

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION

IN RE: PROCEEDING TO ESTABLISH A :
CONTACT VOLTAGE DETECTION AND REPAIR : DOCKET NO. 4237
PROGRAM APPLICABLE TO NATIONAL GRID :
PURSUANT TO ENACTED LEGISLATION :

REPORT AND ORDER

I. BACKGROUND

On March 1, 2011, the Public Utilities Commission (“Commission”) issued data requests to The Narragansett Electric Company d/b/a National Grid (“National Grid” or “Company”), Pascoag Utility District and Block Island Power Company regarding stray and contact voltage occurring in its territory.¹

Stray voltage has been defined by a Working Group of the Institute of Electrical and Electronics Engineers (“IEEE”) as “a voltage (usually smaller than 10 volts) resulting from the normal delivery and/or use of electricity that may be present between two conductive surfaces that can come into contact with members of the general public and/or animals....Stray voltage is not related to power system faults and is generally not considered hazardous.”² Contact voltage has been defined by the same Working Group of the IEEE as:

Voltage resulting from abnormal power system conditions that may be present between two conductive surfaces that can come into contact by members of the general public and/or animals. Contact voltage is caused by power system fault current as it flows through the impedance of available fault current pathways. Contact voltage is not related to normal system operation and can exist at levels that may be hazardous.³

¹ On March 1, 2011, a Joint Resolution 11R-197 was introduced in the Senate and read and passed. The House of Representatives read and passed it on April 5, 2011 and the Governor took no action on the Resolution. The Resolution was transmitted to the Rhode Island Public Utilities Commission which received it on April 29, 2011. It stated, in part “RESOLVED, That this General Assembly of the State of Rhode Island and Providence Plantations hereby requests that National Grid immediately employ the most effective technology currently available to detect stray and contact voltage throughout Rhode Island, and that National Grid provide immediate public warning of these locations to mitigate these hazards in a timely manner....”

² Commission Exhibit I (National Grid’s Response to COM-1).

³ *Id.*

Following the filing of the responses by the respective electric utilities, on April 14, 2011, the Commission initiated the instant docket to develop a record in connection with the Commission's investigation relating to stray and contact voltage in Rhode Island electric utilities' territories. Subsequent discovery was conducted by the Commission to investigate National Grid's current practices, not just in Rhode Island, but also in Massachusetts, New Hampshire, and New York. The Commission continued to issue data requests in its investigation through 2011 and into 2012.

II. 2012 LEGISLATION

On February 15, 2012, a bill was introduced in the General Assembly addressing contact voltage, detection, repair and reporting.⁴ The bill was amended and was signed by Governor Chafee on June 6, 2012 ("Contact Voltage Legislation").⁵ The Contact Voltage Legislation only applies to National Grid in the first instance. It requires the Commission to, within 120 days of June 6, 2012, conclude a proceeding to establish a contact voltage detection and repair program ("Program") applicable to National Grid. Additionally, unlike the current contact voltage procedures in effect at National Grid which are recoverable as part of National Grid's base rates, "the costs of this program shall be fully recovered by the utility company annually through a fully reconciling funding mechanism..."⁶ In addition to requiring National Grid to file annual reports of the results of its testing, maintain records of the testing and repairs in a publicly accessible format, and suggesting that National Grid advise customers of an energized surface not found to be caused by a Company asset, the approved Program shall include the following:

Require electric distribution companies to implement appropriate procedures to detect contact voltage on publicly accessible surfaces which could become energized by contact voltage due to faults in the underground distribution system. The program shall also

⁴ 2012 Senate Bill 2387.

⁵ 2012 R.I. Pub. Laws 162.

⁶ 2012 R.I. Pub. Laws 162.

recognize the potential for publicly accessible objects such as sidewalks, roadways, fences, storm drains, or other metallic gratings to become energized by faults to the underground distribution system. The program shall require every electric distribution company to adhere to appropriate procedures established by the commission to:

(1) Designate contact voltage risk areas. The boundaries of such areas shall be approved by the commission and shall be based on the presence of underground electric distribution and situated in pedestrian-dense areas such as urban neighborhoods, commercial areas, central business districts, tourist heavy locations, and other places where pedestrians could be exposed to contact voltage;

(2) By June 30, 2013, conduct an initial survey of no less than forty percent (40%) of designated contact voltage risk areas, for contact voltage hazards on all conductive surfaces in public rights-of-way using equipment and technology as determined by the commission;

(3) Beginning July 1, 2013, annually survey no less than twenty percent (20%) of designated contact voltage risk areas, for contact voltage hazards on all conductive surfaces in public rights-of-way using equipment and technology as determined by the commission;

(4) Repair power system faults of the electric distribution company's underground distribution system, that result in contact voltage appearing on publicly accessible surfaces of a level to be determined by the division of public utilities;

....

(d) The commission shall review and determine which equipment and technology shall be used for the surveying of contact voltage consistent with paragraphs (2) and (3) of subsection (b). Such a review may include, but not be limited to, the use of mobile testing technology.⁷

On June 18, 2012, Commission Staff conducted a Pre-Hearing Conference in this matter to discuss the legislation and set a schedule designed to meet the tight timeline set forth in the legislation. On August 8, 2012, the Commission granted the unopposed Motion of Capital Advocacy, LLC d/b/a Contact Voltage Information Center ("CVIC") to Intervene. On August 17, 2012, National Grid filed its Proposed Contact Voltage Program ("Proposed Program"), discussed below. On September 18, 2012, following a second Pre-Hearing Conference to further discuss the legislation and process, Commission Legal Counsel circulated a Memorandum discussing an interpretation of a certain provision of the Contact Voltage Legislation that had been agreed to by the parties. Specifically, the Memorandum stated:

We discussed the language of the statute which states in part, 'The commission shall review and determine which equipment and technology shall be used for the surveying of contact voltage...' (R.I.G.L. § 39-2-25(d)). Sections (b)(2)-(3) contain similar language. I noted that National Grid stated that the legislation requires the

⁷ 2012 R.I. Pub. Laws 162.

Commission to identify the “specific” technology and that National Grid included model numbers of devices in its proposal and also initially included Commission approval of a vendor. I suggested that another interpretation of the cited language would be that “technology” means mobile or manual or a combination of both since the statute uses the modifier “mobile testing” before technology later in Section (d). The parties expressed no objection to this interpretation. Additionally, I suggested that equipment does not necessarily mean specific models of devices, but rather, devices that are capable of meeting minimum requirements regarding the measurement of contact voltage, whether related to manual or mobile technology. Again, there was no objection from the parties to this interpretation.⁸

With the interpretation of the legislation on these issues resolved, it is in that context the Commission will review the Program.

