

GEORGE W. WATSON III

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Also admitted in Massachusetts,
Connecticut and Vermont

May 21, 2024

VIA HAND DELIVERY & ELECTRONIC MAIL

Kristen L. Masse, EFSB Coordinator
RI Energy Facility Siting Board
89 Jefferson Boulevard
Warwick, RI 02888

**RE: Docket No. SB-2021-04 – The Narragansett Electric Company Aquidneck Island
Gas Reliability Project Old Mill Lane, Portsmouth, Rhode Island
Responses to Record Requests (Full Set)**

Dear Kristen:

On behalf of The Narragansett Electric Company (the “Company”), I have enclosed the Company’s responses to the Energy Facility Siting Board’s (the “Board”) Record Requests (Full Set) from the Final Hearings in the above-referenced docket.

Please note that Attachment RR 7-3 and Attachment RR 7-4 to the Company’s response to Record Request No. 7 contain commercially sensitive information that was the subject of a previously filed motion for protective treatment. A copy of that motion is included in this package for completeness.

Thank you for your attention to this matter. If you have any questions, please contact me at (401) 709-3351.

Sincerely,



George W. Watson III

Enclosures

cc: Docket SB-2021-04 Service List

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate were 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.



Heidi J. Seddon

May 21, 2024

Date

SB-2021-04 The Narragansett Electric Company's Application for a License to Mobilize and Operate a Liquefied Natural Gas (LNG) Vaporization Facility at Old Mill Lane (Portsmouth, RI)

Updated February 28, 2024

Name	E-mail
Ronald Gerwatowski (PUC)	Ronald.gerwatowski@puc.ri.gov ;
Terry Gray (DEM)	terry.gray@dem.ri.gov ;
Meredith Brady (DOA)	Meredith.Brady@doa.ri.gov ;
Patricia Lucarelli (PUC)	Patricia.lucarelli@puc.ri.gov ;
Kristen L. Masse (PUC)	Kristen.L.Masse@puc.ri.gov ;
Suzanne Amerault (DEM)	Suzanne.amerault@dem.ri.gov ;
Maria Mignanelli (DOA)	Maria.mignanelli@doa.ri.gov ;
George Watson (Robinson Cole)	gwatson@rc.com ;
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Steven Boyajian (Robinson Cole)	SBoyajian@rc.com ;
Heidi Seddon	HSeddon@rc.com ;
Ronald Reybitz (PPL)	RJReybitz@pplweb.com ;
Celia O'Brien (PPL)	COBrien@pplweb.com ;
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Nicholas Ucci (RIE)	NSUcci@RIEnergy.com ;
Linda George (DPUC)	Linda.George@dpuc.ri.gov ;
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James Crowley (CLF)	jcrowley@clf.org ;
David Hill (Energy Futures Group)	dhill@energyfuturesgroup.com ;
Earnest White (Energy Futures Group)	ewhite@energyfuturesgroup.com ;
Jennifer West (Town Clerk, Portsmouth)	clerkoffice@portsmouthri.com ;
Richard Rainer, Jr. (Town Administrator, Portsmouth)	rrainer@portsmouthri.com ;
Kevin Gavin (Town Solicitor, Portsmouth)	kevingavinlaw@gmail.com ;
Wendy Marshall (Town Clerk, Middletown)	wmarshall@middletownri.com ;
Marisa Desautel	Marisa@desautelbrowning.com ;
Terence Tierney	Tierneylaw@yahoo.com ;
Teresa Monterey (Portsmouth Zoning Board)	tmonterey@portsmouthri.com ;
Gareth Eames (Portsmouth Building Official)	geames@portsmouthri.com ;
Charlotte Taylor (RI Historical Preservation and Heritage commission)	Charlotte.Taylor@preservation.ri.gov ;
Elizabeth Totten (RI Historical Preservation and Heritage commission)	elizabeth.totten@preservation.ri.gov ;
Paul Rodrigues (Portsmouth Department of Public Works)	prodriques@portsmouthri.gov ;
Brian Woodhead (Portsmouth Department of Public Works)	bwoodhead@portsmouthri.gov ;
Jenna Giguere (RI DEM)	Jenna.Giguere@dem.ri.gov ;
Jason McNamee (RI DEM)	Jason.mcnamee@dem.ri.gov ;
Leon Lesinski (Portsmouth Planning Commission)	llesinski@portsmouthri.com ;

Lea Hitchen (Town Planner, Portsmouth)	lhitchen@portsmouthri.gov ;
Roberta Groch (Division of Statewide Planning)	Roberta.Groch@doa.ri.gov ;
Mary Rose Pellegrino (Department of Administration)	maryrose.pellegrino@doa.ri.gov ;
Michael Byrns (RI DOH)	michael.byrns@health.ri.gov ;
Christopher Kearns (OER)	Christopher.Kearns@energy.ri.gov ;
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Karen Bradbury (OER)	karen.bradbury@energy.ri.gov ;
Danielle Jameson (OER)	danielle.jameson@energy.ri.gov ;
RI Senator Luis DiPalma	Sen-DiPalma@rilegislature.gov ;
Peter Horvath	Pjh11503@yahoo.com ;
Steven MacDonald	Semacdonald124@outlook.com ;
Laurie MacDonald	Macdonalds6@cox.net ;
Lawrence Silvia	watchesetc@cox.net ;
Ed Sisk	ed@xlnorth.com ;
Jeff Loiter	jeff.loiter@gmail.com ;
Adam Fague (Statewide Planning)	Adam.fague@doa.ri.gov ;

**STATE OF RHODE ISLAND
ENERGY FACILITY SITING BOARD**

In re:

The Narragansett Electric Company

Aquidneck Island Gas Reliability Project

Old Mill Lane, Portsmouth, Rhode Island

EFSB Docket No. SB-2021-04

**MOTION OF THE NARRAGANSETT ELECTRIC COMPANY
FOR PROTECTIVE TREATMENT OF
CONFIDENTIAL INFORMATION**

The Narragansett Electric Company (the “Company”) hereby respectfully requests that the Energy Facility Siting Board (“EFSB” or “Board”) grant protection from public disclosure of certain confidential information submitted by the Company. The reasons for the protective treatment are set forth herein. The Company also requests that, pending entry of that finding, the EFSB preliminarily grant the Company’s request for confidential treatment.

Attachment RR 7-3 and Attachment RR 7-4 to the Company’s response to Record Request No. 7 (the “Confidential Attachments”) includes the Company’s equipment rental and contracted services costs for deployment and operation of portable LNG vaporization and injection equipment at its facility at Old Mill Lane as well as the estimated costs for the new garage structure. The disclosure of these costs could hamper the Company’s ability to negotiate advantageous pricing in the future.

I. LEGAL STANDARD

Rhode Island’s Access to Public Records Act (“APRA”), R.I.G.L. §38-2-1 *et. seq.*, sets forth the parameters for public access to documents in the possession of state and local government agencies. Under APRA, all documents and materials submitted in connection with the transaction of official business by an agency are 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.G.L. §38-2-2(4). Therefore, to the extent that information provided to the Board falls within one of the designated exceptions to APRA, the Board has the authority under the terms of APRA to deem such information to be 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 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.

The Rhode Island Supreme Court has also noted that the agencies making determinations as to the disclosure of information under APRA may apply a balancing test. *See Providence Journal v. Kane*, 577 A.2d 661 (R.I. 1990). Under this balancing test, after a record has been determined to be public, the Board may protect information from public disclosure if the benefit of such protection outweighs the public interest inherent in disclosure of information pending before regulatory agencies. *Kane*, 577 A.2d at 663 ("Any balancing of interests arises only after a record has first been determined to be a public record.").

II. BASIS FOR CONFIDENTIALITY

The confidential information contained in Attachment RR 7-3 is the itemized estimated costs for the various components of the potential garage structure to be built in Exeter. The disclosure of the cost breakdown could hamper the Company's ability to negotiate costs with contractors, especially as the Company explores options to reduce the costs from the initial estimate it has received. For that reason, the Company is seeking protective treatment of the itemized costs that would not typically be disclosed to the public.

The confidential information contained in Attachment RR 7-4 is sensitive pricing information that the Company would not ordinarily make public, and the contracts through which such prices were set contain confidentiality provisions. The disclosure of these negotiated pricing terms could hamper the Company's ability to negotiate favorable pricing terms for similar equipment rentals and contracted services in the future. For that reason, the Company has consistently sought and obtained protective treatment of the identified costs and does not publicly disclose the information.

Because the confidential information contained in the Confidential Attachments is not of a kind that would customarily be released to the public by the Company, the first prong of the *Providence Journal* test has been satisfied. *See Providence Journal*, 774 A.2d at 47.

III. CONCLUSION

For the foregoing reasons, the Company respectfully requests that the Board grant this motion for protective treatment of the confidential information contained in the Confidential Attachments. The Company has submitted redacted versions of the Confidential Attachments for the public record, and confidential versions subject to this motion for protective treatment.

[SIGNATURES ON NEXT PAGE]

Respectfully submitted,

**THE NARRAGANSETT ELECTRIC
COMPANY**

By its attorneys,



George W. Watson, III (#8825)
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Steven J. Boyajian (#7263)
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Tel. (401) 709-3359
Fax. (401) 709-3399
sboyajian@rc.com

Dated: May 16, 2024

CERTIFICATE OF SERVICE

I hereby certify that on May 16, 2024, I delivered a true copy of the foregoing Motion via electronic mail to the parties on the Service List for Docket No. SB-2021-04.

A handwritten signature in blue ink, reading "Heidi J. Seddon", is positioned above a horizontal line.

Heidi J. Seddon

The Narragansett Electric Company
Docket No. SB-2021-04
In Re: The Narragansett Electric Company Application for a
License to Mobilize and Operate a Liquefied Natural Gas (LNG)
Vaporization Facility at Old Mill Lane (Portsmouth, RI)
Responses to Record Requests
Issued at the EFSB's Final Hearings

Record Request 1

Request:

When was decision made to select Old Mill Lane as the permanent long term solution and reconcile this with the statement that it was not permanent.

Response:

The Company first submitted an application to the Energy Facility Siting Board ("EFSB") for a license to conduct winter season LNG operations at Old Mill Lane on May 19, 2021. This application was seeking a license to continue the current LNG operations with the equipment located near the fence line; however, this application was not for the long term solution. As noted in the Siting Report dated May 2021, the project was needed "until the preferred long-term solution is identified and in service."

The Company selected Old Mill Lane as the long-term solution in early fall of 2021.

On October 1, 2021, the Company submitted a Status Report to the EFSB that detailed the selection of the property at Old Mill Lane as the site for the long term solution. (See Attachment RR-1.) The Company immediately began engineering the Project, which is designed to mitigate the impacts of the original layout that is currently in use. The application for the Project, which is the long-term solution, was submitted to the EFSB on April 1, 2022.



GEORGE W. WATSON III

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and Connecticut

Via Hand Delivery

October 1, 2021

Emma Rodvien, Coordinator
Energy Facility Siting Board
89 Jefferson Boulevard
Warwick, RI 02888

**Re: The Narragansett Electric Company
(Portable LNG Vaporization Project Old Mill Lane, Portsmouth, RI)
EFSB Docket No. SB-2021-04
Monthly Report of The Narragansett Electric Company
Regarding Status of The Supplemental Application**

Dear Ms. Rodvien:

I am enclosing for filing on behalf of The Narragansett Electric Company an original and seven (7) copies of the Monthly Report of The Narragansett Electric Company Regarding Status of The Supplemental Application as required by the Energy Facility Siting Board's Order No. 150.

Very truly yours,

A handwritten signature in dark ink, appearing to read "George W. Watson III", written over a horizontal line.

George W. Watson III

Enclosure

Copy to: Docket SB-2021-04 Service List (by electronic mail)

22884034-v1

STATE OF RHODE ISLAND
ENERGY FACILITY SITING BOARD

In re: The Narragansett Electric Company :
(Portable LNG Vaporization Project : Docket No. SB-2021-04
Portsmouth, Rhode Island) :

MONTHLY REPORT OF THE NARRAGANSETT ELECTRIC COMPANY
REGARDING STATUS OF THE SUPPLEMENTAL APPLICATION
(OCTOBER 1, 2021)

This report of The Narragansett Electric Company (the “Company”) is filed with the Rhode Island Energy Facility Siting Board (“EFSB”) in response to the EFSB’s Order No. 150 dated September 17, 2021 in the above referenced docket which requires the Company to “...provide monthly reports describing the progress and status of the Company’s initiative to complete all that is needed to file the supplemental application.”

