

March 26, 2018

VIA HAND DELIVERY & ELECTRONIC MAIL

Luly E. Massaro, Clerk
Rhode Island Division of Public Utilities and Carriers
89 Jefferson Boulevard
Warwick, RI 02888

RE: Docket No. D-17-45 - In Re: Review of National Grid (Narragansett Electric) Storm Preparedness and Restoration Efforts Related to the October 29-30, 2017 Storm National Grid's Initial Response to PowerServices Report

Dear Ms. Massaro:

On behalf of National Grid,¹ I enclose five (5) copies of the Company's initial response to the Rhode Island Division of Public Utilities and Carriers' Review of National Grid Storm Preparedness and Restoration Efforts Related to the Storm of October 29-30, 2017 dated March 14, 2018 and prepared by Gregory L. Booth, PE, PLS of PowerServices, Inc. in the above-referenced docket.

Thank you for your attention to this transmittal. If you have any questions, please contact me at 781-907-2153.

Very truly yours,



Celia B. O'Brien

Enclosures

cc: Docket No. D-17-45 Service List
Macky McCleary, Administrator
Jonathan Schrag
Kevin Lynch
Thomas Kogut
Christy Hetherington, Esq.

¹ 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.

Joanne M. Scanlon

March 26, 2018
Date

**Docket No. D-17-45 – National Grid – Storm Fund
Service List as of 3/26/18**

Name/Address	E-mail	Phone
Celia B. O'Brien, Esq. National Grid 280 Melrose St. Providence, RI 02907	Celia.obrien@nationalgrid.com ;	781-907-2153
	Joanne.scanlon@nationalgrid.com ;	
Christy Hetherington, Esq. Dept. of Attorney General 150 South Main St. Providence, RI 02903	CHetherington@riag.ri.gov ;	401-274-4400
	Dmacrae@riag.ri.gov ;	
	jmunoz@riag.ri.gov ;	
Kevin Lynch, Deputy Administrator Division of Public Utilities & Carriers	Kevin.lynch@dpuc.ri.gov ;	
	John.bell@dpuc.ri.gov ;	
	Jonathan.schrag@dpuc.ri.gov ;	
	Macky.McCleary@dpuc.ri.gov ;	
Greg Booth Robin Blanton Linda Kushner David Taylor	Gbooth@powerservices.com ;	
	Rblanton@powerservices.com ;	
	Lkushner@powerservices.com ;	
	Dtaylor@powerservices.com ;	
File an original & 4 copies w/: Luly E. Massaro, Clerk Division of Public Utilities & Carriers 89 Jefferson Blvd. Warwick, RI 02888	Luly.massaro@puc.ri.gov ;	401-780-2107
	John.Spirito@dpuc.ri.gov ;	
	Thomas.Kogut@dpuc.ri.gov ;	

National Grid

The Narragansett Electric Company

Initial Response to the Rhode Island Division of Public Utilities and Carriers' Review of National Grid (Narragansett Electric) Storm Preparedness and Restoration Efforts Related to the October 29-30, 2017 Storm

March 26, 2018

Docket No. D-17-45

Submitted to:
Rhode Island Division of Public Utilities and Carriers

Submitted by:

nationalgrid

INTRODUCTION

The Company¹ submits the following initial response to the Division of Public Utilities and Carriers' (the "Division") Review of National Grid Storm Preparedness and Restoration Efforts dated March 14, 2018 and prepared by Gregory L. Booth, PE, PLS of PowerServices, Inc. (the "Report") as part of the Division's review in Docket D-17-45. In the Report, PowerServices makes several findings, many of which acknowledge the Company's positive performance and recommendations with respect to the Company's preparedness and storm restoration efforts related to the wind and rain storm event that occurred on October 29-30, 2017 (the "Storm"). Although the Company agrees with the positive acknowledgments and several recommendations, the Company respectfully disagrees with a number of the findings and conclusions in the Report.

The Storm was a major wind and rain event that severely impacted the Company's infrastructure throughout its service territory and brought strong, hazardous wind gusts that affected the majority of the Northeast during the night on Sunday, October 29 through Monday, October 30, 2017. The Storm impacted a total of approximately 176,247 customers in the Company's Rhode Island service territory, with approximately 144,144 customers impacted at the Storm's peak.² The Company experienced interruptions in all 38 communities it serves, with more than 200 distribution feeders affected. The Storm impacted more customers than Hurricane Sandy in 2012 and produced more physical damage to the Company's poles than Tropical Storm Irene in 2011.