III. NATIONAL GRID’S PROPOSED PROGRAM

On August 17, 2012, National Grid filed with the Commission its Proposed Program. The Company outlined its current voltage testing procedures, explaining that the Company conducts manual elevated voltage testing of Company owned overhead distribution facilities on a five year cycle with additional testing at each job site and plans to continue these processes.⁹ National Grid also explained that its current underground elevated voltage testing includes manual testing on Company-owned assets over a five year cycle with additional testing occurring while completing working inspections. Testing on street lights is performed during each investigation of a street light outage.¹⁰ If testing finds an elevated voltage condition above 4.5 volts and less than 8 volts, the site is guarded by a person or protective barrier until the site can

⁸ Staff Memorandum dated September 18, 2012 at 1-2. This interpretation of the statute is consistent with the Rhode Island Supreme Court’s findings regarding the Commission’s role of regulation in areas of management prerogative, such as the choice of a specific technology. This interpretation allows the Commission to comply with the mandates of the Contact Voltage Legislation while also leaving the final choice of vendor and equipment within the management discretion of the utility. *See In re: Providence Water Supply Board v. Public Utilities Commission*, 708 A.2d 537, 543-44 (R.I. 1998) *holding*. This Court repeatedly has held that the broad regulatory powers of the PUC ordinarily do not include the authority to dictate managerial policy....On the facts before us, we are of the opinion that the selection of meter-reading technology "is an incident of management that as far as appears from the evidence would not have an adverse effect on any rights of ratepayers to be charged no more than just and reasonable rates." *Narragansett Elec. Co. v. Kennelly*, 88 R.I. 56, 86, 143 A.2d 709, 726 (1958). As such, we conclude that the PUC exceeded its authority by interfering with this management function absent evidence of "an unjust and unreasonable burden on the ratepayers." *Id.* (citations omitted).

⁹ National Grid Exhibit 1 at 5.

¹⁰ *Id.*

be made safe. Above 8 volts, the site is guarded by an elevated voltage inspector or trained Company personnel and an immediate maintenance and repair response is required.¹¹ According to National Grid, “the Company views R.I.G.L. § 39-2-25 as an expansion of its current voltage testing procedures for underground facilities” and the purpose of the Proposed Program is to integrate the expanded requirements into its current practices.¹²

The Contact Voltage Legislation requires National Grid to perform its testing in contact voltage risk areas (“CVRA”). In order to define the CVRAs, National Grid used land use information maintained by the Rhode Island Geographic Information System. National Grid reviewed each description of land use and categorized it as a pedestrian use area or not. The Company then overlaid the land use data with its underground asset locations.¹³ According to National Grid, “the communities and sections of communities with designated contact voltage risk areas included Providence, Pawtucket, Woonsocket, and Newport.”¹⁴ The Company indicated that while pedestrian use areas include underground residential developments (“URDs”) and underground commercial developments, these were not considered “pedestrian dense” by the Company and therefore, were not included in the CVRAs.¹⁵ Also excluded from the CVRAs were areas where mobile technology cannot be used because of the existence of overhead facilities in the same area which would interfere with the ability of the mobile technology to operate accurately. Only Company-owned assets would be tested in these areas through manual testing.¹⁶ National Grid identified thirteen CVRAs, including ten in Providence

¹¹ *Id.* at 6.

¹² *Id.*

¹³ *Id.* at 8-10.

¹⁴ *Id.* at 10.

¹⁵ *Id.* at 10.

¹⁶ *Id.*

with the remaining three in Newport, Pawtucket and Woonsocket, noting that the identification of the CVRAs is not static; areas may be added or deleted in future years.¹⁷

In its proposed plan, National Grid proposed to utilize mobile equipment technology in the CVRAs. The vendor and type of mobile equipment would be chosen through a Request for Proposal (“RFP”) which would include a survey by each vendor of an identical CVRA within a specific time period and to provide the details of that survey as a part of its response to the Company’s RFP.¹⁸ According to the Company, “[t]his testing will assist the Company in determining the accuracy of the vendors’ technology....”¹⁹ Outside of the CVRAs, National Grid proposed to continue using manual voltage testing including proximity detection units and portable AC digital high impedance volt meters.²⁰ In addition, National Grid explained that mobile technology cannot be used in areas where the Commission has overhead facilities. Therefore, those areas, designated by a 50 foot buffer area, would not be included in the CVRAs and would thus be tested manually.²¹ The Company also noted that CVRAs may exclude areas where equipment and facilities are not accessible to the public or the public is not expected to be walking, such as median strips of limited access highways.²² The Company proposed to have six of the thirteen CVRAs tested before June 30, 2013, with three each year thereafter to be completed within the Company’s fiscal year which runs April 1 to the following March 31.²³

The Company recommended utilizing a baseline standard of 4.5 volts requiring guarding and repair. National Grid indicated that there is no IEEE standard for contact voltage thresholds but noted that Massachusetts has adopted the 4.5 volt threshold and New Jersey has adopted a 5

¹⁷ *Id.* at 11.

¹⁸ *Id.* at 13-14.

¹⁹ *Id.* at 14.

²⁰ *Id.* at 14-15.

²¹ *Id.* at 19.

²² *Id.*

²³ *Id.* at 20.

volt threshold. New York and Maryland utilize 1 volt. According to National Grid, reports have indicated that “elevated voltages below 8 to 10 volts generally are not detected by humans; however, elevated voltages below 10 volts may cause discomfort to some animals, particularly for domestic pets, but may not always be harmful.”²⁴ National Grid indicated that it had discussed utilizing the 4.5 volt level with the Division which had not recommended any modifications.²⁵

Addressing reporting requirements, National Grid proposed to file the following information annually, with the first report on or before September 1, 2013, and annually thereafter on or before August 1: (1) Event record number; (2) Location of testing; (3) Date and time of testing; (4) Company or customer asset; (5) Failed Equipment type; (6) Voltage recorded; (7) Personal injuries to public or pet or property damage; (8) Any other equipment involved and age; (9) Prior incidents at this location in the past five years; (10) Corrective actions taken at the location; (11) Number of customers if service is interrupted; (12) Duration of the interruption; (13) Summary of investigation into cause of the incident; and (14) Number of calls to the Company’s “shock” line.²⁶

With regard to the recovery of costs, National Grid indicated that it was unable to accurately forecast the costs until the completion of the RFP process, but suggested that the Program be made part of National Grid’s Electric Infrastructure, Safety and Reliability (“ISR”) Plan. Accordingly, the Company suggested that the costs also be recovered through that program and associated tariff.²⁷

²⁴ *Id.* at 16-17.

²⁵ *Id.* at 17.

²⁶ *Id.* at 22-27.

²⁷ *Id.* at 25.

