



NSTAR Electric & Gas Corp.  
One NSTAR Way, SUMSE320  
Westwood, MA 02090-9230

*The NSTAR Companies*

*Boston Edison  
ComElectric  
ComGas  
Cambridge Electric*

April 14, 2006

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

**RE: Transmission Facilities Proposed Plan Application NSTAR-06-T01**

Dear Mr. Gates:

Boston Edison Company d/b/a NSTAR Electric hereby submits a Transmission Facilities Proposed Plan Application associated with the Chelsea Station #488 115 kV Upgrade Project, subject to the Continuing Obligations and Terms and Conditions outlined in the NEPOOL Planning Procedure No. 5.

**NSTAR-06-T01**      Construct a six breaker 115 kV ring bus at Chelsea Substation #488 to improve area reliability. The main project components consist of the 115 kV bus work and the installation of six new 115 kV breakers. The project consists of the installation of new relay, control and metering equipment at Chelsea associated with the 115 kV ring and line 128-518 and 488-518 protection groups.

NSTAR Electric believes that the facilities described in the attached application will have no significant adverse effect on the reliability or operability of the interconnected power system. Accordingly, NSTAR requests that this application be approved.

If you have any questions I can be reached by telephone at 781-441-8815, or by e-mail at [john\\_p\\_mclaughlin@nstaronline.com](mailto:john_p_mclaughlin@nstaronline.com)

