



Xinghao Fang
Engineer
Transmission Planning

May 12th, 2010

Donald L Gates , Chair
NEPOOL Reliability Committee
ISO New England Inc.
One Sullivan Road
Holyoke, MA 01040-2841

Dear Mr. Gates:

In accordance with Section I.3.9 of the ISO New England Transmission, Markets and Services Tariff, New England Power, a National Grid company, hereby submits for approval the attached Transmission Facilities Proposed Plan Application reporting intent to construct, retire, or change facilities (69 kV and above) for the following project:

NEP-10-T05 West Warwick Substation – Build a new 115/12.47 kV substation, tapping off the T-172S line; install a single 24/32/40 MVA transformer, one 115 kV circuit switcher, two (2) 115 kV in-line load break switches.

This substation addition is being proposed to serve the load (31MW initially) shifted from adjacent substations (Drumrock #14, Kent County #22, and Johnston #18), to relieve loading issues on the local distribution network in the area.

New England Power believes that the facility additions described in the attached application will not have a significant adverse effect on the stability, reliability, or operating characteristics of the New England Power Company transmission facilities, the facilities of other transmission owners, or other Market Participants' systems. The NEPOOL Transmission Task Force reviewed this project and concurred that it is Level 1 PPA. Accordingly, New England Power requests acceptance of this notice.

If you have any questions I can be reached by telephone at (781) 907-2469 or by e-mail at xinghao.fang@us.ngrid.com.

Sincerely,

Xinghao Fang
Engineer
Transmission Planning
cc: System Planning, Proposed Plan Application Agent, ISO-NE

TRANSMISSION FACILITIES PROPOSED PLAN APPLICATION

1. Applicant: New England Power Company Date: May 12th, 2010

2. Type of Facility: Build a new 115/12.47 kV substation in West Warwick, RI: In-Service Date: Dec - 2012
a) Tap the 115 kV T-172S line (0.1 mi)
b) Install one (1) 1200A 115 kV circuit switcher and two (2) in-line 2000A load break switches with SCADA control, and
c) Install a 24/32/40 MVA 115/12.47 kV transformer.

3. Transmission Line and/or Substations:

a. From: Hartford Ave. Substation #35 (T-172S line), Johnston, RI To: Drumrock Substation #14 (T-172S line), Warwick, RI
 (Terminal – Name – Location) (Terminal – Name – Location)

b. Third Terminal or tap: New West Warwick Substation (Name – Location)
 (if any)

c. Distance – Overhead: Less than ~0.1 Miles (substation adjacent existing T-172S R/W) Conductor: 795 kcmil ACSR

Distance – Underground: _____ Conductor: _____

Design Voltage: 115 kV Initial Operating Voltage: 115 kV

d. Proposed Relaying:

- Type of Line Relaying Existing relay will be utilized at Hartford Ave. , Drumrock, and FPL Rise stations .
- Backup Relaying N/A
- Stuck Breaker N/A
- Special protective relaying scheme N/A

4. Transformers Rating: 24/32/40 MVA HV 115 kV LV 12.47 kV Tertiary kV

Parameters in percent on a 100 MVA Base

Resistance 0.0179 - R 0.5 - X

5. Attach simplified one line diagram(s) of transmission and/or substations with breaker configuration, indicating existing and proposed additions or changes on construction.
 Please attached figures:

FIGURE 1 Geographic Map of Central Rhode Island Transmission System

FIGURE 2 One-Line Interconnection Diagram of Proposed New Substation in West Warwick, RI

6. Reliability Studies:

Loadflow: Completed Planned Not Needed Explanation Attached

Stability: Completed Planned Not Needed Explanation Attached
Other: short circuit Completed Planned Not Needed Explanation Attached

7. a. If this Application is associated with a Generation Proposed Plan Application, identify the Generator Proposed Plan Application(s) and the Governance Participant(s) responsible for submitting. N/A

7b. Has the Generation Proposed Plan Application(s) been submitted? YES NO

If "No", when will the Application(s) be submitted?