IV. CVIC'S PRE-FILED TESTIMONY

On September 7, 2012, CVIC submitted the Pre-Filed Testimony of W. Alan Homyk, PE, CHP of Homyk Consulting, LLC. Mr. Homyk's experience in the utility industry comes from thirty years of employment at Consolidated Edison Company of New York ("Con Edison"), most recently working to address contact voltage issues associated with Con Edison's distribution system.²⁸ After briefly discussing what contact voltage is and why it is important to have a detection program, Mr. Homyk provided seven recommendations he believed would improve National Grid's Program. First, Mr. Homyk recommended mobile testing "should be performed at a level of 1 volt confirmed with a multimeter equipped with a 500 ohm shunt resistor" where practical because although people and animals do not perceive such low voltages, a confirmed voltage measurement is indicative of degrading equipment. Mr. Homyk stated that a finding of degradation is significant if further testing of the area will not again occur for another four years during which the equipment could degrade to full line voltage.²⁹

Second, Mr. Homyk stated that "[t]he proposed contact voltage areas are generally comprehensive" with the exception that they exclude URDs.³⁰ He indicated that because of the nature of the type of wiring typically used in URDs, underground facilities in these areas are particularly susceptible to degradation resulting in contact voltage. He opined that the inclusion of URDs in the CVRAs "should not significantly expand the program cost or scope and is a sound practice based on [his] experience at Con Edison."³¹

Third, Mr. Homyk recommended that National Grid create a searchable database which includes the test program data, accessible to the public. Fourth, he suggested that the Company

²⁸ CVIC Exhibit 1 (Pre-Filed Testimony of W. Alan Homyk) at 1-3.

²⁹ *Id.* at 7.

³⁰ *Id.*

³¹ *Id.* at 8.

net the cost savings of eliminated manual testing in the CVRAs against the mobile testing costs in those areas. Fifth, he reiterated his recommendation that manual testing should only be undertaken in areas not capable of being tested with mobile testing. Sixth, he stated that metal objects embedded in, or connected to wood poles should be included in the Program. Finally, he recommended National Grid be required to undertake annual mobile testing rather than the cycle schedule the Company proposed.³²

V. DIVISION'S TESTIMONY

On September 18, 2012, the Division submitted the joint Pre-Filed Testimony of Gregory L. Booth, PE and Micheal W. White, PE of PowerServices, Inc., its consultants ("Division's Witnesses"). Mr. Booth has extensive experience in the electric industry and has been accepted as an expert before this Commission on several occasions. Mr. White is a Senior Engineer responsible for the preparation and supervision of engineering projects in planning, design, construction management, and utility technology. He was previously employed by Blue Ridge Electric Cooperative. According to the Division's Witnesses, "[m]ost state regulated contact voltage programs are in their infancy (less than ten years old) and have not been through sufficient cycles of testing, reporting and remediation to adequately develop a definitive consensus and nationally accepted model program."³³

The Division's Witnesses distinguished contact voltage from stray voltage. They indicated that "contact voltage is a result of a fault to a supply conductor or faulty open neutral conductor in the secondary distribution system" and is prevalent in areas of dense buried infrastructure. Stray voltage, also referred to as neutral to earth voltage ("NEV") will not reach

³² *Id.* at 8-9.

³³ Division Exhibit 1 (Pre-Filed Testimony of Gregory L. Booth, PE and Micheal W. White, PE) at 14.

significantly high voltages associated with shock injuries but could adversely affect livestock.³⁴ According to the Division's Witnesses, "an ideal measurement technique will also characterize the voltage sources as either a fault condition or neutral return condition" because a fault condition, or contact voltage, represents a condition that either represents a current shock hazard or could worsen to a shock hazard whereas the stray voltage does not.³⁵ Furthermore, according to the Division's Witnesses, it is important to conduct the testing in wetter conditions and to utilize the appropriate equipment to reduce the potential for error in determining whether a voltage reading represents contact voltage or stray voltage.³⁶ One way to do this is through the use of spectrum analysis "for differentiating NEV from a buried fault, even at identical voltage levels".³⁷ Overall, the Division's Witnesses indicated that the Program should contain appropriate quality controls.³⁸

Addressing National Grid's current elevated voltage testing program, the Division's Witnesses reviewed the manual testing program structure and results and recommended that the Company's five year cycle be shortened to three years for streetlights due to higher than typical readings compared to other electric utilities.³⁹ Turning to the Company's Proposed Program and the statutory requirements, the Division's Witnesses noted that the statutory requirements expand the types of facilities that must be tested, creating an impractical situation for manual scanning.⁴⁰ They supported National Grid's approach to utilize a pilot test as part of its RFP process to choose a mobile technology provider and suggested that if a vendor refuses to participate, the bid response should be rejected, noting that "an on-site demonstration and pilot survey...is a

³⁴ *Id.* at 15.

³⁵ *Id.* at 16.

³⁶ *Id.* at 16-18.

³⁷ *Id.* at 17. The Division's Witnesses explained that this can be done by testing for the Total Harmonic Distortion ("THD") of the voltage. *Id.*

³⁸ *Id.* at 17-18.

³⁹ *Id.* at 19-26, 43.

⁴⁰ *Id.* at 27-28.

common requirement for many utilities when the RPF [*sic*] process involves the collection and evaluation of electric facilities.”⁴¹ With regard to the CVRAs, the Division’s Witnesses suggested that the CVRAs should not be redefined based on the overhead buffer limitations of mobile technology, but rather, should be defined based on land use with portions tested by mobile technology and where mobile testing is impractical, tested by manual technology.⁴² With regard to the testing schedule, the Division’s Witnesses stated that the Company needs to establish a methodology for determining whether it has met the first year’s 40 percent threshold.⁴³

Next, the Division’s Witnesses discussed National Grid’s Proposed Program in conjunction with Mr. Homyk’s recommendations. They agreed with Mr. Homyk’s suggestion to include URDs in the CVRAs and his suggestion that the testing data and findings should be in a readily accessible and easily searchable database.⁴⁴ Also, while disagreeing that all wooden poles with metal objects should be tested, they did agree that those wooden poles with metal objects should be tested where a metal object is located away from the pole within a six foot radius because they may have not been bonded to the electric utility ground and can therefore present a true contact voltage threat.⁴⁵ The Division’s Witnesses disagreed with Mr. Homyk’s other recommendations, particularly the threshold voltage testing level and scan schedule. The Division’s Witnesses maintained that with the exception of street lights, “the scan schedule proposed by National Grid is well within acceptable and customary levels” and that there is “no meaningful reason for this level to be below the 4.5 volt level widely used in other states” and

⁴¹ *Id.* at 32-33, 39.

⁴² *Id.* at 32.

⁴³ *Id.* at 28.

⁴⁴ *Id.* at 34-35.

