Northeast
Utilities System

The Middletown, Connecticut Reliability Project

Steady-State Load Flow
Thermal, Voltage, and Short-Circuit Analyses

Final Report

Dennis J. Carberry, P.E.
Northeast Utilities
Transmission Planning

The Middletown, Connecticut Reliability Project

NEPOOL Section 18.4
Steady-State Load Flow Analysis

Prepared for the ISO-NE
Transmission Task Force

Prepared By:
Dennis Carberry, P.E.
Northeast Utilities
Transmission Planning

May 27, 2003

Table of Contents

Executive Summary

This report presents steady-state analyses results for a reliability study done on the area in and around Middletown, Connecticut. The Middletown area was evaluated to determine its capability to serve peak load should the local 115-kV generation at Middletown not be available. The Middletown area consists of sections east and west of the Connecticut River. The easterly section runs along the Connecticut River in a band that is 5 to 10 miles wide from Glastonbury to Old Lyme. The westerly sections consist of a triangular area that runs from Middletown to Old Saybrook to Guilford and then back to Middletown, which includes the eastern part of Meriden. The area is supplied by the four 115-kV transmission lines, these lines are as follows: 1) Line 1355 Southington to Hanover to Colony, 2) Line 1765 Berlin to West Side, 3) Line 1767 Manchester to Hopewell, and 4) Line 1508 Branford to Green Hill.

The area is also supplied by three local generators, Middletown Unit 2 (117 MW), Middletown Unit 3 (230 MW) and a Middletown Jet (17 MW), connected to the 115-kV system at Middletown. The Middletown Unit 4 (400 MW) is connected to the 345-kV system; therefore, its output does not affect the immediate area.

Thermal and voltage analyses results show that the Middletown area transmission network performance is poor. Numerous 115-kV transmission line thermal overloads were reported for line out conditions. In addition, the area's voltage profile was well below acceptance criteria, leaving the area susceptible to a potential voltage collapse.

To transform the Middletown area transmission network to a more robust system, the following voltage transformation, line upgrade, circuit breaker, and capacitor bank additions are required:

1. Reconfigure the existing 115-kV Haddam 11C Substation by building a breaker and one-half scheme that includes replacing the three existing 115-kV circuit breakers and adding nine new 115-kV circuit breakers and one 345-kV circuit breaker. The Haddam Substation 11C one-line drawing appears Appendix A, Figure A.5. This alternative design is required because the proposed design appearing in Appendix A, Figure A.4 caused transient instability for a 348W line out condition coupled with a Millstone 371+383 DCT contingency.
2. Tap the existing 345-kV 348 line, Millstone to Southington, and terminate the line tap to the Haddam 11C Substation.
3. Add a new 345/115-kV autotransformer at the Haddam 11C Substation with a 450/560/595 MVA summer thermal rating and an approximate 0.00053 + j0.029 per unit impedance on a 100 MVA base.
4. Split the existing 115-kV 1620 line, Middletown to Bokum, and terminate the ends to the Haddam 11C substation, thereby creating a new 1620N line, Middletown to Haddam, and a new 1620S line, Haddam to Bokum.
5. Add a new 115-kV, 37.8 Mvar shunt capacitor bank at the Haddam 11C Substation.
6. Upgrade the 115-kV 1767 line, Manchester to Hopewell, to a minimum 288 MVA summer LTE rating.
7. Add a new 115-kV, 37.8 Mvar shunt capacitor bank at the Branford 11J Substation connected to the 1508 line side of the terminal.

The proposed in service date for the Reliability Project is June 2005.

1.0 Introduction

This report presents steady-state analyses results for a reliability study done on the area in and around Middletown, Connecticut. The Middletown area was evaluated to determine its capability to serve peak load should the local 115-kV generation at Middletown not be available. The proposed in service date for the Reliability Project is June 2005, at which time the area's projected load level is to be approximately 460 MW.

The Middletown area consists of sections east and west of the Connecticut River. The easterly section runs along the Connecticut River in a band that is 5 to 10 miles wide from Glastonbury to Old Lyme. The westerly sections consist of a triangular area that runs from Middletown to Old Saybrook to Guilford and then back to Middletown, which includes the eastern part of Meriden. A diagram showing the area appears in Appendix A, Figure A.1.

The area is supplied by the four 115 kV transmission lines, these lines are as follows:

1. Line 1355 Southington to Hanover to Colony
2. Line 1765 Berlin to West Side
3. Line 1767 Manchester to Hopewell
4. Line 1508 Branford to Green Hill

The area is supplied by three local generators, Middletown Unit 2 (117 MW), Middletown Unit 3 (230 MW) and a Middletown Jet (17 MW), connected to the 115-kV system at Middletown. The Middletown Unit 4 (400 MW) is connected to the 345-kV system; therefore, its output does not affect the immediate area. A one-line diagram showing the existing area transmission network appears in Appendix B, Figure B.1. A one-line diagram showing the existing and proposed Haddam 11C substation appears in Appendix B, Figure B.2.

2.0 Conclusion

The Middletown, Connecticut area's transmission network thermal capacity is limited and voltage performance is poor when the local 115-kV generation is out of service. Numerous 115-kV transmission line thermal overloads were reported for line out conditions. In addition, the area's voltage profile was well below acceptance criteria, leaving the area susceptible to a potential voltage collapse.

To transform the Middletown area's transmission network to a more robust system, a 345/115-kV voltage transformation, transmission line upgrades, and capacitor bank additions are required. A Haddam autotransformer addition would provide an additional path for power, alleviating the loadings on the area's interfacing lines, and provide voltage regulation.

The proposed design to sectionalize the 345-kV 348-line resulted in transient instability for a 348W line-out condition coupled with a Millstone 371+383 DCT contingency. Therefore, the alternative design is to tap the 348-line, thereby eliminating the 348W contingency.

The proposed upgrades would not cause a significant adverse impact on the reliability or operating characteristics of the NEPOOL system.

3.0 Required Upgrades

1. Reconfigure the existing 115-kV Haddam 11C Substation by building a breaker and one-half scheme that includes replacing the three existing 115-kV circuit breakers and adding nine new 115-kV circuit breakers and one 345-kV circuit breaker.
2. Tap the existing 345-kV 348 line, Millstone to Southington, and terminate the line tap to the Haddam 11C Substation.
3. Add a new 345/115-kV autotransformer at the Haddam 11C Substation with a 450/560/595 MVA summer thermal rating and an approximate 0.00053 + j0.02937 per unit impedance on a 100 MVA base.
4. Split the existing 115-kV 1620 line, Middletown to Bokum, and terminate the ends to the Haddam 11C substation, thereby creating a new 1620N line, Middletown to Haddam, and a new 1620S line, Haddam to Bokum.
5. Add a new 115-kV, 37.8 Mvar shunt capacitor bank at the Haddam 11C Substation.
6. Upgrade the 115-kV 1767 line, Manchester to Hopewell, to a minimum 288 MVA summer LTE rating.
7. Add a new 115-kV, 37.8 Mvar shunt capacitor bank at the Branford 11J Substation connected to the 1508 line side of the terminal

4.0 Methodology

This study used a peak load system representation that was developed from a FERC 2001 library case representative of the 2006 summer peak system. The peak load flow case was modified to match, approximately, a 2005 summer peak system load level of 25,443 MW, as published in the 2002 NEPOOL Capacity, Energy, Loads, and Transmission (CELT) report.

Two peak load flow cases were developed from the FERC 715 case. One peak load case was developed with an approximate Connecticut import of 1900 MW, and a southwestern Connecticut import of 2000 MW. A second peak load case was developed with an approximate Connecticut export of 450 MW, and a southwestern Connecticut import of 300 MW. From the Connecticut import case, three cases, Pk1, Pk3, and Pk5, were developed with New York to New England (NY-NE) transfers of 0 MW, -700 MW, and 700 MW, respectively. From the Connecticut export case, three cases, Pk2, Pk4, and Pk6 were developed with NY-NE transfers of 0 MW, -700 MW, and 700 MW. From these six peak load flow base cases, six additional cases were developed to include the Haddam Project. The initial Haddam Project load flow cases include the following:

1. The splitting of the existing 345-kV 348 line, Millstone to Southington, and terminating the ends to the Haddam 11C substation, thereby creating a new 348E line, Millstone to Haddam, and a new 348W line, Haddam to Southington.
2. The addition of a 345/115-kV autotransformer at the Haddam 11C substation with a 450/560/595 MVA summer thermal rating and a 0.00053 + j0.02937 per unit impedance on a 100 MVA base.
3. The splitting of the existing 115-kV 1620 line, Middletown to Bokum, and terminating the ends to the Haddam 11C substation, thereby creating a new 1620N line, Middletown to Haddam, and a new 1620S line, Haddam to Bokum.
4. The addition of a new 115-kV, 37.8 Mvar shunt capacitor bank at the Haddam 11C substation.

The Middletown area's 2005 projected load level load is approximately 460 MW, with a load power factor of 0.99 lagging.

Load flow cases were analyzed using the Power Technologies Incorporated® (PTI) PSS/E software package version 26.2. The PSS/E network contingency calculation activity ACCC was used to analyze cases. The ACCC activity calculates full ac power flow solutions for a specified set of contingency cases. Pre-contingency case solutions were derived with transformer taps and phase shifter adjustments. Post contingency case solutions were derived with transformer tap adjustments. The ACCC's system monitor file was programmed to report voltage outside of the acceptance criteria, and to report transmission line loading greater than 95 percent.

To determine the impact local generation would have on any proposed upgrades in the cases, load flow cases were initially anlayzed with the 115-kV Middletown generation off, and then cases were analyzed with the generation on.

A switching analysis was performed for switching on the proposed 115-kV shunt capacitor bank at the Haddam 11C substation.

5.0 Planning Criteria

Load flow results were analyzed using the voltage and thermal criteria in the Reliability Standards for the New England Power Pool dated July 9, 1999 and in the Transmission Reliability Standards for Northeast Utilities dated May 2000. The voltage criteria are listed in Table 1. The thermal criteria are listed in Table 2.

Table 1 – Voltage Criteria

VOLTAGE LEVEL	BUS VOLTAGE LIMITS		
	Normal Conditions	Emergency Conditions	Voltage Variations From Initial Pre-Contingency Values Are Not to Exceed
230 kV & Above	± 5% of Nominal	± 5% of Nominal	10%
Millstone	+ 5% of Nominal	+ 5%, – 0% of Nominal	*10%
Below 230 kV	± 5% of Nominal	+ 5%, – 10% of Nominal	10%

*Note that the permissible transmission system voltage variations at nuclear generating plants might be restricted to less than 10%, and might have fixed minimum and maximum voltage limits.

Table 2 – Thermal Criteria

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	STE Rating*
	More than 15 minutes after contingency occurs	LTE Rating

* Post-contingency loadings above LTE but below STE were 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.

The maximum voltage fluctuation should not exceed 2.5 percent when switching on a capacitor bank with all transmission lines in service.

6.0 Contingencies

The load flow contingency file includes 115- and 345-kV single, double-circuit-tower (DCT), and breaker failure contingencies. The contingency list appears in Appendix C, Table C.1 and Table C.2. Although the 348-387 DCT contingency, #77, #78, #78A, Milstone to Southington and Scovill Rock to East Shore, is listed and was simulated, its results were not tabulated in this report due to the fact that Northeast Utilities has an approved NEPOOL Section 18.4 application to eliminate this DCT.

7.0 Discussion of Results

7.1 Pre-Project All Lines In-Service Load Flow

A review of the base cases, with all lines in service, showed that the 115-kV 1767 line, Manchester to Hopewell, exceeds its Normal thermal rating by 5%, 10%, and 1% in the Pk1, Pk3, and Pk5 cases, respectively. These load flow cases are the Connecticut import cases with NY-NE transfers of 0 MW, -700 MW, and 700 MW, respectively. The line loadings are summarized for each of the load flow cases.

PK1.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 0, CT-IMP 1890, SWCT-IMP 2000

BRANCH LOADINGS ABOVE 100.0 % OF RATING SET A:

X-------FROM BUS-------X				X--------TO BUS--------X				CURRENT (MVA)		
BUS	NAME	BSKV	AREA	BUS	NAME	BSKV	AREA	CKT	LOADING	RATING	PERCENT
73242	MANCHSTR	115	701	73259*	HOPEWELL	115	701	1	187.2	178.0	105.2

PK3.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE -700, CT-IMP 1900, SWCT-IMP 2000

BRANCH LOADINGS ABOVE 100.0 % OF RATING SET A:

X-------FROM BUS-------X				X--------TO BUS--------X				CURRENT (MVA)		
BUS	NAME	BSKV	AREA	BUS	NAME	BSKV	AREA	CKT	LOADING	RATING	PERCENT
73242	MANCHSTR	115	701	73259*	HOPEWELL	115	701	1	196.1	178.0	110.2

PK5.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 700, CT IMP 1880, SWCT IMP 2000

BRANCH LOADINGS ABOVE 100.0 % OF RATING SET A:

X-------FROM BUS-------X				X--------TO BUS--------X				CURRENT (MVA)		
BUS	NAME	BSKV	AREA	BUS	NAME	BSKV	AREA	CKT	LOADING	RATING	PERCENT
73242	MANCHSTR	115	701	73259*	HOPEWELL	115	701	1	179.7	178.0	101.0

In addition, the review showed the 115-kV 1355 line, Lucchini Junction to Southington, exceeding its Normal thermal rating by 6%, 4%, and 8% in the Pk2, Pk4, and Pk6 cases, respectively. These load flow cases are the Connecticut export cases with NY-NE transfers of 0 MW, -700 MW, and 700 MW, respectively.

PK2.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 0, CT-EXP 445, SWCT-IMP 295

BRANCH LOADINGS ABOVE 100.0 % OF RATING SET A:

X-------FROM BUS-------X				X--------TO BUS--------X				CURRENT (MVA)		
BUS	NAME	BSKV	AREA	BUS	NAME	BSKV	AREA	CKT	LOADING	RATING	PERCENT
73184*	LUCHJB55	115	701	73198	SOUTHGTN	115	701	1	188.8	178.0	106.1

PK4.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE -700, CT-EXP 440, SWCT-IMP 300

BRANCH LOADINGS ABOVE 100.0 % OF RATING SET A:

X-------FROM BUS-------X				X--------TO BUS--------X				CURRENT (MVA)		
BUS	NAME	BSKV	AREA	BUS	NAME	BSKV	AREA	CKT	LOADING	RATING	PERCENT
73184*	LUCHJB55	115	701	73198	SOUTHGTN	115	701	1	184.8	178.0	103.8

PK6.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 700, CT-EXP 445, SWCT-IMP 295

BRANCH LOADINGS ABOVE 100.0 % OF RATING SET A:

X-------FROM BUS-------X				X--------TO BUS--------X				CURRENT (MVA)		
BUS	NAME	BSKV	AREA	BUS	NAME	BSKV	AREA	CKT	LOADING	RATING	PERCENT
73184*	LUCHJB55	115	701	73198	SOUTHGTN	115	701	1	192.1	178.0	107.9

7.2 Post-Project All Lines In Service Load Flow

A review of post project load flow base cases, with all lines in service, showed that no line exceeded its Normal thermal rating. In contrast to the pre-project line loadings, the flows on the Manchester to Southington, 1767 line, and the Lucchini Junction to Southington, 1355 line, were reduced well below their Normal thermal rating.

7.3 Pre-Project All Lines In-Service Voltage

All pre-project load flow base cases met the all lines in service voltage criteria.

7.4 Post-Project All Lines In-Service Voltage

All post project load flow base cases met the all lines inservice voltage criteria.

7.5 Pre-Project Post Contingency Load Flow

As expected, the pre-project Middletown area system performance was poor. A total of nine 115-kV transmission lines were reported overloaded, all in the Middletown area. A summary of thermal overloads appears in Appendix E, Tables E.1 through E.4. In addition to the 115-kV overloads, the 345-kV Montville (4J) to Haddam Neck (14B), 364-line, exceeded its LTE thermal rating; however, a NEPOOL Section 18.4 application was approved in August 2002 to upgrade this line, which would eliminate this overload.

7.6 Post-Project Post Contingency Load Flow

The post-project Middletown area system performance was vastly improved when compared to the pre-project system. The Project did not create any new 115-kV thermal overloads. Of the nine pre-project 115-kV overloads, seven were eliminated by the Project. The two remaining 115-kV overloads, on the 1767 line and 1466 line, were not further exacerbated by the Project.

The 1767 line overloads upon the loss of the 348E and 348W lines; contingency #83 which simulates a Haddam (11C) 345-kV breaker failure. Northeast Utilities is proposing to upgrade the 1767 line to a minimum 228 MVA summer LTE rating.

The 1466 line overloads upon loss of the 345-kV 348W line. The 348W contingency diverts power, which was flowing from Millstone to Southington, through the Haddam autotransformer overloading the 1466 line. However, transient stability analysis has determined that a 348W contingency coupled with a Millstone DCT contingency would cause system instability. Therefore, instead of sectionalizing the 348-line, the alternative is to tap the 345-kV 348 line thereby eliminating the 348W contingency. With the 348W contingency eliminated, there is no need to upgrade the 1466 line.

The 345-kV Millstone to Haddam (11C) 348E line exceeded its assumed LTE thermal rating by 5%. The line rating was based on the pre-project 348 line summer thermal rating of 1255/1446/1601 MVA, which is terminal equipment limited at Souhtington. However, since the existing 348 line is being split in to two sections, the new 348E line section would become thermally limited by the Millstone terminal equipment. The Millstone terminal equipment has a 1267/1524/1601 MVA summer thermal rating, which reduces the loading from 105% LTE to 97.4% LTE.

As in the pre-project case, the Montville (4J) to Haddam Neck (14B) 364-line exceeded its LTE thermal rating. A NEPOOL Section 18.4 application was approved in August 2002 to upgrade this line, which would thereby eliminate this overload.

The post project line loadings appear in Appendix G, Table G.1.

7.7 Pre-Project Post Contingency Voltage

The pre-project voltage performance was poor. Thirteen different 115-kV busses within the Middletown area had voltage below 0.90 V-pu. Of all the contingencies tested, the Branford 2T breaker failure, which removes two 115-kV lines from service, was the most critical. This contingency is of special concern because of its potential to cause voltage collapse in the area. The voltages at the Branford bus were in the range 0.47-0.59 V-pu. Furthermore, the Branford 2T breaker failure contingency was the only contingency that caused voltage violations with the Middletown 115-kV generation in service.

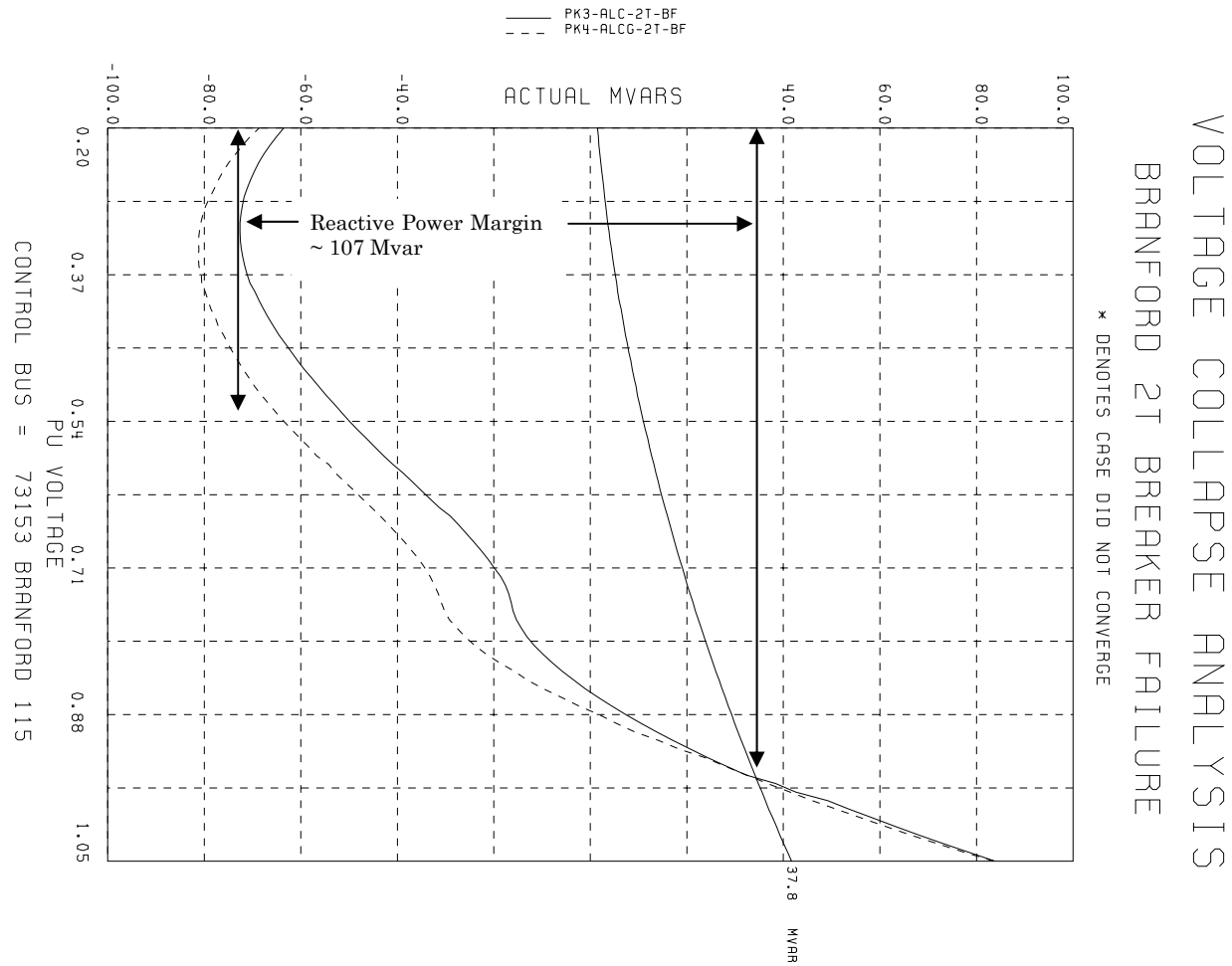
7.8 Post-Project Post Contingency Voltage

The post-project voltage performance was vastly improved when compared to the pre-project. The results appear in Appendix H, Table H.1. The Branford 2T breaker failure contingency was the only contingency that caused a voltage violation. The Branford bus voltage ranged from 0.85-0.88 V-pu for the different cases analyzed.

Two options to resolve the Branford area low voltage problem are presented. The first option is to install a new circuit breaker in series with the Branford 2T breaker and the 1655 line. Adding this circuit breaker would eliminate the removal of two elements from service for the Branford 2T breaker failure contingency, and thus resulting in no voltage violation.

The second option is to install a new 115-kV, 37.8 Mvar shunt capacitor bank at Branford 11J. A voltage collapse analysis was performed with a 37.8 Mvar capacitor bank located at Branford. The voltage collapse analysis results that appear on the next page show that a 37.8 Mvar shunt capacitor bank would provide approximately 107 Mvar of a reactive power margin to prevent a low voltage in the Branford area.

7.9 Branford 2T Breaker Failure Voltage Collapse Analysis



8.0 Capacitor Bank Switching Analysis

The objective of the switching analysis is to calculate the sudden voltage change just after switching, $t = t^+$, a 115-kV, 37.8 Mvar shunt capacitor bank. Two load flow cases were used for the switching analysis. The first case, Pk3-ALC, was used because it had the lowest post contingency voltage for Branford 2T breaker failure contingency. The second case, Pk4-ALCG, was used because it had the highest pre-contingency bus voltage. The first switching analysis performed was for the capacitor bank at the Haddam 11C bus. The 37.8 Mvar capacitor bank switching created an approximate 1% change in voltage at the Haddam 11C bus in both load flow cases tested. The second switching analysis was for the Branford capacitor bank. The Branford capacitor bank was switched on while the Haddam capacitor bank was in service. In both load flow cases, the switching of the Branford 37.8 Mvar capacitor bank caused a voltage change of less than 1.5 percent. The switching of the Haddam and Branford capacitor banks meets the acceptance criteria of 2.5 percent. The pre- and post-capacitor bank switching data appear next.

Pk3-ALC Haddam Pre-capacitor Bank Switching:

```
PK3-ALC.SAV 2001 FERC 715 RESUBMITTAL 06SPK                          RATING
NY-NE -700, CT-IMP 1895, SWCT-IMP 2000, HADAUTO, 1620N,S,CAP          SET A

BUS 73230 HADDAM   115 AREA CKT    MW     MVAR     MVA  %I 1.0221PU -42.33 73230
                       701                                117.54KV
 TO 73121 HADAUTO  345 701  1   -319.9   -55.4   324.7  71 1.0438RG
 TO 73227 E.MERIDN 115 701  1     86.7     2.7    86.8  51
 TO 73231 BOKUM    115 701  1     69.1     7.7    69.6  57
 TO 73231 BOKUM    115 701  2     70.9     8.1    71.3  42
 TO 73241 MIDDLTWN 115 701  1     32.4    14.3    35.4  23
 TO 73422 HADDAM  23.0 701  1     28.2     7.1    29.1     1.0344UN
 TO 73600 CONN YAN 115 701  1     32.6    15.5    36.0  21
```

Pk3-ALC Haddam Post-capacitor Bank Switching:

```
PK3-ALC.SAV 2001 FERC 715 RESUBMITTAL 06SPK                            RATING
NY-NE -700, CT-IMP 1895, SWCT-IMP 2000, HADAUTO, 1620N,S,CAP             SET A

BUS 73230 HADDAM   115 AREA CKT    MW     MVAR     MVA  %I 1.0325PU -42.39 73230
                       701                                118.73KV
 TO SHUNT                          0.0   -40.3    40.3
 TO 73121 HADAUTO  345 701  1   -324.6   -33.7   326.3  70 1.0438RG
 TO 73227 E.MERIDN 115 701  1     88.2     8.0    88.5  51
 TO 73231 BOKUM    115 701  1     70.0    10.0    70.7  57
 TO 73231 BOKUM    115 701  2     71.7    10.4    72.5  42
 TO 73241 MIDDLTWN 115 701  1     33.1    18.8    38.1  24
 TO 73422 HADDAM  23.0 701  1     28.5     7.2    29.4     1.0344UN
 TO 73600 CONN YAN 115 701  1     33.1    19.6    38.5  22
```

Pk4-ALCG Haddam Pre-capacitor Bank Switching:

```
PK4-ALCG.SAV 2001 FERC 715 RESUBMITTAL 06SPK                           RATING
NY-NE -700, CT-EXP 800, SWCT-IMP 300, HADAUTO, 1620N,S,CAP               SET A

BUS 73230 HADDAM   115 AREA CKT    MW     MVAR     MVA  %I 1.0254PU -32.58 73230
                       701                                117.92KV
 TO 73121 HADAUTO  345 701  1   -151.1   -38.9   156.0  34 1.0125RG
 TO 73227 E.MERIDN 115 701  1     84.2     6.6    84.5  49
 TO 73231 BOKUM    115 701  1     49.2     8.6    50.0  41
 TO 73231 BOKUM    115 701  2     50.5     8.9    51.2  30
 TO 73241 MIDDLTWN 115 701  1    -33.3     4.2    33.6  22
 TO 73422 HADDAM  23.0 701  1     28.2     7.1    29.1     1.0282UN
 TO 73600 CONN YAN 115 701  1    -27.6     3.5    27.9  16
```

Pk4-ALCG Haddam Post-capacitor Bank Switching:

```
PK4-ALCG.SAV 2001 FERC 715 RESUBMITTAL 06SPK                              RATING
NY-NE -700, CT-EXP 800, SWCT-IMP 300, HADAUTO, 1620N,S,CAP                 SET A

BUS 73230 HADDAM   115 AREA CKT    MW     MVAR     MVA  %I 1.0341PU -32.62 73230
                       701                                 118.92KV
 TO SHUNT                          0.0   -40.4    40.4
 TO 73121 HADAUTO  345 701  1   -153.5   -18.6   154.7  33 1.0125RG
 TO 73227 E.MERIDN 115 701  1     85.5    11.4    86.2  50
 TO 73231 BOKUM    115 701  1     49.8    10.7    50.9  41
 TO 73231 BOKUM    115 701  2     51.0    11.1    52.2  30
 TO 73241 MIDDLTWN 115 701  1    -33.3    10.0    34.8  22
 TO 73422 HADDAM  23.0 701  1     28.5     7.2    29.3     1.0282UN
 TO 73600 CONN YAN 115 701  1    -27.8     8.8    29.2  17
```

Pk3-ALC Branford Pre-capacitor Bank Switching:

```
PK3-ALC.SAV 2001 FERC 715 RESUBMITTAL 06SPK                               RATING
NY-NE -700, CT-IMP 1895, SWCT-IMP 2000, HADAUTO, 1620N,S,CAP               SET A

BUS 73153 BRANFORD 115 AREA CKT    MW     MVAR     MVA  %I 1.0196PU -48.14 73153
                       701                                 117.25KV
 TO 73265 GREEN HL 115 701  1    -14.5    18.5    23.5  10
 TO 73287 BRANF RR 115 701  1    -77.2   -21.4    80.1  33
 TO 73403 BRANFORD27.6 701  1     41.4    10.0    42.6     1.0432UN
 TO 73403 BRANFORD27.6 701  2     40.9     9.9    42.1     1.0432UN
 TO 73671 NO.HAVEN 115 701  1      9.4   -16.9    19.3   9
```

Pk3-ALC Branford Post-capacitor Bank Switching:

```
PK3-ALC.SAV 2001 FERC 715 RESUBMITTAL 06SPK                               RATING
NY-NE -700, CT-IMP 1895, SWCT-IMP 2000, HADAUTO, 1620N,S,CAP               SET A

BUS 73153 BRANFORD 115 AREA CKT    MW     MVAR     MVA  %I 1.0343PU -48.23 73153
                       701                                 118.94KV
 TO SHUNT                          0.0   -40.4    40.4
 TO 73265 GREEN HL 115 701  1    -14.4    26.2    30.0  13
 TO 73287 BRANF RR 115 701  1    -78.8    -0.4    78.8  32
 TO 73403 BRANFORD27.6 701  1     42.0    10.1    43.2     1.0432UN
 TO 73403 BRANFORD27.6 701  2     41.5    10.0    42.7     1.0432UN
 TO 73671 NO.HAVEN 115 701  1      9.7    -5.6    11.2   5
```

Pk4-ALCG Branford Pre-capacitor Bank Switching:

```
PK4-ALCG.SAV 2001 FERC 715 RESUBMITTAL 06SPK                              RATING
NY-NE -700, CT-EXP 800, SWCT-IMP 300, HADAUTO, 1620N,S,CAP                 SET A

BUS 73153 BRANFORD 115 AREA CKT    MW     MVAR     MVA  %I 1.0229PU -34.74 73153
                       701                                 117.63KV
 TO 73265 GREEN HL 115 701  1     25.3    10.7    27.4  12
 TO 73287 BRANF RR 115 701  1    -60.4   -17.2    62.8  26
 TO 73403 BRANFORD27.6 701  1     41.4     9.9    42.6     1.0432UN
 TO 73403 BRANFORD27.6 701  2     40.9     9.8    42.1     1.0432UN
 TO 73671 NO.HAVEN 115 701  1    -47.2   -13.2    49.0  22
```

Pk4-ALCG Branford Post-capacitor Bank Switching:

```
PK4-ALCG.SAV 2001 FERC 715 RESUBMITTAL 06SPK                              RATING
NY-NE -700, CT-EXP 800, SWCT-IMP 300, HADAUTO, 1620N,S,CAP                 SET A

BUS 73153 BRANFORD 115 AREA CKT    MW     MVAR     MVA  %I 1.0366PU -34.82 73153
                       701                                 119.21KV
 TO SHUNT                          0.0   -40.6    40.6
 TO 73265 GREEN HL 115 701  1     25.8    18.1    31.6  13
 TO 73287 BRANF RR 115 701  1    -61.7     3.3    61.8  25
 TO 73403 BRANFORD27.6 701  1     42.0    10.1    43.2     1.0432UN
 TO 73403 BRANFORD27.6 701  2     41.5    10.0    42.7     1.0432UN
 TO 73671 NO.HAVEN 115 701  1    -47.6    -0.9    47.6  21
```

9.0 Short Circuit Analysis

Short circuit levels were reviewed to determine if the proprosed Haddam autotransformer would cause short circuit levels to exceed the interrupting capability of exiting circuit breakers. Except for the existing three breakers at Haddam 11C, the Haddam autotransformer did not cause any circuit breaker that was below its interrupting capability pre-project to exceed its interrupting capability post project. The existing 11C-1T-2, 11C-2T-2 and 11C-3T-2 circuit breakers would have to be replaced as part of the Haddam Autotransformer Project.

Appendix A - Drawings

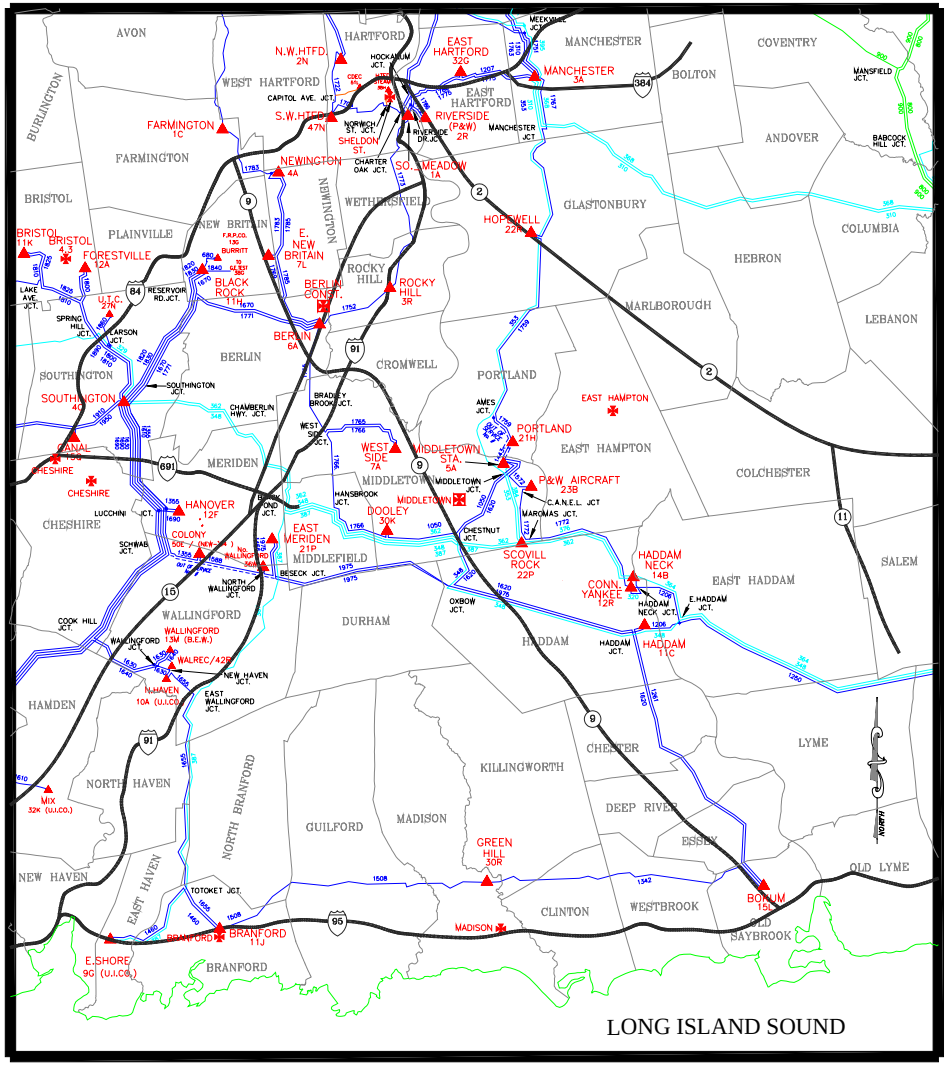


Figure A.1 – Middletown Area

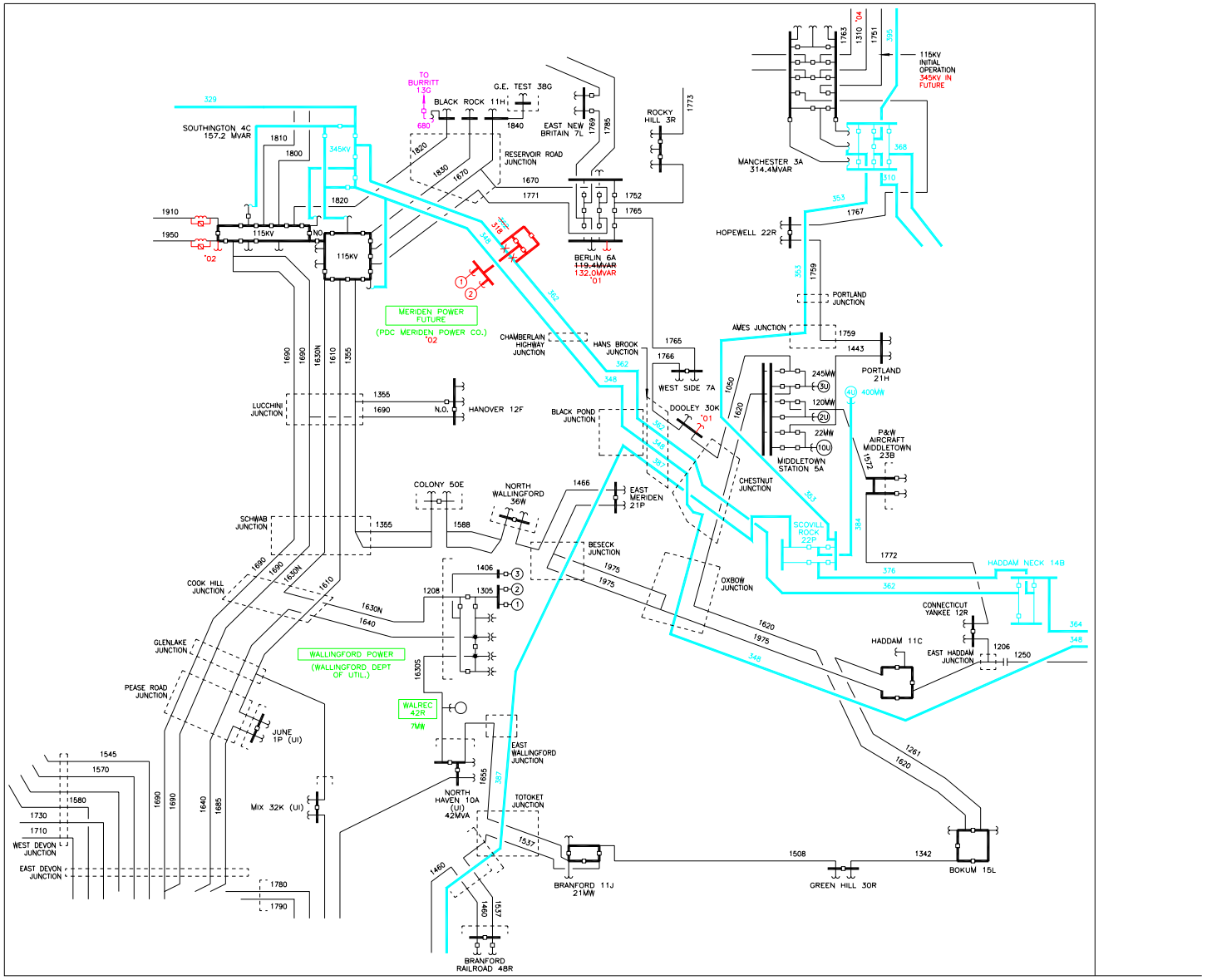


Figure A.2 – Middletown Area Transmission Network

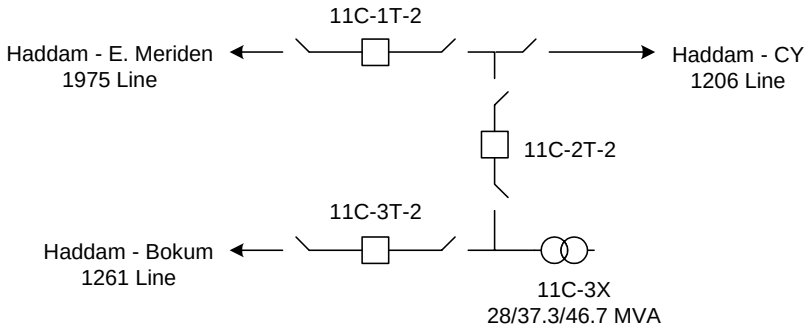


Figure A.3 – Existing Haddam (11C) Substation

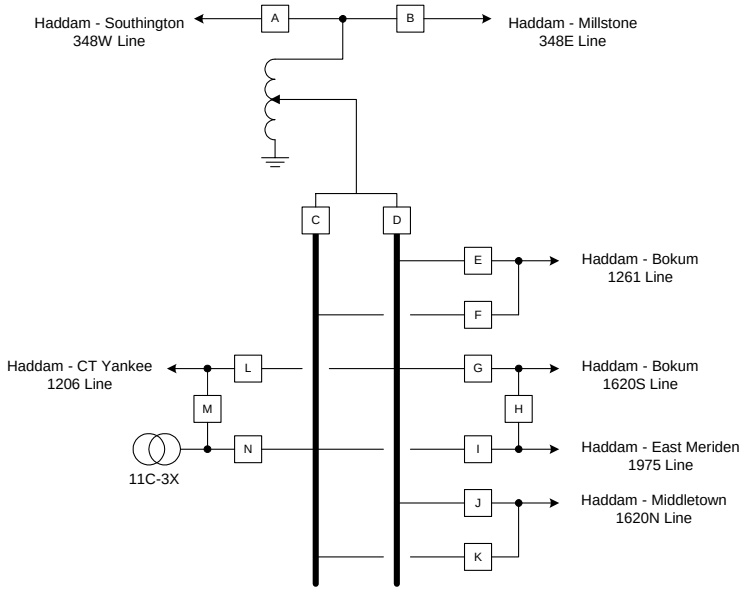


Figure A.4 – Initial Haddam (11C) Substation Configuration for Analysis

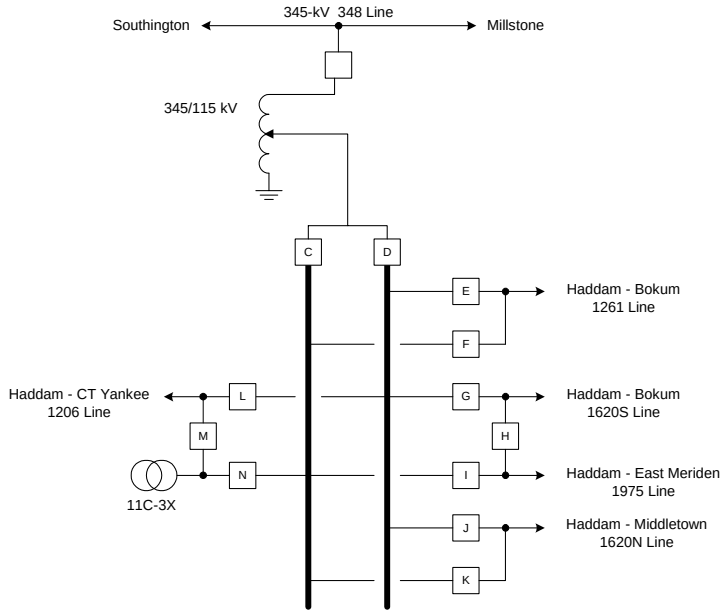


Figure A.5 – Final Proposed Haddam (11C) Substation Configuration for Building

Appendix B – Contingency List

Table B.1 – Contingency List

No.	Contingency	Description
115 kV		
1	1050&1766	Middletown-Doley-West Side (No Breaker at Dooley)
2	1206&1975	CT Yankee-Haddam-East Meriden (L/O 1206 Also OPENS 1975)
3	1206	Haddam-CT Yankee
4	1261	Bokum-Haddam
5	1342	Bokum-Green Hill
6	1355	Southington-Colony-Hanover
7	1443&1759	Middletown-Portland-Hopewell (No Breaker at Portland)
8	1460	Branford RR-East Shore
9	1466	East Meriden-North Wallingford
10	1508	Branford-Green Hill
11	1537	Branford-Branford RR
12	1572&1772	Middletown-P&W Aircraft-CT Yankee (No Breaker at P&W)
13	1588	North Wallingford-Colony
14	1610	June-Mix-Southington
15	1620	Middletown-Bokum
16	1620N	Middletown-Haddam
17	1620S	Haddam-Bokum
18	1630	Southington-Wallingford-Hanover
19	1640	Devon-Wallingford
20	1655	Branford-North Haven
21	1670	Berlin-Southington-Black Rock
22	1685	Devon-June
23	1690	Devon-Southington-Hanover
24	1765	Berlin-West Side
25	1767	Hopewell-Manchester
26	1771	Berlin-Southington
27	1975	Haddam-East Meriden
28	8100	Grand Ave-English-East Shore
29	8200	Grand-Ave-East Shore
30	8300	Quinnipiac-Mill River
31	8301	Mill River-Grand Ave
32	8600	North Haven-Quinnipiac
115 kV DCT		
33	1261-1620	Haddam-Bokum & Middletown-Bokum DCT
34	1620S-1261	Haddam-Bokum & Haddam-Bokum DCT
35	1620-1975	Middletown-Bokum & East Meriden-Haddam DCT
36	1620N-1975	Middletown-Haddam & East Meriden-Haddam DCT
37	1630-1640	Southington-Wallingford & Devon-Wallingford DCT
38	1640-1690	Devon-Wallingford & Devon-Hanover-Southington DCT

