Andrew S. Marcaccio, Counsel
PPL Services Corporation
AMarcaccio@pplweb.com

280 Melrose Street
Providence, RI 02907
Phone 401-784-4263

Rhode Island Energy™
a PPL company

October 9, 2024

VIA ELECTRONIC MAIL AND HAND DELIVERY

Stephanie De La Rosa, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

RE: Docket No. 4237 – Rhode Island Energy's 2024 Contact Voltage Annual Report
Responses to Division Data Requests – Set 1

Dear Ms. De La Rosa:

On behalf of The Narragansett Electric Company d/b/a Rhode Island Energy (the "Company"), enclosed please find the Company's responses to the Division of Public Utilities and Carriers'("Division's") First Set of Data Requests in the above-referenced matter.

Thank you for your attention to this transmittal. If you have any questions or concerns, please do not hesitate to contact me at 401-784-4263.

Sincerely,

Andrew S. Marcaccio

Enclosure

cc: Docket No. 4237 Service List

Division 1-1

Request:

The Company has historically filed its report approximately 3 months after the testing is completed. Will the Company be moving back to delivering the report within the 3 month timeframe?

Response:

No. The Company plans to perform future testing in February of each year and file the report in August of each year. This is consistent with PUC Order No. 25121,[1] which states as follows: "Future testing shall occur in February and reporting shall be by August of each year."

The Company also notes that, historically, there has not been a consistent timeframe between when the Company completes the survey and when the Company has filed the report. As shown in Table 1, below, the average time between completing the scans and filing the report has been approximately 5.5 months over the past 12 filings.

	(a)	(b)	(c)	(d)	(e)
	FY	% of DCVRAs Scanned	Scan Dates	Filing Date	Months between scans and filing
(1)	2013	100	3/18/13-3/30/13	8/29/2013	4
(2)	2014	100	3/12/14-3/28/14	6/26/2014	2
(3)	2015	100	3/8/15-3/23/15	6/30/2015	3
(4)	2016	100	10/26/15-11/10/15	4/6/2016	4
(5)	2017	100	8/7/16-8/19/16	7/28/2017	11
(6)	2018	20	1/22/18-1/25/18	8/28/2018	7
(7)	2019	20	3/18/19-3/20/19	9/18/2019	5
(8)	2020	20	3/4/20-3/7/20	6/25/2020	3
(9)	2021	20	2/22/21-2/25/21	8/18/2021	5
(10)	2022	20	11/15/21-11/17/21	2/17/2022	3
(11)	2023	20	12/12/22-12/15/22	1/12/2024	12
(12)	2024	20	2/4/24-2/8/24	9/5/2024	6

Table 1: Historical Annual Contact Voltage Scan and Filing Dates

[1] PUC Order No. 25121 was issued on July 24, 2024, in Docket No. 4237. A copy may be accessed at: https://ripuc.ri.gov/sites/g/files/xkgbur841/files/2024-07/4237%20RIE%20CV2023%20ORD25121.pdf.

Prepared by or under the supervision of: Eric Wiesner

Division 1-2

Request:

The Company has historically done the testing in the November or December time frame. The 2024 testing was done in February. What is the planned testing time frame moving forward?

Response:

As shown in Table 1 in the Company's response to Division 1-1, the Company typically completes the testing between January and March. The Fiscal Year 2024 contact voltage survey was completed in February 2024. Consistent with PUC Order No. 25121, the Company will perform future testing in February and file the reports in August of each year.

Division 1-3

Request:

Historically until the 2023 report, the number of detected events were relatively low and nearly all were streetlights. Once the Company began using Osmose, the trend has been both a dramatic increase in the number of events and contact voltage has been detected on many other facilities besides streetlights.

a. Please explain the rise in the number of events beginning with 2021.
b. Please explain the reason so many non-streetlight locations are now having recorded events.
c. Why is the Company seeing so many more manhole cover events versus earlier years? What appears to be the main source of voltage?
d. Discuss why the testing is continuing to show much higher event totals than earlier years.
e. Of the elevated voltage items in the Other category, does the Company find anything remarkable about these findings? Is the testing getting better at identifying more incident sites and metal objects with voltage?
f. 2023 and 2024 have streetlights at approximately 25% of the events whereas in earlier years the percentage of events for streetlights were much higher. Please explain.
g. Is there anything else RIE finds noteworthy or remarkable that was not in the report?