⁴⁵ *Id.* at 35.

that findings below 4.5 volts are “not a level requiring action associated with humans or domestic animals.”⁴⁶

The Division’s Witnesses indicated that they had reached a conclusion that “there is no engineering or scientific support for a voltage threshold below the 4.5 volts proposed by National Grid.” They recommended the Commission accept National Grid’s proposed voltage threshold level of 4.5 volts using manual technology and mobile technology as proposed. They also recommended that the Company track and maintain voltage findings of readings between 1 volt and 4.5 volts “in order to develop an understanding of these low threshold readings and the primary drivers for these low levels.”⁴⁷ Finally, the Division’s Witnesses noted that the Company’s Electric Operating Procedures (“EOP”) needed to be updated and clarified to include all of the proposed changes to the Proposed Program.⁴⁸

VI. NATIONAL GRID’S PRE-FILED TESTIMONY RESPONDING TO CVIC

On September 20, 2012, National Grid submitted the Pre-Filed Testimony of Jennifer L. Grimsley, Director, Network Strategy, New England Electric, Edward S. Paluch, Principal Engineer, Distribution Asset Management of National Grid USA Service Company, and Bartholomew J. Cass, Manager Inspections and Maintenance of National Grid USA Service Company, in response to Mr. Homyk’s testimony. The Company specifically responded to Mr. Homyk’s recommendations regarding the voltage testing level, the addition of URDs to the CVRAs, the accessibility of survey test findings, the testing of certain wooden poles, and the testing schedule.⁴⁹

⁴⁶ *Id.* at 34-36.

⁴⁷ *Id.* at 40.

⁴⁸ *Id.* at 41-43.

⁴⁹ National Grid Exhibit 2 (Direct Testimony of Jennifer L. Grimsley, Edward S. Paluch, PE, PMP and Bartholomew J. Cass, filed September 20, 2012). National Grid indicated that it “currently performs manual elevated voltage testing on metallic objects on wooden poles, including metallic risers, down grounds and down guys” and would update its EOP to clarify this. *Id.* at 11.

First, noting that R.I. Gen. Laws § 39-2-25(4) directs the Company to comply with Division directives regarding the level of voltage at which repairs be performed, the Company's witnesses noted that the Division's Witnesses supported the Company's proposal to "retain 4.5 volts as the appropriate level for testing and mitigation under the Program."⁵⁰ National Grid suggested 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.⁵¹

Next, addressing Mr. Homyk's recommendation to include URDs in the CVRAs, National Grid argued that it would "significantly expand[] the scope of testing beyond the statute."⁵² As support therefor, the Company notes that while its proposal covers 135 miles of road, Mr. Homyk's recommendation would add approximately 740 miles of road. According to the Company, the URD mileage would not be properly classified as pedestrian-dense in the same manner as the examples of "pedestrian-dense" in the statute. Furthermore, the Company noted that it does conduct manual testing of its assets within the URDs.⁵³

Responding to Mr. Homyk's suggestion regarding the content and design of a database for the results of testing, National Grid expressed concern with the potential costs of such a database and whether the database would be useful. However, National Grid stated that it "will provide the information" set forth in the statute "in a searchable PDF or Excel format...[which] will be publicly available on the Commission web site."⁵⁴

Finally, National Grid disagreed with Mr. Homyk's suggestion that testing in all areas should be done at least annually. The Company asserted that its proposed schedule is consistent with the intent of the statute. Additionally, the Company stated that "Mr. Homyk offers no

⁵⁰ *Id.* at 6, 8, 11.

⁵¹ *Id.* at 7.

⁵² *Id.* at 8.

⁵³ *Id.* at 8-9.

⁵⁴ *Id.* at 9-10.

reason to deviate from the ongoing 20% per year schedule proposed in the statute nor does he address the issue of increased costs from significantly modifying the Company's existing practices to an annual basis."⁵⁵

VII. NATIONAL GRID'S PRE-FILED TESTIMONY RESPONDING TO DIVISION

On September 21, 2012, National Grid submitted Testimony of Ms. Grimsley, Mr. Paluch, and Mr. Cass in Response to the Pre-Filed Testimony of Messrs. Booth and White. In their testimony, the Company's witnesses agreed that it is seeking Commission review of its RFP process with a pilot program, that the initial voltage threshold level remain at 4.5 volts, that the existing EOPs should be updated to add specific details of the Program, and that it would be appropriate to revise the overhead testing schedule to a five year cycle with streetlights accelerated to a three-year cycle.⁵⁶ However, the Company's witnesses provided more information in response to the Division's Witnesses' recommendations for a formal Quality Assessment/Quality Control program, their interpretation of the 40 percent testing requirement, the addition of URDs to the Program, and the recommendation to eliminate the buffer zones in the CVRAs.⁵⁷

With regard to quality control, the Company's witnesses indicated that there is currently a quality assurance ("QA") program in place for its manual voltage testing program which includes an accuracy goal of 95 percent for distribution, underground facilities, transmission, and sub-transmission and a goal of 98 percent streetlights.⁵⁸ The Company concluded that because the Division's Witnesses' recommendation was fairly general, "the Company is not able to

⁵⁵ *Id.* at 12.

⁵⁶ National Grid Exhibit 3 (Pre-Filed Testimony of Jennifer L. Grimsley, Edward S. Paluch PE, PMP and Bartholomew J. Cass in Response to the Pre-Filed Direct Testimony of Gregory L. Booth and Micheal W. White) at 4.

⁵⁷ *Id.* at 5.

⁵⁸ *Id.*

determine if its current QA/[Quality Control] program addresses their concerns....”⁵⁹ National Grid’s witnesses expressed a willingness to meet with the Division to discuss the current QA program to determine if additional components are necessary.⁶⁰

Addressing the recommendation to add URDs to the Program, the Company reiterated the points it made in response to Mr. Homyk’s testimony.⁶¹ With regard to the development of the CVRAs, the Company argued that the Division Witnesses’ “suggestion that Designated Contact Voltage risk areas should not be limited by technology is simply not practical at this time.”⁶² Noting that the Division’s Witnesses recognized that mobile testing may not work in areas with overhead facilities, the Company maintained that their suggestion that the Company needs to manually test all conductive areas in order to comply with the Contact Voltage Legislation is not feasible. The Company agreed to revisit the definition of the CVRAs if mobile testing develops to the point where the overhead interference issue is eliminated. The Company noted that because there are few formal contact voltage programs in effect, National Grid modeled its proposed Program on the “combined practices of New York and Massachusetts.”⁶³

Turning to the testing required in the first year of the Proposed Program, National Grid stated that the Company proposes to test forty percent of the thirteen designated CVRAs rather than forty percent of the items to be tested. According to National Grid, this is consistent with the statutory language. Additionally, National Grid indicated that it “does not maintain an inventory of the multitude of such conductive surfaces within its service territory, many of which are not owned by the Company.”⁶⁴

⁵⁹ *Id.* at 6.

