

September 20, 2012

VIA HAND DELIVERY & ELECTRONIC MAIL

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

RE: Docket 4237 - Commission Investigation relating to Stray and Contact Voltage Occurring in Narragansett Electric Company Territories
National Grid Reply Comments to Capital Advocacy, LLC d/b/a Contact Voltage Information Center ("CVIC")

Dear Ms. Massaro:

On behalf National Grid¹ enclosed are an original and ten (10) copies of the Company's Reply Comments to CVIC's Comments filed on September 7, 2012, concerning the above-captioned proceeding.

Thank you for your attention to this transmittal. If you have any questions, please feel free to contact me at (401) 784-7667.

Very truly yours,



Thomas R. Teehan

Enclosure

cc: Docket 4237 Service List
Steve Scialabba
Leo Wold, 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/or any materials accompanying this certificate were electronically transmitted to the individuals listed below. Copies of this filing were hand delivered to the RI Public Utilities Commission.



September 20, 2012

**Docket No. 4237 – Commission’s Proceeding Relating to Stray and Contact Voltage Pursuant to Enacted Legislation
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**THE NARRAGANSETT ELECTRIC COMPANY
d/b/a NATIONAL GRID
R.I.P.U.C. DOCKET NO. 4237
IN RE: INVESTIGATION RELATING TO
STRAY AND CONTACT VOLTAGE
REPLY COMMENTS TO CVIC
SEPTEMBER 20, 2012**

**DIRECT TESTIMONY
OF
JENNIFER L. GRIMSLEY, EDWARD S. PALUCH PE, PMP
AND
BARTHOLOMEW J. CASS**

September 20, 2012

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1 **I. INTRODUCTION**

2 **Jennifer L. Grimsley**

3 **Q. Please state your name and business address.**

4 A. My name is Jennifer L. Grimsley. My business address is 40 Sylvan Road, Waltham,
5 MA 02451.

6 **Q. By whom are you employed and in what position?**

7 A. I am employed by National Grid USA Service Company (“Service Company”) as
8 Director, Network Strategy, New England Electric. I am responsible for regulatory
9 filings and regulatory compliance related to electric distribution operation of The
10 Narragansett Electric Company d/b/a National Grid (the “Company” or National Grid”).
11 I am also responsible for similar filings relative to National Grid’s electric distribution
12 operations in Massachusetts.

13 **Q. Please describe your educational background and professional experience.**

14 A. I graduated from Washington University in 1986, earning a bachelor’s degree in electrical
15 engineering and from Rivier College in 1991, earning a master’s degree in business
16 administration. In 1986, I began my engineering career as an associate engineer with
17 Massachusetts Electric Company (“Mass. Electric”) in North Andover. In 1993, I was
18 promoted to district engineering manager for Mass. Electric in Northampton, and have
19 held various engineering and management positions since that time, including Project
20 Manager for the Reliability Enhancement Program in 2006. In 2007, I became Manager

1 Asset Strategy and Policy and was responsible for developing the strategies to replace
2 distribution assets. I was promoted to Director, Asset Strategy & Policy in 2008. In 2009,
3 I became Executive Advisor to the Chief Operating Officer of Electricity Operations for
4 National Grid. In 2011, I assumed my current role as Director, New England Electric
5 Network Strategy.

6 **Q. Have you previously testified before the Rhode Island Public Utilities Commission**
7 **(“Commission”)?**

8 A. Yes. I have testified before this Commission in support of the Company’s Infrastructure,
9 Safety and Reliability Plans in Docket Nos. 4218 and 4307.

10 **Edward S. Paluch**

11 **Q. Please state your name and business address.**

12 A. My name is Edward S. Paluch. My business address is 40 Sylvan Road, Waltham, MA
13 02451.

14 **Q. By whom are you employed and in what position?**

15 A. I am employed by National Grid USA Service Company (“Service Company”) as
16 Principal Engineer, Distribution Asset Management. I am responsible for the distribution
17 inspection and maintenance program strategy related to electric distribution operation of
18 The Narragansett Electric Company d/b/a National Grid (the “Company” or National

1 Grid”). I am also responsible for similar strategies relative to National Grid’s electric
2 distribution operations in Massachusetts and New York.

