

September 11, 2012

**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 Pertaining to Tropical Storm Irene  
National Grid Responses to Division Data Requests – Set 2**

Dear Ms. Massaro:

Enclosed are an original and ten (10) copies of National Grid's<sup>1</sup> responses to the Division's Second Set of Data Requests issued on August 21, 2012, concerning the above-referenced matter.

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: Docket 2509, Service List  
Steve Scialabba, Division  
Leo Wold, Esq.

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

### Certificate of Service

I hereby certify that a copy of the cover letter and/or any materials accompanying this certificate were electronically submitted, hand delivered and mailed to the individuals listed below.

/S/  
Janea Dunne

September 11, 2012  
Date

**Docket No. 2509 – National Grid – Storm Fund  
Service List as of 8/28/12**

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R-II-1

Request:

Does the Company support the position that the National Electrical Safety Code applies to all communication companies, including telephone, cable and broad band, attaching to the company's poles and joint owned poles and communication company owned poles? If it does not provide a detailed explanation as to why it does not believe the NESC applies. Also, state with specificity each edition of the NESC the company believes applies or does not apply.

Response:

The National Electrical Safety Code ("NESC") applies to the physical and operating characteristics of installed facilities, rather than the identity of the owner of those facilities. To the extent that a communication company owns facilities attached to poles owned solely or in part by the Company, applicable provisions of the NESC apply to those facilities. The Company takes no position on the applicability of the NESC to poles owned by communication companies to which the Company has no facilities attached.

R-II-2

Request:

Does the Company contend that the NESC Rule 218 for each edition of the NESC from 1990 to the most recent edition applies to communication companies? If it does not support the position Rule 218 applies to communication companies, provide a detailed explanation as to why it does not, including but not limited to: (a) all NESC interpretations published on Rule 218, (b) all Handbook references that support the company's position, (c) all treatises, lectures, teachings or other published materials in the position of the company that would support a position by the company that the NESC Rule 218 does not apply to communications companies.

Response:

Applicability of the various provisions of National Electrical Safety Code ("NESC") is determined by the physical and operating characteristics of the installed facility, rather than the identity of the owner of those facilities, as implied by the question. The NESC generally applies to the types of facilities owned by communications companies and attached to utility-owned poles. However, the applicability of specific provisions within the NESC is a function of the terminology used in each respective provision and the definition of those terms, as self-identified in the NESC. Therefore, although the NESC generally applies to both electric and telecommunication facilities, the respective provisions do not always apply equally to electric conductors and communications lines because the physical characteristics of those lines are not the same. The terminology used in Rule 218 over the years 1990 to the present is reviewed below, starting with the most recent editions. There are no official published interpretations of NESC Rule 218 for the 1990 or later editions of the NESC; however, the NESC sets out definitions for the terminology used in each section.

2012 NESC

NESC Rule 218 covers vegetation management.

NESC Rule 218A states that "vegetation that may damage **ungrounded supply conductors** should be pruned or removed." *NESC, C2-2012, Rule 218A, page 79 (emphasis added)*. The NESC uses the word "**supply**" to describe electric supply equipment and to distinguish those facilities from communication equipment. The definition of "**electric supply equipment**" means equipment used for "**a supply of electric energy.**" *NESC, C2-2012, Section 2, page 9 (emphasis added)*. Similarly, "**lines - electric supply lines**" are defined as "**used to transmit electric or light energy.**" *NESC, C2-2012, Section 2, page 12 (emphasis added)*. In contrast, "**lines - communication lines**" are defined as used for "**public or private signal or**

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**communication service.**" *NESC, C2-2012, Section 2, page 11 (emphasis added)*. Therefore, by its own terms, the use of the word "**supply**" in the description of the applicability of Rule 218A limits the scope of this rule to "**electric supply conductors.**" The NESC Handbook supports this interpretation by stating, "[v]egetation contact with a grounded neutral or a communication cable in itself is not expected to result in electrical arcing damage to a neutral or cable and is no longer specifically targeted by the rule." *NESC Handbook, Seventh Edition, page 248 (emphasis added)*. Therefore, it is clear that the vegetation management requirements of NESC Rule 218A apply to electric supply conductors and do not apply to communication wires.

Rule 218B states that the crossing span and adjacent spans should be kept free from overhanging or decayed trees or limbs that otherwise might fall into the line at "**line crossings, railroad crossings, limited-access highway crossings, or navigable waterways requiring crossing permits.**" *NESC, C2-2012, Rule 218A, page 79 (emphasis added)*. Because there is no language limiting the scope of NESC Rule 218B either to electric supply conductors or communications lines, this requirement would apply generally to electric supply and communication wires at the specified locations.

2007 NESC

NESC Rule 218 covers vegetation management.

