

March 4, 2019

**VIA HAND DELIVERY & ELECTRONIC MAIL**

Luly E. Massaro, Commission Clerk  
Rhode Island Public Utilities Commission  
89 Jefferson Boulevard  
Warwick, RI 02888

**RE: Docket 4915 - Proposed FY 2020 Electric Infrastructure, Safety, and Reliability Plan Responses to OER Data Requests – Set 1**

Dear Ms. Massaro:

On behalf of National Grid,<sup>1</sup> I have enclosed ten (10) copies of the Company's responses to the first set of data requests issued by the Office of Energy Resources in the above-referenced docket.

Thank you for your attention to this transmittal. If you have any questions, please contact me at 401-784-7288.

Very truly yours,



Jennifer Brooks Hutchinson

Enclosures

cc: Docket 4915 Service List  
John Bell, Division  
Greg Booth, Division  
Leo Wold, Esq.  
Christy Hetherington, Esq.  
Al Contente, Division

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<sup>1</sup> The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.



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Joanne M. Scanlon

March 4, 2019  
Date

**Docket No. 4915 - National Grid's Electric ISR Plan FY 2020**  
**Docket No. 4857 - Performance Incentives Pursuant to R.I.G.L. §39-1**  
**27.7.1(e)(3)**

**Service List as of 1/4/2019**

<b>Name/Address</b>	<b>E-mail Distribution</b>	<b>Phone</b>
Jennifer Hutchinson, Esq. <b>National Grid</b> 280 Melrose St. Providence, RI 02907	<a href="mailto:jennifer.hutchinson@nationalgrid.com">jennifer.hutchinson@nationalgrid.com</a> ; <a href="mailto:celia.obrien@nationalgrid.com">celia.obrien@nationalgrid.com</a> ; <a href="mailto:Joanne.scanlon@nationalgrid.com">Joanne.scanlon@nationalgrid.com</a> ;	401-784-7288
National Grid Melissa Little John Nestor Ryan Moe Adam Crary William Richer Kathy Castro	<a href="mailto:Melissa.Little@nationalgrid.com">Melissa.Little@nationalgrid.com</a> ; <a href="mailto:Ryan.Moe@nationalgrid.com">Ryan.Moe@nationalgrid.com</a> ; <a href="mailto:John.Nestor@nationalgrid.com">John.Nestor@nationalgrid.com</a> ; <a href="mailto:Adam.Crary@nationalgrid.com">Adam.Crary@nationalgrid.com</a> ; <a href="mailto:William.Richer@nationalgrid.com">William.Richer@nationalgrid.com</a> ; <a href="mailto:Kathy.Caston@nationalgrid.com">Kathy.Caston@nationalgrid.com</a> ;	
<b>Division of Public Utilities (Division)</b> Christy Hetherington, Esq. Dept. of Attorney General 150 South Main St. Providence, RI 02903	<a href="mailto:Chetherington@riag.ri.gov">Chetherington@riag.ri.gov</a> ; <a href="mailto:Dmacrae@riag.ri.gov">Dmacrae@riag.ri.gov</a> ; <a href="mailto:John.bell@dpuc.ri.gov">John.bell@dpuc.ri.gov</a> ; <a href="mailto:Macky.McCleary@dpuc.ri.gov">Macky.McCleary@dpuc.ri.gov</a> ; <a href="mailto:Jonathan.Schrag@dpuc.ri.gov">Jonathan.Schrag@dpuc.ri.gov</a> ; <a href="mailto:Kevin.Lynch@dpuc.ri.gov">Kevin.Lynch@dpuc.ri.gov</a> ; <a href="mailto:Joseph.shilling@dpuc.ri.gov">Joseph.shilling@dpuc.ri.gov</a> ;	
Greg Booth Linda Kushner PowerServices, Inc 1616 E. Millbrook Road, Suite 210 Raleigh, NC 27609	<a href="mailto:gbooth@powerservices.com">gbooth@powerservices.com</a> ; <a href="mailto:Lkushner@powerservices.com">Lkushner@powerservices.com</a> ;	919-256-5900

