SYSTEM RELIABILITY PROCUREMENT

2020 PLAN REPORT

National Grid 2020 System Reliability Procurement Plan Report

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2020 SYSTEM RELIABILITY PROCUREMENT PLAN REPORT

1. Executive Summary

The purpose of System Reliability Procurement (SRP) is to identify customer-side and grid-side opportunities beyond energy efficiency (EE) that are cost-effective and provide the path to lower supply and delivery costs to customers in Rhode Island.

This SRP Report is submitted in accordance with the Least-Cost Procurement (LCP) law, R.I. Gen. Laws § 39-1-27.7, the basis for which is the Comprehensive Energy Conservation, Efficiency, and Affordability Act of 2006¹ (the 2006 Act) and as amended in May 2010. The 2006 Act provides the statutory framework for least-cost procurement, including system reliability in the State of Rhode Island. The 2006 Act provides a unique opportunity for Rhode Island to identify and procure cost-effective customer-side and distributed resources with a focus on alternative solutions to the traditional supply and infrastructure options. These alternative solutions may deliver savings to customers by deferring or removing the need for distribution system investment and improving overall system reliability over time.

This SRP Report is also submitted in accordance with the Rhode Island Public Utilities Commission's (PUC) revised "System Reliability Procurement Standards," which the PUC approved in Docket No. 4443 (SRP Standards).² The Least-Cost Procurement law, R.I. Gen. Laws § 39-1-27.7, requires standards and guidelines for system reliability. On June 10, 2014 in Docket 4443, the PUC unanimously approved revised standards for system reliability, finding that the standards were consistent with the policies and provisions of R.I. Gen. Laws 39-1-27.7.1(e)(4),(f) and R.I. Gen. Laws § 39-1-27.7.3. Revisions to the Least-Cost Procurement Standards are currently under review in PUC Docket 4684.

§ 39-1-27.7. System reliability and least-cost procurement. – Least-cost procurement shall comprise system reliability and energy efficiency and conservation procurement as provided for in this section and supply procurement as provided for in § 39-1-27.8, as complementary but distinct activities that have as common purpose meeting electrical energy needs in Rhode Island, in a manner that is optimally cost-effective, reliable, prudent and environmentally responsible.³

¹ "The Comprehensive Energy Conservation, Efficiency and Affordability Act of 2006." *State of Rhode Island General Assembly*, 25 Apr. 2006, <u>http://www.ripuc.org/eventsactions/docket/3759-RIAct.pdf</u>.

² "2011 Least Cost Procurement Standards with Proposed 2014 Revisions." *State of Rhode Island Public Utilities Commission and Division of Public Utilities and Carriers*, Energy Efficiency and Resource Management Council, 27 Mar. 2014, <u>www.ripuc.org/eventsactions/docket/4443-EERMC-LCPS-Final 5-27-14.pdf</u>.

³ "Title 39 Public Utilities and Carriers." *State of Rhode Island General Laws*, State of Rhode Island General Assembly, <u>http://webserver.rilin.state.ri.us/Statutes/title39/39-1/39-1-27.7.HTM</u>.

The Least-Cost Procurement law further states that SRP resources are intended to include the following:

- (i) Procurement of energy supply from diverse sources, including, but not limited to, renewable energy resources as defined in chapter 26 of this title;
- (ii) Distributed generation, including, but not limited to, renewable energy resources and thermally leading combined heat and power systems, which is reliable and is cost-effective, with measurable, net system benefits;
- (iii) Demand response, including, but not limited to, distributed generation, back-up generation and on-demand usage reduction, which shall be designed to facilitate electric customer participation in regional demand response programs, including those administered by the independent service operator of New England ("ISO-NE") and/or are designed to provide local system reliability benefits through load control or using on-site generating capability;

SRP resources include, in part, Non-Wires Alternatives (NWA). Section 2.1(D) of the SRP Standards requires that the Narragansett Electric Company⁴ identify transmission and distribution (T&D) projects that meet certain screening criteria for potential NWA solutions that reduce, avoid, or defer T&D wires solutions.

Non-Wires Alternative, sometimes referred to as non-wires solution, is the inclusive term for any targeted electrical grid investment that is intended to defer or remove the need to construct or upgrade components of a distribution and/or transmission system, or "wires investment".

These NWA investments are required to be cost-effective compared to the wires investment and are required to meet the specified electrical grid need.

An NWA can include any action, strategy, program, or technology that meets this definition and these requirements.

Some technologies and methodologies that can be applicable as an NWA investment include demand response, solar, energy storage, combined heat and power (CHP), microgrid, conservation or energy efficiency measure, and other distributed energy resources (DERs). NWA projects can include these and other investments individually or in combination to meet the specified need in a cost-effective manner.

⁴ The Narragansett Electric Company d/b/a National Grid (National Grid or Company).

Section 2.1(I) of the SRP Standards further require the Company to submit, by November 1 of each year, an annual SRP Report that includes, among other information, a summary of where NWAs were considered, identification of projects where NWAs were selected as a preferred solution, an implementation and funding plan for selected NWA projects, recommendations for demonstrating distribution or transmission projects for which the Company will use selected NWA reliability and capacity strategies, and the status of any previously approved NWA projects. For additional discussion on the criteria for NWA analysis, please see Section 10.

In addition to NWA opportunities, SRP resources can also include other efforts that adhere to the Least-Cost Procurement goals; that these resources be *complementary but distinct activities that have a common purpose of meeting electrical energy needs in Rhode Island, in a manner that is optimally cost-effective, reliable, prudent and environmentally responsible.*

2. Introduction

The Company is pleased to submit this annual 2020 System Reliability Procurement Plan Report (SRP Report) to the PUC. The SRP Report has been developed by National Grid through an iterative process with the SRP Technical Working Group (the SRP Tech Group).⁵⁶

This Plan is being jointly submitted as a Stipulation and Settlement (Settlement) between the Acadia Center, Division of Public Utilities and Carriers (Division), the Energy Efficiency and Resource Management Council (EERMC), Green Energy Consumers Alliance⁷, the Office of Energy Resources (OER), The Energy Council of Rhode Island (TEC-RI), and National Grid (together, the Parties). This Plan addresses a range of topics discussed by members of the SRP Tech Group regarding the Company's SRP Report for calendar year 2020.

National Grid respectfully seeks approval of this 2020 SRP Report in accordance with the guidelines set forth in Section 2.1 of the SRP Standards.

⁵ Members of the SRP Tech Group presently include the Company, the Division, the OER, TEC-RI, Green Energy Consumers Alliance, Acadia Center, several EERMC members, and representatives from the EERMC's Consulting Team.

⁶ "The Collaborative." *RI Energy Efficiency & Resource Management Council*, RI Energy Efficiency & Resource Management Council, <u>https://rieermc.ri.gov/thecollaborative/</u>.

⁷ Formerly People's Power & Light.

3. Summary of the Company's Proposal

This 2020 SRP Report includes the following sections:

Sections 1 through 8: Informative sections outlining the background of SRP, the Company's overall proposal, and detailing the Company's alignment with Docket 4600 principles and goals and coordination with Power Sector Transformation, Energy Efficiency, Grid Modernization and Advanced Metering Functionality (AMF), and Infrastructure, Safety and Reliability (ISR) plans.

Section 9: An information-only section that holistically details the load growth forecast of the electric distribution system in Rhode Island in coordination with NWA planning and opportunities.

Section 10: An information-only section that details how NWAs are part of the electric distribution planning process. This section also identifies area studies relevant to NWA opportunities and analysis.

Section 11: This section details the Rhode Island System Data Portal (Portal) and associated resources and its current implementation status.

The Company requests approval in this section on the proposed additional Portal enhancement.

Section 12: This section details market engagement efforts the Company performs with respect to SRP. The Company currently implements the SRP Outreach and Engagement Plan, as detailed in this section and with the current proposed version included as an appendix.

The Company requests approval in this section on the proposed 2020 Outreach and Engagement Plan and its respective funding request.

Section 13: This section details the South County East (SCE) NWA opportunities. This section provides information from the South County East Area Study which details the potential for NWA opportunities in the Towns of Narragansett and South Kingstown.

The Company requests approval in this section on the proposed South County East NWA opportunities and their respective funding requests.

Section 14: This section details the incentive mechanism for SRP. The incentive mechanism contains action-based, savings-based, and earned incentives to further advance achievement of LCP goals.

The Company requests approval in this section on the proposed action-based and savingsbased incentive items. The Company also requests approval in this section on the proposed earnings for the action-based incentive items achieved in calendar year 2018.

Section 15: This section details the funding request and associated customer charge for this SRP Report.

The Company requests approval in this section on the proposed overall funding request for the projects and initiatives included in this SRP Report.

Section 16: This section contains the miscellaneous provisions and signature pages of the settling parties for this 2020 SRP Report.

The proposals and information the Company presents in this SRP Report advance Power Sector Transformation goals, align with Docket 4600 principles, are coordinated with the Company's other programs and filings, and adhere to the Least-Cost Procurement law.

4. Advancing Docket 4600 Principles and Goals

This section illustrates how the SRP Plan advances Docket 4600 principles and goals through the information it provides and proposals the Company puts forth.

The Docket 4600-A Guidance Document directed that "the proposing party must provide accompanying evidence that addresses how the proposal advances, detracts from, or is neutral to each of the stated goals of the electric system."⁸

Along with the quantitative benefits detailed in the Plan, as measured by the Rhode Island Benefit-Cost Model Test (RI Test), this System Reliability Procurement Plan advances Docket 4600 principles and goals.⁹

To meet this directive, the Company describes in the table below how the Plan either advances, detracts, or remains neutral on achieving Docket 4600 goals for the electric system.

