

May 31, 2019

VIA HAND DELIVERY & ELECTRONIC MAIL

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

RE: Docket 2509 – Storm Contingency Fund
March 4, 2019 Snow Storm Summary Report

Dear Ms. Massaro:

Pursuant to Rhode Island Public Utilities Commission (PUC) Order No. 15360 (August 19, 1997) and paragraph 4(a) of the Joint Proposal and Settlement in Lieu of Comments Submitted by The Narragansett Electric Company¹ and the Division of Public Utilities and Carriers (the Settlement), which the PUC approved in Docket No. 2509, I have enclosed one original and eight copies of National Grid's summary report on the planning and restoration activities associated with the March 4, 2019 Snow Storm (March 4, 2019 Storm or the storm), which likely will qualify for inclusion in the Company's Storm Contingency Fund. Paragraph 4(b) of the Settlement requires the Company to file with the PUC within 90 days after the storm a report that includes a description of the storm and a summary of the extent of the damage to the Company's system, including the number and length of outages.

The Company will file a supplemental report detailing the incremental restoration costs resulting from March 4, 2019 Storm once the Company accumulates the total costs and completes a final accounting of storm costs.

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

Very truly yours,



Celia B. O'Brien

Enclosure

cc: Docket 2509 Service List
Docket D-11-94 Service List
Leo Wold, Esq.
Christy Hetherington, Esq.
John Bell, Division
Al Mancini, Division

¹ The Narragansett Electric Company d/b/a National Grid (National Grid or 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

May 31, 2019
Date

**Docket No. 2509 – National Grid – Storm Fund
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Docket D-11-94 Review of National Grid's Storm Reports

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National Grid

The Narragansett Electric Company

**Report on
March 4, 2019 Event,
Damage Assessment and
Service Restoration**

May 31, 2019

Docket No. 2509

Submitted to:
Rhode Island Public Utilities Commission

Submitted by:

nationalgrid

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**REPORT ON BEHALF OF
THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID
ON THE MARCH 4, 2019 STORM DAMAGE ASSESSMENT AND SERVICE
RESTORATION EFFORTS**

I. EXECUTIVE SUMMARY

The Narragansett Electric Company d/b/a National Grid (National Grid or the Company) presents the following report on the planning and restoration activities associated with the March 4, 2019 Snow Storm (March 4, 2019 Storm or the Storm), which impacted Rhode Island and other states in New England. For pre-planning purposes, the Company classified the Storm as a National Grid Type 3 emergency event, meaning that the Company estimated that restoration activities generally would be accomplished within a 72-hour period, and the event typically would result in up to nine percent of customers interrupted. The Storm was projected to be a significant event that would bring wet snow, hazardous wind gusts, and low freezing temperatures, which potentially could cause damage to the Company's electric infrastructure. Ultimately, the Storm brought snow and strong winds across Rhode Island, Massachusetts, and much of New England, but the actual snow totals and forecasted wind levels were less than expected. Most of the areas in Rhode Island experienced gusts in the 25 to 30 mph range and only a few inches of wet snow. The March 4, 2019 Storm caused outages to a total of 13,611 (approximately 8,527 at peak) of the Company's customers. Overall, 30 of the 38 communities served in Rhode Island were impacted.

The Company began preparing for the Storm on Friday, March 1, 2019, monitoring weather forecasts and conducting an Operations Planning Call at 11:00 a.m. The first Pre-Event Stage Briefing Call was held later that afternoon at 1:00 p.m. The second and third Pre-Event Briefing Calls were held on Saturday, March 2, 2019, at 10:00 a.m., and on Sunday, March 3, 2019, at 1:00 p.m., during which the Company reviewed the weather forecasts and completed planning efforts. As part of its preparation for the Storm, on Sunday, March 3, the Company opened a Branch Storm Room in Providence at approximately 7:00 p.m. The Company opened the Providence Municipal Room on Monday, March 4, 2019, at approximately 6:00 a.m. and conducted its first and only Restoration Stage Briefing Call at 1:00 p.m. that same day. The Company followed its Emergency Response Plan and mobilized employees and contractors for the restoration using a damage forecast based on its experience in previous storms. As part of its preparation efforts, the Company also utilized contractors from outside the Company's service territory to help with restoration. Using its own crews and contractor resources, the Company restored power to 100 percent of its customers impacted in less than 48 hours from the time of the first customer was impacted. Power was restored to the final customer impacted by the March 4, 2019 Storm on March 5, 2019, at approximately 6:00 p.m.