Table B.2 – Contingency List

No.	Contingency	Description
115 kV Breaker Failure		
39	1460/1537	East Shore-Branford RR & Branford RR-Branford (Branford RR BF)
40	1508/1537	Branford-Green Hill & Branford-Branford RR (Branford 4T BF)
41	1537/1655	Branford RR-Branford & Branford-North Haven (Branford 2T BF)
42	1640/1685	Devon-Wallingford & June-Devon (June BF)
43	1610/84004	June-Mix-Southington & Mix-Sackett (Mix BF)
44	1620N/1206	Middletown-Haddam & Haddam-CY (Haddam BF)
45	1620S/1975	Haddam-Bokum & Haddam-East Meriden (Haddam BF)
46	1261/1620	Bokum-Haddam & Middletown-Bokum (Bokum BF)
47	1355/1588	Southington-Colony-Hanover & Colony-North Wallingford (Colony BF)
48	1466/1588	North Wallingford-East Meriden & North Wallingford-Colony (N.Wallingford BF)
49	1466/1975	North Wallingford-East Meriden & East Meriden-Haddam (E.Meriden BF)
50	1765/1050&1766	Berlin-West Side & Middletown-Doley-West Side (West Side BF)
51	1767/1443&1759	Hopewell-Manchester & Middletown-Portland-Hopewell (Hopewell BF)
52	1670/1771	Southington-Berlin-Black Rock & Southington -Berlin (Southington BF)
53	1355/1610	Southington-Colony-Hanover & Southington-June-Mix (Southington BF)
54	1610/1630	Southington-June-Mix & Southington-Wallingford-Hanover (Southington BF)
345 kV		
55	310	Millstone-Manchester
56	318	Southington-Meriden Power
57	330	Card-Lake Road
58	330+LKRD	Card-Lake Road & Lake Road Units
59	347	Sherman-Lake Road
60	347+LKRD	Sherman-Lake Road & Lake Road Units
61	348wAuto	Millstone-Southington & 1 Southington 345/115 kV Autotransformer
62	348W	Haddam-Southington & 1 Southington 345/115 kV Autotransformer
63	348WwAutos	Southington-Haddam & 1Southington & 1 Haddam 345/115 kV Autotransformers
64	348E	Millstone-Haddam
65	353	Scovill Rock-Manchester
66	362	Meriden-Haddam Neck
67	364wAuto	Haddam Neck-Montville & 1 Montville 345/115 kV Autotransformer
68	368	Manchester-Card
69	371wAuto	Millstone-Montville & 1 Montville 345/115 kV Autotransformer
70	376	Scovill Rock-Haddam Neck
71	383	Millstone-Card
72	387wAutos	Scovill Rock-East Shore & E. Shore 345/115 kV Autotransformers & CSC
73	384	Scovill Rock-Middletown
345 kV DCT		
74	310-348	Millstone-Manchester & Millstone-Southington 345 kV DCT
75	310-348E	Millstone-Manchester & Millstone-Haddam 345 kV DCT
76	310-368	Millstone-Manchester & Card-Manchester 345 kV DCT
77	348-387	Millstone-Southington & Scovill Rock-East Shore 345 kV DCT (Being Split)
78	348W-387	Southington&Auto-Haddam&Auto & Scovill -East Shore
78A	348W-387	Southington&Auto-Haddam & Scovill -East Shore
79	353-1767	Manchester-Scovill Rock 345-kV & Manchester-Hopewell 115-kV DCT
345 kV Breaker Failure		
80	310/395	Manchester 21T Breaker Failure
81	330/368/383	Card 2T Breaker Failure, L/O Lines 330, 368, 383
82	330/368+LR	Card 2T Breaker Failure, L/O Lines 330, 368, 383, & Lake Road Units
83	348W/348E	Haddam BF Haddam-Southington w Autos & Millstone-Haddam

Appendix C – Load Flow Case Summary

Table C.1 – Pk1 Base Case Summary

PK1.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 0, CT-IMP 1890, SWCT-IMP 2000

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	1.023	180	68	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.989	159	11	73552 NORHAR#2	0.989	168	11	73553 DEVON#7	1.012	106	33
73554 DEVON#8	1.009	106	33	73555 MIDDTN#2	0.000	0	0	73556 MIDDTN#3	0.000	0	0
73557 MIDDTN#4	1.024	400	200*	73558 MONTV#5	0.000	0	0	73559 MONTV#6	1.015	402	154
73562 MILL#2	0.999	857	161	73563 MILL#3	0.994	1137	161	73565 LAKERD#1	1.012	280	71
73566 LAKERD#2	1.012	280	71	73567 LAKERD#3	1.012	280	71	73574 MILFD#1	1.017	280	7
73575 MILFD#2	0.000	0	0	73579 TOW ST1	0.000	0	0	73580 TOW GT1	0.000	0	0
73581 TOW GT2	0.000	0	0	73588 MERIDEN1	0.000	0	0	73589 MERIDEN2	0.000	0	0
73590 MERIDEN3	0.000	0	0	73594 WALL LV1	0.000	0	0	73595 WALL LV2	0.000	0	0
73596 WALL LV3	0.000	0	0	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.000	0	0
73648 BPTHBR#3	0.000	0	0	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.994	447	141
73652 BE 11	1.024	170	62	73653 BE 12	1.024	170	62	73654 BE 10 ST	1.027	180	62
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.012	50	7	70366 WF WY #2	1.013	50	7
70367 WF WY #3	1.013	100	14	70368 WF WY #4	0.000	0	0	70386 WBK G1	1.025	172	47*
70387 WBK G2	1.025	172	47*	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.994	502	150*
71060 MYST G4	1.067	133	103	71061 MYST 5G	1.068	129	103	71062 MYST G6	1.068	136	103
71063 MYST G7	1.009	565	2	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.043	670	186	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.018	357	201
71084 NEA GTPF	1.047	85	40*	71085 NEA GTPF	1.047	85	40*	71086 NEA STPF	1.062	80	55*
71095 ANPBLCK1	1.095	290	150*	71096 ANPBLCK2	1.095	290	150*	71251 CANAL G1	1.043	566	239*
71252 CANAL G2	1.020	577	120*	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	1.025	241	117*
72370 BP #3 GN	1.023	582	88	72371 BP #4 GN	1.026	421	66	72661 MANCH09A	1.004	99	35*
72662 MANCH10A	1.004	99	35*	72663 MANCH11A	1.004	99	35*	72666 FRSQ SC1	0.991	43	-4
72667 FRSQ SC2	0.991	43	1	72668 FRSQ SC3	0.991	42	3	71522 SOM G6	0.996	70	62
71531 OSP1 PF	1.001	77	0	71532 OSP2 PF	1.001	77	0	71533 OSP3 PF	1.000	108	0
71534 OSP4 PF	1.001	77	0	71535 OSP5 PF	1.001	77	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.025	79	11	71947 SALEM G2	1.025	78	11	71948 SALEM G3	1.021	143	22
71949 SALEM G4	1.021	400	67	72869 SBRK G1	1.008	1150	273	72868 NWNGT G1	1.009	406	110
72870 SCHILLER	1.022	48	25*	72871 SCHILLER	1.022	50	25*	72872 SCHILLER	1.022	48	25*
72866 MERMK G1	1.035	113	26	72867 MERMK G2	1.036	320	75	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.006	273	46
72244 MILLENST	1.006	117	21	72378 BELL #2	1.095	270	150*	72512 BRSWP G1	0.981	280	42
72513 BRSWP G2	0.981	280	42	72986 BERKPWR	1.028	280	31	73072 ALT12 PF	1.028	65	17*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.027	80	17	73069 MAPR1 PF	1.034	56	34
73080 WSPFLD 3	0.995	107	-2	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	9	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.053	92	48*	72377 BELL #1	1.095	270	150*	72378 BELL #2	1.095	270	150*

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	321	MIDDLETOWN	400	200	MONTVILLE	402	154
NORWALK	327	23	BRIDGEPORT	520	187	NHHARBOUR	447	141
DEVON	212	65	BRAYTONPT	1826	359	MANCHSTRST	425	105
SOMERSET	70	62	OSP	416	0	NEA	249	135
PAWTKTPWR	64	-9	ENRON	124	80	CANAL	1143	359
PILGRIM	670	186	MYSTIC	963	311	NEWBOSTON	357	201
SALEMHBR	700	111	SEABROOK	1150	273	NEWINGTON	406	110
SCHILLER	145	75	MERRIMACK	433	101	STONYBROOK	0	0
WYMAN	200	27	VTYANKEE	502	150	BEARSWAMP	560	84
NORTHFIELD	0	0	MASSPWRR	126	68	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	691	-176	MAINE-NH	794	-89
NNE-SCOBIE+394	1822	54	SEABROOK-SOUTH	1182	109	NORTH-SOUTH	1554	109
CMFD/MOORE-SO	194	-28	SNDYPOND-SOUTH	2069	-78	CONN EXPORT	-1893	143
CONN-MASS	-804	120	CONN-RI	-114	86	SW CONN IMPORT	1998	127
NORWLK-STAMFORD	877	-77	BOSTON IMPORT	2964	97	NEMA/BOS IMPORT	3494	31
SEMA/RI EXPORT	1944	81	CONVEX-REMVEC	-1024	111	EAST-WEST	1027	-161
NY-NE	3	-90	PV20	133	-10	CT-LI-1385	1	-49

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	357.
70759 MYSTIC	345	360.	71797 MILLBURY	345	355.	72925 LUDLOW	345	352.
72926 NRTHFLD	345	356.	73106 SOUTHGTN	345	346.	73108 CARD	345	354.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	357.
71801 BRAYTN P	345	358.	71811 KENT CO.	345	350.	71326 BRIDGWTR	345	355.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	353.
70772 W MEDWAY	345	355.	70780 WWALP345	345	354.	70783 PILGRIM	345	358.
70773 NEA 336	345	357.	71193 CANAL	345	359.	71133 CARVER	345	356.
70795 FRMNGHAM	230	235.	70793 MDFRM230	230	239.	70794 MDWLT230	230	240.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	115.	73634 COLONY	115	114.
73633 NO.WALLF	115	113.	73227 E.MERIDN	115	113.	73230 HADDAM	115	112.
73231 BOKUM	115	111.	73265 GREEN HL	115	113.	73153 BRANFORD	115	116.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	116.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	116.	72581 WOOD RIV	115	111.

AREA/ZONE TOTALS

NEPOOL_GEN	22885	NEPOOL_LOAD	24868	NEPOOL_LOSS	633
NEPOOL_INT	-2636				

Table C.2 – Pk1G Base Case Summary

PK1G.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 0, CT-IMP 1515, SWCT-IMP 2000

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	1.016	180	53	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.989	159	12	73552 NORHAR#2	0.989	168	12	73553 DEVON#7	1.016	106	36
73554 DEVON#8	1.013	106	36	73555 MIDDTN#2	1.025	117	51	73556 MIDDTN#3	0.993	230	51
73557 MIDDTN#4	1.028	400	200*	73558 MONTV#5	0.000	0	0	73559 MONTV#6	1.010	402	119
73562 MILL#2	0.993	857	107	73563 MILL#3	0.990	1137	107	73565 LAKERD#1	1.003	280	51
73566 LAKERD#2	1.003	280	51	73567 LAKERD#3	1.003	280	51	73574 MILFD#1	1.017	280	6
73575 MILFD#2	0.000	0	0	73579 TOW ST1	0.000	0	0	73580 TOW GT1	0.000	0	0
73581 TOW GT2	0.000	0	0	73588 MERIDEN1	0.000	0	0	73589 MERIDEN2	0.000	0	0
73590 MERIDEN3	0.000	0	0	73594 WALL LV1	0.000	0	0	73595 WALL LV2	0.000	0	0
73596 WALL LV3	0.000	0	0	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.000	0	0
73648 BPTHBR#3	0.000	0	0	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.976	447	64
73652 BE 11	1.024	170	62	73653 BE 12	1.024	170	62	73654 BE 10 ST	1.027	180	62
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.012	50	7	70366 WF WY #2	1.012	50	7
70367 WF WY #3	1.013	100	14	70368 WF WY #4	0.000	0	0	70386 WBK G1	1.026	172	47*
70387 WBK G2	1.026	172	47*	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.994	502	144
71060 MYST G4	1.067	133	102	71061 MYST 5G	1.068	129	102	71062 MYST G6	1.068	136	102
71063 MYST G7	1.009	565	-1	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.041	670	176	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.017	357	198
71084 NEA GTPF	1.048	85	40*	71085 NEA GTPF	1.048	85	40*	71086 NEA STPF	1.063	80	55*
71095 ANPBLCK1	1.095	290	150*	71096 ANPBLCK2	1.095	290	150*	71251 CANAL G1	1.042	566	238
71252 CANAL G2	1.020	577	120*	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	1.027	241	117*
72370 BP #3 GN	1.022	193	66	72371 BP #4 GN	1.022	421	49	72661 MANCH09A	1.005	99	35*
72662 MANCH10A	1.005	99	35*	72663 MANCH11A	1.005	99	35*	72666 FRSQ SC1	0.991	43	-5
72667 FRSQ SC2	0.991	43	0	72668 FRSQ SC3	0.991	42	1	71522 SOM G6	0.993	70	59
71531 OSP1 PF	1.001	77	0	71532 OSP2 PF	1.001	77	0	71533 OSP3 PF	1.000	108	0
71534 OSP4 PF	1.001	77	0	71535 OSP5 PF	1.001	77	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.025	79	11	71947 SALEM G2	1.025	78	11	71948 SALEM G3	1.021	143	22
71949 SALEM G4	1.021	400	67	72869 SBRK G1	1.008	1150	270	72868 NWNGT G1	1.009	406	108
72870 SCHILLER	1.023	48	25*	72871 SCHILLER	1.023	50	25*	72872 SCHILLER	1.023	48	25*
72866 MERMK G1	1.035	113	26	72867 MERMK G2	1.035	320	74	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.004	273	41
72244 MILLENST	1.004	117	19	72378 BELL #2	1.096	270	150*	72512 BRSWP G1	0.982	280	43
72513 BRSWP G2	0.982	280	43	72986 BERKPWR	1.020	280	16	73072 ALT12 PF	1.025	65	14*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.024	80	14	73069 MAPR1 PF	1.027	56	29
73080 WSPFLD 3	0.991	107	-7	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	8	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.053	92	48*	72377 BELL #1	1.096	270	150*	72378 BELL #2	1.096	270	150*

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	215	MIDDLETOWN	747	303	MONTVILLE	402	119
NORWALK	327	24	BRIDGEPORT	520	186	NHHARBOUR	447	64
DEVON	212	72	BRAYTONPT	1048	298	MANCHSTRST	425	102
SOMERSET	70	59	OSP	416	0	NEA	249	135
PAWTKTPWR	64	-9	ENRON	124	80	CANAL	1143	358
PILGRIM	670	176	MYSTIC	963	305	NEWBOSTON	357	198
SALEMHBR	700	111	SEABROOK	1150	270	NEWINGTON	406	108
SCHILLER	145	75	MERRIMACK	433	100	STONYBROOK	0	0
WYMAN	200	27	VTYANKEE	502	144	BEARSWAMP	560	85
NORTHFIELD	0	0	MASSPWRR	126	58	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	691	-176	MAINE-NH	794	-90
NNE-SCOBIE+394	1821	48	SEABROOK-SOUTH	1186	106	NORTH-SOUTH	1551	101
CMFD/MOORE-SO	194	-28	SNDYPOND-SOUTH	2091	-82	CONN EXPORT	-1517	154
CONN-MASS	-664	125	CONN-RI	73	61	SW CONN IMPORT	1997	113
NORWLK-STAMFORD	877	-78	BOSTON IMPORT	2963	98	NEMA/BOS IMPORT	3493	34
SEMA/RI EXPORT	1572	110	CONVEX-REMVEC	-667	82	EAST-WEST	651	-141
NY-NE	1	-119	PV20	135	-10	CT-LI-1385	0	-48

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	357.
70759 MYSTIC	345	360.	71797 MILLBURY	345	355.	72925 LUDLOW	345	353.
72926 NRTHFLD	345	357.	73106 SOUTHGTN	345	349.	73108 CARD	345	356.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	358.
71801 BRAYTN P	345	358.	71811 KENT CO.	345	350.	71326 BRIDGWTR	345	355.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	353.
70772 W MEDWAY	345	356.	70780 WWALP345	345	355.	70783 PILGRIM	345	358.
70773 NEA 336	345	357.	71193 CANAL	345	359.	71133 CARVER	345	357.
70795 FRMNGHAM	230	235.	70793 MDFRM230	230	239.	70794 MDWLT230	230	240.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	116.	73634 COLONY	115	116.
73633 NO.WALLF	115	115.	73227 E.MERIDN	115	115.	73230 HADDAM	115	116.
73231 BOKUM	115	115.	73265 GREEN HL	115	115.	73153 BRANFORD	115	117.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	116.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	117.	72581 WOOD RIV	115	112.

AREA/ZONE TOTALS

NEPOOL_GEN	22860	NEPOOL_LOAD	24868	NEPOOL_LOSS	607
NEPOOL_INT	-2635				

Table C.3 – Pk1-ALC Base Case Summary

PK1-ALC.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 0, CT-IMP 1880, SWCT-IMP 2000, HADAUTO, 1620N,S,CAP

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	1.014	180	56	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.989	159	10	73552 NORHAR#2	0.989	168	10	73553 DEVON#7	1.008	106	29
73554 DEVON#8	1.006	106	29	73555 MIDDTN#2	0.000	0	0	73556 MIDDTN#3	0.000	0	0
73557 MIDDTN#4	1.026	400	200*	73558 MONTV#5	0.000	0	0	73559 MONTV#6	1.007	402	127
73562 MILL#2	0.999	857	164	73563 MILL#3	0.995	1137	164	73565 LAKERD#1	1.011	280	67
73566 LAKERD#2	1.011	280	67	73567 LAKERD#3	1.011	280	67	73574 MILFD#1	1.017	280	6
73575 MILFD#2	0.000	0	0	73579 TOW ST1	0.000	0	0	73580 TOW GT1	0.000	0	0
73581 TOW GT2	0.000	0	0	73588 MERIDEN1	0.000	0	0	73589 MERIDEN2	0.000	0	0
73590 MERIDEN3	0.000	0	0	73594 WALL LV1	0.000	0	0	73595 WALL LV2	0.000	0	0
73596 WALL LV3	0.000	0	0	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.000	0	0
73648 BPTHBR#3	0.000	0	0	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.978	447	69
73652 BE 11	1.024	170	62	73653 BE 12	1.024	170	62	73654 BE 10 ST	1.026	180	62
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.012	50	7	70366 WF WY #2	1.013	50	7
70367 WF WY #3	1.013	100	14	70368 WF WY #4	0.000	0	0	70386 WBK G1	1.025	172	47*
70387 WBK G2	1.025	172	47*	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.994	502	150*
71060 MYST G4	1.067	133	103	71061 MYST 5G	1.068	129	103	71062 MYST G6	1.068	136	103
71063 MYST G7	1.009	565	1	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.042	670	184	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.018	357	201
71084 NEA GTPF	1.047	85	40*	71085 NEA GTPF	1.047	85	40*	71086 NEA STPF	1.062	80	55*
71095 ANPBLCK1	1.095	290	150*	71096 ANPBLCK2	1.095	290	150*	71251 CANAL G1	1.043	566	239*
71252 CANAL G2	1.020	577	120*	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	1.025	241	117*
72370 BP #3 GN	1.023	569	86	72371 BP #4 GN	1.026	421	65	72661 MANCH09A	1.004	99	35*
72662 MANCH10A	1.004	99	35*	72663 MANCH11A	1.004	99	35*	72666 FRSQ SC1	0.991	43	-3
72667 FRSQ SC2	0.991	43	1	72668 FRSQ SC3	0.991	42	3	71522 SOM G6	0.996	70	62
71531 OSP1 PF	1.001	77	0	71532 OSP2 PF	1.001	77	0	71533 OSP3 PF	1.000	108	0
71534 OSP4 PF	1.001	77	0	71535 OSP5 PF	1.001	77	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.025	79	11	71947 SALEM G2	1.025	78	11	71948 SALEM G3	1.021	143	22
71949 SALEM G4	1.021	400	67	72869 SBRK G1	1.008	1150	272	72868 NWNGT G1	1.009	406	109
72870 SCHILLER	1.023	48	25*	72871 SCHILLER	1.022	50	25*	72872 SCHILLER	1.022	48	25*
72866 MERMK G1	1.035	113	26	72867 MERMK G2	1.036	320	75	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.006	273	45
72244 MILLENST	1.005	117	20	72378 BELL #2	1.095	270	150*	72512 BRSWP G1	0.981	280	42
72513 BRSWP G2	0.981	280	42	72986 BERKPWR	1.022	280	20	73072 ALT12 PF	1.027	65	16*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.026	80	16	73069 MAPR1 PF	1.032	56	32
73080 WSPFLD 3	0.993	107	-5	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	9	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.053	92	48*	72377 BELL #1	1.095	270	150*	72378 BELL #2	1.095	270	150*

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	327	MIDDLETOWN	400	200	MONTVILLE	402	127
NORWALK	327	21	BRIDGEPORT	520	185	NHHARBOUR	447	69
DEVON	212	58	BRAYTONPT	1799	354	MANCHSTRST	425	105
SOMERSET	70	62	OSP	416	0	NEA	249	135
PAWTKTPWR	64	-9	ENRON	124	80	CANAL	1143	359
PILGRIM	670	184	MYSTIC	963	309	NEWBOSTON	357	201
SALEMHBR	700	111	SEABROOK	1150	272	NEWINGTON	406	109
SCHILLER	145	75	MERRIMACK	433	101	STONYBROOK	0	0
WYMAN	200	27	VTYANKEE	502	150	BEARSWAMP	560	84
NORTHFIELD	0	0	MASSPWRR	126	64	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	691	-176	MAINE-NH	794	-89
NNE-SCOBIE+394	1822	52	SEABROOK-SOUTH	1183	108	NORTH-SOUTH	1554	107
CMFD/MOORE-SO	194	-28	SNDYPOND-SOUTH	2071	-79	CONN EXPORT	-1881	187
CONN-MASS	-788	143	CONN-RI	-118	84	SW CONN IMPORT	1996	127
NORWLK-STAMFORD	877	-76	BOSTON IMPORT	2964	98	NEMA/BOS IMPORT	3494	32
SEMA/RI EXPORT	1932	80	CONVEX-REMVEC	-1012	116	EAST-WEST	1015	-166
NY-NE	3	-102	PV20	133	-10	CT-LI-1385	2	-49

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	357.
70759 MYSTIC	345	360.	71797 MILLBURY	345	355.	72925 LUDLOW	345	353.
72926 NRTHFLD	345	357.	73106 SOUTHGTN	345	348.	73108 CARD	345	355.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	358.
71801 BRAYTN P	345	358.	71811 KENT CO.	345	349.	71326 BRIDGWTR	345	355.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	353.
70772 W MEDWAY	345	355.	70780 WWALP345	345	354.	70783 PILGRIM	345	358.
70773 NEA 336	345	357.	71193 CANAL	345	359.	71133 CARVER	345	356.
70795 FRMNGHAM	230	235.	70793 MDFRM230	230	239.	70794 MDWLT230	230	240.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	117.	73634 COLONY	115	117.
73633 NO.WALLF	115	117.	73227 E.MERIDN	115	117.	73230 HADDAM	115	118.
73231 BOKUM	115	117.	73265 GREEN HL	115	116.	73153 BRANFORD	115	117.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	116.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	116.	72581 WOOD RIV	115	111.

AREA/ZONE TOTALS

NEPOOL_GEN	22871	NEPOOL_LOAD	24868	NEPOOL_LOSS	620	
NEPOOL_INT	-2637					

Table C.4 – Pk1-ALCG Base Case Summary

PK1-ALCG.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 0, CT IMP 1515, SWCT IMP 2000, HADAUTO, 1620N,S,CAP

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	1.006	180	46	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.989	159	12	73552 NORHAR#2	0.989	168	12	73553 DEVON#7	1.016	106	37
73554 DEVON#8	1.013	106	37	73555 MIDDTN#2	0.994	117	15	73556 MIDDTN#3	0.979	230	15
73557 MIDDTN#4	1.028	400	200*	73558 MONTV#5	0.000	0	0	73559 MONTV#6	1.000	402	104
73562 MILL#2	0.994	857	123	73563 MILL#3	0.991	1137	123	73565 LAKERD#1	1.003	280	51
73566 LAKERD#2	1.003	280	51	73567 LAKERD#3	1.003	280	51	73574 MILFD#1	1.017	280	6
73575 MILFD#2	0.000	0	0	73579 TOW ST1	0.000	0	0	73580 TOW GT1	0.000	0	0
73581 TOW GT2	0.000	0	0	73588 MERIDEN1	0.000	0	0	73589 MERIDEN2	0.000	0	0
73590 MERIDEN3	0.000	0	0	73594 WALL LV1	0.000	0	0	73595 WALL LV2	0.000	0	0
73596 WALL LV3	0.000	0	0	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.000	0	0
73648 BPTHBR#3	0.000	0	0	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.972	447	43
73652 BE 11	1.024	170	62	73653 BE 12	1.024	170	62	73654 BE 10 ST	1.027	180	62
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.012	50	7	70366 WF WY #2	1.012	50	7
70367 WF WY #3	1.012	100	14	70368 WF WY #4	0.000	0	0	70386 WBK G1	1.026	172	47*
70387 WBK G2	1.026	172	47*	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.994	502	144
71060 MYST G4	1.067	133	102	71061 MYST 5G	1.068	129	102	71062 MYST G6	1.068	136	102
71063 MYST G7	1.009	565	-2	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.041	670	175	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.017	357	198
71084 NEA GTPF	1.048	85	40*	71085 NEA GTPF	1.048	85	40*	71086 NEA STPF	1.063	80	55*
71095 ANPBLCK1	1.095	290	150*	71096 ANPBLCK2	1.095	290	150*	71251 CANAL G1	1.042	566	237
71252 CANAL G2	1.020	577	120*	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	1.027	241	117*
72370 BP #3 GN	1.028	690	125	72371 BP #4 GN	0.000	0	0	72661 MANCH09A	1.005	99	35*
72662 MANCH10A	1.005	99	35*	72663 MANCH11A	1.005	99	35*	72666 FRSQ SC1	0.991	43	-4
72667 FRSQ SC2	0.991	43	0	72668 FRSQ SC3	0.991	42	2	71522 SOM G6	0.993	70	59
71531 OSP1 PF	1.001	77	0	71532 OSP2 PF	1.001	77	0	71533 OSP3 PF	1.001	108	0
71534 OSP4 PF	1.001	77	0	71535 OSP5 PF	0.000	0	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.024	79	11	71947 SALEM G2	1.025	78	11	71948 SALEM G3	1.021	143	22
71949 SALEM G4	1.021	400	67	72869 SBRK G1	1.008	1150	270	72868 NWNGT G1	1.008	406	107
72870 SCHILLER	1.023	48	25*	72871 SCHILLER	1.023	50	25*	72872 SCHILLER	1.023	48	25*
72866 MERMK G1	1.035	113	26	72867 MERMK G2	1.035	320	74	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.004	273	41
72244 MILLENST	1.004	117	18	72378 BELL #2	1.096	270	150*	72512 BRSWP G1	0.982	280	43
72513 BRSWP G2	0.982	280	43	72986 BERKPWR	1.018	280	13	73072 ALT12 PF	1.024	65	14*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.023	80	14	73069 MAPR1 PF	1.027	56	29
73080 WSPFLD 3	0.991	107	-7	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	8	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.053	92	48*	72377 BELL #1	1.096	270	150*	72378 BELL #2	1.096	270	150*

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	245	MIDDLETOWN	747	230	MONTVILLE	402	104
NORWALK	327	24	BRIDGEPORT	520	187	NHHARBOUR	447	43
DEVON	212	73	BRAYTONPT	1620	367	MANCHSTRST	425	103
SOMERSET	70	59	OSP	339	0	NEA	249	135
PAWTKTPWR	64	-9	ENRON	124	80	CANAL	1143	357
PILGRIM	670	175	MYSTIC	963	304	NEWBOSTON	357	198
SALEMHBR	700	111	SEABROOK	1150	270	NEWINGTON	406	107
SCHILLER	145	75	MERRIMACK	433	100	STONYBROOK	0	0
WYMAN	200	27	VTYANKEE	502	144	BEARSWAMP	560	85
NORTHFIELD	0	0	MASSPWRR	126	57	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	691	-176	MAINE-NH	794	-90
NNE-SCOBIE+394	1821	47	SEABROOK-SOUTH	1186	106	NORTH-SOUTH	1553	100
CMFD/MOORE-SO	194	-28	SNDYPOND-SOUTH	2092	-83	CONN EXPORT	-1515	155
CONN-MASS	-660	127	CONN-RI	73	57	SW CONN IMPORT	1996	110
NORWLK-STAMFORD	877	-78	BOSTON IMPORT	2962	98	NEMA/BOS IMPORT	3493	34
SEMA/RI EXPORT	1567	114	CONVEX-REMVEC	-664	78	EAST-WEST	649	-137
NY-NE	2	-121	PV20	135	-11	CT-LI-1385	0	-48

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0
MADAWASK = -151
EEL = 74
CHAT-2 = 0
PHII-P1 = 1000
HIGHGATE = 215
PHII-P2 = 1000

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	357.
70759 MYSTIC	345	360.	71797 MILLBURY	345	355.	72925 LUDLOW	345	353.
72926 NRTHFLD	345	357.	73106 SOUTHGTN	345	349.	73108 CARD	345	356.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	358.
71801 BRAYTN P	345	358.	71811 KENT CO.	345	350.	71326 BRIDGWTR	345	355.
71336 SHERMAN	345	356.	71338 OS POWER	345	356.	71337 WFARNUM	345	353.
70772 W MEDWAY	345	356.	70780 WWALP345	345	355.	70783 PILGRIM	345	358.
70773 NEA 336	345	357.	71193 CANAL	345	359.	71133 CARVER	345	357.
70795 FRMNGHAM	230	235.	70793 MDFRM230	230	239.	70794 MDWLT230	230	240.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	117.	73634 COLONY	115	117.
73633 NO.WALLF	115	117.	73227 E.MERIDN	115	117.	73230 HADDAM	115	119.
73231 BOKUM	115	117.	73265 GREEN HL	115	116.	73153 BRANFORD	115	117.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	116.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	117.	72581 WOOD RIV	115	111.

AREA/ZONE TOTALS

NEPOOL_GEN	22858	NEPOOL_LOAD	24868	NEPOOL_LOSS	606	
NEPOOL_INT	-2636					

Table C.5 – Pk2 Base Case Summary

PK2.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 0, CT-EXP 445, SWCT-IMP 295

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	0.998	180	29	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.993	159	19	73552 NORHAR#2	0.993	168	19	73553 DEVON#7	1.005	106	26
73554 DEVON#8	1.003	106	26	73555 MIDDTN#2	0.000	0	0	73556 MIDDTN#3	0.000	0	0
73557 MIDDTN#4	0.986	400	21	73558 MONTV#5	0.985	81	13	73559 MONTV#6	0.993	402	66
73562 MILL#2	0.986	857	50	73563 MILL#3	0.984	1137	50	73565 LAKERD#1	1.001	280	45
73566 LAKERD#2	1.001	280	45	73567 LAKERD#3	1.001	280	45	73574 MILFD#1	1.017	280	9
73575 MILFD#2	1.017	280	9	73579 TOW ST1	1.009	188	25	73580 TOW GT1	1.010	180	25
73581 TOW GT2	1.010	180	25	73588 MERIDEN1	1.028	167	45	73589 MERIDEN2	1.028	167	45
73590 MERIDEN3	1.024	190	45	73594 WALL LV1	1.025	102	19	73595 WALL LV2	1.025	102	19
73596 WALL LV3	1.025	51	16	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.985	170	73
73648 BPTHBR#3	0.981	375	73	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.960	447	4
73652 BE 11	0.976	170	9	73653 BE 12	0.976	170	9	73654 BE 10 ST	0.972	180	9
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.014	50	8	70366 WF WY #2	1.014	50	8
70367 WF WY #3	1.014	100	15	70368 WF WY #4	0.000	0	0	70386 WBK G1	1.023	172	47*
70387 WBK G2	1.023	172	47*	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.995	502	150*
71060 MYST G4	1.069	133	106	71061 MYST 5G	1.070	129	106	71062 MYST G6	1.069	136	104*
71063 MYST G7	1.015	565	51	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.059	670	315	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.019	357	207
71084 NEA GTPF	1.042	85	40*	71085 NEA GTPF	1.042	85	40*	71086 NEA STPF	1.056	80	55*
71095 ANPBLCK1	1.089	290	150*	71096 ANPBLCK2	1.089	290	150*	71251 CANAL G1	1.035	566	239*
71252 CANAL G2	0.000	0	0	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	0.000	0	0
72370 BP #3 GN	1.045	544	265*	72371 BP #4 GN	0.000	0	0	72661 MANCH09A	1.001	99	35*
72662 MANCH10A	1.001	99	35*	72663 MANCH11A	1.001	99	35*	72666 FRSQ SC1	0.991	43	-1
72667 FRSQ SC2	0.991	43	3	72668 FRSQ SC3	0.991	42	5	71522 SOM G6	1.008	70	76
71531 OSP1 PF	1.040	77	28	71532 OSP2 PF	1.040	77	28	71533 OSP3 PF	1.040	108	38
71534 OSP4 PF	1.040	77	28	71535 OSP5 PF	0.000	0	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.025	79	12	71947 SALEM G2	1.025	78	12	71948 SALEM G3	1.022	143	23
71949 SALEM G4	1.022	400	70	72869 SBRK G1	1.010	1150	302	72868 NWNGT G1	1.016	406	136
72870 SCHILLER	1.015	48	25*	72871 SCHILLER	1.015	50	25*	72872 SCHILLER	1.015	48	25*
72866 MERMK G1	1.031	113	53*	72867 MERMK G2	0.000	0	0	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.011	273	55
72244 MILLENST	1.009	117	25	72378 BELL #2	0.000	0	0	72512 BRSWP G1	0.986	280	55
72513 BRSWP G2	0.986	280	55	72986 BERKPWR	1.016	280	8	73072 ALT12 PF	1.020	65	11
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.019	80	11	73069 MAPR1 PF	1.048	56	47*
73080 WSPFLD 3	0.996	107	0	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	7	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.054	92	48*	72377 BELL #1	0.000	0	0	72378 BELL #2	0.000	0	0

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	100	MIDDLETOWN	400	21	MONTVILLE	483	79
NORWALK	327	38	BRIDGEPORT	1065	174	NHHARBOUR	447	4
DEVON	212	53	BRAYTONPT	1088	530	MANCHSTRST	425	112
SOMERSET	70	76	OSP	339	123	NEA	249	135
PAWTKTPWR	64	-8	ENRON	80	53	CANAL	566	239
PILGRIM	670	315	MYSTIC	963	367	NEWBOSTON	357	207
SALEMHBR	700	116	SEABROOK	1150	302	NEWINGTON	406	136
SCHILLER	145	75	MERRIMACK	113	53	STONYBROOK	0	0
WYMAN	200	31	VTYANKEE	502	150	BEARSWAMP	560	110
NORTHFIELD	0	0	MASSPWRR	56	47	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	691	-170	MAINE-NH	793	-86
NNE-SCOBIE+394	1736	79	SEABROOK-SOUTH	1183	138	NORTH-SOUTH	1298	106
CMFD/MOORE-SO	198	-13	SNDYPOND-SOUTH	2135	-74	CONN EXPORT	444	-11
CONN-MASS	5	32	CONN-RI	926	30	SW CONN IMPORT	296	200
NORWLK-STAMFORD	881	-70	BOSTON IMPORT	2987	38	NEMA/BOS IMPORT	3510	-33
SEMA/RI EXPORT	19	169	CONVEX-REMVEC	1059	-2	EAST-WEST	-1203	-23
NY-NE	3	-185	PV20	156	-12	CT-LI-1385	-5	-43

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	356.
70759 MYSTIC	345	360.	71797 MILLBURY	345	353.	72925 LUDLOW	345	354.
72926 NRTHFLD	345	358.	73106 SOUTHGTN	345	354.	73108 CARD	345	357.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	357.
71801 BRAYTN P	345	357.	71811 KENT CO.	345	349.	71326 BRIDGWTR	345	353.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	352.
70772 W MEDWAY	345	353.	70780 WWALP345	345	352.	70783 PILGRIM	345	358.
70773 NEA 336	345	355.	71193 CANAL	345	356.	71133 CARVER	345	354.
70795 FRMNGHAM	230	234.	70793 MDFRM230	230	237.	70794 MDWLT230	230	239.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	115.	73634 COLONY	115	114.
73633 NO.WALLF	115	113.	73227 E.MERIDN	115	113.	73230 HADDAM	115	111.
73231 BOKUM	115	111.	73265 GREEN HL	115	112.	73153 BRANFORD	115	116.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	115.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	116.	72581 WOOD RIV	115	110.

AREA/ZONE TOTALS

NEPOOL_GEN	22863	NEPOOL_LOAD	24868	NEPOOL_LOSS	612
NEPOOL_INT	-2637				

Table C.6 – Pk2G Base Case Summary

PK2G.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 0, CT-EXP 815, SWCT-IMP 295

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	0.998	180	30	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.993	159	19	73552 NORHAR#2	0.993	168	19	73553 DEVON#7	1.000	106	22
73554 DEVON#8	0.999	106	22	73555 MIDDTN#2	1.020	117	45	73556 MIDDTN#3	0.990	230	45
73557 MIDDTN#4	0.980	400	-6	73558 MONTV#5	0.986	81	13	73559 MONTV#6	0.994	402	68
73562 MILL#2	0.985	857	37	73563 MILL#3	0.983	1137	37	73565 LAKERD#1	1.001	280	46
73566 LAKERD#2	1.001	280	46	73567 LAKERD#3	1.001	280	46	73574 MILFD#1	1.017	280	9
73575 MILFD#2	1.017	280	9	73579 TOW ST1	1.009	188	25	73580 TOW GT1	1.009	180	24
73581 TOW GT2	1.009	180	24	73588 MERIDEN1	1.017	167	27	73589 MERIDEN2	1.017	167	27
73590 MERIDEN3	1.013	190	27	73594 WALL LV1	1.025	102	17	73595 WALL LV2	1.025	102	17
73596 WALL LV3	1.025	51	14	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.985	170	73
73648 BPTHBR#3	0.981	375	73	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.961	447	0
73652 BE 11	0.976	170	10	73653 BE 12	0.976	170	10	73654 BE 10 ST	0.972	180	10
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.014	50	8	70366 WF WY #2	1.014	50	8
70367 WF WY #3	1.014	100	16	70368 WF WY #4	0.000	0	0	70386 WBK G1	1.023	172	47*
70387 WBK G2	1.023	172	47*	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.995	502	150*
71060 MYST G4	1.069	133	106	71061 MYST 5G	1.070	129	106	71062 MYST G6	1.069	136	104*
71063 MYST G7	1.016	565	56	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.059	670	316	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.019	357	207
71084 NEA GTPF	1.041	85	40*	71085 NEA GTPF	1.041	85	40*	71086 NEA STPF	1.056	80	55*
71095 ANPBLCK1	1.089	290	150*	71096 ANPBLCK2	1.089	290	150*	71251 CANAL G1	1.035	566	239*
71252 CANAL G2	0.000	0	0	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	0.000	0	0
72370 BP #3 GN	1.047	184	265*	72371 BP #4 GN	0.000	0	0	72661 MANCH09A	1.001	99	35*
72662 MANCH10A	1.001	99	35*	72663 MANCH11A	1.001	99	35*	72666 FRSQ SC1	0.991	43	-1
72667 FRSQ SC2	0.991	43	3	72668 FRSQ SC3	0.991	42	5	71522 SOM G6	1.008	70	76
71531 OSP1 PF	1.048	77	35	71532 OSP2 PF	1.048	77	35	71533 OSP3 PF	1.049	108	46
71534 OSP4 PF	1.048	77	35	71535 OSP5 PF	0.000	0	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.025	79	12	71947 SALEM G2	1.025	78	12	71948 SALEM G3	1.022	143	23
71949 SALEM G4	1.022	400	70	72869 SBRK G1	1.011	1150	306	72868 NWNGT G1	1.016	406	137
72870 SCHILLER	1.015	48	25*	72871 SCHILLER	1.014	50	25*	72872 SCHILLER	1.015	48	25*
72866 MERMK G1	1.030	113	53*	72867 MERMK G2	0.000	0	0	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.012	273	58
72244 MILLENST	1.010	117	26	72378 BELL #2	0.000	0	0	72512 BRSWP G1	0.987	280	58
72513 BRSWP G2	0.987	280	58	72986 BERKPWR	1.010	280	-2	73072 ALT12 PF	1.020	65	10
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.018	80	10	73069 MAPR1 PF	1.048	56	47*
73080 WSPFLD 3	0.996	107	0	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	7	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.054	92	48*	72377 BELL #1	0.000	0	0	72378 BELL #2	0.000	0	0

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	74	MIDDLETOWN	747	84	MONTVILLE	483	81
NORWALK	327	38	BRIDGEPORT	1065	176	NHHARBOUR	447	0
DEVON	212	44	BRAYTONPT	369	530	MANCHSTRST	425	112
SOMERSET	70	76	OSP	339	150	NEA	249	135
PAWTKTPWR	64	-8	ENRON	80	53	CANAL	566	239
PILGRIM	670	316	MYSTIC	963	371	NEWBOSTON	357	207
SALEMHBR	700	117	SEABROOK	1150	306	NEWINGTON	406	137
SCHILLER	145	75	MERRIMACK	113	53	STONYBROOK	0	0
WYMAN	200	31	VTYANKEE	502	150	BEARSWAMP	560	116
NORTHFIELD	0	0	MASSPWRR	56	47	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	691	-170	MAINE-NH	793	-86
NNE-SCOBIE+394	1735	83	SEABROOK-SOUTH	1186	141	NORTH-SOUTH	1294	106
CMFD/MOORE-SO	199	-12	SNDYPOND-SOUTH	2156	-75	CONN EXPORT	813	-10
CONN-MASS	145	42	CONN-RI	1104	26	SW CONN IMPORT	295	203
NORWLK-STAMFORD	881	-68	BOSTON IMPORT	2986	31	NEMA/BOS IMPORT	3509	-39
SEMA/RI EXPORT	-330	219	CONVEX-REMVEC	1402	-8	EAST-WEST	-1557	28
NY-NE	2	-180	PV20	158	-12	CT-LI-1385	1	-44

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	356.
70759 MYSTIC	345	360.	71797 MILLBURY	345	353.	72925 LUDLOW	345	354.
72926 NRTHFLD	345	358.	73106 SOUTHGTN	345	354.	73108 CARD	345	357.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	357.
71801 BRAYTN P	345	357.	71811 KENT CO.	345	349.	71326 BRIDGWTR	345	353.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	352.
70772 W MEDWAY	345	352.	70780 WWALP345	345	352.	70783 PILGRIM	345	358.
70773 NEA 336	345	354.	71193 CANAL	345	356.	71133 CARVER	345	354.
70795 FRMNGHAM	230	234.	70793 MDFRM230	230	237.	70794 MDWLT230	230	239.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	116.	73634 COLONY	115	116.
73633 NO.WALLF	115	115.	73227 E.MERIDN	115	115.	73230 HADDAM	115	116.
73231 BOKUM	115	115.	73265 GREEN HL	115	115.	73153 BRANFORD	115	117.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	115.
71403 WFARNUM	115	115.	72539 WOLFHILL	115	116.	72581 WOOD RIV	115	109.