NESC Rule 218A states that "vegetation that may damage **ungrounded supply conductors** should be pruned or removed." *NESC, C2-2007, Rule 218A, page 75 (emphasis added)*. The NESC uses the word "**supply**" to describe electric supply equipment and to distinguish those facilities from communication equipment. The definition of "**electric supply equipment**" is equipment as used for "**a supply of electric energy.**" *NESC, C2-2007, Section 2, page 7 (emphasis added)*. Similarly, "**lines - electric supply lines**" are defined as "**used to transmit electric energy.**" *NESC, C2-2007, Section 2, page 9 (emphasis added)*. In contrast, "**lines – communication lines**" are defined as used for "*(emphasis added)*." *NESC, C2-2007, Section 2, page 9 (emphasis added)*. The use of the word "**supply**" in the description of the applicability of Rule 218A, limits the scope of this rule to electric supply conductors. The NESC Handbook supports this interpretation by stating, "Vegetation contact with a grounded neutral or a communication cable in itself is not expected to result in electrical arcing damage to a neutral or cable and is no longer specifically targeted by the rule." *NESC Handbook, Sixth Edition, page 223 (emphasis added)*. Thus, the vegetation management requirements of NESC Rule 218A apply to electric supply conductors and do not apply to communication wires.

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Rule 218B states that the crossing span and adjacent spans should be kept free from overhanging or decayed trees or limbs that otherwise might fall into the line at “line crossings, railroad crossings and limited-access highway crossings.” *NESC, C2-2007, Rule 218A, page 75*. Because there is no language limiting the scope of NESC Rule 218B to either electric supply conductors or communications lines, this requirement applies generally to electric supply and communication wires at the specified locations.

**2002 NESC**

NESC Rule 218 covers tree trimming.

NESC Rule 218A states that “trees that may interfere with **ungrounded supply conductors** should be trimmed or removed.” *NESC, C2-1997, Rule 218A, page 63 (emphasis added)*. The NESC uses the word “**supply**” to describe **electric supply equipment** and to distinguish those facilities from communication equipment. The definition of “**electric supply equipment**” is such equipment as used for “**a supply of electric energy**.” *NESC, C2-2002, Section 2, page 6 (emphasis added)*. Similarly, “**lines - electric supply lines**” are defined as “**used to transmit electric energy**.” *NESC, C2-2002, Section 2, page 8 (emphasis added)*. In contrast, “**lines – communication lines**” are described as used for “**public or private signal or communication service**.” *NESC, C2-2002, Section 2, page 8 (emphasis added)*. The use of the word “**supply**” in the description of the applicability of Rule 218A, limits the scope of this rule to electric supply conductors. Thus, the vegetation management requirements of NESC Rule 218A apply to electric supply conductors and do not apply to communication wires.

Rule 218B states that the crossing span and adjacent spans should be kept free from overhanging or decayed trees or limbs that otherwise might fall into the line at “line crossings, railroad crossings and limited-access highway crossings.” *NESC, C2-2002, Rule 218A, page 63*. Because there is no language limiting the scope of NESC Rule 218B to either electric supply conductors or communications lines, this requirement generally applies to electric supply and communication wires at the specified locations.

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**1997 NESC**

NESC Rule 218 covers tree trimming.

NESC Rule 218A states that “trees that may interfere with **ungrounded supply conductors** should be trimmed or removed.” *NESC, C2-1997, Rule 218A, page 63 (emphasis added)*. The NESC uses the word “**supply**” to describe **electric supply equipment** and to distinguish those facilities from communication equipment. The definition of “**electric supply equipment**” is such equipment as used for “**a supply of electric energy.**” *NESC, C2-1997, Section 2, page 6 (emphasis added)*. Similarly, “**lines - electric supply lines**” are described as “**used to transmit electric energy.**” *NESC, C2-1997, Section 2, page 8 (emphasis added)*. In contrast, “**lines – communication lines**” are described as used for “**public or private signal or communication service.**” *NESC, C2-1997, Section 2, page 8 (emphasis added)*. The use of the word “**supply**” in the description of the applicability of Rule 218A, limits the scope of this rule to electric supply conductors. Therefore, the vegetation management requirements of NESC Rule 218A apply to electric supply conductors and do not apply to communication wires.

Rule 218B states that the crossing span and adjacent spans should be kept free from overhanging or decayed trees or limbs that otherwise might fall into the line at “line crossings, railroad crossings and limited-access highway crossings.” *NESC, C2-1997, Rule 218A, page 63*. Because there is no language limiting the scope of NESC Rule 218B to either electric supply conductors or communications lines, this requirement applies to electric supply and communication wires at the specified locations.

**1993 NESC**

NESC Rule 218 covers tree trimming.

