02915	Riverside	RI	9/21/1966	Providence	0.75	Wrapped \$	High 25#
281261486	16 QUINCY-ADAMS RD	02806	Barrington	RI	8/30/1968	Providence	0.75	Wrapped \$	High 25#
281330554	81 PRINCES-HILL AVE	02806	Barrington	RI	11/23/1965	Providence	0.75	Wrapped \$	High 25#
281482480	3 KNOWLTON ST	02915	Riverside	RI	12/20/1924	Providence	1.5	Bare Steel	Low
281533056	167 Fenner Ave	02915	Riverside	RI	10/14/1928	Providence	0.75	Bare Steel	High 25#
281533065	169 FENNER AVE	02915	Riverside	RI	11/19/1969	Providence	0.75	Wrapped \$	High 25#

The Narragansett Electric Company
d/b/a National Grid
In Re: Division's Review of FY 2022 Proposed Gas ISR Plan
Attachment DIV 1-7
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281533083	178 Fenner Ave	02915	Riverside	RI	12/4/1930	Providence	1	Bare Steel	High 25#
281533092	175 Fenner Ave	02915	Riverside	RI	9/14/1945	Providence	1	Bare Steel	High 25#
281555199	22 Somerset Ave	02915	Riverside	RI	10/8/1928	Providence	0.75	Bare Steel	High 25#
284822377	34 N MAIN ST	02808	Bradford	RI	1/1/1940	Providence	UNKNOWN	Bare Steel	High 60#
295663060	84 TYLER ST	02888	Warwick	RI	2/1/1950	Providence	1.5	Bare Steel	High 35#
295697900	155 NEWPORT AVE	02916	Rumford	RI	8/11/1966	Providence	1.5	Wrapped	Low
295698106	80-90 Narragansett Park Dr	02916	Rumford	RI	4/2/1962	Providence	2	Bare Steel	Low
295818648	321 FERRIS AVE	02916	Rumford	RI	3/1/1951	Providence	1.5	Bare Steel	Low
295983705	93 Dodge St	02914	East Providence	RI	12/4/1950	Providence	1	Bare Steel	Intermediate 5#
296149720	16 ANTHONY ST	02914	East Providence	RI	1/1/1940	Providence	1	Bare Steel	Low
296992547	27 Harris Avenue	02919	Johnston	RI	12/15/1948	Providence	1.5	Bare Steel	Low
296992813	Building between 24 and 26 Harris Avenue	02919	Johnston	RI	11/1/1927	Providence	1.5	Bare Steel	Low
296997140	7 RICE ST	02919	Johnston	RI	2/16/1956	Providence	1.25	Bare Steel	Low
296997149	9 RICE ST	02919	Johnston	RI	8/10/1949	Providence	1.5	Bare Steel	Low
296997176	14 Rice St	02919	Johnston	RI	8/10/1949	Providence	1.5	Bare Steel	Low
296997185	13 Rice St	02919	Johnston	RI	8/10/1949	Providence	1.5	Bare Steel	Low
296997194	28 RICE ST	02919	Johnston	RI	1/1/1940	Providence	1.5	Bare Steel	Low
297006935	46 LAFAYETTE ST	02919	Johnston	RI	6/29/1971	Providence	1.25	Wrapped	Low
297026253	14 Capri Drive	02919	Johnston	RI	12/9/1965	Providence	0.75	Wrapped	High 35#
297136899	152 Waveland St	02919	Johnston	RI	9/4/1934	Providence	1.5	Bare Steel	Low
297169387	1924 Atwood Ave	02919	Johnston	RI	6/28/1963	Providence	0.75	Bare Steel	High 35#
297169421	1854 ATWOOD AVE	02919	Johnston	RI	9/8/1965	Providence	0.75	Wrapped	High 35#
297188537	34 Argonne St	02919	Johnston	RI	10/31/1966	Providence	1.25	Bare Steel	Low
297206793	5 Worcester Avenue	02919	Johnston	RI	4/26/1962	Providence	1.25	Bare Steel	Low
297335701	1541 Plainfield St	02919	Johnston	RI	8/28/1925	Providence	1.5	Bare Steel	Low
298155768	127 OLD-PINE RD	02882	Narragansett	RI	4/22/1971	Providence	0.75	Wrapped	High 35#
298254079	16 SPENCER DR	02852	North Kingstown	RI	7/12/1965	Providence	0.75	Wrapped	High 35#
298390030	7 BEA DR	02852	North Kingstown	RI	10/14/1970	Providence	0.75	Wrapped	High 35#
298448886	31 ESSEX RD	02852	North Kingstown	RI	12/2/1970	Providence	0.75	Wrapped	High 35#
298523674	75 FAIRFIELD AVE	02818	East Greenwich	RI	7/17/1969	Providence	0.75	Wrapped	High 35#
298549672	672 Main St	02818	East Greenwich	RI	6/19/1930	Providence	1	Bare Steel	High 35#
298549712	699 Main St	02818	East Greenwich	RI	1/1/1940	Providence	1	Bare Steel	High 35#
298603415	138 Main St	02818	East Greenwich	RI	1/2/1929	Providence	1.25	Bare Steel	High 35#
300902518	114 PETTACONSETT AVE	02888	Warwick	RI	1/1/1940	Providence	1.25	Bare Steel	Low
350535718	157 WAKEFIELD ST	02893	West Warwick	RI	5/29/1968	Providence	0.75	Bare Steel	High 35#
350535864	149 WAKEFIELD ST	02893	West Warwick	RI	5/31/1968	Providence	0.75	Bare Steel	High 35#
413736301	100 NEW-HAMPSHIRE ST	02920	Cranston	RI	5/28/1968	Providence	1.25	Wrapped	Low
413870068	198 LINWOOD AVE	02907	Providence	RI	1/1/1940	Providence	1	Bare Steel	Low
413870077	199 LINWOOD AVE	02907	Providence	RI	3/17/1966	Providence	1.5	Bare Steel	Low
413870147	183 LINWOOD AVE	02907	Providence	RI	12/4/1914	Providence	1.25	Bare Steel	Low
413870156	184 LINWOOD AVE	02907	Providence	RI	12/22/1947	Providence	1.5	Bare Steel	Low
413870165	187 LINWOOD AVE	02907	Providence	RI	12/4/1914	Providence	1.25	Bare Steel	Low
413870212	195 LINWOOD AVE	02907	Providence	RI	1/1/1940	Providence	1.25	Bare Steel	Low
413870246	168 LINWOOD AVE	02907	Providence	RI	1/1/1940	Providence	1.25	Bare Steel	Low
413870277	172 LINWOOD AVE	02907	Providence	RI	1/1/1940	Providence	1	Bare Steel	Low
413870286	174 LINWOOD AVE	02907	Providence	RI	7/8/1914	Providence	1.25	Bare Steel	Low
413966373	40 FISK ST	02905	Providence	RI	7/5/1967	Providence	1.25	Bare Steel	Low
413966409	64 FISK ST	02905	Providence	RI	11/17/1925	Providence	1.5	Bare Steel	Low
413966490	110 FISK ST	02905	Providence	RI	9/15/1952	Providence	1.5	Bare Steel	Low
413966499	100 FISK ST	02905	Providence	RI	7/9/1928	Providence	1.5	Bare Steel	Low
413967057	136 BABCOCK ST	02905	Providence	RI	8/22/1963	Providence	1.25	Bare Steel	Low
413967237	186 CALLA ST	02905	Providence	RI	9/27/1923	Providence	1.5	Bare Steel	Low
413967368	184 BABCOCK ST	02905	Providence	RI	4/21/1965	Providence	1.25	Bare Steel	Low
413967456	44 BABCOCK ST	02905	Providence	RI	8/30/1940	Providence	1.5	Bare Steel	Low
413967546	80 BABCOCK ST	02905	Providence	RI	9/3/1937	Providence	1.5	Bare Steel	Low
413968273	170 BABCOCK ST	02905	Providence	RI	4/27/1967	Providence	1.25	Wrapped	Low
413968282	144 BABCOCK ST	02905	Providence	RI	4/16/1926	Providence	1.5	Bare Steel	Low
414103212	110 Atlantic Ave	02907	Providence	RI	1/1/1940	Providence	1	Bare Steel	Low
414125187	200 Stanwood St	02907	Providence	RI	1/1/1940	Providence	1.25	Bare Steel	Low
414125196	202 Stanwood St	02907	Providence	RI	1/1/1940	Providence	1.25	Bare Steel	Low
414160197	88-90 Gordon Ave	02905	Providence	RI	5/31/1924	Providence	1.5	Bare Steel	Low
414277829	12 GALLATIN ST	02907	Providence	RI	9/21/1921	Providence	1.5	Bare Steel	Low
414596258	53 BANCROFT ST	02909	Providence	RI	1/1/1940	Providence	1.25	Bare Steel	Low
414864652	365 ATWELLS AVE	02903	Providence	RI	5/11/1921	Providence	1.5	Bare Steel	Low
416178409	27 Meeting St	02903	Providence	RI	10/26/1917	Providence	1.5	Bare Steel	Low
477980542	82 Connection St	02840	Newport	RI	1/1/1964	Providence	UNKNOWN	Bare Steel	High 35#
477981255	84 CONNECTION ST	02840	Newport	RI	1/1/1964	Providence	UNKNOWN	Bare Steel	High 35#
477981367	63 Houston Ave	02840	Newport	RI	1/1/1940	Providence	UNKNOWN	Bare Steel	High 35#
478151900	589 BELLEVUE AVE	02840	Newport	RI	1/1/1940	Providence	1.5	Bare Steel	Low
478167243	26 Freebody St	02840	Newport	RI	1/1/1936	Providence	1.25	Bare Steel	Low
478264099	44 Friendship St	02840	Newport	RI	1/1/1940	Providence	UNKNOWN	Bare Steel	Low
478347640	665 W MAIN RD	02842	Middletown	RI	1/1/1940	Providence	0.75	Bare Steel	Intermediate 10#
478378482	26 BROOKDALE RD	02842	Middletown	RI	1/1/1962	Providence	0.75	Bare Steel	Intermediate 10#