AREA/ZONE TOTALS

NEPOOL_GEN	22867	NEPOOL_LOAD	24868	NEPOOL_LOSS	615	
NEPOOL_INT	-2636					

Table C.7 – Pk2-ALC Base Case Summary

PK2-ALC.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 0, CT-EXP 455, SWCT-IMP 295, HADAUTO, 1620N,S,CAP

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	0.997	180	28	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.993	159	19	73552 NORHAR#2	0.993	168	19	73553 DEVON#7	0.998	106	20
73554 DEVON#8	0.997	106	20	73555 MIDDTN#2	0.000	0	0	73556 MIDDTN#3	0.000	0	0
73557 MIDDTN#4	0.980	400	-5	73558 MONTV#5	0.984	81	12	73559 MONTV#6	0.992	402	63
73562 MILL#2	0.987	857	59	73563 MILL#3	0.985	1137	59	73565 LAKERD#1	0.999	280	42
73566 LAKERD#2	0.999	280	42	73567 LAKERD#3	0.999	280	42	73574 MILFD#1	1.017	280	9
73575 MILFD#2	1.017	280	9	73579 TOW ST1	1.009	188	25	73580 TOW GT1	1.009	180	24
73581 TOW GT2	1.009	180	24	73588 MERIDEN1	1.021	167	34	73589 MERIDEN2	1.021	167	34
73590 MERIDEN3	1.017	190	34	73594 WALL LV1	1.025	102	16	73595 WALL LV2	1.025	102	16
73596 WALL LV3	1.025	51	13	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.985	170	73
73648 BPTHBR#3	0.981	375	73	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.961	447	0
73652 BE 11	0.976	170	10	73653 BE 12	0.976	170	10	73654 BE 10 ST	0.972	180	10
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.014	50	8	70366 WF WY #2	1.014	50	8
70367 WF WY #3	1.014	100	15	70368 WF WY #4	0.000	0	0	70386 WBK G1	1.023	172	47*
70387 WBK G2	1.023	172	47*	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.995	502	148
71060 MYST G4	1.069	133	106	71061 MYST 5G	1.070	129	106	71062 MYST G6	1.069	136	104*
71063 MYST G7	1.015	565	51	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.059	670	314	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.019	357	207
71084 NEA GTPF	1.042	85	40*	71085 NEA GTPF	1.042	85	40*	71086 NEA STPF	1.056	80	55*
71095 ANPBLCK1	1.089	290	150*	71096 ANPBLCK2	1.089	290	150*	71251 CANAL G1	1.035	566	239*
71252 CANAL G2	0.000	0	0	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	0.000	0	0
72370 BP #3 GN	1.045	538	265*	72371 BP #4 GN	0.000	0	0	72661 MANCH09A	1.001	99	35*
72662 MANCH10A	1.001	99	35*	72663 MANCH11A	1.001	99	35*	72666 FRSQ SC1	0.991	43	-1
72667 FRSQ SC2	0.991	43	3	72668 FRSQ SC3	0.991	42	5	71522 SOM G6	1.008	70	76
71531 OSP1 PF	1.039	77	28	71532 OSP2 PF	1.039	77	28	71533 OSP3 PF	1.040	108	37
71534 OSP4 PF	1.039	77	28	71535 OSP5 PF	0.000	0	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.025	79	12	71947 SALEM G2	1.025	78	12	71948 SALEM G3	1.022	143	23
71949 SALEM G4	1.022	400	70	72869 SBRK G1	1.010	1150	302	72868 NWNGT G1	1.016	406	136
72870 SCHILLER	1.015	48	25*	72871 SCHILLER	1.015	50	25*	72872 SCHILLER	1.015	48	25*
72866 MERMK G1	1.031	113	53*	72867 MERMK G2	0.000	0	0	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.011	273	55
72244 MILLENST	1.009	117	25	72378 BELL #2	0.000	0	0	72512 BRSWP G1	0.986	280	55
72513 BRSWP G2	0.986	280	55	72986 BERKPWR	1.011	280	0	73072 ALT12 PF	1.020	65	10
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.018	80	10	73069 MAPR1 PF	1.048	56	47*
73080 WSPFLD 3	0.995	107	-2	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	7	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.054	92	48*	72377 BELL #1	0.000	0	0	72378 BELL #2	0.000	0	0

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	117	MIDDLETOWN	400	-5	MONTVILLE	483	75
NORWALK	327	38	BRIDGEPORT	1065	175	NHHARBOUR	447	0
DEVON	212	40	BRAYTONPT	1076	530	MANCHSTRST	425	112
SOMERSET	70	76	OSP	339	121	NEA	249	135
PAWTKTPWR	64	-8	ENRON	80	53	CANAL	566	239
PILGRIM	670	314	MYSTIC	963	366	NEWBOSTON	357	207
SALEMHBR	700	116	SEABROOK	1150	302	NEWINGTON	406	136
SCHILLER	145	75	MERRIMACK	113	53	STONYBROOK	0	0
WYMAN	200	31	VTYANKEE	502	148	BEARSWAMP	560	110
NORTHFIELD	0	0	MASSPWRR	56	47	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	691	-171	MAINE-NH	793	-86
NNE-SCOBIE+394	1736	78	SEABROOK-SOUTH	1183	138	NORTH-SOUTH	1297	103
CMFD/MOORE-SO	198	-13	SNDYPOND-SOUTH	2136	-74	CONN EXPORT	453	14
CONN-MASS	19	48	CONN-RI	920	30	SW CONN IMPORT	295	207
NORWLK-STAMFORD	881	-68	BOSTON IMPORT	2987	38	NEMA/BOS IMPORT	3510	-33
SEMA/RI EXPORT	14	169	CONVEX-REMVEC	1064	4	EAST-WEST	-1208	-25
NY-NE	-1	-186	PV20	156	-12	CT-LI-1385	0	-44

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	356.
70759 MYSTIC	345	360.	71797 MILLBURY	345	353.	72925 LUDLOW	345	354.
72926 NRTHFLD	345	358.	73106 SOUTHGTN	345	354.	73108 CARD	345	357.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	357.
71801 BRAYTN P	345	357.	71811 KENT CO.	345	349.	71326 BRIDGWTR	345	353.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	352.
70772 W MEDWAY	345	353.	70780 WWALP345	345	352.	70783 PILGRIM	345	358.
70773 NEA 336	345	355.	71193 CANAL	345	356.	71133 CARVER	345	354.
70795 FRMNGHAM	230	234.	70793 MDFRM230	230	237.	70794 MDWLT230	230	239.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	117.	73634 COLONY	115	117.
73633 NO.WALLF	115	116.	73227 E.MERIDN	115	117.	73230 HADDAM	115	118.
73231 BOKUM	115	117.	73265 GREEN HL	115	116.	73153 BRANFORD	115	117.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	115.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	116.	72581 WOOD RIV	115	110.

AREA/ZONE TOTALS

NEPOOL_GEN	22857	NEPOOL_LOAD	24868	NEPOOL_LOSS	603
NEPOOL_INT	-2633				

Table C.8 – Pk2-ALCG Base Case Summary

PK2-ALCG.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 0, CT-EXP 455, SWCT-IMP 295, HADAUTO, 1620N,S

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	0.997	180	29	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.994	159	19	73552 NORHAR#2	0.993	168	19	73553 DEVON#7	0.998	106	20
73554 DEVON#8	0.997	106	20	73555 MIDDTN#2	0.997	117	19	73556 MIDDTN#3	0.980	230	19
73557 MIDDTN#4	0.980	400	-7	73558 MONTV#5	0.985	81	13	73559 MONTV#6	0.993	402	65
73562 MILL#2	0.986	857	45	73563 MILL#3	0.984	1137	45	73565 LAKERD#1	1.003	280	51
73566 LAKERD#2	1.003	280	51	73567 LAKERD#3	1.003	280	51	73574 MILFD#1	1.017	280	9
73575 MILFD#2	1.017	280	9	73579 TOW ST1	1.009	188	25	73580 TOW GT1	1.009	180	24
73581 TOW GT2	1.009	180	24	73588 MERIDEN1	1.017	167	27	73589 MERIDEN2	1.017	167	27
73590 MERIDEN3	1.013	190	27	73594 WALL LV1	1.025	102	16	73595 WALL LV2	1.025	102	16
73596 WALL LV3	1.025	51	13	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.985	170	73
73648 BPTHBR#3	0.981	375	73	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.961	447	0
73652 BE 11	0.976	170	10	73653 BE 12	0.976	170	10	73654 BE 10 ST	0.972	180	10
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.015	50	8	70366 WF WY #2	1.015	50	8
70367 WF WY #3	1.015	100	16	70368 WF WY #4	0.000	0	0	70386 WBK G1	1.022	172	47*
70387 WBK G2	1.022	172	47*	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.994	502	150*
71060 MYST G4	1.061	133	108*	71061 MYST 5G	1.061	129	108*	71062 MYST G6	1.059	136	104*
71063 MYST G7	1.041	565	277	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.060	670	340*	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	0.000	0	0
71084 NEA GTPF	1.039	85	40*	71085 NEA GTPF	1.039	85	40*	71086 NEA STPF	1.054	80	55*
71095 ANPBLCK1	1.086	290	150*	71096 ANPBLCK2	1.086	290	150*	71251 CANAL G1	1.033	566	239*
71252 CANAL G2	0.000	0	0	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	0.000	0	0
72370 BP #3 GN	1.042	556	265*	72371 BP #4 GN	0.000	0	0	72661 MANCH09A	1.000	99	35*
72662 MANCH10A	1.000	99	35*	72663 MANCH11A	1.000	99	35*	72666 FRSQ SC1	0.991	43	0
72667 FRSQ SC2	0.991	43	5	72668 FRSQ SC3	0.991	42	6	71522 SOM G6	1.015	70	86*
71531 OSP1 PF	1.051	77	38*	71532 OSP2 PF	1.051	77	38*	71533 OSP3 PF	1.053	108	52*
71534 OSP4 PF	1.051	77	38*	71535 OSP5 PF	0.000	0	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.026	79	13	71947 SALEM G2	1.026	78	13	71948 SALEM G3	1.023	143	25
71949 SALEM G4	1.023	400	75	72869 SBRK G1	1.014	1150	345	72868 NWNGT G1	1.024	406	165
72870 SCHILLER	1.014	48	25*	72871 SCHILLER	1.014	50	25*	72872 SCHILLER	1.014	48	25*
72866 MERMK G1	1.029	113	53*	72867 MERMK G2	0.000	0	0	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.016	273	64
72244 MILLENST	1.013	117	29	72378 BELL #2	0.000	0	0	72512 BRSWP G1	0.988	280	60
72513 BRSWP G2	0.988	280	60	72986 BERKPWR	1.011	280	-1	73072 ALT12 PF	1.020	65	11
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.019	80	11	73069 MAPR1 PF	1.048	56	47*
73080 WSPFLD 3	0.998	107	1	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	8	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.054	92	48*	72377 BELL #1	0.000	0	0	72378 BELL #2	0.000	0	0

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	90	MIDDLETOWN	747	30	MONTVILLE	483	78
NORWALK	327	39	BRIDGEPORT	1065	176	NHHARBOUR	447	0
DEVON	212	41	BRAYTONPT	1111	530	MANCHSTRST	425	117
SOMERSET	70	86	OSP	339	165	NEA	249	135
PAWTKTPWR	64	-7	ENRON	80	53	CANAL	566	239
PILGRIM	670	340	MYSTIC	963	597	NEWBOSTON	0	0
SALEMHBR	700	126	SEABROOK	1150	345	NEWINGTON	406	165
SCHILLER	145	75	MERRIMACK	113	53	STONYBROOK	0	0
WYMAN	200	33	VTYANKEE	502	150	BEARSWAMP	560	120
NORTHFIELD	0	0	MASSPWRR	56	47	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	689	-142	MAINE-NH	793	-138
NNE-SCOBIE+394	1739	97	SEABROOK-SOUTH	1201	177	NORTH-SOUTH	1317	109
CMFD/MOORE-SO	199	-9	SNDYPOND-SOUTH	2144	-73	CONN EXPORT	813	-7
CONN-MASS	179	44	CONN-RI	1061	44	SW CONN IMPORT	294	204
NORWLK-STAMFORD	881	-67	BOSTON IMPORT	3341	80	NEMA/BOS IMPORT	3877	6
SEMA/RI EXPORT	17	205	CONVEX-REMVEC	1398	20	EAST-WEST	-1556	-13
NY-NE	2	-174	PV20	160	-12	CT-LI-1385	1	-45

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0
MADAWASK = -151
EEL = 74

CHAT-2 = 0
PHII-P1 = 1000

HIGHGATE = 215
PHII-P2 = 1000

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	356.
70759 MYSTIC	345	360.	71797 MILLBURY	345	352.	72925 LUDLOW	345	354.
72926 NRTHFLD	345	357.	73106 SOUTHGTN	345	354.	73108 CARD	345	357.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	357.
71801 BRAYTN P	345	356.	71811 KENT CO.	345	348.	71326 BRIDGWTR	345	352.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	352.
70772 W MEDWAY	345	351.	70780 WWALP345	345	350.	70783 PILGRIM	345	357.
70773 NEA 336	345	353.	71193 CANAL	345	355.	71133 CARVER	345	353.
70795 FRMNGHAM	230	232.	70793 MDFRM230	230	236.	70794 MDWLT230	230	237.
70818 MYSTC MA	115	118.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	117.	73634 COLONY	115	117.
73633 NO.WALLF	115	117.	73227 E.MERIDN	115	117.	73230 HADDAM	115	118.
73231 BOKUM	115	117.	73265 GREEN HL	115	116.	73153 BRANFORD	115	117.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	115.
71403 WFARNUM	115	115.	72539 WOLFHILL	115	116.	72581 WOOD RIV	115	109.

AREA/ZONE TOTALS

NEPOOL_GEN	22881	NEPOOL_LOAD	24868	NEPOOL_LOSS	629
NEPOOL_INT	-2636				

Table C.9 – Pk3 Base Case Summary

PK3.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE -700, CT-IMP 1900, SWCT-IMP 2000

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	1.028	180	80*	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.990	159	14	73552 NORHAR#2	0.990	168	14	73553 DEVON#7	1.024	106	44
73554 DEVON#8	1.020	106	44	73555 MIDDTN#2	0.000	0	0	73556 MIDDTN#3	0.000	0	0
73557 MIDDTN#4	1.018	400	200*	73558 MONTV#5	0.000	0	0	73559 MONTV#6	1.022	402	200*
73562 MILL#2	1.006	857	225	73563 MILL#3	1.000	1137	225	73565 LAKERD#1	1.022	280	93
73566 LAKERD#2	1.022	280	93	73567 LAKERD#3	1.022	280	93	73574 MILFD#1	1.017	280	7
73575 MILFD#2	0.000	0	0	73579 TOW ST1	0.000	0	0	73580 TOW GT1	0.000	0	0
73581 TOW GT2	0.000	0	0	73588 MERIDEN1	0.000	0	0	73589 MERIDEN2	0.000	0	0
73590 MERIDEN3	0.000	0	0	73594 WALL LV1	0.000	0	0	73595 WALL LV2	0.000	0	0
73596 WALL LV3	0.000	0	0	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.000	0	0
73648 BPTHBR#3	0.000	0	0	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.990	447	143
73652 BE 11	1.025	170	63	73653 BE 12	1.025	170	63	73654 BE 10 ST	1.028	180	63
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.011	50	6	70366 WF WY #2	1.011	50	6
70367 WF WY #3	1.011	100	12	70368 WF WY #4	1.059	626	229	70386 WBK G1	1.029	172	47*
70387 WBK G2	1.029	172	47*	70388 WBK G3	1.031	187	50*	70705 VTYAK G	0.980	502	150*
71060 MYST G4	1.066	133	102	71061 MYST 5G	1.068	129	102	71062 MYST G6	1.068	136	102
71063 MYST G7	1.016	565	56	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.044	670	195	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.017	357	197
71084 NEA GTPF	1.046	85	40*	71085 NEA GTPF	1.046	85	40*	71086 NEA STPF	1.061	80	55*
71095 ANPBLCK1	1.094	290	150*	71096 ANPBLCK2	1.094	290	150*	71251 CANAL G1	1.042	566	239*
71252 CANAL G2	1.020	577	120*	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	1.025	241	117*
72370 BP #3 GN	1.024	548	91	72371 BP #4 GN	1.027	421	69	72661 MANCH09A	1.004	99	35*
72662 MANCH10A	1.004	99	35*	72663 MANCH11A	1.004	99	35*	72666 FRSQ SC1	0.991	43	-3
72667 FRSQ SC2	0.991	43	2	72668 FRSQ SC3	0.991	42	3	71522 SOM G6	0.996	70	63
71531 OSP1 PF	1.000	77	0	71532 OSP2 PF	1.000	77	0	71533 OSP3 PF	0.999	108	0
71534 OSP4 PF	1.000	77	0	71535 OSP5 PF	1.000	77	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.025	79	12	71947 SALEM G2	1.025	78	12	71948 SALEM G3	1.022	143	23
71949 SALEM G4	1.022	400	70	72869 SBRK G1	1.017	1150	385	72868 NWNGT G1	1.027	406	177
72870 SCHILLER	1.012	48	25*	72871 SCHILLER	1.012	50	25*	72872 SCHILLER	1.012	48	25*
72866 MERMK G1	1.044	113	38	72867 MERMK G2	1.044	320	109	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.011	273	55
72244 MILLENST	1.009	117	25	72378 BELL #2	1.094	270	150*	72512 BRSWP G1	0.981	280	41
72513 BRSWP G2	0.981	280	41	72986 BERKPWR	1.030	280	35	73072 ALT12 PF	1.034	65	22*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.033	80	22*	73069 MAPR1 PF	1.032	56	33
73080 WSPFLD 3	0.993	107	-4	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	13	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.053	92	48*	72377 BELL #1	1.094	270	150*	72378 BELL #2	1.094	270	150*

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	450	MIDDLETOWN	400	200	MONTVILLE	402	200
NORWALK	327	27	BRIDGEPORT	520	190	NHHARBOUR	447	143
DEVON	212	88	BRAYTONPT	1758	368	MANCHSTRST	425	106
SOMERSET	70	63	OSP	416	0	NEA	249	135
PAWTKTPWR	64	-9	ENRON	124	80	CANAL	1143	359
PILGRIM	670	195	MYSTIC	963	361	NEWBOSTON	357	197
SALEMHBR	700	116	SEABROOK	1150	385	NEWINGTON	406	177
SCHILLER	145	75	MERRIMACK	433	147	STONYBROOK	0	0
WYMAN	826	252	VTYANKEE	502	150	BEARSWAMP	560	81
NORTHFIELD	0	0	MASSPWRR	126	66	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	696	-171	MAINE-NH	1595	-12
NNE-SCOBIE+394	2515	204	SEABROOK-SOUTH	1313	206	NORTH-SOUTH	2218	57
CMFD/MOORE-SO	191	-21	SNDYPOND-SOUTH	2328	-130	CONN EXPORT	-1907	157
CONN-MASS	-911	155	CONN-RI	-276	113	SW CONN IMPORT	1999	110
NORWLK-STAMFORD	877	-81	BOSTON IMPORT	2968	69	NEMA/BOS IMPORT	3495	-2
SEMA/RI EXPORT	1947	104	CONVEX-REMVEC	-1588	191	EAST-WEST	1743	-140
NY-NE	-694	50	PV20	112	-9	CT-LI-1385	1	-46

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 75		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	356.
70759 MYSTIC	345	360.	71797 MILLBURY	345	353.	72925 LUDLOW	345	348.
72926 NRTHFLD	345	352.	73106 SOUTHGTN	345	343.	73108 CARD	345	353.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	354.
71801 BRAYTN P	345	358.	71811 KENT CO.	345	349.	71326 BRIDGWTR	345	354.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	353.
70772 W MEDWAY	345	355.	70780 WWALP345	345	354.	70783 PILGRIM	345	358.
70773 NEA 336	345	356.	71193 CANAL	345	359.	71133 CARVER	345	356.
70795 FRMNGHAM	230	235.	70793 MDFRM230	230	239.	70794 MDWLT230	230	240.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	115.	73634 COLONY	115	114.
73633 NO.WALLF	115	113.	73227 E.MERIDN	115	113.	73230 HADDAM	115	111.
73231 BOKUM	115	111.	73265 GREEN HL	115	112.	73153 BRANFORD	115	116.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	116.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	116.	72581 WOOD RIV	115	111.

AREA/ZONE TOTALS

NEPOOL_GEN	23664	NEPOOL_LOAD	24868	NEPOOL_LOSS	713	
NEPOOL_INT	-1937					

Table C.10 – Pk3G Base Case Summary

PK3G.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE -700, CT-IMP 1530, SWCT-IMP 2000

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	1.022	180	67	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.990	159	14	73552 NORHAR#2	0.990	168	14	73553 DEVON#7	1.023	106	43
73554 DEVON#8	1.019	106	43	73555 MIDDTN#2	1.027	117	54	73556 MIDDTN#3	0.994	230	54
73557 MIDDTN#4	1.024	400	200*	73558 MONTV#5	0.000	0	0	73559 MONTV#6	1.015	402	152
73562 MILL#2	0.998	857	155	73563 MILL#3	0.994	1137	155	73565 LAKERD#1	1.011	280	68
73566 LAKERD#2	1.011	280	68	73567 LAKERD#3	1.011	280	68	73574 MILFD#1	1.017	280	7
73575 MILFD#2	0.000	0	0	73579 TOW ST1	0.000	0	0	73580 TOW GT1	0.000	0	0
73581 TOW GT2	0.000	0	0	73588 MERIDEN1	0.000	0	0	73589 MERIDEN2	0.000	0	0
73590 MERIDEN3	0.000	0	0	73594 WALL LV1	0.000	0	0	73595 WALL LV2	0.000	0	0
73596 WALL LV3	0.000	0	0	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.000	0	0
73648 BPTHBR#3	0.000	0	0	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.981	447	90
73652 BE 11	1.025	170	63	73653 BE 12	1.025	170	63	73654 BE 10 ST	1.028	180	63
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.010	50	6	70366 WF WY #2	1.010	50	6
70367 WF WY #3	1.011	100	11	70368 WF WY #4	1.059	626	226	70386 WBK G1	1.030	172	47*
70387 WBK G2	1.030	172	47*	70388 WBK G3	1.031	187	50*	70705 VTYAK G	0.983	502	150*
71060 MYST G4	1.066	133	101	71061 MYST 5G	1.067	129	101	71062 MYST G6	1.067	136	101
71063 MYST G7	1.015	565	51	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.042	670	183	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.017	357	194
71084 NEA GTPF	1.047	85	40*	71085 NEA GTPF	1.047	85	40*	71086 NEA STPF	1.062	80	55*
71095 ANPBLCK1	1.094	290	150*	71096 ANPBLCK2	1.094	290	150*	71251 CANAL G1	1.043	566	239*
71252 CANAL G2	1.020	577	120*	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	1.027	241	117*
72370 BP #3 GN	1.023	152	71	72371 BP #4 GN	1.023	421	53	72661 MANCH09A	1.005	99	35*
72662 MANCH10A	1.005	99	35*	72663 MANCH11A	1.005	99	35*	72666 FRSQ SC1	0.991	43	-4
72667 FRSQ SC2	0.991	43	0	72668 FRSQ SC3	0.991	42	2	71522 SOM G6	0.994	70	60
71531 OSP1 PF	1.001	77	0	71532 OSP2 PF	1.001	77	0	71533 OSP3 PF	1.000	108	0
71534 OSP4 PF	1.001	77	0	71535 OSP5 PF	1.001	77	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.025	79	12	71947 SALEM G2	1.025	78	12	71948 SALEM G3	1.022	143	23
71949 SALEM G4	1.022	400	69	72869 SBRK G1	1.016	1150	378	72868 NWNGT G1	1.026	406	173
72870 SCHILLER	1.012	48	25*	72871 SCHILLER	1.012	50	25*	72872 SCHILLER	1.012	48	25*
72866 MERMK G1	1.044	113	38	72867 MERMK G2	1.044	320	107	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.008	273	48
72244 MILLENST	1.006	117	22	72378 BELL #2	1.095	270	150*	72512 BRSWP G1	0.980	280	40
72513 BRSWP G2	0.980	280	40	72986 BERKPWR	1.022	280	20	73072 ALT12 PF	1.029	65	18*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.028	80	18	73069 MAPR1 PF	1.023	56	26
73080 WSPFLD 3	0.989	107	-9	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	11	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.053	92	48*	72377 BELL #1	1.095	270	150*	72378 BELL #2	1.095	270	150*

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	310	MIDDLETOWN	747	308	MONTVILLE	402	152
NORWALK	327	27	BRIDGEPORT	520	190	NHHARBOUR	447	90
DEVON	212	86	BRAYTONPT	966	311	MANCHSTRST	425	102
SOMERSET	70	60	OSP	416	0	NEA	249	135
PAWTKTPWR	64	-9	ENRON	124	80	CANAL	1143	359
PILGRIM	670	183	MYSTIC	963	353	NEWBOSTON	357	194
SALEMHBR	700	116	SEABROOK	1150	378	NEWINGTON	406	173
SCHILLER	145	75	MERRIMACK	433	145	STONYBROOK	0	0
WYMAN	826	249	VTYANKEE	502	150	BEARSWAMP	560	79
NORTHFIELD	0	0	MASSPWRR	126	52	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	696	-171	MAINE-NH	1595	-15
NNE-SCOBIE+394	2514	191	SEABROOK-SOUTH	1317	200	NORTH-SOUTH	2216	55
CMFD/MOORE-SO	191	-23	SNDYPOND-SOUTH	2350	-135	CONN EXPORT	-1530	170
CONN-MASS	-773	158	CONN-RI	-87	83	SW CONN IMPORT	1998	105
NORWLK-STAMFORD	877	-80	BOSTON IMPORT	2967	72	NEMA/BOS IMPORT	3494	4
SEMA/RI EXPORT	1568	129	CONVEX-REMVEC	-1228	152	EAST-WEST	1360	-137
NY-NE	-694	16	PV20	115	-9	CT-LI-1385	1	-47

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	356.
70759 MYSTIC	345	360.	71797 MILLBURY	345	354.	72925 LUDLOW	345	350.
72926 NRTHFLD	345	353.	73106 SOUTHGTN	345	346.	73108 CARD	345	355.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	357.
71801 BRAYTN P	345	358.	71811 KENT CO.	345	350.	71326 BRIDGWTR	345	355.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	353.
70772 W MEDWAY	345	355.	70780 WWALP345	345	354.	70783 PILGRIM	345	358.
70773 NEA 336	345	357.	71193 CANAL	345	359.	71133 CARVER	345	357.
70795 FRMNGHAM	230	236.	70793 MDFRM230	230	239.	70794 MDWLT230	230	240.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	116.	73634 COLONY	115	115.
73633 NO.WALLF	115	115.	73227 E.MERIDN	115	115.	73230 HADDAM	115	115.
73231 BOKUM	115	115.	73265 GREEN HL	115	115.	73153 BRANFORD	115	117.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	116.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	117.	72581 WOOD RIV	115	111.

AREA/ZONE TOTALS

NEPOOL_GEN	23631	NEPOOL_LOAD	24868	NEPOOL_LOSS	681	
NEPOOL_INT	-1937					

Table C.11 – Pk3-ALC Base Case Summary

PK3-ALC.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE -700, CT-IMP 1895, SWCT-IMP 2000, HADAUTO, 1620N,S,CAP

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	1.022	180	74	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.990	159	12	73552 NORHAR#2	0.990	168	12	73553 DEVON#7	1.015	106	36
73554 DEVON#8	1.013	106	36	73555 MIDDTN#2	0.000	0	0	73556 MIDDTN#3	0.000	0	0
73557 MIDDTN#4	1.021	400	200*	73558 MONTV#5	0.000	0	0	73559 MONTV#6	1.014	402	168
73562 MILL#2	1.005	857	221	73563 MILL#3	1.000	1137	221	73565 LAKERD#1	1.020	280	88
73566 LAKERD#2	1.020	280	88	73567 LAKERD#3	1.020	280	88	73574 MILFD#1	1.017	280	6
73575 MILFD#2	0.000	0	0	73579 TOW ST1	0.000	0	0	73580 TOW GT1	0.000	0	0
73581 TOW GT2	0.000	0	0	73588 MERIDEN1	0.000	0	0	73589 MERIDEN2	0.000	0	0
73590 MERIDEN3	0.000	0	0	73594 WALL LV1	0.000	0	0	73595 WALL LV2	0.000	0	0
73596 WALL LV3	0.000	0	0	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.000	0	0
73648 BPTHBR#3	0.000	0	0	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.980	447	85
73652 BE 11	1.024	170	62	73653 BE 12	1.024	170	62	73654 BE 10 ST	1.027	180	62
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.010	50	6	70366 WF WY #2	1.011	50	6
70367 WF WY #3	1.011	100	11	70368 WF WY #4	1.059	626	228	70386 WBK G1	1.029	172	47*
70387 WBK G2	1.029	172	47*	70388 WBK G3	1.031	187	50*	70705 VTYAK G	0.980	502	150*
71060 MYST G4	1.066	133	102	71061 MYST 5G	1.068	129	102	71062 MYST G6	1.068	136	102
71063 MYST G7	1.016	565	54	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.043	670	193	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.017	357	197
71084 NEA GTPF	1.046	85	40*	71085 NEA GTPF	1.046	85	40*	71086 NEA STPF	1.061	80	55*
71095 ANPBLCK1	1.094	290	150*	71096 ANPBLCK2	1.094	290	150*	71251 CANAL G1	1.042	566	239*
71252 CANAL G2	1.020	577	120*	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	1.025	241	117*
72370 BP #3 GN	1.024	536	90	72371 BP #4 GN	1.026	421	67	72661 MANCH09A	1.003	99	35*
72662 MANCH10A	1.003	99	35*	72663 MANCH11A	1.003	99	35*	72666 FRSQ SC1	0.991	43	-3
72667 FRSQ SC2	0.991	43	2	72668 FRSQ SC3	0.991	42	3	71522 SOM G6	0.996	70	62
71531 OSP1 PF	1.000	77	0	71532 OSP2 PF	1.000	77	0	71533 OSP3 PF	0.999	108	0
71534 OSP4 PF	1.000	77	0	71535 OSP5 PF	1.000	77	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.025	79	12	71947 SALEM G2	1.025	78	12	71948 SALEM G3	1.022	143	23
71949 SALEM G4	1.022	400	70	72869 SBRK G1	1.016	1150	383	72868 NWNGT G1	1.027	406	177
72870 SCHILLER	1.012	48	25*	72871 SCHILLER	1.012	50	25*	72872 SCHILLER	1.012	48	25*
72866 MERMK G1	1.044	113	38	72867 MERMK G2	1.044	320	108	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.010	273	53
72244 MILLENST	1.008	117	24	72378 BELL #2	1.094	270	150*	72512 BRSWP G1	0.981	280	40
72513 BRSWP G2	0.981	280	40	72986 BERKPWR	1.023	280	22	73072 ALT12 PF	1.032	65	21*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.031	80	21*	73069 MAPR1 PF	1.029	56	31
73080 WSPFLD 3	0.991	107	-7	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	13	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.053	92	48*	72377 BELL #1	1.094	270	150*	72378 BELL #2	1.094	270	150*

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	441	MIDDLETOWN	400	200	MONTVILLE	402	168
NORWALK	327	25	BRIDGEPORT	520	187	NHHARBOUR	447	85
DEVON	212	72	BRAYTONPT	1733	363	MANCHSTRST	425	106
SOMERSET	70	62	OSP	416	0	NEA	249	135
PAWTKTPWR	64	-9	ENRON	124	80	CANAL	1143	359
PILGRIM	670	193	MYSTIC	963	359	NEWBOSTON	357	197
SALEMHBR	700	116	SEABROOK	1150	383	NEWINGTON	406	177
SCHILLER	145	75	MERRIMACK	433	147	STONYBROOK	0	0
WYMAN	826	251	VTYANKEE	502	150	BEARSWAMP	560	81
NORTHFIELD	0	0	MASSPWRR	126	61	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	696	-171	MAINE-NH	1595	-13
NNE-SCOBIE+394	2515	202	SEABROOK-SOUTH	1314	205	NORTH-SOUTH	2218	55
CMFD/MOORE-SO	191	-22	SNDYPOND-SOUTH	2330	-131	CONN EXPORT	-1895	208
CONN-MASS	-896	182	CONN-RI	-281	112	SW CONN IMPORT	1997	117
NORWLK-STAMFORD	877	-78	BOSTON IMPORT	2968	70	NEMA/BOS IMPORT	3494	-1
SEMA/RI EXPORT	1936	102	CONVEX-REMVEC	-1578	196	EAST-WEST	1731	-147
NY-NE	-695	37	PV20	112	-9	CT-LI-1385	0	-46

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0
MADAWASK = -151
EEL = 74
CHAT-2 = 0
PHII-P1 = 1000
HIGHGATE = 215
PHII-P2 = 1000

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	356.
70759 MYSTIC	345	360.	71797 MILLBURY	345	354.	72925 LUDLOW	345	349.
72926 NRTHFLD	345	352.	73106 SOUTHGTN	345	345.	73108 CARD	345	354.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	356.
71801 BRAYTN P	345	358.	71811 KENT CO.	345	349.	71326 BRIDGWTR	345	354.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	353.
70772 W MEDWAY	345	355.	70780 WWALP345	345	354.	70783 PILGRIM	345	358.
70773 NEA 336	345	356.	71193 CANAL	345	359.	71133 CARVER	345	356.
70795 FRMNGHAM	230	235.	70793 MDFRM230	230	239.	70794 MDWLT230	230	240.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	117.	73634 COLONY	115	117.
73633 NO.WALLF	115	117.	73227 E.MERIDN	115	117.	73230 HADDAM	115	118.
73231 BOKUM	115	117.	73265 GREEN HL	115	116.	73153 BRANFORD	115	117.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	116.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	116.	72581 WOOD RIV	115	111.

AREA/ZONE TOTALS

NEPOOL_GEN	23651	NEPOOL_LOAD	24868	NEPOOL_LOSS	699	
NEPOOL_INT	-1936					

Table C.12 – Pk3-ALCG Base Case Summary

PK3-ALCG.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE -700, CT IMP 1545, SWCT IMP 2000, HADAUTO, 1620N,S,CAP

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	1.015	180	64	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.989	159	12	73552 NORHAR#2	0.989	168	12	73553 DEVON#7	1.014	106	35
73554 DEVON#8	1.011	106	35	73555 MIDDTN#2	0.994	117	15	73556 MIDDTN#3	0.979	230	15
73557 MIDDTN#4	1.023	400	200*	73558 MONTV#5	0.000	0	0	73559 MONTV#6	1.008	402	145
73562 MILL#2	1.000	857	178	73563 MILL#3	0.996	1137	178	73565 LAKERD#1	1.012	280	70
73566 LAKERD#2	1.012	280	70	73567 LAKERD#3	1.012	280	70	73574 MILFD#1	1.017	280	5
73575 MILFD#2	0.000	0	0	73579 TOW ST1	0.000	0	0	73580 TOW GT1	0.000	0	0
73581 TOW GT2	0.000	0	0	73588 MERIDEN1	0.000	0	0	73589 MERIDEN2	0.000	0	0
73590 MERIDEN3	0.000	0	0	73594 WALL LV1	0.000	0	0	73595 WALL LV2	0.000	0	0
73596 WALL LV3	0.000	0	0	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.000	0	0
73648 BPTHBR#3	0.000	0	0	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.977	447	71
73652 BE 11	1.024	170	62	73653 BE 12	1.024	170	62	73654 BE 10 ST	1.027	180	62
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.010	50	6	70366 WF WY #2	1.010	50	6
70367 WF WY #3	1.011	100	11	70368 WF WY #4	1.059	626	227	70386 WBK G1	1.030	172	47*
70387 WBK G2	1.030	172	47*	70388 WBK G3	1.031	187	50*	70705 VTYAK G	0.983	502	150*
71060 MYST G4	1.066	133	101	71061 MYST 5G	1.067	129	101	71062 MYST G6	1.067	136	101
71063 MYST G7	1.015	565	51	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.042	670	183	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.017	357	194
71084 NEA GTPF	1.047	85	40*	71085 NEA GTPF	1.047	85	40*	71086 NEA STPF	1.062	80	55*
71095 ANPBLCK1	1.094	290	150*	71096 ANPBLCK2	1.094	290	150*	71251 CANAL G1	1.043	566	239*
71252 CANAL G2	1.020	577	120*	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	1.027	241	117*
72370 BP #3 GN	1.023	172	71	72371 BP #4 GN	1.023	421	53	72661 MANCH09A	1.005	99	35*
72662 MANCH10A	1.005	99	35*	72663 MANCH11A	1.005	99	35*	72666 FRSQ SC1	0.991	43	-4
72667 FRSQ SC2	0.991	43	1	72668 FRSQ SC3	0.991	42	2	71522 SOM G6	0.994	70	60
71531 OSP1 PF	1.000	77	0	71532 OSP2 PF	1.000	77	0	71533 OSP3 PF	1.000	108	0
71534 OSP4 PF	1.000	77	0	71535 OSP5 PF	1.000	77	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.025	79	12	71947 SALEM G2	1.025	78	12	71948 SALEM G3	1.022	143	23
71949 SALEM G4	1.022	400	69	72869 SBRK G1	1.016	1150	379	72868 NWNGT G1	1.026	406	173
72870 SCHILLER	1.012	48	25*	72871 SCHILLER	1.012	50	25*	72872 SCHILLER	1.012	48	25*
72866 MERMK G1	1.044	113	38	72867 MERMK G2	1.044	320	107	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.008	273	49
72244 MILLENST	1.007	117	22	72378 BELL #2	1.095	270	150*	72512 BRSWP G1	0.980	280	40
72513 BRSWP G2	0.980	280	40	72986 BERKPWR	1.018	280	12	73072 ALT12 PF	1.029	65	18*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.028	80	18	73069 MAPR1 PF	1.023	56	26
73080 WSPFLD 3	0.989	107	-10	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	11	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.053	92	48*	72377 BELL #1	1.095	270	150*	72378 BELL #2	1.095	270	150*

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	356	MIDDLETOWN	747	231	MONTVILLE	402	145
NORWALK	327	23	BRIDGEPORT	520	187	NHHARBOUR	447	71
DEVON	212	69	BRAYTONPT	1006	313	MANCHSTRST	425	103
SOMERSET	70	60	OSP	416	0	NEA	249	135
PAWTKTPWR	64	-9	ENRON	124	80	CANAL	1143	359
PILGRIM	670	183	MYSTIC	963	354	NEWBOSTON	357	194
SALEMHBR	700	116	SEABROOK	1150	379	NEWINGTON	406	173
SCHILLER	145	75	MERRIMACK	433	145	STONYBROOK	0	0
WYMAN	826	249	VTYANKEE	502	150	BEARSWAMP	560	80
NORTHFIELD	0	0	MASSPWRR	126	52	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	696	-171	MAINE-NH	1595	-15
NNE-SCOBIE+394	2514	192	SEABROOK-SOUTH	1317	200	NORTH-SOUTH	2216	55
CMFD/MOORE-SO	191	-23	SNDYPOND-SOUTH	2350	-134	CONN EXPORT	-1546	168
CONN-MASS	-771	166	CONN-RI	-102	84	SW CONN IMPORT	1998	122
NORWLK-STAMFORD	877	-77	BOSTON IMPORT	2967	72	NEMA/BOS IMPORT	3494	3
SEMA/RI EXPORT	1587	129	CONVEX-REMVEC	-1246	153	EAST-WEST	1379	-138
NY-NE	-697	26	PV20	114	-9	CT-LI-1385	1	-47

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	356.
70759 MYSTIC	345	360.	71797 MILLBURY	345	354.	72925 LUDLOW	345	350.
72926 NRTHFLD	345	353.	73106 SOUTHGTN	345	345.	73108 CARD	345	355.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	357.
71801 BRAYTN P	345	358.	71811 KENT CO.	345	350.	71326 BRIDGWTR	345	355.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	353.
70772 W MEDWAY	345	355.	70780 WWALP345	345	354.	70783 PILGRIM	345	358.
70773 NEA 336	345	357.	71193 CANAL	345	359.	71133 CARVER	345	357.
70795 FRMNGHAM	230	236.	70793 MDFRM230	230	239.	70794 MDWLT230	230	240.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	117.	73634 COLONY	115	117.
73633 NO.WALLF	115	117.	73227 E.MERIDN	115	117.	73230 HADDAM	115	119.
73231 BOKUM	115	117.	73265 GREEN HL	115	116.	73153 BRANFORD	115	117.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	116.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	117.	72581 WOOD RIV	115	111.

AREA/ZONE TOTALS

NEPOOL_GEN	23634	NEPOOL_LOAD	24868	NEPOOL_LOSS	681	
NEPOOL_INT	-1934					

Table C.13 – Pk4 Base Case Summary

PK4.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE -700, CT-EXP 440, SWCT-IMP 300

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	0.998	180	29	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.993	159	18	73552 NORHAR#2	0.993	168	18	73553 DEVON#7	0.995	106	17
73554 DEVON#8	0.994	106	17	73555 MIDDTN#2	0.000	0	0	73556 MIDDTN#3	0.000	0	0
73557 MIDDTN#4	0.988	400	27	73558 MONTV#5	0.986	81	13	73559 MONTV#6	0.994	402	67
73562 MILL#2	0.987	857	56	73563 MILL#3	0.985	1137	56	73565 LAKERD#1	1.000	280	43
73566 LAKERD#2	1.000	280	43	73567 LAKERD#3	1.000	280	43	73574 MILFD#1	1.017	280	9
73575 MILFD#2	1.017	280	9	73579 TOW ST1	1.010	188	26	73580 TOW GT1	1.010	180	25
73581 TOW GT2	1.010	180	25	73588 MERIDEN1	1.040	167	68	73589 MERIDEN2	1.040	167	68
73590 MERIDEN3	1.037	190	68	73594 WALL LV1	1.025	102	18	73595 WALL LV2	1.025	102	18
73596 WALL LV3	1.025	51	15	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.985	170	74
73648 BPTHBR#3	0.981	375	74	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.977	447	71
73652 BE 11	0.976	170	10	73653 BE 12	0.976	170	10	73654 BE 10 ST	0.973	180	10
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.012	50	7	70366 WF WY #2	1.012	50	7
70367 WF WY #3	1.012	100	13	70368 WF WY #4	1.057	626	217	70386 WBK G1	1.026	172	47*
70387 WBK G2	1.026	172	47*	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.992	502	150*
71060 MYST G4	1.068	133	104	71061 MYST 5G	1.069	129	104	71062 MYST G6	1.069	136	104
71063 MYST G7	1.018	565	79	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.058	670	311	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.018	357	204
71084 NEA GTPF	1.042	85	40*	71085 NEA GTPF	1.042	85	40*	71086 NEA STPF	1.056	80	55*
71095 ANPBLCK1	1.089	290	150*	71096 ANPBLCK2	1.089	290	150*	71251 CANAL G1	1.035	566	239*
71252 CANAL G2	0.000	0	0	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	0.000	0	0
72370 BP #3 GN	1.045	567	265*	72371 BP #4 GN	0.000	0	0	72661 MANCH09A	1.002	99	35*
72662 MANCH10A	1.002	99	35*	72663 MANCH11A	1.002	99	35*	72666 FRSQ SC1	0.991	43	-2
72667 FRSQ SC2	0.991	43	3	72668 FRSQ SC3	0.991	42	4	71522 SOM G6	1.006	70	75
71531 OSP1 PF	1.029	77	20	71532 OSP2 PF	1.029	77	20	71533 OSP3 PF	1.029	108	27
71534 OSP4 PF	1.029	77	20	71535 OSP5 PF	1.029	77	20	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.025	79	12	71947 SALEM G2	1.025	78	12	71948 SALEM G3	1.022	143	24
71949 SALEM G4	1.022	400	71	72869 SBRK G1	1.015	1150	370	72868 NWNGT G1	1.027	406	180
72870 SCHILLER	1.017	48	25*	72871 SCHILLER	1.017	50	25*	72872 SCHILLER	1.017	48	25*
72866 MERMK G1	1.030	113	53*	72867 MERMK G2	0.000	0	0	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.010	273	54
72244 MILLENST	1.009	117	24	72378 BELL #2	0.000	0	0	72512 BRSWP G1	0.982	280	44
72513 BRSWP G2	0.982	280	44	72986 BERKPWR	1.018	280	12	73072 ALT12 PF	1.025	65	15*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.024	80	15	73069 MAPR1 PF	1.047	56	47*
73080 WSPFLD 3	0.997	107	1	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	8	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.054	92	48*	72377 BELL #1	0.000	0	0	72378 BELL #2	0.000	0	0

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	113	MIDDLETOWN	400	27	MONTVILLE	483	80
NORWALK	327	36	BRIDGEPORT	1065	176	NHHARBOUR	447	71
DEVON	212	34	BRAYTONPT	1133	530	MANCHSTRST	425	111
SOMERSET	70	75	OSP	416	109	NEA	249	135
PAWTKTPWR	64	-8	ENRON	80	53	CANAL	566	239
PILGRIM	670	311	MYSTIC	963	391	NEWBOSTON	357	204
SALEMHBR	700	118	SEABROOK	1150	370	NEWINGTON	406	180
SCHILLER	145	75	MERRIMACK	113	53	STONYBROOK	0	0
WYMAN	826	243	VTYANKEE	502	150	BEARSWAMP	560	87
NORTHFIELD	0	0	MASSPWRR	56	47	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	692	-173	MAINE-NH	1411	-20
NNE-SCOBIE+394	2276	166	SEABROOK-SOUTH	1280	195	NORTH-SOUTH	1810	73
CMFD/MOORE-SO	196	-12	SNDYPOND-SOUTH	2320	-113	CONN EXPORT	438	-8
CONN-MASS	-89	43	CONN-RI	750	36	SW CONN IMPORT	298	226
NORWLK-STAMFORD	882	-62	BOSTON IMPORT	2990	33	NEMA/BOS IMPORT	3510	-39
SEMA/RI EXPORT	144	146	CONVEX-REMVEC	506	41	EAST-WEST	-526	-103
NY-NE	-694	-80	PV20	136	-10	CT-LI-1385	-5	-46

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	356.
70759 MYSTIC	345	360.	71797 MILLBURY	345	353.	72925 LUDLOW	345	353.
72926 NRTHFLD	345	356.	73106 SOUTHGTN	345	354.	73108 CARD	345	356.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	357.
71801 BRAYTN P	345	357.	71811 KENT CO.	345	349.	71326 BRIDGWTR	345	353.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	352.
70772 W MEDWAY	345	353.	70780 WWALP345	345	352.	70783 PILGRIM	345	358.
70773 NEA 336	345	355.	71193 CANAL	345	356.	71133 CARVER	345	354.
70795 FRMNGHAM	230	234.	70793 MDFRM230	230	237.	70794 MDWLT230	230	239.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	115.	73634 COLONY	115	114.
73633 NO.WALLF	115	113.	73227 E.MERIDN	115	113.	73230 HADDAM	115	111.
73231 BOKUM	115	111.	73265 GREEN HL	115	113.	73153 BRANFORD	115	116.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	115.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	116.	72581 WOOD RIV	115	110.