NESC Rule 218A states that “trees that may interfere with **ungrounded supply conductors** should be trimmed or removed.” *NESC, C2-1993, Rule 218A, page 67 (emphasis added)*. The NESC uses the word “**supply**” to describe **electric supply equipment** and to distinguish those facilities from communication equipment. The definition of “**electric supply equipment**” is such equipment as used for “**a supply of electric energy.**” *NESC, C2-1993, Section 2, page 6 (emphasis added)*. Similarly, “**lines - electric supply lines**” are described as “**used to transmit electric energy.**” *NESC, C2-1993, Section 2, page 8 (emphasis added)*. In contrast, “**lines – communication lines**” are defined as used for “**public or private signal or communication service.**” *NESC, C2-1993, Section 2, page 7 (emphasis added)*. The use of the word “**supply**” in the description of the applicability of Rule 218A limits the scope of this rule to electric supply

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conductors. Thus, the vegetation management requirements of NESC Rule 218A apply to electric supply conductors and do not apply to communication wires.

Rule 218B states that the crossing span and adjacent spans should be kept free from overhanging or decayed trees or limbs that otherwise might fall into the line at "line crossings, railroad crossings and limited-access highway crossings." *NESC, C2-1993, Rule 218A, page 67.* Because there is no language limiting the scope of NESC Rule 218B to either electric supply conductors or communications lines, this requirement applies generally to electric supply and communication wires at the specified locations.

**1990 NESC**

NESC Rule 218 covers tree trimming.

NESC Rule 218A states that "trees which may interfere with **ungrounded supply conductors** should be trimmed or removed." *NESC, C2-1990, Rule 218A, page 144 (emphasis added).* The NESC uses the word "**supply**" to describe **electric supply equipment** and to distinguish those facilities from communication equipment. The definition of "**electric supply equipment**" is such equipment as used for "**a supply of electric energy.**" *NESC, C2-1990, Section 2, page 53 (emphasis added).* Similarly, "**lines - electric supply lines**" are described as "**used to transmit electric energy.**" *NESC, C2-1990, Section 2, page 56 (emphasis added).* In contrast, "**lines - communication lines**" are defined as used for "**public or private signal or communication service.**" *NESC, C2-1990, Section 2, page 55 (emphasis added).* The use of the word "**supply**" in the description of the applicability of Rule 218A, limits the scope of this rule to electric supply conductors. Thus, the vegetation management requirements of NESC Rule 218A apply to electric supply conductors and do not apply to communication wires.

Rule 218B states that the crossing span and adjacent spans should be kept free from overhanging or decayed trees or limbs that otherwise might fall into the line at "line crossings, railroad crossings and limited-access highway crossings." *NESC, C2-1990, Rule 218A, page 144.* Because there is no language limiting the scope of NESC Rule 218B to either electric supply conductors or communications lines, this requirement applies generally to electric supply and communication wires at the specified locations.

In Re: Charges to Storm Fund Pertaining to Tropical Storm Irene  
Responses to Division's Second Set of Data Requests  
Issued on August 21, 2012

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R-II-3

Request:

Does the Company contend that NESC Rule 217 for each edition of the NESC from 1990 to the most recent edition applies to communication companies? If it does not support the position Rule 217 applies to communication companies, provide a detailed explanation as to why it does not, including but not limited to: (a) all NESC interpretations published on Rule 217, (b) all Handbook references that support the company's position, (c) all treatises, lectures, teachings or other published materials in the position of the company that would support a position by the company that the NESC Rule 217 does not apply to communications companies.

Response:

Applicability of the various provisions of National Electrical Safety Code ("NESC") is determined by the physical and operating characteristics of the installed facility installed, rather than the identity of the owner of those facilities, as implied by the question. The NESC generally applies to the types of facilities owned by communications companies and attached to utility-owned poles. However, the applicability of specific provisions within the NESC is a function of the terminology used in each respective provision and the definition of those terms, as self-identified in the NESC. Therefore, although the NESC generally applies to both electric and telecommunication facilities, the respective provisions do not always apply equally to electric conductors and communications lines because the physical characteristics of those lines are not the same.

By its plain terms, Rule 217 sets requirements for structures not wires. If the Company has facilities on the structure, the structure is covered by the NESC and the structure must meet the requirements for electric supply conductors. To the extent that a communications company is responsible (e.g. by ownership) for that structure, then the requirements of Rule 217 apply to that communications company in that instance.

The Narragansett Electric Company

d/b/a National Grid

Docket No. 2509

In Re: Charges to Storm Fund Pertaining to Tropical Storm Irene

Responses to Division's Second Set of Data Requests

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R-II-4

Request:

Does the Company believe NESC Rules 217 and 218 apply to the company on all overhead power lines?

Response:

The National Electrical Safety Code ("NESC") applies to the physical and operating characteristics of installed facilities rather than the identity of the owner of those facilities. To the extent that the Company owns facilities attached to poles, applicable provisions of the NESC, including applicable provisions of Rules 217 and 218, applies to those facilities.

The Narragansett Electric Company

d/b/a National Grid

Docket No. 2509

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R-II-5

Request:

What version of the NESC does the Company currently adhere to?

Response:

National Grid's Construction Standards, maintenance and work practices currently comply with the 2012 edition of the National Electric Safety Code.

The Narragansett Electric Company

d/b/a National Grid

Docket No. 2509

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R-II-6

Request:

What version of the NESC did the Company adhere to during Tropical Storm Irene?

