Chelsea Station #488 115 kV Upgrade Project
Transmission Facilities Proposed Plan Analysis

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EXECUTIVE SUMMARY

Introduction

This report presents the results of the steady state analysis for the System Impact Study performed by NSTAR for the Chelsea Station #488 "115 kV Upgrade Project". The analysis of the project was conducted to support the forthcoming Transmission Facilities Proposed Plan Application.

NSTAR plans to construct a six breaker 115 kV ring bus at Chelsea Station #488 to improve area reliability. The new 115 kV ring bus arrangement will eliminate the loss of two elements for a line or transformer fault and eliminate the loss of two station transformers for a breaker failure contingency. The in-service date of the Chelsea six breaker 115 kV ring bus is May 2006.

See **Appendix A Figure 1** for a One line diagram of the existing Chelsea transmission configuration. See **Appendix A Figure #2** for a One Line diagram of the Chelsea 115 kV Project, six breaker ring bus configuration.

Steady State Testing and Results

Analysis assessed the impact of the Chelsea Station #488 "115 kV Upgrade Project" on the NEPOOL bulk power system. This study examined steady state and contingency performance of the system using year 2006 summer peak and spring light load cases. The study area focused on the 115 kV system local to Chelsea Station #488. Two summer peak, and two spring light load generation dispatches were examined and used to measure the system response to local area contingencies.

Steady State testing done to support the Transmission Facilities Proposed Plan Application for the Chelsea Station #488 "115 kV Upgrade Project" indicates the project has no significant adverse system impact on the reliability or operating characteristics of the NSTAR system or the system of any other Participant. No additional upgrades are required as a result of the analysis.

Transient Stability Analysis

Bulk Power System (BPS) testing stability analysis was performed to examine the BPS classification of Chelsea station #488. Stability testing done to support the Transmission Facilities Proposed Plan Application for the Chelsea Station #488,115 kV Upgrade Project indicates the project has no significant adverse system impact on the reliability or operating characteristics of the NSTAR system or the system of any other Participant. Testing identified Chelsea station as a BPS station for the present system configuration (pre NRI / 2nd New Brunswick tie). The Chelsea Station 115 kV Upgrade Project does not affect the BPS status of Chelsea station. Chelsea station is identified as non-BPS post

NRI project if the zone 2 clearing time on line 488-518 (Mystic to Chelsea) is reduced to 23 cycles. Upgrade of Chelsea station to BPS design is not proposed at this time. NSTAR will reduce the zone 2 clearing time at Mystic station on line 488-518 from 29 cycles to 23 cycles at this time. If construction of the NRI project fails to move forward, Chelsea station will need to be upgraded to meet BPS requirements.

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1.0 Introduction

1.1 Project Description:

NSTAR plans to construct a six breaker 115 kV ring bus at Chelsea Station #488 to improve area reliability. The present two breaker bus design results in the loss of both a 115 kV line and a 115/14 kV transformer for a line or transformer fault. A 115 kV breaker failure will result in the loss of a 115 kV line and two 115/14 kV station transformers. The new 115 kV ring bus arrangement will eliminate the loss of two elements for a line or transformer fault and eliminate the loss of two station transformers for a breaker failure contingency. The in-service date of the Chelsea six breaker 115 kV ring bus is May 2006.

The following lists the main components of the project:

- Construction of the 115 kV bus work and installation of six new 115 kV circuit breakers at Chelsea Station # 488 (3000 A continuous, 63 kA IC, IPT).
  The two existing 115 kV Chelsea breakers will be replaced due to age and condition issues.
  Breaker #1 - 2000 A continuous, 40 kA IC, non-IPT, Year of Manuf.=1981
  Breaker #2 - 2000 A continuous, 43 kA IC, non-IPT, Year of Manuf.=1973
- Upgrade of line 128-518 and line 488-518 protection groups at Chelsea. Installation of new relay, control and metering equipment associated with the 115 kV ring.

Below is a One Line diagram **Figure #1** of the existing Chelsea transmission configuration. Chelsea Station #488 consists of three 37/50/62.5 MVA LTC transformers and two sections of distribution switchgear. The fourth transformer 110T shown in the diagram will be retired prior to the completion of the ring bus. Two 115 kV transmission lines terminate at Chelsea station #488 (488-518 / P-168 Mystic to Chelsea, and 128-518 / O-167 Chelsea to Revere). These lines are jointly owned by both NSTAR and National Grid.