Docket 4600 articulates several distinct goals for the electric system in Rhode Island:

- Provide reliable, safe, clean, and affordable energy to Rhode Island customers over the long term (this applies to all energy use, not just regulated fuels);
- Strengthen the Rhode Island economy, support economic competitiveness, retain and create jobs by optimizing the benefits of a modern grid and attaining appropriate rate design structures;
- Address the challenge of climate change and other forms of pollution;
- Prioritize and facilitate increasing customer investment in their facilities (efficiency, distributed generation, storage, responsive demand, and the electrification of vehicles and heating) where that investment provides recognizable net benefits;
- Appropriately compensate distributed energy resources for the value they provide to the electricity system, customers, and society;
- Appropriately charge customers for the cost they impose on the grid;
- Appropriately compensate the distribution utility for the services it provides;
- Align distribution utility, customer, and policy objectives and interests through the regulatory framework, including rate design, cost recovery, and incentives.

⁸ Approved final clean version of Guidance Document 10/27/17.

⁹ PUC Report and Order No. 22851 accepting the Stakeholder Report. Written Order issued July 31, 2017.

4600 Goals for Electric System	Advances/Detracts/Neutral
Provide reliable, safe, clean, and affordable energy to Rhode Island customers over the long term.	Advances: The SRP Report provides for safe, clean, and affordable energy to customers through new NWA proposals. These NWA proposals are mandated to be cost-effective, reliable, prudent and environmentally responsible.
Strengthen the Rhode Island economy, support economic competitiveness, retain and create jobs by optimizing the benefits of a modern grid and attaining appropriate rate design structures.	Advances: The SRP Report strengthens the RI economy by engaging economic benefits of the RI Test model in the planning of NWA opportunities. Additionally, the Company will be engaging with third-party vendors to provide solutions where needed by customers and the electric grid in a cost- effective manner.
Address the challenge of climate change and other forms of pollution.	Advances: SRP adheres to the Least-Cost Procurement law, which mandates, in part, that SRP activities meet electrical energy needs in Rhode Island in a manner that is optimally environmentally responsible.
Prioritize and facilitate increasing customer investment in their facilities (efficiency, distributed generation, storage, responsive demand, and the electrification of vehicles and heating) where that investment provides recognizable net benefits.	Advances: The SRP Report promotes investment in NWAs, which include such technologies as battery storage, demand response, and distributed generation. The Tiverton NWA Pilot and South County East NWA opportunities are examples of this.
Appropriately compensate distributed energy resources for the value they provide to the electricity system, customers, and society.	Advances: The SRP Report appropriately compensates DERs when the Company enters an agreement for an NWA project with a third-party DER solution provider. NWA project contracting follows the SRP standards and least-cost procurement law, and therefore compensates DERs in a cost-effective manner.

Table 1: Docket 4600 Goals for the Electric System

4600 Goals for Electric System	Advances/Detracts/Neutral
Appropriately charge customers for the cost they impose on the grid.	Advances: The Company implements locational incentives with its proposed NWA opportunities for appropriate compensation or charges for the cost that customer-side resources impose on the grid.
Appropriately compensate the distribution utility for the services it provides.	Advances: The incentive mechanism contained in this SRP Report compensates the Company for achieving SRP and NWA technologies goals through delivering effective SRP resources and programs to customers.
Align distribution utility, customer, and policy objectives and interests through the regulatory framework, including rate design, cost recovery, and incentive.	Advances: The SRP Report aligns Company, customer, and policy objectives and interests by implementing the SRP Incentive Mechanism, to enable actualization of NWA projects and SRP resources that benefit both the distribution grid and Rhode Island customers. Additionally, the Company implements prudent and effective cost recovery via the NWA projects proposed in the SRP Report. Furthermore, SRP follows Least-Cost Procurement law, the basis for which is the Comprehensive Energy Conservation, Efficiency, and Affordability Act of 2006 (as amended in May 2010).

5. Coordination with Power Sector Transformation

This section describes how SRP coordinates with Power Sector Transformation (PST) Phase One Report¹⁰ goals and recommendations. Please refer to the PST Phase One Report for the full details on the goals and recommendations.

The PST Phase One Report details the following goals:

1. **Control the long-term costs of the electric system.** The regulatory framework should promote a broad range of resources to help right-size the electric system and control costs for Rhode Islanders. Today's electric system is built for peak usage. New technology provides us with more ways to meet peak demand and lower costs.

SRP has the potential to control the long-term costs of the electric system by proactively searching for potential NWA opportunities to be implemented on the electric distribution grid instead of the traditional wires option at lower costs to customers. Such NWA opportunities may include technologies and methodologies such as demand response, solar, energy storage, combined heat and power (CHP), microgrid, conservation or energy efficiency measure, and other distributed energy resources (DERs). These technologies can help increase electric grid reliability through implementation as cost-effective and safe solutions in place of the traditional wires option, all aspects of which readily align with controlling the long-term costs of the electric system.

2. **Give customers more energy choices and information.** The regulatory framework should allow customers to use commercial products and services to reduce energy expenses, increase renewable energy, and increase resilience in the face of storm outages. Clean energy technologies are becoming more affordable. Our utility rules should allow customers to access solutions to manage their energy production and use.

SRP provides customers with more energy choices and information through programs such as NWA participation opportunities. NWAs have the potential to reduce energy expenses by providing a cost-effective solution in place of a traditional wires option. NWA resources include and depend on renewable energy opportunities to provide unique benefits than a wires option. Properly configured NWA resources could provide resilience from outages as compared to the traditional wires option.

¹⁰ "Rhode Island Power Sector Transformation: Phase One Report to Governor Gina M. Raimondo." *State of Rhode Island Public Utilities Commission and Division of Public Utilities and Carriers*, Division of Public Utilities and Carriers, Office of Energy Resources, and the Public Utilities Commission, Nov. 2017, www.ripuc.org/utilityinfo/electric/PST%20Report Nov 8.pdf.

3. **Build a flexible grid to integrate more clean energy generation.** The regulatory framework should promote the flexibility needed to incorporate more clean energy resources into the electric grid. These resources would help Rhode Island meet the greenhouse gas emission reduction goals specified in the Resilient Rhode Island Act of 2014 and consistent with Governor Raimondo's goal of 1,000 megawatts of clean energy, equal to roughly half of Rhode Island's peak demand, by 2020.

SRP is designed to build a flexible grid to integrate more clean energy generation through NWA opportunities, initiation of the Rhode Island System Data Portal, and engagement with thirdparty solution providers. The 2018 SRP Report commenced work on the Portal, an interactive tool that provides information to stakeholders, customers, and third parties regarding the status of the Company's distribution grid. This tool enables third-party solution providers to proactively identify areas on the electric distribution grid in Rhode Island where NWA or other opportunities may be implemented. Application of such NWA technologies, as described previously, can enhance the flexibility of the electric grid, such as with battery storage technology, or directly contribute to more clean energy generation, such as with wind or solar technologies.

The PST Phase One Report also details the following recommendations:

- 1. Synchronize filings related to Distribution System Planning. National Grid should begin filing the ISR and SRP as two linked, synchronized, and cross-referenced Distribution System Planning (DSP) filings each year. Linking these two filings and including key DSP-related content will: (1) provide increased transparency and a codified mechanism for stakeholder and regulatory input into the improvement of DSP analytics and tools over time, and (2) enable the Commission and stakeholders to consider investments proposed in the ISR and SRP in a comprehensive and holistic manner. Coordinating these filings should account for the sequencing necessary by National Grid to develop the plans, including considerations related to the differing planning horizons associated with infrastructure projects versus NWA. ISR/SRP filings should include the following elements:
 - Methodologies, assumptions, and results of the annual forecasting process;
 - Any amendments to customer and third-party data access plans and procedures;
 - Proposed updates to the Rhode Island DSP Data Portal based on stakeholder input; and
 - Description of updates and improvements to publicly-provided datasets such as heat and hosting capacity maps.

SRP has synchronized with Distribution System Planning and the ISR filing to a certain extent, in that potential NWA opportunities are screened for as a standard part of DSP and that SRP takes into account the annual electric peak load forecasting, as seen in Sections 9 and 10. The Company recognizes that improved synchronization between SRP and Distribution System Planning and the ISR filing is necessary, and intends to improve coordination between the SRP,

ISR, and EE filings. Therefore, the Company intends to improve stakeholder engagement and have enhanced discussions on SRP, NWA, and related policy and programs. The work the Company has completed on the Portal to date and proposals for enhancement, which developed from stakeholder discussion and input, are described in Section 11.

2. **Improve forecasting.** National Grid should include detailed information on its forecasts used for DSP in annual SRP/ISR filings. Inclusion of forecasts within the SRP/ISR filings will provide regulators and stakeholders with the opportunity to provide ongoing review and feedback. In addition, National Grid should implement a robust stakeholder engagement plan during forecast development to provide policymakers and third parties the opportunity to review and provide input on forecasting assumptions and methodology.

This SRP Report currently includes information on forecasted electric load growth, as seen in Section 9, for the main purpose of identifying and coordinating with potential NWA opportunities. This SRP Report also includes the Rhode Island Electric Peak (MW) Forecast in Appendix 2 for additional, holistic information. The Company intends to implement robust stakeholder engagement and discussion on potential NWA opportunities when they are identified, with regard to electric load forecasts.