3 **Q. Please describe your educational background and professional experience.**

4 A. I graduated from Worcester Polytechnic Institute in 1992, earning a bachelor’s degree in
5 electrical engineering and from Bryant University in 2001, earning a master’s degree in
6 business administration. My career at National Grid began in 1993, as an associate
7 engineer with Massachusetts Electric Company (“Mass. Electric”) in Worcester. In 2001, I
8 was promoted to supervisor of project engineering Narragansett Electric Company in
9 Providence, and have held various engineering and management positions since that time,
10 including Manager of Operations Planning in 2004 for Narragansett Electric Company and
11 Manager of Distribution Planning for the Company in 2010. In 2011, I assumed my
12 current role as Principal Engineer, Distribution Asset Management. I received
13 Professional Engineer (PE) certification in Rhode Island in 1999 and Project Management
14 Professional (PMP) certification in 2010.

15 **Q. Have you previously testified before the Rhode Island Public Utilities Commission**
16 **(“Commission”)?**

17 A. No.

1 **Bartholomew J. Cass**

2 **Q. Please state your name and business address.**

3 A. My name is Bartholomew J. Cass. My business address is 7496 Round Pond Road, North
4 Syracuse, NY 13212

5 **Q. By whom are you employed and in what position?**

6 A I am employed by National Grid USA Service Company (“Service Company”) as
7 Manager Inspections and Maintenance. I am responsible for all mandated and non-
8 mandated company electric inspection programs for distribution, transmission and
9 underground. I am also responsible for quarterly and annual regulatory filings that
10 pertain to the inspection programs for New York and Massachusetts.

11 **Q. Please describe your professional experience.**

12 A. I began my career at Niagara Mohawk in 1988. I worked in both the Transmission and
13 Underground Operations Departments. In March of 1995, I was promoted to a supervisory
14 role and thereafter held various supervisory roles in the Company. In March of 2009, I was
15 promoted to Lead Supervisor of Work Coordination for Electric Operations. In early 2012,
16 I assumed my current position as Manager of Inspections and Maintenance.

17 **Q. Have you previously testified before the Rhode Island Public Utilities Commission
18 (“Commission”)?**

19 A. No.

1 **II. PURPOSE OF TESTIMONY**

2 **Q. What is the purpose of your testimony?**

3 A. The purpose of this testimony is to address the issues and recommendations made in the
4 September 7, 2012 testimony of Mr. W. Alan Homyk on behalf of Capital Advocacy,
5 LLC d/b/a/ Contact Voltage Information Center. In his testimony, Mr. Homyk
6 recommends seven modifications to the Company's proposed August 17, 2012 Contact
7 Voltage Program filing. Specifically, Mr. Homyk recommends that:

- 8 1. Wherever practical, mobile automated scanning should be performed at a
9 threshold testing voltage level of 1 volt.
- 10 2. The contact voltage areas should be expanded.
- 11 3. Testing findings should be made public in an easily accessible database.
- 12 4. Net mobile testing cost savings should be recognized.
- 13 5. Manual testing equipment should detect voltage at the levels set by the
14 Commission.
- 15 6. Wooden poles with metal objects should be included, and
- 16 7. The scan schedule should be more rigorous.¹

17 Each of these recommendations is addressed separately below.

18 **Q. Please describe the various goals of the statute?**

19 A. National Grid shares with the Commission, the Division and all of parties to this
20 proceeding the statute's primary concern for protecting the safety of the citizens of Rhode
21 Island from harmful contact voltage. Moreover, it is important to recognize that the
22 Contact Voltage statute, R.I.G.L. §39-2-25, speaks to additional public interest
23 requirements for the Commission to consider in assessing this goal. Specifically, the

1 statute requires the Commission as part of its review to determine the equipment and
2 technology for the Company to utilize in its contact voltage surveys², and to review and
3 approve the full costs of any contact voltage program.³ In addressing the issues raised by
4 Mr. Homyk in his testimony, the Company will describe how it incorporated these
5 additional public interest requirements into the Company's proposed Contact Voltage
6 Program.