Response:

At the time of Tropical Storm Irene, National Grid's Construction Standards, maintenance, and work practices complied with the 2007 edition of the National Electric Safety Code.

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R-II-7

Request:

Does the Company provide any NESC related training to its employees or engineers?

Response:

The Company has provided training to the Standards Engineers responsible for creating and updating the Company's Construction Standards. The Standards Engineers in turn provide training to Design Engineering and Construction personnel where all Standards updates, including those resulting from changes in the National Electric Safety Code ("NESC"), are reviewed. Standards Engineers have also provided training on specific topics, including related NESC requirements, to Design Engineering personnel. The Company, through its membership in the Edison Electric Institute, had seven Company employees serving as subcommittee members on the 2012 edition of the NESC. These Company employees will continue this work on NESC subcommittees through the 2017 NESC edition development cycle.

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R-II-8

Request:

State NESC training courses that have been conducted or attended by the Company's employees or engineers in the past three (3) years.

Response:

National Grid has provided training to Company employees on the National Electric Safety Code ("NESC") through internally developed training modules on specific areas of the NESC. National Grid, through its membership in the Edison Electric Institute, had seven company employees serving as subcommittee members on the 2012 edition of the NESC. These subcommittee members are the Company's subject-matter experts on the NESC and contribute to the development of internal training. Electric Operating Procedures ("EOP") address the operation and maintenance requirements of the NESC and training modules are issued when the EOPs are issued or changed. During the Company's Annual Expert Training, changes to EOPs are also reviewed with employees. Standards, Work Methods & Safety Bulletins are issued to employees to highlight changes to the NESC that impact operational practices. Following are examples of training provided over the past 3 years:

2009 - Standards Rollout Training, Annual Expert Training, Clearances on the Same Structure, Grounding, Bonding & Grounding Communication Messengers Bulletin

2010 - Standards Rollout Training, Annual Expert Training, Clearances Above Ground, Guying and Anchoring, Guy Bonding and Insulations

2011 - Annual Expert Training, Transformer Clearances, Arrestors and Grounding, Installing, Removing or Re-Positioning Conductors Bulletin

2012 - Standards Rollout Training (Ongoing), Annual Expert Training, NESC Arc Flash Requirement Bulletin

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R-II-9

Request:

Provide a detailed definition which represents the Company's understanding of tree trimming preventive maintenance.

Response:

The Company's vegetation management program neither specifies any work for nor defines a category termed "tree trimming preventive maintenance." The term "tree trimming" was historically used in the industry to describe the specification-driven pruning of trees from around the overhead distribution wires, which was performed on an interval of years or cycle. Today, the Company refers to that component of the vegetation management program as circuit pruning and/or cycle pruning.

The term "preventive maintenance" in regards to utility vegetation management refers to the performance of planned work such as circuit pruning and hazard tree removal. The opposite of preventive maintenance would be corrective maintenance. This work is unplanned and includes such things as spot pruning or storm response.

The Narragansett Electric Company

d/b/a National Grid

Docket No. 2509

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R-II-10

Request:

Does the Company contend that the Vegetation Management during a major storm is preventive maintenance? If the Company does contend that storm related emergency vegetation management is preventive maintenance, then please provide a detailed explanation, and provide the supporting treatises which would indicate that preventive maintenance and storm related vegetation management are both defined the same.

Response:

Vegetation management work performed during a storm is not preventive maintenance. Rather, it is reactive or corrective maintenance.

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R-II-11

Request:

Provide a detailed line section by line section and feeder by feeder tabulation of all line sections on which there was vegetation management during the storm indicating how many hazard trees were cleared and how much trimming was completed.

Response:

Vegetation Management work performed during the storm is more appropriately categorized as storm mitigation work. Tree crews removed broken and damaged limbs and/or trees as they directly impacted the Company's electric assets. This work is not considered "trimming" or "hazard tree removal" work. This work was not tracked at either the "line section" or "feeder" level as crews moved from location to location during the restoration process.

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R-II-12

Request:

Provide a detailed line by line and feeder by feeder tabulation of all line sections included in the company's vegetation management budget and hazard tree budget for the month and year in which hurricane Irene storm damage was performed. This tabulation should indicate each line section in which storm vegetation management and hazard tree removal took place during the tropical storm power restoration process and beyond which have been, or will be, included as a cost recoverable through the storm fund.

Response:

As described in the Company's response to R-II-11, storm restoration work is not tracked at the line section or feeder level during the restoration process. Additionally, the vegetation management and hazard tree work plans are not scheduled on a monthly basis, but rather, on an annual basis. The Company has submitted both annual work plans in its response to R-I-92, as "Attachment R-I-92-1 Cycle Prune Annual Plans" and its response to R-I-95, as "Attachment R-I-95-1 EHTM Annual Plans," respectively.

In addition to these annual work plans, please see Attachment R-II-12, summarizing the feeders in which post-storm vegetation management surveys were performed. All findings identified during the survey were generally resolved as they were identified, but specific location information was not tracked. All tracking was done at the feeder level.