AREA/ZONE TOTALS

NEPOOL_GEN	23588	NEPOOL_LOAD	24868	NEPOOL_LOSS	638
NEPOOL_INT	-1938				

Table C.14 – Pk4G Base Case Summary

PK4G.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE -700, CT-EXP 810, SWCT-IMP 300

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	0.998	180	30	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.993	159	19	73552 NORHAR#2	0.993	168	19	73553 DEVON#7	0.992	106	15
73554 DEVON#8	0.992	106	15	73555 MIDDTN#2	1.018	117	43	73556 MIDDTN#3	0.989	230	43
73557 MIDDTN#4	0.980	400	-5	73558 MONTV#5	0.986	81	13	73559 MONTV#6	0.994	402	67
73562 MILL#2	0.985	857	41	73563 MILL#3	0.984	1137	41	73565 LAKERD#1	0.999	280	42
73566 LAKERD#2	0.999	280	42	73567 LAKERD#3	0.999	280	42	73574 MILFD#1	1.017	280	9
73575 MILFD#2	1.017	280	9	73579 TOW ST1	1.010	188	26	73580 TOW GT1	1.010	180	26
73581 TOW GT2	1.010	180	26	73588 MERIDEN1	1.033	167	55	73589 MERIDEN2	1.033	167	55
73590 MERIDEN3	1.029	190	55	73594 WALL LV1	1.025	102	16	73595 WALL LV2	1.025	102	16
73596 WALL LV3	1.025	51	12	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.986	170	74
73648 BPTHBR#3	0.981	375	74	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.973	447	46
73652 BE 11	0.976	170	10	73653 BE 12	0.976	170	10	73654 BE 10 ST	0.973	180	10
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.012	50	7	70366 WF WY #2	1.012	50	7
70367 WF WY #3	1.012	100	13	70368 WF WY #4	1.057	626	217	70386 WBK G1	1.026	172	47*
70387 WBK G2	1.026	172	47*	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.992	502	150*
71060 MYST G4	1.068	133	104	71061 MYST 5G	1.069	129	104	71062 MYST G6	1.069	136	104
71063 MYST G7	1.019	565	82	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.058	670	310	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.018	357	203
71084 NEA GTPF	1.042	85	40*	71085 NEA GTPF	1.042	85	40*	71086 NEA STPF	1.056	80	55*
71095 ANPBLCK1	1.089	290	150*	71096 ANPBLCK2	1.089	290	150*	71251 CANAL G1	1.035	566	239*
71252 CANAL G2	0.000	0	0	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	0.000	0	0
72370 BP #3 GN	1.047	204	265*	72371 BP #4 GN	0.000	0	0	72661 MANCH09A	1.002	99	35*
72662 MANCH10A	1.002	99	35*	72663 MANCH11A	1.002	99	35*	72666 FRSQ SC1	0.991	43	-2
72667 FRSQ SC2	0.991	43	3	72668 FRSQ SC3	0.991	42	4	71522 SOM G6	1.006	70	74
71531 OSP1 PF	1.034	77	24	71532 OSP2 PF	1.034	77	24	71533 OSP3 PF	1.034	108	32
71534 OSP4 PF	1.034	77	24	71535 OSP5 PF	1.034	77	24	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.025	79	12	71947 SALEM G2	1.025	78	12	71948 SALEM G3	1.022	143	24
71949 SALEM G4	1.022	400	71	72869 SBRK G1	1.016	1150	371	72868 NWNGT G1	1.027	406	179
72870 SCHILLER	1.017	48	25*	72871 SCHILLER	1.017	50	25*	72872 SCHILLER	1.017	48	25*
72866 MERMK G1	1.030	113	53*	72867 MERMK G2	0.000	0	0	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.011	273	54
72244 MILLENST	1.009	117	24	72378 BELL #2	0.000	0	0	72512 BRSWP G1	0.982	280	45
72513 BRSWP G2	0.982	280	45	72986 BERKPWR	1.010	280	-1	73072 ALT12 PF	1.023	65	13*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.022	80	13	73069 MAPR1 PF	1.048	56	47*
73080 WSPFLD 3	0.996	107	-1	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	7	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.054	92	48*	72377 BELL #1	0.000	0	0	72378 BELL #2	0.000	0	0

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	81	MIDDLETOWN	747	81	MONTVILLE	483	80
NORWALK	327	37	BRIDGEPORT	1065	177	NHHARBOUR	447	46
DEVON	212	30	BRAYTONPT	409	530	MANCHSTRST	425	110
SOMERSET	70	74	OSP	416	129	NEA	249	135
PAWTKTPWR	64	-8	ENRON	80	53	CANAL	566	239
PILGRIM	670	310	MYSTIC	963	393	NEWBOSTON	357	203
SALEMHBR	700	119	SEABROOK	1150	371	NEWINGTON	406	179
SCHILLER	145	75	MERRIMACK	113	53	STONYBROOK	0	0
WYMAN	826	243	VTYANKEE	502	150	BEARSWAMP	560	90
NORTHFIELD	0	0	MASSPWRR	56	47	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	692	-173	MAINE-NH	1411	-20
NNE-SCOBIE+394	2275	166	SEABROOK-SOUTH	1284	196	NORTH-SOUTH	1807	75
CMFD/MOORE-SO	196	-12	SNDYPOND-SOUTH	2340	-114	CONN EXPORT	808	-9
CONN-MASS	52	53	CONN-RI	929	30	SW CONN IMPORT	297	226
NORWLK-STAMFORD	882	-60	BOSTON IMPORT	2989	29	NEMA/BOS IMPORT	3510	-42
SEMA/RI EXPORT	-208	190	CONVEX-REMVEC	850	29	EAST-WEST	-882	-65
NY-NE	-697	-76	PV20	139	-10	CT-LI-1385	-4	-47

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	356.
70759 MYSTIC	345	360.	71797 MILLBURY	345	353.	72925 LUDLOW	345	354.
72926 NRTHFLD	345	357.	73106 SOUTHGTN	345	354.	73108 CARD	345	357.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	357.
71801 BRAYTN P	345	357.	71811 KENT CO.	345	349.	71326 BRIDGWTR	345	353.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	352.
70772 W MEDWAY	345	353.	70780 WWALP345	345	352.	70783 PILGRIM	345	358.
70773 NEA 336	345	355.	71193 CANAL	345	356.	71133 CARVER	345	354.
70795 FRMNGHAM	230	234.	70793 MDFRM230	230	238.	70794 MDWLT230	230	239.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	117.	73634 COLONY	115	116.
73633 NO.WALLF	115	116.	73227 E.MERIDN	115	115.	73230 HADDAM	115	116.
73231 BOKUM	115	115.	73265 GREEN HL	115	115.	73153 BRANFORD	115	117.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	115.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	116.	72581 WOOD RIV	115	110.

AREA/ZONE TOTALS

NEPOOL_GEN	23590	NEPOOL_LOAD	24868	NEPOOL_LOSS	637	
NEPOOL_INT	-1934					

Table C.15 – Pk4-ALC Base Case Summary

PK4-ALC.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE -700, CT-EXP 445, SWCT-IMP 300, HADAUTO, 1620N,S,CAP

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	0.997	180	28	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.993	159	19	73552 NORHAR#2	0.993	168	19	73553 DEVON#7	0.992	106	15
73554 DEVON#8	0.992	106	15	73555 MIDDTN#2	0.000	0	0	73556 MIDDTN#3	0.000	0	0
73557 MIDDTN#4	0.982	400	2	73558 MONTV#5	0.984	81	12	73559 MONTV#6	0.993	402	63
73562 MILL#2	0.988	857	65	73563 MILL#3	0.986	1137	65	73565 LAKERD#1	0.999	280	41
73566 LAKERD#2	0.999	280	41	73567 LAKERD#3	0.999	280	41	73574 MILFD#1	1.017	280	9
73575 MILFD#2	1.017	280	9	73579 TOW ST1	1.010	188	26	73580 TOW GT1	1.010	180	25
73581 TOW GT2	1.010	180	25	73588 MERIDEN1	1.034	167	56	73589 MERIDEN2	1.034	167	56
73590 MERIDEN3	1.030	190	56	73594 WALL LV1	1.025	102	16	73595 WALL LV2	1.025	102	16
73596 WALL LV3	1.025	51	12	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.986	170	74
73648 BPTHBR#3	0.981	375	74	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.972	447	40
73652 BE 11	0.976	170	10	73653 BE 12	0.976	170	10	73654 BE 10 ST	0.973	180	10
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.012	50	7	70366 WF WY #2	1.012	50	7
70367 WF WY #3	1.012	100	13	70368 WF WY #4	1.057	626	217	70386 WBK G1	1.026	172	47*
70387 WBK G2	1.026	172	47*	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.992	502	150*
71060 MYST G4	1.068	133	104	71061 MYST 5G	1.069	129	104	71062 MYST G6	1.069	136	104
71063 MYST G7	1.018	565	78	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.058	670	310	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.018	357	203
71084 NEA GTPF	1.042	85	40*	71085 NEA GTPF	1.042	85	40*	71086 NEA STPF	1.057	80	55*
71095 ANPBLCK1	1.089	290	150*	71096 ANPBLCK2	1.089	290	150*	71251 CANAL G1	1.035	566	239*
71252 CANAL G2	0.000	0	0	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	0.000	0	0
72370 BP #3 GN	1.045	560	265*	72371 BP #4 GN	0.000	0	0	72661 MANCH09A	1.002	99	35*
72662 MANCH10A	1.002	99	35*	72663 MANCH11A	1.002	99	35*	72666 FRSQ SC1	0.991	43	-2
72667 FRSQ SC2	0.991	43	3	72668 FRSQ SC3	0.991	42	4	71522 SOM G6	1.006	70	74
71531 OSP1 PF	1.028	77	20	71532 OSP2 PF	1.028	77	20	71533 OSP3 PF	1.028	108	27
71534 OSP4 PF	1.028	77	20	71535 OSP5 PF	1.028	77	20	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.025	79	12	71947 SALEM G2	1.025	78	12	71948 SALEM G3	1.022	143	24
71949 SALEM G4	1.022	400	71	72869 SBRK G1	1.015	1150	369	72868 NWNGT G1	1.027	406	179
72870 SCHILLER	1.017	48	25*	72871 SCHILLER	1.017	50	25*	72872 SCHILLER	1.017	48	25*
72866 MERMK G1	1.030	113	53*	72867 MERMK G2	0.000	0	0	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.010	273	53
72244 MILLENST	1.008	117	24	72378 BELL #2	0.000	0	0	72512 BRSWP G1	0.982	280	44
72513 BRSWP G2	0.982	280	44	72986 BERKPWR	1.013	280	4	73072 ALT12 PF	1.024	65	14*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.023	80	14	73069 MAPR1 PF	1.048	56	47*
73080 WSPFLD 3	0.996	107	-1	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	8	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.054	92	48*	72377 BELL #1	0.000	0	0	72378 BELL #2	0.000	0	0

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	130	MIDDLETOWN	400	2	MONTVILLE	483	75
NORWALK	327	37	BRIDGEPORT	1065	177	NHHARBOUR	447	40
DEVON	212	30	BRAYTONPT	1120	530	MANCHSTRST	425	111
SOMERSET	70	74	OSP	416	107	NEA	249	135
PAWTKTPWR	64	-8	ENRON	80	53	CANAL	566	239
PILGRIM	670	310	MYSTIC	963	390	NEWBOSTON	357	203
SALEMHBR	700	118	SEABROOK	1150	369	NEWINGTON	406	179
SCHILLER	145	75	MERRIMACK	113	53	STONYBROOK	0	0
WYMAN	826	243	VTYANKEE	502	150	BEARSWAMP	560	87
NORTHFIELD	0	0	MASSPWRR	56	47	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	692	-173	MAINE-NH	1411	-20
NNE-SCOBIE+394	2276	165	SEABROOK-SOUTH	1281	194	NORTH-SOUTH	1810	72
CMFD/MOORE-SO	196	-12	SNDYPOND-SOUTH	2321	-113	CONN EXPORT	447	16
CONN-MASS	-75	59	CONN-RI	743	36	SW CONN IMPORT	297	225
NORWLK-STAMFORD	882	-60	BOSTON IMPORT	2990	34	NEMA/BOS IMPORT	3510	-38
SEMA/RI EXPORT	138	144	CONVEX-REMVEC	512	45	EAST-WEST	-531	-107
NY-NE	-697	-83	PV20	136	-10	CT-LI-1385	0	-47

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0
MADAWASK = -151
EEL = 74
CHAT-2 = 0
PHII-P1 = 1000
HIGHGATE = 215
PHII-P2 = 1000

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	356.
70759 MYSTIC	345	360.	71797 MILLBURY	345	353.	72925 LUDLOW	345	354.
72926 NRTHFLD	345	357.	73106 SOUTHGTN	345	354.	73108 CARD	345	357.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	357.
71801 BRAYTN P	345	357.	71811 KENT CO.	345	349.	71326 BRIDGWTR	345	353.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	352.
70772 W MEDWAY	345	353.	70780 WWALP345	345	352.	70783 PILGRIM	345	358.
70773 NEA 336	345	355.	71193 CANAL	345	356.	71133 CARVER	345	354.
70795 FRMNGHAM	230	234.	70793 MDFRM230	230	238.	70794 MDWLT230	230	239.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	117.	73634 COLONY	115	117.
73633 NO.WALLF	115	116.	73227 E.MERIDN	115	116.	73230 HADDAM	115	118.
73231 BOKUM	115	117.	73265 GREEN HL	115	116.	73153 BRANFORD	115	118.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	115.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	116.	72581 WOOD RIV	115	110.

AREA/ZONE TOTALS

NEPOOL_GEN	23582	NEPOOL_LOAD	24868	NEPOOL_LOSS	629	
NEPOOL_INT	-1935					

Table C.16 – Pk4-ALCG Base Case Summary

PK4-ALCG.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE -700, CT-EXP 800, SWCT-IMP 300, HADAUTO, 1620N,S,CAP

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	0.997	180	29	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.990	159	13	73552 NORHAR#2	0.990	168	13	73553 DEVON#7	0.993	106	15
73554 DEVON#8	0.992	106	15	73555 MIDDTN#2	0.994	117	16	73556 MIDDTN#3	0.979	230	16
73557 MIDDTN#4	0.980	400	-6	73558 MONTV#5	0.985	81	13	73559 MONTV#6	0.993	402	64
73562 MILL#2	0.986	857	51	73563 MILL#3	0.985	1137	51	73565 LAKERD#1	0.999	280	42
73566 LAKERD#2	0.999	280	42	73567 LAKERD#3	0.999	280	42	73574 MILFD#1	1.017	280	9
73575 MILFD#2	1.017	280	9	73579 TOW ST1	1.010	188	27	73580 TOW GT1	1.010	180	26
73581 TOW GT2	1.010	180	26	73588 MERIDEN1	1.031	167	52	73589 MERIDEN2	1.031	167	52
73590 MERIDEN3	1.028	190	52	73594 WALL LV1	1.025	102	15	73595 WALL LV2	1.025	102	15
73596 WALL LV3	1.025	51	12	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.986	170	74
73648 BPTHBR#3	0.981	375	74	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.971	447	39
73652 BE 11	0.976	170	10	73653 BE 12	0.976	170	10	73654 BE 10 ST	0.973	180	10
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.012	50	7	70366 WF WY #2	1.012	50	7
70367 WF WY #3	1.012	100	13	70368 WF WY #4	1.057	626	217	70386 WBK G1	1.026	172	47*
70387 WBK G2	1.026	172	47*	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.992	502	150*
71060 MYST G4	1.062	133	108*	71061 MYST 5G	1.062	129	108*	71062 MYST G6	1.060	136	104*
71063 MYST G7	1.041	565	280	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.062	670	340*	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	0.000	0	0
71084 NEA GTPF	1.040	85	40*	71085 NEA GTPF	1.040	85	40*	71086 NEA STPF	1.055	80	55*
71095 ANPBLCK1	1.088	290	150*	71096 ANPBLCK2	1.088	290	150*	71251 CANAL G1	1.035	566	239*
71252 CANAL G2	0.000	0	0	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	0.000	0	0
72370 BP #3 GN	1.044	574	265*	72371 BP #4 GN	0.000	0	0	72661 MANCH09A	1.001	99	35*
72662 MANCH10A	1.001	99	35*	72663 MANCH11A	1.001	99	35*	72666 FRSQ SC1	0.991	43	-1
72667 FRSQ SC2	0.991	43	4	72668 FRSQ SC3	0.991	42	5	71522 SOM G6	1.012	70	81
71531 OSP1 PF	1.041	77	30	71532 OSP2 PF	1.041	77	30	71533 OSP3 PF	1.042	108	40
71534 OSP4 PF	1.041	77	30	71535 OSP5 PF	1.041	77	30	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.026	79	13	71947 SALEM G2	1.026	78	13	71948 SALEM G3	1.023	143	25
71949 SALEM G4	1.023	400	76	72869 SBRK G1	1.017	1150	387	72868 NWNGT G1	1.028	406	180*
72870 SCHILLER	1.017	48	25*	72871 SCHILLER	1.017	50	25*	72872 SCHILLER	1.017	48	25*
72866 MERMK G1	1.029	113	53*	72867 MERMK G2	0.000	0	0	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.013	273	58
72244 MILLENST	1.010	117	26	72378 BELL #2	0.000	0	0	72512 BRSWP G1	0.983	280	46
72513 BRSWP G2	0.983	280	46	72986 BERKPWR	1.011	280	0	73072 ALT12 PF	1.024	65	13*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.022	80	13	73069 MAPR1 PF	1.048	56	47*
73080 WSPFLD 3	0.996	107	0	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	8	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.054	92	48*	72377 BELL #1	0.000	0	0	72378 BELL #2	0.000	0	0

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	101	MIDDLETOWN	747	25	MONTVILLE	483	77
NORWALK	327	26	BRIDGEPORT	1065	177	NHHARBOUR	447	39
DEVON	212	30	BRAYTONPT	1148	530	MANCHSTRST	425	113
SOMERSET	70	81	OSP	416	158	NEA	249	135
PAWTKTPWR	64	-8	ENRON	80	53	CANAL	566	239
PILGRIM	670	340	MYSTIC	963	600	NEWBOSTON	0	0
SALEMHBR	700	126	SEABROOK	1150	387	NEWINGTON	406	180
SCHILLER	145	75	MERRIMACK	113	53	STONYBROOK	0	0
WYMAN	826	244	VTYANKEE	502	150	BEARSWAMP	560	92
NORTHFIELD	0	0	MASSPWRR	56	47	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	692	-173	MAINE-NH	1411	-19
NNE-SCOBIE+394	2278	181	SEABROOK-SOUTH	1298	209	NORTH-SOUTH	1831	92
CMFD/MOORE-SO	197	-10	SNDYPOND-SOUTH	2331	-105	CONN EXPORT	807	-21
CONN-MASS	83	50	CONN-RI	886	32	SW CONN IMPORT	297	234
NORWLK-STAMFORD	882	-46	BOSTON IMPORT	3344	86	NEMA/BOS IMPORT	3877	12
SEMA/RI EXPORT	138	193	CONVEX-REMVEC	844	31	EAST-WEST	-880	-83
NY-NE	-698	-62	PV20	139	-11	CT-LI-1385	-1	-60

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	356.
70759 MYSTIC	345	360.	71797 MILLBURY	345	352.	72925 LUDLOW	345	354.
72926 NRTHFLD	345	357.	73106 SOUTHGTN	345	354.	73108 CARD	345	357.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	357.
71801 BRAYTN P	345	357.	71811 KENT CO.	345	349.	71326 BRIDGWTR	345	353.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	352.
70772 W MEDWAY	345	352.	70780 WWALP345	345	351.	70783 PILGRIM	345	358.
70773 NEA 336	345	354.	71193 CANAL	345	356.	71133 CARVER	345	354.
70795 FRMNGHAM	230	232.	70793 MDFRM230	230	236.	70794 MDWLT230	230	238.
70818 MYSTC MA	115	118.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	117.	73634 COLONY	115	117.
73633 NO.WALLF	115	117.	73227 E.MERIDN	115	117.	73230 HADDAM	115	119.
73231 BOKUM	115	117.	73265 GREEN HL	115	117.	73153 BRANFORD	115	118.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	115.
71403 WFARNUM	115	115.	72539 WOLFHILL	115	116.	72581 WOOD RIV	115	110.

AREA/ZONE TOTALS

NEPOOL_GEN	23603	NEPOOL_LOAD	24868	NEPOOL_LOSS	648	
NEPOOL_INT	-1933					

Table C.17 – Pk5 Base Case Summary

PK5.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 700, CT IMP 1880, SWCT IMP 2000

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	1.014	180	57	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.988	159	9	73552 NORHAR#2	0.988	168	9	73553 DEVON#7	1.015	106	36
73554 DEVON#8	1.012	106	36	73555 MIDDTN#2	0.000	0	0	73556 MIDDTN#3	0.000	0	0
73557 MIDDTN#4	1.026	400	200*	73558 MONTV#5	0.000	0	0	73559 MONTV#6	1.007	402	128
73562 MILL#2	0.995	857	131	73563 MILL#3	0.992	1137	131	73565 LAKERD#1	1.002	280	49
73566 LAKERD#2	1.002	280	49	73567 LAKERD#3	1.002	280	49	73574 MILFD#1	1.017	280	6
73575 MILFD#2	0.000	0	0	73579 TOW ST1	0.000	0	0	73580 TOW GT1	0.000	0	0
73581 TOW GT2	0.000	0	0	73588 MERIDEN1	0.000	0	0	73589 MERIDEN2	0.000	0	0
73590 MERIDEN3	0.000	0	0	73594 WALL LV1	0.000	0	0	73595 WALL LV2	0.000	0	0
73596 WALL LV3	0.000	0	0	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.000	0	0
73648 BPTHBR#3	0.000	0	0	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.981	447	92
73652 BE 11	1.023	170	61	73653 BE 12	1.023	170	61	73654 BE 10 ST	1.026	180	61
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.019	50	11	70366 WF WY #2	1.019	50	11
70367 WF WY #3	1.018	100	21	70368 WF WY #4	0.000	0	0	70386 WBK G1	0.000	0	0
70387 WBK G2	0.000	0	0	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.993	502	137
71060 MYST G4	1.067	133	102	71061 MYST 5G	1.068	129	102	71062 MYST G6	1.068	136	102
71063 MYST G7	1.007	565	-17	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.039	670	160	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.018	357	198
71084 NEA GTPF	1.043	85	32	71085 NEA GTPF	1.043	85	32	71086 NEA STPF	1.043	80	32
71095 ANPBLCK1	1.077	290	103	71096 ANPBLCK2	1.077	290	103	71251 CANAL G1	1.040	566	230
71252 CANAL G2	1.020	577	120*	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	1.025	241	117*
72370 BP #3 GN	1.021	582	70	72371 BP #4 GN	1.023	421	52	72661 MANCH09A	1.004	99	35*
72662 MANCH10A	1.005	99	35*	72663 MANCH11A	1.005	99	35*	72666 FRSQ SC1	0.991	43	-4
72667 FRSQ SC2	0.991	43	1	72668 FRSQ SC3	0.991	42	2	71522 SOM G6	0.993	70	58
71531 OSP1 PF	1.002	77	0	71532 OSP2 PF	1.002	77	0	71533 OSP3 PF	1.002	108	0
71534 OSP4 PF	1.002	77	0	71535 OSP5 PF	1.002	77	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.024	79	11	71947 SALEM G2	1.025	78	11	71948 SALEM G3	1.021	143	22
71949 SALEM G4	1.021	400	66	72869 SBRK G1	1.007	1150	252	72868 NWNGT G1	1.008	406	107
72870 SCHILLER	1.022	48	25*	72871 SCHILLER	1.022	50	25*	72872 SCHILLER	1.022	48	25*
72866 MERMK G1	1.033	113	24	72867 MERMK G2	1.034	320	68	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.004	273	41
72244 MILLENST	1.004	117	19	72378 BELL #2	1.098	270	150*	72512 BRSWP G1	0.984	280	48
72513 BRSWP G2	0.984	280	48	72986 BERKPWR	1.024	280	23	73072 ALT12 PF	1.026	65	15*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.025	80	15	73069 MAPR1 PF	1.029	56	31
73080 WSPFLD 3	0.993	107	-5	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	8	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.053	92	48*	72377 BELL #1	1.098	270	150*	72378 BELL #2	1.098	270	150*

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	262	MIDDLETOWN	400	200	MONTVILLE	402	128
NORWALK	327	19	BRIDGEPORT	520	184	NHHARBOUR	447	92
DEVON	212	71	BRAYTONPT	1826	309	MANCHSTRST	425	103
SOMERSET	70	58	OSP	416	0	NEA	249	96
PAWTKTPWR	64	-9	ENRON	124	80	CANAL	1143	350
PILGRIM	670	160	MYSTIC	963	289	NEWBOSTON	357	198
SALEMHBR	700	110	SEABROOK	1150	252	NEWINGTON	406	107
SCHILLER	145	75	MERRIMACK	433	92	STONYBROOK	0	0
WYMAN	200	42	VTYANKEE	502	137	BEARSWAMP	560	96
NORTHFIELD	0	0	MASSPWRR	126	61	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	683	-166	MAINE-NH	451	-112
NNE-SCOBIE+394	1535	20	SEABROOK-SOUTH	1134	93	NORTH-SOUTH	1284	111
CMFD/MOORE-SO	196	-30	SNDYPOND-SOUTH	2000	-79	CONN EXPORT	-1881	141
CONN-MASS	-737	113	CONN-RI	90	38	SW CONN IMPORT	1997	127
NORWLK-STAMFORD	877	-74	BOSTON IMPORT	2960	101	NEMA/BOS IMPORT	3493	39
SEMA/RI EXPORT	1559	160	CONVEX-REMVEC	-462	15	EAST-WEST	332	-80
NY-NE	702	-159	PV20	148	-11	CT-LI-1385	0	-53

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	357.
70759 MYSTIC	345	360.	71797 MILLBURY	345	356.	72925 LUDLOW	345	353.
72926 NRTHFLD	345	357.	73106 SOUTHGTN	345	348.	73108 CARD	345	355.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	357.
71801 BRAYTN P	345	358.	71811 KENT CO.	345	350.	71326 BRIDGWTR	345	355.
71336 SHERMAN	345	356.	71338 OS POWER	345	356.	71337 WFARNUM	345	354.
70772 W MEDWAY	345	356.	70780 WWALP345	345	355.	70783 PILGRIM	345	358.
70773 NEA 336	345	358.	71193 CANAL	345	359.	71133 CARVER	345	357.
70795 FRMNGHAM	230	236.	70793 MDFRM230	230	240.	70794 MDWLT230	230	241.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	115.	73634 COLONY	115	114.
73633 NO.WALLF	115	113.	73227 E.MERIDN	115	113.	73230 HADDAM	115	111.
73231 BOKUM	115	111.	73265 GREEN HL	115	113.	73153 BRANFORD	115	116.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	116.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	117.	72581 WOOD RIV	115	111.

AREA/ZONE TOTALS

NEPOOL_GEN	22159	NEPOOL_LOAD	24868	NEPOOL_LOSS	607	
NEPOOL_INT	-3336					

Table C.18 – Pk5G Base Case Summary

PK5G.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 700, CT IMP 1505, SWCT IMP 2000

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	1.005	180	44	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.988	159	9	73552 NORHAR#2	0.988	168	9	73553 DEVON#7	1.007	106	29
73554 DEVON#8	1.005	106	29	73555 MIDDTN#2	1.018	117	44	73556 MIDDTN#3	0.990	230	44
73557 MIDDTN#4	1.021	400	169	73558 MONTV#5	0.000	0	0	73559 MONTV#6	0.999	402	99
73562 MILL#2	0.991	857	90	73563 MILL#3	0.988	1137	90	73565 LAKERD#1	0.997	280	36
73566 LAKERD#2	0.997	280	36	73567 LAKERD#3	0.997	280	36	73574 MILFD#1	1.017	280	5
73575 MILFD#2	0.000	0	0	73579 TOW ST1	0.000	0	0	73580 TOW GT1	0.000	0	0
73581 TOW GT2	0.000	0	0	73588 MERIDEN1	0.000	0	0	73589 MERIDEN2	0.000	0	0
73590 MERIDEN3	0.000	0	0	73594 WALL LV1	0.000	0	0	73595 WALL LV2	0.000	0	0
73596 WALL LV3	0.000	0	0	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.000	0	0
73648 BPTHBR#3	0.000	0	0	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.973	447	49
73652 BE 11	1.023	170	61	73653 BE 12	1.023	170	61	73654 BE 10 ST	1.025	180	61
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.019	50	11	70366 WF WY #2	1.019	50	11
70367 WF WY #3	1.018	100	21	70368 WF WY #4	0.000	0	0	70386 WBK G1	0.000	0	0
70387 WBK G2	0.000	0	0	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.990	502	126
71060 MYST G4	1.066	133	101	71061 MYST 5G	1.068	129	101	71062 MYST G6	1.067	136	101
71063 MYST G7	1.007	565	-17	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.039	670	157	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.017	357	197
71084 NEA GTPF	1.040	85	28	71085 NEA GTPF	1.040	85	28	71086 NEA STPF	1.040	80	28
71095 ANPBLCK1	1.076	290	102	71096 ANPBLCK2	1.076	290	102	71251 CANAL G1	1.040	566	228
71252 CANAL G2	1.020	577	120*	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	1.027	241	117*
72370 BP #3 GN	1.020	197	52	72371 BP #4 GN	1.019	421	39	72661 MANCH09A	1.005	99	35*
72662 MANCH10A	1.005	99	35*	72663 MANCH11A	1.005	99	35*	72666 FRSQ SC1	0.991	43	-5
72667 FRSQ SC2	0.991	43	0	72668 FRSQ SC3	0.991	42	1	71522 SOM G6	0.991	70	57
71531 OSP1 PF	1.002	77	0	71532 OSP2 PF	1.002	77	0	71533 OSP3 PF	1.002	108	0
71534 OSP4 PF	1.002	77	0	71535 OSP5 PF	1.002	77	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.024	79	11	71947 SALEM G2	1.025	78	11	71948 SALEM G3	1.021	143	22
71949 SALEM G4	1.021	400	66	72869 SBRK G1	1.007	1150	252	72868 NWNGT G1	1.008	406	107
72870 SCHILLER	1.022	48	25*	72871 SCHILLER	1.022	50	25*	72872 SCHILLER	1.022	48	25*
72866 MERMK G1	1.034	113	24	72867 MERMK G2	1.034	320	68	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.003	273	39
72244 MILLENST	1.003	117	18	72378 BELL #2	1.098	270	150*	72512 BRSWP G1	0.984	280	50
72513 BRSWP G2	0.984	280	50	72986 BERKPWR	1.015	280	7	73072 ALT12 PF	1.023	65	13*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.022	80	13	73069 MAPR1 PF	1.024	56	27
73080 WSPFLD 3	0.990	107	-8	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	7	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.053	92	48*	72377 BELL #1	1.098	270	150*	72378 BELL #2	1.098	270	150*

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	179	MIDDLETOWN	747	256	MONTVILLE	402	99
NORWALK	327	17	BRIDGEPORT	520	182	NHHARBOUR	447	49
DEVON	212	57	BRAYTONPT	1056	260	MANCHSTRST	425	101
SOMERSET	70	57	OSP	416	0	NEA	249	85
PAWTKTPWR	64	-9	ENRON	124	80	CANAL	1143	348
PILGRIM	670	157	MYSTIC	963	287	NEWBOSTON	357	197
SALEMHBR	700	110	SEABROOK	1150	252	NEWINGTON	406	107
SCHILLER	145	75	MERRIMACK	433	92	STONYBROOK	0	0
WYMAN	200	42	VTYANKEE	502	126	BEARSWAMP	560	100
NORTHFIELD	0	0	MASSPWRR	126	53	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	683	-166	MAINE-NH	451	-112
NNE-SCOBIE+394	1534	19	SEABROOK-SOUTH	1138	93	NORTH-SOUTH	1280	101
CMFD/MOORE-SO	197	-30	SNDYPOND-SOUTH	2022	-82	CONN EXPORT	-1506	144
CONN-MASS	-595	121	CONN-RI	275	22	SW CONN IMPORT	1995	130
NORWLK-STAMFORD	877	-73	BOSTON IMPORT	2959	99	NEMA/BOS IMPORT	3492	38
SEMA/RI EXPORT	1190	187	CONVEX-REMVEC	-105	0	EAST-WEST	-41	-51
NY-NE	702	-180	PV20	150	-12	CT-LI-1385	0	-52

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	357.
70759 MYSTIC	345	360.	71797 MILLBURY	345	356.	72925 LUDLOW	345	354.
72926 NRTHFLD	345	358.	73106 SOUTHGTN	345	349.	73108 CARD	345	356.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	358.
71801 BRAYTN P	345	358.	71811 KENT CO.	345	350.	71326 BRIDGWTR	345	355.
71336 SHERMAN	345	356.	71338 OS POWER	345	356.	71337 WFARNUM	345	354.
70772 W MEDWAY	345	357.	70780 WWALP345	345	355.	70783 PILGRIM	345	358.
70773 NEA 336	345	358.	71193 CANAL	345	359.	71133 CARVER	345	357.
70795 FRMNGHAM	230	236.	70793 MDFRM230	230	240.	70794 MDWLT230	230	241.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	119.	73182 HANOVERB	115	117.	73634 COLONY	115	116.
73633 NO.WALLF	115	116.	73227 E.MERIDN	115	116.	73230 HADDAM	115	116.
73231 BOKUM	115	115.	73265 GREEN HL	115	115.	73153 BRANFORD	115	117.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	116.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	117.	72581 WOOD RIV	115	111.

AREA/ZONE TOTALS

NEPOOL_GEN	22138	NEPOOL_LOAD	24868	NEPOOL_LOSS	586
NEPOOL_INT	-3336				

Table C.19 – Pk5-ALC Base Case Summary

PK5-ALC.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 700, CT IMP 1870, SWCT IMP 2000, HADAUTO, 1620N,S,CAP

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	1.004	180	44	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.988	159	9	73552 NORHAR#2	0.988	168	9	73553 DEVON#7	1.008	106	29
73554 DEVON#8	1.006	106	29	73555 MIDDTN#2	0.000	0	0	73556 MIDDTN#3	0.000	0	0
73557 MIDDTN#4	1.027	400	196	73558 MONTV#5	0.000	0	0	73559 MONTV#6	0.999	402	99
73562 MILL#2	0.995	857	132	73563 MILL#3	0.992	1137	132	73565 LAKERD#1	1.001	280	45
73566 LAKERD#2	1.001	280	45	73567 LAKERD#3	1.001	280	45	73574 MILFD#1	1.017	280	6
73575 MILFD#2	0.000	0	0	73579 TOW ST1	0.000	0	0	73580 TOW GT1	0.000	0	0
73581 TOW GT2	0.000	0	0	73588 MERIDEN1	0.000	0	0	73589 MERIDEN2	0.000	0	0
73590 MERIDEN3	0.000	0	0	73594 WALL LV1	0.000	0	0	73595 WALL LV2	0.000	0	0
73596 WALL LV3	0.000	0	0	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.000	0	0
73648 BPTHBR#3	0.000	0	0	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.972	447	44
73652 BE 11	1.023	170	61	73653 BE 12	1.023	170	61	73654 BE 10 ST	1.025	180	61
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.019	50	11	70366 WF WY #2	1.019	50	11
70367 WF WY #3	1.018	100	21	70368 WF WY #4	0.000	0	0	70386 WBK G1	0.000	0	0
70387 WBK G2	0.000	0	0	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.992	502	132
71060 MYST G4	1.067	133	102	71061 MYST 5G	1.068	129	102	71062 MYST G6	1.068	136	102
71063 MYST G7	1.007	565	-17	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.039	670	160	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.017	357	198
71084 NEA GTPF	1.042	85	31	71085 NEA GTPF	1.042	85	31	71086 NEA STPF	1.043	80	31
71095 ANPBLCK1	1.077	290	102	71096 ANPBLCK2	1.077	290	102	71251 CANAL G1	1.040	566	229
71252 CANAL G2	1.020	577	120*	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	1.025	241	117*
72370 BP #3 GN	1.021	569	69	72371 BP #4 GN	1.022	421	52	72661 MANCH09A	1.004	99	35*
72662 MANCH10A	1.004	99	35*	72663 MANCH11A	1.004	99	35*	72666 FRSQ SC1	0.991	43	-4
72667 FRSQ SC2	0.991	43	1	72668 FRSQ SC3	0.991	42	2	71522 SOM G6	0.993	70	58
71531 OSP1 PF	1.002	77	0	71532 OSP2 PF	1.002	77	0	71533 OSP3 PF	1.002	108	0
71534 OSP4 PF	1.002	77	0	71535 OSP5 PF	1.002	77	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.024	79	11	71947 SALEM G2	1.025	78	11	71948 SALEM G3	1.021	143	22
71949 SALEM G4	1.021	400	66	72869 SBRK G1	1.006	1150	252	72868 NWNGT G1	1.008	406	107
72870 SCHILLER	1.022	48	25*	72871 SCHILLER	1.022	50	25*	72872 SCHILLER	1.022	48	25*
72866 MERMK G1	1.033	113	24	72867 MERMK G2	1.034	320	68	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.003	273	40
72244 MILLENST	1.003	117	18	72378 BELL #2	1.098	270	150*	72512 BRSWP G1	0.984	280	48
72513 BRSWP G2	0.984	280	48	72986 BERKPWR	1.018	280	13	73072 ALT12 PF	1.025	65	14*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.024	80	14	73069 MAPR1 PF	1.027	56	29
73080 WSPFLD 3	0.991	107	-7	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	8	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.053	92	48*	72377 BELL #1	1.098	270	150*	72378 BELL #2	1.098	270	150*

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	264	MIDDLETOWN	400	196	MONTVILLE	402	99
NORWALK	327	17	BRIDGEPORT	520	182	NHHARBOUR	447	44
DEVON	212	59	BRAYTONPT	1799	306	MANCHSTRST	425	104
SOMERSET	70	58	OSP	416	0	NEA	249	94
PAWTKTPWR	64	-9	ENRON	124	80	CANAL	1143	349
PILGRIM	670	160	MYSTIC	963	289	NEWBOSTON	357	198
SALEMHBR	700	110	SEABROOK	1150	252	NEWINGTON	406	107
SCHILLER	145	75	MERRIMACK	433	92	STONYBROOK	0	0
WYMAN	200	42	VTYANKEE	502	132	BEARSWAMP	560	96
NORTHFIELD	0	0	MASSPWRR	126	58	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	683	-166	MAINE-NH	451	-112
NNE-SCOBIE+394	1535	19	SEABROOK-SOUTH	1135	92	NORTH-SOUTH	1283	106
CMFD/MOORE-SO	196	-30	SNDYPOND-SOUTH	2002	-79	CONN EXPORT	-1870	187
CONN-MASS	-721	138	CONN-RI	85	38	SW CONN IMPORT	1995	127
NORWLK-STAMFORD	877	-73	BOSTON IMPORT	2960	101	NEMA/BOS IMPORT	3493	40
SEMA/RI EXPORT	1547	158	CONVEX-REMVEC	-450	24	EAST-WEST	320	-83
NY-NE	703	-171	PV20	148	-11	CT-LI-1385	2	-53

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	357.
70759 MYSTIC	345	360.	71797 MILLBURY	345	356.	72925 LUDLOW	345	353.
72926 NRTHFLD	345	357.	73106 SOUTHGTN	345	349.	73108 CARD	345	356.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	358.
71801 BRAYTN P	345	358.	71811 KENT CO.	345	350.	71326 BRIDGWTR	345	355.
71336 SHERMAN	345	356.	71338 OS POWER	345	356.	71337 WFARNUM	345	354.
70772 W MEDWAY	345	356.	70780 WWALP345	345	355.	70783 PILGRIM	345	358.
70773 NEA 336	345	358.	71193 CANAL	345	359.	71133 CARVER	345	357.
70795 FRMNGHAM	230	236.	70793 MDFRM230	230	240.	70794 MDWLT230	230	241.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	117.	73634 COLONY	115	117.
73633 NO.WALLF	115	117.	73227 E.MERIDN	115	117.	73230 HADDAM	115	119.
73231 BOKUM	115	117.	73265 GREEN HL	115	116.	73153 BRANFORD	115	117.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	116.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	117.	72581 WOOD RIV	115	111.

AREA/ZONE TOTALS

NEPOOL_GEN	22146	NEPOOL_LOAD	24868	NEPOOL_LOSS	595
NEPOOL_INT	-3336				

Table C.20 – Pk5-ALCG Base Case Summary

PK5-ALCG.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 700, CT IMP 1505, SWCT IMP 2000, HADAUTO, 1620N,S,CAP

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	1.003	180	42	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.988	159	9	73552 NORHAR#2	0.988	168	9	73553 DEVON#7	1.009	106	30
73554 DEVON#8	1.007	106	30	73555 MIDDTN#2	0.996	117	18	73556 MIDDTN#3	0.980	230	18
73557 MIDDTN#4	1.017	400	151	73558 MONTV#5	0.000	0	0	73559 MONTV#6	0.997	402	94
73562 MILL#2	0.991	857	97	73563 MILL#3	0.989	1137	97	73565 LAKERD#1	0.996	280	35
73566 LAKERD#2	0.996	280	35	73567 LAKERD#3	0.996	280	35	73574 MILFD#1	1.017	280	6
73575 MILFD#2	0.000	0	0	73579 TOW ST1	0.000	0	0	73580 TOW GT1	0.000	0	0
73581 TOW GT2	0.000	0	0	73588 MERIDEN1	0.000	0	0	73589 MERIDEN2	0.000	0	0
73590 MERIDEN3	0.000	0	0	73594 WALL LV1	0.000	0	0	73595 WALL LV2	0.000	0	0
73596 WALL LV3	0.000	0	0	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.000	0	0
73648 BPTHBR#3	0.000	0	0	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.973	447	46
73652 BE 11	1.023	170	61	73653 BE 12	1.023	170	61	73654 BE 10 ST	1.026	180	61
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.019	50	11	70366 WF WY #2	1.019	50	11
70367 WF WY #3	1.018	100	21	70368 WF WY #4	0.000	0	0	70386 WBK G1	0.000	0	0
70387 WBK G2	0.000	0	0	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.990	502	125
71060 MYST G4	1.066	133	101	71061 MYST 5G	1.068	129	101	71062 MYST G6	1.067	136	101
71063 MYST G7	1.007	565	-17	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.039	670	157	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.017	357	197
71084 NEA GTPF	1.039	85	28	71085 NEA GTPF	1.039	85	28	71086 NEA STPF	1.040	80	28
71095 ANPBLCK1	1.077	290	102	71096 ANPBLCK2	1.077	290	102	71251 CANAL G1	1.040	566	228
71252 CANAL G2	1.020	577	120*	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	1.027	241	117*
72370 BP #3 GN	1.024	586	87	72371 BP #4 GN	0.000	0	0	72661 MANCH09A	1.005	99	35*
72662 MANCH10A	1.005	99	35*	72663 MANCH11A	1.005	99	35*	72666 FRSQ SC1	0.991	43	-5
72667 FRSQ SC2	0.991	43	0	72668 FRSQ SC3	0.991	42	1	71522 SOM G6	0.991	70	57
71531 OSP1 PF	1.002	77	0	71532 OSP2 PF	1.002	77	0	71533 OSP3 PF	1.002	108	0
71534 OSP4 PF	1.002	77	0	71535 OSP5 PF	0.000	0	0	71536 OSP6 PF	1.002	108	0
71946 SALEM G1	1.024	79	11	71947 SALEM G2	1.025	78	11	71948 SALEM G3	1.021	143	22
71949 SALEM G4	1.021	400	66	72869 SBRK G1	1.007	1150	252	72868 NWNGT G1	1.008	406	107
72870 SCHILLER	1.022	48	25*	72871 SCHILLER	1.022	50	25*	72872 SCHILLER	1.022	48	25*
72866 MERMK G1	1.034	113	24	72867 MERMK G2	1.034	320	68	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.003	273	39
72244 MILLENST	1.003	117	17	72378 BELL #2	1.098	270	150*	72512 BRSWP G1	0.984	280	50
72513 BRSWP G2	0.984	280	50	72986 BERKPWR	1.016	280	9	73072 ALT12 PF	1.023	65	13*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.022	80	13	73069 MAPR1 PF	1.024	56	26
73080 WSPFLD 3	0.990	107	-8	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	7	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.053	92	48*	72377 BELL #1	1.098	270	150*	72378 BELL #2	1.098	270	150*

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	194	MIDDLETOWN	747	186	MONTVILLE	402	94
NORWALK	327	18	BRIDGEPORT	520	183	NHHARBOUR	447	46
DEVON	212	60	BRAYTONPT	1413	292	MANCHSTRST	425	101
SOMERSET	70	57	OSP	446	0	NEA	249	84
PAWTKTPWR	64	-9	ENRON	124	80	CANAL	1143	348
PILGRIM	670	157	MYSTIC	963	287	NEWBOSTON	357	197
SALEMHBR	700	110	SEABROOK	1150	252	NEWINGTON	406	107
SCHILLER	145	75	MERRIMACK	433	92	STONYBROOK	0	0
WYMAN	200	42	VTYANKEE	502	125	BEARSWAMP	560	100
NORTHFIELD	0	0	MASSPWRR	126	53	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	683	-166	MAINE-NH	451	-112
NNE-SCOBIE+394	1534	19	SEABROOK-SOUTH	1138	93	NORTH-SOUTH	1281	100
CMFD/MOORE-SO	197	-30	SNDYPOND-SOUTH	2023	-82	CONN EXPORT	-1505	150
CONN-MASS	-587	119	CONN-RI	269	23	SW CONN IMPORT	1995	124
NORWLK-STAMFORD	877	-73	BOSTON IMPORT	2959	98	NEMA/BOS IMPORT	3492	38
SEMA/RI EXPORT	1188	186	CONVEX-REMVEC	-104	2	EAST-WEST	-43	-52
NY-NE	703	-185	PV20	150	-12	CT-LI-1385	1	-52

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	357.
70759 MYSTIC	345	360.	71797 MILLBURY	345	356.	72925 LUDLOW	345	354.
72926 NRTHFLD	345	358.	73106 SOUTHGTN	345	350.	73108 CARD	345	356.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	358.
71801 BRAYTN P	345	358.	71811 KENT CO.	345	350.	71326 BRIDGWTR	345	355.
71336 SHERMAN	345	356.	71338 OS POWER	345	356.	71337 WFARNUM	345	354.
70772 W MEDWAY	345	357.	70780 WWALP345	345	355.	70783 PILGRIM	345	358.
70773 NEA 336	345	358.	71193 CANAL	345	359.	71133 CARVER	345	357.
70795 FRMNGHAM	230	236.	70793 MDFRM230	230	240.	70794 MDWLT230	230	241.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	117.	73634 COLONY	115	117.
73633 NO.WALLF	115	117.	73227 E.MERIDN	115	117.	73230 HADDAM	115	118.
73231 BOKUM	115	117.	73265 GREEN HL	115	116.	73153 BRANFORD	115	117.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	116.
71403 WFARNUM	115	116.	72539 WOLFHILL	115	117.	72581 WOOD RIV	115	111.

