

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
PUBLIC UTILITIES COMMISSION

IN RE: PROCEEDING TO ESTABLISH A :  
CONTACT VOLTAGE DETECTION AND REPAIR : DOCKET NO. 4237-A  
PROGRAM APPLICABLE TO NATIONAL GRID – :  
REVIEW OF CONTACT VOLTAGE ANNUAL :  
REPORT :

ORDER

**I. Background**

On October 4, 2012, following a review and investigation, the Public Utilities Commission (PUC) approved The Narragansett Electric Company d/b/a National Grid's (National Grid or Company) Revised Proposed Contact Voltage Program (contact voltage program), with the exception that the Request for Proposals (RFP) from mobile testing vendors were to include alternative pricing based on testing of all designated contact voltage risk areas in the first year of the program. On November 9, 2012, the PUC issued a written order consistent with the October 4, 2012 Open Meeting decision.<sup>1</sup>

On December 17, 2012, National Grid filed with the PUC a report of the results of the Company's RFP relative to the contact voltage program. On January 31, 2013, the PUC found that National Grid had complied with the RFP process approved in Order No. 20871. The PUC further approved the recommendation by National Grid that 100% of the designated contact voltage risk areas be surveyed in 2013, the first year of the program.<sup>2</sup>

Both R.I. Gen. Laws § 39-2-25(b)(6) and the approved contact voltage program require National Grid to file an annual report showing compliance with the approved program. The

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<sup>1</sup> Order No. 20871 (issued November 9, 2012). No petition for a writ of certiorari was filed. The deadline for such a filing was November 14, 2012.

<sup>2</sup> Power Survey, the unsuccessful bidder to the National Grid RFP, although not a party to Docket No. 4237, filed a petition for the issuance of a writ of certiorari with the Supreme Court after the February 1, 2013 issuance of Order No. 20950. Because the entire Record was transmitted to the Supreme Court, the PUC is reviewing the compliance under a different docket number.

statute requires the annual report to include “contact voltage findings including, but not limited to, the number and type of energized objects on both company-owned and customer-owned assets, voltage level, corrective action taken, shocks that occur to members of the public or to pets owned by members of the public, and any other information the [PUC] deems appropriate.”<sup>3</sup>

The contact voltage program also requires National Grid to keep records of testing, maintenance, and repair and to submit copies to the PUC which shall be maintained as public records on the PUC’s website. In Order No. 20871, the PUC required National Grid to also provide the following information in its annual report in a searchable PDF or Excel document: Event Record Number; Location of testing; Date and time of testing; Company or customer asset; Failed equipment type; Voltage recorded; Personal Injuries to public or pet or property damage; Any other equipment involved and age; Prior incidents at this location in the past five years; Corrective actions taken at the location; Number of customers if service is interrupted; Duration of the interruption; Summary of investigation into cause of the incident; and Number of calls to the Company’s ‘shock’ line. The Company is also required to provide the date when the corrective actions are taken/when the issue is rectified, the aggregate cost to repair for each contact voltage risk area, and information included in Section 7.2 of the Company’s Electric Operating Procedure.<sup>4</sup>

## **II. National Grid’s Annual Report**

On August 29, 2013, National Grid filed with the PUC its Contact Voltage Annual Report.<sup>5</sup> The report contains eight sections: (1) background and summary, (2) survey and mobile testing results for the contact voltage risk areas, (3) the contact voltage program costs, (4) calls into the shock line, (5) updated electric operating procedures, (6) results of the total harmonic

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<sup>3</sup> R.I. Gen. Laws § 39-2-25(b)(6).

<sup>4</sup> Order No. 20871 (issued Nov. 9, 2012).