<b>District</b>	<b>Feeder</b>	<b>Survey Complete</b>
Capital	2221	08/31/2011
Capital	2227	08/31/2011
Capital	2288	09/02/2011
Capital	2289	09/02/2011
Capital	2242	09/02/2011
Capital	2243	09/02/2011
Capital	2267	09/02/2011
Capital	2J7	09/01/2011
Capital	102W51	09/03/2011
Capital	102W54	09/02/2011
Capital	105K1	09/02/2011
Capital	107W63	09/02/2011
Capital	107W67	09/02/2011
Capital	107W83	09/01/2011
Capital	107W84	09/03/2011
Capital	108W51	09/02/2011
Capital	108W53	09/03/2011
Capital	108W60	09/02/2011
Capital	108W61	09/02/2011
Capital	108W62	09/02/2011
Capital	108W63	09/02/2011
Capital	108W65	09/03/2011
Capital	112W41	09/03/2011
Capital	112W42	09/02/2011
Capital	112W44	09/02/2011
Capital	113J1	09/01/2011
Capital	126W50	09/01/2011
Capital	126W54	09/01/2011
Capital	126W51	08/30/2011
Capital	127W40	08/30/2011
Capital	127W41	08/30/2011
Capital	127W42	08/30/2011
Capital	127W43	08/30/2011
Capital	13F2	08/28/2011
Capital	148J1	09/02/2011
Capital	15F1	09/02/2011

<b>District</b>	<b>Feeder</b>	<b>Survey Complete</b>
Capital	15F2	09/01/2011
Capital	17W42	08/31/2011
Capital	17W43	08/31/2011
Capital	18F1	08/30/2011
Capital	18F2	08/31/2011
Capital	18F3	08/30/2011
Capital	18F4	08/31/2011
Capital	18F5	08/30/2011
Capital	18F6	08/31/2011
Capital	18F7	08/29/2011
Capital	18F8	08/31/2011
Capital	18F9	08/30/2011
Capital	20F1	08/31/2011
Capital	20F2	08/31/2011
Capital	21F1	09/01/2011
Capital	21F2	09/01/2011
Capital	21F4	09/01/2011
Capital	23F1	09/02/2011
Capital	23F2	09/02/2011
Capital	23F3	09/02/2011
Capital	23F4	09/02/2011
Capital	23F5	09/03/2011
Capital	23F6	09/03/2011
Capital	27F1	09/01/2011
Capital	30J3	09/02/2011
Capital	34F1	09/03/2011
Capital	34F2	09/02/2011
Capital	34F3	09/02/2011
Capital	37J1	09/01/2011
Capital	37J2	09/01/2011
Capital	37J3	09/01/2011
Capital	37J4	09/01/2011
Capital	37J5	09/01/2011
Capital	38F1	09/02/2011
Capital	38F2	08/31/2011
Capital	38F3	08/31/2011

<b>District</b>	<b>Feeder</b>	<b>Survey Complete</b>
Capital	38F4	08/30/2011
Capital	38F5	09/02/2011
Capital	38F6	09/02/2011
Capital	47J2	09/02/2011
Capital	48F1	09/02/2011
Capital	48F3	09/02/2011
Capital	48F4	09/03/2011
Capital	48F5	09/02/2011
Capital	4F1	08/30/2011
Capital	4F2	08/30/2011
Capital	50F2	09/01/2011
Capital	50J3	09/01/2011
Capital	51F1	08/30/2011
Capital	51F2	08/30/2011
Capital	51F3	08/30/2011
Capital	5F1	08/30/2011
Capital	5F2	08/30/2011
Capital	5F3	08/30/2011
Capital	5F4	08/30/2011
Capital	6J5	09/01/2011
Capital	60J1	09/02/2011
Capital	60J5	09/01/2011
Capital	66J4	09/02/2011
Capital	69F1	09/01/2011
Capital	69F3	09/02/2011
Capital	73J5	09/02/2011
Capital	76F1	09/02/2011
Capital	76F4	09/02/2011
Capital	76F5	09/02/2011
Capital	76F7	09/02/2011
Capital	77J1	09/01/2011
Capital	77J2	09/01/2011
Capital	77J3	09/01/2011
Capital	78F4	09/02/2011
Capital	7F4	09/02/2011
Coastal	131J6	09/02/2011

