

February 3, 2012

**VIA HAND DELIVERY & ELECTRONIC MAIL**

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

**RE: Division Docket No. D-11-94  
National Grid Hurricane Irene Response Assessment  
Responses to Division Data Requests (Set 2)  
Section II. Construction**

Dear Ms. Massaro:

Enclosed are one original and five (5) copies of National Grid's<sup>1</sup> responses to the Division's Second Set of Data Requests issued in Section II. Construction.

Thank you for your attention to this transmittal. If you have any questions, please feel free to contact me at (401) 784-7288.

Very truly yours,



Jennifer Brooks Hutchinson

Enclosures

cc: Steve Scialabba, Division  
Leo Wold, Esq.

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<sup>1</sup> The Narragansett Electric Company d/b/a National Grid ("Company").

**II. Construction**  
Division 2-1

Request:

What was the average number of hours per work day for National Grid and contract line crews assisting in the Rhode Island restoration?

Response:

All line resources were placed on a system emergency shift which requires 18 continuous hours of service with 6 hours allowed for rest. There were shifts established that allowed for 24 hour coverage, with the majority of the crews scheduled to maximize restoration during the daylight hours.

Prepared by or under the supervision of: Kathy Lyford

**II. Construction**  
Division 2-2

Request:

How many of the Rhode Island contract line crews were equipped with digger/derrick trucks?  
Was the use of gas construction crews to dig holes for pole replacements due to lack of appropriate resources?

Response:

Contracted line crews assigned to RI were equipped with 79 digger derricks.

With regard to the use of the Gas Crews, the Company has recently begun cross training of gas personnel to assist with electric restoration efforts, including pole setting and debris removal. This practice allows qualified line crews to focus on line work, while optimizing the use of other qualified internal resources to perform lower skilled jobs such as pole setting and debris removal.

Prepared by or under the supervision of: Kathy Lyford

**II. Construction**  
Division 2-3

Request:

During the first couple of days during the restoration, it appears that line construction spent the majority of their time addressing downed conductors and priority calls from emergency services. Provide a summary or estimate of Rhode Island line crew resources by type of restoration activity for each day of the restoration, whether assisting with wires down, priority calls, or damage work packages?

Response:

During the first couple of days during the restoration, line construction utilized approximately 106 of its line resources in responding to police/fire emergency calls. The remaining 46 of the resources were responding to critical public facility restorations such as hospitals, sewerage plants, etc. On the second full day of restoration, nearly 152 of line resources were dedicated to restoration priorities. This was the case until the final customer was restored. Wires down response was managed through the wires down rooms utilizing underground and substation workers performing cut/ clear activities, along with engineers, and electric and gas meter employees performing appraisals and stand by. Troubleshooters were utilized where practical to relieve a wires-down person who was unqualified to fix the downed wire. Line crews were used to repair wires down as they were assigned the feeder through the feeder repair priority list.

Prepared by or under the supervision of: Kathy Lyford

**II. Construction**  
Division 2-4

Request:

In previously provided materials, it appears National Grid contacted the contractors it generally used for construction activities in order to reserve crews. How many crews were reserved in advance of specifically calling for mobilization? Provide a list by contractor contacted in advance of the storm along with the date of that contact and the level of commitment obtained from the contractor.

Response:

On Wednesday, August 24, thirty one (31) crews from two of the contractors generally used for construction and currently working on the property were reserved in advance of mobilization. Other contractors, generally used for storm restoration, were also contacted on that day and committed with resources they had available from outside New England, for a total of 156 crews available for restoration activities in New England.

See Attachment DIV 2-4: II. Construction for the list of contractors recruited on August 24 with the anticipated resources.

Prepared by or under the supervision of: Michael Szczepanek



## **II. Construction**

### Division 2-5

#### Request:

How many of the contractor crews that National Grid reserved in advance of the storm were actually provided, and why did the number vary from the number of crews reserved?

#### Response:

Requests for contracted crew resources started late Tuesday evening, August 23 and continued through the week as Hurricane Irene approached New England. As stated in the original 90-day report, 200 crews were requested on Wednesday, August 24. By Wednesday evening, 160 of the 200 crews were confirmed for mobilization to New England. Of the 200 requested on Wednesday, 31 crews were local, (25 Alliance and 6 by another local vendor), the remaining crews acquired were from outside New England. The number of resources continued to increase daily as direction was given to secure additional resources above the initial 200.

Due to the magnitude and severity of anticipated damage to electric utility infrastructure along the eastern United States, dozens of utilities in numerous states mobilized activities to secure external crews for service restoration. With a much greater number of utilities competing for the same resources, National Grid encountered more challenges in securing crew resources for Irene than is typical for less intense storm events.

Contractors would, in an attempt to satisfy multiple utility requests, broker their crews to several potential utilities for their resources while waiting for early commitments. Many of the resources offered needed to be released from the host utilities before they could mobilize. As these crews were released from utilities not impacted by Irene, those resources were secured and confirmed, changing the numbers of crews initially offered based on how the contractor divided up crews being released.

Prepared by or under the supervision of: Michael Szczepanek

**II. Construction**  
Division 2-6

Request:

How many National Grid escorts were available in Rhode Island and working during the same hours the line crews were working, and did they provide full time escort to the out of state and contract crews on a continuous basis?