Progress Made:

1. Identification of Long-Term Solution.

The Company has progressed its analysis of the preferred long-term solution and has identified the seasonal and temporary operation of LNG at Old Mill Lane as a recommended solution for addressing the capacity constraint and capacity vulnerability needs on Aquidneck Island. The Company carefully examined several other alternatives, but its current assessment is that the alternatives are substantially more expensive, may require significant infrastructure investments, and do not offer the operational advantages provided by Old Mill Lane. The Company will provide the EFSB and the parties with a full analysis of its selection in the supplemental application to be submitted no later than April 4. The Company’s supplemental application for the continued use of Old Mill Lane will also explore a revised site design and layout in an effort to mitigate the visual and noise impacts from the seasonal operation of portable LNG equipment at the site.

2. Status of Pending Items.

The Company will be meeting with stakeholders over the next month to explain its recommendation and it looks forward to presenting its supplemental application to the EFSB in early 2022.

The Company’s preference of Old Mill Lane means that some of the analysis included in the present application will only require minor modifications. However, the Company is currently focused on the following issues related to the proposed new site design and the additional analyses requested by the EFSB to be included in the supplemental application:

- Continued study of noise impacts and mitigation with third-party consultant;

- Evaluation of visual mitigation, including bidding and procurement of perimeter wall/fence;
- Developing proposals for offering to purchase properties within the vicinity of the Old Mill Lane;
- Assessing methods of fugitive leak detection and monitoring;
- Evaluating any changes to public safety impacts from proposed new layout;
- Greenhouse gas analysis of Old Mill Lane and alternatives;
- Civil engineering and stormwater design;
- Revised environmental impact and permitting analyses of proposed new layout; and
- Estimating costs of potential new layouts and additional mitigation measures.

The Company will file its next status update on or before October 15, 2021.

The Narragansett Electric Company
Docket No. SB-2021-04
In Re: The Narragansett Electric Company Application for a
License to Mobilize and Operate a Liquefied Natural Gas (LNG)
Vaporization Facility at Old Mill Lane (Portsmouth, RI)
Responses to Record Requests
Issued at the EFSB's Final Hearings

Record Request 2

Request:

Who from the Company discussed renewal of the lease for the property? Please provide copies of letters and communication denying use of Navy property and indicate when these occurred?

Response:

Although discussions regarding the lease agreement have included various Company departments, it primarily has involved Rhode Island Energy External Affairs (Jacques Afonso and Brian Schuster) and Cornelia Mueller (Navy, Community Planning Liaison Officer), starting in early 2019.

On March 1, 2019, the Company met with the Navy to discuss modifying the existing lease and operating agreement, which limits the Company to use the property solely for peak shaving. Draft meeting notes were captured via email by Steve Greco (National Grid Director Pressure Regulation). Please see Attachment RR 2-1. The email lists both Navy and Company attendees.

Following the March 1, 2019 meeting, the Company focused on amending the existing lease and operating agreement. On September 3, 2019, the request to modify the existing lease was denied by the Navy. Please see Attachment RR 2-2. Later in 2019, the Navy verbally indicated that they would not be renewing the lease agreement², which expires in 2026. In 2023, it was discovered that the new headquarters for the NOAA Marine Operations Center-Atlantic was moving to Naval Station Newport and its construction would utilize the Company's leased property, which would ultimately be used by the Coast Guard.

Although denial for renewing the lease was verbal, there is an email between the Company and the Navy dated August 3, 2021, which indicates that the Navy is interested in terminating the lease early. Please see Attachment RR 2-3.

The Navy has indicated it can provide a formal written indication that the lease will not be renewed.

Seddon, Heidi

From: Jacques Afonso (RI Energy) <JRAfonso@rienergy.com>
Sent: Thursday, May 9, 2024 9:33 AM
To: Afonso, Jacques R
Subject: FW: Old Mill Lane & Naval Base Update

From: Greco, Stephen P. <Stephen.Greco@nationalgrid.com>
Sent: Friday, March 1, 2019 3:07 PM
To: Afonso, Jacques R. <Jacques.Afonso@nationalgrid.com>; Schuster, Brian E. <Brian.Schuster@nationalgrid.com>
Subject: Old Mill Lane & Naval Base Update

Here are my minutes from today's meeting. Please review, correct, and send back to me for archival.

Attendees: Commander Steve Lepper US Navy, Brian Schuster, Dan Sullivan US Navy - Facilities Development Head, Jim Carlson – US Navy – spoke about existing Operating Agreement, Jacques Afonso, Mike Di NEzza – Real Estate, Cornelis Mueller – community planning officer, Bill Norton – US Navy – Head of Security, Kathy Sullivan – LNG Ops, Steve Greco, Jay Costa

Attended via phone: Tom Smith, Pat Wong

Key Points:

- Amending the existing lease will be the next step. The amended lease will clarify the number of truck/transport units that might be needed on a daily basis and will clarify that National Grid is not proposing to add permanent storage to the facility. (an LNG tank)
- The current vetting process is to remain in place to allow employees and contractors to access the base. This requires filling out a form and submitting the info to the Navy for background checking.
- Gate 17 is not open during nights and weekends but if emergency operations require lng transports to access the site, we are to contact US Navy Security for assistance in opening Gate 17
- National Grid can proceed to perform maintenance and repairs to the existing equipment using "vetted" personnel immediately. They also indicated that they would allow us to bring in and LNG transport and test the equipment.

- The Navy is open to National Grid filing a request to renew the current lease in the near future, and encourages National Grid to begin this process early as it will move slowly. It requires approval from Virginia.
- The Navy will work out a process to address unvetted contractors' personnel during emergencies.
- The meeting at the Naval Base went well. We met with the chief of security and he was supportive.
- The legal team will need to modify the existing lease and start the process of making the transition from winter peak shaving operation to 365 day operation.
- In the meeting, I learned that the Company had a Operating Agreement filed with the Navy to address maintenance and operations issues that fall outside of the lease. Jacques Afonso will locate the document.
- The ISS visits (Admiral) occur every 2 years and are scheduled. In an emergency, there can be site access during the ISS visit, however, this requires assistance from the head of Naval security, Bill Norton. We should try to avoid doing this. The schedule can be obtained from Cornelius Mueller. (check spelling).
- Bill Norton was very much on board with helping National Grid work out the process and mentioned that some of his personnel were affected by the recent gas outage on Aquidneck.

Steve Greco, P.E.
Director Pressure Regulation, LNG & CNG Assets
917 418 1238



DEPARTMENT OF THE NAVY

NAVAL STATION NEWPORT
690 PEARY STREET
NEWPORT, RHODE ISLAND 02841-1622

79
Sep 2019

IN REPLY REFER TO:

11000

Ser PRR 12/448

SEP 03 2019

Mr. Jacques Afonso
National Grid
Manager, Community & Customer Management, RI
280 Melrose Street
Providence, RI 02907

SUBJECT: LEASE MODIFICATION REQUEST

I have reviewed your proposed amendment to the operating agreement and modification to the lease for the LNG facility at Naval Station Newport. At this time I cannot commit to the proposed modifications to the lease contract and signed operating agreement, but I remain fully committed to their original provisions. It is my intention to continue to remain fully engaged with National Grid to navigate any challenges that arise, particularly during times of emergency "Critical Operations" or other major events that could potentially result in the loss of gas service to Aquidneck Island.

Your letter of October 17, 2018 also requested Navy participation in discussions to extend the lease and operating agreement beyond 2026. Please engage with my staff on issues related to possible extension.

My point of contact on this issue is Ms. Cornelia Mueller at (401) 841-7629.

Sincerely,

I. L. JOHNSON
Captain, U.S. Navy
Commanding Officer

Seddon, Heidi

From: Jacques Afonso (RI Energy) <JRAfonso@rienergy.com>
Sent: Tuesday, April 23, 2024 8:32 PM
To: Afonso, Jacques R
Subject: FW: EXT || LNG Lease Exit Requirements

-----Original Message-----

From: Mueller, Cornelia A CIV USN NAVFAC MIDLANT NOR (USA) <cornelia.a.mueller.civ@us.navy.mil>
Sent: Thursday, April 14, 2022 1:09 PM
To: Afonso, Jacques R. <Jacques.Afonso@nationalgrid.com>
Subject: RE: EXT || LNG Lease Exit Requirements

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe. If you suspect this email is malicious, please use the 'Report Phish' button.

I just looked at this and I have a meeting with the captain at the same time. I don't necessarily need to be at the meeting. Has anyone accepted the invite from the Navy side?

V/r,
Cornelia

Cornelia Mueller
Community Planning Liaison Officer
Naval Station Newport
1 Simonpietri Drive
Newport, RI 02841
401-330-6355

NEW EMAIL
cornelia.a.mueller.civ@us.navy.mil

-----Original Message-----

From: Afonso, Jacques R. <Jacques.Afonso@nationalgrid.com>
Sent: Wednesday, April 13, 2022 4:20 PM
To: Mueller, Cornelia A CIV USN NAVFAC MIDLANT NOR (USA) <cornelia.a.mueller.civ@us.navy.mil>
Subject: [Non-DoD Source] RE: EXT || LNG Lease Exit Requirements

Hi Cornelia,
I just sent a meeting invite for this Friday with those you listed/cc'd below.
Regards,
Jacques

-----Original Message-----

From: Mueller, Cornelia A CIV USN NAVFAC MIDLANT NOR (USA) <cornelia.a.mueller.civ@us.navy.mil>
Sent: Thursday, March 24, 2022 2:29 PM
To: Afonso, Jacques R. <Jacques.Afonso@nationalgrid.com>
Cc: Carlson, James F CIV USN NAVFAC MIDLANT NOR (USA) <james.f.carlson1.civ@us.navy.mil>; Bettencourt, Amanda I CIV USN NAVFAC MIDLANT NOR (USA) <amanda.i.bettencourt.civ@us.navy.mil>; Vachon, Christopher (Chris) CIV USN NAVFAC MIDLANT NOR (USA) <christopher.vachon.civ@us.navy.mil>; Queripal, Brian J CIV USN NAVFAC MIDLANT NOR (USA) <brian.j.queripal.civ@us.navy.mil>; Galenski, Brian J CIV USN NAVFAC MIDLANT NOR

(USA) <brian.j.galenski.civ@us.navy.mil>; Simmons, Brian D CIV USN NAVFAC MIDLANT NOR (USA)
<brian.d.simmons24.civ@us.navy.mil>
Subject: RE: EXT || LNG Lease Exit Requirements

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe. If you suspect this email is malicious, please use the 'Report Phish' button.

Jacques,

I have cc'd individuals who should either attend or will know who should attend.

V/r,
Cornelia

Cornelia Mueller
Community Planning Liaison Officer
Naval Station Newport
1 Simonpietri Drive
Newport, RI 02841
401-330-6355

NEW EMAIL
cornelia.a.mueller.civ@us.navy.mil

-----Original Message-----

From: Afonso, Jacques R. <Jacques.Afonso@nationalgrid.com>
Sent: Thursday, March 24, 2022 1:44 PM
To: Mueller, Cornelia A CIV USN NAVFAC MIDLANT NOR (USA) <cornelia.a.mueller.civ@us.navy.mil>
Subject: [URL Verdict: Neutral][Non-DoD Source] RE: EXT || LNG Lease Exit Requirements

Hi Cornelia,
Can we setup a call to discuss the LNG Leased property and turning off the electric and gas?
Please let me know who should be on the call.
Hope all is well.
Regards,
Jacques

Jacques R Afonso
Manager, Community & Customer Management, RI nationalgrid
280 Melrose Street
Providence, RI 02907
Office:401-784-4320
Mobile:401-447-5789
E-mail:Jacques.Afonso@nationalgrid.com

-----Original Message-----

From: Mueller, Cornelia A CIV USN NAVFAC MIDLANT NOR (USA) <cornelia.a.mueller.civ@us.navy.mil>
Sent: Thursday, March 3, 2022 2:10 PM
To: Afonso, Jacques R. <Jacques.Afonso@nationalgrid.com>
Subject: RE: EXT || LNG Lease Exit Requirements

I sent an email out. I suggested an hour meeting in two weeks between you and us to coordinate. I also sent out a separate email regarding our need to use the space.