3. Establish customer and third-party data access plans. National Grid should include and seek approval of a plan for establishing and improving customer and third-party data access in the upcoming rate case. Updated data access plans should be included in future annual SRP/ISR filings. Inclusion of data access plans within the SRP/ISR filings will provide regulators and stakeholders with the opportunity to provide ongoing review and feedback.

SRP establishes customer and third-party data access through the Rhode Island System Data Portal. The 2019 SRP Report proposed further work on the Portal to improve data access for external parties. The 2019 SRP Report also proposed commitment to discussion regarding an "Open RFP" situation and to inclusion of redacted area studies in the Portal. SRP does not currently maintain a specific data access plan, as a document or otherwise. The Company will commit to researching the development of a data access plan for SRP in the 2020 calendar year.

4. **Compensate locational value.** State policymakers and regulators should develop an implementation strategy for locational incentives/value of DERs in Rhode Island, in consultation with National Grid and stakeholders.

The 2019 SRP Report presented the Company's research and findings on locational incentive analysis for Rhode Island. The 2019 SRP Report detailed the Company's commitment to stakeholder engagement and discussion regarding locational incentives in Rhode Island, and to determine the proper method or mechanism for proposing such a locational incentive.

6. Coordination with Energy Efficiency

The Company continues coordination between SRP and customer offerings in the Energy Efficiency Program Plan (EE Plan) to ensure that efforts, projects, and programs are optimal and not duplicated. The Company coordinates SRP and EE planning efforts so that opportunities for targeted EE is considered in NWA opportunity development. Examples could include enhanced or targeted community initiatives or enhanced marketing for ConnectedSolutions. Additionally, the SRP charge is included within the energy efficiency program charge on customers' bills. The Company also coordinates communications between the SRP Technical Working Group to the EE Technical Working Group.

7. Coordination with Infrastructure, Safety and Reliability

The Company prepares area studies to identify reliability and safety needs and associated solution options and recommendations for the Electric Distribution business in Rhode Island. The solutions identified in area studies can include both wires and non-wires alternatives. After an analysis of all options identified, the Company recommends the solution that is the least cost option that will meet the needs identified in the area studies. If the recommended solution is a non-wires alternative, progression of the bidding, approval and implementation processes will progress through the SRP Plan. If the recommended solution is a 'wires' alternative, it will be progressed through the Infrastructure, Safety and Reliability Plan (ISR Plan).

The Company is therefore coordinated between the SRP Plan and ISR Plan with regard to NWA opportunity planning and development in parallel consideration to a wires solution investment. Please see Section 10 for in-depth detail regarding the planning process and coordination.

8. Coordination with Grid Modernization and AMF

The SRP team is tracking the development and implementation of the Grid Modernization Plan (GMP) and Advanced Metering Functionality (AMF) Business Case filings to ensure coordination is maintained with the outcome of these plans. The Company will coordinate the SRP Plan with the GMP and AMF filings to ensure that efforts, projects, and programs are not being duplicated and to ensure cohesive and comprehensive plan framework and implementation.

The SRP team is aware that AMF proposal includes enhanced data availability and access. Such enhanced data may further improve planning and development of potential NWA opportunities. Additionally, the SRP team understands that third-party data access to AMF may be required for the implementation of certain NWA projects. The SRP and NWA teams are therefore following the development and implementation of the AMF filing with these specific data access themes in mind, in addition to following the AMF Business Case in general.

The SRP team is aware that Grid Modernization may handle functional topics such as EV, DG, energy storage, demand response, and other technologies and methodologies through its development and implementation. The SRP and NWA teams are therefore following the development and implementation of the GMP to ensure coordination is maintained.

The Company maintains overall coordination between SRP and the GMP and AMF filings.

9. Forecasted Load Growth for NWA Opportunities

This section provides an overview and update on forecasted load growth for areas in Rhode Island that have the potential for NWA opportunities.

The Company's electric distribution system serves close to 500,000 customers in 38 cities and towns in Rhode Island. The residential class accounts for approximately 41% of the Company's total Rhode Island load, the commercial class accounts for approximately 49%, and the industrial class accounts for approximately 10%.

The forecasted load growth rates for cities and towns in Rhode Island are shown in Appendix 2.

Section 9.1 addresses forecasted load growth in the Washington County area, which the South County East NWA opportunities plan to address.

The Company has not presently identified NWA opportunities in other areas of Rhode Island with the current load growth forecast.

The Company commits to discussing with the Parties the inclusion of electrification of heat and transportation in the Company's electric peak load forecasting.

9.1 Forecasted Load Growth in Washington County

The Washington County area annual weather-adjusted summer peak is expected to increase at an average annual growth rate of 0.7% for the next 10 years. This rate is greater than the statewide average annual growth rate of 0.0%.

10. NWAs in System Planning

This section illustrates the NWA planning process with respect to distribution system planning (DSP). This section also details area studies relevant to NWA opportunities and analysis.

The terms "potential NWA opportunity" or "NWA opportunity" refer to a non-wires investment option that has been identified for a specific electric grid need but which has not yet been confirmed as an NWA project for implementation in place of the wires investment option.

Potential NWA opportunity screening and analysis is included as a standard part of the electric distribution system planning process.

The Company identifies and screens potential NWA opportunities through the following highlevel sequential process:

- The Distribution System Planning team develops a scope for a system need or area study.
- The DSP team performs an initial system assessment, either as part of an area study or when other targeted asset management and planning projects are initiated.
 - Potential NWA opportunities are identified and screened at this stage.
- An engineering analysis is performed to gather detailed information for comprehensive plan development.
 - This information is also included as part of development of an NWA opportunity and NWA request for proposals (RFP).
- Plan development is the stage when wires options and non-wires options are developed for consideration and evaluation.
 - The NWA team develops the NWA RFP, sends the RFP to market, and receives and evaluates NWA bid responses during this stage.
- The DSP team then reviews the wires and non-wires options with respect to cost, system reliability, safety, and other factors and finalizes the recommended plan.
 - Recommended plans for wires options go into the ISR Plan.
 - Recommended plans for NWA options go into the SRP Plan.

To determine whether a potential NWA opportunity is feasible for an electric grid need, the Company screens transmission and distribution projects with the criteria listed in Section 2.1(D) of the SRP Standards, which are aligned with the Company's internal planning document.

These NWA screening criteria are applied to an identified electric grid need and resulting potential NWA opportunities are investigated. Partial NWA opportunities are also assessed as an option.

If the Company determines that an NWA opportunity is feasible, the NWA team gathers relevant engineering information from the DSP team and develops an NWA RFP. This NWA RFP is then published to the market for third-party solution providers to bid on. The NWA team then evaluates any bids received and selects the most suitable bid for the NWA opportunity. The NWA team proposes the winning NWA solution to the DSP team as the NWA option for the specified electric grid need.

If an NWA option is selected as the solution for the electric grid need, then the NWA solution is proposed through the next SRP Report. If a wires solution is the best option, then that wires investment is fully developed and incorporated into the Company's Electric Infrastructure, Safety and Reliability Plan (ISR Plan).

Notably, newly initiated projects comprise only part of the budgets and assets that are included in the Company's Electric ISR Plan, which includes all projects that will be part of the Company's capital investment portfolio in a given year and which typically includes multi-year projects that may already be in progress. Also, projects that ultimately do not pass NWA screening in a given year are not always be included in the ISR Plan budget for that year due to a variety of constraints such as need date, coordination with other projects, budget constraints, etc. Instead, these projects may be proposed in a future ISR Plan as budgets allow in future years if the need still exists. Therefore, it is possible that there may be projects and budgets related to load growth in the ISR Plan that are not included in the screening conducted for this Report. Once a solution is chosen for a distribution project and is included in an annual ISR Plan filing, it is not screened for NWA feasibility again.

For reference on timing of the NWA review process and possible inclusion in a specific year's ISR Plan, Figure 1 on the following page illustrates the Distribution Planning Study Process which outlines the major steps and study-based inputs in the overall area study process. The Company plans to continue analyzing its current NWA screening and development processes to determine how NWAs might be best considered as both complete and partial solutions.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. _____ 2020 System Reliability Procurement Plan Report Page 19 of 43

Figure 1: Distribution Planning Study Process Flowchart





10.1 Area Study and NWA Analysis

There were X discretionary distribution projects initiated between April 1, 2018 and March 31, 2019, and X of X were determined to be ineligible for NWA consideration. A table detailing the projects reviewed and the reasons for their NWA ineligibility is provided in Appendix 3.

The Company continues NWA screening in its distribution area studies, including the South County East (SCE) Area Study.

As discussed in the 2019 SRP Report, the Company identified three NWA opportunities in the SCE study, in the towns of Narragansett and South Kingstown. These NWA opportunities are proposed as NWA projects in Section 13. The Company pursued Requests for Proposals (RFPs) with third-party solution providers to test the market for NWA solutions in these areas.

Area/Town	Target Opportunity	Load Relief	Traditional Wires Option	
Narragansett	Narragansett 42F1	2.1 MW	Feeder upgrade/reconfiguration	
Narragansett	Narragansett 17F2	1.8 MW	Feeder upgrade/reconfiguration	
South Kingstown	South Kingstown	3.1 MW	Feeder upgrade/reconfiguration	
Т	otal	7.0 MW		

Table 2:	South	County	East Ar	ea Study	y - NWA	A Analysis
		~				~

Additionally, the Company has some NWA opportunities that were identified in past area studies that are pending re-evaluation. The Company recognizes that NWA technology costs change over time, and projects that might not have been viable at the time of study might become viable if technology costs decrease over time.