<sup>5</sup> A public copy of the annual report is attached hereto as Appendix A.

distortion pilot program, (7) recommendations to test 100% of the contact voltage risk areas in 2014 and to add an area of downtown Westerly to the contact voltage risk areas, and (8) an update on standards and equipment for testing.<sup>6</sup>

In the report, National Grid stated that the thirteen contact voltage risk areas were surveyed during the period March 18-30, 2013, and covered a total of 208 miles. The testing included the total harmonic distortion pilot, designed to determine whether readings between 1 volt and 4.5 volts were contact voltage or not. Five locations were remediated after total harmonic distortion testing revealed readings that suggested the cause of elevated voltage above 1 volt was contact voltage. In addition, two locations were remediated although the results of the total harmonic distortion suggested that the voltage reading was not hazardous to the public. An additional fifteen assets required immediate temporary remediation, all of which were on streetlights. According to the Company all fifteen of the streetlights were permanently repaired by May 14, 2013. Testing also detected contact voltage on five customer-owned assets, the owners of which were notified in accordance with the statute and the approved contact voltage program.<sup>7</sup> The total cost of the testing, remediation, and repair was \$43,837.<sup>8</sup>

During fiscal year 2013, National Grid received eight calls to its “shock line” from people who believed they or their pet had experienced elevated voltage. Subsequent testing of the relevant assets revealed three instances of elevated voltage. One confirmed finding of elevated voltage that resulted in a shock to a pet was from a customer-owned pole. National Grid disconnected the pole and notified the customer. Another site of elevated voltage was discovered by a National Grid worker who was performing testing under the Company’s manual

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<sup>6</sup> National Grid requested confidential treatment of the total contract cost and such treatment was granted at an Open Meeting conducted on January 16, 2014.

<sup>7</sup> Contact Voltage Annual Report at 4-9. The Company discussed the use of the total harmonic distortion testing and recommended continued use in FY 2014. *Id.* at 19-21.

<sup>8</sup> *Id.* at 11.

testing program. That site was remediated and repaired. At three of the locations subject to the “shock line” calls where no elevated voltage was found, National Grid nonetheless determined that equipment should be replaced.<sup>9</sup>

Finally, the Company recommended two adjustments to the contact voltage program as it relates to the contact voltage risk areas. First, National Grid recommended including an area of downtown Westerly, representing approximately 1,500 linear feet of roadway.<sup>10</sup> Second, National Grid recommended that the PUC allow testing of 100% of the contact voltage risk areas in FY 2014 rather than the minimum 20% required by statute. National Grid offered that “[t]wo consecutive years of testing will provide the Company and the [PUC] with a more complete benchmark to consider for each” contact voltage risk area.<sup>11</sup>

### **III. Motion to Intervene**

On October 2, 2013, Power Survey Company (Power Survey), a mobile contact voltage testing company, filed a Motion to Intervene. As support for the motion, Power Survey offered its “significant experience and expertise in the subject matter of this proceeding.”<sup>12</sup> Power Survey appears to have relied primarily on PUC Rule of Practice and Procedure 1.13(b)(3), which allows intervention of a movant who shows “any other interest of such nature that the movant’s participation may be in the public interest.”<sup>13</sup> According to Power Survey, “[t]he National Grid Annual Report demonstrates that a number of contested issues exist in this proceeding. Such issues need to be determine by the [PUC] before the Report is accepted, and the existing program is continued and expanded into the Westerly area as National Grid has

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<sup>9</sup> *Id.* at 13-15.

<sup>10</sup> *Id.* at 24.

<sup>11</sup> *Id.* at 23, 25.

<sup>12</sup> Power Survey’s Mot. to Intervene at 2.