478421725	17 THIRD ST	02840	Newport	RI	1/1/1965	Providence	1.25	Bare Steel	Low
478458408	Treadway Inn, Market Square	02840	Newport	RI	1/1/1940	Providence	UNKNOWN	Bare Steel	Low
478496056	15 School St	02840	Newport	RI	1/1/1928	Providence	1.25	Bare Steel	Low
478496095	25 School St	02840	Newport	RI	1/1/1940	Providence	UNKNOWN	Bare Steel	Low
478496245	85 TOURO ST	02840	Newport	RI	1/1/1940	Providence	2	Bare Steel	Low
478496607	11 CLARKE ST	02840	Newport	RI	1/1/1957	Providence	1.5	Bare Steel	Low
478627916	208 Beachview Terrace	02842	Middletown	RI	1/1/1941	Providence	1.25	Bare Steel	High 99#
531567788	26 TURNER AVE	02920	Cranston	RI	6/5/1968	Providence	0.75	Wrapped S	High 35#
531577732	30 TURNER AVE	02920	Cranston	RI	12/27/1965	Providence	0.75	Bare Steel	High 35#
531580216	53 MOUNT-VIEW DR	02920	Cranston	RI	6/22/1964	Providence	0.75	Wrapped S	High 35#
531632810	1 MERIT DR	02920	Cranston	RI	10/31/1960	Providence	1	Wrapped S	High 35#
531664999	135 MARLOW ST	02920	Cranston	RI	5/29/1969	Providence	1.25	Bare Steel	Low
531730835	2235 Cranston St	02920	Cranston	RI	1/1/1940	Providence	1	Bare Steel	Low
531745652	165 CURTIS ST	02920	Cranston	RI	12/6/1965	Providence	0.75	Wrapped S	High 35#
531745701	95 CURTIS ST	02920	Cranston	RI	11/7/1970	Providence	0.75	Wrapped S	High 35#
531747708	18 SCOTT ST	02920	Cranston	RI	8/13/1923	Providence	1.5	Bare Steel	Low

Division 1-8

Request:

What is the status of the 42 remaining isolated services that need verification?

Response:

As of November 4, 2020, the Company has reviewed 13 of the 42 isolated service. Below is the detail of the analysis:

- One isolated is still a bare steel service that is not on leak-prone pipe gas main and will remain on the Proactive Service Replacement Program list;
- One service is still a bare steel service but is on leak-prone pipe gas main and has been removed from the Proactive Service Replacement Program list and returned to the Proactive Main Replacement program to be replaced in conjunction with the main replacement;
- Eleven services have been removed from the Proactive Service Replacement Program list for various reasons, such as service was already fully relayed, inserted, or abandoned, or the service was a duplicate address.

The remaining 29 services require a field check to verify service status (abandoned, relayed, inserted, existing). Most of these services have inside meter sets and due to COVID-19 restrictions (limiting entering customers' homes), these services verifications are on hold.

Division 1-9

Request:

Explain how the Company estimated a total of 3,429 patches in calculating its incremental paving costs.

Response:

In preparation for the FY 2021 Gas Infrastructure, Safety, and Reliability (ISR) Plan Proposal, the Company reviewed the historical number of patches and leak repairs across all ISR categories. Using that historical information, the Company estimated that 3,429 final restoration patches would be completed in FY 2021. The Company has assessed that the estimate of 3,429 final restoration patches continues to be an accurate estimate for FY 2022.