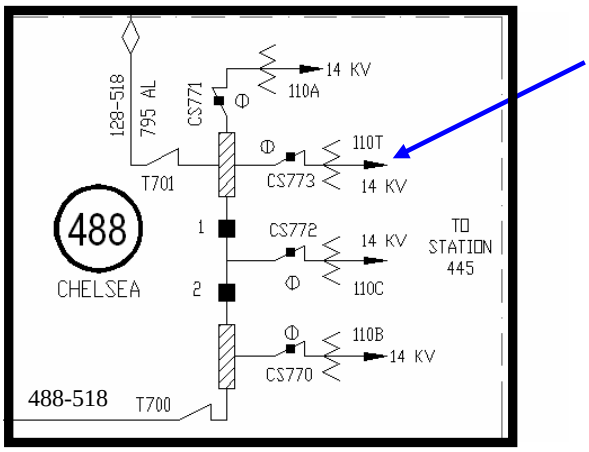

Figure #1

Figure #2 below is a One Line diagram of the Chelsea 115 kV Project, six breaker ring bus configuration. A faulted line or transformer will now result in the loss of one element. A stuck breaker event will result in the loss of a line and one station transformer.

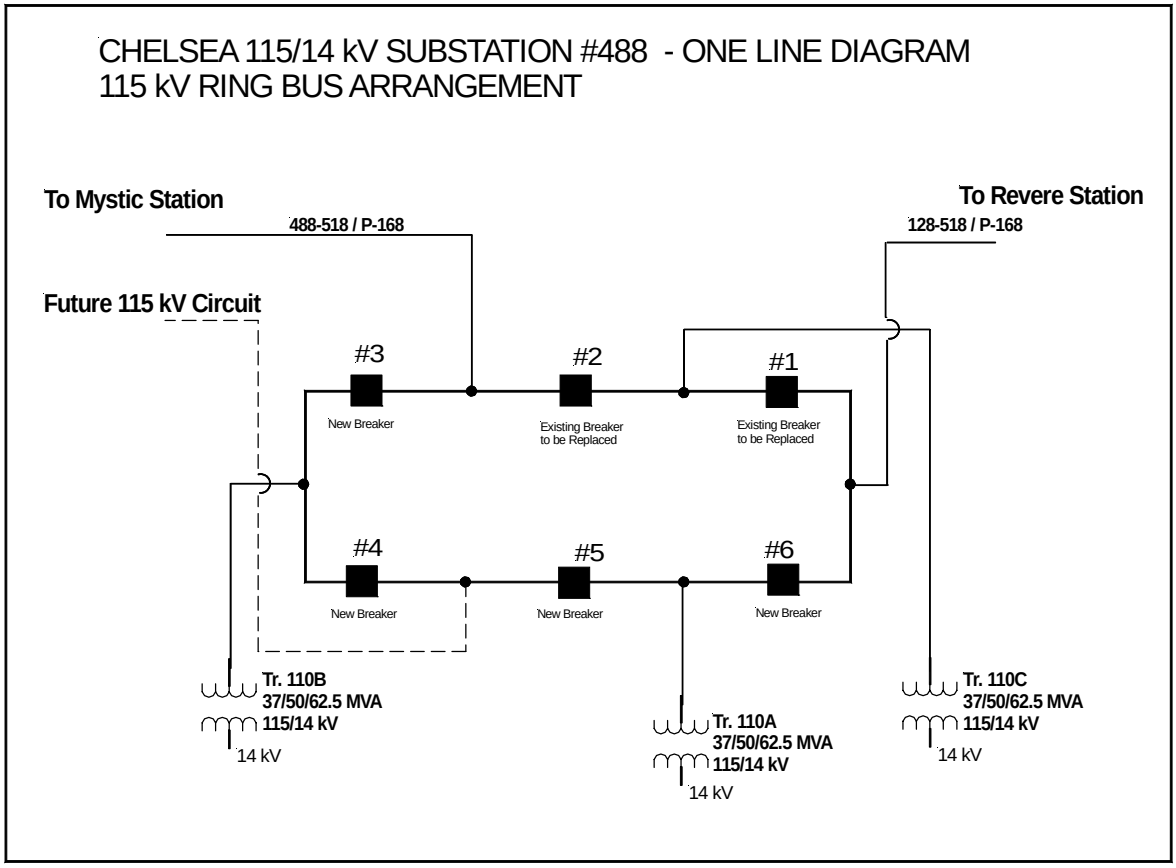

Figure #2

See attached **Appendix A Figure #3 and Figure #4** for a One Line diagram of the local transmission system.