AREA/ZONE TOTALS

NEPOOL_GEN	22137	NEPOOL_LOAD	24868	NEPOOL_LOSS	585
NEPOOL_INT	-3336				

Table C.21 – Pk6 Base Case Summary

PK6.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 700, CT-EXP 445, SWCT-IMP 295

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	0.998	180	30	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.989	159	12	73552 NORHAR#2	0.989	168	12	73553 DEVON#7	0.994	106	16
73554 DEVON#8	0.993	106	16	73555 MIDDTN#2	0.000	0	0	73556 MIDDTN#3	0.000	0	0
73557 MIDDTN#4	0.987	400	22	73558 MONTV#5	0.985	81	13	73559 MONTV#6	0.993	402	67
73562 MILL#2	0.986	857	49	73563 MILL#3	0.984	1137	49	73565 LAKERD#1	1.003	280	49
73566 LAKERD#2	1.003	280	49	73567 LAKERD#3	1.003	280	49	73574 MILFD#1	1.017	280	9
73575 MILFD#2	1.017	280	9	73579 TOW ST1	1.007	188	21	73580 TOW GT1	1.007	180	21
73581 TOW GT2	1.007	180	21	73588 MERIDEN1	1.021	167	33	73589 MERIDEN2	1.021	167	33
73590 MERIDEN3	1.017	190	33	73594 WALL LV1	1.025	102	18	73595 WALL LV2	1.025	102	18
73596 WALL LV3	1.025	51	15	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.984	170	72
73648 BPTHBR#3	0.980	375	72	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.979	447	79
73652 BE 11	0.976	170	9	73653 BE 12	0.976	170	9	73654 BE 10 ST	0.972	180	9
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.017	50	10	70366 WF WY #2	1.017	50	10
70367 WF WY #3	1.017	100	19	70368 WF WY #4	0.000	0	0	70386 WBK G1	0.000	0	0
70387 WBK G2	0.000	0	0	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.991	502	150*
71060 MYST G4	1.069	133	105	71061 MYST 5G	1.069	129	105	71062 MYST G6	1.069	136	104*
71063 MYST G7	1.014	565	39	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.054	670	274	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.019	357	205
71084 NEA GTPF	1.047	85	40*	71085 NEA GTPF	1.047	85	40*	71086 NEA STPF	1.062	80	55*
71095 ANPBLCK1	1.094	290	150*	71096 ANPBLCK2	1.094	290	150*	71251 CANAL G1	1.036	566	239*
71252 CANAL G2	0.000	0	0	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	0.000	0	0
72370 BP #3 GN	1.046	589	265*	72371 BP #4 GN	0.000	0	0	72661 MANCH09A	1.001	99	35*
72662 MANCH10A	1.001	99	35*	72663 MANCH11A	1.001	99	35*	72666 FRSQ SC1	0.991	43	-1
72667 FRSQ SC2	0.991	43	3	72668 FRSQ SC3	0.991	42	5	71522 SOM G6	1.005	70	73
71531 OSP1 PF	1.008	77	6	71532 OSP2 PF	1.008	77	6	71533 OSP3 PF	1.008	108	8
71534 OSP4 PF	1.008	77	6	71535 OSP5 PF	0.000	0	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.025	79	12	71947 SALEM G2	1.025	78	12	71948 SALEM G3	1.022	143	23
71949 SALEM G4	1.022	400	69	72869 SBRK G1	1.010	1150	295	72868 NWNGT G1	1.018	406	143
72870 SCHILLER	1.016	48	25*	72871 SCHILLER	1.016	50	25*	72872 SCHILLER	1.016	48	25*
72866 MERMK G1	1.032	113	53*	72867 MERMK G2	0.000	0	0	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.013	273	59
72244 MILLENST	1.011	117	27	72378 BELL #2	0.000	0	0	72512 BRSWP G1	0.993	280	73
72513 BRSWP G2	0.993	280	73	72986 BERKPWR	1.016	280	10	73072 ALT12 PF	1.027	65	16*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.026	80	16	73069 MAPR1 PF	1.047	56	47*
73080 WSPFLD 3	0.999	107	4	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	8	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.054	92	48*	72377 BELL #1	0.000	0	0	72378 BELL #2	0.000	0	0

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	99	MIDDLETOWN	400	22	MONTVILLE	483	80
NORWALK	327	24	BRIDGEPORT	1065	172	NHHARBOUR	447	79
DEVON	212	33	BRAYTONPT	1177	530	MANCHSTRST	425	112
SOMERSET	70	73	OSP	339	26	NEA	249	135
PAWTKTPWR	64	-8	ENRON	80	53	CANAL	566	239
PILGRIM	670	274	MYSTIC	963	353	NEWBOSTON	357	205
SALEMHBR	700	116	SEABROOK	1150	295	NEWINGTON	406	143
SCHILLER	145	75	MERRIMACK	113	53	STONYBROOK	0	0
WYMAN	200	38	VTYANKEE	502	150	BEARSWAMP	560	147
NORTHFIELD	0	0	MASSPWRR	56	47	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	682	-158	MAINE-NH	451	-113
NNE-SCOBIE+394	1448	65	SEABROOK-SOUTH	1134	135	NORTH-SOUTH	1022	110
CMFD/MOORE-SO	201	-11	SNDYPOND-SOUTH	2062	-77	CONN EXPORT	447	-13
CONN-MASS	74	35	CONN-RI	1119	24	SW CONN IMPORT	295	242
NORWLK-STAMFORD	880	-61	BOSTON IMPORT	2983	37	NEMA/BOS IMPORT	3509	-32
SEMA/RI EXPORT	-325	285	CONVEX-REMVEC	1603	-45	EAST-WEST	-1858	119
NY-NE	697	-244	PV20	170	-14	CT-LI-1385	1	-53

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	357.
70759 MYSTIC	345	360.	71797 MILLBURY	345	354.	72925 LUDLOW	345	353.
72926 NRTHFLD	345	356.	73106 SOUTHGTN	345	354.	73108 CARD	345	356.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	357.
71801 BRAYTN P	345	358.	71811 KENT CO.	345	349.	71326 BRIDGWTR	345	354.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	352.
70772 W MEDWAY	345	354.	70780 WWALP345	345	353.	70783 PILGRIM	345	358.
70773 NEA 336	345	357.	71193 CANAL	345	356.	71133 CARVER	345	355.
70795 FRMNGHAM	230	234.	70793 MDFRM230	230	238.	70794 MDWLT230	230	239.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	115.	73634 COLONY	115	114.
73633 NO.WALLF	115	113.	73227 E.MERIDN	115	113.	73230 HADDAM	115	111.
73231 BOKUM	115	111.	73265 GREEN HL	115	112.	73153 BRANFORD	115	116.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	116.
71403 WFARNUM	115	115.	72539 WOLFHILL	115	116.	72581 WOOD RIV	115	109.

AREA/ZONE TOTALS

NEPOOL_GEN	22182	NEPOOL_LOAD	24868	NEPOOL_LOSS	625	
NEPOOL_INT	-3331					

Table C.22 – Pk6G Base Case Summary

PK6G.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 700, CT-EXP 815, SWCT-IMP 295

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	0.998	180	31	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.989	159	12	73552 NORHAR#2	0.989	168	12	73553 DEVON#7	0.991	106	14
73554 DEVON#8	0.991	106	14	73555 MIDDTN#2	1.018	117	42	73556 MIDDTN#3	0.989	230	42
73557 MIDDTN#4	0.981	400	-2	73558 MONTV#5	0.986	81	14	73559 MONTV#6	0.994	402	70
73562 MILL#2	0.985	857	40	73563 MILL#3	0.983	1137	40	73565 LAKERD#1	1.005	280	54
73566 LAKERD#2	1.005	280	54	73567 LAKERD#3	1.005	280	54	73574 MILFD#1	1.017	280	9
73575 MILFD#2	1.017	280	9	73579 TOW ST1	1.007	188	21	73580 TOW GT1	1.007	180	20
73581 TOW GT2	1.007	180	20	73588 MERIDEN1	1.013	167	19	73589 MERIDEN2	1.013	167	19
73590 MERIDEN3	1.009	190	19	73594 WALL LV1	1.025	102	16	73595 WALL LV2	1.025	102	16
73596 WALL LV3	1.025	51	12	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.984	170	72
73648 BPTHBR#3	0.980	375	72	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.974	447	54
73652 BE 11	0.976	170	9	73653 BE 12	0.976	170	9	73654 BE 10 ST	0.972	180	9
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.017	50	10	70366 WF WY #2	1.018	50	10
70367 WF WY #3	1.017	100	19	70368 WF WY #4	0.000	0	0	70386 WBK G1	0.000	0	0
70387 WBK G2	0.000	0	0	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.990	502	150*
71060 MYST G4	1.068	133	104	71061 MYST 5G	1.069	129	104	71062 MYST G6	1.069	136	104*
71063 MYST G7	1.014	565	45	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.054	670	276	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.019	357	205
71084 NEA GTPF	1.047	85	40*	71085 NEA GTPF	1.047	85	40*	71086 NEA STPF	1.062	80	55*
71095 ANPBLCK1	1.094	290	150*	71096 ANPBLCK2	1.094	290	150*	71251 CANAL G1	1.036	566	239*
71252 CANAL G2	0.000	0	0	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	0.000	0	0
72370 BP #3 GN	1.049	231	265*	72371 BP #4 GN	0.000	0	0	72661 MANCH09A	1.001	99	35*
72662 MANCH10A	1.001	99	35*	72663 MANCH11A	1.002	99	35*	72666 FRSQ SC1	0.991	43	-1
72667 FRSQ SC2	0.991	43	3	72668 FRSQ SC3	0.991	42	5	71522 SOM G6	1.005	70	73
71531 OSP1 PF	1.017	77	12	71532 OSP2 PF	1.017	77	12	71533 OSP3 PF	1.017	108	17
71534 OSP4 PF	1.017	77	12	71535 OSP5 PF	0.000	0	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.025	79	12	71947 SALEM G2	1.025	78	12	71948 SALEM G3	1.022	143	23
71949 SALEM G4	1.022	400	70	72869 SBRK G1	1.010	1150	301	72868 NWNGT G1	1.019	406	145
72870 SCHILLER	1.015	48	25*	72871 SCHILLER	1.015	50	25*	72872 SCHILLER	1.015	48	25*
72866 MERMK G1	1.031	113	53*	72867 MERMK G2	0.000	0	0	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.015	273	63
72244 MILLENST	1.012	117	28	72378 BELL #2	0.000	0	0	72512 BRSWP G1	0.995	280	78
72513 BRSWP G2	0.995	280	78	72986 BERKPWR	1.011	280	0	73072 ALT12 PF	1.028	65	17*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.026	80	17	73069 MAPR1 PF	1.047	56	47*
73080 WSPFLD 3	1.000	107	5	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	8	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.054	92	48*	72377 BELL #1	0.000	0	0	72378 BELL #2	0.000	0	0

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	79	MIDDLETOWN	747	83	MONTVILLE	483	84
NORWALK	327	23	BRIDGEPORT	1065	172	NHHARBOUR	447	54
DEVON	212	28	BRAYTONPT	462	530	MANCHSTRST	425	112
SOMERSET	70	73	OSP	339	54	NEA	249	135
PAWTKTPWR	64	-8	ENRON	80	53	CANAL	566	239
PILGRIM	670	276	MYSTIC	963	358	NEWBOSTON	357	205
SALEMHBR	700	116	SEABROOK	1150	301	NEWINGTON	406	145
SCHILLER	145	75	MERRIMACK	113	53	STONYBROOK	0	0
WYMAN	200	39	VTYANKEE	502	150	BEARSWAMP	560	155
NORTHFIELD	0	0	MASSPWRR	56	47	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	682	-158	MAINE-NH	451	-113
NNE-SCOBIE+394	1447	73	SEABROOK-SOUTH	1137	140	NORTH-SOUTH	1017	109
CMFD/MOORE-SO	201	-10	SNDYPOND-SOUTH	2082	-78	CONN EXPORT	815	-6
CONN-MASS	216	48	CONN-RI	1298	23	SW CONN IMPORT	294	243
NORWLK-STAMFORD	880	-59	BOSTON IMPORT	2983	29	NEMA/BOS IMPORT	3509	-39
SEMA/RI EXPORT	-672	343	CONVEX-REMVEC	1948	-46	EAST-WEST	-2211	183
NY-NE	699	-242	PV20	172	-14	CT-LI-1385	-3	-54

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	357.
70759 MYSTIC	345	360.	71797 MILLBURY	345	354.	72925 LUDLOW	345	353.
72926 NRTHFLD	345	356.	73106 SOUTHGTN	345	355.	73108 CARD	345	357.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	357.
71801 BRAYTN P	345	358.	71811 KENT CO.	345	349.	71326 BRIDGWTR	345	354.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	352.
70772 W MEDWAY	345	354.	70780 WWALP345	345	353.	70783 PILGRIM	345	358.
70773 NEA 336	345	357.	71193 CANAL	345	356.	71133 CARVER	345	355.
70795 FRMNGHAM	230	234.	70793 MDFRM230	230	238.	70794 MDWLT230	230	239.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	117.	73634 COLONY	115	116.
73633 NO.WALLF	115	116.	73227 E.MERIDN	115	115.	73230 HADDAM	115	116.
73231 BOKUM	115	115.	73265 GREEN HL	115	115.	73153 BRANFORD	115	117.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	116.
71403 WFARNUM	115	115.	72539 WOLFHILL	115	116.	72581 WOOD RIV	115	109. L

AREA/ZONE TOTALS

NEPOOL_GEN	22188	NEPOOL_LOAD	24868	NEPOOL_LOSS	633	
NEPOOL_INT	-3332					

Table C.23 – Pk6-ALC Base Case Summary

PK6-ALC.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 700, CT-EXP 455, SWCT-IMP 295, HADAUTO, 1620N,S,CAP

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	0.997	180	28	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.989	159	12	73552 NORHAR#2	0.989	168	12	73553 DEVON#7	0.991	106	14
73554 DEVON#8	0.991	106	14	73555 MIDDTN#2	0.000	0	0	73556 MIDDTN#3	0.000	0	0
73557 MIDDTN#4	0.981	400	-3	73558 MONTV#5	0.984	81	13	73559 MONTV#6	0.992	402	64
73562 MILL#2	0.987	857	58	73563 MILL#3	0.985	1137	58	73565 LAKERD#1	1.002	280	47
73566 LAKERD#2	1.002	280	47	73567 LAKERD#3	1.002	280	47	73574 MILFD#1	1.017	280	9
73575 MILFD#2	1.017	280	9	73579 TOW ST1	1.007	188	21	73580 TOW GT1	1.007	180	20
73581 TOW GT2	1.007	180	20	73588 MERIDEN1	1.014	167	23	73589 MERIDEN2	1.014	167	23
73590 MERIDEN3	1.011	190	23	73594 WALL LV1	1.025	102	16	73595 WALL LV2	1.025	102	16
73596 WALL LV3	1.025	51	12	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.984	170	72
73648 BPTHBR#3	0.980	375	72	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.973	447	46
73652 BE 11	0.976	170	9	73653 BE 12	0.976	170	9	73654 BE 10 ST	0.972	180	9
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.017	50	10	70366 WF WY #2	1.017	50	10
70367 WF WY #3	1.017	100	19	70368 WF WY #4	0.000	0	0	70386 WBK G1	0.000	0	0
70387 WBK G2	0.000	0	0	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.992	502	150*
71060 MYST G4	1.068	133	105	71061 MYST 5G	1.069	129	105	71062 MYST G6	1.069	136	104*
71063 MYST G7	1.014	565	39	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.054	670	273	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	1.019	357	205
71084 NEA GTPF	1.047	85	40*	71085 NEA GTPF	1.047	85	40*	71086 NEA STPF	1.062	80	55*
71095 ANPBLCK1	1.094	290	150*	71096 ANPBLCK2	1.094	290	150*	71251 CANAL G1	1.036	566	239*
71252 CANAL G2	0.000	0	0	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	0.000	0	0
72370 BP #3 GN	1.047	577	265*	72371 BP #4 GN	0.000	0	0	72661 MANCH09A	1.002	99	35*
72662 MANCH10A	1.002	99	35*	72663 MANCH11A	1.002	99	35*	72666 FRSQ SC1	0.991	43	-1
72667 FRSQ SC2	0.991	43	3	72668 FRSQ SC3	0.991	42	5	71522 SOM G6	1.004	70	72
71531 OSP1 PF	1.008	77	6	71532 OSP2 PF	1.008	77	6	71533 OSP3 PF	1.007	108	7
71534 OSP4 PF	1.008	77	6	71535 OSP5 PF	0.000	0	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.025	79	12	71947 SALEM G2	1.025	78	12	71948 SALEM G3	1.022	143	23
71949 SALEM G4	1.022	400	69	72869 SBRK G1	1.010	1150	295	72868 NWNGT G1	1.018	406	143
72870 SCHILLER	1.016	48	25*	72871 SCHILLER	1.016	50	25*	72872 SCHILLER	1.016	48	25*
72866 MERMK G1	1.032	113	53*	72867 MERMK G2	0.000	0	0	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.013	273	59
72244 MILLENST	1.010	117	26	72378 BELL #2	0.000	0	0	72512 BRSWP G1	0.993	280	73
72513 BRSWP G2	0.993	280	73	72986 BERKPWR	1.012	280	2	73072 ALT12 PF	1.027	65	16*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.025	80	16	73069 MAPR1 PF	1.048	56	47*
73080 WSPFLD 3	0.998	107	2	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	8	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.054	92	48*	72377 BELL #1	0.000	0	0	72378 BELL #2	0.000	0	0

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	115	MIDDLETOWN	400	-3	MONTVILLE	483	76
NORWALK	327	24	BRIDGEPORT	1065	172	NHHARBOUR	447	46
DEVON	212	28	BRAYTONPT	1153	530	MANCHSTRST	425	112
SOMERSET	70	72	OSP	339	24	NEA	249	135
PAWTKTPWR	64	-8	ENRON	80	53	CANAL	566	239
PILGRIM	670	273	MYSTIC	963	352	NEWBOSTON	357	205
SALEMHBR	700	116	SEABROOK	1150	295	NEWINGTON	406	143
SCHILLER	145	75	MERRIMACK	113	53	STONYBROOK	0	0
WYMAN	200	38	VTYANKEE	502	150	BEARSWAMP	560	147
NORTHFIELD	0	0	MASSPWRR	56	47	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	682	-158	MAINE-NH	451	-113
NNE-SCOBIE+394	1448	65	SEABROOK-SOUTH	1134	135	NORTH-SOUTH	1021	108
CMFD/MOORE-SO	201	-11	SNDYPOND-SOUTH	2064	-78	CONN EXPORT	456	12
CONN-MASS	90	50	CONN-RI	1115	24	SW CONN IMPORT	293	240
NORWLK-STAMFORD	880	-60	BOSTON IMPORT	2983	37	NEMA/BOS IMPORT	3509	-31
SEMA/RI EXPORT	-336	285	CONVEX-REMVEC	1614	-41	EAST-WEST	-1870	118
NY-NE	700	-247	PV20	170	-14	CT-LI-1385	-1	-53

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	357.
70759 MYSTIC	345	360.	71797 MILLBURY	345	354.	72925 LUDLOW	345	354.
72926 NRTHFLD	345	356.	73106 SOUTHGTN	345	355.	73108 CARD	345	357.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	357.
71801 BRAYTN P	345	358.	71811 KENT CO.	345	349.	71326 BRIDGWTR	345	354.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	352.
70772 W MEDWAY	345	354.	70780 WWALP345	345	353.	70783 PILGRIM	345	358.
70773 NEA 336	345	357.	71193 CANAL	345	356.	71133 CARVER	345	355.
70795 FRMNGHAM	230	234.	70793 MDFRM230	230	238.	70794 MDWLT230	230	239.
70818 MYSTC MA	115	119.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	117.	73634 COLONY	115	117.
73633 NO.WALLF	115	117.	73227 E.MERIDN	115	117.	73230 HADDAM	115	119.
73231 BOKUM	115	117.	73265 GREEN HL	115	116.	73153 BRANFORD	115	118.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	116.
71403 WFARNUM	115	115.	72539 WOLFHILL	115	116.	72581 WOOD RIV	115	109.

AREA/ZONE TOTALS

NEPOOL_GEN	22170	NEPOOL_LOAD	24868	NEPOOL_LOSS	616	
NEPOOL_INT	-3334					

Table C.24 – Pk6-ALCG Base Case Summary

PK6-ALCG.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 700, CT-EXP 815, SWCT-IMP 295, HADAUTO, 1620N,S,CAP

GENERATION

#	V	MW	MX	#	V	MW	MX	#	V	MW	MX
73538 AESTH PF	0.997	180	30	73549 SMD1112J	0.000	0	0	73550 SMD1314J	0.000	0	0
73551 NORHAR#1	0.989	159	12	73552 NORHAR#2	0.989	168	12	73553 DEVON#7	0.991	106	14
73554 DEVON#8	0.991	106	14	73555 MIDDTN#2	0.996	117	18	73556 MIDDTN#3	0.980	230	18
73557 MIDDTN#4	0.981	400	-2	73558 MONTV#5	0.985	81	13	73559 MONTV#6	0.993	402	67
73562 MILL#2	0.986	857	47	73563 MILL#3	0.984	1137	47	73565 LAKERD#1	1.004	280	52
73566 LAKERD#2	1.004	280	52	73567 LAKERD#3	1.004	280	52	73574 MILFD#1	1.017	280	9
73575 MILFD#2	1.017	280	9	73579 TOW ST1	1.007	188	21	73580 TOW GT1	1.007	180	20
73581 TOW GT2	1.007	180	20	73588 MERIDEN1	1.010	167	16	73589 MERIDEN2	1.010	167	16
73590 MERIDEN3	1.007	190	16	73594 WALL LV1	1.025	102	16	73595 WALL LV2	1.025	102	16
73596 WALL LV3	1.025	51	12	73646 BPTHBR#1	0.000	0	0	73647 BPTHBR#2	0.985	170	72
73648 BPTHBR#3	0.980	375	72	73649 BPTHBR#4	0.000	0	0	73651 NH HARBR	0.973	447	47
73652 BE 11	0.976	170	9	73653 BE 12	0.976	170	9	73654 BE 10 ST	0.972	180	9
73085 MT.TOM	0.000	0	0	70365 WF WY #1	1.018	50	10	70366 WF WY #2	1.018	50	10
70367 WF WY #3	1.017	100	20	70368 WF WY #4	0.000	0	0	70386 WBK G1	0.000	0	0
70387 WBK G2	0.000	0	0	70388 WBK G3	0.000	0	0	70705 VTYAK G	0.989	502	150*
71060 MYST G4	1.061	133	108*	71061 MYST 5G	1.061	129	108*	71062 MYST G6	1.059	136	104*
71063 MYST G7	1.038	565	253	71064 MYST J1	0.000	0	0	71065 CABOTCMB	0.000	0	0
71094 PLGRM G1	1.058	670	311	71073 N.BOST 1	0.000	0	0	71074 N.BOST 2	0.000	0	0
71084 NEA GTPF	1.045	85	40*	71085 NEA GTPF	1.045	85	40*	71086 NEA STPF	1.060	80	55*
71095 ANPBLCK1	1.092	290	150*	71096 ANPBLCK2	1.092	290	150*	71251 CANAL G1	1.035	566	239*
71252 CANAL G2	0.000	0	0	72372 BP #1 GN	0.000	0	0	72375 BP #2 GN	0.000	0	0
72370 BP #3 GN	1.044	599	265*	72371 BP #4 GN	0.000	0	0	72661 MANCH09A	1.000	99	35*
72662 MANCH10A	1.000	99	35*	72663 MANCH11A	1.000	99	35*	72666 FRSQ SC1	0.991	43	0
72667 FRSQ SC2	0.991	43	5	72668 FRSQ SC3	0.991	42	6	71522 SOM G6	1.011	70	80
71531 OSP1 PF	1.029	77	21	71532 OSP2 PF	1.029	77	21	71533 OSP3 PF	1.029	108	28
71534 OSP4 PF	1.029	77	21	71535 OSP5 PF	0.000	0	0	71536 OSP6 PF	0.000	0	0
71946 SALEM G1	1.026	79	12	71947 SALEM G2	1.026	78	12	71948 SALEM G3	1.022	143	25
71949 SALEM G4	1.023	400	75	72869 SBRK G1	1.012	1150	320	72868 NWNGT G1	1.020	406	149
72870 SCHILLER	1.014	48	25*	72871 SCHILLER	1.014	50	25*	72872 SCHILLER	1.014	48	25*
72866 MERMK G1	1.029	113	53*	72867 MERMK G2	0.000	0	0	72702 CONEDG1	0.000	0	0
72703 CONEDG2	0.000	0	0	72704 CONEDG3	0.000	0	0	72243 MILLENCT	1.018	273	68
72244 MILLENST	1.014	117	30	72378 BELL #2	0.000	0	0	72512 BRSWP G1	0.995	280	80
72513 BRSWP G2	0.995	280	80	72986 BERKPWR	1.012	280	2	73072 ALT12 PF	1.028	65	18*
71739 TAUNTON	0.000	0	0	73073 ALT34 PF	1.027	80	18	73069 MAPR1 PF	1.047	56	47*
73080 WSPFLD 3	1.001	107	6	73083 NRTHFD12	0.000	0	0	73084 NRTHFD34	0.000	0	0
72930 STNYBK1A	1.043	65	8	71581 STNY_BRK	0.000	0	0	72669 TIVER G1	0.000	0	0
72670 TIVER G2	1.054	92	48*	72377 BELL #1	0.000	0	0	72378 BELL #2	0.000	0	0

	MW	MX		MW	MX		MW	MX
MILLSTONE	1994	93	MIDDLETOWN	747	35	MONTVILLE	483	81
NORWALK	327	24	BRIDGEPORT	1065	173	NHHARBOUR	447	47
DEVON	212	28	BRAYTONPT	1198	530	MANCHSTRST	425	115
SOMERSET	70	80	OSP	339	90	NEA	249	135
PAWTKTPWR	64	-8	ENRON	80	53	CANAL	566	239
PILGRIM	670	311	MYSTIC	963	573	NEWBOSTON	0	0
SALEMHBR	700	125	SEABROOK	1150	320	NEWINGTON	406	149
SCHILLER	145	75	MERRIMACK	113	53	STONYBROOK	0	0
WYMAN	200	39	VTYANKEE	502	150	BEARSWAMP	560	160
NORTHFIELD	0	0	MASSPWRR	56	47	GLENBROOK	0	0

INTERFACE FLOWS

NB-NE	712	-46	MEYANKEE-SOUTH	682	-157	MAINE-NH	451	-111
NNE-SCOBIE+394	1450	95	SEABROOK-SOUTH	1152	157	NORTH-SOUTH	1041	121
CMFD/MOORE-SO	201	-7	SNDYPOND-SOUTH	2072	-68	CONN EXPORT	815	-6
CONN-MASS	248	47	CONN-RI	1257	24	SW CONN IMPORT	293	238
NORWLK-STAMFORD	880	-58	BOSTON IMPORT	3338	84	NEMA/BOS IMPORT	3876	12
SEMA/RI EXPORT	-328	351	CONVEX-REMVEC	1946	-38	EAST-WEST	-2212	172
NY-NE	702	-239	PV20	174	-14	CT-LI-1385	0	-54

HVDC TRANSFERS FROM H-Q

CHAT-1 = 0	CHAT-2 = 0	HIGHGATE = 215
MADAWASK = -151	PHII-P1 = 1000	PHII-P2 = 1000
EEL = 74		

BUS VOLTAGES

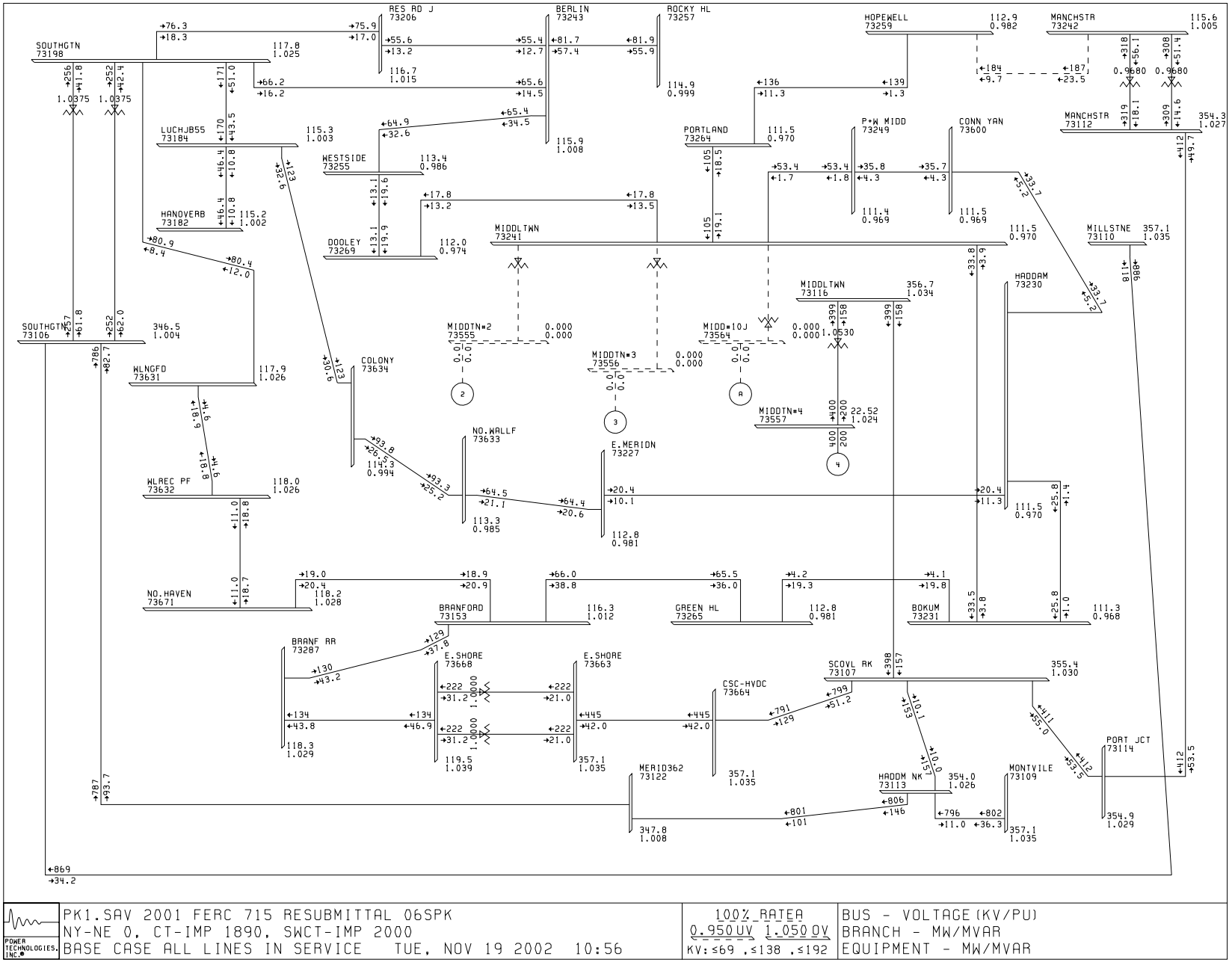
	V	LMT		V	LMT		V	LMT
72692 NWGTN345	345	357.	72694 SEBRK345	345	357.	71789 TEWKS	345	356.
70759 MYSTIC	345	360.	71797 MILLBURY	345	353.	72925 LUDLOW	345	353.
72926 NRTHFLD	345	355.	73106 SOUTHGTN	345	355.	73108 CARD	345	357.
73109 MONTVILE	345	357.	73110 MILLSTNE	345	357.	73116 MIDDLTWN	345	357.
71801 BRAYTN P	345	357.	71811 KENT CO.	345	349.	71326 BRIDGWTR	345	353.
71336 SHERMAN	345	355.	71338 OS POWER	345	355.	71337 WFARNUM	345	352.
70772 W MEDWAY	345	353.	70780 WWALP345	345	352.	70783 PILGRIM	345	358.
70773 NEA 336	345	356.	71193 CANAL	345	356.	71133 CARVER	345	354.
70795 FRMNGHAM	230	232.	70793 MDFRM230	230	237.	70794 MDWLT230	230	238.
70818 MYSTC MA	115	118.	71891 SALEM HR	115	119.	73195 DEVON	115	118.
73709 OLD TOWN	115	116.	73710 HAWTHORN	115	116.	73158 WESTON	115	117.
73198 SOUTHGTN	115	118.	73182 HANOVERB	115	117.	73634 COLONY	115	117.
73633 NO.WALLF	115	117.	73227 E.MERIDN	115	117.	73230 HADDAM	115	118.
73231 BOKUM	115	117.	73265 GREEN HL	115	116.	73153 BRANFORD	115	118.
73703 ASHCREEK	115	118.	73700 PEQUONIC	115	118.	73174 PEACEABL	115	116.
71403 WFARNUM	115	115.	72539 WOLFHILL	115	116.	72581 WOOD RIV	115	109.

AREA/ZONE TOTALS

NEPOOL_GEN	22199	NEPOOL_LOAD	24868	NEPOOL_LOSS	646
NEPOOL_INT	-3335				

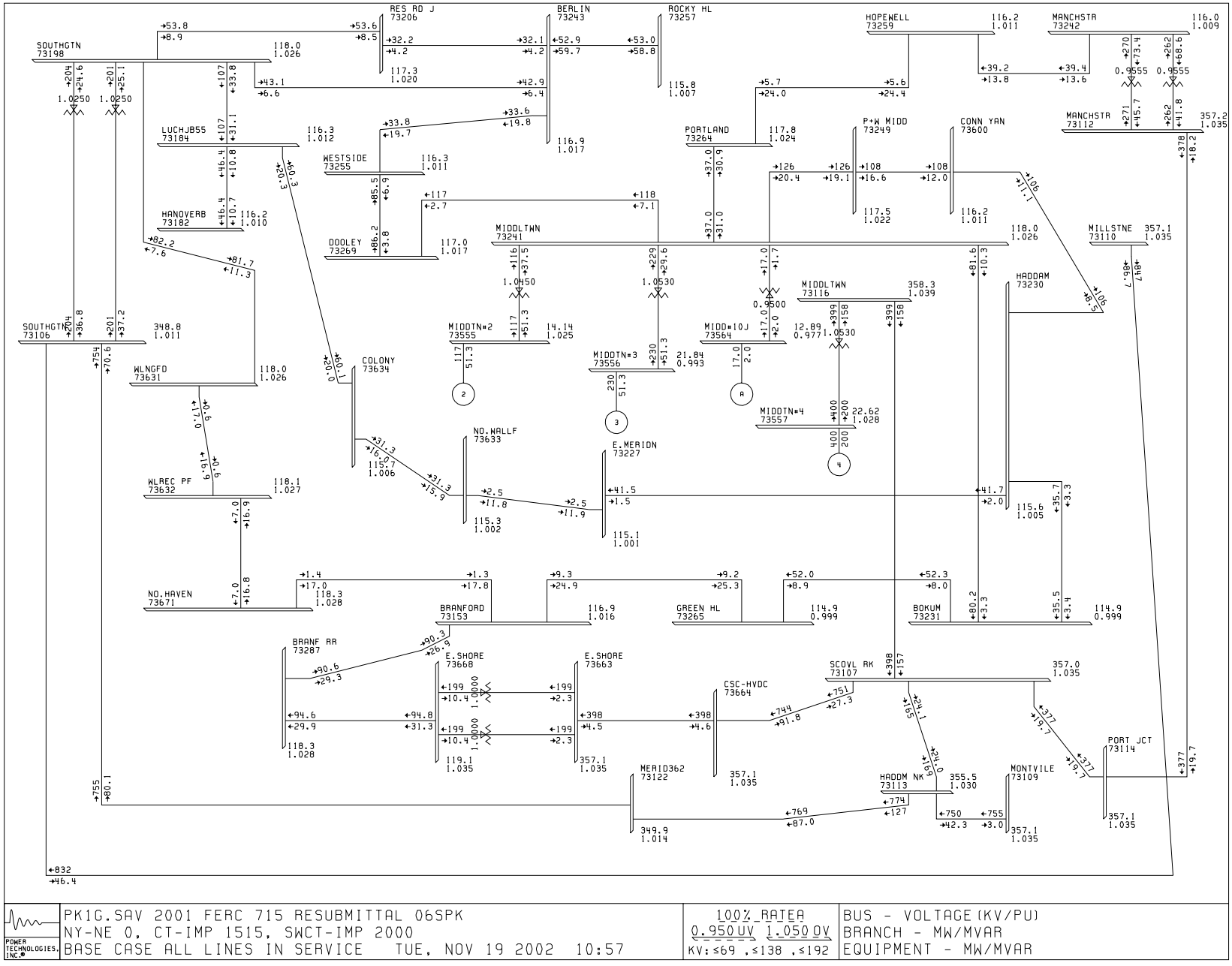
Appendix D – Load Flow Plots

Plot D.1 – Pk1 Base Case All Lines In

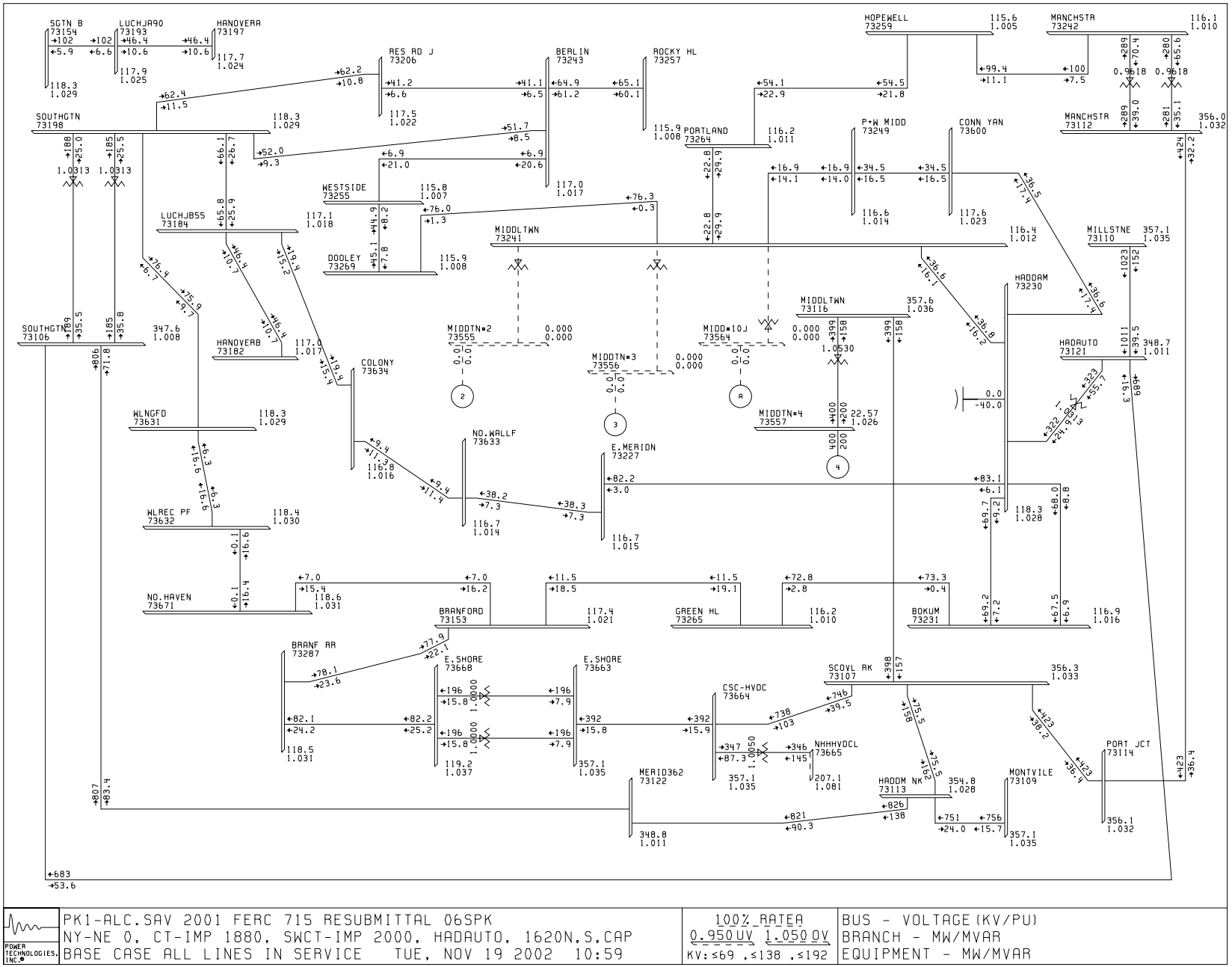


POWER TECHNOLOGIES, INC.	PK1.SAV 2001 FERC 715 RESUBMITTAL 06SPK NY-NE 0, CT-IMP 1890, SWCT-IMP 2000 BASE CASE ALL LINES IN SERVICE TUE, NOV 19 2002 10:56	100% RATEA 0.950 UV 1.050 OV KV: ≤69 , ≤138 , ≤192	BUS - VOLTAGE (KV/PU) BRANCH - MW/MVAR EQUIPMENT - MW/MVAR