The Company is grateful for the support of customers, employees, state and local officials, and public safety officials, who experienced the effects of the March 4, 2019 Storm and were an integral part of the Company's restoration efforts.

II. INCIDENT ANTICIPATION

A. Determination of Incident Classification

For its response to the Storm, the Company established a Branch Storm Room in Providence on Sunday, March 3, 2019, at approximately 7:00 p.m. As explained in more detail below, on March 2, 2019, the Company named a New England Incident Commander, who primarily was responsible for establishing the projected and actual incident classification level for the Storm. Consistent with a Type 3 event, the Company opened the Regional Emergency Operation Center in Worcester, Massachusetts on Monday, March 4, 2019, at 6:00 a.m.

As set forth in the Company's Emergency Response Plan, factors considered in initially establishing or revising the expected incident classification level included the following:

- Expected number of customers without service;
- Expected duration of the restoration event;
- Recommendations of the State Planning Section Chief, Transmission and Distribution Control Centers, and other key staff;
- Current operational situation (such as number of outages, resources, and supplies);
- Current weather conditions;
- Damage appraisals;
- Forecasted weather conditions;
- Restoration priorities;
- Forecasted resource requirements; and
- Forecasted scheduling and pace of restoration work crews.

On Saturday, March 2, 2019, at approximately 10:00 a.m., the New England Incident Commander classified the event as a Type 3 event. Through the Pre-Event Stage Briefing Calls, the New England Incident Commander communicated the incident classification to Company leadership and organizations that the Company expected to engage in restoration or support activities.

B. Activation of Incident Command System

The Company utilizes the Incident Command System, a component of the National Incident Management System, which is a comprehensive national approach to incident management applicable at all levels of the Company's Emergency Response Organization and addresses the operation of Company Emergency Operation Centers.

In the days leading up to the Storm, prior to activation of the Incident Command System, the Company's Operations management personnel were monitoring the weather forecast closely. The Company began preparing for the Storm on Friday, March 1, 2019, monitoring weather forecasts and conducting an Operations Planning Call at 11:00 a.m. The Company held its first Pre-Event Stage Planning call that same day and held two additional Pre-Event Stage Planning Calls on Saturday, March 2, and Sunday, March 3, to discuss planning efforts for the possibility

of a significant snow and wind storm. In accordance with the Company's Emergency Response Plan and anticipated Type 3 event, the Company activated the Branch Level Emergency Response Organization in Rhode Island. At that time, the Company planned to open its Branch Storm Room in Providence on Sunday, March 3, at 7:00 p.m. to support Rhode Island restoration. The New England Incident Commander activated the Rhode Island Branch Director, who oversaw Rhode Island restoration and located in the Providence Storm Room, and several other Branch Directors in Massachusetts. Thereafter, the Company activated several other positions at the discretion of the Incident Commander and Branch Directors, considering the level of response expected for the Storm in their respective areas, including Rhode Island. As mentioned above, the Company opened the Regional Emergency Operation Center in Worcester, Massachusetts on Monday, March 4, at 6:00 a.m., consistent with the anticipated Type 3 event level for this storm.

