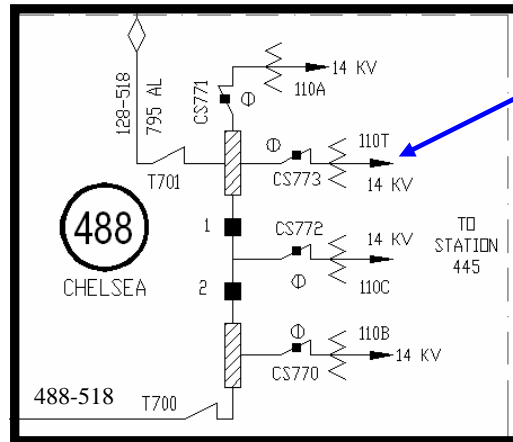


# **Steady State System Impact Study Report** **Chelsea Station #488, 115 kV Upgrade Project**

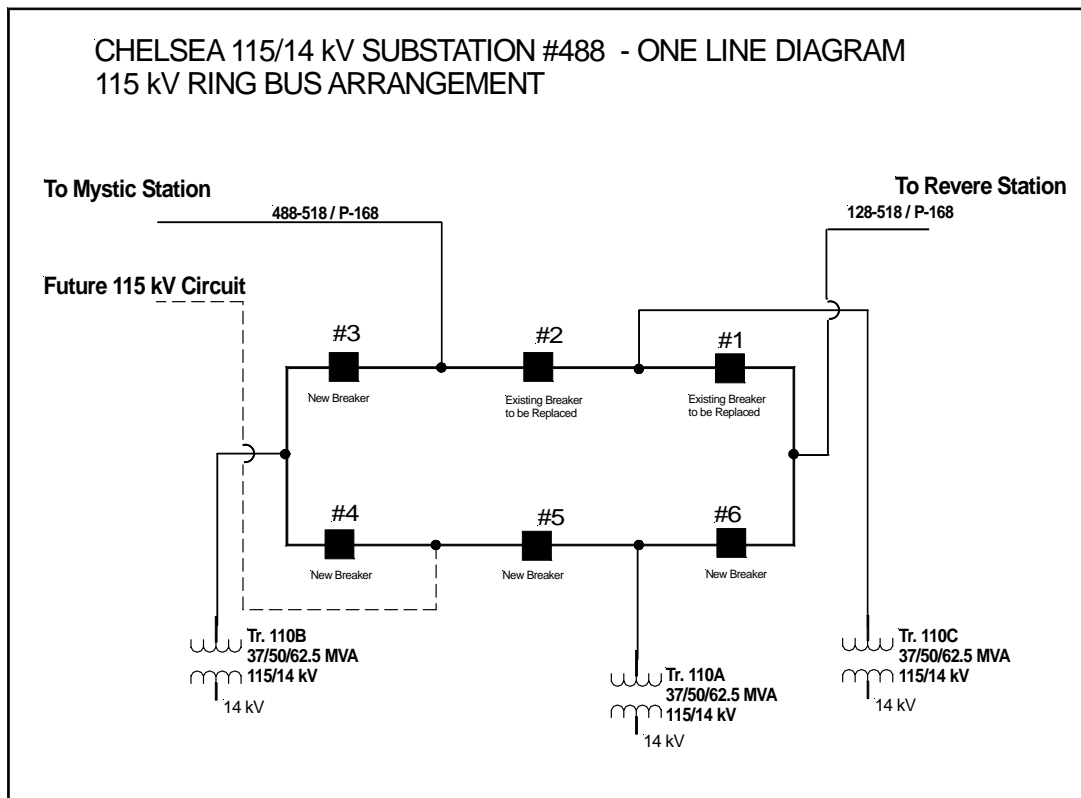
## **APPENDIX A**

- One-Line Diagram Chelsea Existing Arrangement
- One-Line Diagram Chelsea Ring Bus Arrangement
- Local Area Transmission One-Line Diagram  
(Chelsea Station and to the North)
- Local Area Transmission One-Line Diagram  
(Chelsea Station and to the South)
- Area Geographic Diagram
- Year 2005 Peak - Case A Summary
- Year 2005 Peak - Case B Summary
- Year 2005 Peak - Case C Summary
- Year 2005 Peak - Case D Summary
- Year 2005 Peak - Case A Power Flow Plot
- Year 2005 Peak - Case B Power Flow Plot
- Year 2005 Peak - Case C Power Flow Plot
- Year 2005 Peak - Case D Power Flow Plot