The Narragansett Electric Company
d/b/a National Grid
In Re: Division's Review of FY 2022 Proposed Gas ISR Plan
Responses to Division's First Set of Data Requests
Issued October 20, 2020

Division 1-10

Request:

In regard to the Mandated Program, please provide actual costs for FY2019, FY2020, and projected costs for FY2021 for the following categories:

- a. Reactive Leaks (CI Joint Encapsulation/Service Replacement)
- b. Service Replacement (Reactive) – Non-leaks/Other
- c. Main Replacement (Reactive)

Response:

Item	Category	\$(000)		
		FY 2019 Actual	FY 2020 Actual	FY 2021 Forecast as of 9/30/20
a.	Reactive Leaks (CI Joint Encapsulation/Service Replacement)	\$11,400	\$9,457*	\$12,280
b.	Service Replacement (Reactive) – Non-Leaks/Other	\$1,690	\$1,832	\$2,096
c.	Main Replacement (Reactive) – Maintenance (incl Water Intrusion)	\$1,260	\$1,478	\$915

*As noted in the Fiscal Year (FY) 2020 Gas Infrastructure, Safety, and Reliability (ISR) Plan Annual Reconciliation filing, the Reactive Leaks and Reactive Service Replacement category received a \$0.84 million credit related to the work order closeout review, which determined, in some instances, that capital/cost of removal was incorrectly charged to expense-only jobs. Thus, the capital expense-to-operating expense adjustments were completed to properly account for the costs.

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Division 1-11

Request:

Please provide a count of all leak receipts by month and Type for CY2020 to date.

Response:

Below is a count of all leak receipts by month and Type for CY2020 to date:

RI 2020 Leak Receipts									
Grade	January	February	March	April	May	June	July	August	September
1	66	43	41	41	53	52	33	26	21
2	93	97	67	42	92	44	23	21	21
3	54	52	21	37	144	83	25	45	60
Total	213	192	129	120	289	179	81	92	102

Division 1-12

Request:

The Company is proposing a new Proactive Low-Pressure System Elimination Category. Explain why this type of work would not be included in the Proactive Main Replacement Category.

Response:

The Company has proposed this new category to address elimination of low-pressure systems, which include gas pipe that is not classified as leak prone pipe ("LPP".) Some low-pressure networks include non-LPP pipe in addition to LPP mains. The projects will be prioritized based on the number of regulator stations serving the system, integrity assessment of the regulator stations, and low-pressure networks with large extents of LPP.

Division 1-13

Request:

Please provide a detailed scope of work for the Scott Road Take Station Project located in Cumberland, RI.

Response:

The proposed Scott Road Project scope of work includes new regulator runs, heaters, filter-separator vessel, odorant storage and injection systems, SCADA equipment (RTU) and gas chromatograph, associated piping and conduit work, and, as needed, the removal of any existing structures and piping deemed unnecessary by the successful completion of this project.

Pipeline Filter / Separator

The unit will be installed upstream of the regulator station. The unit will be designed to capture solid and liquid particulates to protect equipment within the regulator building.

Heating

The new heating system will be a hydronic heating system installed in a separate non-classified building or boiler room. Heat Exchangers may be located either in the gas regulator building or in a separate building/room as space allows.

Regulator Station Building

This will be a new, prefabricated concrete building installed on site. This structure will house two fully redundant regulator runs, each sized to handle 100% of the peak hourly flow rate. Each regulator run will be outfitted with three layers of overpressure protection.

Odorant Storage and Injection System

A new odorant storage tank is to be installed inside of a separate building and include appropriate containment and permitting/placarding. A new odorant pump injection system will inject odorant immediately downstream of the regulator station building.

NGrid Gas Chromatograph / SCADA Building

Gas Chromatograph and SCADA / RTU equipment will be housed installed in a separate non-classified building.

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Division 1-14

Request:

In regard to the Proactive Large Diameter Program, please provide the locations where lining and sealing will take place in FY2022.

Response:

Please see the table below for the requested information:

Project Type	Project Location	Main Size (inches)	Pressure	Main Length (ft)
Lining	Moore Street, Providence	20	LP	1,500
Sealing	Tobey St, Providence (Section 2)	16	LP	1,000
Sealing	134-292 Thames St, Newport (Section 1)	16	LP	1,540
Sealing	Legion Way (Douglas Street to Pontiac Avenue), Cranston	20	7 PSIG	2,080

Division 1-15

Request:

As the Large Diameter mains are rehabilitated, explain how associated services will be addressed.

Response:

For Cured in Place Lining: The services on the main will be transferred to adjacent mains where feasible or connected to a temporary main or bottled gas to ensure the reliability of the services during lining process. Any leak prone services connected to the large diameter main will be replaced as part of the program.

For (Cast-Iron Sealing Robot) CISBOT: The services on the main are left as is and are not replaced as part of the program. Any leak prone pipe services on CISBOT jobs will be replaced under Proactive Service Replacement Program or replaced due to leaks. .

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Division 1-16

Request:

Provide a detailed cost estimate for Segment 3 of the Atwells Ave Main Replacement Project.

Response:

See table below for a breakdown of the Segment 3 cost estimate.

Atwells Avenue - Main Replacement Project - Estimated Cost Detail		
As of September 22, 2020		
Segment 3 - 1,410'		
Cost Type	Cost Type - Subcategories	Cost (millions)
Internal Labor	All	\$ 0.18
Contractors	Design Consultant	\$ 0.08
Contractors	Contract Supervisor	\$ 0.01
Contractors	Site Setup & Security	\$ 0.25
Contractors	Non-Destructive Testing	\$ 0.01
Contractors	Main Installation	\$ 0.94
Contractors	Restoration	\$ 0.88
Materials	All	\$ 0.27
Other/Overhead	All	\$ 0.97
	Estimated Segment Total	\$ 3.60

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Division 1-17

Request:

The Company states in its DIMP Plan that an updated listing of the highest risk-ranked pressure regulating facilities is maintained by the Company. Please provide an updated copy of this list risk-ranking all 196 pressure regulating facilities.

Response:

The table below is a risk ranked list of all regulator stations in Rhode Island. The new ranking system is based on a combination of a semi-quantitative risk assessment (1-5 scale) and quantitative risk modelling software. The old ranking from the semi-quantitative method has been included for reference. Abandonments for the next two years have been identified. However, future abandonment planning beyond two years is completed by the Strategic Asset and Systems Planning team and will be communicated to the Pressure Regulation team as needed.