Plot D.2 – Pk1G Base Case All Lines In

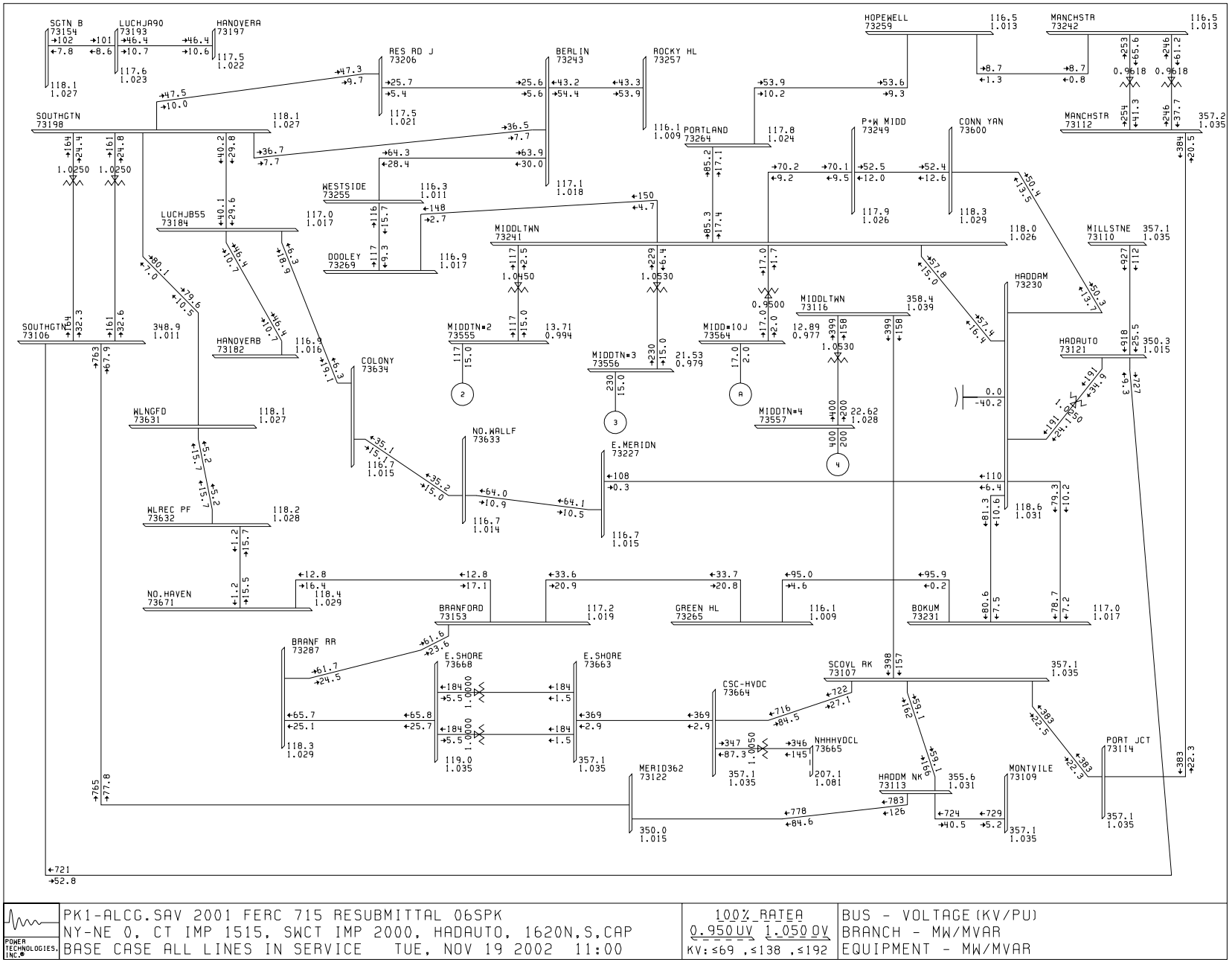


Plot D.3 – Pk1-ALC Base Case All Lines In

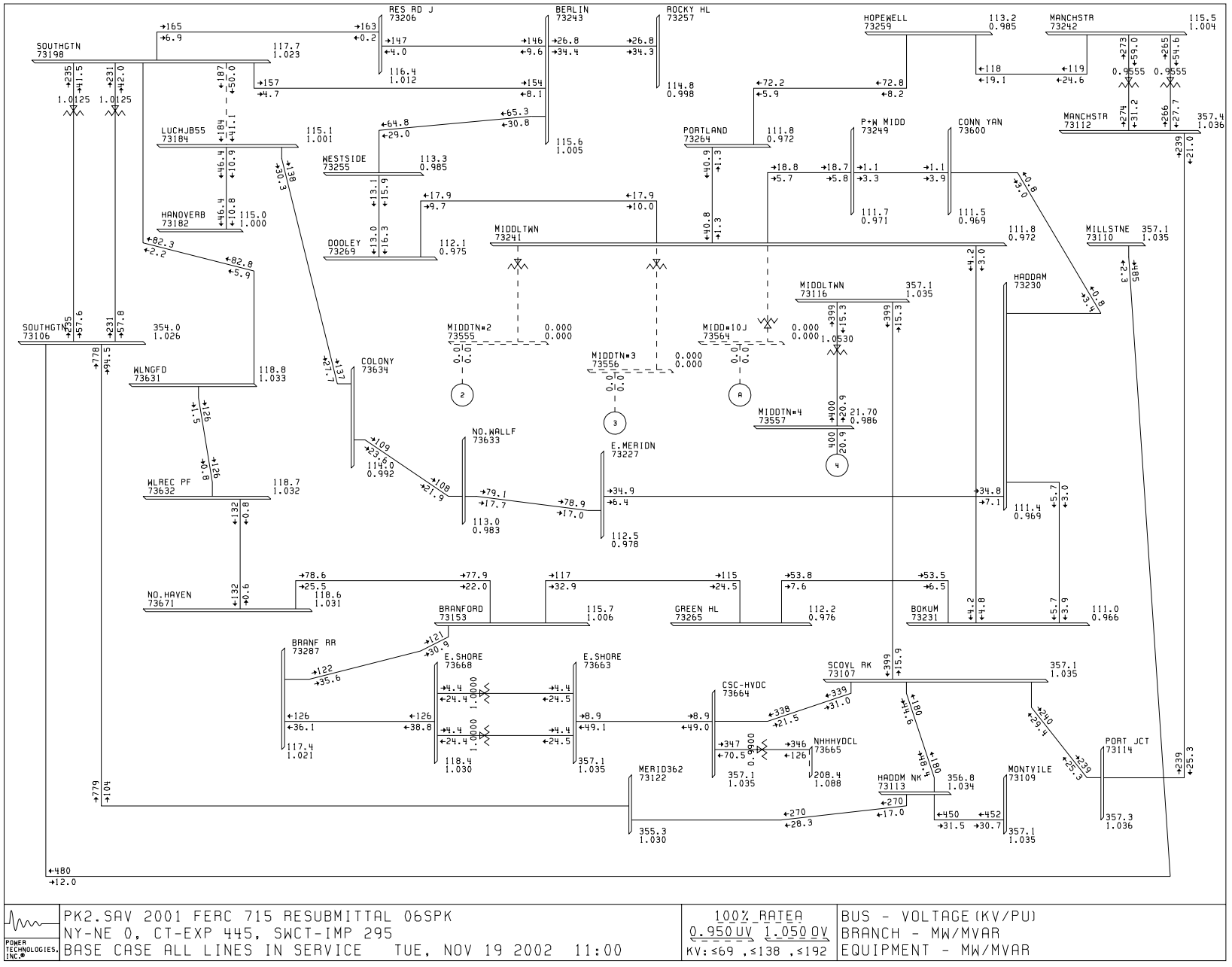


POWER TECHNOLOGIES, INC.	PK1-ALC.SAV 2001 FERC 715 RESUBMITTAL 06SPK NY-NE 0, CT-IMP 1880, SWCT-IMP 2000, HADAUTO, 1620N,S,CAP BASE CASE ALL LINES IN SERVICE TUE, NOV 19 2002 10:59	100% RATED 0.950 UV 1.050 OV KV: ≤69 , ≤138 , ≤192	BUS - VOLTAGE (KV/PU) BRANCH - MW/MVAR EQUIPMENT - MW/MVAR

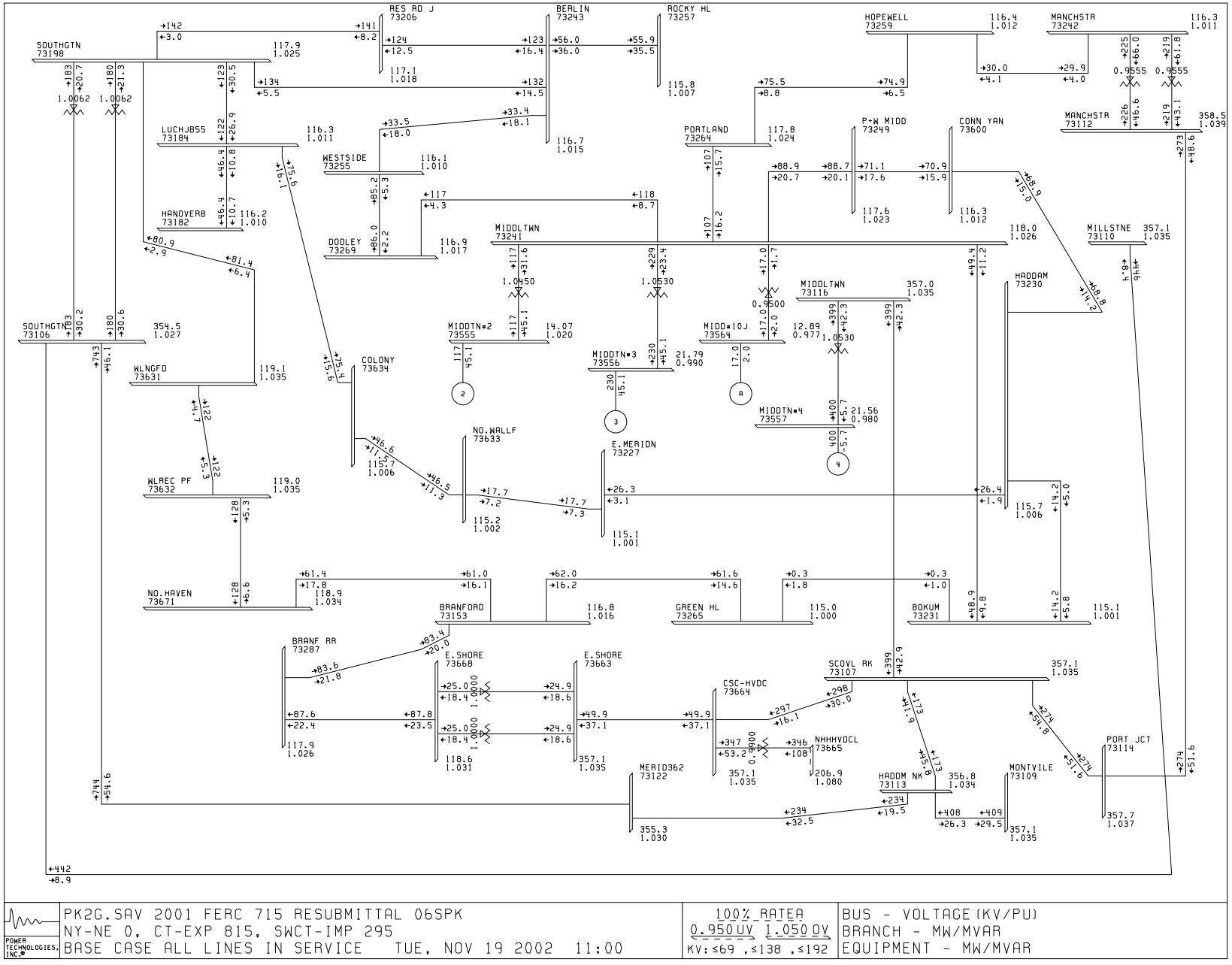
Plot D.4 – Pk1-ALCG Base Case All Lines In



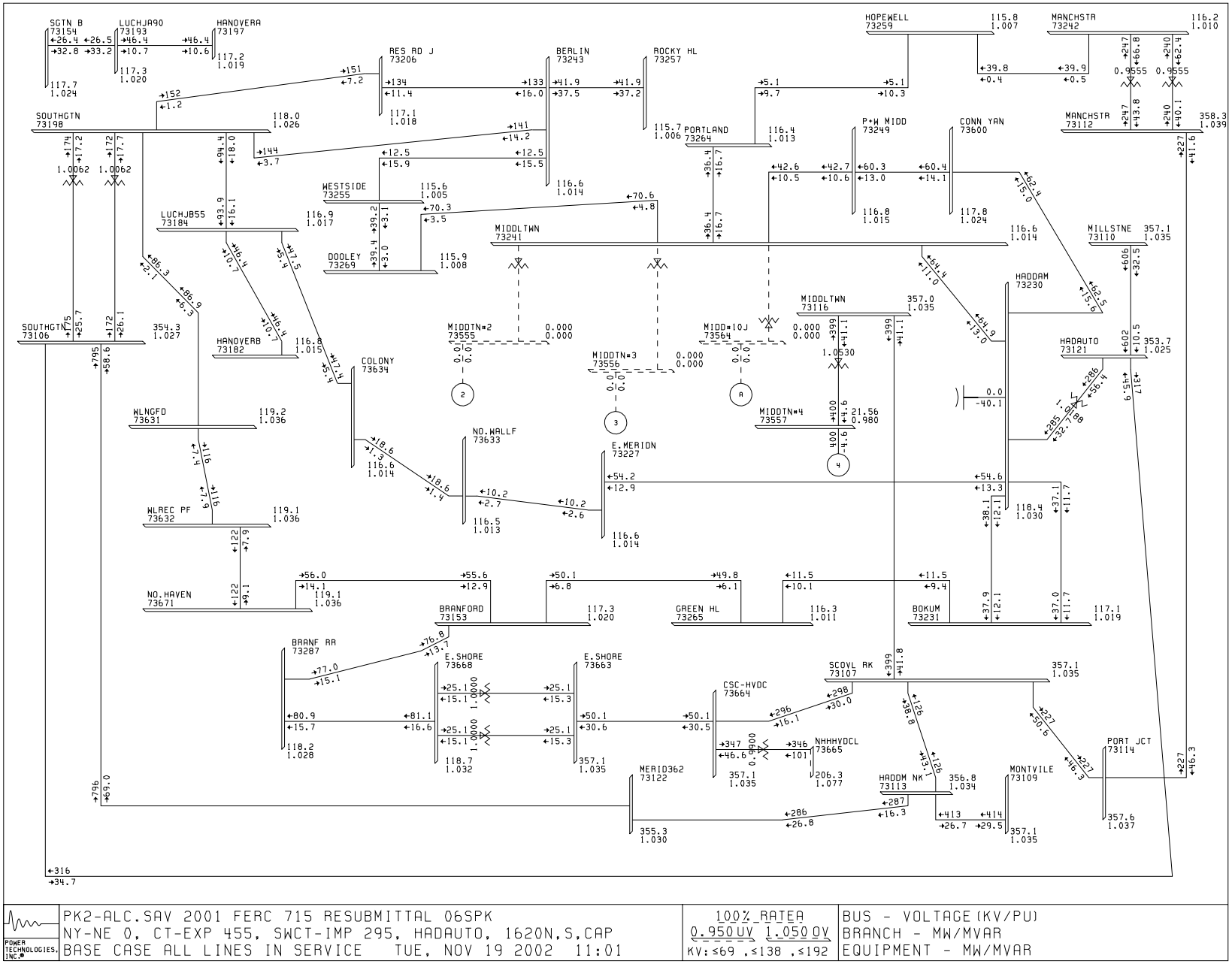
Plot D.5 – Pk2 Base Case All Lines In



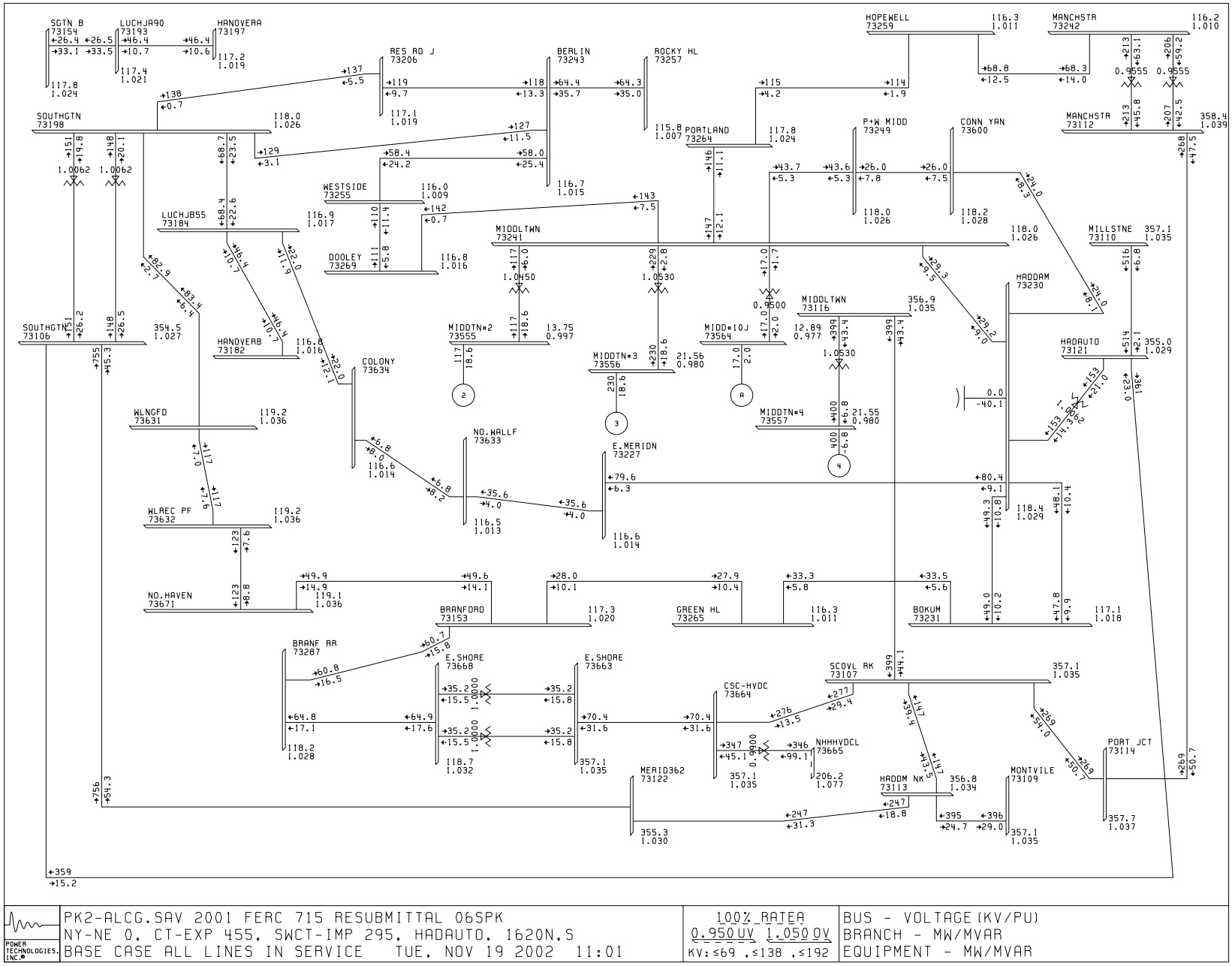
Plot D.6 – Pk2G Base Case All Lines In



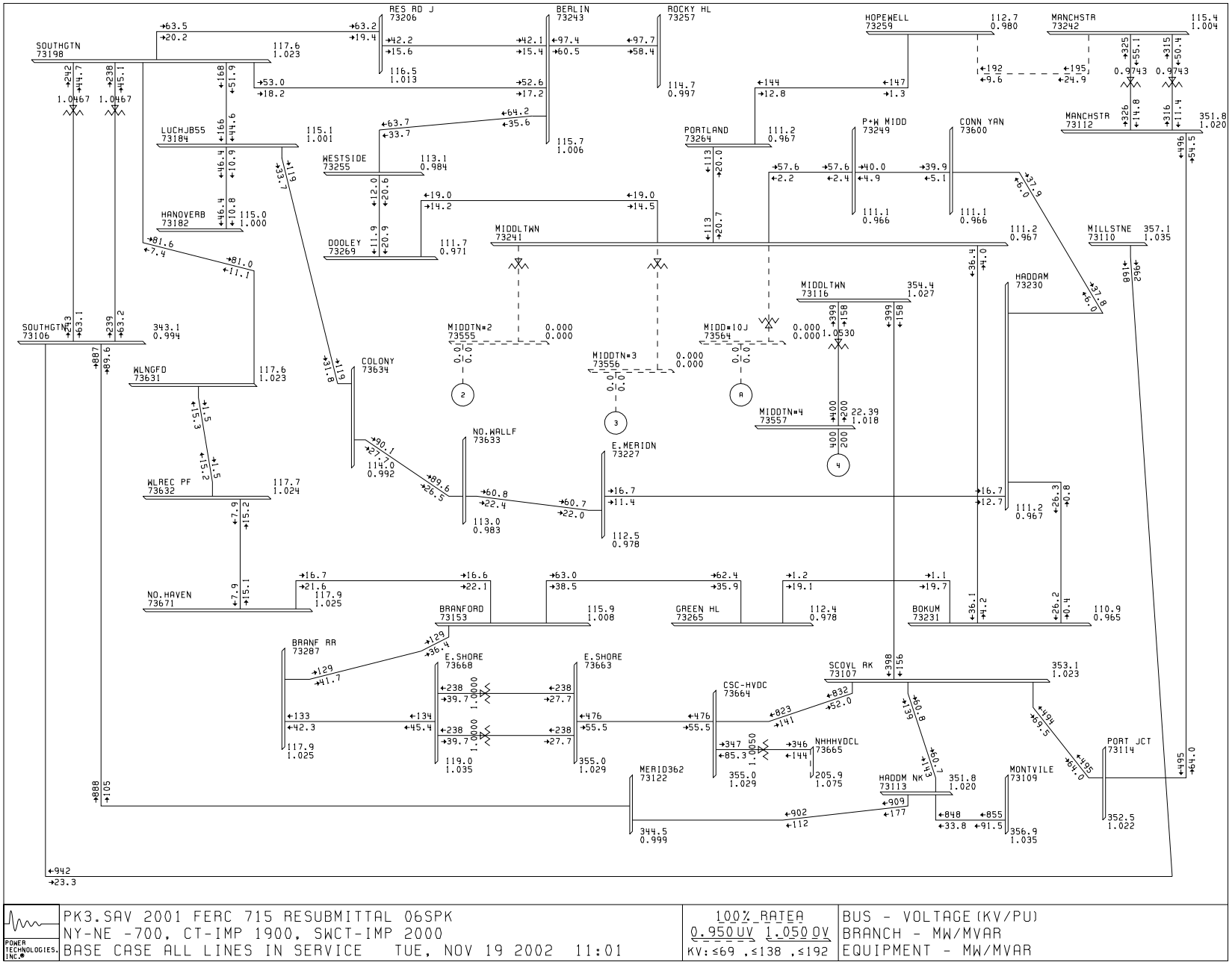
Plot D.7 – Pk2-ALC Base Case All Lines In



Plot D.8 – Pk2-ALCG Base Case All Lines In

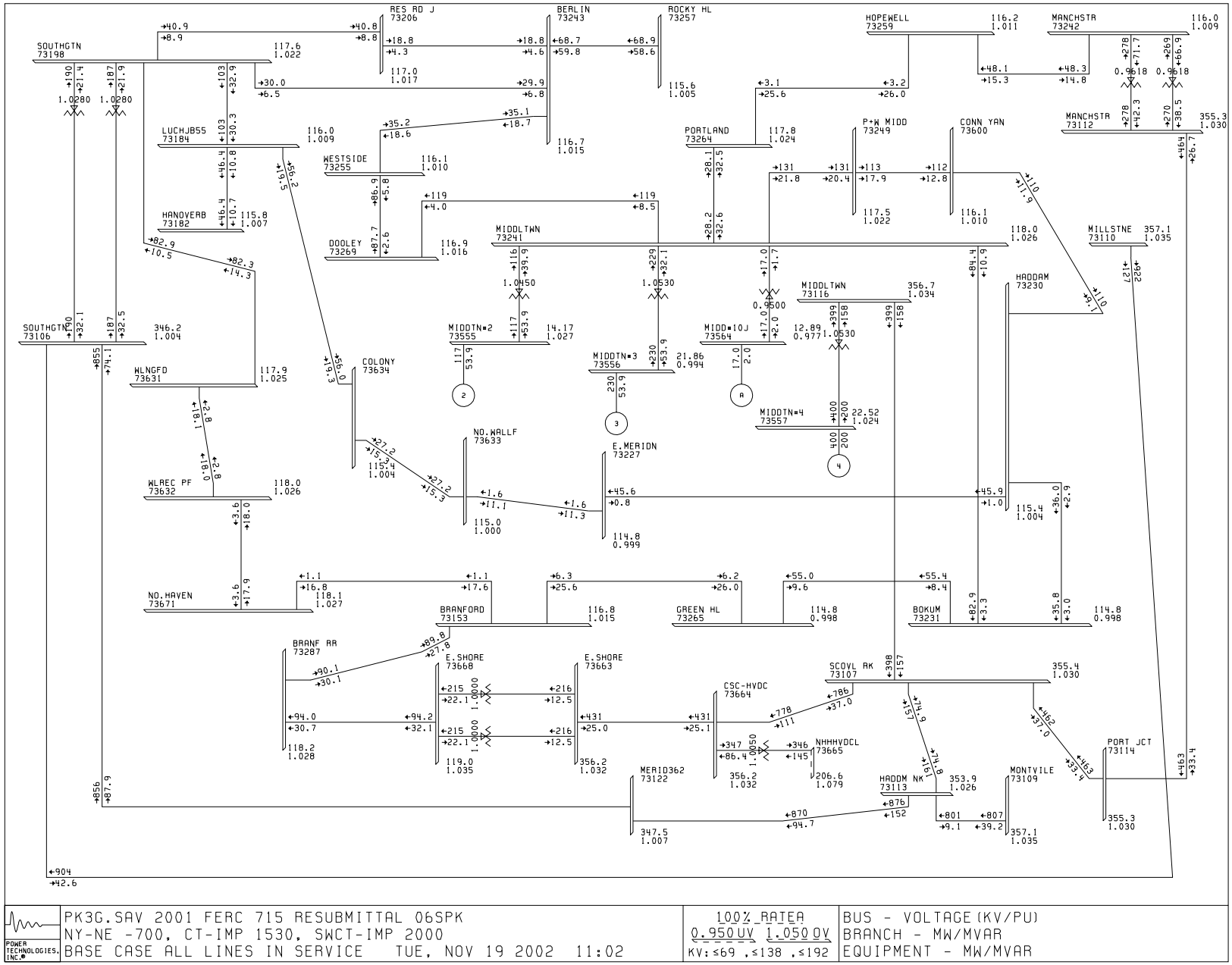


Plot D.9 – Pk3 Base Case All Lines In

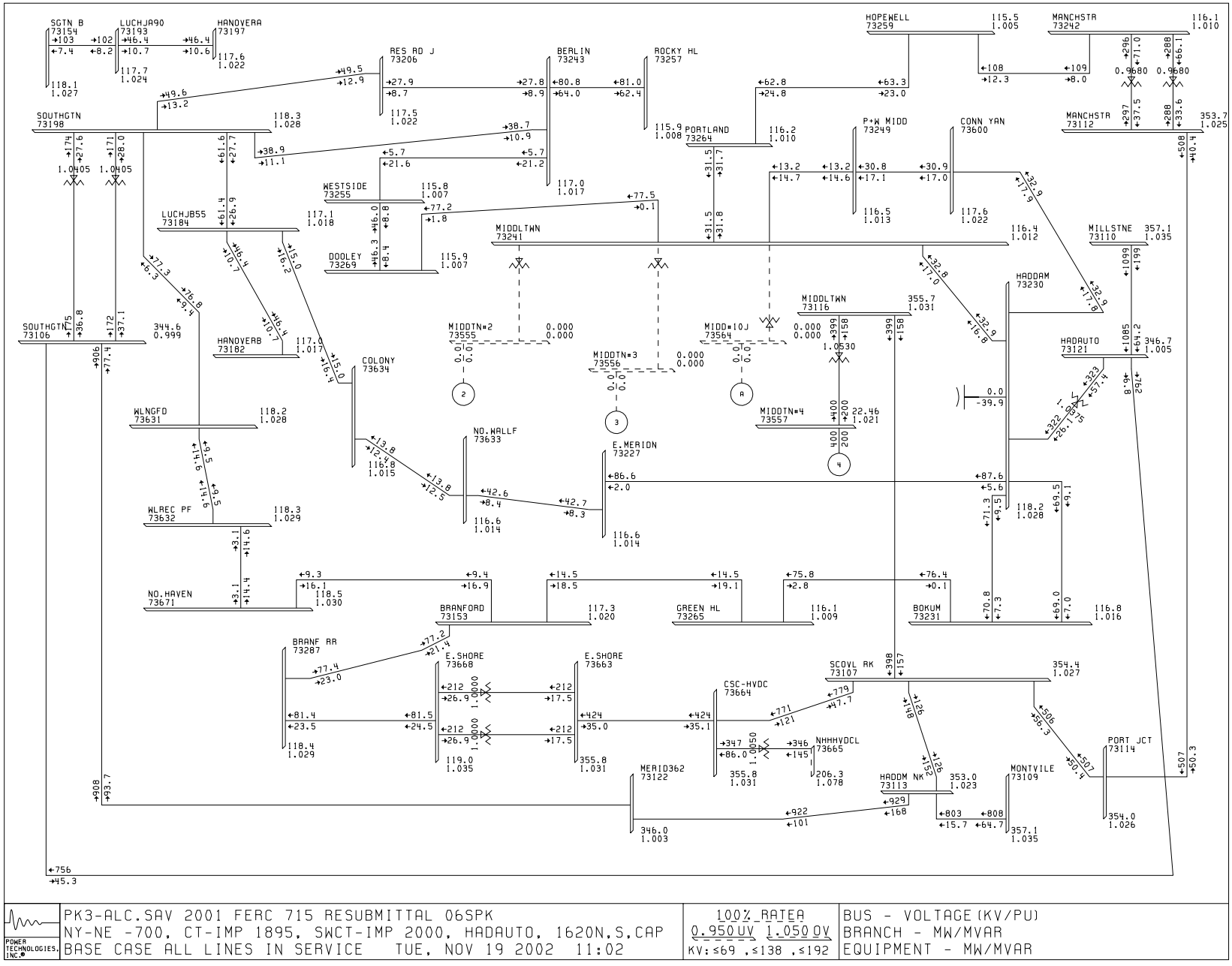


POWER TECHNOLOGIES, INC.	PK3.SAV 2001 FERC 715 RESUBMITTAL 06SPK NY-NE -700, CT-IMP 1900, SWCT-IMP 2000 BASE CASE ALL LINES IN SERVICE TUE, NOV 19 2002 11:01	100% RATEA 0.950 UV 1.050 OV KV: ≤69 , ≤138 , ≤192	BUS - VOLTAGE(KV/PU) BRANCH - MW/MVAR EQUIPMENT - MW/MVAR

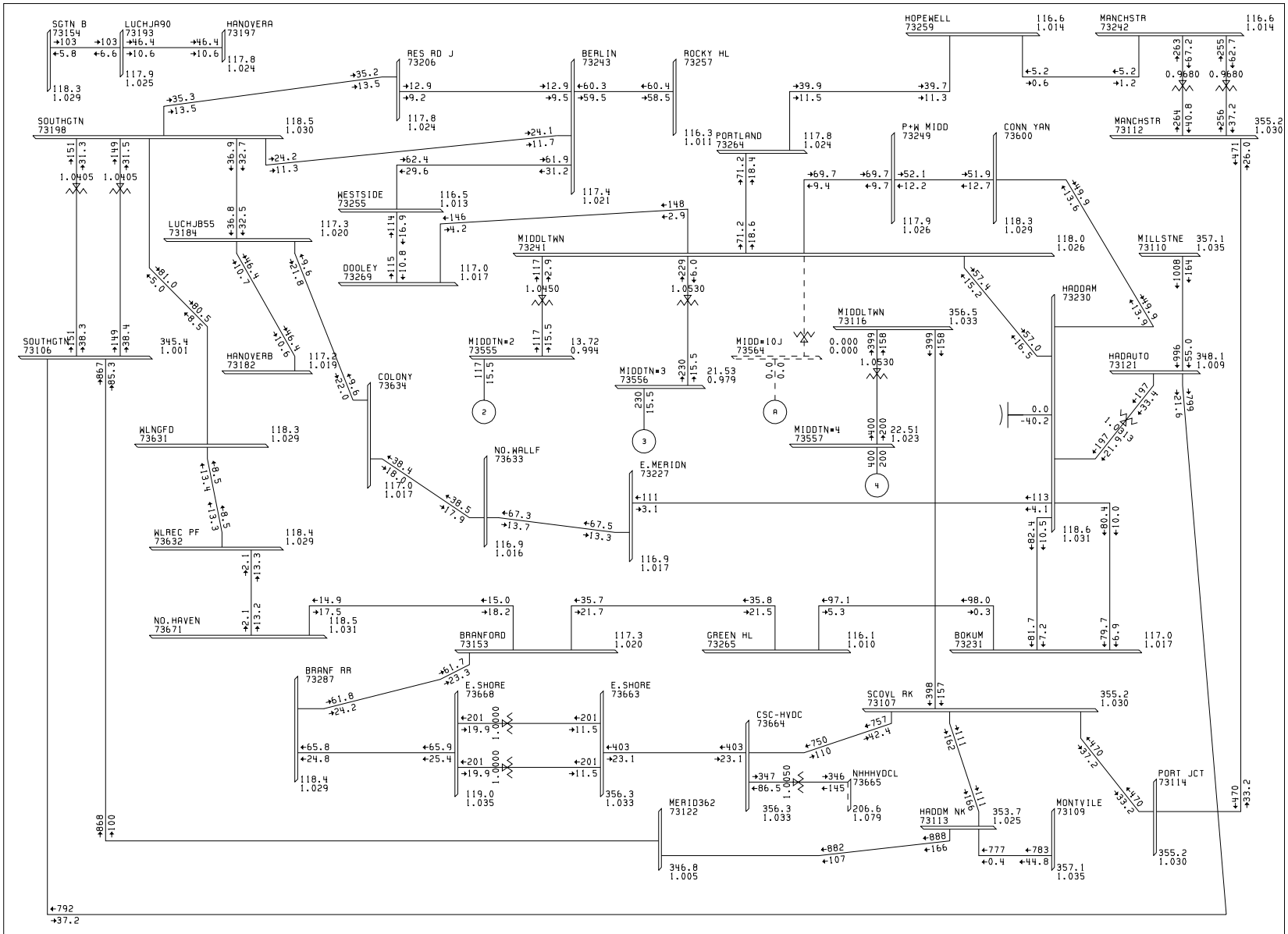
Plot D.10 – Pk3G Base Case All Lines In



Plot D.11 – Pk3-ALC Base Case All Lines In

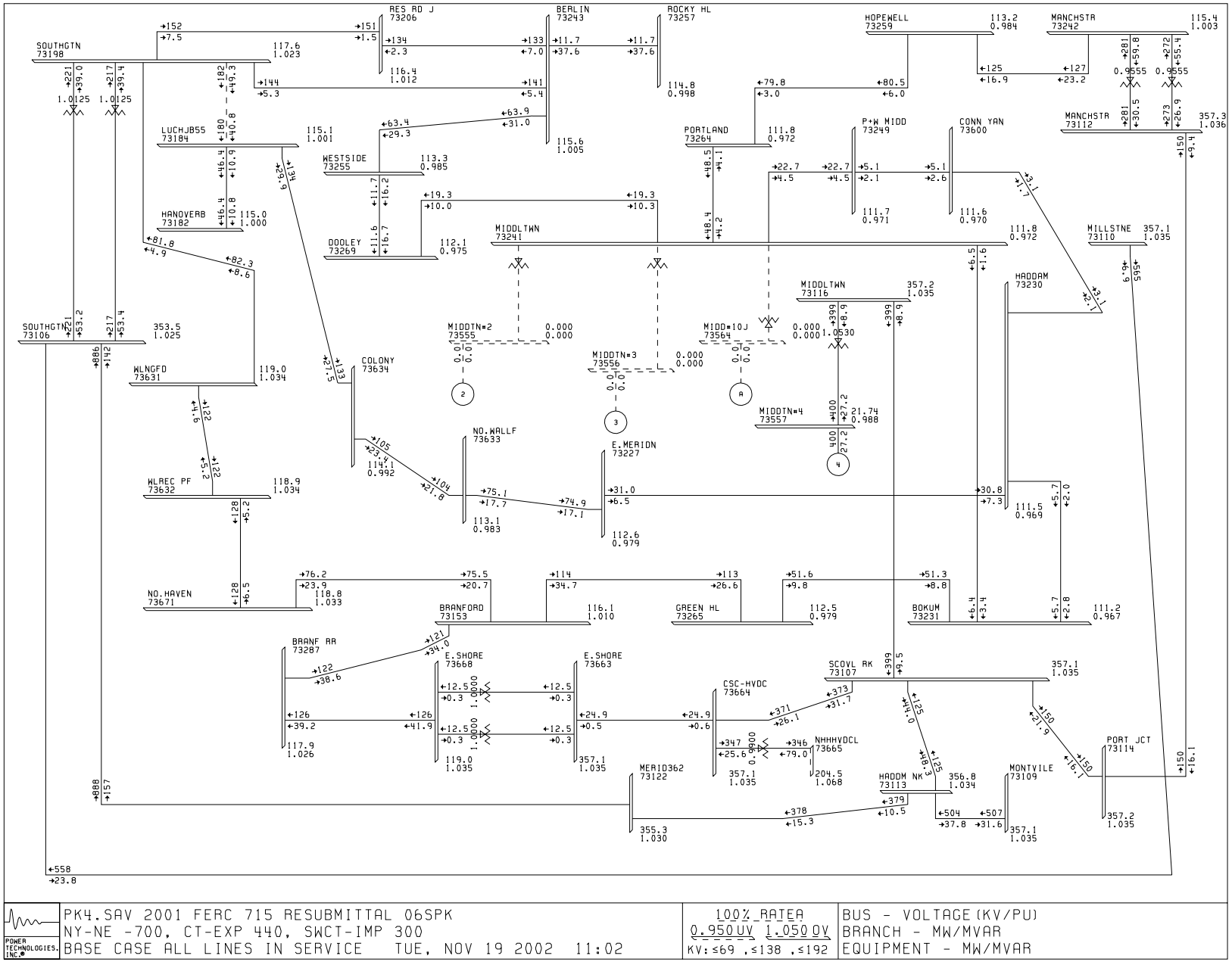


Plot D.12 – Pk3-ALCG Base Case All Lines In

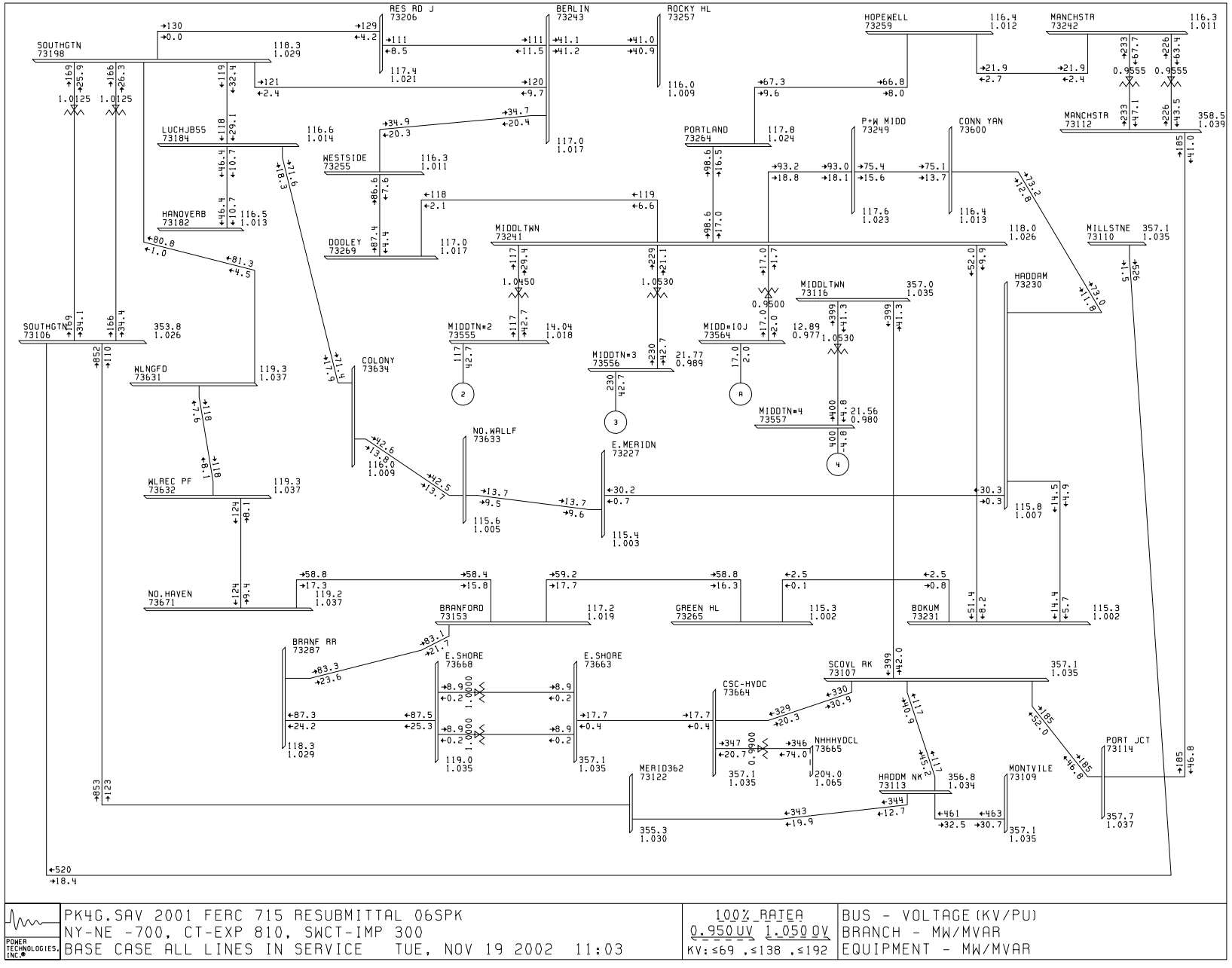


POWER TECHNOLOGIES, INC.	PK3-ALCG.SAV 2001 FERC 715 RESUBMITTAL 06SPK NY-NE -700, CT IMP 1545, SWCT IMP 2000, HADAUTO, 1620N,S,CAP WED, AUG 06 2003 10:17	100% RATEA 0.950 UV 1.050 OV KV: ≤69 , ≤138 , ≤192	BUS - VOLTAGE(KV/PU) BRANCH - MW/MVAR EQUIPMENT - MW/MVAR