Sincerely,

John P. McLaughlin, P.E.  
System Planning - NSTAR

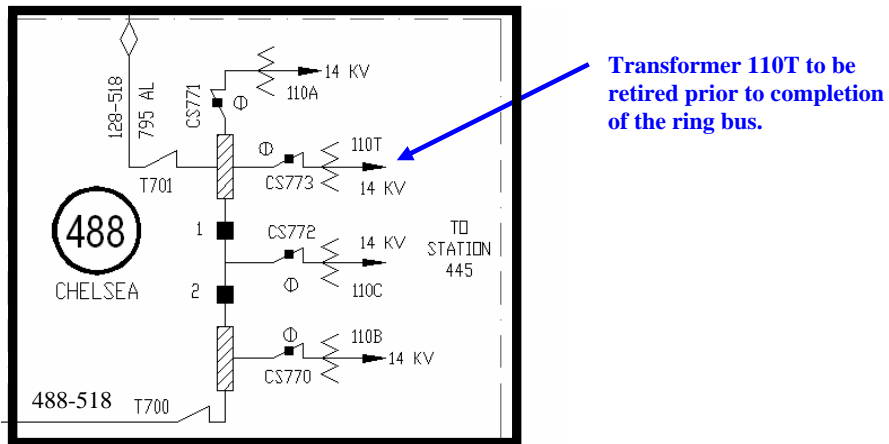
**ATTACHMENTS**

Cc: G. Sullivan – NSTAR  
K. Mankouski – ISO-NE  
J. Helton – ISO-NE

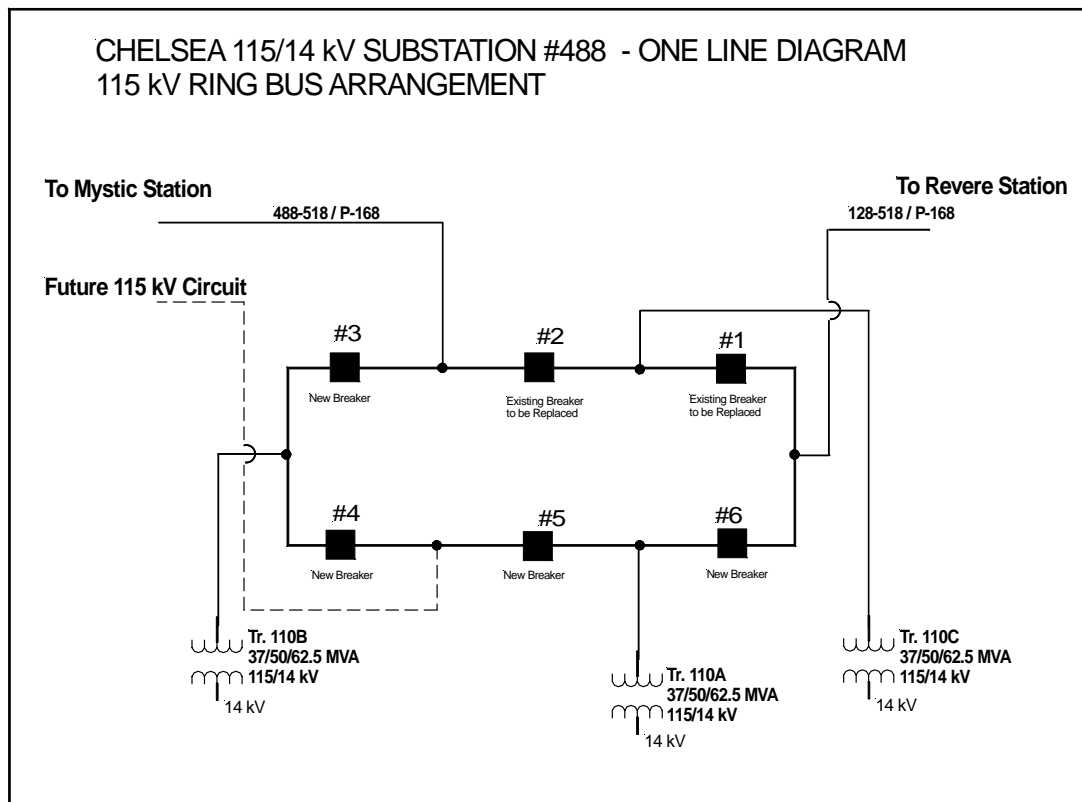
**TRANSMISSION FACILITIES PROPOSED PLAN APPLICATION**

1. Applicant NSTAR Electric Date 5/2/2006.
  
2. Type of Facility Construct a six breaker 115 kV ring bus at Chelsea Substation #488 In-Service Date June 2006  
to improve area reliability. The main project components consist of the 115 kV bus work and the installation of six new 115 kV breakers. The project consists of the installation of new relay, control and metering equipment at Chelsea associated with the 115 kV ring and line 128-518 and 488-518 protection groups. Line 488-518 (Mystic to Chelsea) zone 2 clearing time at Mystic station to be reduced from 29 cycles to 23 cycles.
  
3. Transmission Line and/or Substations
  - a. From Chelsea Substation #488 To \_\_\_\_\_  
 (Terminal - Name - Location) (Terminal - Name - Location)
  
  - b. Third Terminal or tap (if any) \_\_\_\_\_  
 (Name - Location)
  
  - c. Distance - Overhead \_\_\_\_\_ miles. Underground \_\_\_\_\_ miles. Design Voltage 115 kV  
 Conductor Size \_\_\_\_\_ Initial Operation \_\_\_\_\_ kV
  
  - d. Proposed Relaying:  
 Type of line relaying No change to line relaying type  
 Backup relaying No change to line relaying type  
 Stuck breaker Yes  
 Special protective relaying schemes N/A
  
4. Transformer Rating \_\_\_\_\_ MVA HV \_\_\_\_\_ KV LV \_\_\_\_\_ KV Tertiary \_\_\_\_\_ KV  
 Parameters in percent on a 100 MVA Base  
 Resistance \_\_\_\_\_ -R Reactance \_\_\_\_\_ -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. (See attached Figure 1 & 2)  
 Comments
  