The color scheme for the table is as follows:

- **Complete**
- **In Progress**
- **Planned FY 21/22**
- **Planned FY 22/23**
- **Partial risk mitigation**

Station Number	Station Name	Technical Score	Remediation Method	Fiscal Year	New Rank	Old Rank
RIS-086	Dorrance St @ Eddy St	3.14	Replace	20/21	1	6
RIS-083	Pettis St @ N Main St	2.32	Reg Swap, replace at later date	19/20	2	48
RIS-082	Farnum Pike @ Whitman St	2.1	Replace	22/23	3	74
RIS-113	Depot Av @ Cranston St	2.8	Replace	22/23	4	14
RIS-110	Smith St @ Sunset Av	2.58	Header, replace at later date	20/21	5	26
RIS-109	477 Dexter St	3.46	Relief Valve	21/22	6	2
RIS-023	Westminster St @ Rt 10	1.78	TBD	TBD	7	109
RIN-C018	Boulevard Av @ Front St	1.34	TBD	TBD	8	171
RIS-121	Broad St @ Early St	2.38	Replace	22/23	9	42
RIS-116	Silver Spring St @ Metcalf St	1.86	TBD	TBD	10	98

Prepared by or under the supervision of: Stephen Greco, Joshua Bleicken, and Justin Zaccari

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RIS-065	Corina St @ Glasgow LP	2.26	TBD	TBD	11	51
RIS-069	816 Middle Rd	3.2	Replace	21/22	12	5
RIS-036	Post Rd @ Byron Blvd	2.86	Replace	22/23	13	9
RIS-078	Ives St @ Trenton St	2.36	TBD	TBD	14	44
RIS-096	Broad St @ Columbia Av	2.38	TBD	TBD	15	43
RIN-C021	337 Lonsdale Av	1.9	Header, replace at later date	21/22	16	93
RIS-077	Fountain Av @ Dyer Av	1.58	TBD	TBD	17	128
RIS-107	Warwick Av @ W Shore	2.22	TBD	TBD	18	54
RIS-016	Park Av @ Hayward Av	2.6	Replace	22/23	19	25
RIS-115	Doyle Av @ Tabor Av	3	Header, replace at later date	20/21	20	8
RIN-C022	Weeden St @ Smithfield Av	1.46	TBD	TBD	21	146
RIS-035	186 N Country Club Dr	1.82	TBD	TBD	22	104
RIN-C017	West Highland Av @ High St	2	TBD	TBD	23	81
RIS-068	337 Cowesett Rd	2.36	TBD	TBD	24	45
RIS-090	1827 Plainfield Pk @ Simmons ville	2.42	Replace	22/23	25	36
RIS-122	30 Virginia Av	2.1	TBD	TBD	26	72
RIS-119	Wellington Av @ Well Av	1.88	TBD	TBD	27	97
RIS-061	Maple St @ Albany	3.08	Replace	21/22	28	7
RIS-300	Allens Av/Becker Cabinet 18" Line	1.52	Replace	20/21	29	139
RIS-017	Station St @ Pond St	2.12	Replace	22/23	30	67
RIS-081	Ten Rod Rd (Pole 110)	2.06	TBD	TBD	31	76
RIN-C028	Oregon Av @ Manistee St	1.48	TBD	TBD	32	145
RIN-C007	Kendrick Av @ Gaulin Av	1.42	TBD	TBD	33	151
RIS-108	11 Lawnacre Dr @ Wayside Dr	2.4	TBD	TBD	34	41
RIN-C024	Senate St @ Daggett Av	1.62	TBD	TBD	35	125
RIS-048	Hyacinth St @ Shiloh St	1.22	TBD	TBD	36	180
RIN-C027	Bloomfield St @ Armistice Blvd	1.58	TBD	TBD	37	129
RIS-327	Allens Av/Hoxie	2.82	Abandon	20/21	38	12

Prepared by or under the supervision of: Saadat Khan

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RIS-104	E Greenwich St @ Quaker Ln	3.3	Abandon	21/22	39	3
RIN-C036	Dora St @ Vincent Av	1.38	TBD	TBD	40	159
RIN-C026	Downes Av @ Robinson Av	1.72	TBD	TBD	41	117
RIS-027	Smithfield Rd @ Cushing St	1.18	TBD	TBD	42	183
RIS-400	30 Allens Av (Manchester St) TS Power Plant	1.78	TBD	TBD	43	110
RIN-C033	Kepler St @ Divison St	1.62	TBD	TBD	44	126
RIS-274	Allens Av/Becker Cabinet Dey St	1.52	Abandon	20/21	45	140
RIS-127	Point St @ Beacon Av	2.34	TBD	TBD	46	47
RIS-018	Park Av @ Maple Av	2.82	Replace	21/22	47	11
RIN-132	Waterman Av @ Greystone	2.3	TBD	TBD	48	50
RIS-103	Promenade St @ Kingsley Av (121 Providence Place)	2.22	TBD	TBD	49	55
RIS-128	Allens Av @ Blackstone St	2.04	TBD	TBD	50	77
RIS-133	Cowesett Av @ Quaker Ln	1.78	Replace (Growthpoint)	21/22	51	106
RIS-129	David St @ Mineral Spring Av	2.18	TBD	TBD	52	62
RIN-C030	North Bend St @ Cottage St	1.38	TBD	TBD	53	158
RIN-C032	Bacon St @ Columbus Av	1.42	TBD	TBD	54	150
RIS-118	3362 Kingstown Rd (Waites Corner)	2.26	TBD	TBD	55	52
RIN-C019	Liberty St @ Hunt St	1.42	TBD	TBD	56	152
RIS-120	Providence St @ Toll Gate Rd	2.74	TBD	TBD	57	18
RIN-C031	Tidewater St @ Taft St City Reg	1.44	TBD	TBD	58	147
RIS-114	110 Atwood Av @ D St	1.66	TBD	TBD	59	121
RIN-C005	Bailey St @ Ballou St	1.58	TBD	TBD	60	130
RIS-049	1584 Plainfield St @ Plainfield Pk	2.66	TBD	TBD	61	20
RIS-024	Hartford Av @ Petteys Av (Holder 19) LP	1.88	TBD	TBD	62	96
RIS-029	20 Serrel Sweet Rd	1.22	TBD	TBD	63	179
RIN-C020	550 High St	1.42	TBD	TBD	64	153
RIS-026	Eliot Av @ Barrett Av	1.16	TBD	TBD	65	185
RIS-111	Canal St @ Washington St	2.8	TBD	TBD	66	15

