

**Docket No. 4770**  
**Twenty Seventh Set of Data Requests of the**  
**Division of Public Utilities and Carriers to National Grid**  
**February 22, 2018**

**Grid Modernization Initiatives**

- 27-1. Referring to the response to Division 19-15 (Docket 4770), please clarify whether the Company is affirmatively recommending to the Commission that it proceed on a Rhode Island-only basis for all the Grid Modernization initiatives set forth in Chapter 3 of PST-1 (other than DSCADA & ADMS) if the other jurisdictions do not provide assurance of cost recovery for their share of the multi-jurisdictional costs. If not, please explain what the Company is recommending for each initiative.

**Response can be found on Bates page(s) 1.**

- 27-2. Was it the Company's intention in filing the PST proposal to be setting forth a menu of choices of Grid Modernization initiatives that leave the decision to go forward or not to the Commission? Or is the Company using its judgment and experience to make affirmative decisions about what is reasonably needed to provide high quality distribution service and recommending affirmative action be taken for the Grid Modernization initiatives? Please explain.

**Response can be found on Bates page(s) 2.**

- 27-3. Referring to Bates page 53 of PST-1 and the following statement: "Modern grid operations require increasing granularity, accuracy, and timeliness of data to achieve benefits associated with advanced systems functionality. GIS is the foundation on which many of these systems are built." Is it the Company's understanding that implementing the GIS Data System Enhancements is or will be an important component of providing electric distribution service within the next three years? If not, please explain why not. If yes, please explain why the Company is not simply going forward with the project much like the Company is doing in its gas business for Gas Business Enablement where it did not obtain regulatory approvals prior to advancement.

**Response can be found on Bates page(s) 3.**

- 27-4. Does implementing the GIS Data System enhancements without yet commencing implementation of the DSCADA & ADMS project achieve distribution planning, operational, or other benefits prior to implementation of DSCADA & ADMS? If yes, please explain the benefits. If no, please explain why not.

**Response can be found on Bates page(s) 4.**

- 27-5. If the Rhode Island Commission directed the Company to implement the GIS Data System Enhancements set forth in Chapter 3 of Power Sector Transformation PST-1, Bates pages 53-56 for the benefit of Rhode Island and the Company implemented the

enhancements, would the GIS system enhancements benefit the Company's distribution affiliates in Massachusetts or New York when implemented? If yes, please identify which affiliates will benefit and how the enhanced system would benefit those affiliates. If no, please explain why not.

**Response can be found on Bates page(s) 5.**

- 27-6. Are there Cybersecurity initiatives included in the cost estimate in PST-1 that are so inter-related to other grid modernization initiatives that the Company would recommend that they not be pursued until the related grid modernization initiative(s) are also being implemented? If so, please identify the initiatives that are inter-related. Conversely, are there Cybersecurity initiatives that have value in the context of grid modernization that the Company would recommend proceeding without other grid modernization being implemented? If so, please identify them and explain why they should go forward as self-standing Cybersecurity initiatives.

**Response can be found on Bates page(s) 6.**

- 27-7. If the Rhode Island Commission directed the Company to implement the Cybersecurity enhancements for grid modernization set forth in Section 3.7 of PST-1, Bates pages 61-63 for the benefit of Rhode Island and the Company implemented the enhancements, would the Cybersecurity enhancements benefit the Company's distribution affiliates in Massachusetts or New York when implemented? If yes, please identify which affiliates will benefit and how the Cybersecurity enhancements would benefit those affiliates. If no, please explain why not.

**Response can be found on Bates page(s) 7.**

- 27-8. Referring to the discussion relating to advanced analytics in Chapter 3 of PST-1, Bates page 58, it states: "The advanced analytics required to efficiently manage a modern grid required processing massive quantities of data from countless data sources. The Company's compute and storage strategy is based on a hybrid sourcing vision. Currently, the Service Company contracts with external service providers for agility and cost efficiency where appropriate. Benefits of cloud computing include: -- Reduced time to provide needed computing resources through administered governance; -- Quicker delivery of applications and business capabilities; -- Ability to dynamically scale/flex computing resources to meet business demand; and -- Ability to provide infrastructure at competitive costs." Is it the Company's understanding that implementing the advanced analytics is or will be an important component of providing electric distribution service within the next three years? If not, please explain why not. If yes, please explain why the Company is not simply going forward with advanced analytics much like the Company is doing in its gas business for Gas Business Enablement where it did not obtain regulatory approvals prior to advancement.

