

April 12, 2006

Mr. 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-06-T06 Bellows Falls Revitalization Project

Bellows Falls Station is a three turbine, 49 MW hydroelectric station located along the Connecticut River in the Town of Rockingham, Vermont. The major items associated with this project include to replace the three existing, three-winding GSUs with three new two-winding 115/6.6 kV, 20 MVA GSUs, install a new 115/69 kV, 33.6/44.8/56 MVA autotransformer, install a new 115/46 kV, 30/40/50 MVA autotransformer, install a new 115 kV, 30 MVar capacitor bank, remove the existing #3 69/46 kV, 8 MVA transformer, replace three 115kV Oil Circuit Breakers(OCB) with Gas Circuit Breakers(GCB) (W-149, J-136, I-135), install three new 115kV circuit switchers (4T-115, 5T-115 and 6T-115), install a new 115kV GCB (C1-1), and install a new 69 kV GCB (G33) and disconnect switch. The upgrade from this project addresses the reliability, environmental and maintenance issues that currently exist at Bellows Falls. Studies of the impact of this project on the New England transmission system have been reviewed by the NEPOOL Transmission and Stability Task Forces.

New England Power believes that the facilities described in the attached application will not have a significant adverse effect on the stability, reliability or operating characteristics of the New England Power system or the system of any other Participant. Accordingly, New England Power requests that this application be approved.

If you have any questions I can be reached by telephone at (508) 389-2331, or by e-mail at chuanjiang.zhu@us.ngrid.com.

Sincerely,

Chuanjiang Zhu
Senior Engineer
Transmission Network Planning and Development

cc: System Planning, Proposed Plan Application Agent, ISO-NE

TRANSMISSION FACILITIES PROPOSED PLAN APPLICATION

1. Applicant: New England Power Company Date: April 12, 2006

2. Type of Facility: Bellows Falls Substation Revitalization: In-Service Date: May 2008

- Replace the three existing, three-winding GSUs with three new two-winding 115/6.6 kV, 20 MVA GSUs.
- Install a new 115/69 kV, 33.6/44.8/56 MVA autotransformer and a new 115/46 kV, 30/40/50 MVA autotransformer to replace the capacity provided by the existing three-windings GSUs.
- Install a new 115kV 30MVar capacitor bank for system voltage support.
- Remove the existing #3 69/46 kV, 8 MVA transformer.
- Replace three 115kV Oil Circuit Breakers(OCB) with Gas Circuit Breakers(GCB) (W-149, J-136, I-135); Install three new 115kV circuit switchers (4T-115, 5T-115 and 6T-115); Install a new 115kV GCB (C1-1).
- Install a new 69 kV GCB (G33) and disconnect switch.

3. Transmission Line and/or Substations

a. From: (Terminal – Name – Location) To: (Terminal – Name – Location)

b. Third Terminal or tap: (if any) (Name – Location)

c. Distance – Overhead: Conductor:
 Distance – Underground: Conductor:
 Design Voltage: Initial Operating Voltage:

- d. Proposed Relaying:
- Type of Line Relaying
 - Backup Relaying
 - Stuck Breaker
 - Special protective relaying scheme

4a. Transformer 20 MVA HV 115 kV LV 6.6 kV Tertiary kV

Rating: No.1

Parameters in percent on a 100 MVA Base
 Resistance - R Reactance 63.67 - X
 4b. Transformer 20 MVA HV 115 kV LV 6.6 kV Tertiary kV
 Rating: No.2

Parameters in percent on a 100 MVA Base
 Resistance - R Reactance 63.67 - X
 4c. Transformer 20 MVA HV 115 kV LV 6.6 kV Tertiary kV
 Rating: No.3

Parameters in percent on a 100 MVA Base
 Resistance - R Reactance 63.67 - X
 4d. Transformer 30/40/50 MVA HV 115 kV LV 46 kV Tertiary 7.2 kV
 Rating: No.4

Parameters in percent on a 100 MVA Base
 Resistance - R Reactance 19.1 - X
 4e. Transformer 33.6/44.8/56 MVA HV 115 kV LV 69 kV Tertiary 13.8 kV
 Rating: No.6

Parameters in percent on a 100 MVA Base
 Resistance - R Reactance 13.7 - 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.

Bellows Falls current one-line diagram and the proposed one-line diagram are attached.