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RIN-C050	Broad St @ Hunt St	1.66	TBD	TBD	67	122
RIN-C006	Kenwood St @ Cass Av	1.38	TBD	TBD	68	160
RIS-008	Brook St @ George St LP	1.36	TBD	TBD	69	165
RIS-305	Allens Av/Hut	1.98	Replace	20/21	70	83
RIS-089	Willet Av @ Forbes St 25 PSIG	2.7	Replace	21/22	71	19
RIS-402	347 Putnam Pike TS (Rt 44) 99 PSIG	1.74	TBD	TBD	72	115
RIS-022	Niantic Av @ Pawnee St	1.22	TBD	TBD	73	178
RIS-073	Mayfield Rd @ Oakland Av	2.42	TBD	TBD	74	37
RIS-032	Park Av @ Old Park Av	1.82	Replace	21/22	75	103
RIN-C045	600 George Washington Hwy (Rt 116) TS	1.54	Install Third Layer	20/21	76	137
RIS-063	Hartford Av @ Dale Av	1.16	TBD	TBD	77	186
RIS-092	Traver Av @ Killingly St	1.5	TBD	TBD	78	141
RIS-126	433 Hopkins Hill Rd	1.68	TBD	TBD	79	120
RIS-101	1 Cottage St	2.42	Replace	22/23	80	38
RIS-005	Martin St @ Dodge St	2.52	TBD	TBD	81	29
RIN-C040	Sanford St @ Myrtle St	1.66	Replace	20/21	82	123
RIN-C029	Maryland Av @ School St	1.34	TBD	TBD	83	168
RIS-057	915 Atwood Av @ Plainfield St (St Rocco's)	1.96	TBD	TBD	84	85
RIS-OOF	14A Perkins Av	2.16	TBD	TBD	85	64
RIS-102	Greenville @ George Waterman	3.58	Replace	19/20	86	1
RIS-037	122 Pettaconsett Av	2.12	Abandon	21/22	87	68
RIN-C023	Moshassuck St @ Main St	1.3	TBD	TBD	88	173
RIN-C004	Harris Av @ Blackstone St	1.58	TBD	TBD	89	132
RIN-C003	High St @ Fountain St	1.78	TBD	TBD	90	107
RIS-BW007	Woodlawn Av @ Wood St	2.16	Replace	20/21	91	65
RIS-071	Willet Av @ Forbes St 5 PSIG	2.5	Replace	21/22	92	32
RIN-C025	290 Daggett Av	1.58	TBD	TBD	93	131
RIS-N213LP	Wellington St @ Thames St LP	1.98	Replace	21/22	94	84

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RIS-BW005	213 Mt Hope Av	2.1	TBD	TBD	95	73
RIS-045	Harris@Hoppin	3.28	Abandon	20/21	96	4
RIS-100	Allendale Av @ Geo. Waterman	2.46	TBD	TBD	97	33
RIN-C048	New River Rd @ Cottage St	1.28	TBD	TBD	98	177
RIS-091	Adelaide Ave @ Hamilton St	1.9	TBD	TBD	99	94
RIS-334	67 Laten Knight Road TS	1.78	TBD	TBD	100	111
RIS-034	Atwood Av @ 1401 Plainfield St	1.72	TBD	TBD	101	118
RIN-C051	Bernon St @ Front St	1.84	TBD	TBD	102	101
RIN-C016	Ann & Hope Way	1.38	TBD	TBD	103	161
RIS-098	Chalkstone St @ Rosebank Av	1.78	TBD	TBD	104	105
RIS-024.3A	Hartford Av @ Petteys Av (Holder 19) 18" Line	2.54	TBD	TBD	105	28
RIS-024.5B	Hartford Av @ Petteys Av (Holder 19) Dey St Line	2.44	TBD	TBD	106	35
RIN-C037	Woodland St @ Smithfield Av	1.3	TBD	TBD	107	174
RIS-N211	Third St @ Admiral Kalbfus	1.82	TBD	TBD	108	102
RIS-101	1 Cottage St	2.42	TBD	TBD	109	38
RIN-C046	68 Scott Rd TS	2.02	TBD	TBD	110	79
RIS-OOBR	Westerly GS	1.04	TBD	TBD	111	196
RIS-046	Centre St @ Castro St	2.64	TBD	TBD	112	22
RIS-N216	Bliss Rd @ Broadway	2.18	TBD	TBD	113	63
RIS-125	347 Putnam Pike TS (Rt 44) 35 PSIG	1.54	TBD	TBD	114	138
RIN-C038	Charles St @ Mineral Spring Av	1.42	TBD	TBD	115	154
RIS-N203	135 Old Mill Ln TS	1.74	TBD	TBD	116	116
RIS-015	Pawtucket Av @ Waterman Av	2.64	TBD	TBD	117	24
RIS-006	Pawtucket Av @ Sprague St	2.64	TBD	TBD	118	23
RIS-N220	Memorial Blvd @ Anna Dr	2.42	TBD	TBD	119	39
RIN-C009	Asylum St @ Mason St	1.36	TBD	TBD	120	163
RIS-123	Fort St @ S Broadway	1.9	TBD	TBD	121	95

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RIS-003	First St @ Mauran Av (Holder 20) LP	1.22	TBD	TBD	122	181
RIS-056	Roger Williams Av @ Puritan	2.52	TBD	TBD	123	30
RIS-088	Corina St @ Glasgow 35 PSIG	2.04	TBD	TBD	124	78
RIN-C049	Mendon Rd @ Nate Whipple Hwy	1.32	TBD	TBD	125	172
RIS-013	Summit St @ Taunton Av	1.16	TBD	TBD	126	188
RIS-097	6 Long Av	2.14	TBD	TBD	127	66
RIS-TIV1	401 Main Rd TS (Relief Only)	1.9	TBD	TBD	128	89
RIN-C002	Rockland Av @ Morse Av	1.54	TBD	TBD	129	136
RIS-N209	Walcott Av @ St Georges	2.02	Relief Valve	21/22	130	80
RIS-106	Frenchtown Rd @ S County Trail	2.78	Replace	20/21	131	16
RIS-087	Silver Spring St @ Charles St	1.16	TBD	TBD	132	187
RIS-BW003	142 Gibson Rd	1.76	TBD	TBD	133	113
RIS-014	N Broadway @ Greenwood St	1.7	TBD	TBD	134	119
RIN-C042	Smithfield Av @ Weeden St	1.62	TBD	TBD	135	127
RIS-307	Allens Av/200 PSI Standby Run	2.22	Abandon	20/21	136	59
RIN-C043	Cobble Hill Rd @ Louisquisset Pk	1.34	TBD	TBD	137	169
RIN-C015	Quinn Ln @ Lower River Rd	1.86	TBD	TBD	138	100
RIN-C039	Tidewater St @ Taft St Primaries	1.44	TBD	TBD	139	149
RIS-OOC	53 Ward Av	2.2	TBD	TBD	140	61
RIS-094	Dyer St @ Pine St	2.22	TBD	TBD	141	57
RIN-C044	1595 Mendon Rd	1.42	TBD	TBD	142	155
RIS-038	East Av @ 650 Bald Hill Rd	1.9	TBD	TBD	143	88
RIS-117	County Rd @ Old County Rd	1.78	TBD	TBD	144	108
RIS-315	Wampanoag Trail @ Tripps Ln	1.92	TBD	TBD	145	92
RIS-N213HP	Wellington St @ Thames St 40 PSIG	2.66	Replace	21/22	146	21
RIS-309	22 Brown St Basement 25 PSIG	1.74	TBD	TBD	147	114
RIS-N219	Carroll Av @ Ocean Dr	2.54	TBD	TBD	148	27

