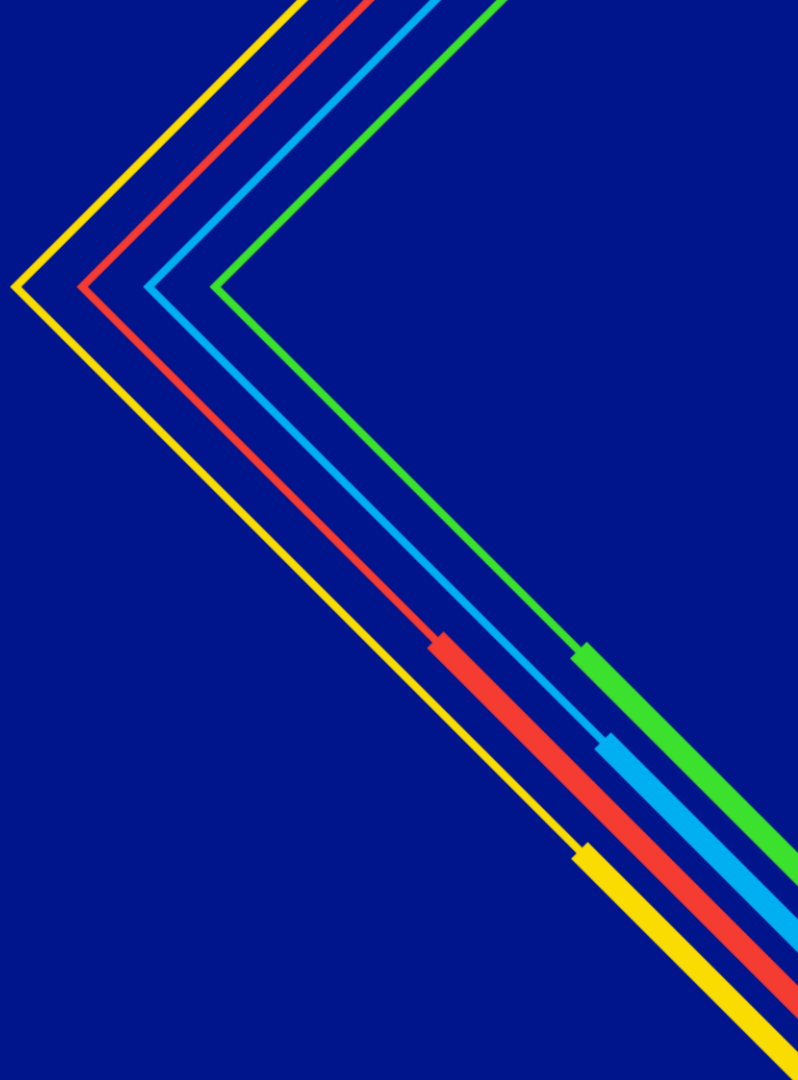


Aquidneck Island: Next Steps for Long- Term Capacity

March 22, 2021



Reminder: Two Challenges Facing Aquidneck

1 Capacity Constraint

National Grid now plans for potential restrictions / reduced flexibility from the AGT pipeline under extremely cold conditions, which limits the gas capacity available to the island

This has created a gap between projected peak gas demand and the AGT pipeline capacity on which the Company can rely

2 Capacity Vulnerability

Aquidneck Island's positioning at the "end of the pipe" on the AGT G-4 lateral makes it vulnerable to upstream disruptions on the AGT pipeline

Reminder: Four Approaches Were Considered

From a wide variety of solutions considered...

- Portable LNG
- Pipeline infrastructure
- Gas demand response
- Renewable natural gas
- Permanent LNG
- Energy efficiency
- Heat electrification
- Hydrogen blending



We identified four solution portfolios that could close the capacity/demand gap **and** provide contingency in the event of an upstream pipeline disruption

- 1 Non-Infrastructure**
solution relying exclusively on electrification, DR, and efficiency
- 2 LNG** solution at new location, including potential for l/t hydrogen hub
- 3 AGT Pipeline Project**
(Could range from system reinforcement to regional project)
- 4 Continue Portable LNG at Old Mill Lane**, with demand-side measures to preserve contingency

Old Mill Lane used in interim years until new capacity is established

Incremental gas EE and DR can complement infrastructure in these solutions

Extensive Stakeholder Outreach (August through December)

