Jennifer Brooks Hutchinson
Acting Assistant General Counsel and Director

February 18, 2020

VIA HAND DELIVERY & ELECTRONIC MAIL

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

RE: Docket 4995 - National Grid's Proposed FY 2021 Electric Infrastructure, Safety, and Reliability Plan
Responses to OER Data Requests – Set 1

Dear Ms. Massaro:

I have enclosed ten (10) copies of National Grid's[1] responses to the first set of data requests issued by the Office of Energy Resources (OER) in the above-referenced matter.

The Company's response to OER 1-6 is pending.

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

Enclosure

cc: Docket 4995 Service List
Christy Hetherington, Esq.
John Bell, Division
Greg Booth, Division
Linda Kushner, Division
Al Contente, Division

[1] The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).

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OER 1-1

Request:

Related to project planning and selection

How is ease of power restoration (vis-a-vis the Company's restoration plan or Emergency Response Plan) considered in ISR development and project selection?

Response:

Power restoration is considered during Annual Capacity Planning Reviews and Area Planning Studies and is in line with the Company Distribution Planning Criteria Strategy. For reference the "Distribution Planning Criteria" document can be found on the National Grid - Rhode Island System Data Portal under the Company Reports tab:

https://ngrid.apps.esri.com/NGSysDataPortal/RI/index.html

The strategy guides contingency planning with detailed criterion that should be applied to the major components of the distribution system including power transformers, sub-transmission supply lines, and distribution circuits. For contingency situations, it is expected that load shall be returned to service within 24 hours via system reconfiguration through switching, the installation of temporary equipment such as mobile transformers or generators, or by the repair of a failed device. Where practical, switching flexibility should be integrated into the system design to minimize the duration of customer outages following an N-1 contingency to meet reliability objectives.

The application of the criteria within Area Planning Studies may result in project recommendations that eliminate or significantly reduce load at risk areas. These recommendations may include traditional infrastructure upgrades and/or non-wire alternatives (NWA). Currently traditional infrastructure projects are progressed for regulatory review and funding through the ISR while NWAs are progressed for regulatory review and funding through the Company's System Reliability and Procurement Plan.

OER 1-2

Request:

To what extent does the Company consider planned road construction or other non-utility construction when prioritizing/scheduling projects?

Response:

The Company reviews planned road construction and other non-utility construction during various stages of project development to potentially advance portions of subsurface work that would conflict with future road or other non-utility construction in the area. Such work would be executed provided that budget, reliability, or customer constraints are met.

OER 1-3

Request:

What are the considerations for and against scheduling ISR work concurrent with other non-utility construction?

Response:

Considerations for scheduling ISR work concurrent with non-utility related construction include limiting multiple construction disturbances in the area, installation of assets in advance of final restorations and the ability to collaborate with non-utility conflicts with the Company's assets. This can provide reduced costs to the project overall.

Considerations against scheduling ISR work concurrent with other non-utility construction include the potential of resequencing or deferring other budgeted work to allow for advancement, required durations of the design or planning have not progressed sufficiently, or advancing installation of portions of the work will create risks of future rework after overall project design is completed.

OER 1-4

Original Request:

Related to asset condition

Page 22 of 38 states "the Company makes asset replacement decisions factoring in asset condition, rather than asset age".

a. How closely does actual life match expected book life?
b. If actual life is shorter, what is the impact of the status quo O&M/I&M investment?
c. Are there any strategies in place (or that could be in place) to extend asset life?

Restated Request:

Related to asset condition

Page 22 of 38 states "the Company makes asset replacement decisions factoring in asset condition, rather than asset age".

a. How closely does actual life match expected book life?
b. If the actual life of an asset is shorter than the book life of that asset, are there adjustments to operations, maintenance, or other activities within the control of the Company that could increase the life of the asset?
c. Are there any strategies in place (or that could be in place) to extend asset life?

Response:

a. The comparison of actual book life to expected book life of Company plant assets is generally undertaken as part of a depreciation study. A depreciation study is performed by experts using an extensive history of plant asset retirement records and is used to develop book depreciation rates. A depreciation study considers many factors, including the remaining value of plant assets that were retired before and after the end of their depreciable lives. The goal of any depreciation study is to develop depreciation rates that depreciate the Company's assets over a period of time that aligns with how such assets are used to provide service to customers and to charge depreciation expense to the generation of customers who receive the benefits of those assets. Depreciation studies are normally conducted with base rate case filings. The last depreciation study done by the Company was as of December 31, 2016 associated with RIPUC Docket No. 4770.