<sup>13</sup> *Id.* at 2-3.

recommended.”<sup>14</sup> Rather than addressing whether National Grid’s report was in compliance with the PUC’s prior determinations, Power Survey maintained that the PUC should be reviewing:

whether the selected testing equipment performed as the [PUC] and National Grid were led to believe it would ... whether the testing and repair program should be expanded geographically ... and whether the percentage of the area to be tested in the next round of testing should be the amount recommended by National Grid.<sup>15</sup>

Power Survey argued that the results of the testing suggested that the equipment and testing method were faulty. Power Survey based its contention on findings it had made and which were included in a televised report in 2011.<sup>16</sup> Power Survey also appeared to suggest that the PUC take the opportunity to reconsider the prior findings, premised on its superiority over its competitor’s technology.<sup>17</sup>

On October 15, 2013, both National Grid and the Division of Public Utilities and Carriers (Division) filed objections to Power Survey’s Motion to Intervene. National Grid argued that Power Survey’s motion was an attempt to re-litigate issues already decided by the PUC in its review of National Grid’s compliance with the its prior Orders approving the contact voltage program.<sup>18</sup> Therefore, according to National Grid, the issues raised by Power Survey are outside of the scope of this proceeding. The Company further argued that Power Survey had no interest in the outcome of the proceeding because regardless of the PUC concluded that National Grid did or did not comply with the approved contact voltage program, it would not change Power

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<sup>14</sup> *Id.* at 3.

<sup>15</sup> *Id.* at 4.

<sup>16</sup> *Id.*

<sup>17</sup> *Id.* at 5. “With a majority of the [PUC] newly-appointed, and therefore not present to hear the compelling evidence presented in Docket # 4237... this Docket will serve an important function in ensuring that any ruling on the propriety of the existing program is made with full knowledge of the severe limitations of the testing equipment being employed, which may not have been previously apparent to the [PUC] and National Grid.” *Id.*

<sup>18</sup> National Grid’s Obj. at 2, 6-7.

Survey's standing as an unsuccessful bidder.<sup>19</sup> Finally, National Grid maintained that Power Survey's involvement would not be in the public interest because Power Survey "again is interested only in attacking the performance of the selected technology vendor – not in advancing the public interest."<sup>20</sup> National Grid maintained that the Division was capable of reviewing the data and representing the public interest.<sup>21</sup>

In its objection, the Division argued that Power Survey did not meet the criteria of PUC Rule of Practice and Procedure 1.13 and had no standing to intervene. The Division argued that Power Survey could not demonstrate an injury in fact. According to the Division, Power Survey's motion "reflect[s] issues of general public concern which Power Survey seeks to use to justify its request to re-hear a matter that has already been decided."<sup>22</sup> The Division noted that Power Survey had stated that its intervention would "ensure that 'any ruling' of the 'majority of the [PUC] newly appointed' is 'made with full knowledge' of the facts that 'may not have been previously apparent to the [PUC] and National Grid.'" According to the Division, Power Survey's proposed intervention was designed for the "sole purpose of ... re-hash[ing] the Record" and this would "constitute blatant 'judge shopping,' a practice frowned upon by the Supreme Court."<sup>23</sup>

The Division noted that Power Survey could not show any statutory right to intervene under PUC Rule of Practice and Procedure 1.13(a). The Division discussed the purpose of a compliance filing, which is made after the merits of the application have been adjudicated to show that a party had followed the instructions contained in the order. Allowing Power Survey to re-litigate issues already decided by the PUC would be allowing collateral attack on the orders

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<sup>19</sup> *Id.* at 2, 8-9.

<sup>20</sup> *Id.* at 2, 9-10.

<sup>21</sup> *Id.* at 9-10.

<sup>22</sup> Division's Obj. at 3.

<sup>23</sup> *Id.* at 4.

pursuant to which the compliance filing (annual report) had been made.<sup>24</sup> Additionally, the Division maintained that it could adequately represent the public interest, contrary to the position advocated by Power Survey in its motion.<sup>25</sup> Therefore, according to the Division, Power Survey could not meet the intervention criteria of PUC Rule of Practice and Procedure 1.13(b). Finally, the Division argued that Power Survey's intervention would not be in the public interest because the standard requires that intervention "must do more than achieve the same result that the PUC could arrive at with the assistance of existing parties or through its own reasoned decision-making."<sup>26</sup> The Division posited that the PUC could achieve the same result without Power Survey's participation.<sup>27</sup>