Response:

a. The Company notes that even though the number of mobile events increased for Fiscal Year ("FY") 2023 and FY 2024, the mobile investigatory stops have remained relatively consistent since the 20% DCVRA scans were implemented starting with the FY 2018 survey. Once the survey equipment has identified an asset with contact voltage, the survey team will stop and proceed to manually test this asset. If contact voltage is found, the survey team will then proceed to test every metallic object, and sidewalk, within 30' of the initial asset. This would be recorded as one mobile stop, but could have multiple mobile events, which could all be related to one failure and/or defect.

   The mobile stops and mobile events from the FY 2021 and FY 2022 surveys are similar to previous scans that were performed by other contractors prior to 2021. The number of mobile events increased starting with the FY 2023 survey and continued with the most recent FY 2024 survey. Because the DCVRAs scanned for each of these surveys are different, it is difficult to identify the reason why the number of events has increased. The surveys completed in 2021 were in Newport and Woonsocket and the surveys completed in 2022 were in Pawtucket and Westerly, as opposed to the 2023 and 2024 surveys that were completed in Providence. The number of events could be related to

more underground secondary connection issues identified in 2023 and 2024, which correspond to having more paper insulated lead covered ("PILC") cable in Providence. This type of cable currently is being replaced by the Company through the cable replacement program.

b. There is no obvious reason that explains the increase in non-streetlight locations now having events. As stated in the response to part a., above, the surveying team will stop and scan all metallic objects and sidewalks within 30' of where the initial manual testing is performed. Therefore, there might be a greater number of non-streetlight metallic objects within the vicinity of an asset in Providence as compared to the other DCVRAs, or the surveying team is more proficient with taking manual measurements compared to previous contractors. Out of the 63 total events, 36 events can be traced back to a streetlight issue. The remaining 27 events are related to eight Company underground issues.

c. The FY 2024 scans detected three faults within the underground system that contributed to the manhole events. After reviewing historical data, most contact voltage root causes have involved loose connections in a streetlight or other low voltage faults that did not impact a large area. Eight of the 15 manhole contact voltage events can be traced back to three Company equipment faults. The remaining events are related to customer-owned assets.

    1. One manhole event was traced to old secondary services being cut and live capped. The field replaced the service and removed the live capped secondary sections.
    2. One manhole event was caused by having energized lead secondaries resting on a shelf in a manhole. The secondary was removed, and the shelf was bonded to the manhole ground.
    3. Six manhole events were caused by having a secondary installed with bad connections. Nothing was being served by this secondary, so the cable was removed.

    This area of Providence also contains older PILC cable, which is one of the main cable types targeted by the Company for replacement under the Underground Cable Replacement Program.

    The Company also believes that the improved accuracy of the contact voltage equipment, and highly proficient surveyors, have resulted in the contractors finding more contact voltage events. This includes contact voltage found on manhole covers.

Division 1-3, page 3

Table 1, below, summarizes the number of manhole events by FY. The manhole events documented during the FY 2020 survey were all found to have voltage less than 1 volt and were not identified as being company or customer assets.