Table 3:	NWA	Areas to	be Re	e-Evaluated
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Study Area	Load Relief	Traditional Wires Option
East Bay	12-15 MW	Substation expansion, Feeder installation - Bristol
Providence	3.9 MW	Substation expansion, Feeder installation - Geneva
Providence	2.3 MW	Substation expansion, Feeder installation - Geneva

The maximum amount payable for NWA resources will be an annualized amount of the Approximate Value for the NWA opportunity. This Approximate Value is a net present value (NPV) calculated from the deferral value of the wires investment option and which includes applicable location-based avoided costs and benefits. Any contracts to procure NWAs would have to be approved by the PUC, as required for all non-tariff contracts.

11. Rhode Island System Data Portal

This section details the Rhode Island System Data Portal and associated resources.

The Portal is an interactive online mapping tool developed by the Company. The Portal provides specific information for select electric distribution feeders and associated substations within the Company's electric service area in Rhode Island. This information includes feeder characteristics such as geographic locations, voltage, feeder ID, planning area, substation source, approximate loading, and available distribution generation hosting capacity. The Portal provides this information to stakeholders, customers, and third-party solution providers.

A public landing page for the Portal is located on the customer-facing National Grid website¹¹.

The 2018 SRP Report included a proposal for the initial work on the Portal. The initial version of the Portal went live on June 30, 2018. The initial version of the Hosting Capacity Map resource of the Portal went live on September 28, 2018.

The 2019 SRP Report included a proposal for additional enhancement work on the Portal. Initial posting of redacted area studies to the Company Reports tab started in January 2019. The initial version of the NWA tab resource of the Portal went live on June 11, 2019.

11.1 Portal to Date

To date, the Portal includes tabs that detail select Company reports, a distribution assets overview map, a heat map, and a hosting capacity map.

The Distribution Assets Overview tab contains a map that displays specific electric distribution feeder and substation information, summer normal ratings, and up-to-date recorded loading and forecasted loading.

The Heat Map tab contains an interactive color-coded map of distribution feeders based on forecasted load compared to summer normal rating. The heat map provides information on circuits that would benefit from DER interconnection for load relief, and on circuits that have existing capacity for EV charging stations, heat pumps, and other beneficial electrification opportunities.

The Hosting Capacity tab contains an interactive map of distribution feeders based on interconnected distributed generation (DG) and in-progress DG projects. The hosting capacity map also contains information on substation ground fault overvoltage protection (3V0) status: if

¹¹ See Rhode Island System Data Portal. *National Grid US*, National Grid USA Service Company, Inc., 2018, <u>www.nationalgridus.com/Business-Partners/RI-System-Portal</u>.

3V0 is installed at a substation or if 3V0 is in construction or slated for construction and the proposed in-service date. Installation of 3V0 makes a substation transformer "DG ready".

11.2 Enhancing the Portal

The Company requests approval for the proposed further enhancement of the Portal by completing the following actions:

- Include a direct hyperlink to the Company's vendor platform. Action to be complete by April 30, 2020.
- Include a timeline or dates when the Portal maps were last updated and the planned future date when they will be next updated. Action to be complete by May 30, 2020.
- Implement a download function so that available feeder data is downloadable into spreadsheet format. Action to be complete by July 30, 2020.
- Begin coordination work with the Company's proposed Grid Modernization Plan to include hourly (8,760 hours) data in addition to peak load data.

12. SRP Market Engagement

This section provides information regarding the Company's outreach and market engagement efforts with respect to SRP.

SRP Market Engagement aims to raise awareness and perform outreach and engagement for SRP-related activities. The current SRP Outreach and Engagement Plan is specifically tailored to promote the Rhode Island System Data Portal.

The purpose of the SRP Outreach and Engagement Plan is to raise awareness of and drive engagement with the Rhode Island System Data Portal and associated map resources to all appropriate Rhode Island parties, with the primary target audience being third-party solution providers. These third-party solution providers include potential distributed energy resource (DER) solution providers.

12.1 Market Engagement Channels

With respect to SRP and NWA activities, the Company engages with the market, vendors, and third-party solution providers through the following communication channels:

- Procurement and Contracting Platform: National Grid posts RFPs, receives vendor bids, and sends formal vendor communications in an official forum via its procurement and contracting digital platform for vendors.
- Rhode Island System Data Portal: National Grid posts information regarding NWAs and NWA RFPs to the Portal.
- Rhode Island System Data Portal Outreach: National Grid promotes awareness and drives engagement to the Portal via the SRP Outreach and Engagement Plan initiative and additionally detailed in Section 12.2.
- NWA Vendor Stakeholder Monthly Calls: National Grid directly interacts with vendor stakeholders in monthly calls to raise awareness on the NWA development and bid submission process and to inform vendor stakeholders on upcoming and current NWA opportunities. National Grid also hosts Q&A during these calls and receives feedback relevant to NWA.

The Company is additionally exploring outreach via social media with regard to NWA and how different industry or professional social media platforms can be best utilized for enhanced SRP and NWA outreach and engagement.

12.2 Market Engagement Activities to Date

To date, the Company has focused SRP market engagement activities on the Rhode Island System Data Portal.

Please see Appendix 4 for the current iteration of the 2019 Marketing and Engagement Plan.

The Company has developed and implemented an SRP Monthly Marketing Report that it circulates with the SRP Tech Group stakeholders. This is included as Appendix 5 - 2019 SRP Marketing and Engagement Year-to-Date Results.

Market engagement activities to date, organized by the business-to-business (B2B) outreach and engagement channels, are as follows:

Webinars

The Company has launched educational webinars for third-party solution providers in Rhode Island. The Company utilizes email marketing and online registration to raise awareness for those webinars. Four webinars have been hosted in calendar year 2019.

In-Person Demonstrations

The Company hosts in-depth technical in-person demonstrations for third-party solution providers in Rhode Island. In-person demos are similar to webinars in purpose, with the added benefit that hands-on guidance can be provided to the vendor during the demonstration. The Company hosted two in-person demonstrations in calendar year 2019.

Email

Email marketing helps to maintain and raise awareness for current and new vendors, notify vendors of any major changes or updates to the Portal, and impresses upon vendors that the Portal is a useful tool to use as part of project and proposal development.

The Company has performed four email campaigns in calendar year 2019, with one campaign performed per quarter, to maintain awareness of the Portal among the current vendor base. The Company has also leveraged additional available promotional opportunities through the RI Solar Stakeholders mailing list, via outreach to the RI OER, and through in-person meetings.

Digital Advertisements

The Company has developed a digital advertising campaign to raise awareness of the RI System Data Portal to increase Google search ranking and to serve up Portal ads to developers in the State. This campaign started in September 2018. A customer-facing webpage was developed on the National Grid website to serve as a front door to the Portal and to make it easier for vendors to find.

Paid Search Terms

Paid search terms enable the Portal to be populated much higher in a web search results list. This search result improvement allows vendors to more easily receive search results relevant to the Portal. A web search is another venue where new vendors can find out about the Portal through the use of related terminology.

The Company has seen three of the four paid search terms rise to 2nd position in a Google search results list with the fourth paid search term rise to 3rd position in the results list in calendar year 2019.

Social Media Engagement

Posting important updates on a business-oriented social media platform helps to maintain awareness of the Portal and to concisely call out important changes to the Portal for vendors.

National Grid has posted \times messages regarding the Rhode Island System Data Portal to the Company pages of LinkedIn to enable another venue of outreach to new and existing vendors in calendar year 2019.

Vendor Contact List

Procuring vendor contact lists enables National Grid to directly contact vendors, especially new vendors, who are not currently being reached via email marketing or web advertisements.

National Grid has procured three vendor contact lists in calendar year 2019, with two of three being free and one being a paid national vendor list.

Contact Channels

National Grid has created a dedicated email distribution list in calendar year 2019 for all appropriate inquiries related to the Portal.

Please see Appendix 5 for the 2019 SRP Marketing and Engagement Year-to-Date Results for further detail and which contains the results and metrics from market engagement activities for the current year to date.

12.3 Market Engagement Funding Plan

The Company estimates that a total of X will be needed to support SRP Market Engagement and the SRP Outreach and Engagement Plan initiative in 2020.

The Company will need funding to support the creation and dissemination of marketing materials and tracking mechanisms and for marketing vendor payment. This is captured in the Materials and Vendors category in the table below.

The Company will need funding to support program planning and administration, which is associated with the management of materials development within the Company and with vendors and of the tracking and evaluation processes to determine the initiative's effectiveness. This is captured in the Program Planning and Administration category in the table below.

Category	Cost
Materials and Vendors	<mark>\$X</mark>
Program Planning and Administration	<mark>\$X</mark>
Total	<mark>\$X</mark>

Table 4:	SRP Market	Engagement	Funding l	Plan
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12.4 Market Engagement Proposal

The Company requests approval to continue the proposed SRP Outreach and Engagement Plan through calendar year 2020.

The Company requests approval for the proposed budget of X to support SRP Market Engagement and the SRP Outreach and Engagement Plan initiative in 2020.

The Company strives to nurture the inherent opportunities with the work the Company is doing on the Portal and to encourage DER solution providers to support the strategic deployment of these solutions to benefit constrained areas, and therefore considers the continuation of the SRP Outreach and Engagement Plan as necessary.