<b>District</b>	<b>Feeder</b>	<b>Survey Complete</b>
Coastal	14F1	08/29/2011
Coastal	14F2	09/02/2011
Coastal	14F3	08/31/2011
Coastal	16F1	09/02/2011
Coastal	16F2	09/02/2011
Coastal	16F3	09/02/2011
Coastal	16F4	09/02/2011
Capital	17F3	09/02/2011
Coastal	22F2	09/02/2011
Coastal	22F4	08/31/2011
Coastal	29F1	09/02/2011
Coastal	30F1	09/02/2011
Coastal	30F2	08/30/2011
Coastal	31J1	09/02/2011
Coastal	31J2	09/01/2011
Coastal	33F1	09/02/2011
Coastal	33F2	09/02/2011
Coastal	33F3	09/02/2011
Coastal	33F4	09/02/2011
Coastal	3F1	09/02/2011
Coastal	3F2	09/02/2011
Coastal	40F1	09/03/2011
Coastal	41F1	08/31/2011
Coastal	42F1	09/02/2011
Coastal	43F1	08/31/2011
Coastal	46F1	09/02/2011
Coastal	46F2	08/31/2011
Coastal	46F3	08/31/2011
Coastal	46F4	08/31/2011
Coastal	49J1	09/01/2011
Coastal	49J2	09/01/2011
Coastal	49J3	09/01/2011
Coastal	49J4	09/01/2011
Coastal	52F1	08/31/2011
Coastal	52F2	08/31/2011
Coastal	52F3	08/31/2011

<b>District</b>	<b>Feeder</b>	<b>Survey Complete</b>
Coastal	54F1	09/03/2011
Coastal	57J1	09/01/2011
Coastal	57J2	09/01/2011
Coastal	57J3	09/01/2011
Coastal	57J4	09/01/2011
Coastal	57J5	09/01/2011
Coastal	59F1	09/02/2011
Coastal	59F2	09/01/2011
Coastal	59F3	08/31/2011
Coastal	59F4	09/02/2011
Coastal	61F1	09/01/2011
Coastal	61F2	09/02/2011
Coastal	61F3	09/02/2011
Coastal	61F4	09/01/2011
Coastal	63F1	08/30/2011
Coastal	63F2	08/30/2011
Coastal	63F3	08/30/2011
Coastal	63F4	08/30/2011
Coastal	63F5	08/30/2011
Coastal	63F6	08/30/2011
Coastal	64F1	09/02/2011
Coastal	64F2	09/02/2011
Coastal	68F1	08/30/2011
Coastal	68F2	08/30/2011
Coastal	68F3	08/30/2011
Coastal	68F4	08/30/2011
Coastal	72F1	08/31/2011
Coastal	72F2	08/31/2011
Coastal	72F3	08/31/2011
Coastal	72F4	08/30/2011
Coastal	72F5	08/31/2011
Coastal	72F6	08/31/2011
Coastal	85T1	09/02/2011
Coastal	85T3	09/01/2011
Coastal	86F1	09/02/2011
Coastal	87F1	09/02/2011

<b>District</b>	<b>Feeder</b>	<b>Survey Complete</b>
Coastal	87F3	09/02/2011
Coastal	88F1	09/03/2011
Coastal	88F3	09/02/2011
Coastal	88F5	09/02/2011

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R-II-13

Request:

For the years 2002-2011, provide the number of hazard tree removals per mile. If estimated values or an estimation process is used, please provide an explanation of the calculation and basis assumption used to support the derived values.

Response:

Specific hazard tree data is only available since the formal EHTM program was implemented in 2008. Since 2008, the average number of hazard tree removals per mile is 13.49. Please see Attachment R-II-13 for specific data categorized by feeder, mileage, and removal quantities.

Feeder	FY_EHTM	Ops. Dist.	Sub-Station	EHTM Miles	Tree Removals	Avg Trees per mile
13F2	2008	Capital	Clarkson Street	5.70	36	6
34F2	2008	Capital	Chopmist	9.51	50	5
51F1	2008	Capital	Bristol	2.38	87	37
69F1	2008	Capital	Manton	4.81	41	9
33F4	2008	Coastal	Tiverton	14.32	84	6
54F1	2008	Coastal	Coventry	9.70	337	35
63F6	2008	Coastal	Hopkins Hill	17.96	308	17
102W51	2009	Capital	Valley	5.65	68	12
112W42	2009	Capital	Staples	5.14	40	8
2291	2009	Capital	Sub-T Line	4.62	35	8
23F1	2009	Capital	Farnum Pike	9.70	255	26
38F1	2009	Capital	Putnam Pike	8.54	191	22
5F4	2009	Capital	Warren	4.40	26	6
2232	2009	Coastal	Drumrock	1.37	26	19
22F2	2009	Coastal	Kent County	Data unavailable	Data unavailable	Data unavailable
22F4	2009	Coastal	Kent County	2.24	116	52
30F1	2009	Coastal	Lafayette	4.49	128	29
32J2	2009	Coastal	Harrison	3.00	3	1
52F3	2009	Coastal	Warwick	3.39	79	23
72F5	2009	Coastal	Lincoln Avenue	1.51	16	11
108W62	2010	Capital	Riverside	6.23	81	13
15F2	2010	Capital	Hope	6.20	64	10
20F2	2010	Capital	Phillipsdale	4.86	28	6
51F2	2010	Capital	Bristol	4.5	15	3
51F3	2010	Capital	Bristol	4.8	20	4
5F2	2010	Capital	Warren	2.88	12	4
5F3	2010	Capital	Warren	5.63	16	3
69F3	2010	Capital	Manton	3.39	13	4
7F1	2010	Capital	Elmwood	5.32	5	1
16F1	2010	Coastal	Westerly	9.12	19	2
17F2	2010	Coastal	Wakefield	9.41	59	6
42F1	2010	Coastal	Bonnet	6.75	38	6
46F2	2010	Coastal	Old Baptist Road	6.90	311	45
72F3	2010	Coastal	Lincoln Avenue	5.52	70	13
38F5	2011	Capital	Putnam Pike	6.36	106	17
				<b>Total Miles</b>	<b>Total trees</b>	<b>Avg Trees/mile</b>
				206.30	2783.00	13.49