2.0 STEADY STATE ANALYSIS

The study area focuses on the 115 kV circuits local to Chelsea substation. The steady state thermal and voltage analysis will be evaluated using the Power Technologies Incorporated PSS/E software package. Analysis will assess the impact the Chelsea 115 kV Substation Upgrade Project on the NEPOOL bulk power system.

Two North-South bias summer peak extreme weather base cases were developed and used to measure system response to local area contingencies. North-South and South-North system biases have little effect on power flows in the area of this study.
Two spring light load cases were also developed and used to measure system response to local area contingencies.

Elements were monitored post-contingency to find overloads higher than 95% of LTE and voltages below 0.95pu and higher than 1.05pu. Corrective action was recommended to eliminate any significant degradation in system performance.

The following table identifies the thermal criteria that was applied in the study.

SYSTEM CONDITION	TIME FRAME	MAXIMUM ALLOWABLE FACILITY LOADING
Pre-contingency (All lines in)	Continuous	Normal Rating
Post-contingency	Less than 15 minutes after contingency occurs	Short Term Emergency (STE) Rating*
	More than 15 minutes after contingency occurs	Long Term Emergency (LTE) Rating

** Post-contingency loadings above LTE but below STE are considered acceptable as long as prompt manual action (local phase shifter adjustment, manual generation runback) or immediate automatic action (special protection system (SPS) operation, automatic generation runback) could reduce all facility loadings below LTE within 15 minutes.*

2.1 Base Case Descriptions

The year 2006 peak load, extreme weather, base cases were developed from the 2006 peak load case from the 2005 NPCC Library. The peak load represented in the cases is the year 2006 NEPOOL Extreme Weather forecasted load (summer, 10% probability of being exceeded). The extreme weather summer load for the year 2006 case is 28,660 MW (2005 CELT Report).

The year 2006 light load base cases were developed from the 2006 light load case from the 2005 NPCC Library. The light load represented in the cases is 45% of the year 2006 NEPOOL Reference forecast at Expected Weather (summer, 50% probability of being exceeded). The 45% load for the year 2006 case is 12,178 MW (based on 2005 CELT Report).

	Interfaces (MW)					
Base Case	Boston Import	N-S	SEMA/RI	E-W	Phase II	NY-NE
06peak_A	3046	2723	786	477	1500	487
06peak_B	3636	2932	1245	565	1500	408
06light_C	655	1727	2006	2140	0	-315
06light_D	1362	1744	2291	1737	0	-387

Peak and light load base cases were dispatched to stress study area power flows. The Mystic block 9 generation contributes significantly to line flows in the transmission corridor between Mystic and Golden Hills. Dispatches for peak and light load examined the Mystic block 9 generation on and off line. Local study area power flows are not impacted significantly by North to South, and South to North generation biases.

Case A - Peak
Area Generation On: Mystic 9, Mysic 7, Mystic 8, Salem 1,2,3,4
Area Generation Off: New Boston

Case B - Peak
Area Generation On: Mystic 7, Mystic 8, Salem 1,2,3,4
Area Generation Off: New Boston, Mystic 9

Case C - Light
Area Generation On: Mystic 9, Mystic 7, Salem 4
Area Generation Off: Mystic8, New Boston, Salem 1,2,3

Case D - Light
Area Generation On: Mystic 7, Salem 4
Area Generation Off: Mystic 9, Mystic 8, New Boston, Salem 1,2,3

The base cases were developed to analyze steady state and contingency performance of the system for both thermal and voltage impacts. All lines in analysis was performed for each base case. A case summary is attached for each case in **Appendix A**.

G.E. Lynn and RESCO Generation

The General Electric Lynn facility consists of 48 MW that can connect to line Q-169 or lineA-179. GE Lynn generation is typically on-line serving GE load and can inject approximately 20 MW into the transmission system.

