

# 2019 System Reliability Procurement Plan

First Draft

Collaborative: August 21, 2018

EERMC: August 23, 2018

# Review of NWAs

- 48 distribution projects initiated
- No projects passed initial NWA screening criteria
  - ◆ However, there may be projects from the South County East Area Study. The Company is actively pursuing Requests for Information (RFIs) with solution providers to test the market for NWA solutions in the towns of Narragansett, South Kingstown, and Exeter.
- Past Area Study NWA opportunities
  - ◆ The Company has previously identified NWA opportunities from the Providence and East Bay Area Studies that are pending re-evaluation, however a re-evaluation timeline has yet to be agreed upon.

# Rhode Island System Data Portal

- Distribution System Loading Constraint Map (Heat Map)
  - ◆ Delivered initial version on 6/30/2018
- Distributed Generation (DG)-Focused Map
  - ◆ Delivered initial version on 6/30/2018
    - Included 3V0 information at Substations and Interconnected/Pending DG on feeders
  - ◆ Feeder hosting capacity will be available by 9/30/2018
- Location-based Avoided Cost Stakeholder Review Process
  - ◆ Documented next steps completed by 8/30/2018
- Issue 2 RFPs by 12/31/2019
- Marketing & Engagement Plan next version provide to Parties by 3/31/2019

# Tiverton Pilot – Final Closeout and Evaluation

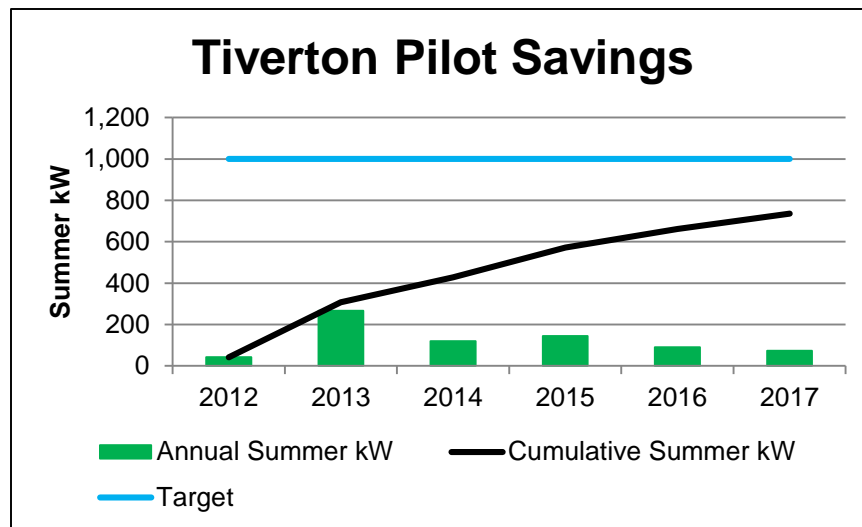
## ➤ Focus in 2018

- ◆ Conclusion of Pilot by December 31, 2017
- ◆ Final email notification to customers on June 5, 2018, to coincide with new DR season
- ◆ Final evaluation completed in July 2018

## ➤ DR Event Stats of 2017

- ◆ 23 DR events called (6 in July, 10 in August, 7 in September)
- ◆ 63% participation from central AC customers
- ◆ 735 kW cumulative reduction from DemandLink

# Tiverton Pilot – Savings



**Table S-7**  
**System Reliability Procurement - Tiverton/Little Compton**  
**Potential for Wires Project Deferral at Year Begin**

|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018  |
|--|------|------|------|------|------|------|-------|
| <b>Cumulative Annual kW from Energy Efficiency</b>                 |      |      | 239  | 342  | 475  | 559  | 619   |
| Focused Energy Efficiency  |      |      | 153  | 215  | 325  | 381  | 419   |
| SRP Energy Efficiency  |      |      | 86   | 127  | 149  | 178  | 200   |
| <b>Cumulative Annual kW from Demand Reduction</b>                  |      |      | 82   | 86   | 97   | 103  | 103   |
| Thermostats - Residential  |      |      | 74   | 75   | 85   | 91   | 91    |
| Thermostats - C&I  |      |      | 3    | 3    | 3    | 3    | 3     |
| Smart Plugs  |      |      | 4    | 7    | 9    | 9    | 9     |
| <b>Cumulative Annual kW from RFP</b>                               |      |      |      |      |      |      | 13    |
| <b>Total Cumulative kW Reduction From DemandLink</b>               |      |      | 321  | 427  | 572  | 662  | 735   |
| <b>Total Cumulative kW Reduction Needed to Defer Wires Project</b> |      |      | 150  | 390  | 630  | 860  | 1,000 |
| <b>% Deferral Targets Achieved by DemandLink</b>                   |      |      | 214% | 110% | 91%  | 77%  | 74%   |

# Little Compton Battery Storage Project

## ➤ Background

- ◆ Project proposal to defer substation upgrade until 2023
- ◆ Grew out of Tiverton NWA Pilot, RFP conducted in 2017

## ➤ Project Plan for 2019

- ◆ Install battery storage system and begin metering evaluation

## ➤ Load Relief and Funding

- ◆ 250kW of continuous peak load relief for 4 hours
- ◆ The Company proposes \$109,500 to fund this project for each year of operation

# Little Compton Battery Storage Project

- The benefit-cost analysis below utilizes the RI Test

| Little Compton Battery Storage Project |             |
|--|-------------|
| Total Cost                             | \$438,000   |
| Total Benefits                         | \$1,004,816 |
| Net Benefits                           | \$566,816   |
| Project BC Ratio                       | 2.29        |

- Please Note: The total cost in this table is a four-year amount. The 2019 SRP Report requests funding only for the first year.