The proposed SRP Outreach and Engagement Plan will continue to promote the Portal. The SRP Outreach and Engagement Plan will build on the results of the 2019 SRP Marketing and Engagement Plan.

Please see Appendix 6 for the proposed 2020 SRP Outreach and Engagement Plan text.

13. South County East NWA Projects

This section details new potential NWA opportunities: the Narragansett 42F1 NWA, Narragansett 17F2 NWA, and the South Kingstown NWA Projects.

The Company is currently pursuing these three potential NWA opportunities that were identified in the South County East (SCE) Area Study. These NWA opportunities are in the towns of Narragansett and South Kingstown.

To the extent practical, each NWA candidate was developed to target a specific geographic section within the study area and to defer or eliminate a wires investment. Each area was broken down by town or sections of towns with regard to the scope of potential NWA implementation.

13.1 Recommendation from the South County East Area Study

The recommendation from the South County East Area Study for the opportunities in the Towns of Narragansett and South Kingstown is to further develop the NWA option and to estimate potential implementation costs for each area.

The wires solution has been assessed and estimated for the South County East area need and can now be compared to NWA alternatives to determine the most prudent investment to implement.

The Narragansett 42F1 NWA, Narragansett 17F2 NWA, and the South Kingstown NWA Projects shall explore these respective NWA opportunities.

13.2 Narragansett 42F1 NWA

This section details the Narragansett 42F1 NWA Project proposal.

13.2.1 Background

This potential NWA opportunity, the Narragansett 42F1 NWA Project, will provide load relief in the Town of Narragansett. The Narragansett 42F1 NWA Project is intended to defer or remove the need for feeder line work and reconfiguration on the Bonnet 42F1 feeder.

The Town of Narragansett is mostly supplied by (4) 12.47 kV distribution feeders. Feeder 42F1 is projected to be loaded above summer normal ratings by 2024 and lacks useful feeder ties to reduce loading below their ratings. Either more capacity must be added or load must be reduced in the town.

The Company has issued an RFP for the Narragansett 42F1 NWA opportunity in calendar year 2018 and has evaluated the received bid submissions from third-party solution providers in calendar year 2019.

13.2.2 Timeframe

The Company expects that the Narragansett 42F1 NWA Project timeframe will span seven years from 2024 to 2030, which is the maximum amount of time based on the current peak load forecast that the substation and feeder upgrade can be deferred with this solution. There is the potential for a partial or continued NWA solution following 2030 with the Narragansett 42F1 NWA Project; however, this option has not been assessed at this time.

13.2.3 Benefit-Cost Analysis

The costs and savings of the Narragansett 42F1 NWA Project were evaluated using the Rhode Island Test to determine whether the benefits of implementing the NWA project outweigh the costs.

The benefit-cost analysis (BCA) for the Narragansett 42F1 NWA Project is consistent with the language in the SRP Standards section 2.3.F.

The Narragansett 42F1 NWA Project BCA is based on benefit calculations for an energy storage solution.

The Company estimates that a seven-year deferral will have approximately X of localized distribution investment savings for customers. This value is determined by calculating the amount of revenue requirement that will not be collected if the investment is deferred for those years. This benefit was inserted into the RI Test model as a replacement for the regional distribution benefit in the avoided costs. The Company also estimates that this deferral will have approximately X of avoided costs benefits in addition to the regional and localized distribution benefits.

Please note that these two benefits values are outlined in the Total Benefits category in Table 5.

The Narragansett 42F1 NWA Project budget, listed at Total Cost in Table 5, represents the projected costs to procure load reduction services through the battery storage unit from the vendor, as well as some Company resources to support the development and maintenance of this contract and load reduction events as necessary.

The following table illustrates the BCA of the Narragansett 42F1 NWA Project using the RI Test. With a positive BC Ratio, this project represents a cost-effective solution for customers.

Narragansett 42F1 NWA Project				
Total Cost				
Total Benefits				
Net Benefits				
BC Ratio				

 Table 5: Narragansett 42F1 NWA Project Benefit-Cost Summary

13.2.4 Project Funding Plan

The Company plans to apportion the total cost annually over the course of NWA project implementation.

 Table 6: Narragansett 42F1 NWA Project Funding Plan

Narragansett 42F1 NWA Project			
Total Cost	<mark>\$</mark>		
Contract Length (years)	<mark>7</mark>		
Projected Annually Apportioned Funding Request	<mark>\$</mark>		

13.2.5 Evaluation

The Company plans to evaluate the kW demand savings that the Narragansett 42F1 NWA Project provides in a manner consistent with the selected project proposal, and the data made available through it provided by the vendor. The Company shall base the calculation of demand savings on the amount of power output and load curtailment provided by the battery storage system during peak periods each calendar year. Evaluation shall be performed by a third-party vendor.

13.2.6 Project Proposal

The Company requests commitment for this Narragansett 42F1 NWA Project for the stated timeframe in order to enable a cost-effective agreement with the vendor for peak load relief

services. The Company will make budget funding requests in each individual year, with these funding requests in line with the Projected Annually Apportioned Funding Request outlined in Section 13.2.4.

The Company requests approval for implementing the proposed Narragansett 42F1 NWA Project, the evaluation plan for the NWA project, and the associated funding plan and funding request.

13.3 Narragansett 17F2 NWA

This section details the Narragansett 17F2 NWA Project proposal.

13.3.1 Background

This potential NWA opportunity, the Narragansett 17F2 NWA Project, will provide load relief in the Town of Narragansett. The Narragansett 17F2 NWA Project is intended to defer or remove the need for feeder line work and reconfiguration on the Wakefield 17F2 feeder.

The Town of Narragansett is mostly supplied by (4) 12.47 kV distribution feeders. Feeder 17F2 is projected to be loaded above summer normal ratings by 2021 and lacks useful feeder ties to reduce loading below their ratings. Either more capacity must be added or load must be reduced in the town.

The Company has issued an RFP for the Narragansett 17F2 NWA opportunity in calendar year 2018 and has evaluated the received bid submissions from third-party solution providers in calendar year 2019.

13.3.2 Timeframe

The Company expects that the Narragansett 17F2 NWA Project timeframe will span ten years from 2021 to 2030, which is the maximum amount of time based on the current peak load forecast that the substation and feeder upgrade can be deferred with this solution. There is the potential for a partial or continued NWA solution following 2030 with the Narragansett 17F2 NWA Project; however, this option has not been assessed at this time.

13.3.3 Benefit-Cost Analysis

The costs and savings of the Narragansett 17F2 NWA Project were evaluated using the Rhode Island Test to determine whether the benefits of implementing the NWA project outweigh the costs.

The benefit-cost analysis (BCA) for the Narragansett 17F2 NWA Project is consistent with the language in the SRP Standards section 2.3.F.

The Narragansett 17F2 NWA Project BCA is based on benefit calculations for an energy storage solution.

The Company estimates that a ten-year deferral will have approximately X of localized distribution investment savings for customers. This value is determined by calculating the amount of revenue requirement that will not be collected if the investment is deferred for those years. This benefit was inserted into the RI Test model as a replacement for the regional distribution benefit in the avoided costs. The Company also estimates that this deferral will have approximately X of avoided costs benefits in addition to the regional and localized distribution benefits.

Please note that these two benefits values are outlined in the Total Benefits category in Table 7.

The Narragansett 17F2 NWA Project budget, listed at Total Cost in Table 7, represents the projected costs to procure load reduction services through the battery storage unit from the vendor, as well as some Company resources to support the development and maintenance of this contract and load reduction events as necessary.

The following table illustrates the BCA of the Narragansett 17F2 NWA Project using the RI Test. With a positive BC Ratio, this project represents a cost-effective solution for customers.

Narragansett 17F2 NWA Project			
Total Cost			
Total Benefits			
Net Benefits			
BC Ratio			

 Table 7: Narragansett 17F2 NWA Project Benefit-Cost Summary

13.3.4 Project Funding Plan

The Company plans to apportion the total cost annually over the course of NWA project implementation.

 Table 8: Narragansett 17F2 NWA Project Funding Plan

Narragansett 17F2 NWA Project	
Total Cost	<mark>\$</mark>
Contract Length (years)	<mark>10</mark>
Projected Annually Apportioned Funding Request	<mark>\$</mark>

13.3.5 Evaluation

The Company plans to evaluate the kW demand savings that the Narragansett 17F2 NWA Project provides in a manner consistent with the selected project proposal, and the data made available through it provided by the vendor. The Company shall base the calculation of demand savings on the amount of power output and load curtailment provided by the battery storage system during peak periods each calendar year. Evaluation shall be performed by a third-party vendor.

13.3.6 Project Proposal

The Company requests commitment for this Narragansett 17F2 NWA Project for the stated timeframe in order to enable a cost-effective agreement with the vendor for peak load relief

services. The Company will make budget funding requests in each individual year, with these funding requests in line with the Projected Annually Apportioned Funding Request outlined in Section 13.2.4.

The Company requests approval for implementing the proposed Narragansett 17F2 NWA Project, the evaluation plan for the NWA project, and the associated funding plan and funding request.

13.4 South Kingstown NWA

This section details the South Kingstown NWA Project proposal.

13.4.1 Background

This potential NWA opportunity, the South Kingstown NWA Project, will provide load relief in the Town of South Kingstown. The South Kingstown NWA Project is intended to defer or remove the need for feeder line work and reconfiguration on the Peacedale 59F3 and Kenyon 68F2 feeders.