The RESCO trash burning facility is also typically on-line and consists of a 33 MW generator connecting to line Q-169.

The Chelsea 115 kV ring bus analysis assumes RESCO and GE Lynn generation off-line.

Boston Phase Shifter Settings

Baker Street substation and Waltham substation each contain phase angle regulating transformers, or phase shifters. These phase shifters were attempted to be set to a optimal position in the base case. The table below lists the setting for each phase shifter in the study base case. Each setting number multiplied by 2.6 degrees represents the differential in the power angle across the transformer created for the particular setting.

Base Case	Baker Tap Setting (2 Phase Shifters)	Waltham Tap Setting (3 Phase Shifters)
06peak_A	-3	4
06peak_B	-3	4
06light_C	0	0
06light_D	0	0

Year 2006 Chelsea Extreme Weather Load:

Chelsea Station #488 102 MVA @ 0.98pf
(100 MW, 20.3 MVAR)

Local Area 115 kV Circuit Information

488-518 / P-168 Mystic to Chelsea #488

0.48 miles UG, two 2250 CU PTC in parallel
2.44 miles OH, 795 ACSS
Ratings after Year 2005 UG and OH Upgrade:

Summer OH section:	288 MVA Normal	374 MVA LTE	374 MVA STE
Summer UG section:	294 MVA Normal	482 MVA LTE	748 MVA STE
Winter OH section:	329 MVA Normal	404 MVA LTE	404 MVA STE
Winter UG section:	366 MVA Normal	500 MVA LTE	752 MVA STE

Limiting Element: OH portion for the summer ratings
Revised Line Impedance after Year 2005 UG and OH Upgrade:
OH Impedance: R = 0.002237 X = 0.013149 Charging = 0.001805
UG Impedance: R = 0.000091 X = 0.000417 Charging = 0.039852
Total Mystic to Chelsea: R = 0.002328 X = 0.013566 Charging = 0.041657

128-518 / O-167 Chelsea #488 to Revere

795 AL
1.03 miles

Summer:	163 MVA Normal	210 MVA LTE	221 MVA STE
Winter:	236 MVA Normal	267 MVA LTE	276 MVA STE

Limiting Element: Line Conductor

A-179 Revere to Lynn

795 ACSR
4.9 miles
Revere to Riverworks Summer: 269 MVA Normal 269 MVA LTE 305 MVA STE
Riverworks to Lynn Summer: 254 MVA Normal 254 MVA LTE 306 MVA STE

Q-169 Lynn to Golden Hills

795 ACSS (National Grid line upgrade to be complete by June 2006)
6.9 miles
Summer: 370 MVA Normal 370 MVA LTE 389 MVA STE

Mystic 115 kV Circuit Breaker #7

Mystic station 115 kV breaker #7 is normally open. All study analysis reflects the normal status.

2.2 Transmission System Representation \ Base Case Assumptions

- Relevant Queued Resources
  No relevant queued resources that will be affected by this project.

The following transmission system upgrades were modeled in the cases:

1) Southwest Connecticut Reliability Project, Plumtree to Norwalk 345 kV
2) Middletown, CT Area Reliability Upgrades
3) 2nd Scobie Autotransformer
4) Northwest Vermont Reliability Project
5) Central MA Transmission Upgrades
6) 2nd Canal to Bourne Autotransformer and Line
7) Stage 1 of the NSTAR 345 kV Transmission Reliability Project (Summer 2006 Cases, one 345 kV cable Stoughton to Hyde Park, one 345 kV cable Stoughton to K Street)
8) North Shore Upgrades: Ward Hill Addition of three Autotransformers, W. Amesbury 394 tap/King St. Area Upgrades

The following generation uprates were modeled:
1) Pilgrim Uprate
2) Seabrook Phase 1 Uprate
3) Millstone 2 Uprate

The following generating units were considered retired from service:
1) Mystic 4
2) Mystic 5
3) Mystic 6
4) New Boston 2

2.3 Contingency Simulations

The following simulations were analyzed using the two peak load cases and two light load cases.