V/r,
Cornelia

Cornelia Mueller
Community Planning Liaison Officer
Naval Station Newport
1 Simonpietri Drive
Newport, RI 02841
401-330-6355

NEW EMAIL
cornelia.a.mueller.civ@us.navy.mil

-----Original Message-----

From: Afonso, Jacques R. <Jacques.Afonso@nationalgrid.com>
Sent: Thursday, March 3, 2022 10:01 AM
To: Mueller, Cornelia A CIV USN NAVFAC MIDLANT NOR (USA) <cornelia.a.mueller.civ@us.navy.mil>
Subject: [Non-DoD Source] RE: EXT || LNG Lease Exit Requirements

Hi Cornelia,
I just wanted to get the conversation going again regarding the LNG leased property. The previous email below was the last time we had talked about it.

I just spoke with the LNG gas ops supervisor about the NGRID LNG site and want to share the following update.

This Spring (approx. April 2022): Turn off gas and electric to site.

- Operations wants to turn off the gas to the NGRID leased property. This involves us turning off a curve valve and then purging the gas line of gas.
- The team might also want to turn off the electricity to the site. More to come on this.
- QUESTION - With turning off both electric and gas, do we need to coordinate with Navy Security or Fire Dept? I believe we have sensors/alarms at the property and we want to make sure we coordinate with the appropriate Navy personnel.

Next Year (2023) - fully close/remove equipment from the site.

- Based on our last email below, the team will be putting together a plan and will send it to the Navy.
- Is the Navy still interested in gaining access to the property earlier?

The 2023 date is not definite but if the Navy has interest and our budget/constr schedule aligns, we might have an opportunity. Please note this is just me thinking out loud. I would still need to review with others and get proper approval.

I hope all is well.

Regards,
Jacques

Jacques R Afonso
Manager, Community & Customer Management, RI nationalgrid
280 Melrose Street
Providence, RI 02907
Office:401-784-4320
Mobile:401-447-5789
E-mail:Jacques.Afonso@nationalgrid.com

-----Original Message-----

From: Mueller, Cornelia A CIV USN NAVFAC MIDLANT NOR (USA) <cornelia.a.mueller.civ@us.navy.mil>
Sent: Tuesday, August 3, 2021 10:44 AM
To: Afonso, Jacques R. <Jacques.Afonso@nationalgrid.com>
Subject: EXT || LNG Lease Exit Requirements

Hi Jacques,

The Narragansett Electric Company
Docket No. SB-2021-04
In Re: The Narragansett Electric Company Application for a
License to Mobilize and Operate a Liquified Natural Gas (LNG)
Vaporization Facility at Old Mill Lane (Portsmouth, RI)
Responses to Record Requests
Issued at the EFSB's Final Hearings

Record Request 3

Request:

Did you use a different depreciation rate in the PUC docket? If not, can you provide a calculation of the impact on ratepayers.

Response:

Regardless of the estimated useful life of equipment purchased for use at Old Mill Lane, the depreciation rate would be the same depreciation rate used by the Company in RIPUC Docket No. 22-42-NG. Please see the Company's response to Division 3-3 in RIPUC Docket No. 22-42-NG, provided as Attachment RR-3, which describes the depreciation rate used in calculating the revenue requirement and bill impacts in that docket.

The Narragansett Electric Company
RIPUC Docket No. 22-42-NG
In Re: The Issuance of Advisory Opinion to the
Energy Facility Siting Board Regarding
The Narragansett Electric Company
Application to Construct and LNG Vaporization Facility on
Old Mill Lane, Portsmouth, Rhode Island
Responses to the Division's Third Set of Data Requests
Issued on March 17, 2023

Division 3-3

Request:

Re: Witness Brigg's Direct Testimony at page 5, lines 14-15. Please identify the estimated useful life for the Aquidneck Island LNG Project that was used in computing bill impacts and identify the projected salvage value of LNG vaporization equipment at the end of the period that the LNG vaporization equipment is expected to be operated on Aquidneck Island.

Response:

The revenue requirement and associated bill impacts presented in Witness Briggs' testimony is for the Old Mill Lane site work project and for calculation of the revenue requirement and bill impacts, it was assumed to be recovered through the Gas ISR plan until the next base distribution rate case. The revenue requirement in the annual Gas ISR plan uses a Composite Book Depreciation Rate approved in the Company's last base distribution rate case (RIPUC Docket No. 4770, which was effective September 1, 2018) based on the depreciation study in that case, which included a projection of net salvage value. If the Old Mill Lane site work is placed in service prior to the next base distribution rate case, the assets will be included in rate base and the depreciation expense will be based on the approved depreciation rates (including net salvage value) in that filing for the applicable plant accounts.

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Record Request 4

Request:

Please explain what the impacts would be, i.e. – permanent loss of habitat/ permanent wetlands alterations/ permanent loss of wetlands functions/ permanent loss of wetland values to supplement the statement that “construction will include temporary and permanent impacts to wetland resources but has been designed in a manner that minimizes impacts to the maximum extent feasible.” at page 28 of April 1, 2022 Siting Report.

Response:

The Project will permanently impact approximately 8,485 square feet (“SF”) (0.19 acres) of biological wetland and approximately 32,710 SF (0.75 acres) of Perimeter Wetland. The Project footprint was reduced subsequent to the original design following direction from the RIDEM Freshwater Wetland Program, which resulted in an approximately 50 percent reduction in biological wetland impact.

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Record Request 5

Request:

Please provide information about what the in-situ mitigation will include, when it will be undertaken, when it will be complete, and how the company will measure success of the mitigation as indicated to supplement the statement that “Temporary impacts will be mitigated in-situ after concluding civil construction.” at page 28 of April 1, 2022 Siting Report.

Response:

Mitigation measures that have been incorporated into the project design include the following:

1. Use of native woody and nonwoody plantings to soften the Project transition at the proposed wet basin to not only uptake and retain nutrients and pollutants but to return a measure of wildlife habitat and aesthetic value.
2. Implementation of a Soil Erosion and Sediment Control Plan (“SESC”) prepared specifically for the Project to specify and outline best management practices for soil erosion and sediment control during construction activities, in conformance with the Rhode Island Pollutant Discharge Elimination System Construction General Permit, RI Stormwater Rules, and RISESC Handbook.
3. Use of stormwater Best Management Practices to manage and treat storm flows to protect water quality and adjacent wetlands.
4. Avoided using impervious drive surfaces and instead uses a permeable drive surface to encourage infiltration.
5. Retention of a woody fringe along the west and south sides of the Project site, along the marsh.
6. Use of noise attenuation barriers on three sides of the area that will house the glycol vaporizers.

The measures will be incorporated into the project design and the start time is contingent on the issuance of the project permits. Those areas of wetland within the project proposed limit of disturbance, which occur beyond those hard features associated with the design, are only needed for construction of the facility. Once construction is completed, these wetlands areas would be restored in kind by restoring original grade, installing wetland topsoil where needed, reseeding with a native wetland seed mix, and then mulching with straw or cellulose mulch to stabilize the

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Record Request 5, Page 2

soils as appropriate to return such areas to pre-construction conditions. Temporary sedimentation control devices shall be removed following the stabilization of disturbed areas (disturbed soils are considered stabilized when they achieve a minimum of 75 percent vegetative cover).

During the construction and restoration phases, an Environmental Monitor will be retained to perform periodic inspections. The primary responsibility of the Environmental Monitor will be to oversee mobilization and operation activities, including the installation and maintenance of erosion and sediment controls, on a routine basis to ensure compliance with federal and state permit requirements and the Company's policies. The Environmental Monitor will be a trained environmental scientist responsible for supervising mobilization activities relative to environmental issues. The Environmental Monitor will be experienced in the erosion control techniques described on the Project plans and in the SESC Plan and will have an understanding of freshwater wetlands regulation and protection.

During periods of prolonged precipitation, and as stipulated in the SESC Plan, the monitor will inspect all locations to confirm that the environmental controls are functioning properly. In addition to retaining the services of an Environmental Monitor, the contractor will be required to designate an individual to be responsible for the daily inspection and upkeep of environmental controls. This person will also be responsible for providing direction to the other members of the crew regarding matters of wetland access and appropriate work methods. Additionally, all Project personnel will be briefed on Project environmental compliance issues and obligations prior to the start of mobilization. Regular project progress meetings will provide the opportunity to reinforce the contractor's awareness of these issues.

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Record Request 6

Request:

Please provide information about what the compensatory mitigation will include, when it will be undertaken, when it will be complete, and how the company will measure success of the mitigation to supplement the statement “Where permanent wetland impacts cannot be avoided, TNEC is prepared to provide compensatory mitigation, as required for United States Army Corps of Engineers (USACE) and RIDEM permitting.” at page. 28-29 of April 1, 2022 Siting Report.

Response:

The Company acknowledges the permanent wetland displacements (± 0.19 total acres of biological wetland) required for the Project and proposes to provide compensatory mitigation measures in addition to those measures incorporated into the Project design. The opportunity to provide mitigation in the form of creating new wetlands immediately adjacent to the proposed impact areas is limited, given that most remaining portions of the property currently exist as wetland. Consequently, the Company proposes offset mitigation, comprising measures that are removed from the Project site and that are not “in-kind” replacements of the wetland to be displaced, but that are expected to provide direct wetland-related benefits none-the-less, as described below.

Wetland Restoration/Enhancement on AP 68, Lot 74 Portsmouth

The westernmost portion of the on-site impacted Wetland 1, west of Little Creek and on the Project property, exists as maintained lawn underlain by hydric soils. Field delineation of the wetland edge (Flags 1-200 through 1-213) was based on the presence of hydric soils and subsurface hydrologic indicators, and aerial imagery indicates that the area formerly existed in a field cover type. The Company proposes to enhance this area by ceasing all mowing activities and planting a native assemblage of trees, shrubs, and non-woody vegetation, as depicted on Plan Sheet 9 of 10. The species selected were based on those observed and recorded for the adjacent wetland. The area will be slice seeded with a native, herbaceous, New England wetland seed mix, planted with the woody species specified on the planting plan, demarcated with a cedar split-rail fence or similar, and left to naturalize. The proposed area of restoration/enhancement will be $\pm 24,000$ square feet (± 0.55 acres) and will be located within the same wetland as the proposed Project impact areas. See Attachment RR 6-1 - Old Mill Lane Wetland Mitigation/Enhancement Plan last dated November 15, 2023.

As noted in the Company's response to Record Request 5, the measures will be incorporated into the project design and the start time is contingent on the issuance of the project permits. The

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Record Request 6, Page 2

Wetland Restoration/Enhancement Area plantings would be expected to be completed at the beginning of the Project construction and would be monitored throughout the expected multi-year construction and restoration phases of the Project. Observations of both natural succession and planting survivorship will be noted and where planting mortality occurs, the Project will replace those plant materials within a two-year period of their installation. Survivorship of the planted materials for the multi-year construction and restoration phases of the project would be considered successful reestablishment of native wetland plants.

Land Preservation at the Jepson Substation Site AP 111, Lot 49 Middletown

Remote to the Project property, the Company proposes to preserve ± 7.33 acres behind the new Jepson Substation on Jepson Lane in Middletown. The proposed preservation site is located in Middletown between the new Jepson Substation at 451 Jepson Lane west to a residential subdivision (Pasture Farm Drive). See Attachment RR 6-2 - Figure 9-2. One parcel comprises the site, identified as AP 111, Lot 49 in Middletown. As partial offset mitigation for the Project, the Company will enter into the necessary legal agreements to preserve the property as conservation land.

SEEDING NOTES

1. NEW ENGLAND WETMIX TO BE USED WITHIN FLAGGED WETLAND AND INSTALLED VIA SLICE SEEDING.

FROM NEW ENGLAND WETLAND PLANTS, INC. AMHERST, MASSACHUSETTS

SEEDING: ALWAYS APPLY ON CLEAN BARE SOIL. THE WETLAND SEEDS IN THIS MIX CAN BE HAND SOWN, USED WITH A HAND-HELD SPREADER, OR HYDRO-SEEDED ON LARGE OR HARD TO REACH SITES, AS LONG AS THERE IS NO PERMANENT SNOW COVER. LIGHTLY RAKE TO ENSURE PROPER SOIL-SEED CONTACT. SEEDING CAN TAKE PLACE ON FROZEN SOIL, AS THE FREEZING, THAWING WEATHER OF LATE FALL AND LATE WINTER WILL WORK THE SEED INTO THE SOIL. IF SPRING CONDITIONS ARE DRIER THAN USUAL, WATERING MAY BE REQUIRED. IF PLANTING DURING THE SUMMER MONTHS, WATERING MAY BE REQUIRED FOR AT LEAST 2-3 WEEKS AFTER PLANTING TO ENSURE GERMINATION. A NON-INVASIVE ANNUAL SUCH AS WINTER RYE MAY BE ADDED TO THE MIX TO OBTAIN SOIL STABILIZATION COVER IN THE FALL. DO NOT ADD ANNUAL RYEGRASS, KENTUCKY BLUEGRASS OR PERENNIAL RYEGRASS AS THESE SPECIES ARE VERY AGGRESSIVE AND THEY WILL INHIBIT THE GROWTH OF THE WETLAND SEEDS. A LIGHT MULCH OF CLEAN, WEED FREE STRAW IS RECOMMENDED.
NOTE: SEEDS WILL NOT GERMINATE UNDER INUNDATED CONDITIONS. NOT ALL SPECIES WILL GROW IN ALL WETLAND SITUATIONS.