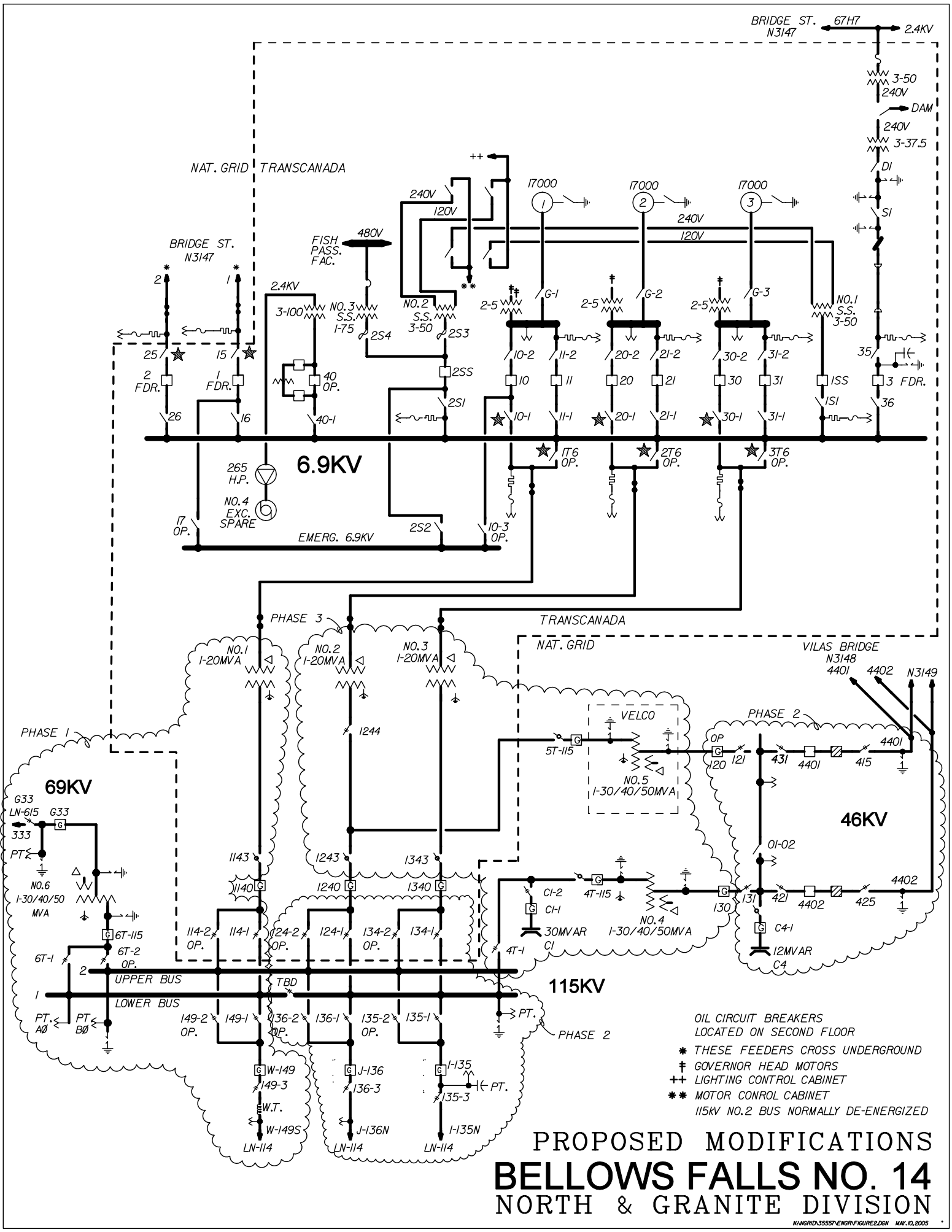
6. Reliability Studies:

Loadflow: Completed Planned Not Needed Explanation Attached
 Stability: Completed Planned Not Needed Explanation Attached
 Other: _____ 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?



BRIDGE ST. N3147 67H7 2.4KV

NAT. GRID TRANSCANADA

BRIDGE ST. N3147

FISH PASS. FAC.

6.9KV

TRANSCANADA

NAT. GRID

VILAS BRIDGE N3148

69KV

46KV

115KV

OIL CIRCUIT BREAKERS LOCATED ON SECOND FLOOR

- * THESE FEEDERS CROSS UNDERGROUND
- † GOVERNOR HEAD MOTORS
- ++ LIGHTING CONTROL CABINET
- ** MOTOR CONTROL CABINET
- 115KV NO.2 BUS NORMALLY DE-ENERGIZED

PROPOSED MODIFICATIONS BELLOWS FALLS NO. 14 NORTH & GRANITE DIVISION