Normal Conditions:

All Lines In

Emergency Conditions:

Design Contingencies

345 kV Single Line Contingencies

- 372 line, Mystic to Kingston
- 324 line, Mystic to Kingston
- 351 line, North Cambridge to Mystic
- 358 line, North Cambridge to Mystic
- 349X+Y line, Mystic to Golden Hills
- 339 line, Golden Hills to Tewksbury

345 kV Transformer Contingencies

- Mystic 345A
- Woburn 345A
- Golden Hills T2

115 kV Single Line Contingencies

- 128-518, Chelsea to Revere
- 488-518, Chelsea to Mystic
- Q-169, Golden Hills to Lynn (Includes loss of RESCO generation)
- 211-514, Mystic to Woburn
- 423-515, Mystic to Everett
- F-158N, Golden Hills to Maplewood
- F-158S, Maplewood to Everett
- 329-510, Mystic to Somerville
- 250-516, Mystic to Hawkins to Chatham to K Street

N-2 Contingencies

None

2.4 Sensitivity Testing

Area transmission projects are not impacted by the Chelsea Station #488 “115 kV Upgrade Project”. No projects have been identified for sensitivity testing.

2.5 Voltage Analysis

Voltages were monitored on all 345 kV and 115 kV local area buses as part of the steady state analysis to examine the impact of the Chelsea Station #488 upgrade on area voltages. The following table identifies the steady state voltage criteria applied in this study.

Voltage Level	POST - CONTINGENCY BUS VOLTAGE LIMITS		
	High Limit (pu)	Low Limit (pu)	Maximum Variation (%)
345kV & 230kV	1.05	0.95	5.0
115kV & Below	1.05	0.95	5.0

Corrective action was recommended to eliminate any significant degradation in system performance.

3.0 STEADY STATE RESULTS

3.1 Thermal Analysis Results

All Lines In Analysis

Year 2006 peak and light load cases with all lines in have been monitored to identify transmission element loadings higher than 95% of the Normal rating.

Case A

Peak load Case A dispatch does not identify element loadings greater than 95% of the Normal rating under all lines in conditions.

Case B

Golden Hills to Maplewood line F-158N reaches 96 % of the Normal rating for this dispatch. Peak load Case B dispatch does not identify additional element loadings greater than 95% of the Normal rating under all lines in conditions.

Case C

Light load Case C dispatch does not identify element loadings greater than 95% of the Normal rating under all lines in conditions.

Case D

Light load Case D dispatch does not identify element loadings greater than 95% of the Normal rating under all lines in conditions.

Contingency Analysis

Local area elements have been monitored post-contingency to identify loadings higher than 95% of LTE. Results of the contingency testing indicate the project has no significant effect on the reliability or operating characteristics of the NSTAR system or the system of any other Participant. Specific results of the most significant contingencies are discussed below.

Case A

Contingency F-158N (Golden Hills to Maplewood)

Mystic to Everett line 423-515 reaches 110.1% of the LTE rating for loss of line F-158N. Loss of F-158N results in all load at Everett and Maplewood being supplied radial by line 423-515. Loading above LTE of line 423-515 has been identified previously and is under review by NSTAR and National Grid. The Chelsea Station #488, 115 kV Upgrade Project has no incremental impact on the loading of this circuit.

Case A Contingency Loading Results Table:

Contingency	Element above LTE rating		Pre-Cont. (MVA)	Post-Cont. (MVA)	Circuit Rating (MVA)	% LTE
	From Bus	To Bus				
F-158N	Mystic	Everett	74.4	216.5	191	110.1

Post contingency transmission element loading without the Chelsea Station #488 Upgrade Project is identical to post contingency loading with the project in service.

Case B

Contingency 324 or 372 (Mystic to Kingston)

For the case B dispatch with Mystic 9 generation off-line, loss of 345 kV circuit 372 or 324 between Mystic and Kingston results in loading of 105.3% LTE of the remaining parallel circuit. Post contingency adjustments of the NSTAR phase shifters will reduce loading below the LTE rating. The Chelsea Station #488, 115 kV Upgrade Project has no incremental impact on the loading of these circuits.

Contingency 211-514 (Woburn to Mystic) or Woburn 345A

The following contingencies result in loading above the LTE rating of the 115 kV, F-158N line between Golden Hills and Maplewood.

- Woburn 345A
- 211-514

Loading above LTE of line F-158N has been identified previously and is under review by National Grid. The Chelsea Station #488, 115 kV Upgrade Project has no incremental impact on the loading of this circuit.

