STATE OF RHODE ISLAND
PUBLIC UTILITIES COMMISSION

IN RE: PROCEEDING TO ESTABLISH CONTACT VOLTAGE DETECTION AD REPAIR PROGRAM APPLICABLE TO NATIONAL GRID'S REVIEW OF CONTACT VOLTAGE ANNUAL REPORT – FISCAL YEAR 2020	**:**	**DOCKET NO. 4237**

ORDER

On June 25, 2020, The Narragansett Electric Company d/b/a National Grid (National Grid or Company) filed with the Public Utilities Commission (Commission or PUC) its 2020 Contact Voltage Annual Report (Report).[1] The Division of Public Utilities and Carriers (Division) filed a letter from its consultant, Gregory L. Booth, dated August 6, 2020 and addressed to John Bell, concluding that the Report met the statutory requirements of R.I. Gen. Laws § 39-2-25(b)(6) and incorporated all prior Commission orders.[2]

At an Open Meeting on October 28, 2020, the Commission unanimously approved the Report and adopted the Division's recommendations regarding future administration of the Contact Voltage Mobile Surveys.

The Report identified TRC as the company that performed the surveying and testing of 20% of the previously established Designated Contact Voltage Risk Areas (DCVRA) from March 4, 2020 to March 7, 2020. The surveys were conducted during the nighttime, included the testing of streetlights, and covered approximately 30 miles. Municipally hired contractors accompanied the surveyors to immediately mitigate any high voltage discoveries during the surveying and testing

[1] The Contact Voltage Annual Report provides a summary of the Company's surveying and testing results for the period April 1, 2019 to March 31, 2020. All filings in this docket are available at the Commission offices located at 89 Jefferson Boulevard, Warwick, Rhode Island or at: http://www.ripuc.ri.gov/eventsactions/docket/4237page.html. The Company also requested protective treatment of its responses to Commission data requests 3-1, 3-3, 3-4, and 4-1 which the Commission granted on October 28, 2020.
[2] Booth letter (Aug. 6, 2020).

if necessary. In addition to the testing in the DCVRA, the Company conducts a total harmonic distortion (THD) test. Voltage level readings above 1 volt and less than 4.5 volts with a THD of less than 10% are considered contact voltage and require mitigation. During the instant surveying and testing, one location revealed a THD of greater than 10% which was safeguarded from the public and permanently repaired.[3]

Of the eighteen stops made to investigate elevated voltage readings[4], seventeen were below one volt and only one, a customer asset, was greater than 4.5 volts. Although there were no events greater than 4.5 volts in 2019, the one event in 2020 was less than the number of events greater than 4.5 volts in the previous four years. In addition to the testing, the Company was previously ordered to conduct manual post mitigation testing to ensure repairs were addressed.[5] Because none of the Company's assets required repair, manual post mitigation testing was not necessary.

National Grid requested it be relieved of the previously issued order that it develop a methodology to compare survey results, because it no longer owns most of the assets and would not have the information necessary to conduct a comparison. It suggested instead that it develop a methodology for comparing current year survey results in the DCVRAs with Company-owned assets against results from the same DCVRAs from prior years.[6] Surveying and testing costs totaled $80,000. Since no repairs were required, there were no repair costs. The $80,000 will be reconciled with the Company's FY 2020 Electric Infrastructure, Safety, and Reliability Plan filing.[7]

[3] National Grid 2020 Contact Voltage Report at 8 (Jun. 25, 2020); PUC 3-1 (Aug. 31, 2020).
[4] Thirty-two stops were made in FY 2019.
[5] National Grid 2020 Contact Voltage Report at 8-12.
[6] PUC 1-2 (Aug. 31, 2020).
[7] National Grid 2020 Contact Voltage Report at 14.