APPLICATION RATE: 1 LB/2500 SQ. FT.

TYPICAL SPECIES: FOX SEDGE (CAREX VULPINOIDEA), SALLOW SEDGE (CAREX LURIDA), BROOM SEDGE (CAREX SCOPARIA), SENSITIVE FERN (ONOCLEA SENSIBILIS), BLUE VERVAIN(VERBENA HASTATA), HOP SEDGE (CAREX LUPULINA), DARK-GREEN BULRUSH (SCIRPUS ATROVIRENS), NODDING BUR-MARIGOLD (BIDENS CERNUA), BRISTLY SEDGE (CAREX COMOSA), FRINGED SEDGE (CAREX CRINITA), TALL MANNAGRASS (GLYCERIA GRANDIS), WOOL-GRASS (SCIRPUS CYPERINUS), SOFT RUSH (JUNCUS EFFUSUS), SPOTTED JOE-PYE-WEED (EUTROCHIUM MACULATUM), BONESET (EUPATORIUM PERFOLIATUM), AMERICAN WATER-PLANTAIN (ALISMA SUBCORDATUM), NEW ENGLAND ASTER (SYMPHYOTRICHUM NOVAE-ANGLIAE), RATTLESNAKE MANNAGRASS (GLYCERIA CANADENSIS), PURPLE-STEM ASTER (SYMPHYOTRICHUM PUNICEUM), SOFT-STEMMED BULRUSH (SCHOENOPLECTUS TABERNAEMONTANI), BLUEFLAG (IRIS VERSICOLOR), SWAMP MILKWEED (ASCLEPIAS INCARNATA), AND ALLEGHENY MONKEY-FLOWER (MIMULUS RINGENS).

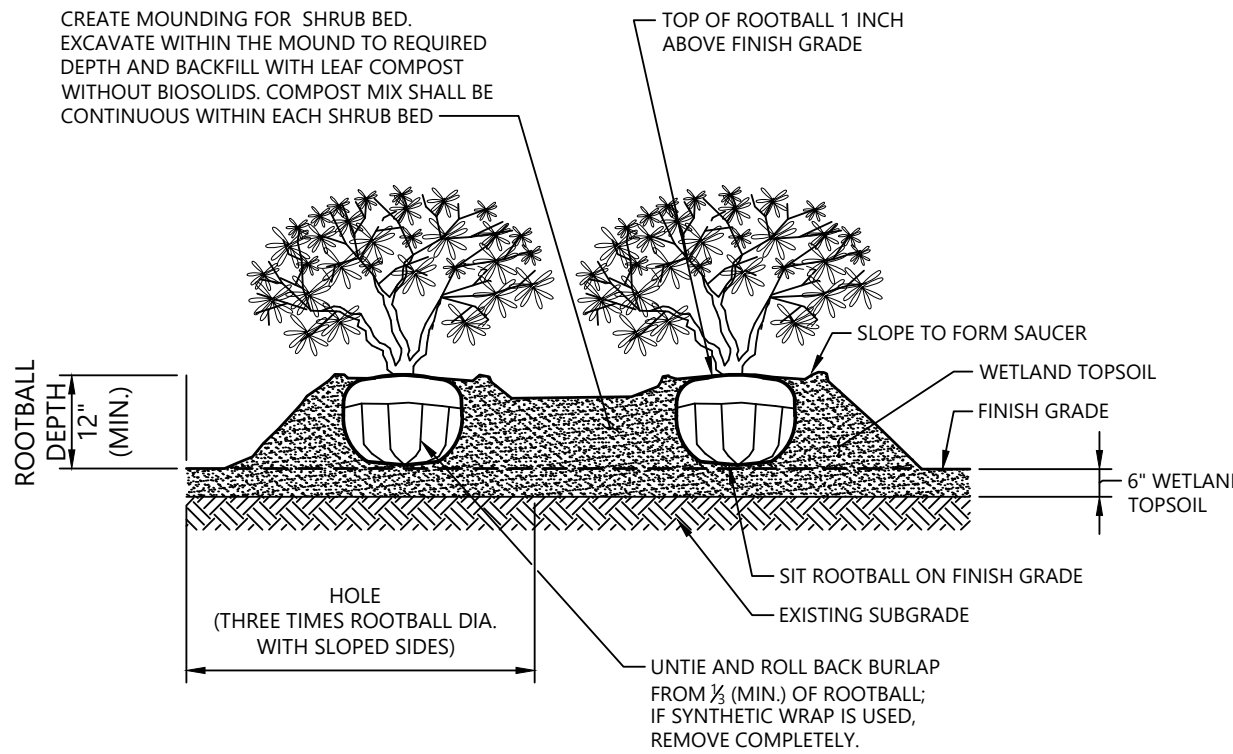
2. SEED MIX TO BE USED IN THE 50-FOOT PERIMETER WETLAND WILL BE COMPRISED OF A NATIVE POLLINATOR MIX.

Recommended Pollinator Habitat Seed Mix Table

Common name	Scientific name	Percent composition
Little Bluestem	Schizachyrium scoparium	35.0%
Sundial Lupine	Lupinus perennis	15.0%
Partridge Pea	Chamaecrista fasciculata	15.0%
Round-head Bush Clover	Lespedeza capitata	11.0%
Wild Bergamot	Monarda fistulosa	10.0%
Butterfly Milkweed	Asclepias tuberosa	10.0%
Hyssop-leaved Thoroughwort	Eupatorium hyssopifolium	1.1%
Showy Goldenrod	Solidago speciosa	1.0%
Gray Goldenrod	Solidago nemoralis	1.0%
Blue Wood (Heartleaf) Aster	Symphyotrichum cordifolium	0.5%
False Indigo	Baptisia tinctoria	0.2%
New York Ironweed	Vernonia noveboracensis	0.2%

APPLY POLLINATOR MIX AT 5LBS/ACRE.

NOTE: THIS MIX MAY BE VARIED BASED ON SEED AVAILABILITY. THE ADDITION OF OTHER NATIVE SPECIES, INCLUDING GRASSES IS ENCOURAGED. THE MIX SHALL PRODUCE A HIGH QUALITY PERENNIAL MIX THAT IS HIGHLY ATTRACTIVE TO POLLINATORS. USE SLICE SEEDING TO INSTALL THE SEED.

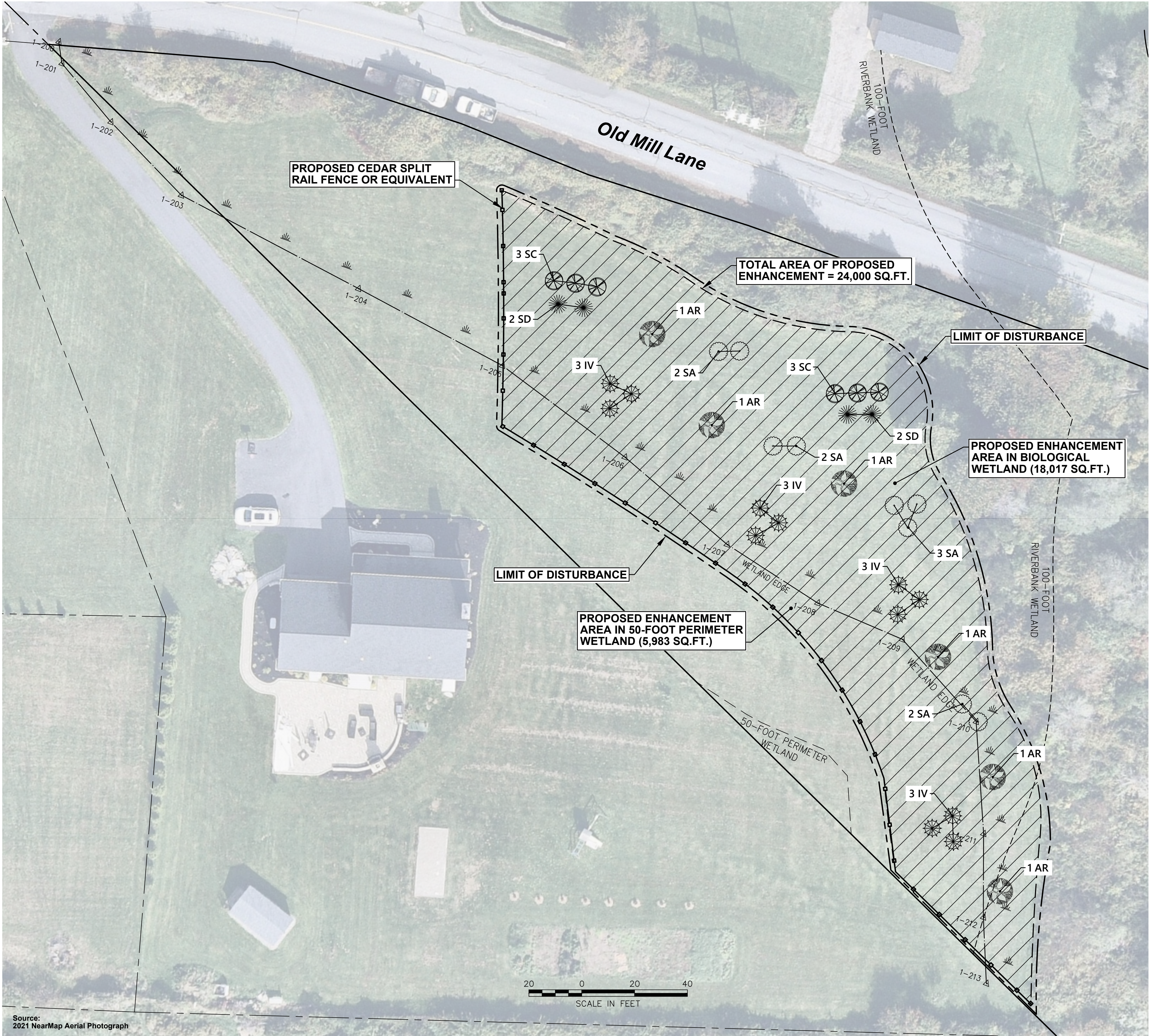


NOTES

1. LOOSEN ROOTS AT THE OUTER EDGE OF ROOTBALL OF CONTAINER GROWN SHRUBS.

Shrub Planting

N.T.S. Source: VHB LD_601R



SHRUBS	SCIENTIFIC NAME	COMMON NAME	SIZE	QUANTITY
IV	Ilex verticillata	Winterberry	2 - 3' Height	12
SC	Sambucus canadensis	American Elderberry	2 - 3' Height	6
SD	Salix discolor	Pussy Willow	2 - 3' Height	4
SA	Swida anomum	Silky Dogwood	2 - 3' Height	9
TREES	SCIENTIFIC NAME	COMMON NAME	SIZE	QUANTITY
AR	Acer rubrum	Red Maple	3' Height	6

Legend	
	Verified Wetland Flag
	Verified Wetland Edge
	50' Perimeter Wetland
	100' Riverbank Wetland
	Proposed Enhancement Area
	Proposed Cedar Split Rail Fence or Equivalent
	Proposed Limit of Disturbance

Old Mill Lane Wetland Mitigation/Enhancement Plan

Old Mill Lane
Portsmouth, Rhode Island

No.	Revision	Date	Appr'd.
1	RESPONSE TO RIDEM'S DEC. 12, 2022 COMMENTS	09-29-2023	
2	RIDEM COMMENT RESPONSE	11-15-2023	