C. Determination of Crew Needs and Pre-Staging

Given the potential magnitude of the Storm and forecast of hazardous winds and heavy wet snow, the Company secured crews in advance from its contractors of choice and other outside contractors to support restoration efforts for all New England as part of its regional preparation for the Storm, consistent with its Emergency Response Plan. As of Sunday, March 3, 2019, at approximately 3:00 p.m., the Company had 61.5 internal overhead line crews, 101 external overhead line crews, 66 external forestry crews, 12 internal underground crews, 41 internal substation resources, 1 internal transmission crew, and 50 internal wires down resources. The Company established one staging site to support restoration across the state at the Twin Rivers Casino in Lincoln.

III. THE STORM AND ITS IMPACT

A. Forecast

The Company monitors the weather forecast obtained from its weather provider, DTN, through detailed emails received three times daily. Throughout the day, the Company also monitors the forecast from various weather websites.

On the afternoon of Friday, March 1, 2019, the weather forecasts began to indicate some potentially hazardous weather for Sunday evening and into Monday, March 4, 2019, consisting of heavy wet snowfall and strong wind gusts, mainly along the northern region of Rhode Island. There were, however, some differences existing in the forecast model guidance, resulting in below average confidence on the severity of the impacts. Heavy wet snow of approximately 4 to 8 inches was expected to accumulate across northern Rhode Island with 3 to 6 inches expected to accumulate in the coastal areas. Peak wind gusts of 40 to 50 mph were forecast in northern Rhode Island, along with common gusts of 20 to 30 mph.

On Saturday evening, March 2, 2019, the forecast still contained below average confidence levels, but forecasters remained convinced that the storm system would impact the

service territory in Rhode Island. Heavy wet snow totals remained likely in the northern region, along with wind gusts ranging between 35 to 45 mph.

By Sunday morning, March 3, 2019, the forecast model guidance aligned into more agreement that the former snow totals and wind gusts would remain as previously reported.

B. Impact

The March 4, 2019 Storm was a moderate weather event that resulted in some damage to the Company's electrical system. The Storm ultimately brought some heavy snow and strong winds across Rhode Island, Massachusetts, and much of New England, but did not deliver the totals anticipated because the system tracked further north and temperatures were warmer than predicted. The minor snow totals quickly were erased by warmer temperatures in the afternoon on March 4. Most of the areas in the state experienced gusts in the 25 to 30 mph range.

The Storm impacted a total of approximately 13,611 customers in the Company's Rhode Island service territory. The Storm impacted approximately 8,527 customers at its peak, which occurred on Monday, March 4, 2019, at approximately 7:30 a.m. The Company restored power to all customers interrupted by 6:10 p.m. on Tuesday, March 5, 2019. The Company experienced interruptions in 30 of the 38 Rhode Island communities it serves, with a total of 57 distribution feeders affected. The Towns of Hopkinton and Scituate were affected most heavily with approximately 45 and 20 percent of their customers impacted, respectively, by the event.

Figure 1 below shows the number of customers interrupted and restored, by hour, for the period of March 3 through March 6, 2019.