6. Reliability Studies
 

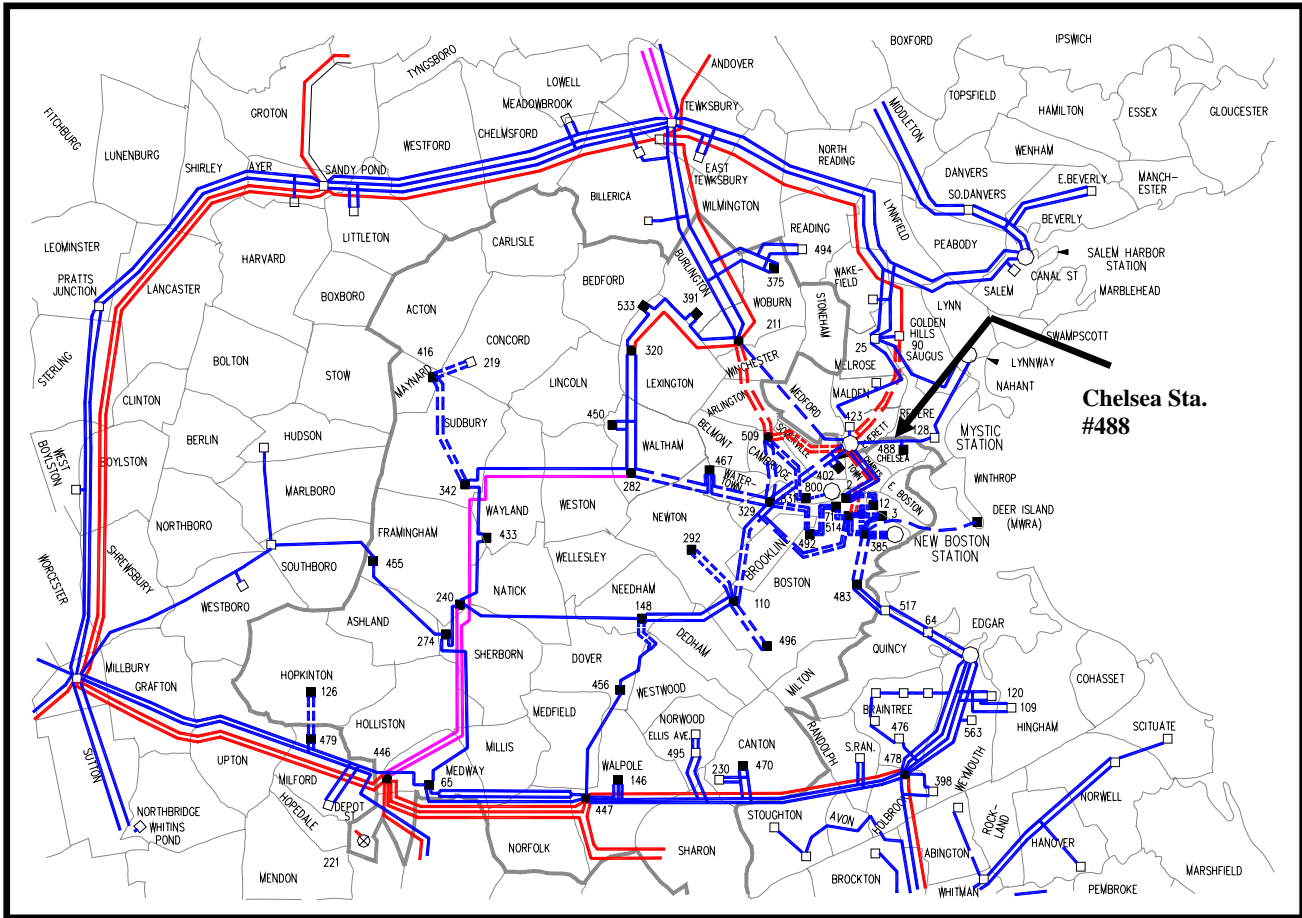
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Stability:	Completed	<input checked="" type="checkbox"/>	Planned	<input type="checkbox"/>	Not Needed	<input type="checkbox"/>	Explanation Attached	<input type="checkbox"/>
Other _____	Completed	<input type="checkbox"/>	Planned	<input type="checkbox"/>	Not Needed	<input type="checkbox"/>	Explanation Attached	<input type="checkbox"/>
  
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
  
- b. Has the Generation Proposed Plan Application(s) been submitted? Yes No  
 If "No", when will the Application(s) be submitted?



**Figure #1 Existing Chelsea Transmission Configuration**



**Figure #2 Chelsea Station #488 Ring Bus Configuration**



**Figure #3**

**Transmission Geographic Diagram**