



**Northeast
Utilities System**

Northeast Utilities Service Company
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Transmission System Planning Department
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April 5, 2010

Mr. Donald Gates
Chairman, 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 (“ISO-NE”) Transmission, Markets, and Services Tariff (“ISO-NE Tariff”), Northeast Utilities (“NU”) hereby submits the attached Proposed Plan Application/s (“PPA”) reporting notice of intent to construct, retire, or change facilities (rated 69 kV and above) for the following project(s):

NU-10-X01 *Altresco 41A 1715 or 1816 SPS*

NU believes that the project described by this PPA will not have a significant adverse effect on the stability, reliability, or operating characteristics of the Transmission Owner’s transmission facilities, the transmission facilities of another Transmission Owner, or the system of a Market Participant in New England.

If you have any questions, I can be reached via the information listed above.

Sincerely,

Timothy F. Laskowski
Timothy F. Laskowski

TRANSMISSION FACILITIES PROPOSED PLAN APPLICATION

1. Applicant Northeast Utilities Date April 5, 2010
2. Type of Facility Altresco 41A 1715 or 1816 SPS In-Service Date December 4, 2009
3. Transmission Line and/or Substations
 - a. From Altresco 41A Substation, Pittsfield, MA To Doreen 19A Substation, Pittsfield MA line #1715
and
From Altresco 41A Substation, Pittsfield, MA To Doreen 19A Substation, Pittsfield, MA line #1816

(Terminal - Name - Location) (Terminal - Name - Location)
 - b. Third Terminal or tap (if any) _____

(Name - Location)
 - c. Distance - Overhead 1.2 miles. Underground 0 miles. Design Voltage 115 KV
Conductor Size 4/0 ACSR Initial Operation 115 KV
 - d. Proposed Relaying:
Type of line relaying
Backup relaying
Stuck breaker
Special protective relaying schemes – MODIFICATION , Altresco 41A 1715 or 1816 SPS
4. Transformer Rating N/A MVA HV N/A KV LV N/A KV Tertiary N/A KV

Parameters in percent on a 100 MVA Base

Resistance N/A -R Reactance N/A -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.

Comments
6. Reliability Studies
Short Circuit: Completed Planned Not Needed X Explanation Attached
Load Flow: Completed Planned Not Needed X Explanation Attached
Stability: Completed Planned Not Needed X Explanation Attached
Other _____ Completed Planned Not Needed X 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 it. N/A X
b. Has the Generation Proposed Plan Application(s) been submitted? Yes No
If "No", when will the Application(s) be submitted?

Description of Project

A type III Special Protection System (SPS) is in-service at Doreen 19A to detect line loads on the 1715 Line and the 1816 Line. The relays are set at 580 amperes summer and 580 amperes winter. If an overload condition continues for more than 25 seconds, the Overload Relays will send an Audio Tone Trip signal to Altresco 41A. At Altresco, the Audio Tone Receiver pick-up a timer that after 5 seconds will operate the 86TT/SPS Lockout that in turn will trip two generator breakers (1 gas turbine and 1 steam generator). At the same time, an alarm will be sent to CONVEX informing CONVEX the Overload Relay has operated. The purpose of this SPS is to protect the 1715 and 1816 lines from overload above 580 amperes.

The purpose of this project is to modify the setting of the relay to protect the lines from being overloaded during the summer season. The set points of the relays will be changed to 475 amps in order to protect the circuits during the entire year. The summer normal, LTE and STE ratings of both the 1715 and 1816 line are 485 A.

Figure 1: Transmission One-Line (Before Project)

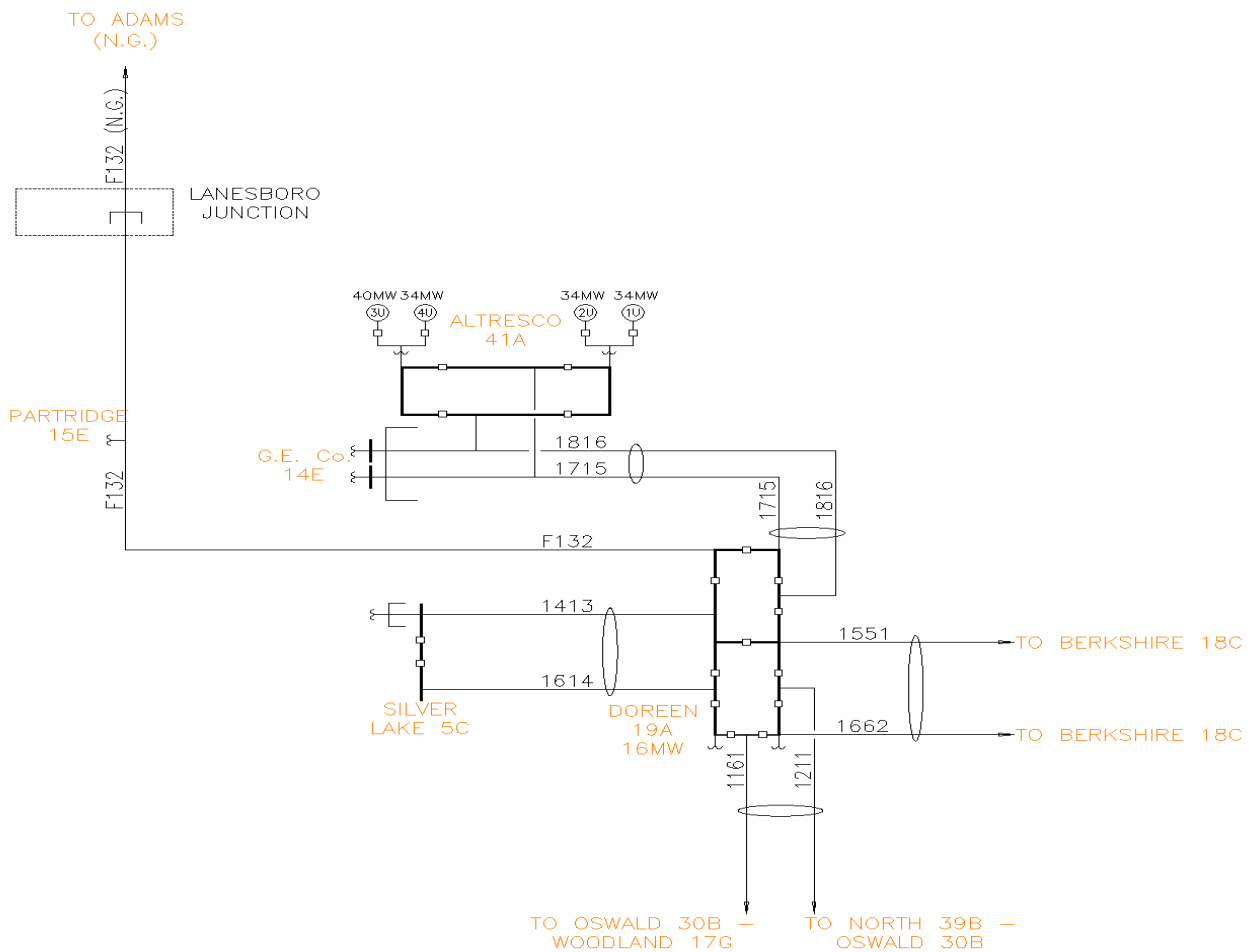


Figure 2: Transmission One-Line (After Project)

Not Needed – no change

Figure 3: New Substation Nomenclature Diagram

Not Needed – no change