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



March 11, 2024

VIA ELECTRONIC MAIL

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

RE: Docket No. 23-48-EL – The Narragansett Electric Company d/b/a Rhode Island Energy's Proposed FY 2025 Electric Infrastructure, Safety, and Reliability Plan Responses to PUC Data Requests – Set 12

Dear Ms. Massaro:

On behalf of The Narragansett Electric Company d/b/a Rhode Island Energy (the "Company"), enclosed are the Company's responses to the Public Utilities Commission's ("PUC") Twelfth 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,

Cone & m

Andrew S. Marcaccio

Enclosures

cc: Docket No. 23-48-EL Service List

PUC 12-1

Response:

Attachment DIV 3-22-3, page 1 of 5 (Book 3, Bates page 128) includes five years of CKAIFI and CKAIDI performance history for feeder 56-155F8 (RIE's response to part c of PUC 3-28 confirms the second table should be labeled "CKAIFI").

- a. Please reconcile the CKAIFI and CKAIDI presented for this feeder with the data reported for the feeder in Figure 3 in Book 1, Bates page 160. Please show the underlying data and calculations in a live spreadsheet.
- b. Please reconcile the CKAIFI and CKAIDI discussed in part a with the data for this feeder presented in the tab labeled "Outages i,j,k,p,q" in Attachment DIV 3-22-1 for all overlapping years (i.e., do not include 2023 from this tab if 2023 is not included in the data relevant to the response to part a).

Response:

a. The CKIAFI and CKAIDI results presented in the DIV 3-22-3, page 1 of 5 in <u>'Memorandum_CEMI and ERR-Feeder 56-155F8' (Book 3, Bates page 128)</u> are:

Metric	2018	2019	2020	2021	2022
CKAIFI (Frequency)	11.60	2.95	1.61	2.05	1.95
CKAIDI minutes (Duration)	1195.7	331.5	99.0	155.7	126.9

PUC 12-1, page 2

Figure 3 in Book 1, Bates page 160, is data from the Rhode Island Energy Distribution Automation Recloser Program document – Attachment 6, and is reflected below. The table lists a sample of circuits with high frequency statistics. Data in the chart specific to the 155F8 is:

Feeder	Year	Customers Interrupted	Customers Minutes Interrupted	Customers Served	Circuit Frequency (CKAIFI)	Circuit Duration (CKAIDI)
56-155F8	5 Year Average	4,974	437,370	1,942	2.56	225.2

The underlying reliability data used to produce both data sets is consistent. The Customers Interrupted (CI) and Customer Minutes Interrupted (CMI) values shown as 5 year averages in Figure 3, Book 1, Bates page 160 equal the CI and CMI values used to calculate the yearly statistics listed in Attachment DIV 3-22-3. The difference in 5 year CKAIDI and CKAIFI numbers are due to the estimated customer served (Cs) on the circuit. The Cs values are naturally volatile because of customer movement and periodic circuit reconfigurations. The 155F8 was a new circuit in 2018. The customers served number changed throughout the year. The average number of customer served by an individual circuit can vary depending on when the data is extracted from the interruption database.

Reconciliation of CI and CMI numbers for the two tables can be seen in the Excel version of Attachment PUC 12-1, tab 'Part a'.

b. In Attachment DIV 3-22-1 the Company is responding to DIV 3-22, which asks for a list of each outage on CEMI FY 2024 and FY 2025 circuits in the previous three years. The list provided includes regulatory and excludable storm day events with restoration steps from 2020 through 2022.

The outage data provided in Attachment DIV 3-22-1 was used to create a pivot table in Attachment PUC 12-1 to determine the CI and CMI of the overlapping years. See Attachment PUC 12-1, 'Part b.'. There was one exception. Through the exercise of compiling the data, it was discovered that one restoration step from event 8456887 was

The Narragansett Electric Company d/b/a Rhode Island Energy RIPUC Docket No. 23-48-EL In Re: Proposed FY 2025 Electric Infrastructure, Safety and Reliability Plan Responses to the Commission's Twelfth Set of Data Requests Issued on February 27, 2024

PUC 12-1, page 3

included in the table in Attachment DIV 3-22-3, page 1 of 5 in 'Memorandum _CEMI and ERR-Feeder 56-155F8' (Book 3, Bates page 128). It was excluded from the CEMI data, tab labeled "Outages i,j,k,p,q" in Attachment DIV 3-22-1, because it was less than 1 minute. During monthly and yearly audit exercises, it was likely edited out of the event record because it was less than 1 minute in duration and therefore reclassified as a momentary interruption.