The first part of this response will highlight PowerServices' positive findings that demonstrate the Company's significant improvements in storm preparedness, response, and restoration efforts since PowerServices' 2012 review of the Company's preparedness, response, and restoration efforts relating to Tropical Storm Irene. The second part of this response will address the challenges that the Company (and other Northeast utilities) faced with this Storm and PowerServices' findings and recommendations set forth in the Report, including several with which the Company disagrees. For example, one notably inaccurate statement in the Report concludes that, without implementing the changes recommended by PowerServices, the Company's customers would "continue to have delayed outage restoration as compared to other regional utility customers, combined with unnecessary inaccuracy in estimated restoration times being communicated."³ The Company's strong performance in responding to recent storms Grayson, Riley, Quinn, and Skylar clearly demonstrate that this statement lacks merit.

The Company is proud of our employees' tireless efforts to restore safe and reliable service to customers during major weather events and appreciates PowerServices' recognition that our employees take great pride in performing their work on behalf of our customers. The Company also appreciates PowerServices' recognition of the Company's significantly improved emergency response procedures to prepare for, and respond to, major weather events over the last six years and looks forward to discussing these items as well as the findings and recommendations, both those with which the Company agrees and disagrees, during the upcoming meeting with the Division next month.

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

² Company's Summary Storm Report filed with the Public Utilities Commission on February 1, 2018 in Docket No. 2509, at 4.

³ Report, at 63.

POSITIVE FINDINGS

Pre-Storm: Weather Predictions, Storm Classification, and Pre-Planning

The Report recognizes that the Company appropriately followed its Emergency Response Plan (“ERP”) guidelines in its pre-planning efforts, which include weather monitoring, branch emergency staff activation, briefing calls, distribution of public information, and crew levels and assignments for a Type 4 event based on weather predictions for this Storm.⁴ The Company’s actions and assignments in the Operations pre-staging meetings held Friday, October 27, 2017 through Sunday, October 29, 2017 were appropriate for a Type 4 event in accordance with the Company’s ERP.⁵ Notably, the Company’s ERP already includes procedures to adjust the ERP classification quickly based on actual impacts to the distribution system from weather patterns that rapidly change and increase in severity, consistent with one of the recommendations contained in the Report.⁶

One of the Report’s key findings is that the weather forecasting services used not only by National Grid, but also by every other utility PowerServices examined that was impacted by the Storm, underestimated the Storm’s severity as compared to the actual event.⁷ Based on these inaccurate forecasts, the Company and many other Northeast utilities “anticipated a less severe storm and planned on less damage, fewer outages and shorter restoration times than actually occurred.”⁸ PowerServices, however, acknowledged that inaccurate weather predictions for this storm were prevalent and these inaccurate forecasts greatly contributed to inadequate pre-event planning activities by the Company and other Northeast utilities.

Storm Onset: Storm Impacts and Classification Adjustments

As noted above, the Company’s current ERP is consistent with the Report’s recommendation to include methods to adjust the event classification quickly based on actual storm impact. Like other utilities in the Northeast, once presented with a storm of “unexpected severity”, the Company quickly adjusted its planning activities, revised the Storm event’s classification, and contacted North Atlantic Mutual Assistance Group (“NAMAG”) to initiate requests for external crews. The report indicates the Company took “swift action in reclassifying the storm event and mobilizing additional crews once actual outages escalated.”⁹ As acknowledged in the Report, “storm classifications have an element of judgement (sic), and [event classification] thresholds are not exact indicators” and the Company’s ERP “takes into account many factors, including the complexity of the storm.”¹⁰ The Company was confident in its ability to meet a three-day restoration target when it revised the storm classification to a Type 3 event and, in fact, successfully restored service to 90 percent of its peak customers impacted within the first two and one-half days in a safe and expeditious manner.¹¹

⁴ Report, at 12.

⁵ Report, at 16.

⁶ Report, at 13.

⁷ Report, at 8.

⁸ Report, at 8 (emphasis omitted).

⁹ Report, at 25.

¹⁰ Report, at 27.

¹¹ Company’s response to data request R-I-1, at 1; Company’s Summary Storm Report, at 1, 11.