Designed by	Checked by

Issued for: RIDEM Application to Alter Freshwater Wetlands Date: 6-22-2022

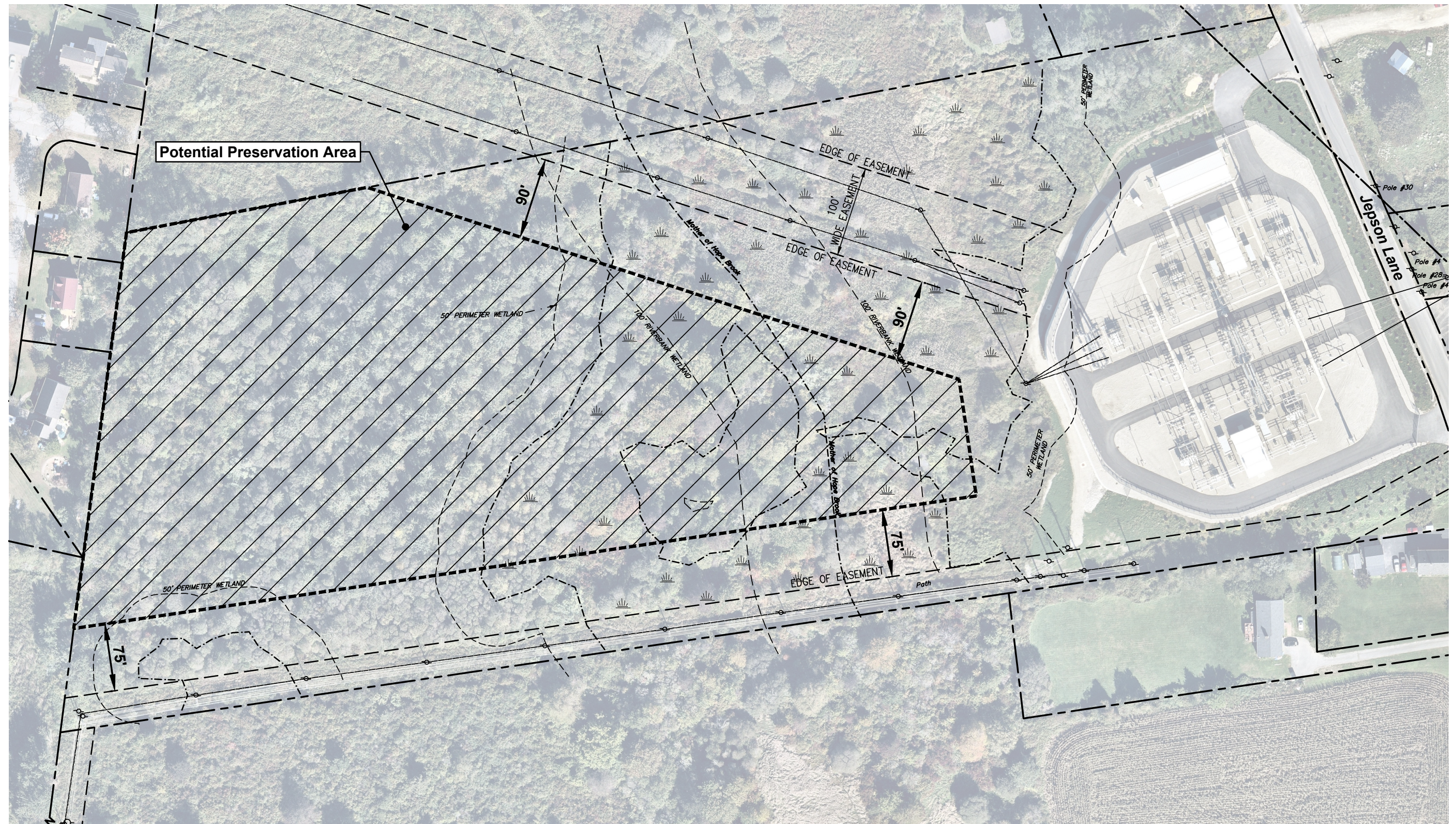
Drawing Title
Planting Plan
Drawing Number

P-1

Sheet of
SHEET
7 of 8

Project Number
73195.00

\\hbl\gb\proj\Providence\73195.00\Graphics\FIGURES\App to Alter\Jepson Preservation Area_Fig 9-2.dwg



Source:
2021 NearMap Aerial Photograph



POTENTIAL PRESERVATION AREA

TOTAL AREA	319,222 SQ.FT
UPLAND AREA	187,739 SQ.FT
FLAGGED WETLAND AREA	79,057 SQ.FT
50-FOOT PERIMETER WETLAND/ 100-FOOT RIVERBANK WETLAND AREA	52,426 SQ.FT

*ALL AREAS ARE APPROXIMATE



Figure 9-2
Jepson Lane Potential Preservation Area
The Narragansett Electric Company
Aquidneck Island Gas Reliability Project
Old Mill Lane
Portsmouth, RI

The Narragansett Electric Company
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Record Request 7

Request:

Create a schedule that itemizes all the capital costs of the project. Please separately identify each component that is equal to or greater than \$1 million. Please include within the estimate a high level, best estimate of the cost of the proposed garage at the Exeter location that is being considered to house the Old Mill Lane vaporization equipment when not deployed.

Response:

Please refer to the following attachments:

- Attachment RR 7-1 (Old Mill Lane Estimate for Capital Cost Items)
- Attachment RR 7-2 (Site Work Estimate)
- Attachment RR 7-3 (LNG Equipment Storage Garage Estimate)
- Attachment RR 7-4 (Cost Analysis for Purchasing Equipment versus Leasing).

Please note that Attachments RR-7-3 and RR-7-4 contain commercially sensitive confidential information. Therefore, the Company has submitted redacted versions of these attachments as well as unredacted confidential versions subject to a motion for protective treatment.

Old Mill Lane Estimate for Capital Cost Items

Item	Assumption	Cost	Comment
Site Work	Labor and improvements necessary to relocate the vaporization operation further back into lot. (See SB-2021-04-RR 7-2)	\$12,649,304	Estimate for project sitework to use facility in the proposed larger footprint
Purchase of Vaporizing Equipment	Purchase new portable LNG storage tanks & vaporizers (in lieu of annual leasing)	\$12,500,000	Quote from August 2023 with 12.5% contingency added for expected inflation and manufacturing labor
Sound Wall	Purchase and Construction of Sound Wall not included in original estimate	\$517,000	Estimate comprised of quotation from Acoustibloc vendor for materials as well as RIE construction estimate template to erect
Subtotal:		\$25,666,304	Project estimate for sitework and new equipment purchase
LNG Equipment Storage Garage	Off season / offsite storage garage to store LNG tankers and vaporizers when not in use. Proposed to be located at Exeter LNG Plant. (In lieu of annual leasing. (See SB-2021-04-RR 7-3))	\$7,796,025	This is a preliminary estimate and the Company is discussing design options for a lower cost Architect's estimate includes a 30% RIE contingency for undeveloped costs & 25% capital overheads
Total (include offsite storage garage):		\$33,462,329	Project estimate for sitework, new equipment purchase, and potential offsite storage garage. The Company is discussing options for lower cost storage options

Old Mill Lane Estimate Assumptions

Item	Assumption	Cost
Labor	Internal Labor to support Project	\$750,000
Civil Improvements	Vegetation removal, grading, gas main relocation, manifold relocation, environmental features, site infrastructure, fencing, paving	\$937,500
Process Systems	Pipe racks, vaporizers, trucking, liquid processing equipment	\$823,215
Nitrogen	Nitrogen for purging	\$150,000
Security	On-site 24 hour	\$150,000
Plant Improvements	Electrical, above ground hard pipe to reduce use of hoses.	\$225,000
SUBTOTAL:		\$3,035,715
Field Labor	In-house labor to support field work for project. Field Construction Contractor, Field Supervision, Pressure Regulation, LNG Ops, Field Ops, Project Management, Engineering support, In-house Environmental, Contracted Environmental, Legal	\$4,026,000
SUBTOTAL		\$7,061,715
Capital Burdens	24% Capital burden	\$1,694,812
AFUDC	Funds used during Construction	\$284,587
SUBTOTAL		\$9,041,114
Contingency - 30%		\$2,712,334
TOTAL PROJECT COST		\$11,753,448
Escalation 3.5%		\$411,371
SUBTOTAL		\$12,164,818
P50 Unidentified risk		\$2,432,963.67
Final Estimate		\$14,597,782

Old Mill Lane Estimate Assumptions w/ LNG Winter Ops Subtracted

Item	Assumption	Cost
Labor	Internal Labor to support Project	\$750,000
Civil Improvements	Vegetation removal, grading, gas main relocation, manifold relocation, environmental features, site infrastructure, fencing, paving	\$937,500
Process Systems	Pipe racks, vaporizers, trucking, liquid processing equipment	\$0
Nitrogen	Nitrogen for purging	\$150,000
Security	On-site 24 hour	\$0
Plant Improvements	Electrical, above ground hard pipe to reduce use of hoses.	\$225,000
SUBTOTAL:		\$2,062,500
Field Labor	In-house labor to support field work for project. Field Construction Contractor, Field Supervision, Pressure Regulation, LNG Ops, Field Ops, Project Management, Engineering support, In-house Environmental, Contracted Environmental, Legal	\$4,026,000
SUBTOTAL		\$6,088,500
Capital Burdens	24% Capital burden	\$1,461,240
AFUDC	Funds used during Construction	\$284,587
SUBTOTAL		\$7,834,327
Contingency - 30%		\$2,350,298
TOTAL PROJECT COST		\$10,184,625
Escalation 3.5%		\$356,462
SUBTOTAL		\$10,541,087
P50 Unidentified risk		\$2,108,217.40
Final Estimate		\$12,649,304

REDACTED

Old Mill Lane Estimate for LNG Equipment Storage Garage

Item	Assumption	Cost
Concrete	Preliminary	
Metals	Preliminary	
Woods, Plastics, Composites	Preliminary	
Thermal & Moisture Protection	Preliminary	
Openings	Preliminary	
Finishings	Preliminary	
Specialties	Preliminary	
Equipment	Preliminary	
Fire Suppression	Preliminary	
Plumbing	Preliminary	
HVAC	Preliminary	
Electrical	Preliminary	
Communications	Preliminary	
Earthwork	Preliminary	
Exterior Improvements	Preliminary	
Utilities	Preliminary	
Garage Materials & Labor Subtotal:		
General Conditions Requirements		
Overhead & Profit		
Design & Estimation Contingency		
Garage Miscellaneous Subtotal:		
Architect's Estimate Total:		
RIE Contingency	30% Adder	
RIE Capital OH	25% Adder	
Contingency and OH Subtotal:		
Preliminary Project Total Estimated Cost (with maximum contingency):		

REDACTED

OML LNG

Equipment cost: (2) 750 MSCFH Vaporizers & (6) Smart Storage Queens, Including 12.5% contingency

December 1st - March 31st Operating Cost

Year	Contractor Service	Cost	RIE cost to operate using Purchased Equipment	Cost	Running Cost of Contracted Operation	Breakeven Cost <i>contracted operation expenses less the purchase price of the equipment</i>	Comments
1	Seasonal Service Operation		Labor (less current costs)	300,000			Cost of Current Labor is 215K (not including security)
	Out of season service Operation		O&M	80,000			
	Annual Cost		Annual Cost	380,000			
2	Seasonal Service Operation		Labor (less current costs)	309,000			
	Out of season service Operation		O&M	80,000			
	Annual Cost		Annual Cost	389,000			
3	Seasonal Service Operation		Labor (less current costs)	318,270			
	Out of season service Operation		O&M	80,000			
	Annual Cost		Annual Cost	398,270			
4	Seasonal Service Operation		Labor (less current costs)	327,818			
	Out of season service Operation		O&M	80,000			
	Annual Cost		Annual Cost	407,818			
5	Seasonal Service Operation		Labor (less current costs)	337,653			Contract cost increase from recent contract extension
	Out of season service Operation		O&M	80,000			
	Annual Cost		Annual Cost	417,653			
6	Seasonal Service Operation		Labor (less current costs)	347,782			
	Out of season service Operation		O&M	80,000			
	Annual Cost		Annual Cost	427,782			
7	Seasonal Service Operation		Labor (less current costs)	358,216			
	Out of season service Operation		O&M	80,000			
	Annual Cost		Annual Cost	438,216			
8	Seasonal Service Operation		Labor (less current costs)	368,962			Savings = Contracted Service - (Equipment Purchase + RIE O&M)
	Out of season service Operation		O&M	80,000			
	Annual Cost		Annual Cost	448,962			
Sum Total				3,307,700			Cost savings to customers using purchases equipment instead of using contracted services