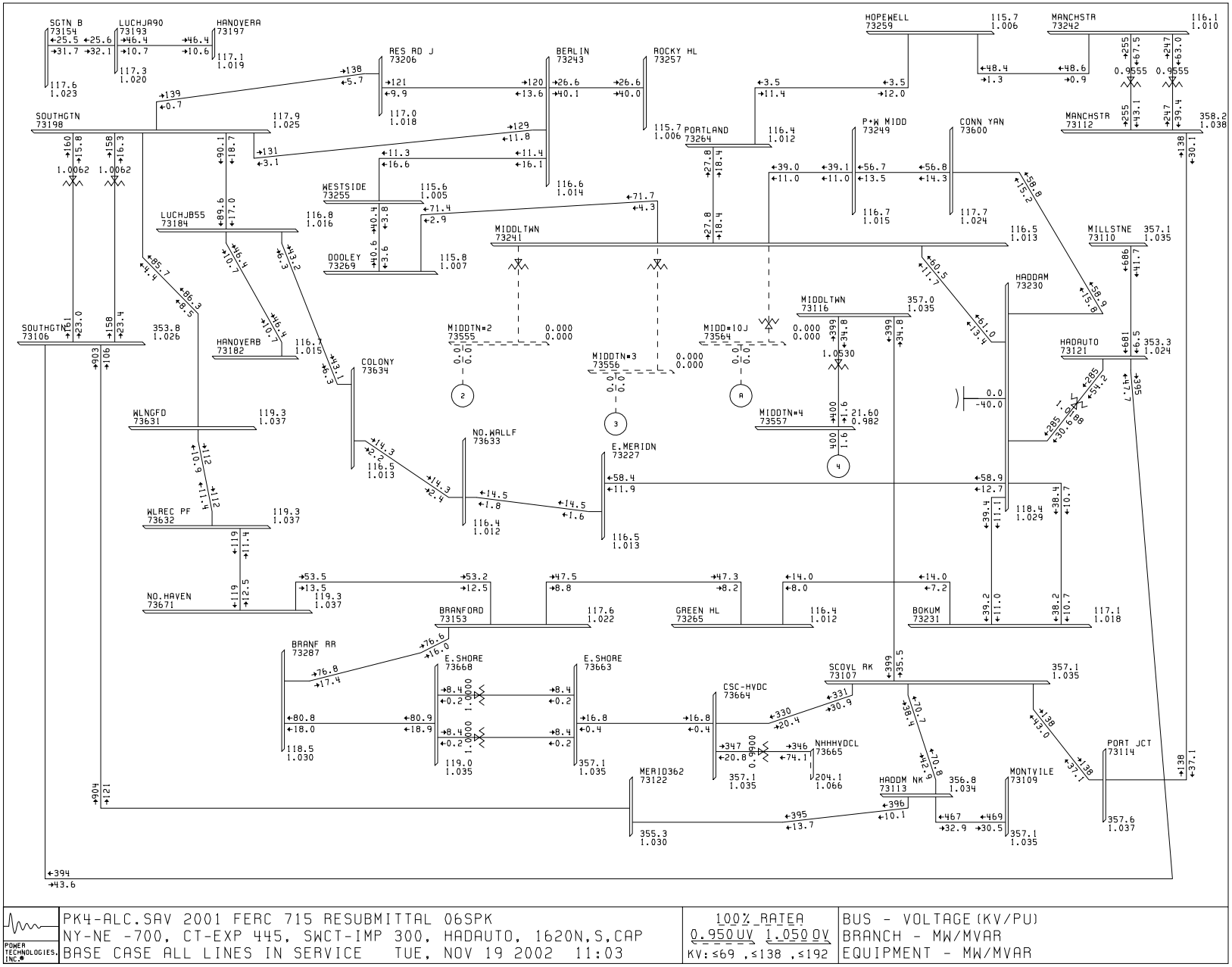
Plot D.13 – Pk4 Base Case All Lines In



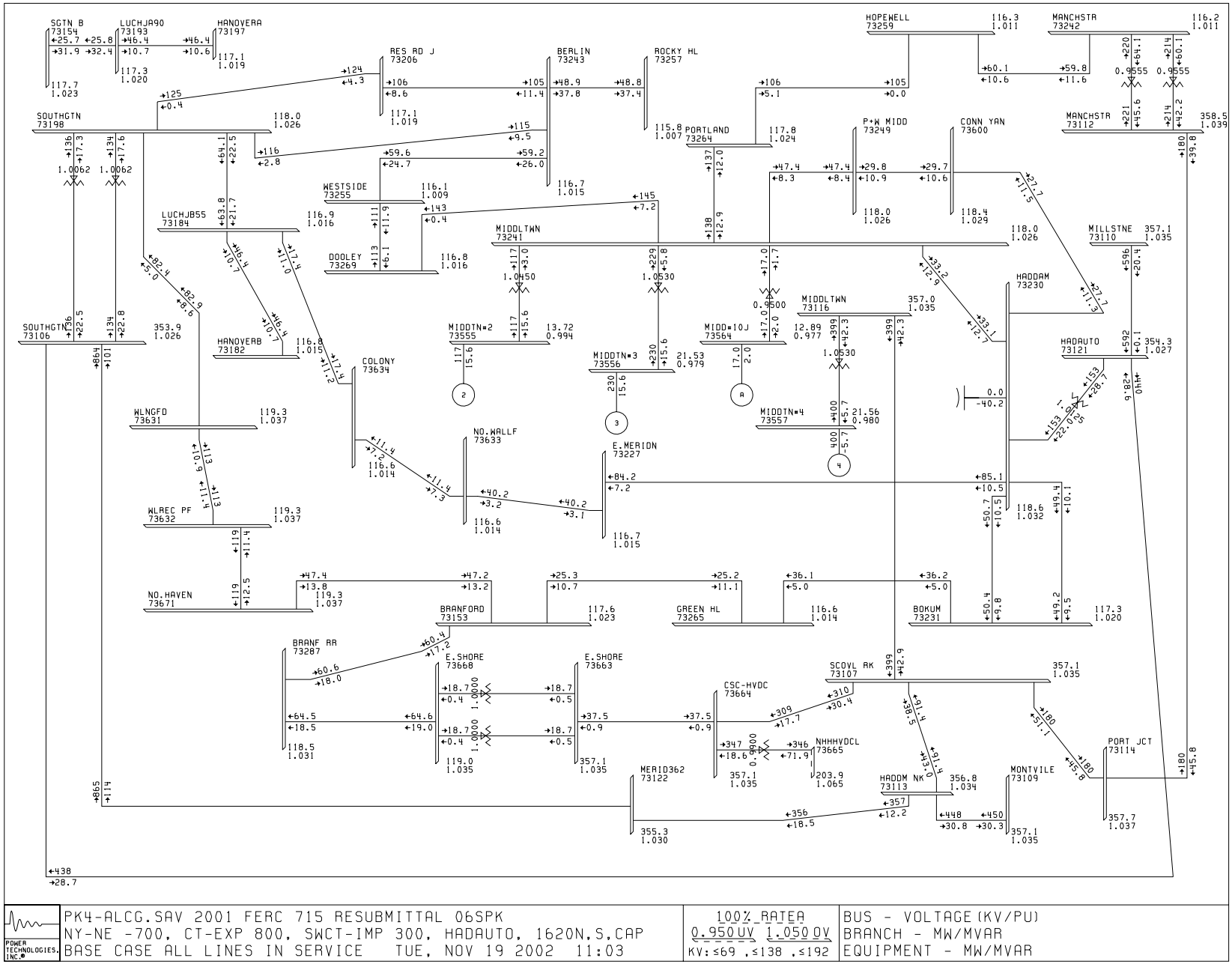
Plot D.14 – Pk4G Base Case All Lines In



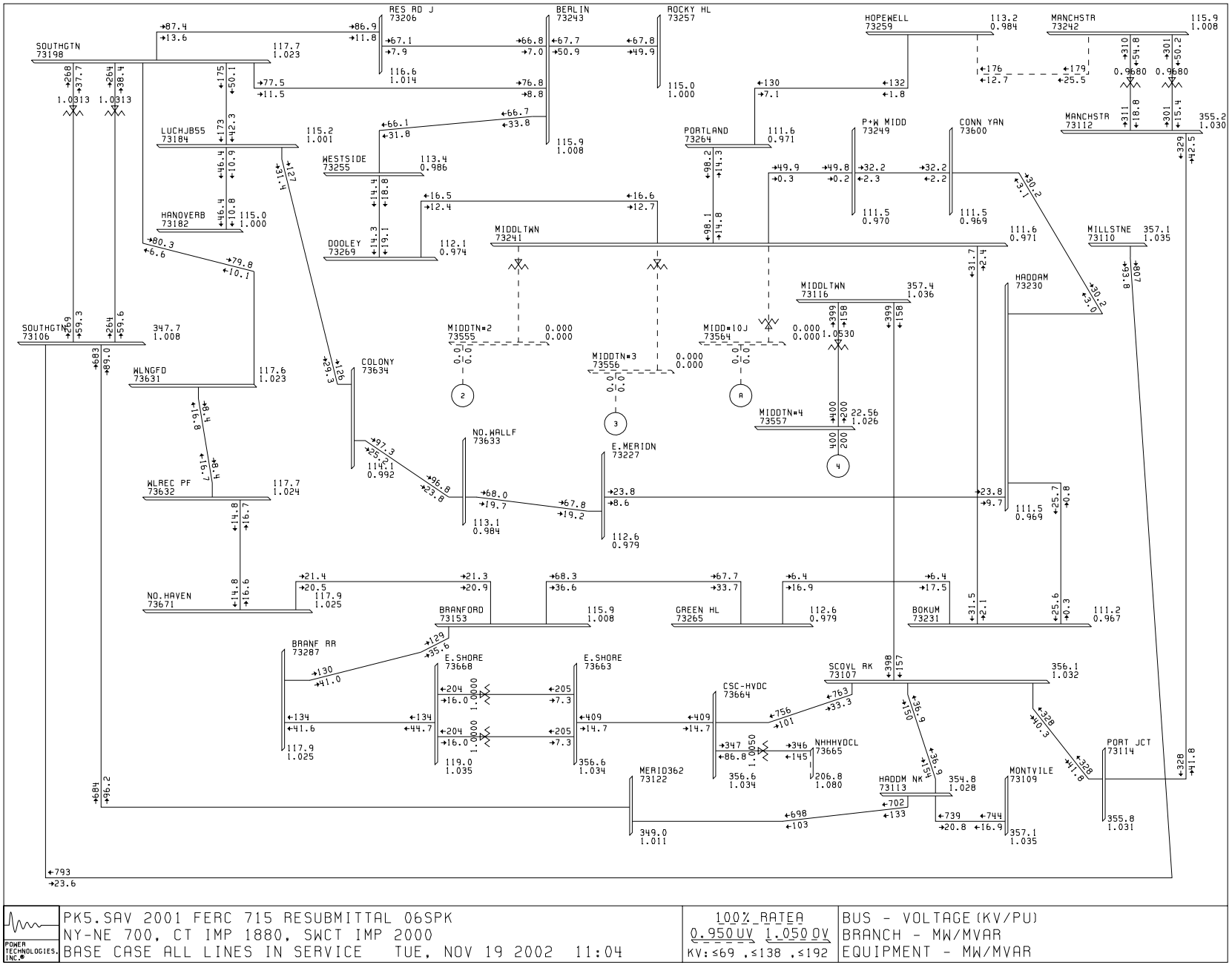
Plot D.15 – Pk4-ALC Base Case All Lines In



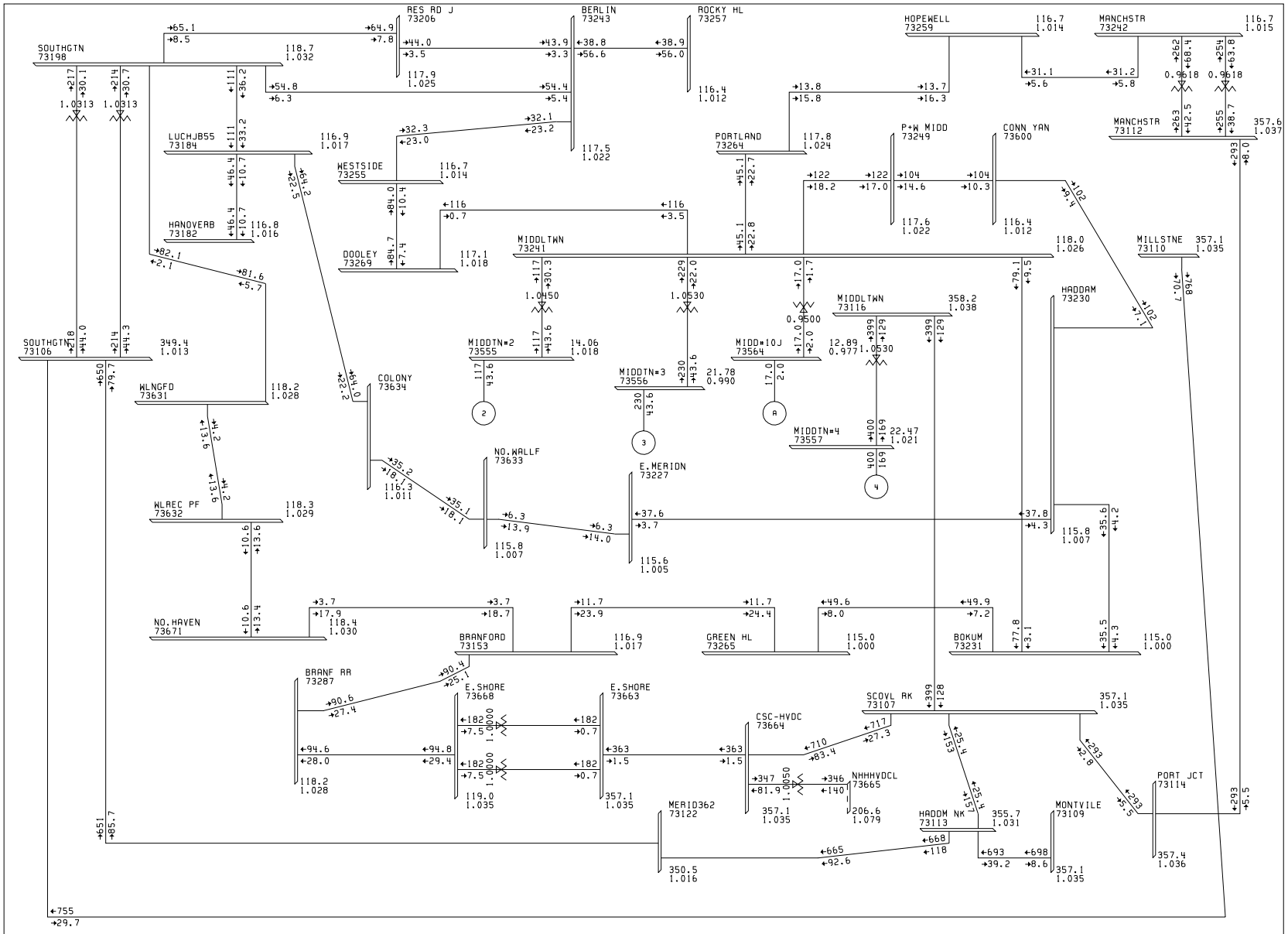
Plot D.16 – Pk4-ALCG Base Case All Lines In



Plot D.17 – Pk5 Base Case All Lines In

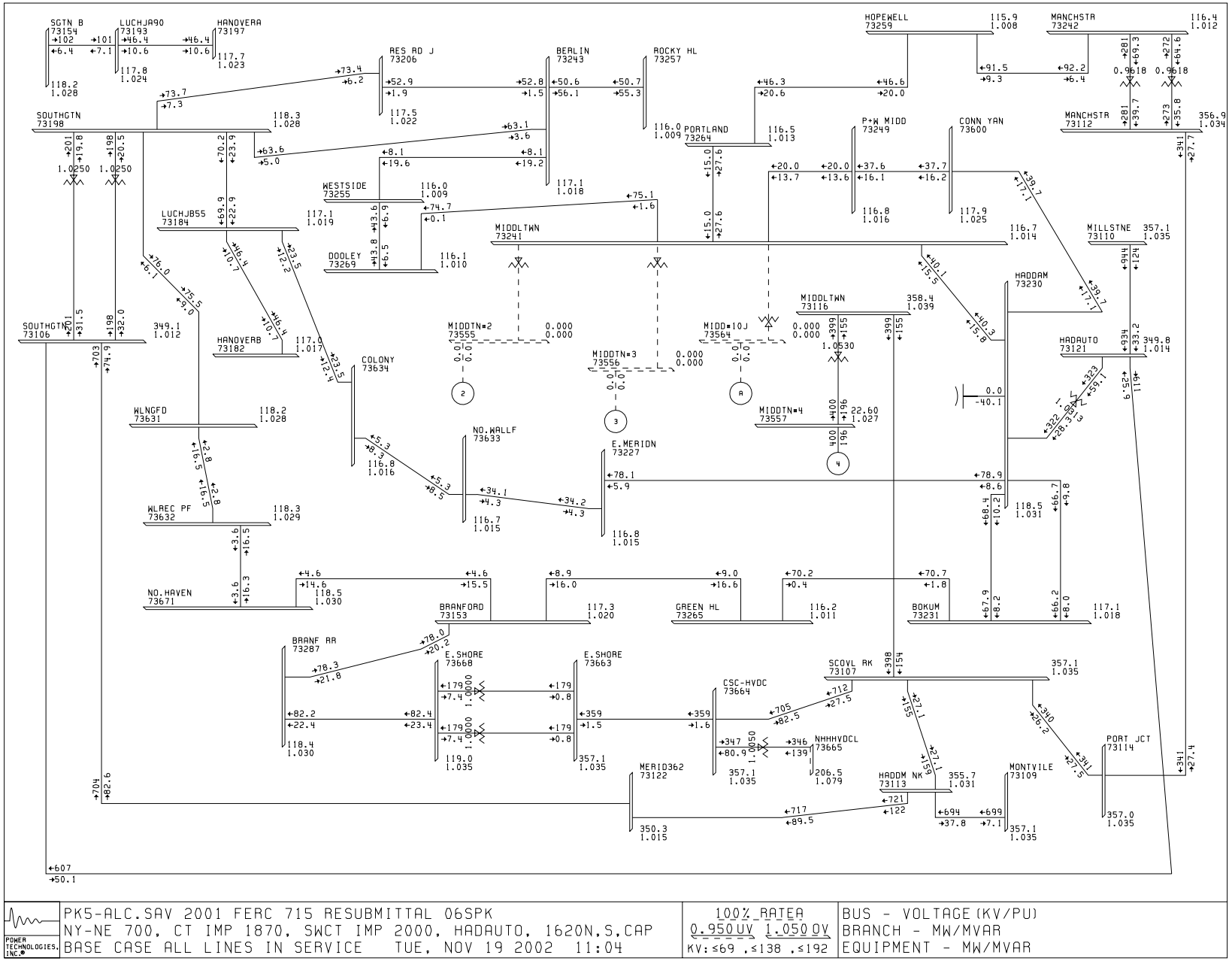


Plot D.18 – Pk5G Base Case All Lines In

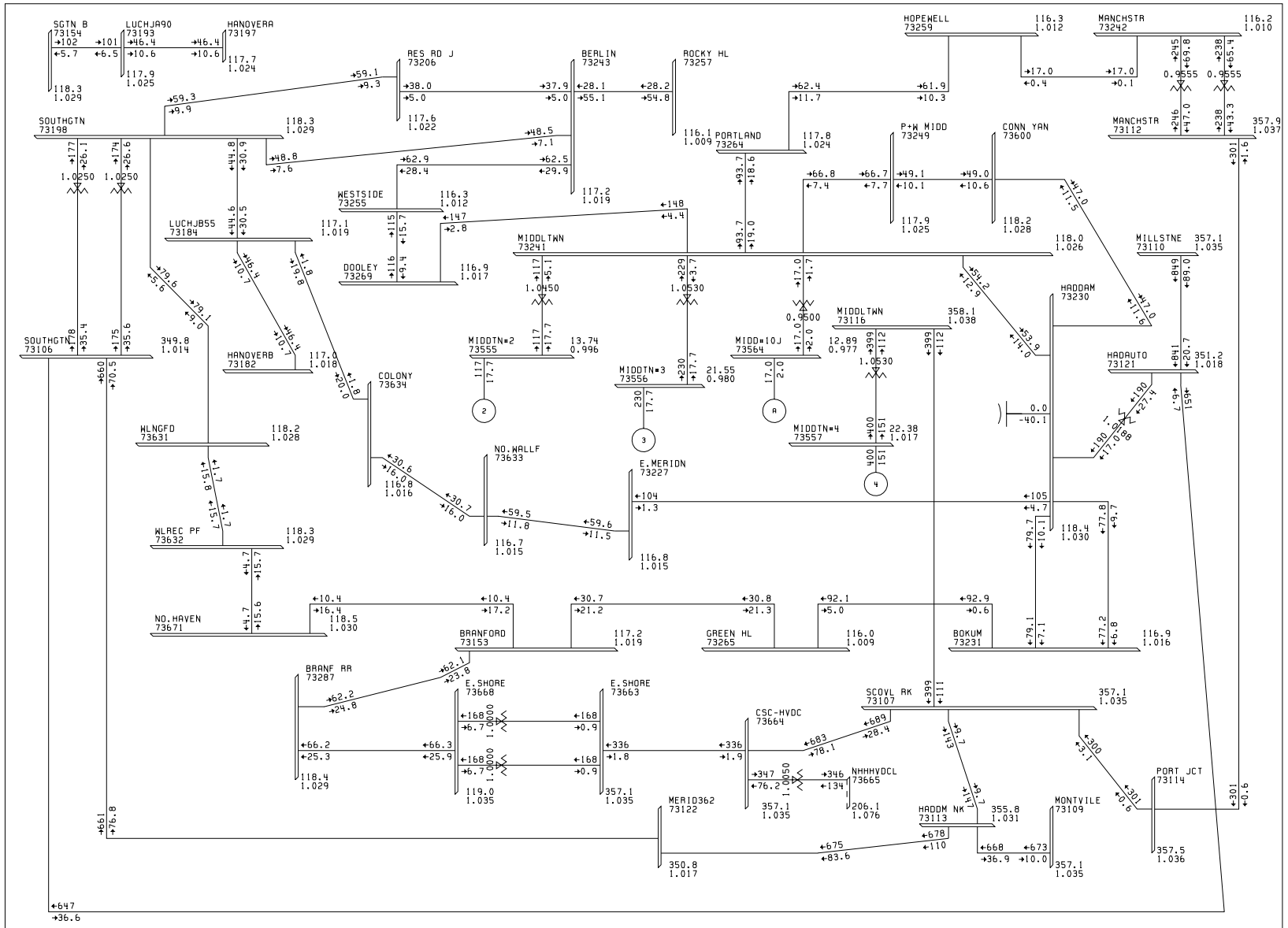


POWER TECHNOLOGIES, INC.®	PK5G.SAV 2001 FERC 715 RESUBMITTAL 06SPK NY-NE 700, CT IMP 1505, SWCT IMP 2000 BASE CASE ALL LINES IN SERVICE TUE, NOV 19 2002 11:04	100% RATEA 0.950 UV 1.050 OV KV: ≤69 , ≤138 , ≤192	BUS - VOLTAGE (KV/PU) BRANCH - MW/MVAR EQUIPMENT - MW/MVAR

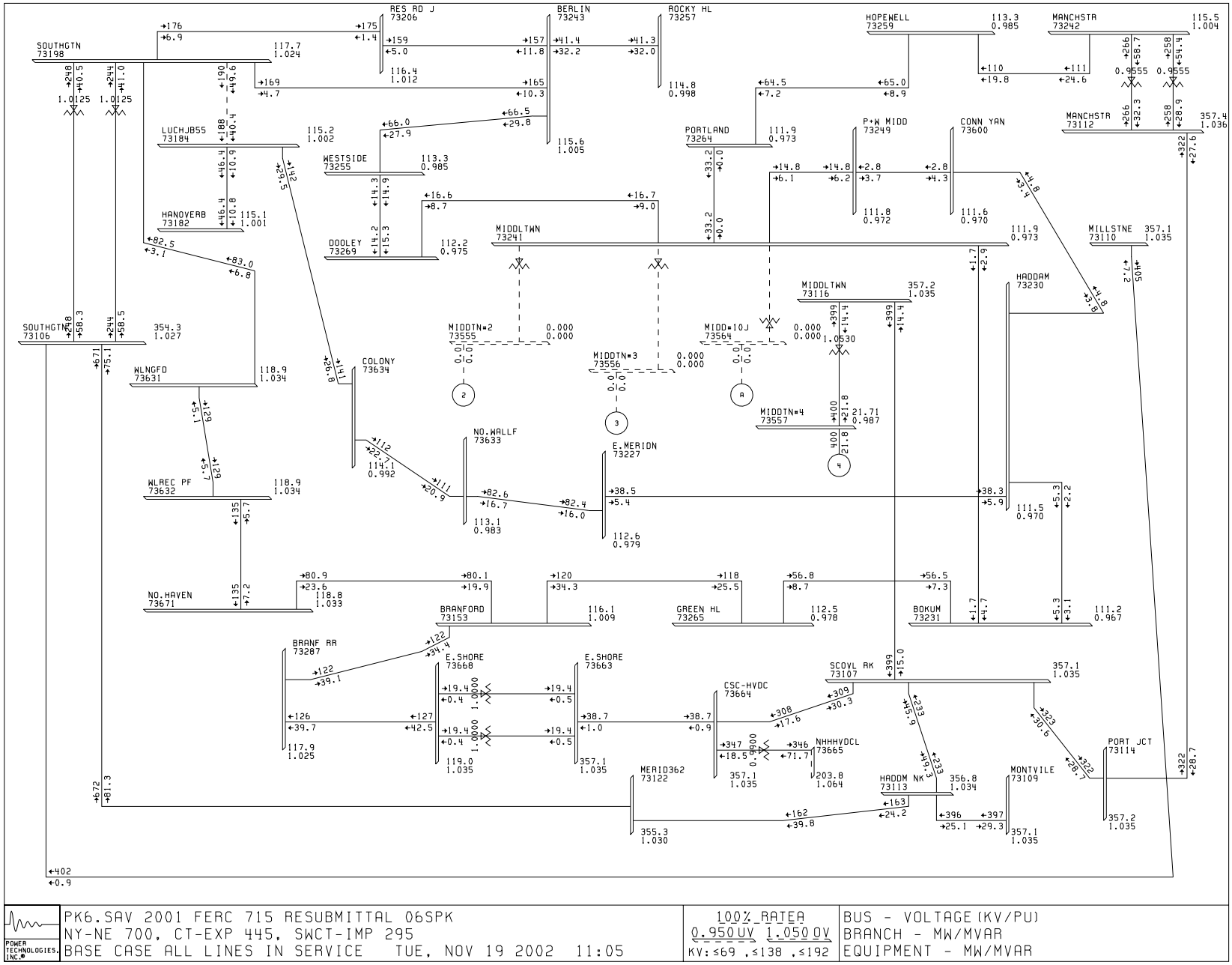
Plot D.19 – Pk5-ALC Base Case All Lines In



Plot D.20 – Pk5-ALCG Base Case All Lines In



Plot D.21 – Pk6 Base Case All Lines In



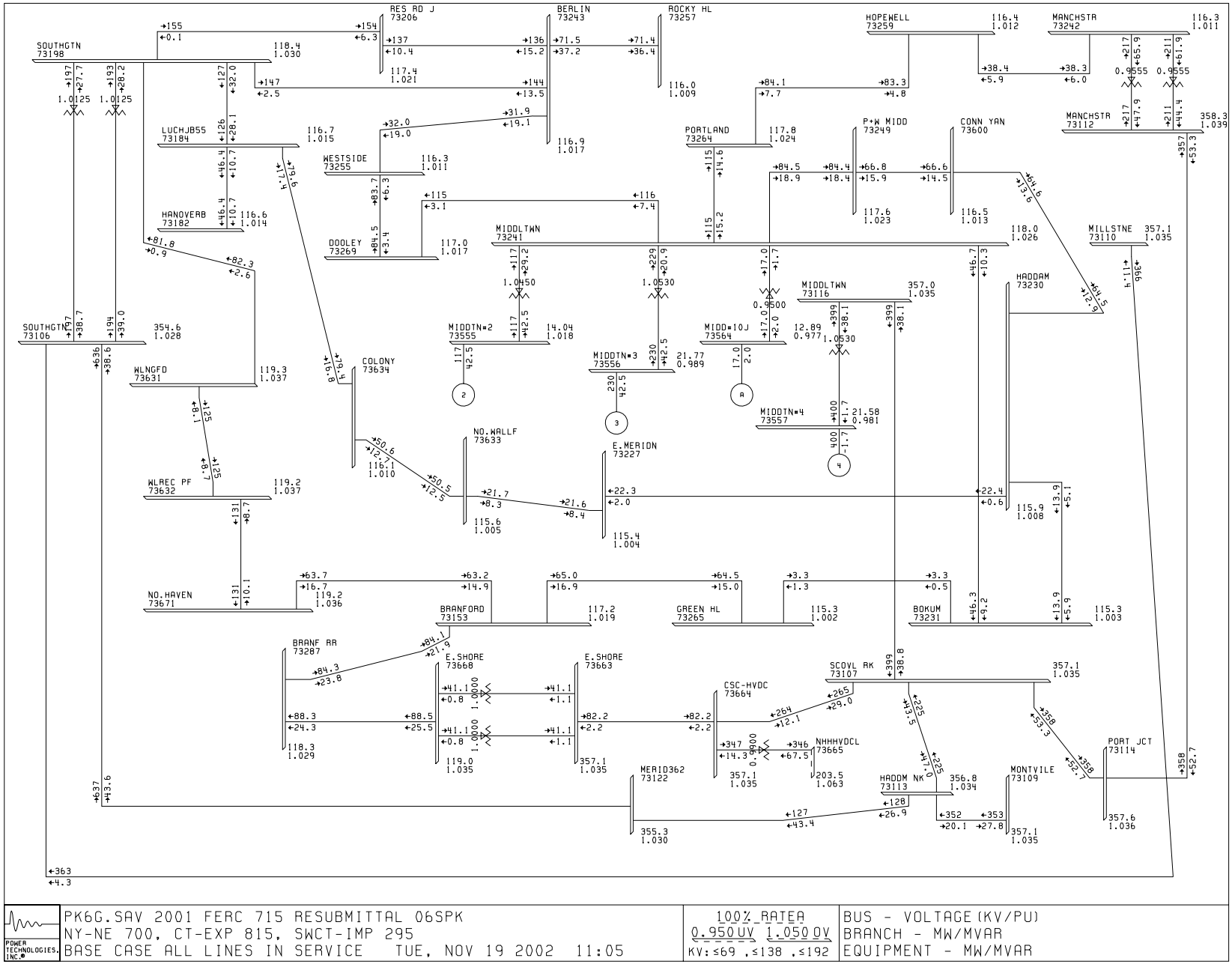
PK6.SAV 2001 FERC 715 RESUBMITTAL 06SPK
NY-NE 700, CT-EXP 445, SWCT-IMP 295
BASE CASE ALL LINES IN SERVICE TUE, NOV 19 2002 11:05

100% RATEA
0.950 UV 1.050 OV
KV: ≤69 , ≤138 , ≤192

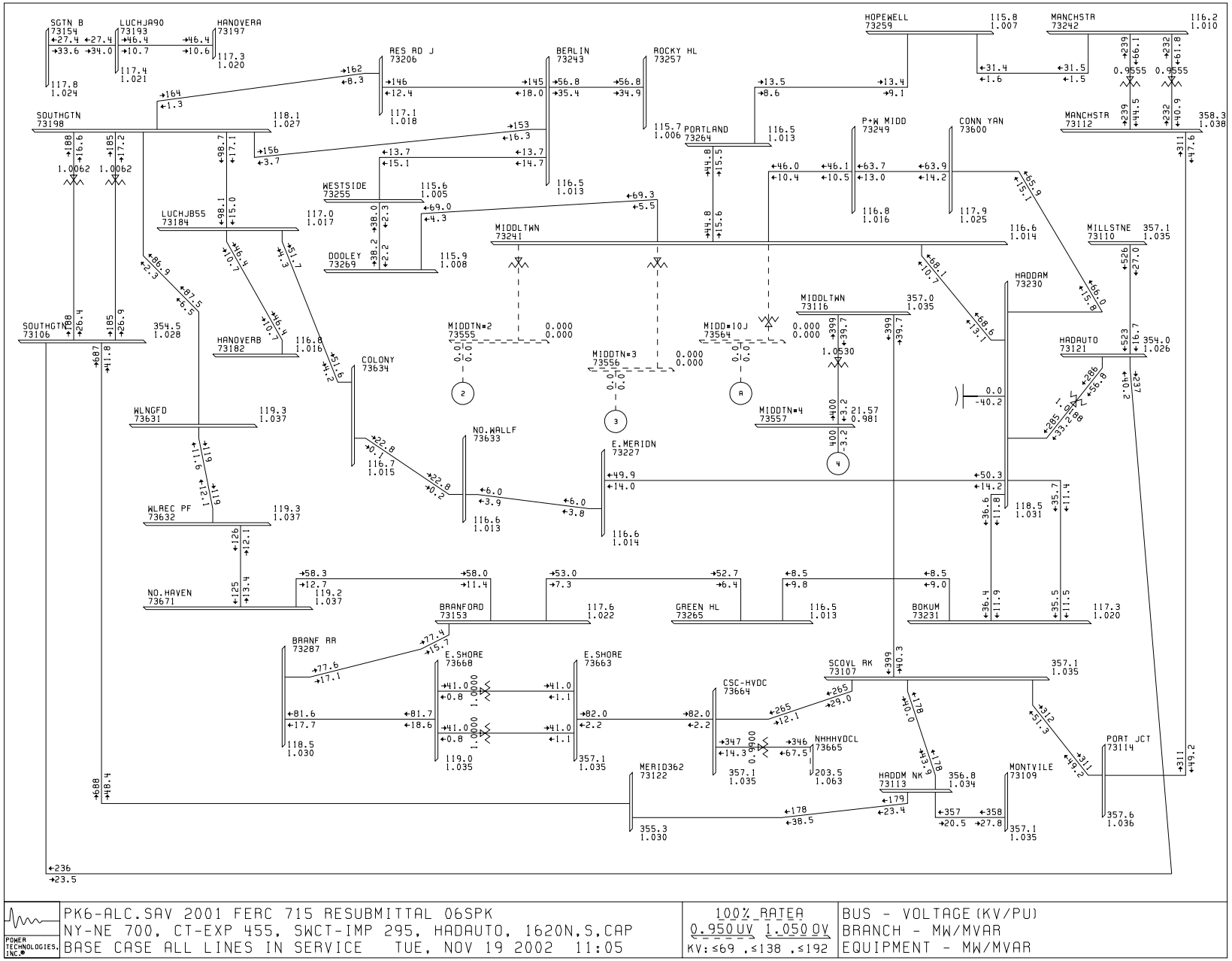
BUS - VOLTAGE (KV/PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR

POWER TECHNOLOGIES, INC.

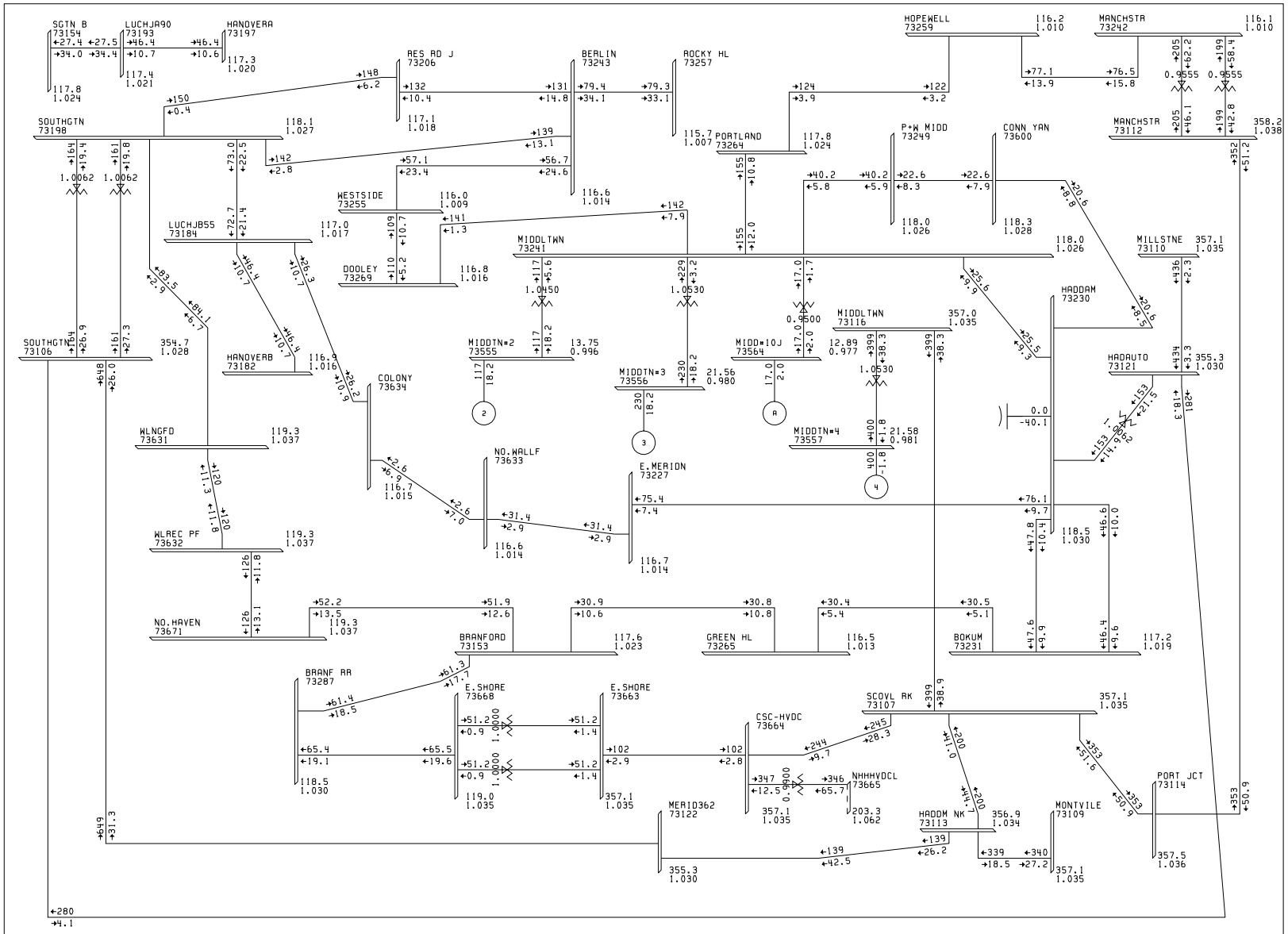
Plot D.22 – Pk6G Base Case All Lines In



Plot D.23 – Pk6-ALC Base Case All Lines In



Plot D.24 – Pk6-ALCG Base Case All Lines In



Appendix E – Pre-Project Line Loading

Table E.1 – Pre-Project Line Loading

Case Name	Contingency	From Bus	To Bus	Line #	Pre-load MVA	Post-load MVA	LTE Rating MVA	% LTE
Pk6	41:1537/1655	E.MERIDN	NO.WALLF	1466	84.0	182.9	112	183.5
Pk2	41:1537/1655	E.MERIDN	NO.WALLF	1466	80.7	180.2	112	180.8
Pk4	41:1537/1655	E.MERIDN	NO.WALLF	1466	76.9	177.8	112	178.0
Pk5	41:1537/1655	E.MERIDN	NO.WALLF	1466	70.5	160.6	112	162.7
Pk1	41:1537/1655	E.MERIDN	NO.WALLF	1466	67.6	158.5	112	161.2
Pk3	41:1537/1655	E.MERIDN	NO.WALLF	1466	64.5	154.1	112	157.5
Pk6	10:L/O 1508	E.MERIDN	NO.WALLF	1466	84.0	136.0	112	128.6
Pk6	40:1508/1537	E.MERIDN	NO.WALLF	1466	84.0	136.1	112	128.2
Pk2	10:L/O 1508	E.MERIDN	NO.WALLF	1466	80.7	132.6	112	124.9
Pk2	40:1508/1537	E.MERIDN	NO.WALLF	1466	80.7	132.2	112	124.5
Pk4	10:L/O 1508	E.MERIDN	NO.WALLF	1466	76.9	128.7	112	121.2
Pk4	40:1508/1537	E.MERIDN	NO.WALLF	1466	76.9	128.2	112	120.7
Pk6	52:1670/1771	E.MERIDN	NO.WALLF	1466	84.0	123.5	112	113.3
Pk5	25:L/O 1767	E.MERIDN	NO.WALLF	1466	70.5	120.6	112	112.2
Pk5	79:353-1767	E.MERIDN	NO.WALLF	1466	70.5	120.6	112	112.1
Pk1	25:L/O 1767	E.MERIDN	NO.WALLF	1466	67.6	119.2	112	110.7
Pk1	79:353-1767	E.MERIDN	NO.WALLF	1466	67.6	119.2	112	110.5
Pk3	25:L/O 1767	E.MERIDN	NO.WALLF	1466	64.5	117.7	112	110.1
Pk3	79:353-1767	E.MERIDN	NO.WALLF	1466	64.5	117.7	112	110.0
Pk6	79:353-1767	E.MERIDN	NO.WALLF	1466	84.0	117.7	112	109.3
Pk6	25:L/O 1767	E.MERIDN	NO.WALLF	1466	84.0	117.5	112	109.2
Pk2	25:L/O 1767	E.MERIDN	NO.WALLF	1466	80.7	116.5	112	108.4
Pk2	79:353-1767	E.MERIDN	NO.WALLF	1466	80.7	116.7	112	108.4
Pk2	52:1670/1771	E.MERIDN	NO.WALLF	1466	80.7	117.2	112	107.5
Pk4	25:L/O 1767	E.MERIDN	NO.WALLF	1466	76.9	114.5	112	106.5
Pk4	79:353-1767	E.MERIDN	NO.WALLF	1466	76.9	114.7	112	106.4
Pk6G	41:1537/1655	E.MERIDN	NO.WALLF	1466	23.2	107.9	112	103.1
Pk5	10:L/O 1508	E.MERIDN	NO.WALLF	1466	70.5	109.4	112	103.0
Pk5	40:1508/1537	E.MERIDN	NO.WALLF	1466	70.5	108.9	112	102.5
Pk4	52:1670/1771	E.MERIDN	NO.WALLF	1466	76.9	110.3	112	101.1
Pk2G	41:1537/1655	E.MERIDN	NO.WALLF	1466	19.1	105.2	112	100.5
Pk1	10:L/O 1508	E.MERIDN	NO.WALLF	1466	67.6	106.0	112	99.5
Pk1	40:1508/1537	E.MERIDN	NO.WALLF	1466	67.6	105.4	112	99.3
Pk4G	41:1537/1655	E.MERIDN	NO.WALLF	1466	16.8	103.3	112	98.4
Pk6	5:L/O 1342	E.MERIDN	NO.WALLF	1466	84.0	106.1	112	97.8
Pk3	10:L/O 1508	E.MERIDN	NO.WALLF	1466	64.5	102.4	112	96.8
Pk6	24:L/O 1765	E.MERIDN	NO.WALLF	1466	84.0	104.8	112	96.8
Pk3	40:1508/1537	E.MERIDN	NO.WALLF	1466	64.5	100.7	112	95.2
Pk6	41:1537/1655	HADDAM	BOKUM	1261	6.1	135.8	165	118.7
Pk2	41:1537/1655	HADDAM	BOKUM	1261	6.9	135.6	165	118.6
Pk4	41:1537/1655	HADDAM	BOKUM	1261	6.4	135.4	165	118.3
Pk1	41:1537/1655	HADDAM	BOKUM	1261	25.9	130.0	165	116.0
Pk5	41:1537/1655	HADDAM	BOKUM	1261	25.7	131.0	165	116.0
Pk3	41:1537/1655	HADDAM	BOKUM	1261	26.3	128.6	165	115.3
Pk6G	41:1537/1655	HADDAM	BOKUM	1261	15.1	133.0	165	102.2
Pk2G	41:1537/1655	HADDAM	BOKUM	1261	15.3	132.4	165	101.8
Pk4G	41:1537/1655	HADDAM	BOKUM	1261	15.5	132.3	165	101.3
Pk1G	41:1537/1655	HADDAM	BOKUM	1261	35.7	129.4	165	99.8
Pk3G	41:1537/1655	HADDAM	BOKUM	1261	36.0	128.3	165	99.5
Pk5G	41:1537/1655	HADDAM	BOKUM	1261	35.7	129.6	165	99.4

Table E.2 – Pre-Project Line Loading

Case Name	Contingency	From Bus	To Bus	Line #	Pre-load MVA	Post-load MVA	LTE Rating MVA	% LTE
Pk3	41:1537/1655	HOPEWELL	PORTLAND	1759	147.0	195.5	228	101.7
Pk1	41:1537/1655	HOPEWELL	PORTLAND	1759	138.7	189.8	228	98.4
Pk5	41:1537/1655	HOPEWELL	PORTLAND	1759	131.5	186.2	228	96.1
Pk6	41:1537/1655	LUCHJB55	COLONY	1355	143.5	246.1	178	147.4
Pk2	41:1537/1655	LUCHJB55	COLONY	1355	140.1	243.0	178	145.5
Pk4	41:1537/1655	LUCHJB55	COLONY	1355	136.1	240.0	178	143.5
Pk5	41:1537/1655	LUCHJB55	COLONY	1355	129.4	219.9	178	133.1
Pk1	41:1537/1655	LUCHJB55	COLONY	1355	126.4	217.3	178	132.1
Pk3	41:1537/1655	LUCHJB55	COLONY	1355	123.0	212.2	178	129.7
Pk6	10:L/O 1508	LUCHJB55	COLONY	1355	143.5	197.5	178	114.4
Pk6	40:1508/1537	LUCHJB55	COLONY	1355	143.5	197.5	178	114.0
Pk2	10:L/O 1508	LUCHJB55	COLONY	1355	140.1	193.8	178	111.8
Pk2	40:1508/1537	LUCHJB55	COLONY	1355	140.1	193.4	178	111.6
Pk4	10:L/O 1508	LUCHJB55	COLONY	1355	136.1	189.6	178	109.4
Pk4	40:1508/1537	LUCHJB55	COLONY	1355	136.1	189.0	178	109.1
Pk6	52:1670/1771	LUCHJB55	COLONY	1355	143.5	184.1	178	104.5
Pk5	25:L/O 1767	LUCHJB55	COLONY	1355	129.4	181.4	178	104.0
Pk5	79:353-1767	LUCHJB55	COLONY	1355	129.4	181.4	178	104.0
Pk1	25:L/O 1767	LUCHJB55	COLONY	1355	126.4	179.9	178	103.0
Pk1	79:353-1767	LUCHJB55	COLONY	1355	126.4	179.9	178	102.9
Pk3	25:L/O 1767	LUCHJB55	COLONY	1355	123.0	178.3	178	102.8
Pk3	79:353-1767	LUCHJB55	COLONY	1355	123.0	178.4	178	102.8
Pk6	79:353-1767	LUCHJB55	COLONY	1355	143.5	178.4	178	102.1
Pk6	25:L/O 1767	LUCHJB55	COLONY	1355	143.5	178.1	178	102.0
Pk2	79:353-1767	LUCHJB55	COLONY	1355	140.1	177.3	178	101.6
Pk2	25:L/O 1767	LUCHJB55	COLONY	1355	140.1	177.1	178	101.5
Pk2	52:1670/1771	LUCHJB55	COLONY	1355	140.1	177.6	178	100.8
Pk4	25:L/O 1767	LUCHJB55	COLONY	1355	136.1	175.1	178	100.3
Pk4	79:353-1767	LUCHJB55	COLONY	1355	136.1	175.2	178	100.3
Pk5	10:L/O 1508	LUCHJB55	COLONY	1355	129.4	168.5	178	97.3
Pk5	40:1508/1537	LUCHJB55	COLONY	1355	129.4	167.9	178	96.9
Pk4	52:1670/1771	LUCHJB55	COLONY	1355	136.1	170.5	178	96.7
Pk6	41:1537/1655	LUCHJB55	SOUTHGTN	1355	192.4	299.0	228	135.7
Pk2	41:1537/1655	LUCHJB55	SOUTHGTN	1355	189.0	295.6	228	134.1
Pk4	41:1537/1655	LUCHJB55	SOUTHGTN	1355	185.0	292.3	228	132.5
Pk5	41:1537/1655	LUCHJB55	SOUTHGTN	1355	178.2	270.9	228	124.4
Pk1	41:1537/1655	LUCHJB55	SOUTHGTN	1355	175.1	268.1	228	123.6
Pk3	41:1537/1655	LUCHJB55	SOUTHGTN	1355	171.7	262.8	228	121.8
Pk6	10:L/O 1508	LUCHJB55	SOUTHGTN	1355	192.4	248.2	228	110.4
Pk6	40:1508/1537	LUCHJB55	SOUTHGTN	1355	192.4	248.2	228	110.0
Pk2	10:L/O 1508	LUCHJB55	SOUTHGTN	1355	189.0	244.4	228	108.3
Pk2	40:1508/1537	LUCHJB55	SOUTHGTN	1355	189.0	244.0	228	108.1
Pk4	10:L/O 1508	LUCHJB55	SOUTHGTN	1355	185.0	240.0	228	106.4
Pk4	40:1508/1537	LUCHJB55	SOUTHGTN	1355	185.0	239.5	228	106.2
Pk6	52:1670/1771	LUCHJB55	SOUTHGTN	1355	192.4	233.8	228	102.4
Pk5	25:L/O 1767	LUCHJB55	SOUTHGTN	1355	178.2	231.4	228	102.2
Pk5	79:353-1767	LUCHJB55	SOUTHGTN	1355	178.2	231.3	228	102.2
Pk1	25:L/O 1767	LUCHJB55	SOUTHGTN	1355	175.1	229.9	228	101.4
Pk3	25:L/O 1767	LUCHJB55	SOUTHGTN	1355	171.7	228.3	228	101.4
Pk3	79:353-1767	LUCHJB55	SOUTHGTN	1355	171.7	228.4	228	101.4