Application Identification No. NEP-10-T05

FIGURE 1: Geographic Map of Southern Rhode Island Transmission System

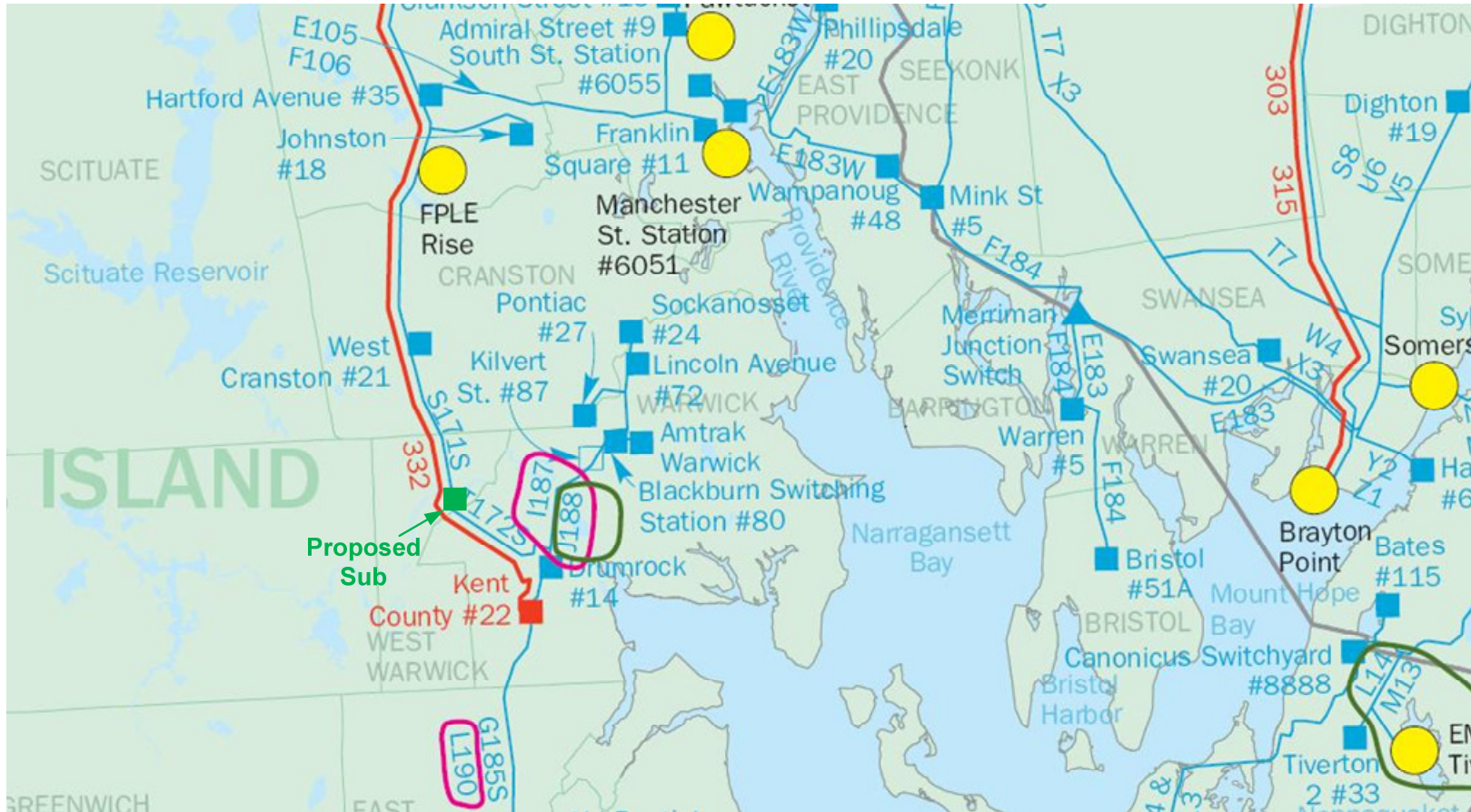
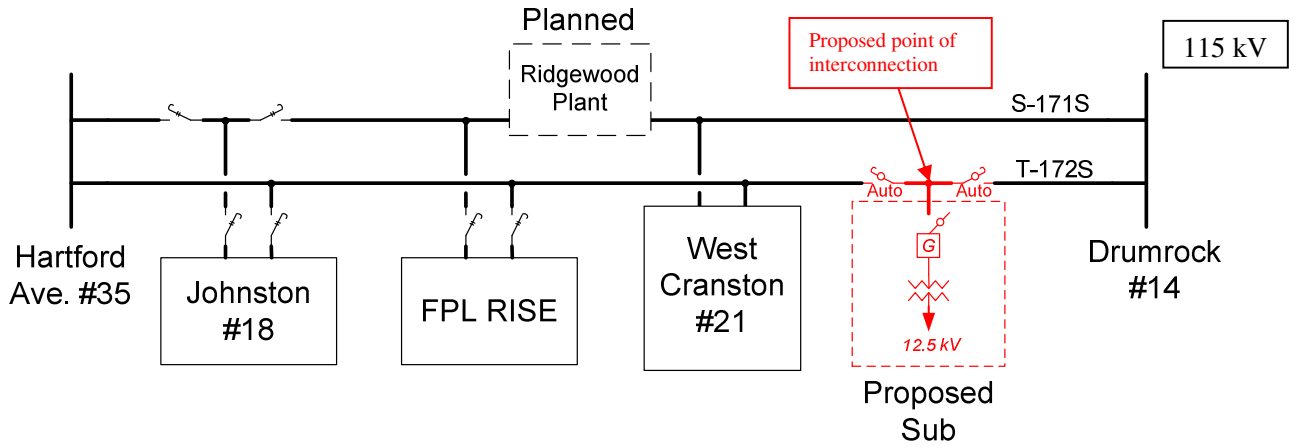


FIGURE 2: One-Line Interconnection Diagram and Configuration of Proposed New Substation in West Warwick, RI

Proposed Interconnection diagram



Proposed West Warwick Substation configuration