The western section of the Town of South Kingstown is supplied mostly by (3) 12.47 kV distribution feeders. Feeders 59F3 and 68F2 are projected to be loaded above summer normal ratings and lack useful feeder ties to reduce loading below their ratings. Either new feeder ties must be created or load must be reduced in the western half of the town.

The Company has issued an RFP for the South Kingstown NWA opportunity in calendar year 2019 and has evaluated the received bid submissions from third-party solution providers in calendar year 2019.

13.4.2 Timeframe

The Company expects that the South Kingstown NWA Project timeframe will span nine years from 2022 to 2030, which is the maximum amount of time based on the current peak load forecast that the substation and feeder upgrade can be deferred with this solution. There is the potential for a partial or continued NWA solution following 2030 with the South Kingstown NWA Project; however, this option has not been assessed at this time.

13.4.3 Benefit-Cost Analysis

The costs and savings of the South Kingstown NWA Project were evaluated using the Rhode Island Test to determine whether the benefits of implementing the NWA project outweigh the costs.

The benefit-cost analysis (BCA) for the South Kingstown NWA Project is consistent with the language in the SRP Standards section 2.3.F.

The South Kingstown NWA Project BCA is based on benefit calculations for an energy storage solution.

The Company estimates that a nine-year deferral will have approximately X of localized distribution investment savings for customers. This value is determined by calculating the amount of revenue requirement that will not be collected if the investment is deferred for those years. This benefit was inserted into the RI Test model as a replacement for the regional distribution benefit in the avoided costs. The Company also estimates that this deferral will have

approximately X of avoided costs benefits in addition to the regional and localized distribution benefits.

Please note that these two benefits values are outlined in the Total Benefits category in Table 9.

The South Kingstown NWA Project budget, listed at Total Cost in Table 9, represents the projected costs to procure load reduction services through the battery storage unit from the vendor, as well as some Company resources to support the development and maintenance of this contract and load reduction events as necessary.

The following table illustrates the BCA of the South Kingstown NWA Project using the RI Test. With a positive BC Ratio, this project represents a cost-effective solution for customers.

South Kingstown NWA Project			
Total Cost			
Total Benefits			
Net Benefits			
BC Ratio			

 Table 9: South Kingstown NWA Project Benefit-Cost Summary

13.4.4 Project Funding Plan

The Company plans to apportion the total cost annually over the course of NWA project implementation.

South Kingstown NWA Project	t
Total Cost	<mark>\$</mark>
Contract Length (years)	<mark>9</mark>
Projected Annually Apportioned Funding Reque	st <mark>\$</mark>

 Table 10:
 South Kingstown NWA Project Funding Plan

13.4.5 Evaluation

The Company plans to evaluate the kW demand savings that the South Kingstown NWA Project provides in a manner consistent with the selected project proposal, and the data made available through it provided by the vendor. The Company shall base the calculation of demand savings on the amount of power output and load curtailment provided by the battery storage system during peak periods each calendar year. Evaluation shall be performed by a third-party vendor.

13.4.6 Project Proposal

The Company requests commitment for this South Kingstown NWA Project for the stated timeframe in order to enable a cost-effective agreement with the vendor for peak load relief services. The Company will make budget funding requests in each individual year, with these funding requests in line with the Projected Annually Apportioned Funding Request outlined in Section 13.2.4.

The Company requests approval for implementing the proposed South Kingstown NWA Project, the evaluation plan for the NWA project, and the associated funding plan and funding request.

14. SRP Incentive Mechanism

This section details the SRP Incentive Mechanism and involved action-based, savings-based, and earned incentives to advance LCP goals.

The Company and the Parties have agreed on a combination of action-based and savings-based metrics for the Company to earn incentives on work completed through SRP in 2020.

14.1 SRP Action-Based Incentives for 2020

The Company will earn incentives equal to a portion of the 2020 SRP budget for completing certain actions, as described in this Report, by the milestone dates stated in this Report. The actions and associated percentages of the 2020 SRP budget the Company can earn are:

Section	Action	Date	% of 2020 SRP Budget

Table 11: Summary of 2020 SRP Report Action-Based Incentives

Accordingly, if the Company were to implement all the initiatives referenced above by the dates defined in this Report, it would earn a maximum of $\frac{6}{6}\%$ of the 2019 SRP budget.

The 2020 SRP budget would be defined as all the costs required to implement the SRP initiatives described above. This SRP budget would be determined in the SRP Report, prior to the commencement of 2020 SRP activities. The amount of SRP incentives earned would be based on this initial budget, not on the actual dollars spent to implement the initiatives.

14.2 Earned Incentives from 2019 SRP Report

There were no approved action-based incentive items from the 2019 SRP Report.

14.3 Earned Incentives from 2018 SRP Report

The Company proposed the following actions and associated percentages of the 2018 SRP budget that can be earned as described in the 2018 SRP Report:

Table 12: Summa	ary of 2018 SRI	PReport Action-	Based Incentives
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Section	Action	Date	% of 2018 SRP Budget
Rhode Island System Data Portal & Heat Map Resources	Complete an Initial Version of the Portal	June 30, 2018	1%
Rhode Island System Data Portal & Heat Map Resources	Complete DG-Focused Map	September 30, 2018	1%
Rhode Island System Data Portal & Heat Map Resources	Complete a Stakeholder Review Process of Location-Based Avoided Costs	August 31, 2018	1%
Market Engagement with NWAs	Develop and Deploy an Initial Marketing & Engagement Plan	March 31, 2018	1%
Rhode Island System Data Portal & Heat Map Resources	Issue at least two new RFPs for NWA Resources	December 31, 2018	2%

Regarding the potential incentive earnings to date, the status and calculation is detailed as follows:

- The completed action-based incentive items for calendar year 2018 are:
 - The initial version of the Portal has been completed by June 30, 2018.
 - The initial version of the Hosting Capacity (DG-focused) map has been completed by September 30, 2018.
 - An initial version of the Marketing & Engagement Plan has been developed and deployed by March 31, 2018.
 - The two new RFPs for NWA resources have been issued by December 31, 2018.
- The stakeholder review process of location-based avoided costs had not been completed by the assigned date.
- The 2018 SRP budget spend to date is \$237,306.
- The total achieved percentage of 2018 SRP budget to date is 5%.
- The total potential incentive earnings are calculated from the total achieved percentage multiplied by the 2018 SRP budget spend to date.
- Therefore, the total potential incentive earnings to date is calculated to be approximately \$11,865.

These action statuses and calculated earnings are illustrated in the table below.

SRP Incentive Item	Action Completed?	% of 2018 SRP Budget	Calculated Earnings
Complete an Initial Version of the Portal	Yes	1%	\$ <mark>2,37</mark> 3
Complete DG-Focused Map	Yes	1%	\$2,373
Complete a Stakeholder Review Process of Location-Based Avoided Costs	No	1%	N/A
Develop and Deploy an Initial Marketing & Engagement Plan	Yes	1%	\$2,373
Issue at least two new RFPs for NWA Resources	Yes	2%	\$4,746
		Total Earn to Date	\$11,865

Table 13: Summary of 2018 SRP Report Action-Based Incentives Earnings to Date

14.4 SRP Savings-Based Incentives

The Company will also be able to earn savings-based incentives for those DERs that are installed as a result of SRP and NWA initiatives. The Company will be obligated to demonstrate that DERs were installed as a result of the SRP initiatives. This demonstration would require:

- 1. An affidavit from the DER provider that Company marketing influenced their decision to site, and
- 2. Confirmation that the DER was installed in the current year of the SRP plan (i.e. calendar year 2020).

In future SRP plans (2021 and on), there will be a third requirement: measured output at the feeder during peak hours showing the specific DER's contribution to peak load reduction.

For the Company to earn savings-based incentives on them, the DERs must be deemed costeffective according to the Rhode Island cost-effectiveness framework established in the Commission's Docket 4600 Guidance Document. DERs that are statutory such as net metering and the RE Growth program are assumed to be cost-effective as per the PUC's initial guidance in the Docket 4600 process.

Savings associated with programs for which the Company earns an incentive from other sources (e.g. RE Growth) will not be included in the Company's savings-based incentive calculation.

The savings-based incentive will allow the Company to earn a share of the net benefits of the installed DERs that meet the demonstration criteria described above. Net benefits will be defined using the Utility Cost test, which includes only the "power sector" costs and benefits in the Rhode Island cost-effectiveness framework. Participant and societal costs and benefits will not be included for the purpose of determining the shared savings incentive amount. The Utility Cost test provides the clearest indication of the extent to which DERs reduce costs for all

customers. Net benefits will include the location-based avoided distribution costs, if applicable, prepared by the Company, as described above.

In 2020, the net benefits of the DERs will be shared by allocating 20% to the Company and 80% to customers. The savings-based incentive mechanism would be applied to the net benefits of the NWA project(s) proposed in this Report, as well as any projects installed and marketed as a result of the other SRP initiatives proposed in this report, to the extent they meet the criteria outlined in this section. The savings-based incentive mechanism, assuming the Company meets the threshold requirements for earning the incentive, is illustrated below in the calculation of the savings-based incentive associated with the NWA project(s) proposed in this Report.

The applicable NWA projects in this SRP Report for savings-based incentives are the South County East NWA Projects.

NWA Project	NWA Project Net Benefits	NWA ProjectCompanyNet BenefitsIncentive Share	
Narragansett 42F1	12	<mark>20%</mark>	
Narragansett 17F2	13	<mark>20%</mark>	
<mark>South Kingstown</mark>	14	<mark>20%</mark>	
Total		<mark>20%</mark>	

 Table 14:
 Summary of 2020 SRP Report Savings-Based Incentives

14.5 SRP Incentive Mechanism Proposal

The Company requests approval on the proposed action-based items with associated incentives detailed in Section 14.1.