Engagement	To Whom	Date(s)
State/Local Leader/Regulatory Briefings on Proposed Report Options	Key Division (DPUC) personnel, AI town administrators, OER, Gov's office, Key Legislators, and Navy.	Sept 1-11
Aquidneck Advisory Group (AAG)	AAG Members – Division, OER, AI Town Administrators, AI Economic Development Groups, Newport Chamber.	Sept 14
SRP Technical Working Group Meeting	System Reliability Procurement TWG Members – Acadia Center, NE Clean Energy Council, Green Energy Consumers Alliance	Sept 23
Aquidneck Island Webpage – site to view full study, feedback form, survey, and Open House info	Viewable to Public	Sept 23
Social Media and On-Bill Messaging	AI Facebook accounts and AI bills	Started Oct 1
Legislator Briefing	AI Senators and Representatives	Oct 8
AI Energy Matters Open House – Open to Public	Members of public, town officials, and legislators	Oct 14
Conservation Law Foundation	CLF Leadership	Oct 23
Customer Advocacy Groups	Center for Justice	Oct 23
Portsmouth Town Council Meeting	Portsmouth Council and Public	Oct 26
Middletown Town Council Meeting	Middletown Council and Public	Oct 27
Newport Town Council Meeting	Newport Council and Public	Nov 12
Reminder for Feedback Email to all AI Gas Customers	13,000+ Aquidneck Island Gas Customers	Nov 20

Recap of Comprehensive Stakeholder Feedback

Stakeholder Views

Aquidneck
legislators

Favor **Non-Infrastructure** but recognize potential need for **Navy LNG**

Aquidneck
town councils

Primarily favor **Non-Infrastructure** and intervened to ensure EFSB jurisdiction over **Old Mill Lane**

Environmental
groups

Favor **Non-Infrastructure**

Public
comment

100+ feedback forms, 60% favoring **Non-Infrastructure** (some coordinated via advocacy groups). **Navy LNG** was second.

Themes of Recent Feedback:

1. Significant support has **emerged for Non-Infrastructure as the most-favored option** from public / advocates / legislators and town councils
2. Support for Non-Infrastructure **has not led to attendant support for Old Mill Lane**, which will be needed to deliver a Non-Infrastructure option
3. **Some Non-Infrastructure advocates oppose LNG overall** and dispute the gas capacity vulnerability need; **others are open to Navy LNG as part of a near-term solution**

Feedback + Evaluation Led to “Hybrid” Approach

1

**Advance
Non-Infrastructure
Options**

- New energy efficiency and demand response programs to **offset future demand growth**

2

**Alternative LNG
(with Potential for
“Hydrogen Hub”)**

- New LNG to replace Old Mill Lane and **solve the island’s current capacity constraint and vulnerability**
- Potential for hydrogen blending capabilities

3

**Old Mill Lane
Enhancements**

- Investments to **minimize local impacts**

What This Solution Would Mean for Aquidneck

An additional 3500 homes with envelope or HVAC improvements vs current run rate

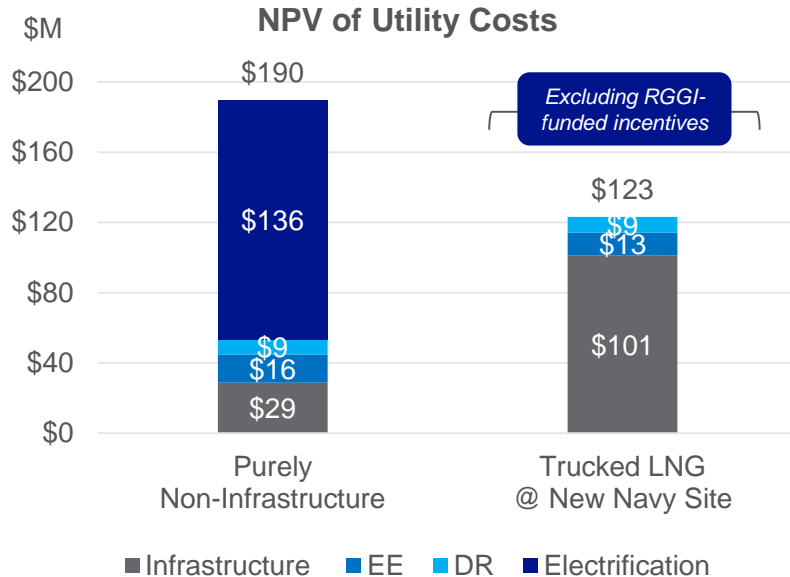
More than 3,000 Wi-Fi thermostats installed in homes and signed up for load reduction programs

A targeted program for oil/propane heating electrification marketed to Aquidneck customers

Replacing Old Mill Lane with an alternative LNG site (with potential for local hydrogen leadership)

Electrification Considerations and Approach

A purely Non-Infrastructure approach (led by electrification) would entail higher costs and require new regulatory / policy frameworks