REDACTED

OML LNG

Equipment cost: (2) 750 MSCFH Vaporizers & (6) Smart Storage Queens, Including 12.5% contingency

December 1st - March 31st Operating Cost with 1 out of season mobilization for pipeline maintenance

Year	Contractor Service	Cost	RIE cost to operate using Purchased Equipment	Cost	Running Cost of Contracted Operation	Breakeven Cost <i>contracted operation expenses less the purchase price of the equipment</i> \$12,472,701	Comments
1	Seasonal Service Operation		Labor (less current costs)	300,000			Cost of Current Labor is 215K (not including security)
	Out of season service Operation		O&M	80,000			
	Annual Cost		Annual Cost	380,000			
2	Seasonal Service Operation		Labor (less current costs)	309,000			
	Out of season service Operation		O&M	80,000			
	Annual Cost		Annual Cost	389,000			
3	Seasonal Service Operation		Labor (less current costs)	318,270			
	Out of season service Operation		O&M	80,000			
	Annual Cost		Annual Cost	398,270			
4	Seasonal Service Operation		Labor (less current costs)	327,818			
	Out of season service Operation		O&M	80,000			
	Annual Cost		Annual Cost	407,818			Contract cost increase from recent contract extension
5	Seasonal Service Operation		Labor (less current costs)	337,653			
	Out of season service Operation		O&M	80,000			
	Annual Cost		Annual Cost	417,653			
6	Seasonal Service Operation		Labor (less current costs)	347,782			Savings = Contracted Service - (Equipment Purchase + RIE O&M)
	Out of season service Operation		O&M	80,000			
	Annual Cost		Annual Cost	427,782			
Sum Total				2,420,523			Cost savings to customers using purchases equipment instead of using contracted services

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Request:

Please provide:

- a. Schedules which provide a breakdown of the components (i.e., energy efficiency, demand response, and electric heating conversions) of the total cost that comprise the Company's Non-Infrastructure Proposal (with a moratorium) which is referenced on page 37 of the Siting Report. Please show cost incurrence by year that is assumed in the Company's forecast, by component. Please also itemize the demand response measures by type and assumed annual cost. In performing this analysis, please use the Company's best estimate of the number of years required to eliminate the capacity gap, taking into account contractor resources, availability of products and equipment, and the Company's best judgment of customer adoption. Please provide an explanation of the key assumptions in the forecast.
- b. Please provide similar information for the proposal assuming no moratorium.

Response:

The Siting Report, filed in April 2022 under Docket No. SB-2021-04, identified two non-infrastructure options that focused on resolving the capacity constraint that is otherwise solved by portable LNG operations at the Old Mill Lane site. As described in Sections 4.7 and 4.8 of the Siting Report, the non-infrastructure options were comprised of energy efficiency (EE), electrification (elec.), and gas demand response (DR) for both residential and commercial customers on Aquidneck Island. These options also included continued operation of portable LNG until the capacity constraint was assumed to be addressed, as well as an estimate of the incremental revenue requirement associated with the site work proposed in the Siting Report. The incremental demand response included two sub-initiatives: (1) fuel switching of commercial customers off natural gas and onto a delivered fuel, and (2) thermostat setback for residential and small/medium businesses. The fuel switching initiative was further segmented by the relative size of the firm C&I customers that could participate (Tier 1 included the two largest firm customers, Tier 2 included the next 33 largest firm customers, and Tier 3 included the next 204 largest firm customers after that, as described in Section 4.7 of the Siting Report). Note that this incremental DR refers only to current firm C&I customers; existing non-firm customers on Aquidneck Island, such as the Navy, are already forecasted to not contribute to demand under design hour conditions. More broadly, all demand-side management (DSM) efforts included in these options are in addition to existing efforts that are already accounted for in the forecast.

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The estimated cost to the Company (and consequently, gas customers) of the solution that included a moratorium, by year and by component, is shown in Table 1. Note that the total cost over the analysis period is \$100 million, with a time-discounted value of \$63 million, matching what was listed in Section 4.8 and Footnote 21 of the Siting Report. The estimated cost to the Company of the solution that did not include a moratorium, by year and by component, is shown in Table 2. Note that the total cost over the analysis period is \$143 million, with a time-discounted value of \$86 million, matching what was listed in Section 4.8 and Footnote 20 of the Siting Report.

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Table 1. Annual Company Cost of Non-Infrastructure Option with Moratorium from April 2022 (Millions \$) [part a]

Type	Subcomponent	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35
EE ¹	Residential	\$0.00	\$0.47	\$0.96	\$1.45	\$1.96	\$2.46	\$2.98	\$2.98	\$2.97	\$2.97	-\$0.42	-\$0.43	-\$0.44	-\$0.45
EE ¹	Commercial	\$0.00	\$0.07	\$0.14	\$0.25	\$0.32	\$0.37	\$0.44	\$0.41	\$0.39	\$0.36	-\$0.22	-\$0.22	-\$0.23	-\$0.23
Elec.	Residential	\$0.00	\$0.64	\$0.87	\$1.32	\$1.79	\$2.30	\$2.35	\$2.39	\$2.44	\$2.49	\$0.00	\$0.00	\$0.00	\$0.00
Elec.	Commercial	\$0.00	\$0.07	\$0.11	\$0.19	\$0.27	\$0.32	\$0.32	\$0.33	\$0.34	\$0.34	\$0.00	\$0.00	\$0.00	\$0.00
DR	Fuel Switch - Tier 1	\$0.19	\$0.19	\$0.20	\$0.20	\$0.20	\$0.21	\$0.21	\$0.22	\$0.22	\$0.23	\$0.23	\$0.23	\$0.24	\$0.24
DR	Fuel Switch - Tier 2	\$0.05	\$0.42	\$0.28	\$0.50	\$0.36	\$0.39	\$0.42	\$0.25	\$0.46	\$0.50	\$0.53	\$0.57	\$0.61	\$0.41
DR	Fuel Switch - Tier 3	\$0.06	\$0.08	\$0.09	\$0.11	\$0.12	\$0.16	\$0.16	\$0.19	\$0.20	\$0.23	\$0.25	\$0.28	\$0.29	\$0.33
DR	Thermostat Setback	\$0.07	\$0.09	\$0.12	\$0.13	\$0.14	\$0.15	\$0.17	\$0.18	\$0.20	\$0.21	\$0.22	\$0.24	\$0.26	\$0.28
Infra.	Site Work	\$0.00	\$0.00	\$0.00	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86
Infra.	LNG Trucking	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total		\$3.86	\$5.52	\$6.27	\$9.51	\$10.53	\$11.72	\$12.41	\$12.31	\$9.08	\$9.19	\$2.46	\$2.53	\$2.59	\$2.44
Sum over Analysis Period		\$100.4													
NPV over Analysis Period		\$63.0													

¹ In addition to the incentive and administrative cost of EE, the net benefit of reduced wholesale gas purchases is counted as a negative cost to the Company throughout the analysis, which is why the cost of EE goes negative starting in 2031-32 when incremental incentives are no longer needed, but savings persist.

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Table 2. Annual Company Cost of Non-Infrastructure Option without Moratorium from April 2022 (Millions \$) [part b]

Type	Subcomponent	2021- 22	2022- 23	2023- 24	2024- 25	2025- 26	2026- 27	2027- 28	2028- 29	2029- 30	2030- 31	2031- 32	2032- 33	2033- 34	2034- 35
EE	Residential	\$0.00	\$0.47	\$0.96	\$1.45	\$1.96	\$2.46	\$2.98	\$2.98	\$2.97	\$2.97	\$2.96	\$2.95	\$2.94	\$2.93
EE	Commercial	\$0.00	\$0.07	\$0.14	\$0.25	\$0.32	\$0.37	\$0.44	\$0.41	\$0.39	\$0.36	\$0.34	\$0.31	\$0.28	\$0.25
Elec.	Residential	\$0.00	\$1.13	\$2.21	\$3.32	\$4.48	\$5.72	\$5.79	\$5.89	\$5.96	\$5.91	\$0.00	\$0.00	\$0.00	\$0.00
Elec.	Commercial	\$0.00	\$0.15	\$0.30	\$0.43	\$0.59	\$0.76	\$0.78	\$0.80	\$0.81	\$0.87	\$0.00	\$0.00	\$0.00	\$0.00
DR	Fuel Switch - Tier 1	\$0.19	\$0.19	\$0.20	\$0.20	\$0.20	\$0.21	\$0.21	\$0.22	\$0.22	\$0.23	\$0.23	\$0.23	\$0.24	\$0.24
DR	Fuel Switch - Tier 2	\$0.05	\$0.42	\$0.28	\$0.50	\$0.36	\$0.39	\$0.42	\$0.25	\$0.46	\$0.50	\$0.53	\$0.57	\$0.61	\$0.41
DR	Fuel Switch - Tier 3	\$0.06	\$0.08	\$0.09	\$0.11	\$0.12	\$0.16	\$0.16	\$0.19	\$0.20	\$0.23	\$0.25	\$0.28	\$0.29	\$0.33
DR	Thermostat Setback	\$0.07	\$0.09	\$0.12	\$0.13	\$0.14	\$0.15	\$0.17	\$0.18	\$0.20	\$0.21	\$0.22	\$0.24	\$0.26	\$0.28
Infra.	Site Work	\$0.00	\$0.00	\$0.00	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86
Infra.	LNG Trucking	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total		\$3.86	\$6.09	\$7.80	\$11.74	\$13.54	\$15.59	\$16.32	\$16.27	\$13.08	\$13.14	\$6.39	\$6.44	\$6.47	\$6.30
Sum over Analysis Period		\$143.0													
NPV over Analysis Period		\$85.8													

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As described in the Siting Report, these options were based on a significant level of incremental demand-side management beyond current statewide efforts, as restated in Table 3.

Table 3. DSM Assumed for Options Identified in April 2022 Siting Report Section 4.8

	Non-Infrastructure Solution to Address Capacity Constraint, with a Moratorium	Non-Infrastructure Solution to Address Capacity Constraint, without a Moratorium
Demand Response (DR)	Maximum achievable potential reached, continuing as an annual program through analysis period.	Maximum achievable potential reached, continuing as an annual program through analysis period.
Energy Efficiency (EE)	Maximum achievable potential reached after 6-year ramp up, continuing until 2031 when the capacity constraint is projected to be addressed by persistent savings.	Maximum achievable potential reached after 6-year ramp up, continuing through analysis period to address the capacity constraint and offset projected demand growth with persistent savings.
Electrification (Elec.)	20% of HVAC turnover assumed to electrify after a 5-year ramp up, continuing until 2031 when the capacity constraint is projected to be addressed by persistent savings.	40% of HVAC turnover assumed to electrify after a 5-year ramp up, continuing until 2031 when the capacity constraint is projected to be addressed by persistent savings.

Note: “Ramp up” refers to a straight-line increase in participation from pre-existing levels in year zero to the final amount in the final year of the ramp up period. “HVAC turnover” refers to the 5% of existing natural gas customers assumed to replace their heating equipment each year (assuming a typical heating system lasts for 20 years), plus the number of forecasted new customers each year from the gas load forecast.

In considering “the Company’s best estimate of the number of years required to eliminate the capacity gap, taking into account contractor resources, availability of products and equipment, and the Company’s best judgment of customer adoption”, there have been two key developments since the April 2022 Siting Report that may consequentially impact the analysis restated above:

1. An updated Gas Load Forecast, as published in the June 2023 Long-Range Plan under Docket No. 22-06-NG, and

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2. Additional incentives for electrification of heat, such as the federal Inflation Reduction Act and the Office of Energy Resources' (OER) Clean Heat Rhode Island program.

Note that there are other key assumptions that underpin the non-infrastructure solutions, specifically regarding demand response and energy efficiency, that are assumed to have not changed significantly from the original analysis. The savings potential and cost for demand response were based on an analysis of large, firm C&I customers at the time, which is assumed to have not changed significantly since then. For energy efficiency, the 2020 market potential study that was used to establish savings potential and cost at the time is still the latest comprehensive study published.²

The latest published design day demand forecast for Aquidneck Island (the June 2023 Forecast) is shown in Figure 1 and Figure 2, and is compared to the forecast used to size the non-infrastructure options in the April 2022 Siting Report (the June 2021 Forecast).³ The June 2023 Forecast identifies relatively higher demand in the short-term but relatively lower demand in the long-term compared to the June 2021 Forecast. Importantly, the Long-Range Plans in which these forecasts were published have a 5-year outlook. Extended forecasts have been generated and shown here to provide more context. While these forecasts are presented as a point estimate, there is uncertainty that is not reflected in the graphs, especially in the later years.