The Company requests approval on the proposed earnings for the action-based incentive items achieved in calendar year 2018 as detailed in Section 14.3.

The Company requests approval on the savings-based incentives detailed in Section 14.4.

¹² From page $\frac{30}{30}$ of this Report.

¹³ From page 33 of this Report.

¹⁴ From page $\frac{36}{36}$ of this Report.

15. System Reliability Procurement Funding Request

The Company proposes to fund the projects and initiatives included in this SRP Report through the energy efficiency charge on customers' bills, as has been done historically. The tables below illustrate the breakdown of the Company's funding request and the proposed customer charge associated with SRP for 2020.

The Company estimates that the incremental costs stated in the table below will be required in 2020 to implement the projects and initiatives detailed in this Report.

The Company requests approval for recovery of these proposed funds and the respective sevenyear, nine-year, and ten-year commitments to the respective funding of the NWA projects, subject to additional budget funding requests to be made in the 2021 through 2030 SRP Reports.

SRP Section	SRP Initiative	Cost
<mark>11</mark>	Rhode Island System Data Portal	
<mark>12</mark>	SRP Outreach and Engagement Plan	<mark>\$</mark>
<mark>13</mark>	Narragansett 42F1 NWA Project	
<mark>13</mark>	Narragansett 17F2 NWA Project	
<mark>13</mark>	South Kingstown NWA Project	
<mark>14</mark>	SRP Incentive Mechanism, 2018 Action-Based Earnings	<mark>\$11,865</mark>
<mark>14</mark>	SRP Incentive Mechanism, 2020 Savings-Based Earnings	
	Tota	al <mark>\$</mark>

Table 15	5: Summary	of 2020 SRF	P Funding	Request
14010 10	, sammar	01 2020 510	- i windding	, request

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Table S-1: RI SRP 2020 Funding Sources

	Table S-1	
	National Grid	
	System Reliability Procurement	
	Funding Sources	
	\$(000)	
		2019
(1)	2019 SRP Budget	\$439.3
(2)	Projected Year-End Fund Balance and Interest:	\$574.6
(3)	Customer Funding Required:	-\$135.3
(4)	Forecasted kWh Sales:	7,262,269,856
(5)	Additional SRP Funding Needed per kWh:	-\$0.00001
(6)	Proposed Energy Efficiency Program charge in EEPP	\$0.01141
(7)	Proposed Total Energy Efficiency Program charge in EEPP	\$0.01140
(8)	Proposed Total Energy Efficiency Program charge w/ Uncollectible Recovery	\$0.01155
Notes		
(1) Pr	ojected Budget includes only additional funds for SRP. It does not include costs associated with for	cused energy
efficie	ency.	
(2) Pro	oposed Total Energy Efficiency Program charge is the sum of the "Additional SRP Funding Needed posed Energy Efficiency Program charge in EEDD" lines	per kwh ["] and
(3) A1	l dollar amounts shown are in Scurrent year.	

16. Miscellaneous Provisions

- **A.** Other than as expressly stated herein, this Settlement establishes no principles and shall not be deemed to foreclose any party from making any contention in any future proceeding or investigation before the PUC.
- **B.** This Settlement is the product of settlement negotiations. The content of those negotiations is privileged, and all offers of settlement shall be without prejudice to the position of any party.
- **C.** Other than as expressly stated herein, the approval of this Settlement by the PUC shall not in any way constitute a determination as to the merits of any issue in any other PUC proceeding.

The Parties respectfully request the PUC approve this Stipulation and Settlement as a final resolution of all issues in this proceeding.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. _____ 2020 System Reliability Procurement Plan Report Signature Page

Respectfully submitted,

THE NARRAGANSETT ELECTRIC COMPANY D/B/A NATIONAL GRID

10/14/2019

By its Attorney, Raquel J. Webster Date

National Grid 2020 System Reliability Procurement Plan Report

Appendices

Appendix 1

2011 Least Cost Procurement Standards with Proposed 2014 Revisions Approved in Docket No. 4443

Appendix 2

Rhode Island and Company Electric Service Projected Load Growth Rates

Appendix 3

Projects Screened for NWA

Appendix 4

2019 Marketing and Engagement Plan

Appendix 5

2019 Marketing and Engagement Plan Year-to-Date Results

Appendix 6

2020 Outreach and Engagement Plan

Appendix 1 – 2011 Least Cost Procurement Standards with Proposed 2014 Revisions Approved in Docket No. 4443

Appendix 2 – Rhode Island Company Electric Service Projected Load Growth Rates

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. ____ 2020 System Reliability Procurement Plan Report Appendix 2

RHOL	DE ISLAND PROJE	C TED GROV	VTH RAT	「ES(Per	cents)									
			Annual G	rowth Rate	es (percei	nts)							5-yr avg	10-yr avg
State	County	Town	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	'18 to '22	'18 to '27
RI			-1.0	-0.9	-0.7	-0.4	-0.2	-0.1	0.1	0.3	0.4	0.4	-0.7	-0.2
	Bristol		-1.4	-1.3	-1.0	-0.8	-0.5	-0.4	-0.1	0.1	0.2	0.2	-1.0	-0.5
	Kent		-1.3	-1.2	-1.0	-0.7	-0.5	-0.3	-0.1	0.2	0.3	0.2	-0.9	-0.4
	Newport		-1.2	-1.2	-0.9	-0.6	-0.4	-0.3	0.0	0.2	0.3	0.2	-0.9	-0.4
	Providence		-1.1	-1.0	-0.8	-0.5	-0.3	-0.2	0.1	0.3	0.4	0.3	-0.7	-0.3
	Washington		0.1	0.0	0.2	0.3	0.5	0.5	0.7	0.9	0.9	0.8	0.2	0.5
	Newport	Little Compton	-0.5	-0.5	-0.3	-0.1	0.0	0.1	0.3	0.5	0.6	0.5	-0.3	0.1
	Newport	Tiverton	-0.1	-0.2	0.0	0.2	0.3	0.4	0.6	0.7	0.8	0.7	0.0	0.3
vintage:	fall 2017													

National Grid 2020 System Reliability Procurement Plan Report

Appendix 3 – Projects Screened for NWA

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Count	Project ID	Project Description	NWA Comment	Partial NWA Comment	Capex Spending Rational	Budget Classification	Program Code	Date Initiated
1	<mark>C078460</mark>	Reconductor 3308 Substation transmission Line	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	Asset Condition	<mark>Asset</mark> Replacement		<mark>5/18/2017</mark>
2	<mark>C078474</mark>	Franklin Square Substation Network Feeders	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	<mark>Asset</mark> Condition	<mark>Asset</mark> Replacement		<mark>5/23/2017</mark>
3	<mark>C078476</mark>	Hope Substation Pole Replacement	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	Asset Condition	Asset Replacement	I	<mark>5/23/2017</mark>
<mark>4</mark>	<mark>C078488</mark>	RI DFP100 Protective Relay Replacement Project	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	Asset Condition	Asset Replacement		<mark>5/25/2017</mark>
5	<mark>C078596</mark>	RI 33F4 Feeder - Reconductor existing small wire with 477 spacer cable	A NWA project would not be suitable as a replacement for the wires solution. Upon further evaluation, there is no reduction in load that would resolve the tree conditions and intermittent loss of power issues to a large number of customers.	This project would not be suitable for consideration of a Partial NWA	<mark>System</mark> <mark>Capacity &</mark> Performance	Reliability		<mark>6/15/2017</mark>
<mark>6</mark>	<mark>C078686</mark>	RI 32J12 Feeder - Ella Terrace URD Cable Replacement	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	Asset Condition	<mark>Asset</mark> Replacement		<mark>6/28/2017</mark>
7	<mark>C078693</mark>	RI 18F13 Feeder - URD High Ridge Condominiums Cable Replacement	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	Asset Condition	<mark>Asset</mark> Replacement		<mark>6/29/2017</mark>
8	<mark>C078695</mark>	RI 21F2 Feeder - URD Alpine Estates Cable Cure Project	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	Asset Condition	<mark>Asset</mark> Replacement		<mark>6/29/2017</mark>

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<mark>Count</mark>	Project ID	Project Description	NWA Comment	Partial NWA Comment	Capex Spending Rational	Budget Classification	Program Code	Date Initiated
9	<mark>C078720</mark>	RI 37W42 Feeder - URD East Bay Village Apartments Cable Cure Project	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	Asset Condition	Asset Replacement - I&M (NE)		<mark>7/3/2017</mark>
<mark>10</mark>	<mark>C078734</mark>	Providence Study: Admiral St 4kV & 11kV Conversion	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Asset Condition	Asset Replacement	I	<mark>7/5/2017</mark>
<mark>11</mark>	<mark>C078735</mark>	Providence Study: New Admiral St 12kV Distribution Substation	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Asset Condition	Asset Replacement		<mark>7/6/2017</mark>
<mark>12</mark>	<mark>C078796</mark>	Providence Study Admiral St-Rochamb Substation Distribution Line	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Asset Condition	<mark>Asset</mark> <mark>Replacement</mark>		7/14/2017
<mark>13</mark>	<mark>C078797</mark>	Providence Study Admiral St-Rochamb Distribution Substation	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Asset Condition	Asset Replacement		<mark>7/14/2017</mark>
<mark>14</mark>	<mark>C078800</mark>	Providence Study Clarkson St & Lippitt Hill 12kV Distribution Line	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	<mark>Asset</mark> Condition	<mark>Asset</mark> Replacement		<mark>7/14/2017</mark>
<mark>15</mark>	<mark>C078801</mark>	Providence Study Admiral St Demolition	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	<mark>Asset</mark> Condition	<mark>Asset</mark> Replacement	I	<mark>7/14/2017</mark>
<mark>16</mark>	<mark>C078802</mark>	Providence Study Olneyville 4kV Distribution Line	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	<mark>Asset</mark> Condition	<mark>Asset</mark> Replacement	I	<mark>7/14/2017</mark>
17	<mark>C078803</mark>	Providence Study Admiral St 12kV Manhole & Duct System	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Asset Condition	Asset Replacement		7/14/2017
<mark>18</mark>	<mark>C078804</mark>	Providence Study Admiral St 12kV Cables	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Asset Condition	Asset Replacement		7/14/2017