<b>Office of Energy Resources (OER)</b> Andrew Marcaccio, Esq. Dept. of Administration Division of Legal Services One Capitol Hill, 4 <sup>th</sup> Floor Providence, RI 02908	<a href="mailto:Andrew.marcaccio@doa.ri.gov">Andrew.marcaccio@doa.ri.gov</a> ;	401-222-3417
Christopher Kearns, OER Carrie Gill Nick Ucci	<a href="mailto:Christopher.Kearns@energy.ri.gov">Christopher.Kearns@energy.ri.gov</a> ; <a href="mailto:Carrie.Gill@energy.ri.gov">Carrie.Gill@energy.ri.gov</a> ; <a href="mailto:Nicholas.Ucci@energy.ri.gov">Nicholas.Ucci@energy.ri.gov</a> ;	
<b>File an original &amp; ten copies w/:</b> Luly E. Massaro, Commission Clerk John Harrington, Commission Counsel Public Utilities Commission 89 Jefferson Blvd. Warwick, RI 02888	<a href="mailto:Luly.massaro@puc.ri.gov">Luly.massaro@puc.ri.gov</a> ; <a href="mailto:John.harrington@puc.ri.gov">John.harrington@puc.ri.gov</a> ; <a href="mailto:Cynthia.WilsonFrias@puc.ri.gov">Cynthia.WilsonFrias@puc.ri.gov</a> ; <a href="mailto:Alan.nault@puc.ri.gov">Alan.nault@puc.ri.gov</a> ;	401-780-2107

The Narragansett Electric Company  
d/b/a National Grid  
RIPUC Docket No. 4915  
In Re: Electric Infrastructure, Safety, and Reliability Plan FY2020  
Responses to the Office of Energy Resources' First Set of Data Requests  
Issued on February 12, 2012

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OER 1-1

Request:

For each recommendation in the Power Sector Transformation Stakeholder Report, describe how the proposed ISR does or does not advance the recommendation.

Response:

The Company has engaged with stakeholders via the PST Advisory Group to further discuss recommendations in the Executive Summary Recommended Actions section of the report.

The FY2020 ISR does not currently advance any of these recommendations.

OER 1-2

Request:

- (a) To what extent is the proposed ISR Plan consistent or inconsistent with the grid modernization proposal from Docket 4780?
- (b) Does the Company anticipate any alignment or misalignment with the Grid Modernization Plan under development and in discussion with the PST Advisory Group?

Response:

- (a) The Company is appropriately taking future plans into consideration when engineering and specifying Infrastructure, Safety, and Reliability (ISR) Plan projects and programs so that future investments, such as grid modernization, can be implemented efficiently. For example, the RTU investments included in the ISR Plan are made to accommodate expected future Grid Modernization Plan (GMP) requirements.
- (b) The Company anticipates full alignment with the GMP under development and discussion with the Power Sector Transformation Advisory Group. The GMP will provide a long-term roadmap of initiatives and investments being contemplated including active and future investments and how this ISR Plan aligns with the longer-term roadmap. In addition, some of the same personnel who are involved with developing the ISR Plan are also involved with developing the GMP, thereby ensuring alignment between both plans.

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OER 1-3

Request:

Please identify how the proposed ISR reduces greenhouse gas emissions in Rhode Island, consistent with the targets specified in the Resilient RI Act?

Response:

Please see the Company's response to PUC 2-4 for an updated analysis of new or incremental projects using the Docket 4600 Benefit-Cost Framework. This analysis includes those projects that have a direct impact or enable distributed energy resources, which may impact greenhouse gas compliance and externality costs.

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OER 1-4

Request:

To what extent is the proposed ISR supporting preparation for electrification of heating and transportation sectors?

Response:

Please see the Company's response to PUC 2-4 for an updated analysis of new or incremental projects in the Fiscal Year 2020 Electric Infrastructure, Safety, and Reliability (ISR) Plan using the Docket 4600 Benefit-Cost Framework, which provides a qualitative analysis of projects within the ISR Plan that may be considered load enablers. Please also see the Company's responses to PUC 2-5, part a-4 and PUC 2-5, part f-3.

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OER 1-5

Request:

Regarding electrification of heating and transportation sectors: how does the ISR team interface and coordinate with the relevant internal teams focusing on these sectors?

Response:

The Infrastructure, Safety, and Reliability Plan team includes the Company's Distribution Planning and Asset Management group, which is the same group that will plan for issues and opportunities, based on forecasts, associated with electrification of heating and transportation sectors.



OER 1-6

Request:

Regarding load management categorized as “customer requests”: How does the ISR team interface with the Energy Efficiency Program team, the System Reliability Procurement team, and the Demand Response program?

Response:

There is limited direct interaction between the Energy Efficiency and Infrastructure, Safety, and Reliability (ISR) Plan teams. This is because the effects of energy efficiency are linked directly to the forecasts used by Distribution Planning and Asset Management. These forecasts are used by Distribution Planning and Asset Management to define issues on the distribution system. Defining distribution system issues by Distribution Planning and Asset Management, subsequently leads to the development of projects that are proposed in the ISR Plan or System Reliability Procurement (SRP) Plan.

At a specific customer request level, a similar approach is taken. The customer can work with the Energy Efficiency team to the level the customer desires. The results of the specific customer's energy efficiency efforts could affect the required interconnection facilities. The interconnection work is included in the non-discretionary customer request portion of the ISR Plan.