Figure 1

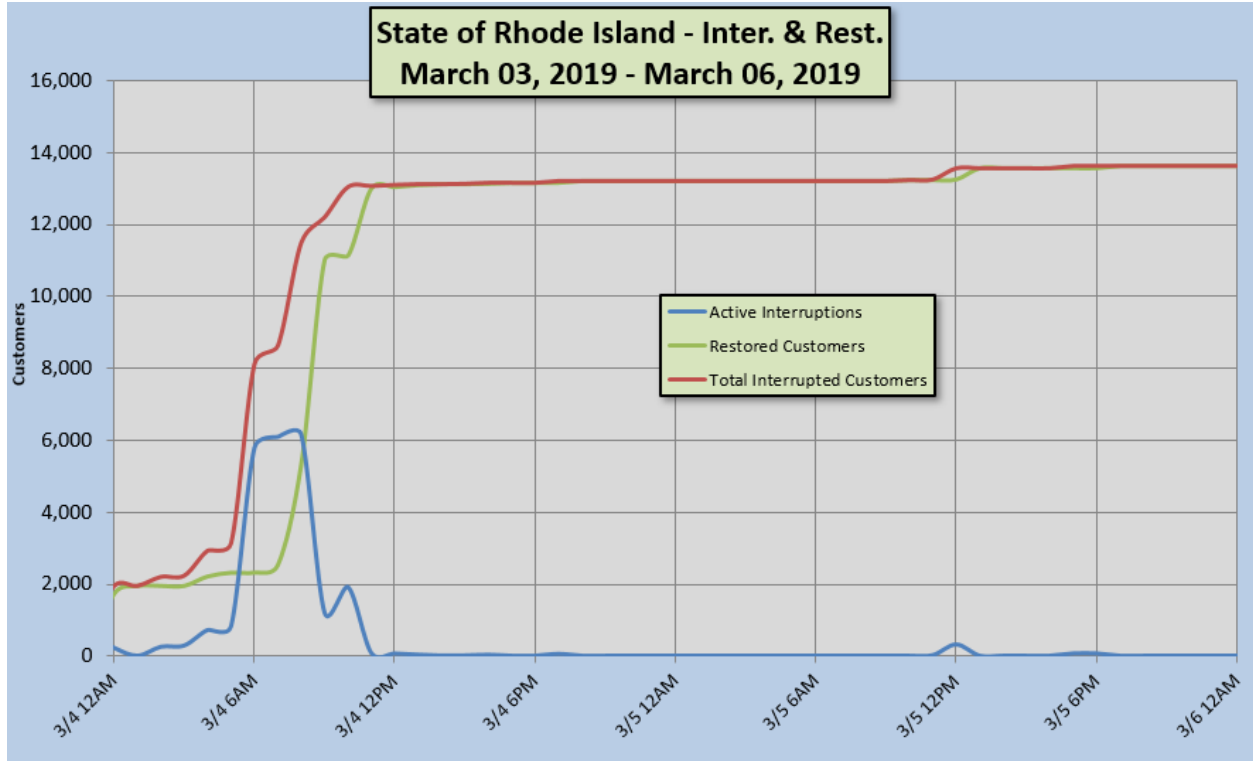


Figure 2 below shows all municipalities that experienced interruptions during the Storm.

Figure 2

Town Name	Customers Served	Total Customers Interrupted	Percent of Total
BARRINGTON	6,883	68	0.99%
BRISTOL	10,469	16	0.15%
CHARLESTOWN	5,770	114	1.98%
COVENTRY	13,870	464	3.35%
CRANSTON	31,832	1,449	4.55%
CUMBERLAND	15,365	3	0.02%
EAST GREENWICH	6,150	110	1.79%
EAST PROVIDENCE	22,265	25	0.11%
EXETER	3,035	35	1.15%
FOSTER	2,035	2	0.10%
HOPKINTON	3,952	1,774	44.89%
JAMESTOWN	3,343	1	0.03%
JOHNSTON	13,752	37	0.27%
LINCOLN	10,235	484	4.73%
LITTLE COMPTON	2,563	1	0.04%
MIDDLETOWN	8,379	142	1.69%
NEWPORT	14,984	936	6.25%
NORTH KINGSTOWN	13,541	138	1.02%
NORTH SMITHFIELD	5,784	609	10.53%
PAWTUCKET	33,933	1,715	5.05%
PROVIDENCE	73,057	1,059	1.45%
RICHMOND	3,493	507	14.51%
SCITUATE	4,607	900	19.54%
SOUTH KINGSTOWN	14,754	45	0.31%
WARREN	6,055	1	0.02%
WARWICK	40,574	2,152	5.30%
WEST GREENWICH	2,733	6	0.22%
WEST WARWICK	13,626	1	0.01%
WESTERLY	14,526	380	2.62%
WOONSOCKET	19,039	18	0.09%

The following sections contain additional details and context regarding the Company's Storm restoration efforts.