⁶⁰ *Id.*

⁶¹ *Id.* at 7.

⁶² *Id.* at 9.

⁶³ *Id.* at 8-9.

⁶⁴ *Id.* at 10-11.

Next, the Company's witnesses provided an update on the outstanding RFP. They indicated that they had received responses from two vendors, one of whom refused to participate in the pilot testing. As a result, the Company had chosen not to move forward with the pilot testing. However, the witnesses stated that "the Company is now prepared to move forward with the RFP process and pilot testing, assuming the Commission approves the RFP in its current form."⁶⁵ The Company's witnesses referenced the Division's testimony regarding the appropriateness of the pilot testing and stated that they concurred with the Division's recommendation that "to the extent a vendor refuses to participate in such a pilot project assessment, the Company should consider that vendor a non-responsive bidder and proceed without consideration of that vendor's system and process."⁶⁶

Finally, with regard to the recovery and reconciliation of Program costs, the Company's witnesses noted that if its proposal to include these costs in the annual Electric ISR programs is approved, it would need to negotiate the costs and recovery mechanism with the Division. Additionally, the witnesses indicated that to the extent the Company's base rates include costs associated with elevated voltage testing, National Grid would provide a credit to customers in the Electric ISR reconciliation to avoid double recovery of such costs. Therefore, National Grid requested the "Commission approve the Electric ISR mechanism as the annual recovery mechanism for contact voltage costs, and permit the Company and Division to attempt to negotiate the specific terms of that mechanism as part of the FY 2014 ISR process."⁶⁷

VIII. HEARING

On September 24, 2012, following public notice, the Commission conducted a hearing at its offices at 89 Jefferson Boulevard, Warwick, Rhode Island for the purpose of taking evidence

⁶⁵ *Id.* at 11-12.

⁶⁶ *Id.* at 12.

⁶⁷ *Id.* at 13.

and considering National Grid's Program. No members of the public appeared to provide public comment.⁶⁸ The following appearances were entered:

FOR NATIONAL GRID:	Thomas Teehan, Esq.
FOR CAPITAL ADVOCACY, LLC:	Joseph A. Keough, Jr., Esq.
FOR DIVISION:	Leo Wold, Esq. Assistant Attorney General
FOR COMMISSION:	Cynthia G. Wilson-Frias, Esq. Senior Legal Counsel

National Grid presented Ms. Grimsley, Mr. Cass and Mr. Paluch in support of its Program and Mr. Richer in support of its cost recovery proposal. Ms. Grimsley summarized National Grid's proposal and the areas of disagreement with Mr. Homyk.⁶⁹ On cross-examination, Ms. Grimsley stated that the Company had not calculated the incremental cost to remediate in instances where a voltage reading was between one and four point five volts.⁷⁰ Likewise, she stated that the Company had not calculated the increased cost that would be associated with mobile testing of URDs, but noted that it would entail testing of another 740 miles of road to the 135 currently included in the CVRAs, which she believed would result in a significant increased cost.⁷¹ She also stated that the Company's manual testing results in "very few elevated voltage conditions" in the URDs, leading the Company to determine that manual testing of Company assets on a five year cycle in URDs is appropriate.⁷² Additionally, in reviewing the statutory guidance of the areas to be included in CVRAs, she indicated that while the statute uses the phrase "other places where pedestrians could be exposed to contact voltage,"

⁶⁸ Prior to the hearing, the Commission received public comment related to the potential vendors for mobile testing. Unfortunately, much of the public comment became personal and was not germane to the Commission's decision in this matter, which is to approve a contact voltage testing program, and not to choose a vendor to do the related work.

⁶⁹ Tr. 9/24/12 at 20-25.

⁷⁰ *Id.* at 28, 35-36.

⁷¹ *Id.* at 36.

⁷² *Id.* at 38-36.

each of the examples provided prior to that phrase referenced areas such as urban neighborhoods, commercial areas, central business districts, and tourist heavy locations, leading the Company to conclude that it did not mean to include URDs, or non-dense pedestrian areas.⁷³

With regard to the identification of the CVRAs, Ms. Grimsley explained that the Company reviewed land use data to identify pedestrian use areas and compared it to the areas in which National Grid has underground facilities to determine where the overlap is. The Company identified Providence, Woonsocket, Pawtucket and Newport as the areas with overlap.⁷⁴ She stated that “[w]e took each of those cities and essentially looked at the entire city and where are our underground assets and *where can we implement* the testing that’s required by the statute.”⁷⁵ She conceded that the areas were defined based on the limitations of the mobile technology.⁷⁶ She stated that the boundaries of the CVRAs are not necessarily geographical in nature and that because the statute did not define “pedestrian dense,” the Company did not use it as a primary measure of whether a border was appropriate.⁷⁷ Therefore, using the Federal Hill section of Providence as an example, because there are overhead lines and underground facilities, only Atwells Avenue and parts of the side streets are included in the CVRAs while other metallic objects exist just outside of the boundaries that would not be subject to the mobile testing or to any testing at all, if not a Company asset. Ms. Grimsley conceded that these objects could become energized, being so close to the underground facilities but that testing of every object would not be practical.⁷⁸ She stated:

The company’s view on the contact voltage risk areas was that the statute requires testing of all conductive surfaces, all conductive surfaces including sidewalks, roadways, grates, all

⁷³ *Id.* at 81-82.

⁷⁴ *Id.* at 20-21.

⁷⁵ *Id.* at 21 (emphasis added).

⁷⁶ *Id.* at 64-72.

⁷⁷ *Id.* at 71.

⁷⁸ *Id.* at 68-72.

conductive surfaces. When developing the contact voltage risk areas the company tried to be as inclusive as possible including underground areas but recognizes that the technology does have limitations, mobile technology that would be used to test all conductive areas.⁷⁹

She agreed that the statute does not require the CVRAs to be testing solely through mobile technology.⁸⁰ However, she asserted that mobile testing is the appropriate technology to use because it would be impractical and potentially lead to a situation where the Company could not comply with the requirement to test all conductive surfaces.⁸¹ She noted that in Albany and Buffalo, New York, while the Company does not have CVRAs, it does conduct mobile testing as required by the New York program and the boundaries of the areas tested by mobile testing are similarly shaped.⁸²

Discussing the mechanics of mobile testing, Mr. Paluch explained that a truck with detection equipment travels down a street, scanning for voltage. Once voltage is detected, an individual needs to get out of the truck and use manual testers to determine the source of the voltage and the actual voltage level. At that point, the source of the voltage is either logged or guarded in accordance with the Company's EOP. This procedure is based on the source of the voltage and the level of voltage detected.⁸³ Because mobile testing can detect voltage as low as one volt, if less than 4.5 volts is detected and the Company can determine that the source of the voltage is the result of a fault in the equipment, it will repair. However, it will take no action if the fault is not immediately apparent and the voltage is below 4.5 volts.⁸⁴

Ms. Grimsley explained that the Company currently uses one vendor in New York and is aware that another vendor has been addressing issues with its technology. Therefore, because

⁷⁹ *Id.* at 64.