Post-Storm: Mutual Assistance, Damage Assessment, and Restoration

The Company secured the appropriate number of resources to restore service to customers, particularly with respect to the numerous individual outages that occurred as a result of this Storm.¹² As noted in the Report, “[i]t is the last 20% of restoration that is more time-consuming and requires targeted efforts and more crews”¹³, which was the case in this Storm. The Company sequenced the work and prioritized its workforce to focus first on live wires and other public safety hazards, and then on the overall goal of maximizing customer restoration when lines are energized. The Report appropriately recognizes that, “[i]n fact, the Company seems to have done an excellent job of this in that they would utilize metering technicians to stand watch over downed lines until they could be cleared by qualified personnel.”¹⁴ The Report also recognizes that “[t]he combination of increasing crew numbers and a strategy to prioritize largest areas without power led to significant restoration through November 1, 2017”¹⁵, two days after the Storm severely impacted much of the State of Rhode Island.

Overall, the Report concludes that the Company “did a good job in restoration efforts once crews were on-boarded and mobilized” and “prioritized safety and reported no injuries during the Storm restoration.”¹⁶ Acknowledging the “challenging and dangerous” nature of the work that was performed in a safe manner, the report commends National Grid’s personnel and contractor resources on their valiant, tireless, and relentless efforts to restore service to the Company’s customers, which “was attested by many of their grateful customers verbally and tangibly through various forms, including social media.”¹⁷ The Report recognizes the pride that National Grid personnel take in performing their work to operate and maintain the distribution system to provide safe and reliable service to customers, which “carried over into the focus and drive required to stay the course until electric service had been restored to every customer.”¹⁸ This proud commitment to serve customers was “evidenced by the progress on outage restoration [National Grid’s personnel] accomplished before the crew level from outside resources actually ramped up.”¹⁹

Field Evaluation: Vegetation Management, Rights-of-Way, and Asset Condition

The Report recognizes that the Company conducts a “robust and effective” vegetation management program for blue sky days that is designed to protect the electric distribution system during normal weather conditions.²⁰ As noted in the Report, “in the event of a severe storm with high winds, all of the system is susceptible to downed trees and branches regardless of the year of most recent vegetation management.”²¹ Most of the outages caused by this Storm resulted from tree damage, which cannot be mitigated absent complete clear cutting.²² PowerServices

¹² Report, at 32.

¹³ Report, at 35.

¹⁴ Report, at 34.

¹⁵ Report, at 34.

¹⁶ Report, at 36.

¹⁷ Report, at 36-37.

¹⁸ Report, at 37.

¹⁹ Report, at 37.

²⁰ Report, at 38-39.

²¹ Report, at 41.

²² Report, at 39.

concluded that right-of-way conditions were “acceptable” and vegetation managed in accordance with National Grid’s standards, which PowerServices reviews annually as part of the Company’s electric Infrastructure, Safety, and Reliability (“ISR”) Plan.²³

According to the Report, the Company has a prudent strategy to maintain the close to 300,000 distribution poles in the state and its systematic approach to inspecting, maintaining, and replacing its infrastructure over the past six years has improved the reliability and resiliency of the system.²⁴ The Company’s annual ISR Plan inspection and maintenance and asset replacement programs, which PowerServices reviews annually, are sufficient to manage proactively asset condition-based issues. Although the Company repairs imminent issues immediately, feeder repairs are performed in accordance with a proactive schedule.²⁵ PowerServices’ field visit to view the Company’s infrastructure revealed no concerns and led PowerServices to recommend no changes or enhancements to the current inspection and maintenance activities.

Communication and AMI: ERP Communication Practices, ETRs, and AMI

The Report concluded that the Company “did a good job sharing information for the safety of their customers” and, “[t]hroughout the event, National Grid provided information about high winds, downed power lines and general safety tips.”²⁶ Power Services observed that the Company adhered to the communications guidelines set forth in the ERP and generally updated sites with accurate information. Life support customers were contacted to inform them of the extent of the service interruption and estimated service restoration time. The Company assigned Community Liaisons to each municipality to expedite the flow of information, an action praised by several municipal authorities.²⁷

Although the Company faced significant challenges in communicating with all of the municipalities it serves the extent of the service interruption and estimated restoration times (“ETRs”), the Report recognizes that the Company “effectively managed receipt of the 120,326 outages reported digitally via National Grid’s website, mobile website, or mobile application, along with the 58,055 outages reported by phone.”²⁸

The Report states that PowerServices analyzed the benefits of advanced metering infrastructure (“AMI”) in storm restoration efforts as part of its evaluation of the Company’s response efforts relating to the Storm, and indicates Power Services “is an advocate when the benefits to customers exceed the cost of implementation.”²⁹ Although not noted in the Report, the Company has an advanced metering functionality proposal currently pending before the Public Utilities Commission in Docket No. 4780.