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RIS-130	Village Green N @ Pawtucket Av	2.22	TBD	TBD	149	56
RIS-W010	Warren GS	1.9	TBD	TBD	150	90
RIS-310	28 Brown St TS (Barrington Bldg)	1.5	TBD	TBD	151	142
RIN-C012	Bourdon Blvd @ Asylum St	2.12	TBD	TBD	152	70
RIS-N212	W Main Rd @ Dudley Av	1.86	TBD	TBD	153	99
RIN-C010	E School St @ Pond St	1.3	TBD	TBD	154	175
RIS-099	860 Waterman Av	2.46	TBD	TBD	155	34
RIS-047	747 Bullocks Point Av	2.82	TBD	TBD	156	13
RIS-064	Wampanoag Trail @ Boyd Av 5 PSIG	1.22	TBD	TBD	157	182
RIS-BW002	Wood St @ Shaws Ln LP	1.18	TBD	TBD	158	184
RIN-C001	St James Way @ Mendon Rd	1.4	TBD	TBD	159	156
RIS-311	27 Dey St TS	1.1	TBD	TBD	160	194
RIS-N221	Maple Av @ Yarnell Av	2	TBD	TBD	161	82
RIS-N202	W Main Rd @ Oliphant Ln	2.42	TBD	TBD	162	40
RIS-N201	Newman Rd @ Aquidneck Av	2.08	TBD	TBD	163	75
RIS-OBL	12 Canal St	1.38	TBD	TBD	164	162
RIS-OOD	54 East Av	1.3	TBD	TBD	165	176
RIS-BW001	Franklin @ Wood 8 PSIG	1.66	TBD	TBD	166	124
RIS-BW013	22 Brown St Basement 8 PSIG	1.78	TBD	TBD	167	112
RIS-BW015	8 Gooding Av	1.94	TBD	TBD	168	87
RIS-N217	Boulevard St @ Miantonomi	2.22	TBD	TBD	169	60
RIS-OOE	Beach St @ 11 Watch Hill Rd	1.34	TBD	TBD	170	170
RIN-C035	Tidewater St @ Taft St B Run	1.44	TBD	TBD	171	148
RIS-308	Allens Av/Providence 7 PSIG	1.12	Replace	20/21	172	193
RIS-306	Allens Av/19 Holder Filling Line	1.12	Replace	20/21	173	192
RIS-002	First St @ Mauran Av (Holder 20) 5 PSIG	2.76	TBD	TBD	174	17
RIN-C014	Railroad Av @ Winter St LP	1.56	TBD	TBD	175	134
RIS-BW014	Market St @ Kickemuit Rd	2.36	TBD	TBD	176	46

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RIS-N215	E Main Rd @ Turner Rd	2.5	TBD	TBD	177	31
RIS-067	Roger Williams Av @ Whitaker	2.86	Replace	18/19	178	10
RIS-131	Amaral St @ Wampanoag Trail	2.22	TBD	TBD	179	58
RIS-TIV2	Evans Av @ Pierce Av	1.5	TBD	TBD	180	143
RIS-N204	135 Old Mill Ln	1.96	TBD	TBD	181	86
RIN-C047	4425 Diamond Hill Rd TS	1.36	TBD	TBD	182	164
RIS-OBH	Friendship St - Spectra Line	1.16	TBD	TBD	183	190
RIS-OOG	Friendship St - Yankee Line	1.16	TBD	TBD	184	191
RIS-OOA	10 White Rock Rd	1.56	TBD	TBD	185	135
RIS-124	Scenery Ln	2.12	TBD	TBD	186	71
RIS-079	Ship St @ Chestnut St	1.36	TBD	TBD	187	166
RIS-001	500 Veterans Mem Pkwy (Bentley St)	1.36	TBD	TBD	188	167
RIS-105	Brook St @ George St 35 PSIG	1.58	TBD	TBD	189	133
RIS-093	Division Rd @ Quaker Ln	1.16	TBD	TBD	190	189
RIS-343	30 Allens Av (Crary St) TS 99 PSIG	1.1	TBD	TBD	191	195
RIS-340	1084 Wallum Lake Rd TS	1.5	TBD	TBD	192	144
RIS-084	Stony Ln @ Rt 2	2.12	TBD	TBD	193	69
RIS-134	565 Quaker Ln	1.4	TBD	TBD	194	157
RIS-N205	305 Corey Ln	2.24	TBD	TBD	195	53
RIS-004	Wampanoag Trail GS	1.9	TBD	TBD	196	91
RIS-320	Allens Av/LNG Fuel	2.3	TBD	TBD	197	49

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Division 1-18

Request:

In regard to the proposed work under pressure regulating facilities, please identify each of the eleven (11) facilities and provide a scope of work for each facility.

Response:

The chart below contains the locations of the proposed work under pressure regulating facilities and station details and information that influenced each work proposal. The scope of all station replacements is to install the following: a dual-run prefabricated regulator station with three layers of overpressure protection on each run; protective bollards; vents; and a traffic box containing system automation equipment. The Company prefers to install the new station in the same location as the old station unless a new location is safer or more strategic. The scope of all station abandonments is to completely isolate, depressurize, cut, cap, and retire in place.

Work Scope	Station #	Town	Station Name	Tech Score	Inlet MAOP	Outlet MAOP	Install Year	Risk Criteria
Replace Station	RIS-106	East Greenwich	Frenchtown Road @ South County Trail	2.78	99#	35#	1987	Single Feed, Single Run
Replace Station	RIS-069	East Greenwich	816 Middle Road	3.2	99#	35#	1985	Single Run, Double Boot, Number of Customers
Replace Station	RIS-061	Warwick	Maple Street @ Albany	3.08	99#	35#	1985	Single Run, Double Boot, Number of Customers
Replace Station	RIS-018	Cranston	Park @ Maple Avenue	2.82	7#	LP (14")	1957	Age, Single Run, Condition, Work nearby
Replace Station	RIS-032	Cranston	Park @ Old Park	1.82	99#	7#	1983	Reliability, Single Run, Work nearby
Replace Station	RIS-089	East Providence	Willet @ Forbes 25 PSIG	2.7	99#	25#	1969	Age, Reliability, Work nearby

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Replace Station	RIS-071	East Providence	Willet @ Forbes 5 PSIG	2.5	99#	5#	1969	Age, Work nearby
Replace Station	RIS-N213LP	Newport	Wellington @ Thames LP	1.98	99#	LP (14")	1981	Pressure, Age, Work nearby
Replace Station	RIS-N213HP	Newport	Wellington @ Thames HP	2.66	99#	35#	1981	Condition, Age, Work nearby
Replace Station	RIS-101	Johnston	Cottage @ Putnam Pike	2.42	99#	35#	1983	Location, Reliability
Replace Station	RIS-017	Cranston	Station @ Pond	2.12	99#	LP (14")	1992	Pressure, Single Run
Abandon Station	RIS-037	Warwick	122 Pettaconsett Avenue	2.12	35#	LP (14")	1972	Station no longer needed. Mains and Services upgrade on system.
Abandon Station	RIS-104	West Warwick	E Greenwich Street @ Quaker Lane	3.3	99#	35	1984	Station no longer needed. Mains and Services upgrade on system.