There is greater direct interaction between Distribution Planning and Asset Management and the SRP team in developing both the ISR Plan and the SRP Plan. Because a portion of the content of both plans results from Distribution Planning and Asset Management studies and analysis, the ISR and SRP teams work together very closely. Often, the same Distribution Planning and Asset Management personnel are assigned to both the ISR and SRP teams.

At this time, because of the small number of Demand Response participants, there is limited interaction between the Demand Response team and Distribution Planning and Asset Management. Given that demand response is considered a non-wires alternative, however, the SRP team considers this technology.

OER 1-7

Request:

Please identify the specific investments proposed for FY 2020 that the Company would classify as improving resilience to climate change (e.g. sea level rise, etc.) and more frequent extreme weather events?

Response:

Most Infrastructure, Safety, and Reliability Plan investments contribute to system resiliency to some degree. For example, asset condition projects replace assets at or near the end of their useful life with new, physically stronger facilities. Similarly, infrastructure that improves the contingency response capabilities of system operators during non-extreme weather events improves the same capabilities during extreme weather events. Projects proposed for Fiscal Year 2020 that are intended specifically to improve resiliency for extreme weather events are the Flood – Hope Substation project and the Flood- Westerly project.

Please also see the Company's response to PUC 2-5, part e.

OER 1-8

Request:

What are the likelihoods that forecasted load growth either (i) does not materialize, (ii) materializes for only a short period of time before declining, or (iii) materializes on a slower timeframe than forecasted? Please provide an analytical response with a description of methodology, underlying assumptions, evidence, and summary data.

Response:

National Grid plans to an extreme summer scenario to ensure a safe, reliable, and efficient electric system. This extreme summer scenario, sometimes termed 95/5 weather, is such that it is expected that 95% of the time it should not be exceeded. It is similarly inferred that it should occur no more than one time in a 20-year period.

Attachment OER 1-8 shows the forecasted load growth versus the weather-adjusted (to 95/5) actuals over the last five forecasting cycles. This provides an indication as to items (i), (ii), and (iii) above. The attachment shows the percentage difference between the forecast and the actual (weather-adjusted) for each year projected into the future. For example, the fall of 2015 planning cycle projected a summer peak of 2,018 MWs one year out in year 2016; 2,029 MWs two years out in year 2017; and 2,042 MWs three years out in year 2018. Actual results were 2,000 MWs (or 0.9% less than forecast) in summer 2016, or one year out; 1,946 MWs (or -4.1%) in 2017; and 1,994 MWs (or -2.3%). The Company considers accuracy levels within +/- 3.5% to be reasonable. It is noted that explicit reductions for solar – PV were not introduced until the fall of 2015 planning cycle. It can be seen in the graph that the most recent two years of forecasts have begun to show flat to slightly declining projections, mostly caused by the increase of policy-based initiatives, such as solar.

	Fall_2013	Fall_2014	Fall_2015	Fall_2016	Fall_2017	Fall_2018		Actual * vs. Forecast	Fall_2015	Fall_2016	Fall_17	
2010	2,021	2,021	2,021	2,021	2,021	<b>2,021</b>						
2011	2,038	2,038	2,038	2,038	2,038	<b>2,038</b>	2011					
2012	2,026	2,026	2,026	2,026	2,026	<b>2,026</b>	2012					
2013	2,038	2,038	2,038	2,038	2,038	<b>2,038</b>	2013					
2014	2,040	2,034	2,034	2,034	2,034	<b>2,034</b>	2014	-0.3%				
2015	2,079	2,029	2,093	2,093	2,093	<b>2,093</b>	2015	0.7%	3.2%			
2016	2,103	2,047	2,018	2,000	2,000	<b>2,000</b>	2016	-4.9%	-2.3%	-0.9%		
2017	2,118	2,049	2,029	1,986	1,946	<b>1,946</b>	2017	-8.1%	-5.1%	-4.1%	2.0%	
2018	2,126	2,049	2,042	1,977	1,926	<b>1,994</b>	2018	-6.2%	-2.7%	-2.3%	-0.9%	3.5%
2019	2,133	2,050	2,049	1,974	1,913	1,989						
2020	2,144	2,051	2,056	1,976	1,905	1,983						
2021	2,158	2,054	2,063	1,982	1,900	1,976						
2022	2,172	2,057	2,072	1,991	1,899	1,973						
2023	2,186	2,062	2,084	2,001	1,899	1,970						
2024	2,201	2,068	2,096	2,011	1,904	1,970						
2025	2,215	2,075	2,109	2,021	1,913	1,971						

\* 2010 to 2018 show actuals (weather-adjusted to 95/5)

