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STATE OF RHODE ISLAND
OFFICE OF ENERGY RESOURCES
Commissioner Carol J. Grant

Comments of the Rhode Island Office of Energy Resources in Docket #4783 re: National Grid's proposed FY 2019 Electric Infrastructure, Safety, and Reliability (ISR) Plan

February 22, 2018

The Rhode Island Office of Energy Resources (OER) respectfully submits these comments regarding the FY 2019 Electric Infrastructure, Safety, and Reliability (ISR) Plan filed by National Grid ("the Company") on December 21, 2017 in Docket #4783. In our review of the FY 2019 ISR Plan, OER has thoroughly considered compliance and consistency with the state's decoupling and Infrastructure, Safety, and Reliability statute; the State Energy Plan; and broader state energy policy goals, including Power Sector Transformation (PST).

OER views the ISR as an integral policy tool to achieve the PST objectives of controlling the long-term costs of the system, giving customers more energy choices and information, and building a flexible grid to integrate more clean energy generation. In the November 2017 Phase One PST Report, OER and the Division of Public Utilities and Carriers (DPUC) recommended a series of improvements to advance the Company's planning and investment practices using existing regulatory channels, including the ISR. OER's review of the FY 2019 ISR focused primarily on consistency with the following distribution system planning (DSP) recommendations from the Phase One PST Report:[1]

- Coordination of DSP-related activities and filings
- Forecast improvements
- Customer and third-party data access

OER respectfully offers the following comments for consideration by the Commission, stakeholders, and the Company as potential improvements to the ISR. The suggested improvements could be considered for implementation in this year's ISR filing or in future year filings. OER's comments largely comprise recommendations for including new sections, content, and information within the ISR filing, rather than suggested modifications to proposed investment plans in the FY 2019 ISR filing specifically. The improvements proposed are intended to foster more holistic planning, investment, and data-sharing practices by the Company and achieve key public policy objectives.

Coordination of DSP-Related Activities and Filings

Policymakers and regulators in Rhode Island are familiar with the dichotomy between: (1) the Company's System Reliability Procurement (SRP) non-wires alternative (NWA) planning and investment process and (2) the Company's ISR capital planning and investment process. The Phase One PST Report noted that this bifurcated system can pose challenges to a holistic assessment of Company DSP-related investment decision-making and proposals.

To begin addressing this dynamic, the PST Report recommended that the Company file the ISR and SRP as two linked, synchronized, and cross-referenced DSP filings each year. As a first step towards

[1] For more detail, please see *Rhode Island Power Sector Transformation: Phase One Report to Governor Gina M. Raimondo*, especially pages 47-53: http://www.ripuc.org/utilityinfo/electric/PST%20Report_Nov_8.pdf

synchronization, OER believes that the Company should take the following steps to more clearly align and coordinate the ISR and SRP filings, as well as demonstrate compliance with NWA requirements:

- Include more detailed information on NWA consideration within the ISR, and cross-reference as necessary with the SRP:
    - Similar to the SRP, include a "Consideration of NWAs in System Planning" section in the ISR, which should contain information on the Company's area study and system assessment DSP planning, a detailed description of the Company's screening process for full and partial NWA, and specific information on capital projects screened for NWA.
    - An explanation should be provided for each project on screening results for full and partial NWA eligibility.
- For capital projects still in the plan development phase or otherwise "in the queue" (i.e. projects that the Company has not yet put into an ISR Plan for approval, but may intend to do so in future years), the Company should define the specific distribution needs driving the project (e.g. peak reduction, contingency requirements, voltage regulation), and allow third-party providers to submit proposals for addressing these needs.
    - For example, as indicated in the Company's response to PUC Data Request 1-2, Attachment PUC 1-2-1, pages 15 to 18 of 66, the Company identified loading and contingency load-at-risk issues for two area studies (Northwest Rhode Island and South County East). The Company indicates that it will "document" potential NWA options in these studies, however, OER believes that third-party providers outside of the Company should have a chance to propose potential solutions for such needs.

Forecast Improvements

The Company's peak load forecasts form a critical input assumption into the area study plans that ultimately guide the Company's proposed capital projects in the ISR. As noted in the Phase One PST Report, the current model of a single, deterministic statewide forecast of peak demand will not suffice for future system planning under high penetrations of distributed energy resources (DER). The Company's forecasting processes must therefore become more granular and sophisticated, integrating approaches such as probabilistic forecasting and scenario forecasts.[2]

OER believes that it is increasingly important to create regular opportunities for regulators, policymakers, stakeholders, and the Company to discuss and review forecasting practices, especially as DER growth accelerates in Rhode Island. It is possible to create such a regular opportunity by including a new section on forecasting in the ISR/SRP Plans. As indicated in the Phase One PST Report, the ISR/SRP Plans are an appropriate forum to consider the efficacy of forecasting practices and potential improvements because forecasts form an integral element of DSP and capital investment decision-making.