Contingency F-158N (Golden Hills to Maplewood)

Contingency F-158N results in loading to 108.3% LTE of the Mystic to Woburn 211-514 line and 113.1% LTE of Everett to Mystic 423-515 line.
Loss of F-158N results in all load at Everett and Maplewood being supplied radial by line 423-515. Loading above LTE of line 423-515 has been identified previously and is under review by NSTAR and National Grid.

Analysis with Mystic 9 generation off-line was performed with the normally open Mystic 115 kV tie breaker #7 open. Closing Mystic 115 kV breaker #7 post contingency reduced contingency loading of 211-514 below LTE. Line 423-515 radial loading remained the same. No thermal loadings above LTE were introduced by closing Mystic breaker #7.
The Chelsea Station #488, 115 kV Upgrade Project has no incremental impact on the loading of these circuits.

Contingency Q-169 (Golden Hills to Lynn)

Contingency Q-169 results in loading to 136.7% LTE of the Golden Hills to Maplewood F-158N line and 109.3% LTE of the Maplewood to Everett F-158S line. Loading above LTE of line F-158 has been identified previously and is under review by National Grid.

Analysis with Mystic 9 generation off-line was performed with the normally open Mystic 115 kV tie breaker #7 open. Closing the Mystic #7 breaker post contingency does not reduce the loading of the F-158N and F-158S below LTE (F-158N @ 129% LTE, F-158S @ 102% LTE). Previous contingency analysis has identified line F-158N loading above LTE with Mystic 9 off-line and breaker #7 closed. The Chelsea Station #488, 115 kV Upgrade Project has no incremental impact on the loading of this circuit.

Case B Contingency Loading Results Table:

Contingency	Element above LTE rating		Pre-Cont.	Post-Cont.	Circuit Rating	% LTE
	From Bus	To Bus	(MVA)	(MVA)	(MVA)	
372 or 324	Mystic 345	Kingston 345	468.3	923.3	844	105.3
339	G192 Tap	Hudson	168.4	174.6	180	97.4
349X&Y	G192 Tap	Hudson	168.4	171.6	180	95.9
Mystic 345A	Golden Hills	Maplewood	259.8	264.4	268	97.8
Woburn 345A	Golden Hills	Maplewood	259.8	316.7	268	118.5
	G192 Tap	Hudson	168.4	176.3	180	98.6
Golden Hills T2	G192 Tap	Hudson	168.4	171.3	180	95.5
128-518	Golden Hills	Maplewood	259.8	266.4	268	98.5
211-514	Golden Hills	Maplewood	259.8	293.2	268	109.2
F-158N	Woburn	Mystic	57.1	202.3	191	108.3
	Mystic	Everett	40.3	210.3	191	113.1
Q-169	Everett	Maplewood	204.4	309.7	286	109.3
	Golden Hills	Maplewood	259.8	367.2	268	136.7

Post contingency transmission element loading without the Chelsea Station #488 Upgrade Project is identical to post contingency loading with the project in service.

Case C

Light load Case C dispatch does not identify element loadings greater than 95% of the LTE rating under contingency conditions.

Case D

Light load Case D dispatch does not identify element loadings greater than 95% of the LTE rating under contingency conditions.

3.2 Voltage Analysis Results

Voltages were monitored on all local area buses as part of the steady state analysis. The Chelsea substation project was not found to cause any detrimental impact on voltages either pre or post contingency.

Case A

Contingency 488-518 results in a voltage drop of greater than 5% for the Chelsea and Revere 115 kV buses.

Chelsea #488	V-Init = 1.0248 pu, V-Cont = 0.9543 pu
Revere	V-Init = 1.0235 pu, V-Cont = 0.9580 pu

Case B

Contingency 488-518 results in a voltage drop of greater than 5% for the Chelsea 115 kV bus.

Chelsea #488 V-Init = 0.9950 pu, V-Cont = 0.9432 pu

The Chelsea and Revere bus voltages fall below 0.95p.u. (Chelsea 0.9432 pu, Revere 0.9469pu).

Analysis of light load **Cases C** and **D** did not identify voltage violations.

The Chelsea Station #488 "115 kV Upgrade Project" does not impact area voltages pre or post contingency. A future third 115 kV circuit into Chelsea station is one system upgrade that would eliminate the identified peak load voltage violations. As part of the long term plan for year 2006, NSTAR will be installing two 9.6 MVAR, 15 kV capacitor banks at Chelsea #488 to improve the station power factor.