Response:

Approximately 82 National Grid escorts were assigned to external crews working in Rhode Island. Escorts were assigned to work the same hours as the crews assigned. All external crews were assigned an escort. As new crews arrived at the staging areas set up in Rhode Island, escorts were at the staging areas and assigned to the crews on a continual basis. Crews that were moved to Rhode Island from Massachusetts and New Hampshire restoration locations were accompanied by escorts originally with those crews.

Prepared by or under the supervision of: Michael Szczepanek

**II. Construction**  
Division 2-7

Request:

How many hours a day did the material handlers and warehouse personnel work supporting Rhode Island work? During what hours were materials available to the line crews, both National Grid and outside crews?

Response:

During this event, the Company had material handlers available 24 hours per day. The material handlers worked staggered hours at the various locations. Materials were available around the clock for both internal and external line crews, but most often the materials were replenished overnight, while crews were resting, to ensure the material would be available at the various staging sites and warehouses as the crews were being dispatched in the morning. The staging sites were staffed full-time by inventory personnel beginning at 5:00 a.m., and running well into the night based on the needs and communication of the crews. When the staging sites were closed for the night, material handlers worked continuously through the night at the New England Distribution Center (“NEDC”) to pick up and deliver materials to replenish the various staging sites and operations warehouses. In summary, once the storm started, National Grid operated the warehouses 24/7 to support the operations.

Prepared by or under the supervision of: Craig Dikeman

**II. Construction**  
Division 2-8

Request:

How many tree clearing crews were working in Rhode Island? Did these tree clearing crews work the lines in advance of a line construction crew? When and in what instances did line construction crews have to do their own tree clearing?

Response:

At peak, on 9/1/11, 182 forestry crews were actively supporting the restoration effort in Rhode Island. Refer to Attachment 11 of the Company's initial 90-day Storm Report dated 11/22/11 for a detailed summary of forestry crews working in Rhode Island throughout the restoration effort.

Where possible, forestry crews worked on clearing tree related issues prior to the arrival of line construction crews, expediting the restoration process. Additionally, forestry crews responded to emergency tree related requests and specific line crew requests throughout the restoration effort. Minor tree related conditions can be and were cleared by the line construction crews as part of each individual outage response. Situations where the line construction crews perform this minor tree related work were not tracked.

Prepared by or under the supervision of: Jerry Convery

**II. Construction**  
Division 2-9

Request:

Are there many rear lot line circuits or line sections in Rhode Island's service territory requiring extra labor and resources to correct a problem?

Response:

Rear lot lines commonly referred to as "backyard construction" are not an issue in the Rhode Island service territory of National Grid. As such, there was no extra labor or resources expended that would have impacted restoration efforts.

Prepared by or under the supervision of: Kathy Lyford

**II. Construction**  
Division 2-10

Request:

The National Grid Irene Preparedness Report states that restoration priority was set by the number of customers that could be returned to service at one time. Were there any instances where a smaller section of customers could have been restored quickly, but were postponed because the customer count was insufficient to meet a higher priority? Were there instances where a great deal of time and resources were spent on a single large problem because the defect affected a large number of customers?

Response:

Restoration efforts were prioritized by feeder criticality ratings. Feeders with hospitals, schools, pumping stations, life support customers and other critical public facilities were highest priority, with rural or non-critical feeders lowest priority. Generally, the highest priority feeders were assigned sequentially based on damage assessment results to a line crew. The crews would continue working on the feeder restoring mainline supply first, then restoring individual sidetaps sequentially from the substation breaker to the end of the circuit. This process was methodical and in no way resulted in intentional delay of restoration to smaller sections of customers.

Prepared by or under the supervision of: Kathy Lyford

**II. Construction**  
Division 2-11

Request:

How many instances occurred where a major feeder was returned to service by backfeeding from another circuit?

Response:

There were 16 feeders where some or all of the customers were picked up via backfeeding from another circuit. See Attachment DIV 2-11-II.Construction for details.

Prepared by or under the supervision of: Michael Gallagher

**TS Irene: RI: Major feeders or feeder sections restored with backfeeds**

	<u>Substation</u>	<u>Feeder</u>	<u>Time Off</u>	<u>Approx customers restored via backfeed</u>
1	Washington	126W51	8/28/11 9:34	2043
2	Tiverton	33F1	8/28/11 8:10	658
3	Old Baptist	46F1	8/28/11 14:58	741
4	Clarkson St	13F4	8/28/11 9:17	2045
5	Nasonville	127W40	8/28/11 7:39	614
6	Valley	102W52	8/28/11 8:39	1134
7	Tiverton	33F2	8/28/11 14:51	2228
8	West Farnum	17W43	8/28/11 9:05	780
9	Hope	15F2	8/28/11 9:18	380
10	Kent County	22F2	8/28/11 6:17	1451
11	Warren	5F2	8/28/11 8:06	1860
12	Division St	61F1	8/28/11 6:27	215
13	Peacedale	59F3	8/28/11 8:26	1143
14	Dyer St	2J7	8/28/11 8:24	824
15	Pawtucket #1	107W61	8/28/11 8:01	134
16	Jepson	37W41	8/28/11 7:02	561