<u>PUC 12-2</u>

Response:

With reference to the data presented in Attachment DIV 3-22-3, page 2 of 5 (Book 3, Bates page 129):

a. Should the sum of the entries of "Estimated CKAIFI" for all events occurring in 2018 approximately equal the 2018 CKAIFI of 11.60 presented on the previous page? Please explain briefly and specifically address if it is an incorrect assumption that the number of customers served by the feeder did not change significantly during 2018.

Response:

The sum of the entries of 'Estimated CKAIFI should not add up for all events occurring in 2018 because Attachment DIV 3-22-3, page 2 of 5 list is limited to significant events (those ≥ 0.01 in frequency or ≥ 30 minutes in duration) and includes major storm days.

The Chase Hill 155F8 came online in 2018, and the customers served did significantly change during this year. As construction of the circuit evolved, customers were added from Wood River and the Hope Valley substations. Interruption database records indicate the customer count increased from zero to approximately 1900 in 2018.

<u>PUC 12-3</u>

Response:

This request relates to the Feeder Ranking Reports for 2018 submitted to the PUC on November 26, 2018 (Q1), March 15, 2019 (Q2 and Q3), and April 9, 2019.

- a. Please confirm feeder 56-155F8 (the subject of the data requests above) only appears in the Q4 report.
- b. Please reconcile the number of customers served of "856" in the report with the:
 - i. "1942" presented in Figure 3 on Bates page 160 of Book 1,
 - ii. the "1955" presented in the tables on Bates page 128 of Book 2, and
 - iii. the "1972" presented in tab "CEMI a,b,c,d,e,h,n,r,s,t" of Attachment DIV 3-22-1.
- c. Confirm the Q4 CKAIFI for 56-155F8 was reported as 5.6986.
- d. Confirm the lowest CKAIFI presented in the Q2-Q3 Report is 1.0222.
- e. Confirm the lowest CKAIFI presented in the Q1 Report is 2.000.
- f. If RIE is able to confirm parts c-e, please explain how the CKAIFI reported on Bates page 128 of Book 2 is 11.60.

Response:

- a. Rhode Island Energy confirms that the 56-155F8 only appears in the Q4 report.
- b. The number of customers served is determined by the circuit's configuration at the time of the interruption. In 2018, the 155F8 was a new circuit. Parts of other area circuits were added to it throughout the year. In the Q4 report, 856 is the average number of customers served at the time of the interruption events.
 - i. The customer's served of "1942" presented in Figure 3 on Bates page 160 of Book 1, was the average customers served at the time the data was extracted from the database.
 - ii. The "1955" presented in the tables on Bates page 128 of Book 2, was the average customers served at the time the data was extracted from the database.

PUC 12-3, page 2

- iii. The "1972" presented in tab "CEMI a,b,c,d,e,h,n,r,s,t" of Attachment DIV 3-22-1 was the average customers served at the time data was extracted from the database.
- c. Rhode Island Energy confirms the Q4 CKAIFI for 56-155F8 was reported as 5.6986.
- d. Rhode Island Energy confirms the lowest CKAIFI presented in the Q2-Q3 Report is 1.0222.
- e. Rhode Island Energy confirms the lowest CKAIFI presented in the Q1 Report is 2.000.
- f. The CKAIFI reported on Bates page 128 of Book 2 is 11.60 because the average number of customers served for 2018 as it was being established as a new circuit was 544.

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

March 11, 2024 Date

Docket No. 23-48-EL – RI Energy's Electric ISR Plan FY 2025 Service List as of 1/25/2024

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