	(a)	(b)	(c)	(d)	(e)
	Fiscal Year	**Area**	**Total Manhole**	**Customer**	**Company**
(1)	FY 2024	Downtown, Elmwood, and College Hill	15	11	4
(2)	FY 2023	Lower/Upper S. Providence, Federal Hill, and Olneyville	21	11	10
(3)	FY 2022	Pawtucket and Westerly	0	0	0
(4)	FY 2021	Newport and Woonsocket	0	0	0
(5)	FY 2020	College Hill, Downtown, and Smith Hill	3	0	0
(6)	FY 2019	Downtown, Elmwood, Washington Park, and West End	0	0	0
(7)	FY 2018	College Hill and Downtown	0	0	0
(8)	FY 2017	100% of the DCVRA's	0	0	0

Table 1: Manhole Events

d. The Company would like to clarify that even though the number of mobile events increased this year as compared to years prior to FY 2023, the mobile investigatory stops have remained relatively consistent since the 20% DCVRA scans were initiated and since Osmose started to complete these scans in FY 2021. The increase in mobile events could be related to the surveying team being dedicated to contact voltage testing and being more proficient than previous contractors. The increase could also be associated with having mobile scanning technology that is more accurate with correctly identifying assets with contact voltage, which leads to more manual scans being completed within 30' of an asset having contact voltage. Because these three DCVRAs have not been tested since FY 2018, FY 2019, and FY 2020, it is difficult to make an apples-to-apples comparison because different companies and different equipment were used for the previous scans.

e. The Company does not find anything remarkable about the findings in the "Other" category. The Company does believe that the survey technology has gotten more accurate at identifying incident sites, which most likely will lead to more metal objects being tested and recorded as an event.

Division 1-3, page 4

f. The number of streetlights found to have contact voltage has remained consistent since FY 2021. The number of mobile events on other objects has increased, however, which decreases the overall percentage of streetlights.

g. There is nothing else that the Company would like to identify or finds noteworthy.

Division 1-4

Request:

Is the increase in streetlight events representative of a decline in maintenance of the structures and lighting system?

Response:

No. The Company cannot conclude that the increase in streetlight events is a direct result of a decline in maintenance of the structures and lighting systems. Most of the streetlights within the approved DCVRAs are customer owned, and the Company does not have access to customer maintenance programs. Contact voltage found on streetlights also can be caused by faults external to the streetlight. Therefore, it is difficult to narrow down the cause of streetlight contact voltage events to a decline in maintenance.

Division 1-5

Request:

Is Osmose now more skilled at the survey and therefore now collecting more events?

Response:

No, the Company has no reason to believe that Osmose was less proficient with the contact voltage scanning when they started in Fiscal Year 2021. Osmose has been using the same equipment since they started performing contact voltage scans in Rhode Island. The equipment is industry standard and has proven to be accurate. Their personnel are very proficient with the contact voltage scanning process.

The previous contractors that performed contact voltage scanning used equipment that was proven to be less accurate. Therefore, the Company believes that the contact voltage equipment prior to FY 2021 might not have indicated a need to stop, which would limit the number of events that those contractors would have recorded.

Division 1-6

Request:

Has there been any upgrades in the survey equipment or methodology used by Osmose?

Response:

No, there have not been upgrades to the survey equipment or methodology since Osmose began performing the survey work in Fiscal Year 2021. Prior to Osmose conducting the survey, Premier and TRC used different equipment that is no longer considered acceptable for contact voltage testing.

Division 1-7

Request:

Does the Company believe there is safety issues surrounding the significant increase in events?

Response:

No, the Company does not believe there is a higher safety risk because of the increased number of events found during the Fiscal Year ("FY") 2023 and FY 2024 surveys. Contact voltage is always a safety concern for the Company, which is why mobile contact voltage scans are performed. As shown in Table 1, below, the number of mobile stops has remained relatively consistent over the life of the program when testing 20% of the DCVRAs. The DCVRAs that were tested in FY 2024 were previously tested in FY 2018, FY2019, and FY 2020 by a different vendor using different testing equipment. Therefore, an apples-to-apples comparison cannot be made.

