

SCHEDULE XX:

System Reliability Procurement Investment Proposal

Reducing Gas System Peak

Demand through Gas Demand Response:

A Proposal for the 2025 Gas Demand Response Pilot

DRAFT – FOR EXTERNAL REVIEW

Introduction

In accordance with Least-Cost Procurement Statute and Least-Cost Procurement Standards, Rhode Island Energy respectfully files this proposal for continuation of its Gas Demand Response Pilot during the 2025 winter season. Herein, the Company motivates the conceptual value of continuing to offer a demand response program, describes the general concepts of Gas Demand Response Pilot (or ‘Gas DR Pilot’), offers an hourly peak reduction target and associated budget, and requests approval for cost recovery of the budget via the System Reliability Procurement Factor added to the Energy Efficiency System Benefit Charge.

Motivation

Rhode Island Energy is a public utility under the provisions of R.I. Gen. Laws § 39-1-2 and provides natural gas sales and transportation service to approximately 270,000 residential and commercial customers in 33 cities and towns in Rhode Island. Each year, the Company must ensure it maintains sufficient gas supply in its resource portfolio to continuously supply the amount of gas required by customers’ (called ‘demand’ or ‘load’) throughout the year under all reasonable weather conditions.

Ensuring there is adequate supply to meet customer requirements is particularly important on the coldest days during the winter period when customer demand is at its highest (called ‘peak demand’), as the inability to provide gas to customers for heating could create unsafe environments. To accomplish this, the Company must maintain sufficient supply under contract and in storage (underground storage and LNG), reduce peak demand, and/or have sufficient time to contract for additional resources should they be required. Even so, during the coldest days of the year when our system is near daily or hourly peak demand, upstream or on-system constraints may result in demand exceeding available pipeline capacity in certain areas on the system.

Program Design for 2025

This section describes the background, program design elements and objectives of the Gas DR Pilot for 2025.

Program Offerings

During the winter of 2018/19, the Company launched the Peak Period Gas Demand Response (PPDR) pilot offering, which incentivizes customers to shift their usage outside of the peak-period of the gas system (6AM-9AM from November 1st to March 31st). This pilot targets large commercial and industrial customers who have intra-day flexibility of their natural gas usage. Customers participating in this pilot are able to achieve demand reduction via non-gas backup heating or thermostat setback. In 2019/20, the Company added the Extended Demand Response (EDR) offering, which targets large commercial and industrial customers that can achieve 24-hour gas reductions (10AM on day 1 until 10AM on day 2, Nov. 1st through March 31st), primarily with non-gas back-up heating.

Continuation of C&I Customer Offerings – Hourly Peak Reduction Targets and Program Design

The Company will continue to target 40-50 Dth of hourly peak reduction during the winter months (Nov. 1st Jan. 1st through March 31st and Nov. 1st through Dec. 31st) of 2025 through the PPDR and EDR offerings for large commercial and industrial customer offerings described above. The Company expects that the majority of these peak reduction savings will come from customers participating in what is called the full day EDR pilot offering, with the remainder from customers participating in a PPDR pilot offering.

For both DR offerings, Rhode Island Energy may place a limit on the number of consecutive days on which any individual customer can be called participate during the winter, but the Company will have the right to call up to 6 events during the winter at the established incentive rate. Customer participation in the peak demand events will be compensated via direct incentive payments, not in the form of a reduced rate.

Measurement of demand reduction for the PPDR and EDR program offerings will continue to require the utilization (and, if necessary, installation) of data recording hardware that provides granular usage data for participating customers. Data from the Gas DR pilot will be evaluated each year.

Objectives

Since the Pilot's inception, the Company has sought to assess the scalability of the program and the degree to which it might offset the reliance on Utility Reliability Procurement (i.e., gas system infrastructure investments) for mitigating capacity constraints on the gas system.