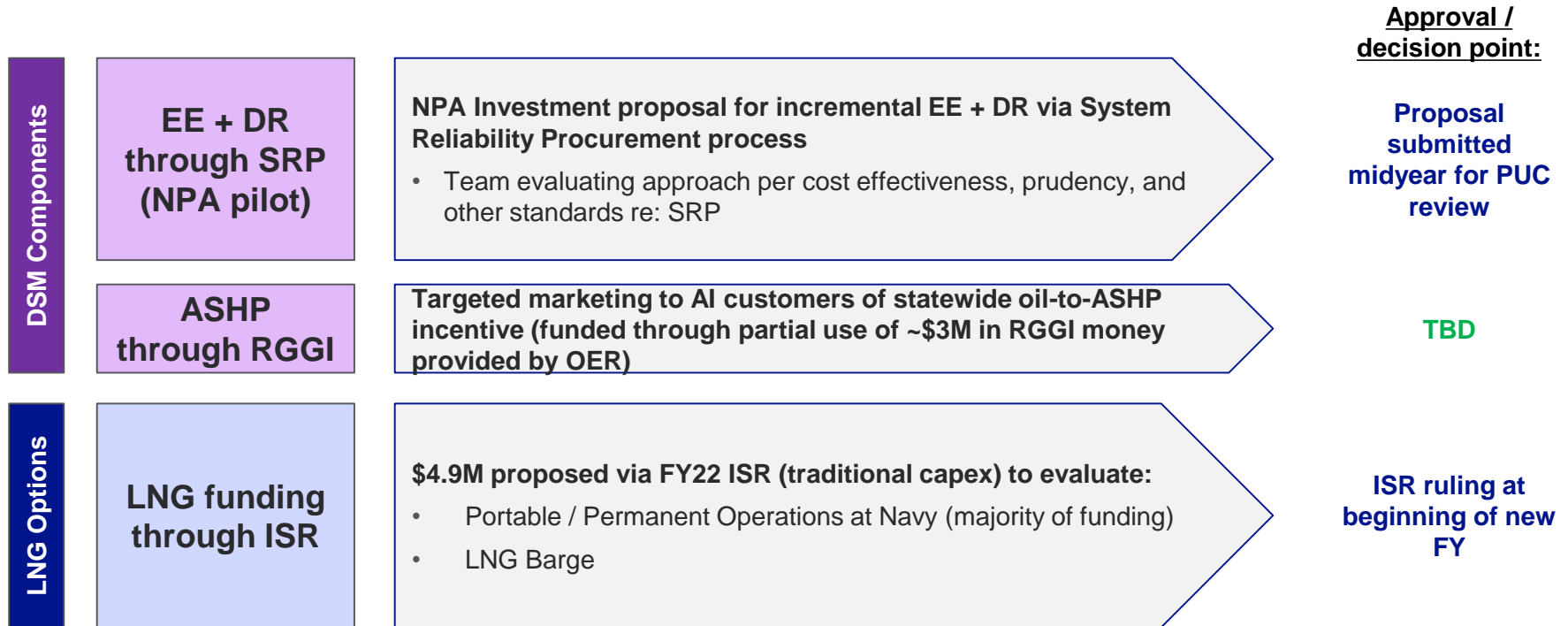


National Grid will continue to utilize RGGI fund allocation from OER to support enhanced incentives for use by delivered fuels customers to install Air Source Heat Pumps:

- Incentive will remain available state-wide until funds are exhausted
- Program and marketing will be developed to encourage Aquidneck Island residents who currently heat with delivered fuels to install ASHP (rather than convert to gas)

As frameworks for heat electrification emerge in Rhode Island, we can adapt our Non-Infrastructure portfolio accordingly (learning from pilot with delivered fuels incentive)

Implementation: Hybrid Approach Subject to Approval



All measures outside of targeted marketing of ASHP will require PUC approval, and any SRP filing will be subject to LCP standards

Portsmouth (Old Mill Lane) Portable LNG Plant Enhancements

Site Improvements:

- Electrical transformer installation to **reduce generator noise, fuel deliveries, and emissions**
- New odorization system with redundant odorizer system for **enhanced reliability**
- Light shields on all overhead lighting to **reduce light pollution**
- Heavy duty, wind-resistant privacy screen on fencing to **reduce noise**
- Improved berm design
- Vapor recovery system to reduce blowing down vessels to atmosphere for **reduced noise and emissions**
- Researching additional sound attenuation technologies



A Clean, Affordable, Reliable Future Will Require Close Collaboration

National Grid

Regulators and Administrators

Legislators and Policymakers

Rhode Island Communities