IV. RESTORATION

A. Timing and Priority of Service

The Company implemented the system of prioritization for restoration found in its Emergency Response Plan, focusing first on public safety and then on customer restoration that maximized restoration when lines were energized. The Company gave priority and consideration to critical facilities and concentrated efforts to restore service to any life support customers impacted as quickly as conditions warranted, also as set forth in the Emergency Response Plan.

B. Restoration Coordination

The Company dispatched crews to respond to outages from the Branch Storm Room in Providence beginning on Sunday, March 3, 2019, at approximately 7:00 p.m. through the end of the Storm. Consistent with the Emergency Response Plan, the Company activated Police and Fire Coordinators for the Storm. These employees reported to the Storm Room Leads and were responsible for communicating the estimated times of arrival on all police and fire calls, with a standby condition noted. The Company also established one staging site to support restoration across the state at the Twin Rivers Casino in Lincoln. The Company did not activate Task Force teams for this event.

C. Personnel Resources

As part of its planning process, the Company prepared for a Type 3 event in Rhode Island based on the forecasts. The Company's plan remained consistent throughout the Pre-Event Stage Briefing Calls on Friday, March 1, 2019, Saturday, March 2, 2019, and Sunday March 3, 2019.

The Company secured 332.5 internal and external field crews¹ to restore power to customers in Rhode Island, consisting of approximately 167 external crews and 165.5 internal crews. The internal and external field crew numbers included transmission and distribution overhead line, forestry, substation, and underground personnel.

D. Safe Work Practices

Safety is always at the forefront of Company operations, including and especially during activities associated with storm restoration. For each storm event, both the System and Regional Incident Command System structure designate a lead position for a Safety, Health, and Environment Officer. Safety messages are delivered on all calls to heighten awareness during preparation and restoration.

¹ The crew counts in this paragraph are consistent with the detailed crew counts provided in Paragraph II.C. on Page 3 of this report. Crews typically include two or three people, although there may be some one-person crews in damage assessment, wires down, distribution line (troubleshooters), and substation personnel. Transmission crews typically include 6-10 resources.

As with any storm, for the March 4, 2019 Storm, National Grid assembled a safety team with area responsibilities, established the reporting hierarchy, and prepared and communicated organization charts. The safety team prepared safety notices and delivered them to all Company employees through corporate communications. Safety personnel were deployed to assist in specific geographic areas and delivered on-site safety orientations to National Grid workers and contractors prior to the start of the day. During the Storm, safety personnel visited work sites to advise Company personnel and contractors of safety issues and best practices. In addition, prior to the start of each new job, the work was reviewed by assigned crews, with a focus on safe working conditions for the specific job.

These safety efforts helped the Company experience no injuries during the March 4, 2019 Storm.

V. COMMUNICATIONS DURING AND AFTER THE EVENT

A. Communication Regarding Estimated Times of Restoration

The Company posted Estimated Times of Restoration (ETRs) on its website during the March 4, 2019 Storm using Outage Central, which provided real time ETR updates approximately every 15 minutes.

As crews were assigned and reported ETR updates based on their actual findings in the field, the Company uploaded the updated ETRs into Outage Central. The Company continued to update ETRs throughout the restoration process as information became available to the Company.

B. Intra-Company

The Company began preparing for the Storm on Friday, March 1, 2019, monitoring forecasts and conducting an Operations Planning Call at 11:00 a.m., and the first Pre-Event Stage Briefing Call at 1:00 p.m. The Company continued to prepare for the Storm on Saturday, March 2, 2019, at 10:00 a.m. by conducting a second Pre-Event Stage Briefing Call, during which the Company reviewed the weather forecast and began planning for the possibility that the Storm would impact the Company's electric distribution system in New England. The Company held its third Pre-Event Stage Briefing Call on Sunday, March 3, 2019, at 1:00 p.m. The Company held its first and only Restoration Stage Briefing Call on Monday, March 4, 2019, at 1:00 p.m. Additionally, the Company issued communications to field crews with both restoration and safety information throughout the Storm.