Table E.3 – Pre-Project Line Loading

Case Name	Contingency	From Bus	To Bus	Line #	Pre-load MVA	Post-load MVA	LTE Rating MVA	% LTE
Pk1	79:353-1767	LUCHJB55	SOUTHGTN	1355	175.1	229.8	228	101.3
Pk6	79:353-1767	LUCHJB55	SOUTHGTN	1355	192.4	228.3	228	100.7
Pk6	25:L/O 1767	LUCHJB55	SOUTHGTN	1355	192.4	228.1	228	100.6
Pk2	25:L/O 1767	LUCHJB55	SOUTHGTN	1355	189.0	227.1	228	100.3
Pk2	79:353-1767	LUCHJB55	SOUTHGTN	1355	189.0	227.2	228	100.3
Pk2	52:1670/1771	LUCHJB55	SOUTHGTN	1355	189.0	227.2	228	99.6
Pk4	25:L/O 1767	LUCHJB55	SOUTHGTN	1355	185.0	224.9	228	99.3
Pk4	79:353-1767	LUCHJB55	SOUTHGTN	1355	185.0	225.1	228	99.3
Pk5	10:L/O 1508	LUCHJB55	SOUTHGTN	1355	178.2	218.3	228	96.9
Pk5	40:1508/1537	LUCHJB55	SOUTHGTN	1355	178.2	217.7	228	96.5
Pk4	52:1670/1771	LUCHJB55	SOUTHGTN	1355	185.0	219.9	228	96.4
Pk3	41:1537/1655	MANCHSTR	HOPEWELL	1767	192.2	259.0	228	122.8
Pk1	41:1537/1655	MANCHSTR	HOPEWELL	1767	183.9	252.2	228	119.5
Pk5	41:1537/1655	MANCHSTR	HOPEWELL	1767	176.9	247.8	228	116.9
Pk3	6:L/O 1355	MANCHSTR	HOPEWELL	1767	192.2	236.5	228	107.6
Pk3	53:1355/1610	MANCHSTR	HOPEWELL	1767	192.2	236.5	228	107.6
Pk3	72:387WAUTOS	MANCHSTR	HOPEWELL	1767	192.2	234.5	228	106.0
Pk3	24:L/O 1765	MANCHSTR	HOPEWELL	1767	192.2	229.4	228	104.6
Pk1	6:L/O 1355	MANCHSTR	HOPEWELL	1767	183.9	228.9	228	104.4
Pk1	53:1355/1610	MANCHSTR	HOPEWELL	1767	183.9	228.9	228	104.4
Pk3	61:348WAUTO	MANCHSTR	HOPEWELL	1767	192.2	230.3	228	104.0
Pk4	41:1537/1655	MANCHSTR	HOPEWELL	1767	126.6	221.4	228	103.7
Pk3	13:L/O 1588	MANCHSTR	HOPEWELL	1767	192.2	225.5	228	102.4
Pk5	6:L/O 1355	MANCHSTR	HOPEWELL	1767	176.9	224.2	228	102.0
Pk5	53:1355/1610	MANCHSTR	HOPEWELL	1767	176.9	224.2	228	102.0
Pk2	41:1537/1655	MANCHSTR	HOPEWELL	1767	119.2	217.5	228	101.9
Pk3	74:310-348	MANCHSTR	HOPEWELL	1767	192.2	224.3	228	101.2
Pk1	24:L/O 1765	MANCHSTR	HOPEWELL	1767	183.9	222.1	228	101.0
Pk3	47:1355/1588	MANCHSTR	HOPEWELL	1767	192.2	223.0	228	101.0
Pk3	40:1508/1537	MANCHSTR	HOPEWELL	1767	192.2	221.4	228	100.7
Pk1	72:387WAUTOS	MANCHSTR	HOPEWELL	1767	183.9	222.6	228	100.1
Pk3	10:L/O 1508	MANCHSTR	HOPEWELL	1767	192.2	219.1	228	99.9
Pk6	41:1537/1655	MANCHSTR	HOPEWELL	1767	111.7	213.2	228	99.8
Pk3	66:L/O 362	MANCHSTR	HOPEWELL	1767	192.2	221.9	228	99.7
Pk3	56:L/O 318	MANCHSTR	HOPEWELL	1767	192.2	220.6	228	99.4
Pk1	13:L/O 1588	MANCHSTR	HOPEWELL	1767	183.9	218.8	228	99.1
Pk1	61:348WAUTO	MANCHSTR	HOPEWELL	1767	183.9	219.3	228	98.4
Pk5	24:L/O 1765	MANCHSTR	HOPEWELL	1767	176.9	215.8	228	98.3
Pk1	47:1355/1588	MANCHSTR	HOPEWELL	1767	183.9	216.5	228	97.9
Pk1	40:1508/1537	MANCHSTR	HOPEWELL	1767	183.9	213.3	228	97.1
Pk3	9:L/O 1466	MANCHSTR	HOPEWELL	1767	192.2	214.8	228	97.1
Pk3	48:1466/1588	MANCHSTR	HOPEWELL	1767	192.2	213.9	228	96.6
Pk5	13:L/O 1588	MANCHSTR	HOPEWELL	1767	176.9	213.7	228	96.6
Pk1	10:L/O 1508	MANCHSTR	HOPEWELL	1767	183.9	211.8	228	96.2
Pk3	65:L/O 353	MANCHSTR	HOPEWELL	1767	192.2	214.6	228	96.2
Pk1	74:310-348	MANCHSTR	HOPEWELL	1767	183.9	211.8	228	95.2
Pk5	47:1355/1588	MANCHSTR	HOPEWELL	1767	176.9	210.3	228	95.2
Pk5	72:387WAUTOS	MANCHSTR	HOPEWELL	1767	176.9	212.7	228	95.2
Pk6	41:1537/1655	NO.WALLF	COLONY	1588	113.4	212.8	143	163.8
Pk2	41:1537/1655	NO.WALLF	COLONY	1588	110.1	209.9	143	161.5

Table E.4 – Pre-Project Line Loading

Case Name	Contingency	From Bus	To Bus	Line #	Pre-load MVA	Post-load MVA	LTE Rating MVA	% LTE
Pk4	41:1537/1655	NO.WALLF	COLONY	1588	106.2	207.2	143	159.1
Pk5	41:1537/1655	NO.WALLF	COLONY	1588	99.6	188.6	143	146.6
Pk1	41:1537/1655	NO.WALLF	COLONY	1588	96.7	186.2	143	145.3
Pk3	41:1537/1655	NO.WALLF	COLONY	1588	93.4	181.5	143	142.3
Pk6	10:L/O 1508	NO.WALLF	COLONY	1588	113.4	166.0	143	121.8
Pk6	40:1508/1537	NO.WALLF	COLONY	1588	113.4	166.0	143	121.3
Pk2	10:L/O 1508	NO.WALLF	COLONY	1588	110.1	162.4	143	118.6
Pk2	40:1508/1537	NO.WALLF	COLONY	1588	110.1	162.0	143	118.3
Pk4	10:L/O 1508	NO.WALLF	COLONY	1588	106.2	158.3	143	115.6
Pk4	40:1508/1537	NO.WALLF	COLONY	1588	106.2	157.9	143	115.3
Pk6	52:1670/1771	NO.WALLF	COLONY	1588	113.4	153.3	143	109.5
Pk5	25:L/O 1767	NO.WALLF	COLONY	1588	99.6	150.5	143	108.8
Pk5	79:353-1767	NO.WALLF	COLONY	1588	99.6	150.4	143	108.8
Pk1	25:L/O 1767	NO.WALLF	COLONY	1588	96.7	149.0	143	107.6
Pk1	79:353-1767	NO.WALLF	COLONY	1588	96.7	149.0	143	107.5
Pk3	25:L/O 1767	NO.WALLF	COLONY	1588	93.4	147.4	143	107.3
Pk3	79:353-1767	NO.WALLF	COLONY	1588	93.4	147.5	143	107.2
Pk6	79:353-1767	NO.WALLF	COLONY	1588	113.4	147.5	143	106.5
Pk6	25:L/O 1767	NO.WALLF	COLONY	1588	113.4	147.3	143	106.4
Pk2	25:L/O 1767	NO.WALLF	COLONY	1588	110.1	146.3	143	105.8
Pk2	79:353-1767	NO.WALLF	COLONY	1588	110.1	146.4	143	105.8
Pk2	52:1670/1771	NO.WALLF	COLONY	1588	110.1	146.9	143	105.0
Pk4	25:L/O 1767	NO.WALLF	COLONY	1588	106.2	144.3	143	104.3
Pk4	79:353-1767	NO.WALLF	COLONY	1588	106.2	144.4	143	104.2
Pk5	10:L/O 1508	NO.WALLF	COLONY	1588	99.6	138.2	143	101.0
Pk5	40:1508/1537	NO.WALLF	COLONY	1588	99.6	137.7	143	100.5
Pk4	52:1670/1771	NO.WALLF	COLONY	1588	106.2	139.9	143	99.9
Pk6G	41:1537/1655	NO.WALLF	COLONY	1588	52.0	134.2	143	99.2
Pk1	10:L/O 1508	NO.WALLF	COLONY	1588	96.7	134.5	143	98.0
Pk1	40:1508/1537	NO.WALLF	COLONY	1588	96.7	133.9	143	97.9
Pk6	5:L/O 1342	NO.WALLF	COLONY	1588	113.4	135.8	143	97.4
Pk2G	41:1537/1655	NO.WALLF	COLONY	1588	47.8	131.0	143	96.9
Pk6	24:L/O 1765	NO.WALLF	COLONY	1588	113.4	134.3	143	96.6
Pk3	10:L/O 1508	NO.WALLF	COLONY	1588	93.4	130.7	143	95.8
Pk6	26:L/O 1771	RES RD J	BERLIN	1670	159.0	243.1	234	103.1
Pk2	26:L/O 1771	RES RD J	BERLIN	1670	146.9	224.9	234	95.3
Pk6	21:L/O 1670	SOUTHGTN	BERLIN	1771	168.9	249.9	234	104.3
Pk2	21:L/O 1670	SOUTHGTN	BERLIN	1771	156.8	231.4	234	96.6
Pk6	26:L/O 1771	SOUTHGTN	RES RD J	1670	174.6	254.8	234	108.0
Pk2	26:L/O 1771	SOUTHGTN	RES RD J	1670	163.0	237.4	234	100.6
Pk3	74:310-348	MONTVILE	HADDM NK	364	848.6	1563.4	1446	110.6
Pk3G	74:310-348	MONTVILE	HADDM NK	364	801.3	1490.4	1446	103.3
Pk1	74:310-348	MONTVILE	HADDM NK	364	795.8	1475.4	1446	102.8
Pk1G	74:310-348	MONTVILE	HADDM NK	364	754.7	1406.8	1446	96.2
Pk3	66:L/O 362	SOUTHGTN	MILLSTNE	348	942.0	1324.4	1446	95.3

Appendix F – Pre-Project Voltage Violations

Table F.1 – Pre-Project Voltage Violations

Case	Contingency	Bus #	Bus Name	Bus Vbase	Cont Vpu	Init Vpu
Pk3	41:1537/1655	73231	BOKUM	115	0.6762	0.9647
Pk1	41:1537/1655	73231	BOKUM	115	0.6792	0.9678
Pk5	41:1537/1655	73231	BOKUM	115	0.6842	0.9668
Pk2	41:1537/1655	73231	BOKUM	115	0.6929	0.9656
Pk2	41:1537/1655	73231	BOKUM	115	0.6929	0.9656
Pk6	41:1537/1655	73231	BOKUM	115	0.6933	0.9672
Pk4	41:1537/1655	73231	BOKUM	115	0.6938	0.9672
Pk3G	41:1537/1655	73231	BOKUM	115	0.7810	0.9982
Pk1G	41:1537/1655	73231	BOKUM	115	0.7859	0.9992
Pk2G	41:1537/1655	73231	BOKUM	115	0.7882	1.0009
Pk6G	41:1537/1655	73231	BOKUM	115	0.7883	1.0026
Pk5G	41:1537/1655	73231	BOKUM	115	0.7899	1.0004
Pk4G	41:1537/1655	73231	BOKUM	115	0.7919	1.0024
Pk3	10:L/O 1508	73231	BOKUM	115	0.8698	0.9647
Pk3	40:1508/1537	73231	BOKUM	115	0.8709	0.9647
Pk1	40:1508/1537	73231	BOKUM	115	0.8736	0.9678
Pk6	10:L/O 1508	73231	BOKUM	115	0.8742	0.9672
Pk5	10:L/O 1508	73231	BOKUM	115	0.8746	0.9668
Pk5	40:1508/1537	73231	BOKUM	115	0.8751	0.9668
Pk4	10:L/O 1508	73231	BOKUM	115	0.8769	0.9672
Pk4	40:1508/1537	73231	BOKUM	115	0.8769	0.9672
Pk2	40:1508/1537	73231	BOKUM	115	0.8773	0.9656
Pk1	10:L/O 1508	73231	BOKUM	115	0.8774	0.9678
Pk2	10:L/O 1508	73231	BOKUM	115	0.8776	0.9656
Pk6	40:1508/1537	73231	BOKUM	115	0.8777	0.9672
Pk3	41:1537/1655	73153	BRANFORD	115	0.4655	1.0078
Pk1	41:1537/1655	73153	BRANFORD	115	0.4679	1.0116
Pk5	41:1537/1655	73153	BRANFORD	115	0.4731	1.0082
Pk2	41:1537/1655	73153	BRANFORD	115	0.4806	1.0060
Pk6	41:1537/1655	73153	BRANFORD	115	0.4813	1.0094
Pk4	41:1537/1655	73153	BRANFORD	115	0.4815	1.0097
Pk3G	41:1537/1655	73153	BRANFORD	115	0.5743	1.0154
Pk1G	41:1537/1655	73153	BRANFORD	115	0.5797	1.0162
Pk2G	41:1537/1655	73153	BRANFORD	115	0.5832	1.0160
Pk6G	41:1537/1655	73153	BRANFORD	115	0.5837	1.0189
Pk5G	41:1537/1655	73153	BRANFORD	115	0.5854	1.0167
Pk4G	41:1537/1655	73153	BRANFORD	115	0.5881	1.0190
Pk3	6:L/O 1355	73634	COLONY	115	0.8536	0.9917
Pk3	53:1355/1610	73634	COLONY	115	0.8536	0.9917
Pk1	6:L/O 1355	73634	COLONY	115	0.8538	0.9938
Pk1	53:1355/1610	73634	COLONY	115	0.8543	0.9938
Pk5	6:L/O 1355	73634	COLONY	115	0.8543	0.9923
Pk5	53:1355/1610	73634	COLONY	115	0.8544	0.9923
Pk2	6:L/O 1355	73634	COLONY	115	0.8576	0.9917
Pk6	6:L/O 1355	73634	COLONY	115	0.8576	0.9924
Pk4	6:L/O 1355	73634	COLONY	115	0.8578	0.9919
Pk2	53:1355/1610	73634	COLONY	115	0.8581	0.9917
Pk6	53:1355/1610	73634	COLONY	115	0.8581	0.9924
Pk4	53:1355/1610	73634	COLONY	115	0.8582	0.9919

Table F.2 – Pre-Project Voltage Violations

Case	Contingency	Bus #	Bus Name	Bus Vbase	Cont Vpu	Init Vpu
Pk3	41:1537/1655	73600	CONN YAN	115	0.7998	0.9665
Pk1	41:1537/1655	73600	CONN YAN	115	0.8029	0.9693
Pk5	41:1537/1655	73600	CONN YAN	115	0.8074	0.9692
Pk2	41:1537/1655	73600	CONN YAN	115	0.8162	0.9694
Pk6	41:1537/1655	73600	CONN YAN	115	0.8163	0.9704
Pk4	41:1537/1655	73600	CONN YAN	115	0.8170	0.9701
Pk3G	41:1537/1655	73600	CONN YAN	115	0.8952	1.0096
Pk1G	41:1537/1655	73600	CONN YAN	115	0.8996	1.0105
Pk3	41:1537/1655	73269	DOOLEY	115	0.8676	0.9712
Pk1	41:1537/1655	73269	DOOLEY	115	0.8702	0.9738
Pk5	41:1537/1655	73269	DOOLEY	115	0.8744	0.9744
Pk2	41:1537/1655	73269	DOOLEY	115	0.8827	0.9747
Pk6	41:1537/1655	73269	DOOLEY	115	0.8827	0.9754
Pk4	41:1537/1655	73269	DOOLEY	115	0.8833	0.9750
Pk3	6:L/O 1355	73227	E.MERIDN	115	0.8591	0.9785
Pk3	53:1355/1610	73227	E.MERIDN	115	0.8591	0.9785
Pk1	6:L/O 1355	73227	E.MERIDN	115	0.8593	0.9806
Pk1	53:1355/1610	73227	E.MERIDN	115	0.8598	0.9806
Pk5	6:L/O 1355	73227	E.MERIDN	115	0.8598	0.9793
Pk5	53:1355/1610	73227	E.MERIDN	115	0.8599	0.9793
Pk2	6:L/O 1355	73227	E.MERIDN	115	0.8631	0.9783
Pk6	6:L/O 1355	73227	E.MERIDN	115	0.8631	0.9789
Pk4	6:L/O 1355	73227	E.MERIDN	115	0.8633	0.9788
Pk6	53:1355/1610	73227	E.MERIDN	115	0.8635	0.9789
Pk2	53:1355/1610	73227	E.MERIDN	115	0.8636	0.9783
Pk4	53:1355/1610	73227	E.MERIDN	115	0.8637	0.9788
Pk3	41:1537/1655	73227	E.MERIDN	115	0.8735	0.9785
Pk1	41:1537/1655	73227	E.MERIDN	115	0.8779	0.9806
Pk5	41:1537/1655	73227	E.MERIDN	115	0.8815	0.9793
Pk3	13:L/O 1588	73227	E.MERIDN	115	0.8891	0.9785
Pk6	41:1537/1655	73227	E.MERIDN	115	0.8897	0.9789
Pk2	41:1537/1655	73227	E.MERIDN	115	0.8902	0.9783
Pk4	41:1537/1655	73227	E.MERIDN	115	0.8917	0.9788
Pk3	47:1355/1588	73227	E.MERIDN	115	0.8918	0.9785
Pk2	13:L/O 1588	73227	E.MERIDN	115	0.8919	0.9783
Pk2	47:1355/1588	73227	E.MERIDN	115	0.8922	0.9783
Pk5	47:1355/1588	73227	E.MERIDN	115	0.8922	0.9793
Pk1	13:L/O 1588	73227	E.MERIDN	115	0.8929	0.9806
Pk5	13:L/O 1588	73227	E.MERIDN	115	0.8931	0.9793
Pk1	47:1355/1588	73227	E.MERIDN	115	0.8937	0.9806
Pk4	13:L/O 1588	73227	E.MERIDN	115	0.8940	0.9788
Pk6	13:L/O 1588	73227	E.MERIDN	115	0.8941	0.9789
Pk6	47:1355/1588	73227	E.MERIDN	115	0.8948	0.9789
Pk4	47:1355/1588	73227	E.MERIDN	115	0.8950	0.9788
Pk3	41:1537/1655	73265	GREEN HL	115	0.5427	0.9775
Pk1	41:1537/1655	73265	GREEN HL	115	0.5454	0.9810
Pk5	41:1537/1655	73265	GREEN HL	115	0.5506	0.9787
Pk2	41:1537/1655	73265	GREEN HL	115	0.5590	0.9757
Pk6	41:1537/1655	73265	GREEN HL	115	0.5596	0.9782
Pk4	41:1537/1655	73265	GREEN HL	115	0.5599	0.9786
Pk3G	41:1537/1655	73265	GREEN HL	115	0.6540	0.9984

Table F.3 – Pre-Project Voltage Violations

Case	Contingency	Bus #	Bus Name	Bus Vbase	Cont Vpu	Init Vpu
Pk1G	41:1537/1655	73265	GREEN HL	115	0.6594	0.9994
Pk2G	41:1537/1655	73265	GREEN HL	115	0.6627	1.0001
Pk6G	41:1537/1655	73265	GREEN HL	115	0.6630	1.0023
Pk5G	41:1537/1655	73265	GREEN HL	115	0.6648	1.0003
Pk4G	41:1537/1655	73265	GREEN HL	115	0.6673	1.0024
Pk3	10:L/O 1508	73265	GREEN HL	115	0.8320	0.9775
Pk3	40:1508/1537	73265	GREEN HL	115	0.8332	0.9775
Pk1	40:1508/1537	73265	GREEN HL	115	0.8363	0.9810
Pk6	10:L/O 1508	73265	GREEN HL	115	0.8372	0.9782
Pk5	10:L/O 1508	73265	GREEN HL	115	0.8376	0.9787
Pk5	40:1508/1537	73265	GREEN HL	115	0.8382	0.9787
Pk4	10:L/O 1508	73265	GREEN HL	115	0.8398	0.9786
Pk4	40:1508/1537	73265	GREEN HL	115	0.8400	0.9786
Pk2	40:1508/1537	73265	GREEN HL	115	0.8402	0.9757
Pk2	10:L/O 1508	73265	GREEN HL	115	0.8407	0.9757
Pk1	10:L/O 1508	73265	GREEN HL	115	0.8409	0.9810
Pk6	40:1508/1537	73265	GREEN HL	115	0.8411	0.9782
Pk3	41:1537/1655	73230	HADDAM	115	0.7832	0.9671
Pk1	41:1537/1655	73230	HADDAM	115	0.7865	0.9698
Pk5	41:1537/1655	73230	HADDAM	115	0.7909	0.9692
Pk6	41:1537/1655	73230	HADDAM	115	0.7989	0.9695
Pk2	41:1537/1655	73230	HADDAM	115	0.7990	0.9685
Pk4	41:1537/1655	73230	HADDAM	115	0.8001	0.9695
Pk3G	41:1537/1655	73230	HADDAM	115	0.8749	1.0038
Pk1G	41:1537/1655	73230	HADDAM	115	0.8794	1.0051
Pk6G	41:1537/1655	73230	HADDAM	115	0.8799	1.0076
Pk2G	41:1537/1655	73230	HADDAM	115	0.8800	1.0060
Pk5G	41:1537/1655	73230	HADDAM	115	0.8822	1.0069
Pk4G	41:1537/1655	73230	HADDAM	115	0.8833	1.0074
Pk3	6:L/O 1355	73230	HADDAM	115	0.8957	0.9671
Pk3	53:1355/1610	73230	HADDAM	115	0.8958	0.9671
Pk1	6:L/O 1355	73230	HADDAM	115	0.8960	0.9698
Pk1	53:1355/1610	73230	HADDAM	115	0.8964	0.9698
Pk5	6:L/O 1355	73230	HADDAM	115	0.8964	0.9692
Pk5	53:1355/1610	73230	HADDAM	115	0.8965	0.9692
Pk2	6:L/O 1355	73230	HADDAM	115	0.8995	0.9685
Pk6	6:L/O 1355	73230	HADDAM	115	0.8995	0.9695
Pk4	6:L/O 1355	73230	HADDAM	115	0.8997	0.9695
Pk2	53:1355/1610	73230	HADDAM	115	0.8999	0.9685
Pk6	53:1355/1610	73230	HADDAM	115	0.8999	0.9695
Pk4	53:1355/1610	73230	HADDAM	115	0.9000	0.9695
Pk3	41:1537/1655	73241	MIDDLTWN	115	0.8370	0.9669
Pk1	41:1537/1655	73241	MIDDLTWN	115	0.8394	0.9698
Pk5	41:1537/1655	73241	MIDDLTWN	115	0.8441	0.9706
Pk2	41:1537/1655	73241	MIDDLTWN	115	0.8534	0.9721
Pk4	41:1537/1655	73241	MIDDLTWN	115	0.8536	0.9723
Pk6	41:1537/1655	73241	MIDDLTWN	115	0.8537	0.9730
Pk3	6:L/O 1355	73633	NO.WALLF	115	0.8560	0.9829
Pk3	53:1355/1610	73633	NO.WALLF	115	0.8561	0.9829
Pk1	6:L/O 1355	73633	NO.WALLF	115	0.8562	0.9850
Pk1	53:1355/1610	73633	NO.WALLF	115	0.8567	0.9850

Table F.4 – Pre-Project Voltage Violations

Case	Contingency	Bus #	Bus Name	Bus Vbase	Cont Vpu	Init Vpu
Pk5	6:L/O 1355	73633	NO.WALLF	115	0.8568	0.9836
Pk5	53:1355/1610	73633	NO.WALLF	115	0.8568	0.9836
Pk2	6:L/O 1355	73633	NO.WALLF	115	0.8601	0.9827
Pk6	6:L/O 1355	73633	NO.WALLF	115	0.8601	0.9833
Pk4	6:L/O 1355	73633	NO.WALLF	115	0.8603	0.9831
Pk2	53:1355/1610	73633	NO.WALLF	115	0.8605	0.9827
Pk6	53:1355/1610	73633	NO.WALLF	115	0.8605	0.9833
Pk4	53:1355/1610	73633	NO.WALLF	115	0.8606	0.9831
Pk3	13:L/O 1588	73633	NO.WALLF	115	0.8876	0.9829
Pk3	47:1355/1588	73633	NO.WALLF	115	0.8903	0.9829
Pk2	13:L/O 1588	73633	NO.WALLF	115	0.8904	0.9827
Pk5	47:1355/1588	73633	NO.WALLF	115	0.8907	0.9836
Pk2	47:1355/1588	73633	NO.WALLF	115	0.8908	0.9827
Pk1	13:L/O 1588	73633	NO.WALLF	115	0.8915	0.9850
Pk3	41:1537/1655	73633	NO.WALLF	115	0.8916	0.9829
Pk5	13:L/O 1588	73633	NO.WALLF	115	0.8916	0.9836
Pk1	47:1355/1588	73633	NO.WALLF	115	0.8923	0.9850
Pk4	13:L/O 1588	73633	NO.WALLF	115	0.8925	0.9831
Pk6	13:L/O 1588	73633	NO.WALLF	115	0.8926	0.9833
Pk6	47:1355/1588	73633	NO.WALLF	115	0.8934	0.9833
Pk4	47:1355/1588	73633	NO.WALLF	115	0.8935	0.9831
Pk1	41:1537/1655	73633	NO.WALLF	115	0.8963	0.9850
Pk5	41:1537/1655	73633	NO.WALLF	115	0.8998	0.9836
Pk3	41:1537/1655	73249	P+W MIDD	115	0.8297	0.9660
Pk1	41:1537/1655	73249	P+W MIDD	115	0.8323	0.9690
Pk5	41:1537/1655	73249	P+W MIDD	115	0.8370	0.9697
Pk2	41:1537/1655	73249	P+W MIDD	115	0.8464	0.9712
Pk4	41:1537/1655	73249	P+W MIDD	115	0.8467	0.9714
Pk6	41:1537/1655	73249	P+W MIDD	115	0.8467	0.9722
Pk3	41:1537/1655	73264	PORTLAND	115	0.8431	0.9667
Pk1	41:1537/1655	73264	PORTLAND	115	0.8454	0.9696
Pk5	41:1537/1655	73264	PORTLAND	115	0.8501	0.9706
Pk2	41:1537/1655	73264	PORTLAND	115	0.8595	0.9723
Pk4	41:1537/1655	73264	PORTLAND	115	0.8597	0.9725
Pk6	41:1537/1655	73264	PORTLAND	115	0.8598	0.9733
Pk3	24:L/O 1765	73255	WESTSIDE	115	0.8858	0.9837
Pk5	24:L/O 1765	73255	WESTSIDE	115	0.8875	0.9861
Pk1	24:L/O 1765	73255	WESTSIDE	115	0.8889	0.9858
Pk2	24:L/O 1765	73255	WESTSIDE	115	0.8948	0.9848
Pk4	24:L/O 1765	73255	WESTSIDE	115	0.8953	0.9851
Pk6	24:L/O 1765	73255	WESTSIDE	115	0.8972	0.9850

Appendix G – Post Project Line Loading

Table G.1 – Post Project Line Loading

Case Name	Contingency	From Bus	To Bus	Line #	Pre-load MVA	Post-load MVA	LTE Rating MVA	% LTE
Pk1-ALCG	62:L/O 348W	E.MERIDN	NO.WALLF	1466	65.0	138.7	112	122.6
Pk5-ALCG	62:L/O 348W	E.MERIDN	NO.WALLF	1466	60.7	128.3	112	113.3
Pk3-ALC	62:L/O 348W	E.MERIDN	NO.WALLF	1466	43.5	121.3	112	107.6
Pk3-ALCG	62:L/O 348W	E.MERIDN	NO.WALLF	1466	43.5	121.3	112	107.6
Pk1-ALC	62:L/O 348W	E.MERIDN	NO.WALLF	1466	39.0	110.8	112	98.0
Pk3-ALC	83:348W/348E	MANCHSTR	HOPEWELL	1767	109.5	231.6	228	104.2
Pk3-ALCG	83:348W/348E	MANCHSTR	HOPEWELL	1767	109.5	231.6	228	104.2
Pk1-ALC	83:348W/348E	MANCHSTR	HOPEWELL	1767	100.5	220.6	228	98.6
Pk6-ALC	26:L/O 1771	SOUTHGTN	RES RD J	1670	164.1	239.4	234	99.6
Pk6-ALC	21:L/O 1670	SOUTHGTN	BERLIN	1771	156.2	229.8	234	95.7
Pk6-ALCG	52:1670/1771	WESTSIDE	DOOLEY	1766	110.1	173.7	178	96.7
Pk3-ALC	66:L/O 362	HADAUTO	MILLSTNE	348E	1087.2	1483.7	1446	104.8
Pk3-ALCG	66:L/O 362	HADAUTO	MILLSTNE	348E	1087.2	1483.7	1446	104.8
Pk3-ALC	56:L/O 318	HADAUTO	MILLSTNE	348E	1087.2	1477.8	1446	104.3
Pk3-ALCG	56:L/O 318	HADAUTO	MILLSTNE	348E	1087.2	1477.8	1446	104.3
Pk3-ALC	67:364WAUTO	HADAUTO	MILLSTNE	348E	1087.2	1388.3	1446	96.6
Pk3-ALCG	67:364WAUTO	HADAUTO	MILLSTNE	348E	1087.2	1388.3	1446	96.6
Pk1-ALC	66:L/O 362	HADAUTO	MILLSTNE	348E	1012.1	1367.3	1446	95.7
Pk1-ALC	56:L/O 318	HADAUTO	MILLSTNE	348E	1012.1	1361.4	1446	95.3
Pk3-ALC	75:310-348E	MONTVILE	HADDM NK	364	802.7	1573.5	1446	110.6
Pk3-ALCG	75:310-348E	MONTVILE	HADDM NK	364	802.7	1573.5	1446	110.6
Pk1-ALC	75:310-348E	MONTVILE	HADDM NK	364	755.9	1488.6	1446	103.0
Pk1-ALCG	75:310-348E	MONTVILE	HADDM NK	364	728.8	1413.8	1446	96.5
Pk5-ALC	75:310-348E	MONTVILE	HADDM NK	364	698.7	1394.7	1446	95.6

Appendix H – Post Project Voltage Violations

Table H.1 – Post Project Voltage Violations

Case Name	Contingency	Bus #	Bus Name	Bus Vbase	Cont Vpu	Init Vpu
Pk3-ALC	41:1537/1655	73153	BRANFORD	115	0.8530	1.0196
Pk3-ALCG	41:1537/1655	73153	BRANFORD	115	0.8530	1.0196
Pk1-ALC	41:1537/1655	73153	BRANFORD	115	0.8593	1.0208
Pk5-ALC	41:1537/1655	73153	BRANFORD	115	0.8657	1.0201
Pk4-ALC	41:1537/1655	73153	BRANFORD	115	0.8734	1.0224
Pk5-ALCG	41:1537/1655	73153	BRANFORD	115	0.8737	1.0194
Pk6-ALCG	41:1537/1655	73153	BRANFORD	115	0.8738	1.0225
Pk1-ALCG	41:1537/1655	73153	BRANFORD	115	0.8745	1.0191
Pk2-ALC	41:1537/1655	73153	BRANFORD	115	0.8754	1.0204
Pk2-ALCG	41:1537/1655	73153	BRANFORD	115	0.8761	1.0204
Pk4-ALCG	41:1537/1655	73153	BRANFORD	115	0.8763	1.0229
Pk6-ALC	41:1537/1655	73153	BRANFORD	115	0.8777	1.0225
Pk3-ALC	41:1537/1655	73265	GREEN HL	115	0.8938	1.0092
Pk3-ALCG	41:1537/1655	73265	GREEN HL	115	0.8938	1.0092
Pk1-ALC	41:1537/1655	73265	GREEN HL	115	0.8996	1.0101

Appendix I – Pre-Project Short Circuit Analysis

Table I.1 – Pre-Project Short Circuit

BREAKERS	DUTY (%)	DUTY (A)	BKR CAPA (A)	Isc (A)	ANSI X/R
BOKUM 115 kV					
15L-1T-2	23.9	5939	24886	5812	7.3
15L-2T-2	28.6	5711	20000	5711	8.1
15L-2T-42	31.3	5711	18236	5711	8.1
15L-3T-2	29.1	5812	20000	5812	7.3
15L-3T-42	31.3	5711	18236	5711	8.1
BRANFORD 115 kV					
11J-1T-2	63.6	15955	25102	14096	9.6
11J-1X1-2	56.4	14096	25000	14096	9.6
11J-2T-2	63.6	15955	25102	14096	9.6
11J-3T-2	35.2	14096	40000	14096	9.6
11J-4T-2	64.5	15955	24752	14096	9.6
E. MERIDEN 115 kV					
21P-1T-2	24.1	6053	25102	6032	4.4
21P-1T-66	24.9	6053	24262	6032	4.4
GREEN HILL 115 kV					
30R-2T-2	24.5	4750	19348	4750	7.4
HADDAM 115 kV					
11C-1T-2	29.1	7307	25102	6790	9.9
11C-2T-2	29.4	7310	24886	7042	8.5
11C-3T-2	29.5	7400	25102	7042	8.5
HOPEWELL 115 kV					
22R-1T-59	36.8	9227	25102	9096	5.9
22R-2T-2	36.8	9227	25102	9096	5.9
MIDDLETOWN 115 kV					
5A-10T-2	35.3	17274	48928	13789	25.0
5A-11T-2	47.0	22975	48928	17677	29.5
5A-12T-2	52.4	25615	48928	20154	26.6
5A-12T-L9	55.0	22976	41746	17677	29.5
5A-1T-2	53.8	26346	48928	20154	26.6
5A-2T-2	33.9	21346	63000	20154	26.6
5A-3T-2	52.2	25535	48928	20081	26.7
5A-4T-2	52.4	25615	48928	20154	26.6
5A-4T-L3	51.5	21518	41746	16311	31.6
5A-5T-2	52.4	25615	48928	20154	26.6
5A-5T-U2	50.0	21154	42278	16644	26.6
5A-7T-2	49.4	24153	48928	18783	28.1
5A-8T-2	52.4	25615	48928	20154	26.6
5A-8T-L6	53.1	24153	45470	18783	28.1
5A-9T-2	52.4	25615	48928	20154	26.6
MILLSTONE 345 kV					
15G-13T-2	94.4	37768	40000	32846	31.3
15G-14T-2	86.8	34714	40000	30030	32.5
15G-15T-2	94.2	37661	40000	32739	31.4
15G-1T-2	73.9	36953	50000	32846	31.3
15G-2T-2	94.5	37814	40000	32891	31.2
15G-3T-2	74.0	36997	50000	32891	31.2
15G-4T-2	73.9	36953	50000	32846	31.3

Table I.2 – Pre-Project Short Circuit

BREAKERS	DUTY (%)	DUTY (A)	BKR CAPA (A)	Isc (A)	ANSI X/R
MILLSTONE 345 kV					
15G-5T-2	74.0	36997	50000	32891	31.2
15G-6T-2	74.0	36997	50000	32891	31.2
15G-7T-2	81.2	36953	45500	32846	31.3
15G-8T-2	76.1	34623	45500	30682	31.9
15G-9T-2	81.0	36850	45500	32739	31.4
SGTN RING 1 115 kV					
4C-11T-2	91.0	44534	48928	39123	16.4
4C-11T-08	96.2	40179	41746	35132	16.8
4C-12T-10	88.6	39399	44444	36647	17.1
4C-12T-2	78.8	39399	50000	36647	17.1
4C-13T-2	88.2	43162	48928	37760	16.8
4C-13T-55	103.4	43162	41746	37760	16.8
4C-14T-2	87.1	42639	48928	37290	16.8
4C-14T-71	87.1	42639	48928	37290	16.8
4C-15T-2	87.1	42639	48928	37290	16.8
4C-15T-70	97.8	42639	43608	37290	16.8
4C-16T-2	62.7	39500	63000	39123	16.4
4C-16T-30	62.7	39500	63000	39123	16.4
4C-17T-1X	50.7	31972	63000	29775	21.5
4C-17T-2	62.7	39500	63000	39123	16.4
4C-18T-2	62.7	39500	63000	39123	16.4
4C-18T-BUS	62.7	39500	63000	39123	16.4
4C-19T-2	91.0	44534	48928	39123	16.4
4C-20T-2	80.8	40409	50000	37760	16.8
4C-20T-4X	59.9	29963	50000	29963	4.4
SGTN RING 2 115 kV					
4C-10K-2	64.8	40835	63000	40835	15.3
4C-21T-2	64.8	40835	63000	40835	15.3
4C-21T-2X	51.0	32127	63000	32127	4.1
4C-22T-2	64.6	40669	63000	40669	15.3
4C-22T-20	64.6	40669	63000	40669	15.3
4C-23T-00	104.7	45651	43608	40691	15.4
4C-23T-2	93.3	45651	48928	40691	15.4
4C-24T-10	104.3	45484	43608	40516	15.4
4C-24T-2	93.3	45651	48928	40691	15.4
4C-25T-2	93.0	45484	48928	40516	15.4
4C-25T-3X	72.4	35437	48928	30071	19.2
4C-26T-10	83.6	38658	46242	38658	15.8
4C-26T-2	61.4	38658	63000	38658	15.8
4C-28T-2	89.2	43624	48928	38658	15.8
4C-28T-50	100.0	43624	43608	38658	15.8
4C-29T-2	89.2	43624	48928	38658	15.8
4C-29T-90	103.3	43105	41746	40835	16.3
4C-30T-2	93.6	45789	48928	40835	15.3
4C-31T-2	93.6	45789	48928	40835	15.3
4C-31T-TIE	109.7	45789	41746	40835	15.3
4C-3X3-2	64.8	40835	63000	40835	15.3
WEST SIDE 115 kV					
7A-1T-2	28.4	7072	24892.1	7025	5.5
7A-1T-65	31.0	7072	22812.8	7025	5.5

Appendix J – Post Project Short Circuit Analysis

Table J.1 – Post-Project Short Circuit

BREAKERS	DUTY (%)	DUTY (A)	BKR CAPA (A)	Isc (A)	ANSI X/R
BOKUM 115 kV					
15L-1T-2	35.1	8726	24886	8505	7.6
15L-2T-2	44.3	8860	20000	8860	9.1
15L-2T-42	48.6	8860	18236	8860	9.1
15L-3T-2	44.3	8860	20000	8860	9.1
15L-3T-42	48.6	8860	18236	8860	9.1
BRANFORD 115 kV					
11J-1T-2	65.1	16347	25102	14459	9.6
11J-1X1-2	57.8	14459	25000	14459	9.6
11J-2T-2	65.1	16347	25102	14459	9.6
11J-3T-2	36.1	14460	40000	14459	9.6
11J-4T-2	66.0	16347	24752	14459	9.6
E. MERIDEN 115 kV					
21P-1T-2	24.1	6053	25102	6032	4.4
21P-1T-66	24.9	6053	24262	6032	4.4
GREEN HILL 115 kV					
30R-2T-2	24.6	4750	19348	4750	7.4
HADDAM 115 kV					
11C-1T-2	109.4	27470	25102	21153	23.5
11C-2T-2	115.5	28744	24886	22962	21.9
11C-3T-2	117.0	29369	25102	22962	21.9
11C-C-2	36.5	14615	40000	12545	32.3
11C-D-2	36.5	14615	40000	12545	32.3
11C-E-2	62.6	25025	40000	23255	21.8
11C-F-2	62.6	25025	40000	23255	21.8
11C-G-2	62.6	25025	40000	23255	21.8
11C-H-2	61.8	24739	40000	22947	21.9
11C-I-2	62.6	25025	40000	23255	21.8
11C-J-2	62.6	25025	40000	23255	21.8
11C-K-2	62.6	25025	40000	23255	21.8
11C-L-2	62.6	25025	40000	23255	21.8
11C-M-2	62.6	25025	40000	23255	21.8
11C-N-2	62.6	25025	40000	23255	21.8
HADDAM Tap 345 kV					
11C-A-2	21.3	10649	50000	10649	14.8
11C-B-2	31.5	15729	50000	15729	15.0
HOPEWELL 115 kV					
22R-1T-59	36.8	9227	25102	9096	5.9
22R-2T-2	36.8	9227	25102	9096	5.9
MIDDLETOWN 115 kV					
5A-10T-2	44.0	21539	48928	17447	23.5
5A-11T-2	55.0	26927	48928	21080	27.3
5A-12T-2	60.0	29370	48928	23407	25.2
5A-12T-L9	64.5	26927	41746	21080	27.3
5A-1T-2	61.8	30223	48928	23407	25.2
5A-2T-2	38.8	24475	63000	23407	25.2
5A-3T-2	59.8	29275	48928	23320	25.2

Table J.2 – Post-Project Short Circuit

BREAKERS	DUTY (%)	DUTY (A)	BKR CAPA (A)	Isc (A)	ANSI X/R
MIDDLETOWN 115 kV					
5A-4T-2	60.0	29370	48928	23407	25.2
5A-4T-L3	61.4	25634	41746	19841	28.7
5A-5T-2	60.0	29370	48928	23407	25.2
5A-5T-U2	58.8	24871	42278	19822	25.2
5A-7T-2	54.7	26739	48928	21133	26.1
5A-8T-2	60.0	29370	48928	23407	25.2
5A-8T-L6	58.8	26739	45470	21133	26.1
5A-9T-2	60.0	29370	48928	23407	25.2
MILLSTONE 345 kV					
15G-13T-2	95.7	38261	40000	33299	31.1
15G-14T-2	86.8	34720	40000	30035	32.5
15G-15T-2	95.4	38152	40000	33191	31.2
15G-1T-2	74.9	37432	50000	33299	31.1
15G-2T-2	95.8	38307	40000	33345	31.0
15G-3T-2	75.0	37476	50000	33345	31.0
15G-4T-2	74.9	37432	50000	33299	31.1
15G-5T-2	75.0	37476	50000	33345	31.0
15G-6T-2	75.0	37476	50000	33345	31.0
15G-7T-2	82.3	37432	45500	33299	31.1
15G-8T-2	77.3	35160	45500	31193	31.7
15G-9T-2	82.0	37327	45500	33191	31.1
SGTN RING 1 115 kV					
4C-11T-2	91.5	44789	48928	39404	16.3
4C-11T-08	96.8	40408	41746	35383	16.7
4C-12T-10	89.2	39634	44444	36923	17.0
4C-12T-2	79.3	39634	50000	36923	17.0
4C-13T-2	88.3	43189	48928	37763	16.8
4C-13T-55	103.5	43189	41746	37763	16.8
4C-14T-2	87.6	42866	48928	37540	16.7
4C-14T-71	87.6	42866	48928	37540	16.7
4C-15T-2	87.6	42867	48928	37540	16.7
4C-15T-70	98.3	42867	43608	37540	16.7
4C-16T-2	63.1	39722	63000	39404	16.3
4C-16T-30	63.1	39722	63000	39404	16.3
4C-17T-1X	51.4	32369	63000	30247	21.2
4C-17T-2	63.1	39722	63000	39404	16.3
4C-18T-2	63.1	39722	63000	39404	16.3
4C-18T-BUS	63.1	39722	63000	39404	16.3
4C-19T-2	91.5	44789	48928	39404	16.3
4C-20T-2	80.9	40435	50000	37763	16.8
4C-20T-4X	60.9	30431	50000	30431	4.4
SGTN RING 2 115 kV					
4C-10K-2	65.0	40927	63000	40927	15.3
4C-21T-2	65.0	40927	63000	40927	15.3
4C-21T-2X	51.1	32167	63000	32167	4.1
4C-22T-2	64.7	40761	63000	40761	15.3
4C-22T-20	64.7	40761	63000	40761	15.3
4C-23T-00	104.9	45755	43608	40783	15.4
4C-23T-2	93.5	45755	48928	40783	15.4
4C-24T-10	104.5	45589	43608	40608	15.4

Table J.3 – Post-Project Short Circuit

BREAKERS	DUTY (%)	DUTY (A)	BKR CAPA (A)	Isc (A)	ANSI X/R
SGTN RING 2 115 kV					
4C-24T-2	93.5	45755	48928	40783	15.4
4C-25T-2	93.2	45589	48928	40608	15.4
4C-25T-3X	72.5	35487	48928	30104	19.2
4C-26T-10	83.8	38746	46242	38746	15.8
4C-26T-2	61.5	38746	63000	38746	15.8
4C-28T-2	89.4	43725	48928	38746	15.8
4C-28T-50	100.3	43725	43608	38746	15.8
4C-29T-2	89.4	43725	48928	38746	15.8
4C-29T-90	103.5	43213	41746	38045	16.3
4C-30T-2	93.8	45893	48928	40927	15.3
4C-31T-2	93.8	45893	48928	40927	15.3
4C-31T-TIE	109.9	45893	41746	40927	15.3
4C-3X3-2	65.0	40927	63000	40927	15.3
WEST SIDE 115 kV					
7A-1T-2	28.4	7075.2	24892.1	7027.8	5.5
7A-1T-65	31.0	7075.0	22812.8	7027.7	5.5