²³ Report, at 39.

²⁴ Report, at 43.

²⁵ Report, at 42.

²⁶ Report, at 48.

²⁷ Report, at 46.

²⁸ Report, at 51-52.

²⁹ Report, at 53.

CHALLENGES

As noted in the Report, the Storm was not a “traditional slow-moving tropical storm or hurricane that tracks the East Coast and develops over a period of weeks.”³⁰ Instead, it was a “low-pressure system moving in from the Great Lakes region that drew moisture from the remnants of Tropical Storm Philippe”, the result of which was a “rapidly intensifying event described as a ‘weather bomb’, or an event which atmospheric pressure drops quickly causing extremely high winds.”³¹ The nature of this Storm presented several challenges to the Company. First, as discussed above, National Grid’s weather forecasting service underestimated the Storm’s severity and, as a result, the Company and many other New England utilities “anticipated a less severe storm and planned on less damage, fewer outages and shorter restoration times than actually occurred.”³²

One of the biggest concerns raised by PowerServices in the Report appears to be the fact that the Company did not change the event classification from Type 3 to Type 2. It is interesting to note, however, that the Company would not have had to take any additional actions had it declared the event a Type 2 event. The Company secured the appropriate level of resources to respond to the damage to the system and restore service to customers, which commences once the weather event is over and public safety hazards are addressed.

The Report states that the Company’s ERP should be “nimble and free-flowing” when classifying an event,³³ yet much of the feedback in the Report would have the ERP become more rigid and firm. For example, PowerServices recommends that the Company “define outage metrics for each incident level” and “incorporate a detailed matrix of planned resources, both internal and external, required for restoration.”³⁴ PowerServices fails to recognize that the event level classification charts set forth in the ERP are guidelines. The ERP restoration time for any event type is stated in terms of restoration activities being generally accomplished within a certain number of hours, rather than all restoration being completed within that timeframe, as there is no certainty with any weather event as to when restoration of all service interruptions will be complete.

As noted in the Report, PowerServices identified the Company’s ability to provide timely and accurate ETR information as the most significant area needing improvement.³⁵ This was also identified in the Company’s after-action review of the Storm. The Company, however, does not agree that full restoration activities took 36 hours longer than they should have and the facts demonstrate to the contrary.

Although the Company recognizes that each major weather event presents an opportunity to evaluate what went well and what could be improved, the Company identified numerous inaccuracies contained throughout the Report and disagrees with many of PowerServices’ findings and recommendations, which seem to be primarily unsupported, opinion-based

³⁰ Report, at 8.

³¹ Report, at 9.

³² Report, at 8.

³³ Report, at 24.

³⁴ Report, at 18.

³⁵ Report, at 48.

comments. Most notably is the false statement that, without implementing the changes recommended in the Report, the Company's electric customers will "continue to have delayed outage restoration as compared to other regional utility customers, combined with unnecessary inaccuracy in estimated restoration times being communicated."³⁶ The Company's strong performance in responding to recent storms Grayson, Riley, Quinn, and Skylar clearly demonstrate that this statement lacks merit. Rather than elaborating further in this response to the Report, the Company looks forward to discussing the findings and recommendations set forth therein during the upcoming meeting with the Division next month and providing PowerServices with further information to correct the Report's errors.

CONCLUSION

The October 29-30, 2017 Storm that impacted the Company's service territory was a significant weather event that surpassed the damage caused by Tropical Storm Irene and the number of outages caused by Hurricane Sandy, two historical and unprecedented major weather events that Rhode Islanders have experienced in recent years. The Company is proud of its restoration successes noted in the Report, and acknowledges there are areas for improvement. The Company continues to do what it can to improve upon its preparedness and restoration efforts for future storm events. The Company looks forward to continuing to work with the Division and other stakeholders to implement these improvements for future storms.

³⁶ Report, at 63.