C. Public Officials

1. Governor's Office

The Company's Jurisdictional President communicated with the Governor's office as needed during the March 4, 2019 Storm.

2. Rhode Island Public Utilities Commission (PUC), Division of Public Utilities and Carriers (Division), and Rhode Island Emergency Management Agency (RIEMA)

The Company's Manager of Regulatory Affairs first reached out to the Division and the Office of Energy Resources on Friday, March 1, 2019, regarding the Company's preparation for the March 4, 2019 Storm and provided an update on Friday afternoon, March 1, 2019. The final update was provided on Monday, March 4, at 10:00 a.m., indicating that the Company had downgraded the event to a Type 4, was continuing to restore the remaining customers without power, and would consider transitioning the Providence Storm Room back to normal operations after the remaining wind had died down. The Company's Jurisdictional President communicated with RIEMA as needed during the Storm. The Company also utilized its RIEMA Liaisons who were activated and present at RIEMA throughout the night on Sunday, March 3, and during the day on Monday, March 4.

3. Municipalities

Due to the impact from this event, the Company opened a Municipal Room on Monday, March 4, at 6:00 a.m. The Company activated its Area Community Liaison Coordinators to work with each Rhode Island city or town's emergency, Department of Public Works, and/or public officials as a dedicated liaison. The Company's Area Community Liaison Coordinators served as full-time resources supporting impacted communities and enabled direct communications back into the Company's public information coordinators and Branch operations personnel.

D. Customers

The Company communicated with customers during the March 4, 2019 Storm through its Customer Contact Center, website, and social media. The Company monitored social media channels and posted messages and responded to customer issues. Communications included but was not limited to: information on how customers could stay safe during the Storm; information on what the Company was doing to respond to the Storm; and information on how customers could contact the Company.

On Sunday, March 3, 2019, at 10:00 a.m., the Company made an outbound call to all life-support customers to notify them of the upcoming weather and to recommend taking necessary precautions and preparations to ensure their well-being in the event of an outage. The outbound call also informed life-support customers to contact 911 or their local public safety officials in the event of an emergency. The Company's Customer Contact Center secured additional staffing

to respond to incoming calls for those affected by outages, as well as additional staff to support an expected high call volume.

E. Media

The Company activated its Public Information Officer (PIO) who participated in the Pre-Event and Restoration Stage Briefing Calls conducted by Company Operations, along with additional PIO support staff for the Storm. The Company engaged both traditional and social media channels to distribute Storm and safety-related information and issued a press release on March 3. The Company's Strategic Communications Department received numerous media requests for information or interviews related to the March 4, 2019 Storm in Rhode Island.

VI. CONCLUSION

The March 4, 2019 Storm produced moderate impacts to the Company's electrical system, resulting in power outages to approximately 13,611 of the Company's customers. The damage to the Company's distribution infrastructure was less than expected because of actual snow totals and peak wind gusts being lower than forecast. Damage primarily was caused by falling tree limbs and branches coming into contact with the Company's poles and wires. The Company was fully prepared to respond to the Storm, having secured all necessary resources and outside contractors to aid in the restoration effort required for the forecast predicted and maintained communications with stakeholders through a variety of channels throughout the Storm.

Through use of the Company's own distribution line resources and transmission line crews, contractor distribution line crews, and contractor tree crews, the Company restored power to 100 percent of its customers impacted in less than 48 hours from the time of the first customer outage. Power was restored to the final customer impacted by the March 4, 2019 Storm on March 5, 2019, at approximately 6:00 p.m.

The Company understands the impact that electrical outages have on its customers. The Company is proud of the restoration work that it accomplished during the March 4, 2019 Storm and is grateful for the support of customers, employees, state and local officials, and public safety officials, who experienced the effects of the Storm and were an integral part of the Company's restoration efforts.