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Count	<mark>Project</mark> ID	Project Description	NWA Comment	Partial NWA Comment	Capex Spending Rational	Budget Classification	Program Code	Date Initiated
<mark>19</mark>	<mark>C078805</mark>	Providence Study Knightsville 4kV Conversion	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Asset Condition	Asset Replacement	I	<mark>7/14/2017</mark>
<mark>20</mark>	<mark>C078806</mark>	Providence Study Knightsville 4kV Distribution Substation	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Asset Condition	Asset Replacement		<mark>7/14/2017</mark>
<mark>21</mark>	<mark>C078810</mark>	Providence Study Harris Ave 11kV (1129&1137)	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Asset Condition	Asset Replacement		<mark>7/14/2017</mark>
22	<mark>C078811</mark>	Providence Study Geneva, Olneyville, Rochamb 4kV	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Asset Condition	Asset Replacement	l	<mark>7/14/2017</mark>
<mark>23</mark>	<mark>C078847</mark>	Providence Study Geneva 4kV Substation Removal	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Asset Condition	<mark>Asset</mark> Replacement	I	<mark>7/18/2017</mark>
<mark>24</mark>	<mark>C078849</mark>	Providence Study Harris Ave Substation Removal	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	<mark>Asset</mark> Condition	<mark>Asset</mark> Replacement		7/18/2017
<mark>25</mark>	<mark>C078850</mark>	Providence Study Olneyville 4kV Substation Removal	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Asset Condition	Asset Replacement	ļ	7/18/2017
<mark>26</mark>	<mark>C078851</mark>	Providence Study Rochambeau 4kV Substation Removal	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	<mark>Asset</mark> Condition	<mark>Asset</mark> Replacement		7/18/2017
27	<mark>C078857</mark>	Providence Study Harris Ave 4kV & 11kV Retirement	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Asset Condition	Asset Replacement		7/19/2017
28	<mark>C078921</mark>	RI Underground Cable Replacement Program - Fdr 1158	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	Asset Condition	<mark>Asset</mark> Replacement	UG Cable Replacements	7/31/2017

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Count	Project ID	Project Description	NWA Comment	Partial NWA Comment	<mark>Capex</mark> Spending Rational	Budget Classification	Program Code	Date Initiated
<mark>29</mark>	<mark>C078923</mark>	RI Underground Cable Replacement Program - Fdr 1160	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	Asset Condition	<mark>Asset</mark> Replacement	UG Cable <mark>Replacements</mark>	<mark>7/31/2017</mark>
<mark>30</mark>	<mark>C078926</mark>	RI Underground Cable Replacement Program - Fdr 1162	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	Asset Condition	Asset Replacement	UG Cable Replacements	<mark>7/31/2017</mark>
<mark>31</mark>	<mark>C078928</mark>	RI Underground Cable Replacement Program - Fdr 1164	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	Asset Condition	Asset Replacement	UG Cable Replacements	<mark>7/31/2017</mark>
<mark>32</mark>	<mark>C078931</mark>	RI Underground Cable Replacement Program - Fdr 1166	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	Asset Condition	<mark>Asset</mark> Replacement	UG Cable Replacements	<mark>7/31/2017</mark>
<mark>33</mark>	<mark>C078933</mark>	RI Underground Cable Replacement Program - Fdr 1168	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	Asset Condition	<mark>Asset</mark> Replacement	UG Cable <mark>Replacements</mark>	<mark>7/31/2017</mark>
<mark>34</mark>	<mark>C079076</mark>	Narragansett Electric Distribution Substation PLC Replacement	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Reliability Driven Project	This project would not be suitable for consideration of a Partial NWA	System Capacity & Performance	Substation		<mark>8/24/2017</mark>
<mark>35</mark>	<mark>C079183</mark>	RI Replacement of ACNW Vault Vent Blowers	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	Asset Condition	Asset Replacement		<mark>9/15/2017</mark>
<mark>36</mark>	<mark>C079234</mark>	Mobile Substation ID# 5616 Refurbishment & Upgrade	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	<mark>Asset</mark> Condition	Substation		<mark>9/26/2017</mark>

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Count	Project ID	Project Description	NWA Comment	Partial NWA Comment	Capex Spending Rational	Budget Classification	Program Code	Date Initiated
37	<mark>C079282</mark>	RI VVO/CVR Exp - Washington 126 Distribution Line	Upon further evaluation, the VVO projects are not proposed to address system concerns, the program is used to reduce customer cost and customer energy and therefore there are no comparable NWA projects at this time.	This project would not be suitable for consideration of a Partial NWA	System Capacity & Performance	Reliability		<u>10/4/2017</u>
38	<mark>C079288</mark>	RI VVO/CVR Expansion - Staples 112 Distribution Line	Upon further evaluation, the VVO projects are not proposed to address system concerns, the program is used to reduce customer cost and customer energy and therefore there are no comparable NWA projects at this time.	This project would not be suitable for consideration of a Partial NWA	System Capacity & Performance	<mark>Reliability</mark>		10/4/2017
<mark>39</mark>	<mark>C079300</mark>	RI VVO/CVR Exp - Washington 126 Substation	Upon further evaluation, the VVO projects are not proposed to address system concerns, the program is used to reduce customer cost and customer energy and therefore there are no comparable NWA projects at this time.	This project would not be suitable for consideration of a Partial NWA	System Capacity & Performance	Reliability		<u>10/6/2017</u>
<mark>40</mark>	<mark>C079317</mark>	Providence Study Harris Av & Olneyville Supply	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	<mark>Asset</mark> Condition	Asset Replacement	I	<mark>10/9/2017</mark>
<mark>41</mark>	<mark>C079318</mark>	Providence Study Remove Rochambeau Supply	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	Comprehensive Plan from Providence Area Study: Asset Condition Drive. See Study for Further Details	<mark>Asset</mark> Condition	Asset Replacement		<mark>10/9/2017</mark>
<mark>42</mark>	<mark>C079418</mark>	Tiverton 3V0 Distribution Substation	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Programmatic Ground Fault Overvoltage Protection to address accumulated Distributed Energy Resource interconnections	This project would not be suitable for consideration of a Partial NWA	System Capacity & Performance	Reliability	I	10/30/2017
<mark>43</mark>	<mark>C079482</mark>	RI VVO/CVR Exp - Staples 112 Substation	Upon further evaluation, the VVO projects are not proposed to address system concerns, the program is used to reduce customer cost and customer energy and therefore there are no comparable NWA projects at this time.	This project would not be suitable for consideration of a Partial NWA	System Capacity & Performance	Reliability		<u>11/13/2017</u>

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Count	Project ID	Project Description	NWA Comment	Partial NWA Comment	<mark>Capex</mark> Spending Rational	Budget Classification	Program Code	Date Initiated
44	<mark>C079493</mark>	Kilvert St T1 3V0 Distribution Substation	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Programmatic Ground Fault Overvoltage Protection to address accumulated Distributed Energy Resource interconnections	This project would not be suitable for consideration of a Partial NWA	<mark>System</mark> Capacity & Performance	Reliability	I	<mark>11/15/2017</mark>
<mark>45</mark>	<mark>C079525</mark>	Old Baptist Rd 3V0 Distribution Substation	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Programmatic Ground Fault Overvoltage Protection to address accumulated Distributed Energy Resource interconnections	This project would not be suitable for consideration of a Partial NWA	System Capacity & Performance	<mark>Reliability</mark>	-	<u>11/16/2017</u>
<mark>46</mark>	<mark>C079599</mark>	RI 155F4 Asset Replacement- Narragansett Way	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	Asset Condition	<mark>Asset</mark> <mark>Replacement</mark>	l	<mark>12/4/2017</mark>
<mark>47</mark>	<mark>C080092</mark>	15F1 and 15F2 Getaway Relocation	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	Asset Condition	Asset Replacement	I	<mark>2/21/2018</mark>
<mark>48</mark>	<mark>C080231</mark>	Kent County ARP Breaker Replacement	DOES NOT MEET NG NWA SCREENING REQUIREMENTS - Asset Condition Driven Project, < \$1M in cost	This project would not be suitable for consideration of a Partial NWA because it is an Asset Condition Driven Program	<mark>Asset</mark> Condition	Substation	I	<mark>3/22/2018</mark>

Appendix 4 – 2019 SRP Marketing and Engagement Plan

Appendix 5 – 2019 SRP Marketing and Engagement Plan Year-to-Date Results

Appendix 6 – 2020 SRP Outreach and Engagement Plan