² Available at: <https://rieermc.ri.gov/rhode-island-market-potential-study-2021-2026/>

³ The June 2023 Forecast was published under Docket No. 22-06-NG, and the June 2021 Forecast was published under Docket No. 5043.

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Figure 1. Forecasted Design Hour Supply/Demand Balance on Aquidneck Island

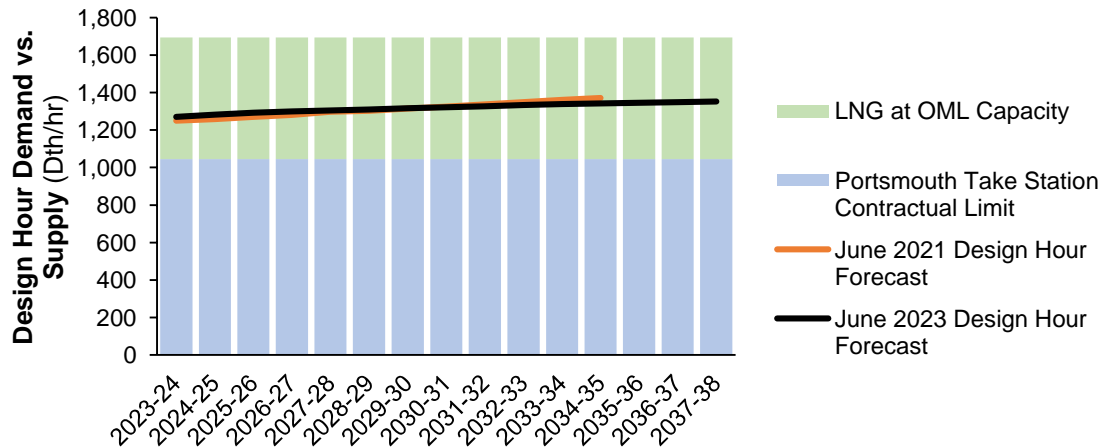
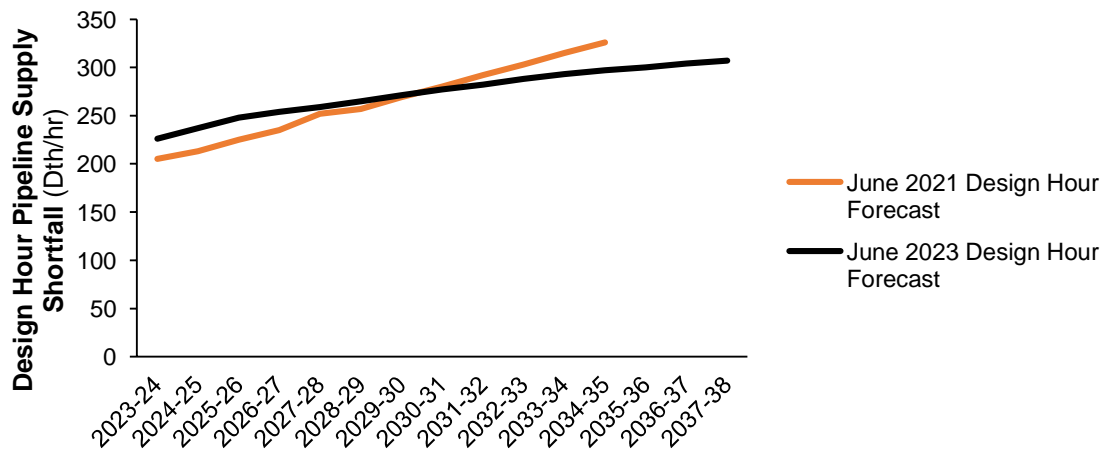


Figure 2. Forecasted Design Hour Pipeline Supply Shortfall ("Capacity Constraint") on Aquidneck Island



As described in Section III.B.3 of the Gas Long-Range Resource and Requirements Plan for the Forecast Period 2023/24 to 2027/28 filed on June 30, 2023 in RIPUC Docket No. 22-06-NG, the June 2023 Forecast includes the impact of DSM efforts at historical achievement levels, plus the increasing penetration of the Company's energy efficiency programs beyond historical levels. As noted above, there are additional initiatives not implemented through programs administered by the Company that may have an impact on future demand for gas in Aquidneck Island. This includes the OER's Clean Heat Rhode Island ("CHRI") program and the state's proposed Home

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Efficiency Rebates (“HER”) program that would take advantage of federal IRA funding.⁴ The potential statewide impact of these programs is roughly estimated in Table 4.

Table 4. Statewide Electrification Targets from New, non-Company Initiatives

	Source	OER: CHRI	Federal IRA: HER
Total Funding	Per OER*	\$25M for 3 years	\$32M for 8 years
Portion of Funding for Electrification of heat Incentives	Assumes 7% reserve for admin for CHRI, and 50% of HER funds used for heat electrification**	93%	50%
Annual Funds Available for Incentives	Funding available for incentives divided by years	\$7.75M/yr	\$3.70M/yr
Assumed Incentive per Heat Pump	Per OER*, assuming 4-ton heat pump per home	\$4,000/cust	\$4,000/cust
Budgeted Annual Electrifications	Available incentive funds divided by incentive per home	1,938 customers per year	497 customers per year

* CHRI budget and incentive rates and HER program budget listed by OER at <https://energy.ri.gov/heating-cooling/clean-heat-ri> and <https://energy.ri.gov/energy-incentives/home-energy-rebate-program>, respectively.

** CHRI also offers incentives for heat pump water heaters and electrical service upgrades, which may facilitate full electrification but also increase the cost per customer, thereby decreasing the total number of customers budgeted to participate. HER funds are reserved

⁴ Note that OER is also developing implementation plans for the Home Electrification and Appliance Rebates (“HEAR”) program, which will receive an approximately \$31 million in additional federal funding, but the current program proposal intends for those funds to “provide rebates to low-and-moderate-income households for electrical and appliance upgrades that are not already provided through other programs”, which would preclude heat electrification currently incentivized via CHRI, as described in an April 2024 presentation, available at: <https://energy.ri.gov/sites/g/files/xkgbur741/files/2024-04/HEAR%20Straw%20Proposal%20Presentation.pdf>.

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broadly for energy efficiency improvements, and OER has tentatively indicated that approximately half of the funds may be utilized to incentivize heating electrification.

Allocating the impact of these statewide initiatives to Aquidneck Island requires many assumptions around program implementation outside of the Company's control. Between October 2023 and March 2024, roughly 10% of the rebates the OER has paid or reserved through CHRI have been for Aquidneck Island, as shown in Table 5.

Table 5. Clean Heat Rhode Island Rebates Paid/Reserved from October 2023 - March 2024

Municipality	Paid or Reserved Amount (\$)	Total Rebates
Portsmouth	\$169,693 (3%)	47 (4%)
Middletown	\$99,675 (2%)	36 (3%)
Newport	\$225,990 (5%)	38 (3%)
Aquidneck Island Total	\$495,357 (10%)	121 (9%)
Rhode Island Total	\$4,927,683 (100%)	1,330 (100%)

Source: Clean Heat Rhode Island Statistics, retrieved at:
<https://cleanheatri.com/resources/program-statistics/>

If 10% of the annual budgeted electrifications estimated in Table 4 occur in Aquidneck Island, that would equate to roughly 245 customers adopting heat pumps annually. Assuming that all of these customers are current or projected gas customers and that all of these participants fully remove themselves from the gas system (which is not a requirement), these 245 residences would be estimated to reduce design hour demand by roughly 12 Dth/hr each year.⁵ Several high-level assumptions underpin this analysis that likely cause the estimated potential savings from electrification via statewide programs to be overstated, including:

- All participation includes electrification of heat;
- The installed heat pumps fully displace the existing heating system, whereas initial information provided to the Company by OER indicates only around 30% of participants are fully displacing their existing heating source;

⁵ Assuming a typical residential customer consumes 1 Dth/day on the design day, and 0.05 Dth/hr in the design hour, based on the ratio of forecasted design day demand to annual demand in Aquidneck Island applied to residential usage per customer.

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- All participation is by existing natural gas customers or by current delivered fuel customers who are otherwise forecasted to join the gas system;⁶
- Program funding is utilized in Aquidneck Island at similar levels as to what has been seen since the CHRI program launched in September 2023;
- Program funding, such as CHRI and IRA, persists at similar levels into the future; and
- Customers in Aquidneck Island and Rhode Island more broadly continue to adopt heat pumps at a level commensurate with the allocated funding.

Given the Capacity Constraint is currently roughly 237 Dth/hr on the design hour as shown in Figure 2, a reduction of 12 Dth/hr annually from **current and planned statewide and federal programs alone would be insufficient to eliminate the Capacity Constraint within the timeframe of the extended forecast.**

To assess what it would take to eliminate the Capacity Constraint by a certain date, the model used to inform the non-infrastructure options presented in the April 2022 Siting Report was updated with (1) the June 2023 Forecast, (2) incremental Company DSM initiatives starting hypothetically in 2024, and (3) refined electrification parameters. Electrification parameters were refined based on the latest assumptions developed for Rhode Island's Future of Gas proceeding under Docket No. 22-01-NG, as shown in Table 6. These values represent the incremental cost of a heat pump over an efficient gas system. Overall, costs only changed slightly, after accounting for available incentives and inflation.

Table 6. Electrification Cost Assumptions

Parameter	April 2022 Siting Report Analysis (2023\$)	Future of Gas Analysis (2023\$)	
		Pre-Incentive	Post-Incentive
Incremental Electrification Cost – Residential Customer	\$13,000	\$18,200	\$12,100
Incremental Electrification Cost – C&I Customer	\$18,400	\$41,500	\$19,000

Source: Electrification parameter assumptions used in April 2022 Siting Report analysis were detailed in Chapter 14 of the Aquidneck Island Long-Term Gas Capacity Study, published in September 2020, available at: <https://www.rienergy.com/aquidneck-long-term-gas-capacity->

⁶ Note that according to the 2022 American Community Survey, roughly 10,890 residences on Aquidneck Island utilize utility gas as their primary heating fuel, compared to roughly 10,154 residences that utilize delivered fuel as their primary heating fuel, where Aquidneck Island is assumed to include census tracts 401-412. See Table B25040 of 2022 ACS 5-Year Estimates, available at: <https://data.census.gov/table/ACSDT5Y2022.B25040>

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[study](#). Note that April 2022 Siting Report figures were increased from 2020\$ as presented in the 2020 Aquidneck Island Long-Term Gas Capacity Study to 2023\$ using an effective inflation multiplier of 118%. Electrification parameter assumptions used in the Future of Gas analysis are taken as the difference between “default” heat pump costs and efficient gas boiler/furnace costs, as extracted from “Docket 22-01-NG – E3 Technical Analysis – Appendix B.xlsx” published May 7, 2024, available at: <https://ripuc.ri.gov/Docket-22-01-NG>. Note that residential post-incentive costs assume a 4.5-ton system, in accordance with the Future of Gas analysis, and a \$1,350/ton effective incentive rate from statewide and federal programs. C&I customer costs assume 3,500 sqft per C&I building with a 9-ton system, and a \$2,500/ton effective incentive rate from statewide and federal programs.

Energy prices were also updated to reflect the latest available data from the US Environmental Information Administration (EIA), as shown in Table 7. Included in this update is the inclusion of projected energy price changes over time, which may shift the relative cost-effectiveness of electrification over time. Upon review of the values in Table 7, the relative cost-effectiveness has not improved for residential customers, as both electric and gas prices have increased, with electric prices projected by the EIA’s Annual Energy Outlook (AEO) to increase more than gas prices through 2035. For commercial customers, however, the heat pump value proposition has apparently improved, with electric prices decreasing and gas prices increasing.