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
						Less than 1 Volt	Greater than 1 Volt but less than 4.5 Volts		Greater than 4.5 Volts	
	Scan Year	Scan %	Company	Mobile Stops	Mobile Events	Customer & Company	Customer	Company	Customer	Company
(1)	FY 2013	100%	Premier	N/A	75	N/A	1	6	4	9
(2)	FY 2014	100%	Premier	828	88	72	1	8	0	7
(3)	FY 2015	100%	Premier	943	21	2	5	7	4	3
(4)	FY 2016	100%	Willbros	17	59	33	0	14	0	12
(5)	FY 2017	100%	TRC	230	32	24	4	3	1	0
(6)	FY 2018	20%	TRC	13	13	9	2	0	2	0
(7)	FY 2019	20%	TRC	32	32	32	0	0	0	0
(8)	FY 2020	20%	TRC	18	18	17	0	0	1	0
(9)	FY 2021	20%	Osmose	26	21	5	0	13	0	8
(10)	FY 2022	20%	Osmose	18	17	1	3	0	13	0
(11)	FY 2023	20%	Osmose	12	73	0	17	7	45	4
(12)	FY 2024	20%	Osmose	22	63	0	41	2	18	2

Table 1: Historical Contact Voltage Scan Results

Prepared by or under the supervision of: Eric Wiesner

Division 1-8

Request:

Looking at the program history, there has been a sizeable increase in contact voltage events of the past 5 years. How does the Company plan on addressing the increase?

Response:

The Company plans to continue the annual 20% DCVRA scans until two complete cycles have been completed using the same scanning technology. Once completed, the Company will then be able to determine if a larger percentage of DCVRAs need to be scanned annually, or if other mitigating efforts need to be made. At this time, the Company will continue scanning 20% of the DCVRAs annually, correcting any contact voltage found during the scans, and reaching out to municipalities to let them know of any customer-owned assets that have contact voltage.

As discussed in the Company's response to Division 1-3, the Company would like to clarify that even though the number of mobile events have increased this year as compared to prior years (pre-Fiscal Year ("FY") 2023), the number of mobile investigatory stops have remained relatively consistent since the 20% DCVRA scans were completed using Osmose as a contractor. The increase in mobile events could be caused by more accurate mobile scanning technology correctly identifying assets with contact voltage, which leads to more manual scans being completed within 30' of an asset having contact voltage. Because these three DCVRAs were last tested between FY 2018 and FY 2020, it is difficult to make an apples-to-apples comparison because different companies and different equipment were used for the previous scan.

Division 1-9

Request:

Verify that the Company has performed a QC assessment that all 63 events identified have been mitigated and no voltage is now present.

Response:

The Company confirms that all Company assets with contact voltage were remediated during the scanning period in February 2024. The Company also disconnected connections to customer-owned streetlights and worked closely with the city's lighting contractor to communicate their locations. In accordance with PUC Order 25121 issued on July 24, 2024, in Docket No. 4237, the Company also will perform post-mitigation testing on Company-owned assets by manually testing the areas where previous remediation work was completed prior to the next round of contact voltage scans.

Division 1-10

Request:

What discussion has the Company had with the municipalities concerning the high level of events being found?

Response:

In addition to the discussions that were held because of the Fiscal Year 2023 contact voltage survey, the Company has worked with the city lighting contractor to identify streetlights that have contact voltage, and the Company notified the city in September 2024 to identify the customer-owned streetlights that were reported as having contact voltage. No other discussions have occurred, and the city has not provided any updates.

Division 1-11

Request:

Is the Company aware of whether municipalities have taken on a preventative maintenance program or follow-up process to verify mitigation of contact voltage?

Response:

No, the Company is not aware of municipal preventative maintenance programs.

Division 1-12

Request:

Considering the maturity of the Contact Voltage program why does the Company believe so many events were identified in last two surveys?

Response:

As discussed in the Company's response to Division 1-3, the Company would like to clarify that even though the number of mobile events has increased this year as compared to prior years (pre-Fiscal Year ("FY") 2023), the number of mobile investigatory stops have remained relatively consistent since the 20% DCVRA scans were completed using Osmose as a contractor. The increase in mobile events could be caused by more accurate mobile scanning technology correctly identifying assets with contact voltage, which leads to more manual scans being completed within 30' of an asset having contact voltage. Because these three DCVRAs were last tested between FY 2018 and FY 2020, it is difficult to make an apples-to-apples comparison because different companies and different equipment were used for the previous scan.