However, gas demand response has yet to provide a consistent and reliable level of reduction in gas usage during system peak demand periods due to inconsistent historic performance during called events and low customer enrollment year-over-year. Even so, the ongoing conceptual potential for gas demand response to deliver least-cost system benefits supports keeping the momentum of the program going through continuation of the low-cost Pilot so that Rhode Island Energy, the PUC, and stakeholders can continue to evaluate the efficacy of demand response in mitigating system constraints via non-infrastructure investments. Moreover, a 1-year continuation of the Pilot can serve as a bridge between January 1, 2025 and June 1, 2025, the date by which the Company will file a targeted demand response, energy efficiency, and electric heating conversation program for Aquidneck Island with the PUC in compliance with the Rhode Island Energy Facility Siting Board (“EFSB”) for the Old Mill Lane LNG Vaporization Facility.¹

The Gas DR Pilot program for year 2025 is a separate, but compatible, proposal than the program the Company will submit by June 1, 2025 in compliance with the Old Mill Lane EFSB licensing order. The Gas Demand Response program is still in the pilot phase and not linked to a specific system need. However, the natural gas outage on Aquidneck Island during January 2019 due to a low-pressure condition on the system underscored the need to be able to address and mitigate capacity constraints in real-time. Gas demand response is one potential solution, which is why the Company will continue to evaluate its potential to provide system benefits while avoiding Utility Reliability Procurement. Aquidneck Island will continue to be a particular focus, but other areas with similar capacity constraints will be evaluated.

Program Administration

Rhode Island Energy will serve as the Program Administrator for the Gas DR Pilot. In this role, Rhode Island Energy will provide strategic direction and management of the Gas DR Pilot. The Company’s role manifests through program design, implementation, and evaluation. Rhode Island Energy is uniquely suited for this role because of its management of gas supply procurement, knowledge of its gas distribution system to mitigate risks through program design, everyday relationship with its customers to promote program participation, and ability to coordinate with all other business activities.

Rhode Island Energy will be responsible for day-to-day program operations and managing relationships and contracts with customers enrolled and participating in the Gas DR Pilot. The Company will also be responsible for data collection, participant enrollment, program impact evaluation, participant satisfaction, participant troubleshooting, incentive payouts, and ancillary technical assistance.

¹ Citation to OML EFSB license approval.

Gas Demand Response Pilot Continuation – Large Commercial & Industrial Customers

Target Participants:

The Gas DR Pilot is designed for large commercial and industrial customers with firm service.

Eligible Technologies – HVAC Controls and Back-Up Heating Systems:

Customers participating in the Gas DR Pilot must be able to provide peak demand reduction via HVAC setbacks or by switching to a back-up heating system that utilizes a fuel other than natural gas.

Incentive Structure and Amount:

As was the case in prior years, customer compensation for participation in the Gas DR Pilot offering will be based on a combination of ‘reservation’ and ‘energy’ payments that differ for the PPDR and EDR offerings. Each of these rates will be standard offers to all customers, though customer earning opportunity will vary based on the volume of peak hour Dth reduction that each customer can commit to and deliver. The Company will utilize a rolling performance rating that measures customer reliability and limits payments to nonperforming resources.

	PPDR	EDR
Event Duration (hours) (Maximum 6/winter)	3 6AM-9AM	24 10AM-10AM
Capacity Payment (per month)	\$250/peak-hour Dth	\$700/peak-hour Dth
Energy Payment	\$50/Dth	\$7/Dth

Annual Peak Reduction Targets

The anticipated annual peak reduction target for the large commercial and industrial customer Gas DR Pilot is expected to continue to be 27,520 therms for 2025. An increase in participation by large commercial and industrial customers may result in additional incremental savings. Incremental reduction targets will be dependent on enrollment and participation levels. Estimated incremental savings associated with increased participation among large commercial and industrial customers at any juncture in 2025, will be developed and proposed in an amended Gas DR Pilot SRP Investment Proposal.

Budget and Funding Source

The anticipated annual budget for the large commercial and industrial customer Gas DR Pilot is expected to continue to be \$268,042 for 2025. An increase in participation by large commercial and industrial customers may result in incremental spend associated with incentive payments, administrative, and marketing costs. Funding will be through cost recovery of the budget via the System Reliability Procurement Factor added to the Gas Energy Efficiency Charge. Estimated

**THE NARRAGANSETT ELECTRIC COMPANY
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