EVERSOURCE

Stony Hill 48C 115 kV Substation Relay Upgrades

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Planning Advisory Committee Meeting

March 24, 2026

Agenda

- Project Background
- Project Information/Location
- Project Needs
- Project Scope
- Project Summary

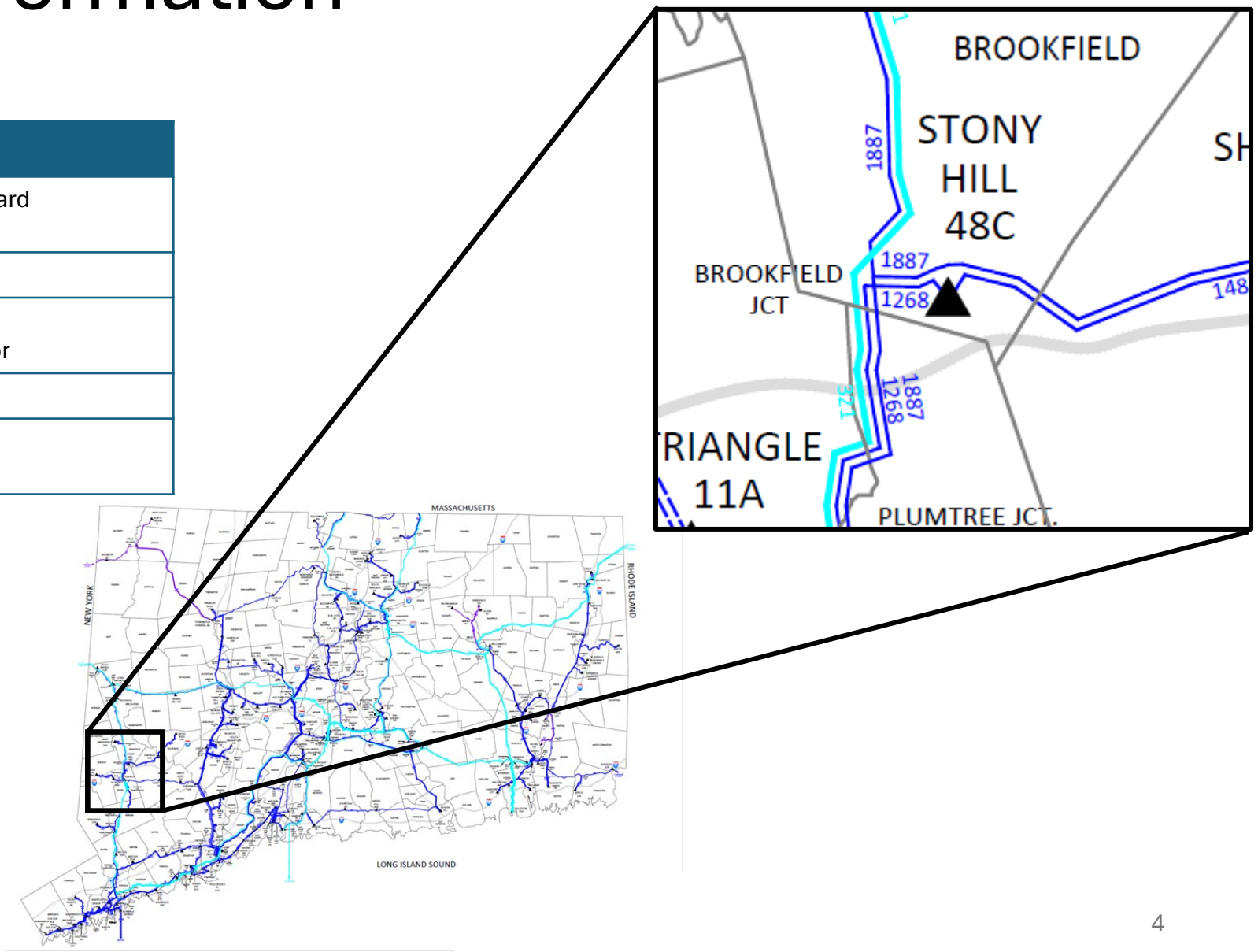
Project Background

- Stony Hill 115 kV substation is located in Brookfield, CT
- Stony Hill has:
  - Two (2) 115 kV lines: 1268, 1485
  - Three (3) 115kV Capacitors: 11K, 12K, 20K
  - One (1) Sync Condenser: 1SC
- The 115 kV substation control house was originally constructed in the 1960s
- This asset condition project targets for replacement relays and communication equipment manufactured by General Electric (GE)
  - These types of relays have experienced issues in the past and have a heightened concern of mis-operation

Background Information

Stony Hill Substation

Key Details	
Location	Stony Hill substation, 115 kV Yard *Brookfield, CT*
Associated Lines	1268, 1485
Additional Equipment On Site	• Three capacitor banks • One synchronous condensor
Operating Voltage	115 kV
Prior PAC Presentations	N/A