Power Survey filed a reply to the objections, arguing that various cases relied upon by the Division actually supported Power Survey's positions. Power Survey argued that because standing before a state agency is different from judicial standing, the Division's opposition should be dismissed.<sup>28</sup> Power Survey argued that the PUC should permit expansion of the scope of the proceeding to include the issues raised by Power Survey because "if Power Survey's claims (e.g., that National Grid's testing contactor missed seven times as many contact voltage risks as it discovered) are substantiated by reliable evidence the PUC may wish to broaden the scope of this docket."<sup>29</sup> Finally, Power Survey argued that National Grid was incorrect in its assertions that the PUC had already decided the issue of the adequacy of mobile testing in National Grid's contact voltage program.<sup>30</sup>

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<sup>24</sup> *Id.* at 6.

<sup>25</sup> *Id.* at 7.

<sup>26</sup> *Id.* at 8-9.

<sup>27</sup> *Id.*

<sup>28</sup> Power Survey's Reply at 1-2.

<sup>29</sup> *Id.* at 3.

<sup>30</sup> *Id.* at 4.

On November 12, 2013, National Grid filed a Surreply to Power Survey's Reply, setting forth many of the same arguments it made in its Objection. However, National Grid did note that the Maryland Public Service Commission has approved the use of the mobile technology selected by National Grid in its contact voltage program.<sup>31</sup>

#### **IV. Division's Position on the Contact Voltage Annual Report**

On December 19, 2013, the Division submitted a memorandum from its consultant, Gregory L. Booth, P.E., of Power Services, Inc. Mr. Booth stated that after reviewing the Contact Voltage Annual Report, he found that it met the requirements set forth in R.I. Gen. Laws § 39-2-25(b)(6), but that future reports should include some clarifications. He provided five recommendations for inclusion in future annual reports: (1) include in the reporting table the estimated number of mobile survey stops; (2) include a glossary or listing of the terminology used and to differentiate between the various uses of "events" and "readings," currently used to mean different things at different times; (3) provide a summary table of events and readings by asset types; (4) include representative pictures, both initial conditions and subsequent repairs/remediation; and (5) include total harmonic distortion readings, both before and after mitigation of the applicable contact voltage events.<sup>32</sup>

Mr. Booth determined that National Grid's "staged approach of using mobile, manual, and THD analyses is an adequate approach using current technologies."<sup>33</sup> He recommended the continued use of the total harmonic distortion readings for elevated voltage detection between one and four point five volts, the contact voltage threshold for required mitigation action. He also recommended approval of the Company's proposal to test 100% of the contact voltage risk

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<sup>31</sup> National Grid Surreply at 5, n.3. Rules regarding contact voltage detection in Maryland resulted from the death of a child.

<sup>32</sup> Memorandum from Greg Booth to Stephen Scialabba at 1 (Dec. 19, 2013).

<sup>33</sup> *Id.*

areas in 2014, with the addition of High Street in Westerly.<sup>34</sup> Finally, Mr. Booth recommended additional actions for the Company to undertake in its contact voltage program. The first was to conduct follow-up scans in areas with remediation work prior to the annual scanning to determine the existence of no underlying issues. The second was to test random objects in each contact voltage risk area for manual spot testing in areas where mobile testing picked up no readings. And third, to manually measure voltage on streetlights in areas adjacent to streetlights requiring remediation, and re-bidding of the mobile testing on a two-year cycle.<sup>35</sup>

#### **V. National Grid's Reply to Division**

On January 10, 2014, National Grid responded to Mr. Booth's recommendations. National Grid agreed to include four of the five recommendations in future annual reports. However, the Company suggested that before and after pictures might not be useful, particularly where work involves replacement of a piece of equipment with another that looks the same or includes replacement of several assets due to an inability of identify a single source of detected elevated voltage.<sup>36</sup> National Grid also agreed to three of Mr. Booth's programmatic recommendations, noting that the Company "already manually measures voltages and visually inspects street light facilities in areas adjacent to streetlight assets requiring remediation efforts."<sup>37</sup> The Company did not accept Mr. Booth's recommendation to re-bid the mobile testing contract every two years. The Company noted that the program was initially expected to be a four-year program and as such, under the initial request for proposals, the Company had awarded a four-year contract. The Company suggested that rather than adopting a specific bid schedule, the PUC allow the Company to continue with an approach that allows National Grid to

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<sup>34</sup> *Id.* at 2.