**Response can be found on Bates page(s) 8.**

- 27-9. If the Rhode Island Commission directed the Company to implement the advanced analytics initiative described in Chapter 3 of PST-1, Bates page 58, for the benefit of Rhode Island and the Company implemented the initiative, would the advanced analytics benefit the Company's distribution affiliates in Massachusetts or New York when implemented? If yes, please identify which affiliates will benefit and how the advanced analytics would benefit those affiliates. If no, please explain why not.

**Response can be found on Bates page(s) 9.**

- 27-10. Referring to the response to DIV 19-6 (Docket 4770), the question specifically asked whether "there are any practical impediments to commencing [the System Data Portal project] sooner." The Company did not directly answer this specific question. Yes or no, are there any practical impediments? If yes, please explain.

**Response can be found on Bates page(s) 10.**

- 27-11. Referring to the response to DIV 19-7 (Docket 4770), the question specifically asked whether "there are any reasons why the System Data Portal cannot be implemented sooner and the costs included in an amended cost of service filed in Docket 4770 that includes these costs in the revenue requirement for the Rate Year in that case." The Company did not directly answer this specific question. Yes or no, are there any reasons why the costs could not be recovered in the revenue requirement allowed in Docket 4770? If yes, please explain.

**Response can be found on Bates page(s) 11.**

- 27-12. Referring to the response to Division 19-18 (Docket 4770), please explain why the Company is not proposing to follow the same sequence, accounting rules, and methods of charging affiliates for the Gas Business Enablement (GBE) costs as described in the response to DIV 19-18 for Grid Modernization initiatives, if Rhode Island or any other jurisdictions declined to approve the prospective costs requested for the GBE program.

**Response can be found on Bates page(s) 12.**

- 27-13. Referring to Appendix 10.2 and 10.3 of PST-2, and Attachment DIV 19-18-1 (Docket 4770), page 3 of 3, please explain why there are Capex and O&M costs from Power Sector Transformation being estimated for incurrence by the gas distribution business, in addition to the costs incurred by the electric distribution business.

**Response can be found on Bates page(s) 13-59.**

- 27-14. Are the PST costs that would be incurred by the gas distribution business for gas grid mod, as shown in Appendix 10.2 and 10.3 of PST-2 and on page 3 of 3 of Attachment DIV 19-18-1, being proposed for recovery (i) through the electric PST tracker proposed in docket 4780, (ii) through a different PST tracker applicable to the gas business, (iii) within the Gas Business Enablement cost recovery, or (iv) through another means? Please explain.

**Response can be found on Bates page(s) 60.**

27-15. Referring to Attachment DIV 19-8-1 (Docket 4770), pages 1 through 3, which shows cost incurrence by Fiscal Year for Rhode Island only, please provide a similar estimate showing cost incurrence for all the grid modernization initiatives shown therein as such costs would be incurred in Rate Year 1, assuming each initiative commences on the schedule assumed in DIV 19-8-1.

**Response can be found on Bates page(s) 61.**

27-16. Referring to Attachment DIV 19-8-2 (Docket 4770), pages 1 through 3, which shows cost incurrence by Fiscal Year for the multi-jurisdictional implementation, please provide an estimate showing cost incurrence for all the grid modernization initiatives shown therein as such costs would be incurred in Rate Year 1, assuming each initiative commences on the schedule assumed in DIV 19-8-2.

**Response can be found on Bates page(s) 62.**

27-17. Referring to Attachment DIV 19-8-1(Docket 4770), pages 1 through 3, which shows cost incurrence by Fiscal Year for Rhode Island only, please provide a similar estimate showing cost incurrence for all the grid modernization initiatives shown therein as such costs would be incurred in Rate Years 2 and 3, assuming each initiative commences on the schedule assumed in DIV 19-8-1.

**Response can be found on Bates page(s) 63.**

27-18. Referring to Attachment DIV 19-8-2 (Docket 4770), pages 1 through 3, which shows cost incurrence by Fiscal Year for the multi-jurisdictional implementation, please provide a similar estimate showing cost incurrence for all the grid modernization initiatives shown therein as such costs would be incurred in Rate Years 2 and 3, assuming each initiative commences on the schedule assumed in DIV 19-8-2.

**Response can be found on Bates page(s) 64.**