

October 5, 2018

**BY HAND DELIVERY AND ELECTRONIC MAIL**

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

**RE: Docket 4237 - National Grid 2018 Contact Voltage Annual Report**

Dear Ms. Massaro:

I have enclosed ten (10) copies of the Company's<sup>1</sup> responses to the Public Utilities Commission's first set of data requests in the above-referenced docket.

Thank you for your attention to this filing. If you have any questions, please contact me at 781-907-2121.

Very truly yours,



Raquel J. Webster

Enclosure

cc: Docket 4237 Service List  
John Bell, Division  
Leo Wold, Esq.

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

October 5, 2018

Date

**Docket No. 4237 – Commission’s Proceeding Relating to Stray  
and Contact Voltage Pursuant to Enacted Legislation  
Service List updated 10/4/18**

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PUC 1-1

Request:

In Commission Order 20871, issued November 9, 2013, at page 13, the PUC notes that National Grid suggested to the Commission that as long as the IEEE Working Group is in the process of addressing the appropriate level of contact voltage testing and repair, the 4.5 volts standard should be maintained. In the 2018 Annual Report the Company indicated that the IEEE approved Standard P1696, *Guide to Understanding, Diagnosing and Mitigating Stray and Contact Voltage*, but that the guide was pending editorial revisions and approval.

- a. Please provide the basis for this information.
- b. Please provide a copy of the draft that is undergoing revision if the same is within the Company's possession or is available to the Company upon the Company's request to IEEE.
- c. Please report, if known to the Company, the proposed date of finalization of the IEEE's Standard P1696, *Guide to Understanding, Diagnosing and Mitigating Stray and Contact Voltage*.

Response:

- a. The basis for the Company's understanding that the IEEE working group for P1695 was pending editorial revisions is information the Company received from several of the Company's employees who are on the working group.
- b. The Company does not have a copy of the draft that is undergoing revision. The Company has requested a copy of the draft from IEEE in efforts to respond to this data request, and will provide the draft to the PUC if IEEE shares the draft with the Company.
- c. The Company does not know the proposed date of finalization of the IEEE's Standard P1696, *Guide to Understanding, Diagnosing and Mitigating Stray and Contact Voltage*.

PUC 1-2

Request:

In Commission Order 20871, issued November 9, 2013, at page 13, the PUC notes that the Company agreed to revisit the definition of Contact Voltage Risk Areas (CVRAs) if mobile testing develops to the point where the overhead interference issue is eliminated.

- a. Please indicate whether mobile testing has developed to the point where the overhead interference issue is eliminated.
- b. Please indicate whether the process and and/or procedures of mobile testing, as described at page 19, have changed since the issuance of Commission Order 20871.

Response:

- a. The mobile testing technology has not developed to a point that the overhead interference issue has been effectively eliminated.
- b. The mobile testing procedure has not changed since the issuance of Commission Order 20871.

PUC 1-3

Request:

In Commission Order 20871, issued November 9, 2013, at page 26, the Commission accepted the Company's interpretation as to the scope of testing Contact Voltage Risk Areas by percent, "until such time as National Grid is able to develop a better methodology, presumably after all CVRAs have been tested. The Commission will revisit this issue in the future."

- a. Please indicate whether National Grid has undertaken any steps to identify a different methodology for testing Contact Voltage Risk Areas.
- b. If so, please describe the status of these efforts.
- c. If not, why not?

Response:

- a. National Grid has undertaken steps to identify a different methodology for testing Contact Voltage Risk Areas.
- b. National Grid's contractor performed contact voltage testing on 100% of the designated DCVRAs in fiscal years 2013, 2014, 2015, 2016, and 2017. The PUC approved the Company's proposal to test 20% of the contact voltage risk areas in FY 2018, which was performed in January 2018, and 20% thereafter for FY 2019, FY 2020, FY 2021, and FY 2022, to complete 100% over a five-year period. Based on mileage to scan and recognizing those areas that had hits and high voltage incidents from earlier mobile surveys, the Company has determined that the City of Providence will be the focus of the first three years of the cycle (FY18, FY19, and FY20). After that time, the Company will determine the remainder of the schedule, which is subject to change.
- c. N/A. Please see the Company's responses to subparts (a) and (b) above.

The Narragansett Electric Company  
d/b/a National Grid  
RIPUC Docket No. 4237  
In Re: 2018 Contact Voltage Annual Report  
Responses to Commission's First Set of Data Requests  
Issued on September 14, 2018

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PUC 1-4

Request:

Please identify the specific streets that were surveyed during the 2018 testing cycle.

Response:

The following is a list of streets were surveyed during the 2018 testing cycle. All of the streets listed below are in Providence, Rhode Island.