<sup>35</sup> *Id.*

<sup>36</sup> National Grid's Reply at 2-3.

<sup>37</sup> *Id.* at 3-4.

respond to market forces and changes in technology, allowing it to negotiate better pricing through a longer contract term.<sup>38</sup>

## **VI. Division's Response to National Grid's Reply**

On January 14, 2014, the Division filed a letter from its attorney which stated that after reviewing National Grid's reply, the Division was satisfied that National Grid had accepted the majority of its recommendations. The letter further indicated that "to the extent [the parties] could be perceived as differing, the Division does not believe the differences are material and finds that [National Grid's] Comments are reasonable."<sup>39</sup>

## **VII. PUC Findings**

### **a. Motion to Intervene**

At an Open Meeting conducted on November 14, 2013, the PUC voted unanimously to deny Power Survey's Motion to Intervene. The PUC determined that while safety is an utmost priority, an entity or business should not be able to raise the mere contention of a public safety concern to hijack the regulatory process and thereby gain an advantage over other competitors. The scope of the PUC's review in this matter is whether or not National Grid has shown compliance with the contact voltage program as previously approved by the PUC. Approval of the contact voltage program came after extensive discovery and a hearing process wherein the PUC considered all of the evidence in the Record. The question before the PUC in reviewing the Contact Voltage Annual Report is whether National Grid carried out the contact voltage program in accordance with the PUC orders. At the Open Meeting denying Power Survey's motion, the PUC found that the Division was in the proper position to adequately bring before the PUC the evidence necessary to make this determination.

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<sup>38</sup> *Id.* at 4.

<sup>39</sup> Letter from Leo J. Wold, Assistant Attorney General to Luly Massaro, Commission Clerk, 1/14/14.

The PUC also voted to schedule a public comment hearing to allow public comment on whether it should re-examine the contact voltage technology issue. The PUC will attempt to undertake this review in the late spring or early summer of 2014. A public comment hearing can take many forms. The PUC may conduct a forum to allow various experts and members of the public the opportunity to present their views to the PUC. The purpose of a future forum will be to educate the PUC on broader matters of contact voltage testing in general, such as practices and standards in other jurisdictions, a description of current technologies as well as anticipated changes and new developments. The PUC is also interested in striking the proper balance between technology and cost effectiveness.<sup>40</sup> While this will be an open forum, the PUC cautions that it will not allow participants to use the technical session as a vehicle to denigrate other participants or competing technologies.

#### **b. Contact Voltage Annual Report - Compliance**

At an Open Meeting conducted on January 16, 2014, the PUC reviewed National Grid's Contact Voltage Annual Report, the Division's recommendations and National Grid's response and unanimously found National Grid's annual report to be in compliance with R.I. Gen. Laws § 39-2-25(b)(6) and PUC Order Nos. 20871 and 20950.<sup>41</sup> National Grid is directed include the modifications recommended by Mr. Booth in its next annual report, except for the recommendation to include before and after pictures. These modifications should make the annual report more clear and provide additional information for subsequent reviews. The PUC also approves the addition of the recommended contact voltage risk area in Westerly. The

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<sup>40</sup> For example, while technology not sensitive enough may result in under-detection, technology that is too sensitive may result in so many hits that the program becomes ineffective for its inability to adequately narrow the focus, resulting in an over-abundance of false positives. At that point, the cost of the program might outweigh the benefits.