Therefore, as recommended in the PST Report, OER respectfully proposes that the Company include an overview and discussion of the annual forecasting process in the ISR, including, but not limited to:

- A copy of the Company's most recent forecast used for the capacity planning process;
- A description of the annual process for developing forecasts;
- A description of the limitations of current forecasting techniques and how the changing distribution system, including distributed energy resources (DER) growth, will impact the forecasting process;

[2] Scenario forecasts consider a range of possible futures where varying levels of DER are adopted on the system. Probabilistic planning, as opposed to the current deterministic approach, would account for uncertainties introduced by factors including increasing DER penetration and weather variability.

- A description of major improvements to forecasting necessary in the short-term and long-term (as allowed and enabled by new technology and data analytics) in order to maintain forecast integrity as DER penetration grows; and
- A discussion of the role of probabilistic forecasting and scenario forecasts.

Customer and third-party data access

Improving third-party access to system and customer data — with privacy and security protections — could enable DER providers to identify ways to contribute to meeting grid needs and maximizing the net benefits of their clean energy technology investments. For example, if building owners or their authorized third parties can access whole building aggregated energy data, they can implement benchmarking to track the building's energy performance and identify opportunities for efficiency improvements. If DER developers can access a map of constrained areas on the distribution system, they can propose projects in those areas that might reduce the need for utility capital investment.

The Phase One PST Report recommended that the Company use the ISR/SRP filings as a forum to create, develop, and iterate on data access plans over time, subject to yearly stakeholder and regulatory review. Therefore, OER respectfully proposes that the Company include an overview and discussion of data access plans in the ISR, including, but not limited to:

- Existing Datasets: The Company should provide an up-to-date, comprehensive inventory of system and customer datasets that it already collects and provides to the public or third parties through existing filings, web pages, or other means. The Company should indicate the location, format, and frequency of update of these datasets, as well as any fee structure currently in place for third-party access.
    - Examples of system data include heat maps and hosting capacity maps
    - Examples of customer data include aggregated datasets regarding monthly kW and/or installed capacity, customer counts, and kWh data aggregated by zip code and/or tax district, and segmented by rate class
- Near-Term and Future Datasets: The Company should specify near-term, new datasets under development, and a schedule for provision of future datasets over time, informed by input from regulators, policymakers, and stakeholders.
- Value-Added Data: The Company should consult with stakeholders to propose guidelines for what datasets should be subject to charge and what fee structures might look like.
- Data Security: The Company should highlight any security concerns and propose adequate security protections for data sharing.
- Customer Rights: The Company should specify customer rights to data, including that all customers should have the right to access their own usage and billing data for free, and be able to authorize third party access to their data.
- Privacy/Aggregation Standard: The Company should include an aggregation or privacy standard to be used for supplying whole-building aggregated data to building owners or their authorized third parties.[3]

Finally, in addition to these key areas of PST implementation, OER would like to express support for: (1) the Company's Volt/VAR Optimization (VVO) expansion, and (2) the Company's Advanced Metering Infrastructure (AMI) pilot. The Company's VVO efforts to date have delivered verified energy and peak savings in excess of 3%, a significant outcome that benefits both the grid and ratepayers. An expansion of the VVO initiative offers the opportunity to provide additional savings and value. Regarding the AMI

[3] Aggregated data is data that have been summed or combined across a group of multiple accounts in order to preserve individual customer privacy.

pilot, OER believes that advanced metering functionality is critical to enabling the customer-centric, flexible, and lower-cost grid that will be needed to reduce long-term system costs and achieve key policy objectives, such as greenhouse gas emissions reduction. OER supports the Company's proposed AMI pilot, which represents an innovative and cost-effective package to explore operationalizing a key enabling technology for Rhode Island's energy future.

OER appreciates the opportunity to comment and looks forward to working with the Public Utilities Commission, the DPUC, the Company, and stakeholders to advance Rhode Island's leadership in transforming the power sector and achieving a reliable, affordable, and clean energy future.

Sincerely,

Carol J. Grant
Commissioner
Office of Energy Resources