⁸⁰ *Id.* at 65, 73.

⁸¹ *Id.* at 65-66, 73, 76.

⁸² *Id.* at 75-76.

⁸³ *Id.* at 92-93. If voltage is detected on a non-company asset such as a customer sign, traffic signals, or municipally-owned streetlights, the owner will be contacted and if remediation measures are not taken, National Grid will disconnect the power source. *Id.* at 94, 98.

⁸⁴ *Id.* at 113-19.

the Company can only compare results of mobile testing to mobile testing, it designed the pilot test as part of its RFP. According to Mr. Cass, it is designed as a six hour trial period with one vendor starting two hours ahead of the other using the same route with a National Grid employee in attendance. The results would be compared and factored into the bid review process.⁸⁵ In the event a high voltage reading is detected by the first truck during the trial, the Company will continue to follow its EOP in order to protect the public despite the fact that the trial is happening.⁸⁶

With regard to the reporting requirements set forth in the Contact Voltage Legislation and the Company's proposal, Mr. Cass indicated that the Company will be using the same database as is used in New York with the same reporting fields available. Ms. Grimsley cautioned that the results may not be very user-friendly or helpful to the general public. However, she agreed that the Company could provide all of the information to the Commission along with a summary report that includes the information included in their proposal with the addition of the date the repair was made.⁸⁷

Ms. Grimsley indicated that the Company could identify and report the cost of repairs within a particular CVRA in the aggregate.⁸⁸ Under National Grid's proposal, these costs would be included in the ISR program and included as operation and maintenance ("O&M") costs related to contact voltage rather than capital costs. If, however, a transformer had to be replaced, it would be included in the capital portion of the ISR rather than the contact voltage portion.⁸⁹ Additionally, the ISR program would include the \$214,000 currently included in National Grid's base rates for National Grid's elevated testing program of its assets. A credit would be applied

⁸⁵ *Id.* at 85-88.

⁸⁶ *Id.* at 88-90.

⁸⁷ *Id.* at 42, 95, 99-101.

⁸⁸ *Id.* at 96-97.

⁸⁹ *Id.* at 136-37.

against the base rates. However, as Mr. Richer agreed, unlike the costs included in the ISR, costs currently included in base rates are not fully reconciling.⁹⁰

Finally, Ms. Grimsley noted that in New York, although annual testing is required, the Company has been able to remove some areas from the annual testing requirement. Likewise, there have been other areas with so many findings that additional testing was required. She indicated that Rhode Island is no different and as the program develops, the Company may find that the CVRAs need to be redefined over time and the program revised over time.⁹¹

CVIC presented Mr. Homyk for cross examination on his recommendations. Mr. Homyk reiterated his recommendation that voltage below 4.5 volts should be investigated and remediated if it is contact voltage because the presence of contact voltage indicates a deteriorating system which will further deteriorate. He noted that stray voltage exists on electrical systems when the neutral becomes energized but that those situations do not represent deteriorating equipment. However, according to Mr. Homyk, until sufficient investigation is done into the cause of those readings, the Company will not know whether the voltage reading is from stray or contact voltage.⁹² Similarly, according to Mr. Homyk, in order to determine the appropriate cycle of testing, the Company should begin with annual testing of all of the CVRAs in order to gain an appropriate understanding of the condition of the system.⁹³

Additionally, Mr. Homyk suggested that National Grid was reading the Contact Voltage Legislation too narrowly by not including URDs in the CVRAs. As he noted, children often play in those areas and others frequently walk.⁹⁴ He explained that mobile testing is billed based on mileage, but opined that the incremental cost would not necessarily be five times the currently

⁹⁰ *Id.* at 130-32.

⁹¹ *Id.* at 121-22.

⁹² *Id.* at 140-42, 150-52, 176-77.

⁹³ *Id.* at 161-62.

⁹⁴ *Id.* at 156.

projected cost because of the presence of fewer conductive objects and the ability of the truck to travel at a faster pace.⁹⁵ Mr. Homyk agreed that the Company is not required to include URDs in its mobile testing program in New York.⁹⁶ With regard to the shape of the CVRAs, Mr. Homyk indicated that the fact that specific areas within an urban zone are designated for mobile testing is not unusual and he reiterated his position that the CVRAs are generally comprehensive.⁹⁷

The Division presented Micheal White for cross examination. He noted that there was not a specific voltage level for repair in the IEEE draft report on contact voltage and that research indicated that there did not appear to be a settled voltage threshold among the jurisdictions which would require repairs to be performed.⁹⁸ He testified that National Grid had addressed all of the Division's concerns in its responsive testimony.⁹⁹ He clarified that the Division's recommendation to include URDs in the CVRAs meant that URDs that happen to fall within the CVRAs should not be excluded. The Division's testimony, according to Mr. White, did not mean that the URDs should be designated as separate CVRAs.¹⁰⁰ Despite his testimony that National Grid had addressed all of the Division's concerns, Mr. White still believed that there might be a better and more accurate way of determining whether National Grid had tested 40 percent of the CVRAs, but stated that until the Company had performed the initial survey of the conductive objects in the CVRAs, the Company's current interpretation was sufficient.¹⁰¹

He agreed that if National Grid determined that a voltage reading below 4.5 volts was "from a direct energized surface", it should be remediated.¹⁰² He stated that "if it's known to be a direct fault, then they should fix that issue with the system," but he gave no guidance of how

⁹⁵ *Id.* at 168-69.

⁹⁶ *Id.* at 180.

⁹⁷ *Id.* at 171-72.

⁹⁸ *Id.* at 182-83, 190.

⁹⁹ *Id.* at 187.

¹⁰⁰ *Id.* at 201, 212.

¹⁰¹ *Id.* at 202, 204-05.

¹⁰² *Id.* at 191.

the Company should know this where it was his opinion that if a reading was below 4.5 volts, no further action was required of the Company.¹⁰³ He opined that the majority of readings below 4.5 volts are stray and not contact voltage.¹⁰⁴

IX. POST-HEARING SUBMISSIONS

Following the hearing, on September 26, 2012, the Division filed a letter from John Spirito, Jr., Chief Legal Counsel, stating that: "...the Division's expert consultant(s) recommended that the Commission 'accept the National Grid program voltage threshold level of 4.5 volts...' Please be advised that the consultants' testimony in this regard reflects the Division's 'determination' of a proper 'level' of contact voltage that must appear on publicly accessible surfaces in the context of R.I.G.L. §39-2-25(b)(4)."