4.0 Short Circuit Analysis

Since the Chelsea Station #488 "115 kV Upgrade Project" does not contribute to increased transmission short circuit levels, short circuit analysis was not performed for this area of the transmission system. The 115 kV available fault current at Chelsea substation for year 2006 is approximately 20 kA. The Chelsea 115 kV breakers will have an interrupting capability of 63 kA. The 63 kA interrupting capability is adequate for operating conditions where the normally open Mystic 115 kV breaker #7 is closed, and the future Chelsea station #488 configuration consisting of a third 115 kV circuit.

5.0 Transient Stability Analysis

The Chelsea Station #488, 115 kV Upgrade Project does not impact the NEPOOL bulk power system or local area stability performance. The two Chelsea 115 kV circuits (128-518 and 488-518) presently consist of two step distance protection groups. No changes are being made to the existing protection groups other than an upgrade to microprocessor based relays.

Chelsea station #488 presently has breaker failure relaying on the two existing 115 kV breakers. The breaker failure clearing time for the new 115 kV ring bus will be the same as the existing arrangement. The new Chelsea 115 kV circuit breakers will be Independent Pole Tripping (IPT) breakers. Chelsea Station #488 is presently not classified or designed as a Bulk Power System (BPS) station.

The Chelsea ring bus arrangement does not introduce any new contingencies to examine. Previously, a breaker failure contingency would result in the loss of a 115 kV circuit and two 115/14 kV transformers. In the ring arrangement, a breaker failure contingency will result in the loss of a 115 kV circuit and up to one 115/14 kV transformer.

BPS testing stability analysis was performed to examine the current BPS classification of Chelsea station #488. The following summarizes the results of this analysis.

BPS Analysis with Mystic 9 In Service and Mystic #7 tie breaker open, 400 MW Boston Export

Stability testing identifies Chelsea station as a non-BPS station pre and post NRI / 2nd New Brunswick tie project.

BPS Analysis with Mystic 9 Out of Service and Mystic #7 tie breaker closed

The stability analysis identifies Chelsea station as BPS in the present system configuration (pre NRI / 2nd New Brunswick tie). Reducing the zone 2 clearing time at Mystic to 23 cycles does not alter this conclusion. The Chelsea Station 115 kV Upgrade Project does not affect the BPS status of Chelsea station.

Chelsea station is identified as BPS post NRI if the zone 2 clearing time at Mystic remains at 29 cycles. If the clearing time at Mystic is reduced to 23 cycles, Chelsea station is identified as non-BPS post NRI.

The Chelsea Station 115 kV Upgrade Project does not affect the BPS status of Chelsea station. The Chelsea 115 kV Upgrade Project has no significant effect on the stability, reliability, or operating characteristics of the NSTAR system or the system of any other Participant. Based on the results of this analysis, NSTAR will reduce the zone 2 clearing time at Mystic station on line 488-518 from 29 cycles to 23 cycles.

6.0 Conclusions

Steady State testing done to support the Transmission Facilities Proposed Plan Application for the Chelsea Station #488,115 kV Upgrade Project indicates the project has no significant adverse system impact on the reliability or operating characteristics of the NSTAR system or the system of any other Participant. No additional upgrades are required as a result of the analysis.

Stability testing done to support the Transmission Facilities Proposed Plan Application for the Chelsea Station #488,115 kV Upgrade Project indicates the project has no significant adverse system impact on the reliability or operating characteristics of the NSTAR system or the system of any other Participant. Testing identified Chelsea station as a BPS station for the present system configuration (pre NRI / 2nd New Brunswick tie). The Chelsea Station 115 kV Upgrade Project does not affect the BPS status of Chelsea station. Chelsea station is identified as non-BPS post NRI project if the zone 2 clearing time on line 488-518 (Mystic to Chelsea) is reduced to 23 cycles. Upgrade of Chelsea station to BPS design is not proposed at this time. NSTAR will reduce the zone 2 clearing time at Mystic station on line 488-518 from 29 cycles to 23 cycles at this time. If construction of the NRI project fails to move forward, Chelsea station will need to be upgraded to meet BPS requirements.