7 **III. ISSUES AND RECOMMENDATIONS**

8 **Q. Does the Company agree with Mr. Homyk's recommendation to perform threshold**
9 **testing at a voltage level of 1 volt?**

10 A. No. The Company's existing threshold voltage level of 4.5 volts should be maintained
11 until further guidance is developed by the Institute of Electrical and Electronic Engineers
12 ("IEEE") or another appropriate standards organization. As the Company stated in its
13 proposed Contact Voltage Program, the Company's existing standard of 4.5 volts or
14 greater appropriately balances the public policy goal of protecting public safety, while at
15 the same time efficiently managing the costs to customers of the program.

16 Furthermore, it should be noted that the Contact Voltage statute directs that the baseline
17 level for contact voltage testing and repairs is to be established by the Division of Public
18 Utilities and Carriers ("Division"). R.I.G.L. §39-2-25 (4) specifically states that

¹ Homyk Comments at page 4.

² R.I.G.L. §39-2-25 (5)(d).

1 Commission is to establish procedures to “[R]epair power system faults of the electric
2 distribution company’s underground distribution system that result in contact voltage
3 appearing on publicly assessable surfaces *of a level to be determined by the division of*
4 *public utilities.*” (Emphasis added)

5 At this time, the issue is being addressed by an IEEE Working Group, of which the
6 Company and vendors are participants. This Working Group is charged with creating
7 definitions as well as determining the causes, impacts, testing techniques, and mitigation
8 for contact voltage. In fact, on pages 5 and 6 of his comments, Mr. Homyk specifically
9 cites to that Working Group’s draft describing the causes of contact voltage.

10 With specific voltage testing baseline standards for contact voltage currently under
11 review by the industry, the Company recommends that the 4.5 volts standard be
12 maintained at this time. If in the future the IEEE Working Group or another appropriate
13 standards organization comes forward with a more definitive recommendation for a
14 contact voltage testing standard or level, the issue should be revisited at that time.

³ R.I.G.L. §39-2-25 (5)(c).

1 **Q. Do other parties to this proceeding agree with the Company’s position relative to**
2 **the level appropriate for testing and mitigation under the provisions of the program**
3 **is 4.5 volts.**

4 A. Yes. The Division and consultant has indicated that it supports that the Company retain
5 4.5 volts as the appropriate level for testing and mitigation under the program.

6 **Q. Please comment on Mr. Homyk’s recommendation that underground residential**
7 **distribution systems be included in the Company’s Contact Voltage Program.**

8 A. Mr. Homyk acknowledges that the Company’s proposed designated contact voltage areas
9 are generally comprehensive. However, he recommends that premises served by
10 underground residential distribution systems (“URDs”) also be included in the Contact
11 Voltage Program.⁴ Mr. Homyk’s recommendation significantly expands the scope of
12 testing beyond the statute. The statute requires the Company to designate, and the
13 Commission to approve, contact voltage risk areas, “based on the presence of
14 underground electric distribution and situated in pedestrian-dense areas such as urban
15 neighborhoods, commercial areas, central business districts, tourist heavy locations and
16 other places where pedestrians could be exposed to contact voltage.” The Company does
17 not believe that URDs are pedestrian-dense areas intended to be included in contact
18 voltage risk areas under the statute. However, that being said, the Company does
19 perform manual elevated voltage testing on Company owned assets within URDs. This

1 testing has been performed since 2006, when the Company started manual testing for
2 elevated voltage. Expanding the contact voltage risk areas to include URDs would
3 significantly impact the scope of the program, as URD mileage in Rhode Island is
4 approximately 740 miles of roads, whereas the Company's proposed contact voltage risk
5 areas cover approximately 135 miles of roads. The Company believes that its current
6 manual testing program for elevated voltage on Company owned assets is the appropriate
7 testing program for URDs.

8 **Q. Please comment on Mr. Homyk's recommendation that survey test findings should**
9 **be made public in an easily accessible data base.**

10 A. Mr. Homyk recommends that the results of the Company's contact voltage testing should
11 be published and shared in an easily accessible and searchable database, such as the one
12 provided by the Jodie S. Lane Public Safety Foundation.⁵ However, he offers no
13 information as to the specific benefits of such a data base or who should develop,
14 maintain or pay for such a data base.