# South County East NWA Projects

- The Company is pursuing three potential NWA opportunities identified in the South County East (SCE) Area Study
- Identified locations are:
  - ◆ Exeter
  - ◆ Narragansett
  - ◆ South Kingstown
- Currently in the RFI stage to test the market for best-fit solutions for these NWA opportunities
- Will progress to the RFP stage following RFIs evaluation
- The Company shall select winning bids on the RFPs by 6/30/2019



# Customer-Facing Program Enhancement Study

- The proposed Study will develop and test novel customer engagement approaches that are designed to increase enrollment, participation, and retention in Residential and Small Commercial (R&SC) customer programs
- Results of the Study will be used to develop a new customer DR program to specifically address distribution-level constraints in Rhode Island
- The Company will share an initial version of the RI Pilot R&SC Customer DR Program Implementation Plan by December 31, 2019

# Customer-Facing Program Enhancement Study

- BCA calculation was performed for the initial pilot project period (2019-2022) plus an additional 10-year period (2023-2032) over which time it is assumed the program enhancement will be applied to programs deployed in other locations

| Customer-Facing Program Enhancement Study |             |
|---|-------------|
| Total Cost                                | \$3,447,059 |
| Initial DR Study Pilot Costs (2019-2022)  | \$930,927   |
| On-Going DR Program Costs (2023-2032)     | \$2,516,131 |
| Total Benefits                            | \$7,397,617 |
| Net Benefits                              | \$4,881,486 |
| BC Ratio                                  | 2.15        |

# Rhode Island Locational Incentives

- Research and analysis performed in 2017 to create a locational incentive program followed a three-phase approach:
  1. Expedited method for screening feeders
  2. Understanding the benefits solar PV could provide
  3. Determination of potential avoided cost benefits
- The analysis concluded there are no T&D constraints or costs to avoid.
- Therefore, the Company did not propose Locational Incentives but did outline how it could design and calculate if forecasts point to constraints in the future.

# Rhode Island Locational Incentives

## ➤ 2018 Proposal Summary

- ◆ Analyzed the New York Value of Distributed Energy Resources (VDER) proceeding and compared to Rhode Island. The Company does not propose to follow the NY process in RI for the following reasons:

|                    | NY VDER  | Rhode Island  |
|--------------------|--|---|
| Net Metering       | Location System Relief Value (LSRV) is not an incentive in addition to net metering. It is a price signal designed to replace net metering.                    | Net Metering is still applicable in RI.   |
| DG Installation    | Expressed purpose of LSRV is to compensate DER and spur development of community distributed generation.   | RI has long and successful history of incentivizing developers to install DG.   |
| Bottom Up Forecast | Used in DSIP. Over the next 4-5 years, the NY team is creating a BU forecast w/more data on DG, EV loads, electrical efficiency, and energy storage solutions. | RI is observing the efforts in NY to learn from their analysis. A BU forecast is not built into the current RI work plan. |

- ◆ The Company proposes to use 80% of the deferral value for specific NWA locations to provide an incentive (a per kWh credit to be paid based on performance) for bidders to respond to when these RFPs are issued in late 2018, as per the 2018 plan.

# SRP Incentive Mechanism Proposal

## ➤ Action-Based SRP Incentives

| Action                                    | % of 2019 SRP Budget |
|---|----------------------|
| Issue RFPs for NWA Resources              | 2%                   |
| Marketing & Engagement Plan               | 1%                   |
| Little Compton Battery Storage Project    | 1%                   |
| South County East NWA Projects            | 1%                   |
| Customer-Facing Program Enhancement Study | 1%                   |

## ➤ Savings-Based SRP Incentives

- ◆ DERs must be deemed cost-effective to earn SRP incentive.
- ◆ Net benefits of the DERs will be shared 20% to the Company and 80% to customers.

# SRP 2019 Proposed Budget

| SRP Initiative                            | Cost             |
|---|------------------|
| Marketing & Engagement Plan               | \$124,800        |
| Little Compton Battery Storage            | \$109,500        |
| Customer-Facing Program Enhancement Study | \$175,000        |
| South County East RFP Evaluation          | \$50,000         |
| <b>Total</b>                              | <b>\$459,300</b> |

# SRP 2019 Funding Request

**Table S-1  
National Grid  
System Reliability Procurement  
Funding Sources  
\$(000)**

|  | <b>2019</b>          |
|--|----------------------|
| (1) <b>2019 SRP Budget</b>   | <b>\$459.3</b>       |
| (2) <b>Projected Year-End Fund Balance and Interest:</b>                             | <b>\$574.2</b>       |
| (3) <b>Customer Funding Required:</b>  | <b>-\$114.9</b>      |
| (4) <b>Forecasted kWh Sales:</b>   | <b>7,242,559,891</b> |
| (5) <b>Additional SRP Funding Needed per kWh:</b>                                    | <b>-\$0.00002</b>    |
| (6) <b>Proposed Energy Efficiency Program charge in EEPP</b>                         | <b>\$0.01149</b>     |
| (7) <b>Proposed Total Energy Efficiency Program charge in EEPP</b>                   | <b>\$0.01147</b>     |
| (8) <b>Proposed Total Energy Efficiency Program charge w/ Uncollectible Recovery</b> | <b>\$0.01161</b>     |

# QUESTIONS AND COMMENTS