The DCVRAs that were scanned in the FY 2024 survey were last scanned over a three-year period between FY 2018 and FY 2020. The total number of mobile stops over this three-year period is shown in Table 1, below. Comparing Table 1 to Table 2, below, there was a greater number of mobile stops for College Hill and Downtown during the earlier scans and an equal number of stops for the Elmwood DCVRA. Because the previous mobile scanning technology was inferior to the current technology, however, these stops may have not resulted in contact voltage being detected once the surveyors used their handheld equipment, thereby limiting the number of additional tests (and events) being recorded.

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
						Less than 1 Volt	Greater than 1 Volt but less than 4.5 Volts		Greater than 4.5 Volts	
	Scan Years	DCVRA	Company	Mobile Stops	Mobile Events	Customer & Company	Customer	Company	Customer	Company
(1)	2018-2020	College Hill	TRC	18	18	15	1	0	2	0
(2)	2018-2020	Downtown	TRC	34	34	32	1	0	1	0
(3)	2018-2020	Elmwood	TRC	2	2	2	0	0	0	0

Table 1: DCVRA scans from FY 2018- FY 2020

Prepared by or under the supervision of: Eric Wiesner

Division 1-12, page 2

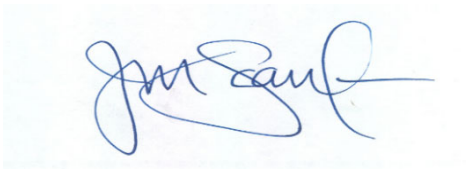
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
						Less than 1 Volt	Greater than 1 Volt but less than 4.5 Volts		Greater than 4.5 Volts	
	Scan Year	DCVRA	Company	Mobile Stops	Mobile Events	Customer & Company	Customer	Company	Customer	Company
(1)	2024	College Hill	Osmose	5	9	0	5	1	3	0
(2)	2024	Downtown	Osmose	15	50	0	34	1	13	2
(3)	2024	Elmwood	Osmose	2	4	0	2	0	2	0

Table 2: DCVRA scans during FY 2024

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.



Joanne M. Scanlon

October 9, 2024
Date

Docket No. 4237 –The Narragansett Electric Co. d/b/a Rhode Island Energy - Contact Voltage Compliance Report
Service List updated 7/24/2024

Name	E-mail Distribution List	Phone
Rhode Island Energy: Andrew Marcaccio, Esq. Rhode Island Energy 280 Melrose Street Providence, RI 02907-1438	AMarcaccio@pplweb.com; JHutchinson@pplweb.com; JScanlon@pplweb.com; COBrien@pplweb.com;	401-784-7667
Division of Public Utilities: Gregory Schultz, Esq. Dept. of Attorney General 150 South Main St. Providence, RI 02903 John Bell Division of Public Utilities & Carriers 89 Jefferson Blvd. Warwick, RI 02888	gSchultz@riag.ri.gov; Christy.hetherington@dpuc.ri.gov; Margaret.L.Hogan@dpuc.ri.gov; John.bell@dpuc.ri.gov; Al.contente@dpuc.ri.gov; Thomas.kogut@dpuc.ri.gov; Robert.Bailey@dpuc.ri.gov; joseph.shilling@dpuc.ri.gov; Ellen.Golde@dpuc.ri.gov;	401-274-4400
Gregory L. Booth, PLLC 14460 Falls of Neuse Rd. Suite 149-110 Raleigh, N. C. 27614	gboothpe@gmail.com;	919-441-6440
Original & 9 copies file w/: Stephanie De La Rosa, Commission Clerk **Public Utilities Commission** 89 Jefferson Boulevard Warwick, RI 02888	stephanie.delarosa@puc.ri.gov; Patricia.lucarelli@puc.ri.gov; Cynthia.WilsonFrias@puc.ri.gov; Alan.nault@puc.ri.gov;	401-780-2107