For the reporting period, April 1, 2019 through March 31, 2020, the Company received only one call of elevated voltage on its Shock Line. The Company responded to this call and repaired a broken neutral on a triplex that caused the elevated voltage. After repair, the voltage reading was below 0.1 volts.[8] Included as an exhibit with the Report was an updated Electric Operating Procedure (EOP)-G016 that outlines the requirements for the equipment elevated voltage testing on the Company's facilities.[9]

National Grid plans to continue the THD pilot program during the FY 2021 mobile surveying. It noted that the costs of this program are minimal, and the additional information provided by the program will be beneficial to possible future modifications or changes to the Contact Voltage Program. The Company did not recommend any changes to the list of fourteen DCVRAs that are currently surveyed. It reported that the standard P1695, *Guide to Understanding, Diagnosing and Mitigating Stray and Contact Voltage*, is pending editorial revisions and approval by the Institute of Electrical and Electronics Engineers (IEEE) Standards Board. It is not aware of any changes to the mobile testing technology and plans to continue to use its existing manual technology and chosen vendor technology. The Company chose Osmose Utilities, the lowest qualified vendor, to conduct the surveying and testing for FYs 2021, 2022, 2023, and 2024 at a price that will remain consistent regardless of the DCVRA percentage surveyed and tested. National Grid recommended continuation of the 20 percent sampling which will require fewer people to perform the testing, thereby reducing exposure and allowing for proper social distancing.[10]

[8] *Id.* at 16; PUC 1-4 (Aug. 31, 2020).
[9] National Grid 2020 Contact Voltage Report at 18, Exhibit 3.
[10] National Grid 2020 Contact Voltage Report at 20-26.

The August 6, 2020 letter to the Division from Mr. Booth concluded that the Report complied with the statutory requirements and prior Commission orders. Mr. Booth noted that in 2019 there were zero events with greater than one volt recorded as compared to 2015 through 2018. He also noted that there was only one event with greater than one volt recorded in 2020 which was successfully remediated. He recommended that the Company continue to remain engaged with customers, since events can be precipitated by customer equipment issues or contributions from the utility. He represented that the Company's responses to the Division's data requests regarding the technology being used by Osmose Utilities and its experience with comparable testing programs was satisfactory. On behalf of the Division, he recommended that National Grid continue to monitor IEEE committee activities and developments and notify the Commission if there are any changes for future consideration. Mr. Booth described the program as mature and noted that the remediation benefits are evident. He supported the Company's recommendation that the program continue with a 20% DCVRA survey each year which is consistent with the Division's recommendations for the FY 2021 ISR Plan analysis process.[11]

At an Open Meeting on October 28, 2020, the Commission reviewed the Report and the Division's recommendation. It approved National Grid's Request for Protective Treatment of its responses to Commission data requests 3-1, 3-3 3-4, and 4-1. It unanimously approved the Report finding it to be in compliance with R.I. Gen. Laws § 36-2-25(b)(6). The Commission ordered National Grid to continue the testing schedule for completing 20% of the DCVRAs in FY 2021 and its process for conducting mobile surveys. It ordered that the Company continue to monitor IEEE Standard P1695 and to inform the Commission of any changes or other actions involving P1695. The Commission ordered National Grid to perform post-mitigation testing on Company-

[11] Booth Letter at 1-2 (Aug. 6, 2020).

owned assets by manually testing the areas where previous remediation work was completed after the prior year's mobile survey. Finally, it ordered National Grid to develop a methodology for comparing current year survey results in the DCVRAs with Company-owned assets against results from the same DCVRAs from prior years.

Accordingly, it is hereby

(23944) ORDERED:

1. The Narragansett Electric Company d/b/a National Grid shall continue the testing schedule for completing 20% of the Designated Contact Voltage Risk Areas in FY 2021.

2. The Narragansett Electric Company d/b/a National Grid shall continue its current process for conducting mobile surveys.

3. The Narragansett Electric Company d/b/a National Grid shall monitor IEEE Standard P1695 and inform the Commission of any changes or other actions involving P1695.

4. The Narragansett Electric Company d/b/a National Grid shall perform post-mitigation testing on Company-owned assets by manually testing the areas where previous remediation work was completed after the prior year's mobile survey.

5. The Narragansett Electric Company d/b/a National Grid shall develop a methodology for comparing current year survey results in the Designated Contact Voltage Risk Areas with company-owned assets against results from the same DCVRAs from prior years.

EFFECTIVE AT WARWICK, RHODE ISLAND ON OCTOBER 28, 2020 PURSUANT TO AN OPEN MEETING DECISION ON OCTOBER 28, 2020. WRITTEN ORDER ISSUED NOVEMBER 9, 2020.

PUBLIC UTILITIES COMMISSION

Ronald T. Gerwatowski, Chairperson

Marion S. Gold, Commissioner

Abigail Anthony, Commissioner

NOTICE OF RIGHT TO 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.