<sup>41</sup> On January 6, 2014, the PUC issued a procedural schedule that included a tentative Open Meeting date of January 16, 2014 and requested public comment by January 10, 2014, if possible. No public comment was received prior to January 16, 2014.

Company has shown that the area fits within the definition of contact voltage risk areas, having underground facilities in a pedestrian dense area.<sup>42</sup>

The PUC approves testing of 100% of the contact voltage risk areas. The PUC notes that W. Alan Homyk, the witness for the Contact Voltage Information Center, an intervenor in the proceeding to establish a contact voltage program, testified that National Grid should be required to scan all contact voltage risk areas annually rather than on a cycle schedule.<sup>43</sup> Like Mr. Homyk before, National Grid noted in its compliance filing that an additional year will provide the Company with more benchmarking information. This will allow the Company to better determine if there are problem areas within its system. Such a benefit outweighs the additional costs that will be incurred for the expanded testing.

Finally, Mr. Booth's recommendations concerning the additional steps National Grid should take between mobile testing cycles are reasonable and the PUC notes that National Grid agreed to them, with the single exception related to the two-year bidding cycle. Where the program as set forth in the statute requires testing of 100% of the contact voltage risk areas over a four-year period, it is reasonable for National Grid to have entered into a four year contract at the outset. Furthermore, not setting a rebidding schedule allows the Company the flexibility to seek bids in the future for various time periods to respond to new technology and potentially better pricing schemes.

Accordingly, it is hereby

(21414) ORDERED:

1. The Narragansett Electric Company d/b/a/ National Grid is in compliance with Public Utilities Commission Order No. 20871 and No. 20950.

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<sup>42</sup> R.I. Gen. Laws § 39-2-25(b)(1).

<sup>43</sup> Order No. 20871 (issued 11/9/12) at 9, citing CVIC Exhibit 1 (Pre-Filed Testimony of W. Alan Homyk) at 9, Order No. 20871 at 21, citing Tr. 9/24/12 at 161-62.

2. The Narragansett Electric Company d/b/a National Grid shall adopt a survey and testing schedule of completing all (100%) of the Designated Contact Voltage Risk Areas in 2014.
3. The Narragansett Electric Company d/b/a National Grid's proposed addition of an area of downtown Westerly, Rhode Island to the list of Designated Contact Voltage Risk Areas is hereby approved.
4. The Narragansett Electric Company d/b/a National Grid shall file with its Annual Report a recommendation of the percentage and identification of contact voltage risk areas to be tested in the third year of the Contact Voltage Detection and Repair Program.
5. The Narragansett Electric Company d/b/a National Grid shall include the modifications to its next annual report as outlined in this Order.
6. The Narragansett Electric Company d/b/a National Grid shall conduct follow-up scans in areas where remediation work has been completed between mobile testing scans and shall implement a process where random objects are selected in each contact voltage risk area and manually test for contact voltage to spot verify areas not indicated by mobile technology.
7. The Narragansett Electric Company d/b/a National Grid shall comply with all other findings and instructions contained in this Order.

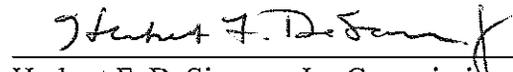
EFFECTIVE AT WARWICK, RHODE ISLAND ON JANUARY 31, 2013 PURSUANT  
TO AN OPEN MEETING DECISION. WRITTEN ORDER ISSUED MARCH 31, 2013.

PUBLIC UTILITIES COMMISSION



  
Margaret E. Curran, Chairperson

  
Paul J. Roberti, Commissioner

  
Herbert F. DeSimone, Jr., Commissioner

**NOTICE OF RIGHT OF APPEAL:** Pursuant to R.I. Gen. Laws § 39-5-1, any person aggrieved by a decision or order of the PUC may, within seven days from the date of the order, petition the Supreme Court for a Writ of Certiorari to review the legality and reasonableness of the decision or order.