Project Needs
Asset Condition – GE Relays & PLC

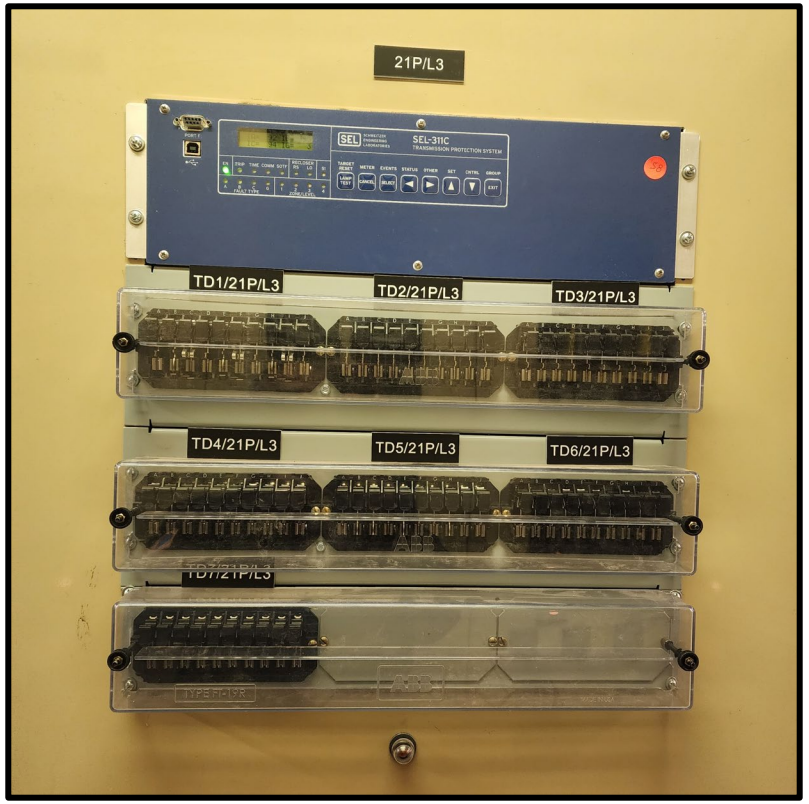
- GE issued an advisory letter in 2013 stating that specific GE Central Processing Units, Power Supply Modules, and Firmware will no longer be manufactured
  - Product support was discontinued in July 2020
  - Lack of support heightens concern with reliable operations going forward

- GE has also issued product advisory notices stating a large population of their relays are at risk of mis-operating due to “soft errors”
  - Soft errors are malfunctions that do not cause physical harm to equipment
  - Upgrading to new platform GE relays is the recommended way to resolve the risk
  - Firmware upgrades alone are insufficient due to the age of the relays
  - Eversource has experienced these types of hardware- and firmware-related mis-operations from GE relays in the past at other major substations

- Eversource will also remove Power Line Carrier (PLC) communications systems and replace selected, aging Schweitzer Engineering Labs (SEL) relays as part of this project

Project Needs – Relay Photo

Stony Hill 115 kV GE Relay



Stony Hill 115 kV SEL Relay

Project Scope & Summary

- Preferred Solution:
  - Four GE relays will be replaced with SEL relays
  - Three GE relays will be removed without replacements
  - Four aging SEL relays will be replaced with new SEL relays due to asset condition and age
    - Affected SEL relays are approximately 15 years or older
  - Upgrade Power Line Carrier communication systems to fiber
  - Programmatic relay replacement improves efficiencies with cost, outage coordinating, engineering, project management, construction, and testing
  - Project will improve reliability, redundancy, speed, and simplicity of protection

- Alternatives:
  - Replace obsolete relay units as they fail
    - This is determined to not be an acceptable alternative due to the reliability risk it imposes on the transmission system

- Estimated PTF Cost = **$5.0 Million** (-25%, +50%)
- Projected In-service date = Q4 2026

Feedback & Next Steps

Planned Schedule	
Start of Major Construction	Q3 2026
Project in Service	Q4 2026

Comment Submission	
Comment Deadline	April 8, 2026
ISO-NE Contact Email Address	pacmatters@iso-ne.com
Transmission Owner Contact Name	Dave Burnham
Transmission Owner Contact Email Address	PAC.Responses@eversource.com

Questions

Appendix – GE Relay Replacement Program

- Eversource initiated a program in 2019 to gradually replace GE relays due to a history of misoperations and lack of support from the manufacturer
- Since then, Eversource has replaced 361 GE relays across 195 substations
  - 22% of the program has been completed
- Eversource anticipates completing the program in approximately 2035
- Eversource has presented other GE Relay replacement projects to the PAC, and will continue as future projects are developed
  - The Stony Hill project is similar in needs and scope to other recently-presented projects at Deerfield, East Devon, Southington, Campville, and Scobie Pond substations