On September 27, 2012 and October 1, 2012, National Grid submitted its responses to record requests made at the September 24, 2012 hearing. The Company identified one thousand thirty-six (1036) URDs in its territory. The Company also provided clarification of its testing schedule and the definitions used in identifying CVRAs.

Finally, the Company responded to the following question: "Please provide the information the Company will include in its revised EOP to explain what the Company proposes to do for an elevated voltage test result found between 1 volt and less than 4.5 volts."¹⁰⁵ In response, the Company indicated that National Grid did not believe that its EOP needed to be changed in light of the fact that the Division determined that mitigation is not required below 4.5 volts. The Company also acknowledged that the issue of the appropriate mitigation measures is under review by the IEEE but that no final determination has been made. However, the Company suggested further information is needed before modifying the existing EOP.

¹⁰³ *Id.* at 193-94.

¹⁰⁴ *Id.* at 210.

¹⁰⁵ RR-4; Tr. 9/14/12 at 224.

Therefore, the Company recommended instituting a pilot program to gather additional information using total harmonic distortion (“THD”) levels to determine whether voltage between 1 volt and 4.5 volts is likely stray voltage or contact voltage. The pilot program would be made part of the initial testing of 40 percent of the CVRAs in the first year. Approval of the pilot program by the Commission would require the issuance of a new RFP but the Company did not believe it would adversely affect the Company’s ability to meet the first year’s testing deadline.¹⁰⁶

On October 2, 2012, CVIC filed a letter with the Commission reiterating its concerns with the level of voltage findings requiring remediation. CVIC also expressed concern that the Company had not addressed what appeared to be awkward language in its EOP regarding findings of contact voltage below 4.5 volts. Finally, CVIC generally agreed with National Grid’s proposed pilot program regarding voltage findings between 1 and 4.5 volts. However, CVIC expressed concern that National Grid’s proposal did not go far enough and was not entirely consistent with the recommendations in the Draft IEEE document nor with the statutory intent because National Grid indicated that it would only conduct remediation if visual defects were observed.¹⁰⁷

On October 2, 2012, National Grid filed its Revised Proposed Contact Voltage Program with the Commission to reflect all of the areas of agreement between the Company and the other parties. The Revised Program also included the proposed pilot program using THD levels to determine whether voltage between 1 volt and 4.5 volts is likely stray or contact voltage.

¹⁰⁶ RR-4.

¹⁰⁷ Letter from Joseph A. Keough, Jr., Esq. to Luly Massaro, dated 10/2/12.

X. COMMISSION DECISION

At an open meeting held on October 4, 2012, the Commission voted unanimously to approve Revised Program with one additional amendment. Because National Grid will need to reissue the RFP to include the pilot program related to THD, the Commission ordered the Company to seek alternate pricing based on an acceleration of the testing schedule. Specifically, the Commission requires the Company to seek pricing based on its original proposal of testing based on 40 percent of the CVRAs with 20 percent each year thereafter and separate pricing based on testing 100 percent of the CVRAs in the first year. Once National Grid has evaluated the responses to the RFP and chosen a bidder, it shall file the responses and a recommendation with the Commission regarding the appropriate schedule. The Commission cautions that it will not be choosing the vendor for the Program, but because it will ultimately need to approve cost recovery, it will need to review the costs associated with modifications of the Program schedule before they are finalized.

Based on testimony in the record and a review of the CVRAs, it is possible that the incremental cost of testing all of the CVRAs in one year compared to testing 40 percent in the first year may not be substantial, in which case, it may be prudent to test the entire system in the first year to gain a better understanding of National Grid's underground distribution system in Rhode Island, at least in the CVRAs. At the hearing, Mr. Homyk stated that annual testing is based on a philosophy to look for problems early on very often to understand the failure rate of the system by component and geographic area. He indicated that a failure that might happen the day after testing would not be detected for five years. The Commission agrees with Mr. Homyk that it is important to gain an understanding of the condition of National Grid's underground system at the beginning of this new program.

The Commission finds that the Revised Program requires National Grid to survey no less than 40% of the contact voltage risk areas by June 30, 2013 and no less than 20% each year thereafter. National Grid identified 13 contact voltage risk areas and simply took 40% of those to come up with 6 to test in the first year. The Company did not look at miles or number of assets to determine the 40%. National Grid maintained that until it is able to catalog the areas, taking 40% of the areas rather than the mileage or some other measure is reasonable and consistent with the statute. The Commission accepts the Company's interpretation of the statute until such time as National Grid is able to develop a better methodology, presumably after all CVRAs are tested. The Commission will revisit this issue in the future. The Division did recommend that National Grid test all of its streetlights on a three-year cycle rather than a five-year cycle. National Grid agreed to this schedule and the Commission finds that based on the record, more frequent testing of the streetlights is necessary at this time.

The Commission notes that Mr. Homyk argued for an annual testing cycle of the entire system, either by mobile testing where feasible or by manual testing in other areas. He suggested that the schedule be adjusted based on the number of energized objects detected during each successive scan. The Commission notes that the statute does not contemplate National Grid's entire system to be tested annually and in fact, does not even speak to National Grid's overhead assets nor its underground assets in areas not included in the CVRAs. Therefore, Mr. Homyk's suggestion would significantly expand the scope of the program and most likely, its costs. The Commission notes that he agreed on cross-examination that "significant expansion of the program is a legitimate consideration for the Commission."¹⁰⁸ However, as noted above, the Commission does agree that it would be wise to gain an understanding of National Grid's underground system in the CVRAs and as such, has required the Company to seek pricing based

¹⁰⁸ Tr. 9/24/12 at 166.

on testing all of the CVRAs in the first year of the program. In addition, National Grid noted that the Revised Program is not static and is subject to further review and modification based on testing results. This is consistent with Mr. Homyk's testimony. The Commission believes that its approach presents a balance between National Grid's and CVIC's positions.

As approved, the Commission finds that National Grid's Revised Program establishes procedures within the program which designates CVRAs. The Commission is concerned that the CVRAs were established based on the limitations of mobile testing where overhead facilities are present in areas with underground facilities. As a result, the CVRAs, in which all conductive surfaces are required to be tested, do not follow natural geographic borders, but rather, appear to be street-specific, excluding streets within a certain geographic area, despite the existence of underground facilities and conductive surfaces which could become energized outside of those CVRAs. However, the Commission notes that Mr. Homyk testified that the shape of the areas designated for mobile testing are not unusual and further, that the CVRAs are generally comprehensive with the exception of the exclusion of the URDs. With regard to the URDs, the Commission notes that National Grid represented that it does not perform mobile testing of URDs in Massachusetts or New York, with New York appearing to have the strictest testing program, based on the record.