\* Note that specific data for the 22F2 Circuit completed in 2009 was unavailable.

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R-II-14

Request:

Provide the number of downed trees per mile encountered as a result of Tropical Storm Irene. If estimated values or an estimation process is used, please provide an explanation of the calculation and basis assumption used to support the derived values.

Response:

National Grid does not track the number of downed trees during a major storm. The Company's interruption tracking is related to the number of interrupted protection devices only, and not to the total amount of vegetation work required to restore service that may be downstream of the protection device. The Company has used the interruption data as a proxy to prioritize post-storm actions by comparing tree-caused interruptions across feeders, but this data does not provide an accurate measure of the total number of downed trees per mile.

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R-II-15

Request:

Did the Company perform a post-storm Vegetation Management assessment of areas affected by Tropical Storm Irene? If so, please provide the detailed findings of this condition assessment.

Response:

The Company completed a post-storm Vegetation Management survey as shown in Attachment R-II-15. Note that survey completion was tracked at the feeder level only and detailed findings were not tracked. All findings requiring mitigation were generally resolved as such findings were identified.

<b>District</b>	<b>Feeder</b>	<b>Survey Complete</b>
Capital	2221	08/31/2011
Capital	2227	08/31/2011
Capital	2288	09/02/2011
Capital	2289	09/02/2011
Capital	2242	09/02/2011
Capital	2243	09/02/2011
Capital	2267	09/02/2011
Capital	2J7	09/01/2011
Capital	102W51	09/03/2011
Capital	102W54	09/02/2011
Capital	105K1	09/02/2011
Capital	107W63	09/02/2011
Capital	107W67	09/02/2011
Capital	107W83	09/01/2011
Capital	107W84	09/03/2011
Capital	108W51	09/02/2011
Capital	108W53	09/03/2011
Capital	108W60	09/02/2011
Capital	108W61	09/02/2011
Capital	108W62	09/02/2011
Capital	108W63	09/02/2011
Capital	108W65	09/03/2011
Capital	112W41	09/03/2011
Capital	112W42	09/02/2011
Capital	112W44	09/02/2011
Capital	113J1	09/01/2011
Capital	126W50	09/01/2011
Capital	126W54	09/01/2011
Capital	126W51	08/30/2011
Capital	127W40	08/30/2011
Capital	127W41	08/30/2011
Capital	127W42	08/30/2011
Capital	127W43	08/30/2011
Capital	13F2	08/28/2011
Capital	148J1	09/02/2011
Capital	15F1	09/02/2011
Capital	15F2	09/01/2011
Capital	17W42	08/31/2011

<b>District</b>	<b>Feeder</b>	<b>Survey Complete</b>
Capital	17W43	08/31/2011
Capital	18F1	08/30/2011
Capital	18F2	08/31/2011
Capital	18F3	08/30/2011
Capital	18F4	08/31/2011
Capital	18F5	08/30/2011
Capital	18F6	08/31/2011
Capital	18F7	08/29/2011
Capital	18F8	08/31/2011
Capital	18F9	08/30/2011
Capital	20F1	08/31/2011
Capital	20F2	08/31/2011
Capital	21F1	09/01/2011
Capital	21F2	09/01/2011
Capital	21F4	09/01/2011
Capital	23F1	09/02/2011
Capital	23F2	09/02/2011
Capital	23F3	09/02/2011
Capital	23F4	09/02/2011
Capital	23F5	09/03/2011
Capital	23F6	09/03/2011
Capital	27F1	09/01/2011
Capital	30J3	09/02/2011
Capital	34F1	09/03/2011
Capital	34F2	09/02/2011
Capital	34F3	09/02/2011
Capital	37J1	09/01/2011
Capital	37J2	09/01/2011
Capital	37J3	09/01/2011
Capital	37J4	09/01/2011
Capital	37J5	09/01/2011
Capital	38F1	09/02/2011
Capital	38F2	08/31/2011
Capital	38F3	08/31/2011
Capital	38F4	08/30/2011
Capital	38F5	09/02/2011
Capital	38F6	09/02/2011
Capital	47J2	09/02/2011