Angell Street	Kennedy Plaza
Arnold Street	Memorial Blvd
Benefit Street	N Main Street
Bridge Street	Orange Street
Broad Street	Park Row E
Broadway	Peck Street
Brook Street	Pine Street
Brown Street	Point Street
Canal Street	Richmond Street
Dorrance Street	Roome Lane
Dyer Street	S Main Street
Eddy Street	S Water Street
Exchange Street	Sabin Street
Exchange Terrace	Service Road 8
Fountain Street	South Street
Francis Street	Steeple Street
Fulton Street	Thayer Street
Gaspee Street	The Walk (South)
George Street	Traverse Street
Governor Street	Washington Street
Hay Street	Waterman Street
Hope Street	Westminster Street
Hopkins Street	Weybosset Street
Hospital Street	Wickenden Street
John Street	Williams Street

PUC 1-5

Request:

Table 2 of the 2018 Annual Report indicates that streetlights were responsible for the majority of elevated voltage readings and that this is consistent with prior years' results. Table 2 does not break out whether the streetlights with readings less than 1 volt are Company-owned or privately owned.

- a. Please identify the number of Company-owned and privately-owned streetlights with readings less than 1 volt.
- b. Please compare the specific causes for the elevated readings in 2018 vis a vis 2017, 2016, 2015 and 2014 to identify whether there is a commonly recurring cause for elevated voltage readings in streetlights.

Response:

- a. Mobile Testing is performed by contract crews driving pre-determined routes in Contact Voltage Areas searching for elevated voltage levels. The equipment used detects voltage levels greater than 1 volt. Once elevated voltages greater than 1 volt are detected, the crew stops and performs a thorough check with certified manual testing equipment to determine whether there is contact voltage present. Appropriate voltage mitigation will follow if needed. If voltage measures less than 1 volt and is found to be consistent with system operation design (no visual evidence of a problem upon review), no further action is required. Therefore, the Company does not specifically track the number of Company-owned and privately-owned streetlights with readings less than 1 volt.
- b. The Company no longer owns streetlights in Providence because Providence purchased their streetlights from the Company in 2016. Therefore, the Company did not perform any repairs on streetlights in Providence in 2018, and, therefore, does not have the comparison information sought in this request.

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PUC 1-6

Request:

On Table 5 at page 19 of the 2018 Annual Contact Voltage Report, the Company reports a call to the Shock Line from Evergreen Court in Westerly. The text of the report indicates that Evergreen Court is located in Wakefield. Which location is accurate?

Response:

The accurate location for the Shock Line call is 75 Evergreen Court in Wakefield, Rhode Island.

PUC 1-7

Request:

On page 27 of the 2018 Annual Contact Voltage Report, the Company proposed that it survey and test twenty percent of the DCVRA (Designated Annual Contact Voltage Risk Area) in 2018 and twenty percent thereafter for FY 2019, FY 2020, FY2021, and FY2022.

- a. Has the Company identified which of the DCVRAs will be surveyed in each of these years? If so, please provide the proposed schedule.

Response:

- a. At an Open Meeting conducted on November 9, 2017, the PUC reviewed National Grid's FY2017 Contact Voltage Annual Report, along with the Division's recommendations. The PUC unanimously found that the Company's annual report complied with R.I. Gen. Laws § 39-2-25(b)(6) and PUC Order Nos. 20871, 20950, 21414, 21780, 22357, and 22567. The PUC also approved the Company's proposal to test 20% of the contact voltage risk areas in FY 2018 and 20% thereafter for FY 2019, FY 2020, FY 2021, and FY 2022, to complete 100% over a five-year period. This is also restated in the PUC's September 4, 2018 written order approving the Company's 2017 Contact Voltage Annual Report. The Company has determined that the City of Providence will be the focus of the first three years of the cycle (FY18, FY19, and FY20). After that time, the Company will determine the remainder of the schedule, which is subject to change.

PUC 1-8

Request:

Table 1 at page 12 of the 2018 Annual Report indicates that fourteen DCVRAs were surveyed during the three-day period of January 23 through January 26, 2018. At page 31 of the 2018 Annual Report, the Company makes the following recommendation:

“To achieve 100% compliance, the Company/TRC will perform Contact Voltage Survey and Testing on 20% of assets annually in the DCVRAs over a five-year period. This is a change from 100% performed annually. This would result in a reduction of the time commitment to perform the work from two weeks annually to three days annually over a five-year period.”

- a. Please clarify whether the Company conducted testing in 2018 over a two-week period or a three day period.
- b. Please clarify whether the Company tested 100% of the DCVRAs in 2018 or not.

Response:

- a. The Company tested over a four-day period from January 22, 2018 to January 25, 2018.
- b. The Company tested 20% of the DCVRAs in 2018.

PUC 1-9

Request:

On page 32 of the 2018 Annual Report, the Company proposed that it be released from the requirement of performing a post-mobile survey audit testing to spot verify the accuracy of mobile testing because historical quality assurance audits for this program have found no instances of elevated voltage.

- a. For each of the prior years of the Contact Voltage Testing, pursuant to Commission Order 20871, please identify the time and the cost for conducting the post-mobile survey audit testing.

Response:

- a. Post-mobile survey audit testing cost is included in the total mobile testing cost. The Company does not break it out separately. The table below shows the time and cost associated with conducting the mobile survey and post-mobile survey audit testing.

<b>Year</b>	<b>Mobile Survey, Post Mitigation Manual Test Cost</b>	<b>Company Audit Dates</b>
2013	-	5/3 - 5/14
2014	\$279,173	5/14 - 5/15
2015	\$276,083	3/30 - 4/2
2016	\$233,761	12/8 - 12/16
2017	\$221,720	12/7 - 12/9