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Division 1-19

Request:

Identify all nine (9) pressure regulating facilities in which a second bypass valve is proposed to be installed.

Response:

Below is a list of the nine (9) pressure regulating facilities in which a second bypass valve will be installed in Fiscal Year (FY) 2022.

Station Number	Town	Station Name	Inlet Pressure	Outlet Pressure	Bypass Size
RIS-047	East Providence	747 Bullocks Point Avenue	25 PSIG	LP	2"
RIS-100	Johnston	Allendale Avenue @ George Waterman Road	99 PSIG	35 PSIG	12"
RIS-113	Cranston	Depot Avenue @ Cranston Street	10 PSIG	LP	4"
RIS-N215	Middletown	E Main Road @ Turner Road	55 PSIG	10 PSIG	2"
RIS-N219	Newport	Carroll Avenue @ Ocean Drive	35 PSIG	LP	2"
RIS-084	North Kingstown	Stony Lane @ Rt 2	99 PSIG	35 PSIG	2"
RIS-082	Smithfield	Waterman Avenue @ Whitman Street	35 PSIG	LP	2"
RIS-064	East Providence	Wampanoag @ Boyd Avenue	99 PSIG	5 PSIG	2"
RIS-036	Warwick	Post Road @ Byron	35 PSIG	LP	2"

Division 1-20

Request:

Please provide an overview of the proposed Cumberland LNG Tank Project.

Response:

The proposed Cumberland LNG Tank Project ("Project") involves a new 1MM Gallon LNG storage tank and installation of ancillary equipment in Cumberland, Rhode Island. The Cumberland location has existing vaporizers and a glycol system that are relatively new and in good operational condition. The vaporizers and glycol system will remain in service along with the other existing facilities, including utilities and control room. This facility feeds the gas network with maximum operating pressure of 99 psig. The Project would include a new LNG storage tank with in-tank pumps, new truck load/unload station, boiloff gas system with pre-heaters and compressors, truck load/unload shelter, odorant building, boiloff compressor building, Firewater system upgrade, etc.

LNG Storage and LNG In-Tank Pumps

The Project is considering construction of a new full containment LNG storage tank with 9% Ni inner tank and reinforced concrete outer tank with a nominal capacity of 1MM gallons. The tank will include two LNG In-Tank Pumps (3x50%) for send out. These two pumps will be designed to handle send out operations and simultaneous unloading of two trucks.

LNG Truck Unloading

The LNG Storage Tank will be filled by trucks. Assuming a standard average LNG truck size of 11,000 gallons, it is estimated that there may be as many as twelve trucks per day that would provide approximately 132,000 gallons of LNG per day to the storage tank. The design will include two truck loading / unloading stations, including scales for inventory management.

Boil Off Gas (BOG) Compression

The BOG generated is estimated based on the BOG from the LNG Storage tank during no send out operation and the displacement while unloading two trucks. The heat leak is assumed to generate a boiloff rate of 0.05%-0.07% of the tank volume per day. The BOG system will consist of two electric BOG pre-heaters and two BOG compressors.

Utilities

The existing Utility Systems such as Fuel Gas, Instrument Air, Potable and Service Water, Electric Power, etc. will be utilized where possible.

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Buildings

The Project plans to use the available existing buildings and is considering new buildings for new equipment. The Project is considering construction of a new Truck Loading / Unloading Control Station Shelter, Odorant Building, and BOG Compression Building.

Division 1-21

Request:

The Company's 2019 System Integrity Report indicates that there are 1,052 miles of leak prone pipe remaining in the distribution system. Does the Company classify Alydl A pipe as leak prone pipe and is it included in the 1,052 reported miles? Please explain.

Response:

The 1,052 miles of leak prone pipe referenced in the System Integrity report did not include 50 miles of Alydl-A and did not exclude large diameter pipe. The modified miles of leak prone pipe as of December 31, 2019 is approximately 1,063.

RI Leak Prone Mains	
Material	Miles
Bare Steel	191
Unprotected Coated Steel	156
CI/WI/DI	666
Alydl-A Plastic	50
Total	1,063

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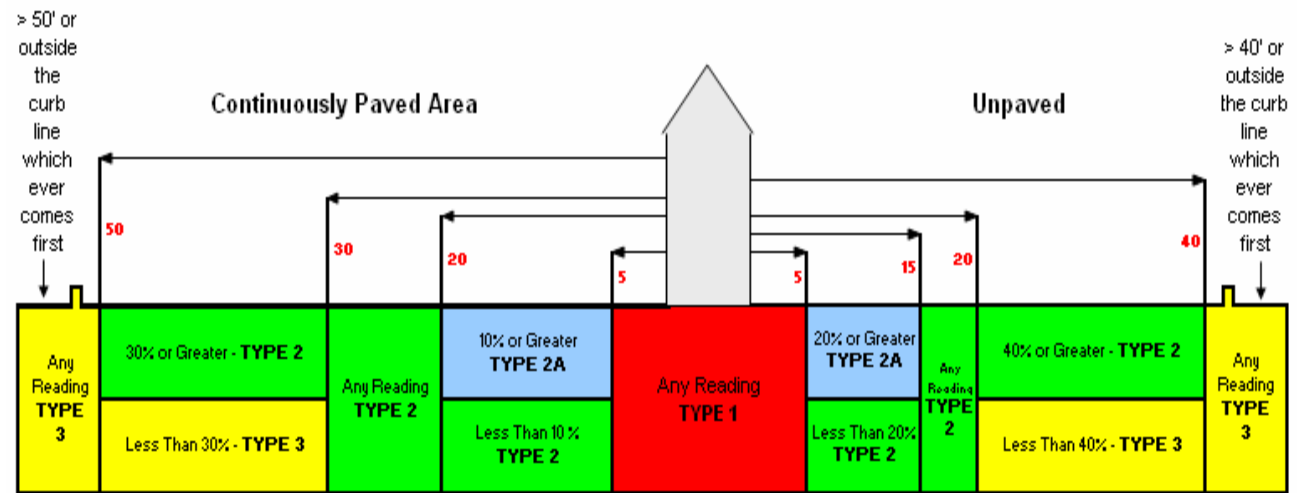
Division 1-22

Request:

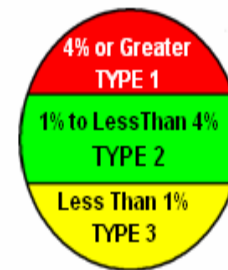
Please explain how leaks are categorized as type 1, 2, 2A, or 3.