OER 1-4, page 2

b. Currently, the Company does not use depreciation study results to assess the impact on the operations, maintenance, or other activities that could increase asset life. However, if an asset's life is likely to end before its expected life, life-extension options are assessed against the option of replacement. The specific life-extension options vary based on conditions surrounding an asset's premature end-of-life.

c. Yes, for example as part of the Underground Residential Development (URD) Cable Strategy, cable insulation injection, in lieu of replacement, is the preferred method to increase the reliability of direct buried XLPE cables which have sustained multiple failures, if feasible.

OER 1-5

Request:

Describe how targeted outreach for EE and DR are used to mitigate system capacity and performance investments. In additional to your general process-related response, please describe the process specific to developing this FY2021 ISR.

Response:

Major Projects within the ISR originate from System Area Planning Studies. Studies may result in multiple projects to address various issues. During the Development and Project Estimating stage, engineers screen all preferred infrastructure projects for Non Wires Alternatives (NWAs). NWA screening is based on criteria defined in Docket No. 4684 – The Narragansett Electric Company, d/b/a National Grid 2018-2020 Energy Efficiency and System Reliability Procurement Plan (SRP).

If timing allows, targeted Energy Efficiency (EE) and Demand Response (DR) used to mitigate system capacity and performance investments are examined as a part of the development of NWA opportunities during a System Area Planning Study. This assessment of EE and DR for NWAs occurs before the Company goes out to market with RFPs for other NWA bids from third party solution providers. Energy efficiency and demand response may be deployed as part of an NWA solution so long as the targeted energy efficiency or demand response programs are least-cost, cost effective, reliable, and technically feasible for the electric system need. The Company ensures cost-competitive utilization of targeted DR by evaluating market prices and comparing third party demand response proposals to the incremental costs of targeted DR which would build upon National Grid's existing Connected Solutions program.

Below are the current projects in the FY2021 ISR that originated from an Area Study or a study from legacy processes. processes.

Project	Respective Planning Area Study
Southeast (aka Dunnell Park)	Legacy Project - Blackstone Valley North
Dyer Street - Indoor Substation	Legacy Project - Respected in Providence System Area Study
Providence LT Study	Providence System Area Study
Aquidneck Island (Newport projects)	Legacy Project - Newport
New Lafayette Substation	South County East
Warren Substation	East Bay
East Providence Substation	East Bay

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OER 1-5, page 2

While feasible NWAs including EE and DR were not identified for the specific projects above, the Company is currently investigating viable alternative solutions pathways for other projects identified within the respective Area Studies as committed to in the 2020 SRP report.

These commitments include:

1. As part of the Company's reevaluation process, it was determined that the Company should pursue third-party solutions for the previously identified NWA opportunities from the East Bay Study.

2. The plans to investigate viable alternate solution pathways for the Narragansett 42F1 and South Kingstown NWA opportunities originating from the South County East Study.

3. Additionally, the Company has confirmed that the NWA opportunities previously identified in the Providence Area Study are still required. However, the Company will engage the market for potential third-party solutions in later years closer to the in-service need date because the system need is sufficiently in the future. 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.

In reevaluating the above NWAs, the Company will consider targeted EE and DR solutions as appropriate.

OER 1-7

Request:

How are areas prioritized for Area Studies?

Response:

As described in System Planning, Section 1 of the FY 2021 ISR Plan, when Annual Capacity Reviews highlight an area, which has capacity constraints of a level where a detailed and comprehensive review is warranted, that area is identified as needing an Area Planning Study. Other prompts for an Area Planning Study include the identification of asset condition issues, large new customer load request, or acute reliability issues. The annual capacity review, asset condition evaluations, large customer requests, and reliability reviews inform the prioritization of Area Planning Studies to be completed. Chart 1 in the FY 2021 ISR Plan provides the current status of Annual Capacity Reviews and the prioritization and status of Area Planning Studies.

Prepared by or under the supervision of: Kathy Castro