15 R.I.G.L. §39-2-25 (6) requires the Company to file an annual report with the Commission
16 that reports at least, "the number and type of energized objects on both company and
17 customer-owned assets, voltage level, corrective action taken, shocks that occur to
18 members of the public or to pets owned by members of the public, an any other
19 information that the [C]ommission deems appropriate."

⁴ Homyk Comments at pages 7-8.

1 The Company will provide the information above in its annual report in compliance with
2 its statutory obligation in a searchable PDF or Excel format. That information will be
3 publicly available on the Commission web site.

4 **Q. Please comment on Mr. Homyk’s recommendation that any net cost savings from**
5 **mobile contact voltage testing be accounted for by the Company.**

6 A. Mr. Homyk recommends that any net cost savings from avoided manual contact voltage
7 testing be accounted for by the Company.⁶ The Company has already taken this into
8 account, however expects the savings from avoided manual contact voltage testing to be
9 small when compared to the additional costs to perform mobile testing. The Company
10 noted in its Contact Voltage Program that because this program directly relates to safety
11 and reliability, the Company proposes to reconcile and recover the costs of the Contact
12 Voltage Program, for surveying, testing and repairs, as part of its annual Electric
13 Infrastructure, Safety and Reliability (“ISR”) filing.⁷ The annual ISR reconciliation filing
14 will incorporate any adjustments required as a result of the Commission’s findings in the
15 current rate proceeding in Docket No. 4323.

⁵ Homyk Comments at page 8.

⁶ *Id.*

⁷ Contact Voltage Program at page 25.

1 **Q. Please comment on Mr. Homyk’s recommendation that manual testing equipment**
2 **should detect voltage at the levels set by the Commission.**

3 A. Mr. Homyk recommends that the Company’s manual testing equipment should detect
4 voltage at the levels set by the Commission.⁸ As noted in Section 1 above, the baseline
5 standards for contact voltage testing and repairs are by law to be established by the
6 Division of Public Utilities and Carriers (“Division”). For the reasons set forth above, the
7 Company’s existing standard of 4.5 volts or greater should be maintained at this time,
8 until more definitive findings are made by the IEEE Working Group or another
9 appropriate standards organization.

10 **Q. Please comment on Mr. Homyk’s recommendation that wooden poles with metal**
11 **object be tested by the Company.**

12 A. Mr. Homyk recommends that the Company test metal objects embedded or connected to
13 wooden poles.⁹ The Company currently performs manual elevated voltage testing on
14 metallic objects on wooden poles, including metallic risers, down grounds and down
15 guys. The Company’s Electric Operating Procedures do not state this for down grounds
16 and down guys, but will be updated to do so.¹⁰ The Company has proposed in its Contact
17 Voltage Program to continue with this manual elevated voltage testing on the overhead
18 system.

⁸ Homyk Comments at page 9.

⁹ *Id.*

¹⁰ See Contact Voltage Program, Attachment 1, page 7 of 17.

1 **Q. Does the Company agree with the proposed annual testing schedule for the contact**
2 **voltage program recommended by Mr. Homyk?**

3 A. No. Mr. Homyk recommends that all areas under the existing manual and proposed
4 Contact Voltage Program be scanned at least once a year.¹¹ Currently, the Company
5 conducts its manual elevated voltage testing on the underground system over a five year
6 cycle. R.I.G.L. §39-2-25 (2) and (3) modifies and accelerates this schedule by requiring
7 the Company to test no less than 40 percent of designated contact voltage risk areas by
8 June 30, 2013 and no less than 20% of the remaining contact voltage areas each year
9 thereafter. Mr. Homyk offers no reason to deviate from the ongoing 20% per year
10 schedule proposed in the statute nor does he address the issue of increased costs from
11 significantly modifying the Company's existing practices to an annual basis. As the
12 Company noted in its proposed Contact Voltage Program, the Company views R.I.G.L.
13 §39-2-25 as an expansion of the Company's current voltage testing procedures for
14 underground facilities, which are on a five year cycle. As such, the Company proposes to
15 conduct its contact voltage testing surveys consistent with the 5 year cycle proposed in
16 the statute.

17 **Q. Does this conclude this testimony?**

18 A. Yes, it does.

¹¹ Homyk Comments at page 9.