Response:

Please see Attachment Gas ISR FY2022-DIV 1-22 CM4 and Attachment Gas ISR FY2022-DIV 1-22 CM6 for the Company's Distribution Systems Leak Classification Procedure.



Manholes, Vaults and Catch Basins



CM6

Distribution Systems: Leakage Classification Revision Date: April 28, 2008

Contents:

- 1 Scope
- 2 Equipment
- 3 Leakage Surveys
- 4 Records

References:

- 49 CFR, Part 192
- Operating and Maintenance Plan Operator Qualification

1	Scope This standard prescribes the Company criteria for assigning priority designations (classification) to known gas leaks in the Company's gas system.
2	General Known leaks in the Company's gas system shall be classified only by qualified persons using appropriate and calibrated leak detection equipment. Guidelines for leak classification are provided in the classification guide. The judgment of the operator personnel at the scene is of primary importance in determining the grade assigned to the leak.
3	Leak Classification Requirements: <u>Grade 1</u> A leak that represents an existing or probable hazard to persons or property, and requires immediate repair or continuous action until the conditions are no longer hazardous. Action Criteria: Requires prompt action to protect life and property, and continuous action until the conditions are no longer hazardous. Prompt action in some instances may require one or more of the following: <ul style="list-style-type: none">- Implementation of emergency plan.- Evacuating premises.- Blocking off an area.- Rerouting traffic.- Eliminating sources of ignition.----

CM6

Distribution Systems: Leakage Classification Revision Date: April 28, 2008

- Venting the area by removing manhole covers, bar holing, installing vent holes, or other means identified by the company as acceptable.
- Stopping the flow of gas by closing valves or other means.
- Notifying police and fire department personnel if forced entry is necessary.

Grade 2A & 2 – Leaks that are recognized as being non-hazardous at the time of detection, but justify repair based upon probable future hazard.

Action Criteria: The leak repair schedule should be based considerations of the severity and history of the leak. In determining the repair priority, criteria such as the following should be considered:

- Amount of migration of gas.
- Proximity of gas to buildings and subsurface structures.
- Extent of pavement.
- Soil type and soil conditions (such as frost cap, moisture and natural venting).

Grade 2 leaks may vary greatly in the degree of potential hazard. Grade 2A leaks generally require more immediate action than Grade 2 leaks based upon the above referenced criteria.

Grade 3 – A leak that is non-hazardous at the time of detection and can be reasonably expected to remain non-hazardous.

4

Records

The Company shall maintain documentation of the leak in the form of electronic, paper, or other storage media accepted by the company.

Division 1-23

Request:

Define the term "workable leak".

Response:

The Company defines a workable leak as a Grade 1 or Grade 2 leak.

Division 1-24

Request:

Explain why there were 767 Type 1 leaks reported but only 727 type 1 leaks repaired.

Response:

The discrepancy in the number of Type 1 leaks received versus leaks that were repaired is due to several reasons. There were some duplicate leaks, which reduced the volume of actual leaks. Some Type 1 leaks were reclassified to a lower grade, and, in some cases, a single repair may have eliminated more than one leak.

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Division 1-25

Request:

How many leak prone services were replaced in CY2019 as a result of all programs?

Response:

The table below includes the breakdown of the number of leak prone services replaced as a result of all programs in Fiscal Year (FY) 2020:

FY 2020 Number of Services	
Main Replacement (Proactive and Reactive)	3,507
City State Construction	1,204
Reliability	74
Service Replacement Due to Leaks	492
Total	5,277

Division 1-26

Request:

Why did the number of leak prone services increase from 42,109 in 2018 to 44,257 in 2019 as indicated in the DOT Data Comparison on page 51?

Response:

In October 2018, the Company implemented the new Geographic Information System (GIS) mapping system for Rhode Island. The 2019 DOT report was the first year that the Company used the new system to compile the data for the DOT report. The Company assumes that the data migration may have caused this discrepancy. The Company is currently reviewing this matter, and the review may take another few months.

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Division 1-27

Request:

The DOT Data Comparison lists 132 copper services that seem to be included in the total 44,257 leak prone services. Page 16 of the proposed FY2022 ISR plan indicates that there are 181 copper services at the start of FY2021. Please verify the actual number of copper services.

Response:

A service line may contain multiple segments, and the material of each segment may be different. To comply with the PHMSA definition of a service line for the DOT report, the Company considers the material of the longest segment in a service line. Therefore, the DOT report states that there are 132 Copper service lines. For the FY 2022 ISR filing the Company included all services with any copper segment, which totals 181 Copper services.

Division 1-28

Request:

How many new services were installed in CY2019?

Response:

1,791 new services were installed in Calendar Year (CY) 2019. The total of 1,791 was comprised of 1,463 services installed on existing main and 328 services installed as part of new main projects.

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Division 1-29

Request:

Why did the total number of services drop from 197,147 in 2018 to 194,550 in 2019?

Response:

Please see the Company's response to Data Request Gas ISR FY2022-DIV 1-26.

Division 1-30

Request:

Does the total number of services include inactive services? If so, how many?

Response:

Yes. The total number of services includes inactive services. Additionally, please note that the count of inactive accounts is dynamic. On average, the Company has approximately 10,000 inactive accounts. The Company does not isolate out the number of inactive services in the total service count since this number changes frequently.

Also, the Company abandons approximately 150 services a year due to five years of inactivity. Once a service is abandoned, it will be deducted from the service count.

Division 1-31

Request:

On page 74, there are 1,011 services listed as other. Please explain what other types of material these services may consist of and are they classified as leak prone services?

Response:

The Company classifies a service material as "Other" when the service material is unknown; these are classified as leak prone services.

Division 1-32

Request:

On page 64, the Company reports that there are 272,974 meters. Why did the meter count decrease from 282,106 meters in 2018 to 272,974 meters in 2019? Does this meter count include inactive meters? If so, how many?

Response:

The meter count in the 2019 System Integrity report does not include inactive meters. In addition to the 272,974 active meter accounts, there were 10,469 inactive accounts. Including the 10,469 inactive accounts, the total customer accounts in Rhode Island is 283,443.