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May 8, 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 – FY 2025 Electric Infrastructure, Safety, and Reliability Plan Compliance Filing – Electromechanical Relay Replacement Overview**

Dear Ms. Massaro:

On behalf of The Narragansett Electric Company d/b/a Rhode Island Energy (the “Company”), enclosed, please find an Electromechanical Relay Replacement Overview which represents a compliance filing made pursuant to the below directive that was issued by the Public Utilities Commission (“PUC”) at an Open Meeting on March 26, 2024.

- To direct Rhode Island Energy to provide, within 45 days of the Open Meeting decision, a list of each of the electromechanical relays forecasted to be replaced in FY 2025 and indicate whether each is being replaced because it is obsolete (not working or can’t find spare parts) or if it is being retired early (although it is still working). In its FY 2026 ISR filing, the Company shall include the same information if it intends to continue seeking approval of the program.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Andrew S. Marcaccio".

Andrew S. Marcaccio

Enclosures

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

## **FY 2025 OVERVIEW**

### **ELECTROMECHANICAL RELAY REPLACEMENT PROJECT**

The Narragansett Electric Company d/b/a Rhode Island Energy is planning to replace the existing solid-state and electromechanical relays for the Wakefield Substation # 17, Lincoln Ave Substation # 72 and Clarke St. Substation # 65. The objective of this project is to replace the old relays with microprocessor relays to improve the system visibility and control of the electric distribution system. This will also enhance the reliability and efficiency of the distribution system. The project aims to enhance operations and maintenance efficiency, improve safety, and ensure compliance with relevant standards.

Please see an overview of each substation as follows:

- Wakefield Substation # 17 – Page 2 of 4
- Lincoln Ave Substation # 72 – Page 3 of 4
- Clarke St. Substation # 65 – Page 4 of 4

## **WAKEFIELD SUBSTATION NUMBER 17: RELAYS OBSOLETE**

The targeted existing Basler -BE1 50/51B overcurrent and Basler - BE1 – 79M AC Reclosing / Auto Reclose relays are at the end of their useful life cycle. There is a concern that the manufacturer may no longer provide adequate support for these relays in the near future. These relays provide no fault record data that would indicate the fault current, and time / date of the fault event. This information is important to aid in quickly diagnosing the problem and finding a fault located on the power system.

In addition, these relays do not provide self-monitoring capabilities and issue no alarms when they fail. Due to the lack of self-monitoring, the relays require shorter maintenance cycle. In the event of relay failure, more time is needed for replacement, and there is no guarantee that the same unit/relay can be replaced quickly due to potential shortages.

These challenges present issues with reliability, as the relays are old, and the availability of the relays and their parts are not frequently available. In case of relay failure, the delay in replacement might increase the possibility of the outage time. Moreover, the existing solid state relays replacement is more expensive.

Please see the information below for the type, model, serial number and other details of the existing relays:

### **FEEDER No 17 F1, F2, F3:**

PHASE A, B, C & G: BASLER - BE1-50/51-105 OVERCURRENT RELAYS

#### **FDR 17 F1:**

BASLER ELECTRIC - BE1-79M RECLOSING RELAY STYLE NO: 9 1701 00 215

**SERIAL NO:** H00368608 R H

#### **FDR 17 F2:**

BASLER ELECTRIC - BE1-79M RECLOSING RELAY STYLE NO: 9 1701 00 215

**SERIAL NO:** H00368609 R H

#### **FDR 17 F3:**

BASLER ELECTRIC - BE1-79M RECLOSING RELAY STYLE NO: 9 1701 00 215

**SERIAL NO:** H00300417 R H

## **LINCOLN AVE SUBSTATION NUMBER 72: RELAYS OBSOLETE**

The targeted existing Basler- BE1 50/51B overcurrent and General Electric -GE static reclosing relays are at the end of their useful life cycle. There is a concern that the manufacturer may no longer provide adequate support for these relays in the near future. These relays provide no fault record data that would indicate the fault current, and time / date of the fault event. This information is important to aid in quickly diagnosing the problem and finding a fault located on the power system.

In addition, these relays do not provide self-monitoring capabilities or issue alarms when they fail. Due to the lack of self-monitoring, the relays require shorter maintenance cycle. In the event of relay failure, more time is needed for replacement, and there is no guarantee that the same unit can be replaced quickly sourced due to potential shortages.

These challenges present issues with reliability, as the relays are old, and the availability of the relays and their parts are not frequently available. In case of relay failure, the delay in replacement might increase the possibility of the outage time. Moreover, the existing solid state relays replacement is more expensive.

Please see the information below for the type, model, serial number and other details of the existing relays:

### **FEEDER No 72F1, F2, F3, F4, F5 & F6:**

PHASE A, B, C & G: BASLER - 9252000229 OVERCURRENT RELAYS (FRONT OF THE RELAYS)

### **FEEDER No 72F1, F2, F3, F4, F5 & F6:**

GENERAL ELECTRIC- GE STATIC RECLOSING RELAY - MODEL: 12SLR12A1A

### **TIE BREAKER 4A2(1-2), 4B2(3-4) and 4C2 (5-6):**

GENERAL ELECTRIC - GE STATIC RECLOSING RELAY - MODEL: 12SLR12A1A

## **CLARKE ST SUBSTATION NUMBER 65: RELAYS OBSOLETE**

The targeted existing electromechanical General Electric - GE type IAC time overcurrent and General Electric A-C Reclosing Relay type ACR are at the end of their useful life cycle and are no longer supported by the manufacturer. These relays provide no fault record data that would indicate the fault current, and time / date of the fault event. This information is important to aid in quickly diagnosing the problem and finding a fault located on the power system.

In addition, these relays do not provide self-monitoring capabilities or issue alarms when they fail. Due to the lack of self-monitoring, the relays require shorter maintenance cycle.

These challenges present issues with reliability, as the relays are old, and the availability of the relays and their parts are not frequently available. In case of relay failure, the delay in replacement might increase the possibility of the outage time.

Please see the information below for the type, model, serial number and other details of the existing relays:

### **Feeder No 65J2:**

**65J2- Phase A** – GENERAL ELECTRIC -GE - MODEL 12IAC53B104 A TYPE IAC

**65J2-Phase B** – GENERAL ELECTRIC -GE - MODEL 12IAC53B811 A TYPE IAC

**65J2-Phase C** – GENERAL ELECTRIC -GE - MODEL 12IAC53B104 A TYPE IAC

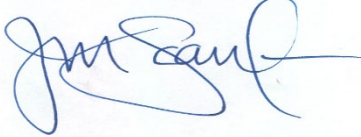
**65J2-Phase G** – GENERAL ELECTRIC -GE - MODEL 12IAC53A2A TYPE IAC

General Electric A-C Reclosing Relay – MODEL 12ACR11B2A TYPE ACR

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.



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Joanne M. Scanlon

May 8, 2024

Date

**Docket No. 23-48-EL – RI Energy’s Electric ISR Plan FY 2025  
Service List as of 2/28/2024**

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