The Commission finds that the Revised Program requires National Grid to repair power system faults of National Grid's underground distribution system, that result in contact voltage appearing on publicly accessible surfaces of a level to be determined by the Division of Public Utilities and Carriers. While CVIC presented credible evidence to support repair at a lower voltage, the Commission finds that the Division determined the appropriate level for repair and that National Grid's Program is consistent with that determination.

The Commission is satisfied that the Company was responsive to the Commission's concerns voiced during the hearing based on Mr. Homyk's testimony through its proposal "to gather additional information and use the [total harmonic distortion] method in a pilot program" during the first year of testing under the new program through the use of THD. While the Commission recognizes that CVIC still has some concerns with National Grid's methodology, the Company has been responsive to the concerns and is taking action to address those concerns.

The Commission finds that the Revised Program allows National Grid to notify property owners where contact voltage is found on a non-utility asset. In fact, a review of the Company's Electric Operating Procedures along with testimony of its practices shows that the Company is already taking these steps. Furthermore, where notification is impossible, the Commission notes that the Company interrupts power to the non-utility asset until it can be repaired by the owner. This satisfies the requirements of the Contact Voltage Legislation.

The Commission finds that Revised Program requires National Grid to Annually Report on 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 commission deems appropriate. The Plan also requires National Grid to maintain records of testing and maintenance and repair and submit copies to the Commission which shall be maintained as public records on the Commission's website. At the conclusion of the hearing, there appeared to be no further dispute between the parties on this issue. In its written testimony, the Company proposed to include 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. At the hearing, the Company further agreed to provide the date when the corrective actions are taken/when the issue is rectified. The Company also indicated that it could include the aggregate cost to repair for each contact voltage risk area. The Commission finds that this information should be included. At the hearing, National Grid indicated that it could provide its proposed annual report together with the back-up information included in Section 7.2 of the EOP. The Commission finds this to be an appropriate method of complying with the mandates of the Contact Voltage Legislation. The Commission also accepts National Grid's proposed schedule of filing its Annual Reports.

The Commission is required to review and determine which technology should be used for the testing. After review of the Record, the Commission accepts National Grid's proposal to meet the specific requirements of the statute through the use of a combination of mobile technology and manual technology in the contact voltage risk areas. Additionally, as noted above, the Company proposed, for the first year, to also use a power quality clamp meter or scope meter to measure for total harmonic distortion levels. The vendor/tester using the mobile technology and associated equipment will be chosen through a proposed RFP.

The Commission finds that National Grid's RFP process represents a reasonable approach to choosing a vendor. The Commission specifically approves the use of a pilot survey as described at the hearing in this docket. The Division indicated that the pilot survey was a common approach and further recommended that if a bidder did not participate in a pilot testing

under the RFP that it be disqualified. The Commission agrees. When public dollars are expended and there is the possibility of competition in the arena, there must be a fair process by which the vendor is chosen. National Grid represented that it has experience with one of the two potential vendors. A pilot survey should verify whether one vendor is superior to another and should be factored into the decision.

The Commission also approves of National Grid's proposal to continue its overhead and underground testing program (areas not included in the contact voltage risk areas) through the use of manual technology and to continue using manual technology to test Company assets in areas where there are underground assets but which cannot be tested by mobile technology because of limitations of the mobile technology. The Company will use hand held proximity detection units which are certified to detect voltages between 5 and 600 volts and portable AC digital high impedance volt meters which have the ability to take readings with and without an input load impedance of 500 ohms.

The Contact Voltage Legislation requires the Commission to allow for cost recovery through a fully reconciling mechanism. National Grid has proposed that cost recovery of the statutory testing and the non-statutory testing be recovered as part of the ISR program.¹⁰⁹ No cost recovery tariff has been proposed and therefore, is not before the Commission at this time. Currently, the non-statutory testing is included in base rates. The Commission accepts National Grid's proposal to recover all of its contact voltage testing costs through the ISR program with an adjustment to base rates to avoid double recovery. While this does represent a departure in policy whereby National Grid is currently allowed a certain level of funding through rates, but is not guaranteed recovery of its costs associated with testing, the Contact Voltage Detection Program is something which falls under safety measures taken by the Company and the Program

¹⁰⁹ The Company shall track the repair costs of the program in the aggregate by CVRA as discussed at the hearing.

will include the current testing of Company assets and the new mobile testing program of all conductive surfaces. Therefore, in this case, it is reasonable to include all of the costs in the same recovery factor.

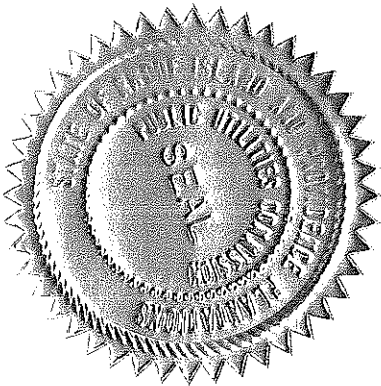
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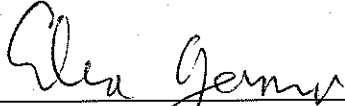
(20871) ORDERED:

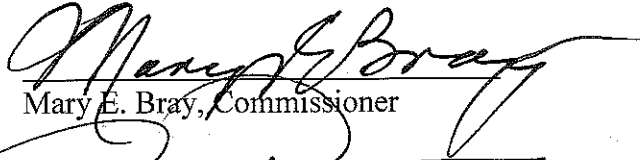
1. The Narragansett Electric Company d/b/a National Grid's Revised Proposed Contact Voltage Program with the exception that the Request for Proposals from mobile testing vendors shall include alternative pricing based on testing of all designated Contact Voltage Risk Areas in the first year of the program.
2. The Narragansett Electric Company d/b/a National Grid shall act in accordance with all other findings and instructions contained in this Report and Order.

EFFECTIVE AT WARWICK, RHODE ISLAND ON OCTOBER 4, 2012 PURSUANT TO AN OPEN MEETING DECISION. WRITTEN ORDER ISSUED NOVEMBER 9, 2012.

PUBLIC UTILITIES COMMISSION




Elia Germani, Chairman


Mary E. Bray, Commissioner


Paul J. Roberti, Commissioner

NOTICE OF RIGHT OF APPEAL PURSUANT TO R.I.G.L. SECTION 39-5-1, ANY PERSON AGGRIEVED BY A DECISION OR ORDER OF THE COMMISSION MAY, WITHIN SEVEN DAYS (7) 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.