<b>District</b>	<b>Feeder</b>	<b>Survey Complete</b>
Capital	48F1	09/02/2011
Capital	48F3	09/02/2011
Capital	48F4	09/03/2011
Capital	48F5	09/02/2011
Capital	4F1	08/30/2011
Capital	4F2	08/30/2011
Capital	50F2	09/01/2011
Capital	50J3	09/01/2011
Capital	51F1	08/30/2011
Capital	51F2	08/30/2011
Capital	51F3	08/30/2011
Capital	5F1	08/30/2011
Capital	5F2	08/30/2011
Capital	5F3	08/30/2011
Capital	5F4	08/30/2011
Capital	6J5	09/01/2011
Capital	60J1	09/02/2011
Capital	60J5	09/01/2011
Capital	66J4	09/02/2011
Capital	69F1	09/01/2011
Capital	69F3	09/02/2011
Capital	73J5	09/02/2011
Capital	76F1	09/02/2011
Capital	76F4	09/02/2011
Capital	76F5	09/02/2011
Capital	76F7	09/02/2011
Capital	77J1	09/01/2011
Capital	77J2	09/01/2011
Capital	77J3	09/01/2011
Capital	78F4	09/02/2011
Capital	7F4	09/02/2011
Coastal	131J6	09/02/2011
Coastal	14F1	08/29/2011
Coastal	14F2	09/02/2011
Coastal	14F3	08/31/2011
Coastal	16F1	09/02/2011
Coastal	16F2	09/02/2011
Coastal	16F3	09/02/2011

<b>District</b>	<b>Feeder</b>	<b>Survey Complete</b>
Coastal	16F4	09/02/2011
Capital	17F3	09/02/2011
Coastal	22F2	09/02/2011
Coastal	22F4	08/31/2011
Coastal	29F1	09/02/2011
Coastal	30F1	09/02/2011
Coastal	30F2	08/30/2011
Coastal	31J1	09/02/2011
Coastal	31J2	09/01/2011
Coastal	33F1	09/02/2011
Coastal	33F2	09/02/2011
Coastal	33F3	09/02/2011
Coastal	33F4	09/02/2011
Coastal	3F1	09/02/2011
Coastal	3F2	09/02/2011
Coastal	40F1	09/03/2011
Coastal	41F1	08/31/2011
Coastal	42F1	09/02/2011
Coastal	43F1	08/31/2011
Coastal	46F1	09/02/2011
Coastal	46F2	08/31/2011
Coastal	46F3	08/31/2011
Coastal	46F4	08/31/2011
Coastal	49J1	09/01/2011
Coastal	49J2	09/01/2011
Coastal	49J3	09/01/2011
Coastal	49J4	09/01/2011
Coastal	52F1	08/31/2011
Coastal	52F2	08/31/2011
Coastal	52F3	08/31/2011
Coastal	54F1	09/03/2011
Coastal	57J1	09/01/2011
Coastal	57J2	09/01/2011
Coastal	57J3	09/01/2011
Coastal	57J4	09/01/2011
Coastal	57J5	09/01/2011
Coastal	59F1	09/02/2011
Coastal	59F2	09/01/2011

<b>District</b>	<b>Feeder</b>	<b>Survey Complete</b>
Coastal	59F3	08/31/2011
Coastal	59F4	09/02/2011
Coastal	61F1	09/01/2011
Coastal	61F2	09/02/2011
Coastal	61F3	09/02/2011
Coastal	61F4	09/01/2011
Coastal	63F1	08/30/2011
Coastal	63F2	08/30/2011
Coastal	63F3	08/30/2011
Coastal	63F4	08/30/2011
Coastal	63F5	08/30/2011
Coastal	63F6	08/30/2011
Coastal	64F1	09/02/2011
Coastal	64F2	09/02/2011
Coastal	68F1	08/30/2011
Coastal	68F2	08/30/2011
Coastal	68F3	08/30/2011
Coastal	68F4	08/30/2011
Coastal	72F1	08/31/2011
Coastal	72F2	08/31/2011
Coastal	72F3	08/31/2011
Coastal	72F4	08/30/2011
Coastal	72F5	08/31/2011
Coastal	72F6	08/31/2011
Coastal	85T1	09/02/2011
Coastal	85T3	09/01/2011
Coastal	86F1	09/02/2011
Coastal	87F1	09/02/2011
Coastal	87F3	09/02/2011
Coastal	88F1	09/03/2011
Coastal	88F3	09/02/2011
Coastal	88F5	09/02/2011

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R-II-16

Request:

Provide the number of downed trees per mile that the Company addressed after the restoration of Tropical Storm Irene had ceased.

Response:

From September 6, 2012 through October 28, 2012, there were 67 events caused by downed trees. Assuming that each event involved only one downed tree and with approximately 5,200 miles of overhead distribution in Rhode Island, there were 0.013 downed trees per mile.

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R-II-17

Request:

Indicate the primary cause of failure for each pole damaged and addressed during the Tropical Storm Irene restoration and tabulate the number of pole replacements that were vegetation related.

Response:

National Grid did not track specific causes related to distribution pole failures during this tropical storm.