Table 7. Energy Prices used for Estimating Cost of Heat Pump Operation

Parameter		April 2022 Siting Report Analysis		Updated Analysis	
		Base Value ^a	Real CAGR ^b	Base Value ^c	Real CAGR ^d
Electric Rate (\$/kWh)	Residential	\$0.204	0%	\$0.230	0.42%
	Commercial	\$0.178	0%	\$0.143	-0.28%
Gas Rate (\$/Dth)	Residential	\$15.09	0%	\$18.17	-0.48%
	Commercial	\$12.52	0%	\$15.29	0.35%

Source: (a) Base energy prices used in April 2022 Siting Report analysis were from 2018 EIA 176 and 861 data for Narragansett Electric Company in Rhode Island; (b) Energy prices were assumed to stay constant in real terms in April 2022 Siting Report analysis; (c) Base energy prices used in updated analysis presented herein are from 2022 EIA 176 and 861 data for Narragansett Electric Company in Rhode Island; (d) CAGR in real terms taken as CAGR between 2025-2035 from the US EIA’s 2023 AEO. EIA 176 data is available at: <https://www.eia.gov/naturalgas/ngqs/>, EIA 861 data is available at: <https://www.eia.gov/electricity/data/eia861/>, and EIA AEO (specifically, Table 3.1) is available at: https://www.eia.gov/outlooks/aeo/tables_ref.php.

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Incorporating the changes described above, the non-infrastructure options were resized and reanalyzed. These solutions were sized to eliminate the capacity constraint after the winter of 2031-32, which was an analogous timeline (8 years) as that contemplated in the April 2022 Siting Report. The resulting quantities of DSM required to meet this target are shown in Table 8, with differences from Table 3 highlighted. Note that the incremental DSM may be necessary later in time because of the later starting point, and relatively more electrification would be needed in the case of a moratorium given the relatively higher design hour demand currently forecasted. But the same level of electrification is forecasted to be needed in the case of no moratorium, because the design hour demand forecasted after 2030 is less than was previously forecasted.

Table 8. DSM Assumed for Non-Infrastructure Options as Assessed in May 2024

	Non-Infrastructure Solution to Address Capacity Constraint, with a Moratorium	Non-Infrastructure Solution to Address Capacity Constraint, without a Moratorium
Demand Response (DR)	Maximum achievable potential reached, continuing as an annual program through analysis period.	Maximum achievable potential reached, continuing as an annual program through analysis period.
Energy Efficiency (EE)	Maximum achievable potential reached after 6-year ramp up, continuing until 2033 when the capacity constraint is projected to be addressed by persistent savings.	Maximum achievable potential reached after 6-year ramp up, continuing through analysis period to address the capacity constraint and offset projected demand growth with persistent savings.
Electrification (Elec.)	25% of HVAC turnover assumed to electrify after a 5-year ramp up, continuing until 2032 when the capacity constraint is projected to be addressed by persistent savings.	40% of HVAC turnover assumed to electrify after a 5-year ramp up, continuing until 2032 when the capacity constraint is projected to be addressed by persistent savings.

Note: Font in bold red indicates differences from the original analysis performed for the April 2022 Siting Report presented in Table 3.

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Table 9 and Table 10 show the annual cost to the Company of the non-infrastructure options with and without a moratorium, respectively, by year and by component. Comparing to the results in from the April 2022 Siting Report, there is very little difference overall in the expected cost based on the updates described above.

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Table 9. Annual Company Cost of Non-Infrastructure Option with Moratorium from May 2024 (Millions \$) [part a]

Type	Subcomponent	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37
EE ⁷	Residential	\$0.00	\$0.47	\$0.96	\$1.45	\$1.95	\$2.46	\$2.97	\$2.97	\$2.97	\$2.96	-\$0.42	-\$0.43	-\$0.44	-\$0.45
EE ⁴	Commercial	\$0.00	\$0.07	\$0.14	\$0.25	\$0.32	\$0.37	\$0.44	\$0.41	\$0.39	\$0.36	-\$0.22	-\$0.22	-\$0.23	-\$0.23
Elec.	Residential	\$0.00	\$0.57	\$0.94	\$1.44	\$1.82	\$2.32	\$2.37	\$2.43	\$2.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Elec.	Commercial	\$0.00	\$0.05	\$0.07	\$0.11	\$0.14	\$0.18	\$0.18	\$0.18	\$0.18	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DR	Fuel Switch - Tier 1	\$0.00	\$0.19	\$0.20	\$0.20	\$0.20	\$0.21	\$0.21	\$0.22	\$0.22	\$0.23	\$0.23	\$0.23	\$0.24	\$0.24
DR	Fuel Switch - Tier 2	\$0.00	\$0.42	\$0.28	\$0.50	\$0.36	\$0.39	\$0.42	\$0.25	\$0.46	\$0.50	\$0.53	\$0.57	\$0.61	\$0.41
DR	Fuel Switch - Tier 3	\$0.00	\$0.08	\$0.09	\$0.11	\$0.12	\$0.16	\$0.16	\$0.19	\$0.20	\$0.23	\$0.25	\$0.28	\$0.29	\$0.33
DR	Thermostat Setback	\$0.00	\$0.09	\$0.12	\$0.13	\$0.15	\$0.16	\$0.17	\$0.18	\$0.20	\$0.21	\$0.23	\$0.25	\$0.26	\$0.28
Infra.	Site Work	\$0.00	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86
Infra.	LNG Trucking	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total		\$3.50	\$7.30	\$8.16	\$9.54	\$10.43	\$11.60	\$12.30	\$12.19	\$12.47	\$6.35	\$2.45	\$2.53	\$2.59	\$2.44
Sum over Analysis Period		\$103.9													
NPV over Analysis Period		\$65.8													

⁷ In addition to the incentive and administrative cost of EE, the net benefit of reduced wholesale gas purchases is counted as a negative cost to the Company throughout the analysis, which is why the cost of EE goes negative starting in 2031-32 when incremental incentives are no longer needed, but savings persist.

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Table 10. Annual Company Cost of Non-Infrastructure Option without Moratorium from May 2024 (Millions \$) [part b]

Type	Subcomponent	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37
EE	Residential	\$0.00	\$0.47	\$0.96	\$1.45	\$1.95	\$2.46	\$2.97	\$2.97	\$2.97	\$2.96	\$2.96	\$2.95	\$2.94	\$2.92
EE	Commercial	\$0.00	\$0.07	\$0.14	\$0.25	\$0.32	\$0.37	\$0.44	\$0.41	\$0.39	\$0.36	\$0.33	\$0.31	\$0.28	\$0.25
Elec.	Residential	\$0.00	\$0.85	\$1.73	\$2.62	\$3.56	\$4.51	\$4.60	\$4.68	\$4.77	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Elec.	Commercial	\$0.00	\$0.09	\$0.18	\$0.25	\$0.34	\$0.44	\$0.44	\$0.40	\$0.40	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DR	Fuel Switch - Tier 1	\$0.00	\$0.19	\$0.20	\$0.20	\$0.20	\$0.21	\$0.21	\$0.22	\$0.22	\$0.23	\$0.23	\$0.23	\$0.24	\$0.24
DR	Fuel Switch - Tier 2	\$0.00	\$0.42	\$0.28	\$0.50	\$0.36	\$0.39	\$0.42	\$0.25	\$0.46	\$0.50	\$0.53	\$0.57	\$0.61	\$0.41
DR	Fuel Switch - Tier 3	\$0.00	\$0.08	\$0.09	\$0.11	\$0.12	\$0.16	\$0.16	\$0.19	\$0.20	\$0.23	\$0.25	\$0.28	\$0.29	\$0.33
DR	Thermostat Setback	\$0.00	\$0.09	\$0.12	\$0.13	\$0.15	\$0.16	\$0.17	\$0.18	\$0.20	\$0.21	\$0.23	\$0.25	\$0.26	\$0.29
Infra.	Site Work	\$0.00	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86	\$1.86
Infra.	LNG Trucking	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total		\$3.50	\$7.62	\$9.05	\$10.86	\$12.36	\$14.04	\$14.78	\$14.66	\$14.98	\$6.35	\$6.38	\$6.45	\$6.47	\$6.30
Sum over Analysis Period		\$133.8													
NPV over Analysis Period		\$81.2													

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Achieving the level of participation in DSM identified in Table 8 would require significant effort and community buy-in, as described in Section 4.7 and 4.8 of the April 2022 Siting Report.

Effectively increasing the number of C&I customers with non-firm gas service via the fuel switching demand response initiatives may be particularly challenging, given that many existing non-firm customers are requesting firm service to reduce their reliance on delivered fuels. More broadly, as demand response initiatives require opt-in each year and for each called event, customer participation may vary annually and participation in events may fail to reach projections. Together, this presents a risk of not achieving forecasted peak reductions that would be needed to offset the need for portable LNG at Old Mill Lane.

Reaching maximum achievable potential for energy efficiency, as identified in the latest statewide potential study, would require providing incentives that cover 100% of the incremental cost of measures to all customers. If that incentive level was offered, customers would still need to opt-in to participation at projected levels, which would require significant marketing efforts and acceptance by customers in the area. Workforce and equipment supply constraints could also hinder the ability to reach those adoption levels.

There has been and will continue to be a significant effort to increase heat pump adoption, throughout the Northeast and Rhode Island especially. Other states have published the number of heat pumps incentivized annually through their programs, which is aggregated in Table 11. These states are very different in composition and incentives offered. To that end, there are two major caveats to applying this data as a comparison to the adoption needed here:

- This includes all baseline heating systems (e.g. oil, propane, wood, electric resistance heat, etc.). To resolve this capacity constraint on Aquidneck Island customers would need to electrify in lieu of natural gas heating, and the value proposition for electrifying natural gas heating is worse than that of other fuel types.
- While Table 11 denotes total heat pumps installed, it does not indicate how many heat pumps fully displaced the existing heating load, which would be necessary on Aquidneck Island to solve the Capacity Constraint.

With those caveats in mind, attempting an apples-to-apples comparison to the adoption percentages shown in Table 8, programs in Massachusetts and New York have regularly achieved 5%-20% participation, which is significantly less than the 25%-40% required to solve the Capacity Constraint by 2032 as shown in Table 8. This underscores the significant effort that would be needed to solve the Capacity Constraint in that timeline, as well as the significant

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incentive and marketing costs estimated in Table 10 and Table 11. As was identified in the 2020 Aquidneck Island Long Term Gas Capacity Study, electrifying such a high number of gas HVAC replacements will generally require an incentive higher than the incremental cost of the heat pump. That is because even with the relatively high efficiency of heat pumps, current energy prices mean that the cost of heating with natural gas is less expensive than the cost of heating with electricity. The incentive therefore also must cover the increased cost of operation for the customer.

*Table 11. Recent Heat Pump Program Participation by Nearby States, in Total and as a Percent of "Potential Participating Customers" **

State	Utility	Total Customers	2021	2022	2023
Massachusetts	All	3,201,811	8,603 (5%)	18,362 (11%)	28,084 (18%)
New York	Central Hudson	321,074	2,899 (18%)	2,776 (17%)	2,105 (13%)
	Con Edison + Orange & Rockland	3,833,226	9,842 (5%)	11,863 (6%)**	5,590 (3%)**
	National Grid	1,707,355	1,137 (1%)	1,547 (2%)	2,506 (3%)
	NYSEG + RG&E	1,304,667	1,788 (3%)	4,126 (6%)	3,470 (5%)
	Long Island Power Authority	1,151,520	4,236 (7%)	4,264 (7%)	6,659 (12%)

Source: "Total Customers" based on sum of bundled and delivered residential and commercial electric customers per 2022 EIA 861 data. Massachusetts annual heat pump participation listed by MassSave, at: <https://www.masssave.com/about/news-and-events/news/mass-save-sponsors-announce-record-number-of-heat-pump-installations-across-massachusetts>. New York utilities' annual heat pump participation listed in the annual NYS Clean Heat Report, filed in April each year under Matter No. 18-M-0084, at: <https://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=18-M-0084>.

*"Potential Participating Customer" is defined here as total customers divided by 20, which is the assumed lifetime for HVAC equipment used throughout this analysis; because 1/20th of customers' existing equipment reaches the end of its useful life each year, roughly 1/20th of customers may decide to install a heat pump each year.

**Con Edison paused acceptance of ASHP heat pump incentive applications in May 2022 after exceeding its budget set in 2020. The New York Public Service Commission authorized an

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additional funding mechanism in August 2022, and Con Edison officially relaunched its program in January 2023.

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Record Request 9

Request:

Please review the Company's energy efficiency programs over the last five years to determine whether the public utilities commission has approved any electric or gas energy efficiency programs (i.e., individual residential or commercial programs) that had a BCR of less than 1 (excluding economic benefits). Please also review the same to determine whether any individual programs were higher than the cost of supply.

Response:

The Company reviewed the annual energy efficiency plans for each of the last five years (2020 through 2024) and did not identify any programs that had a BCR of less than 1. Note that prior to 2022, economic benefits were not excluded in the BCR calculation. For 2022 through 2024, economic benefits were excluded in the BCR calculation.