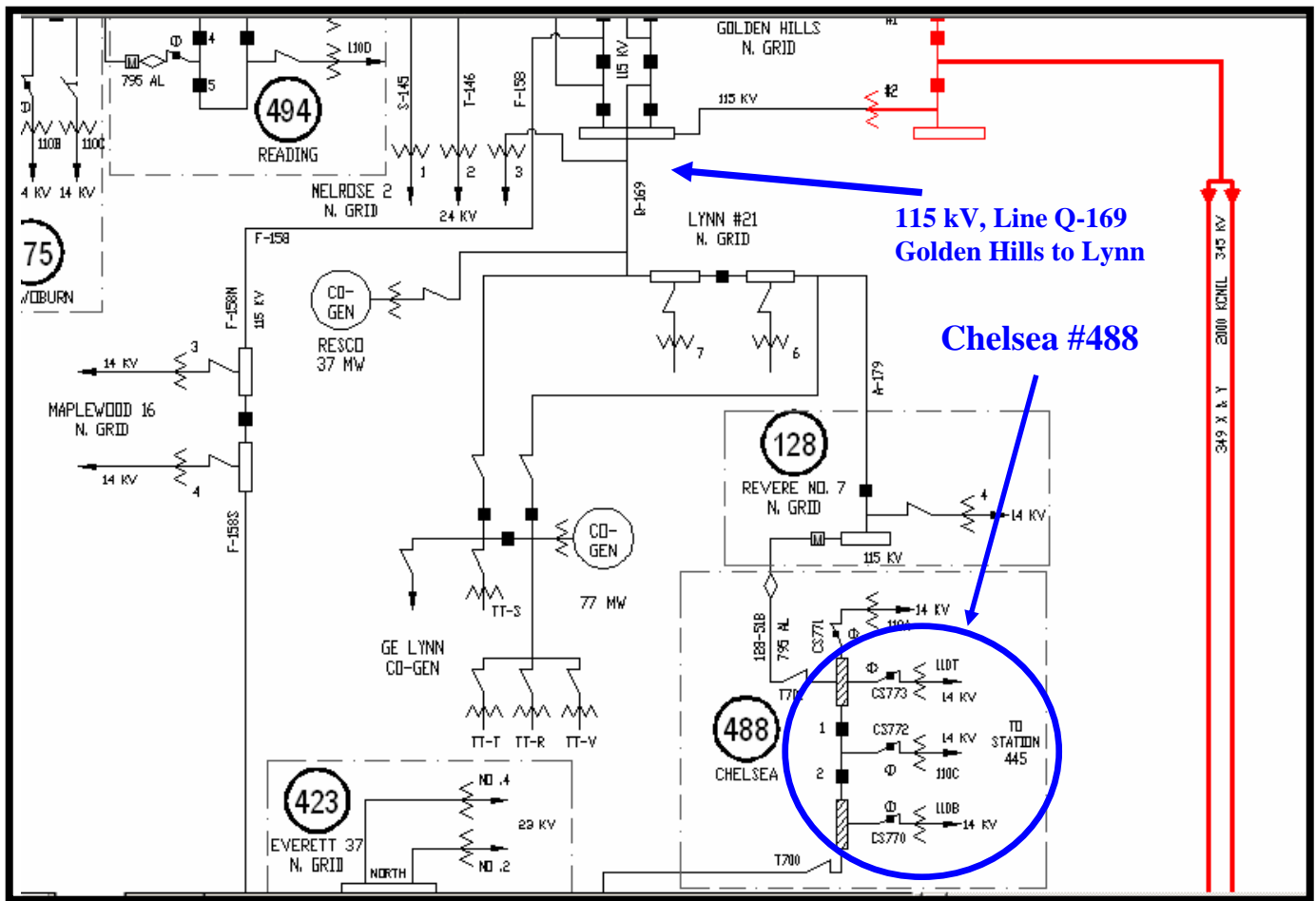


Transformer 110T to be retired prior to completion of the ring bus.

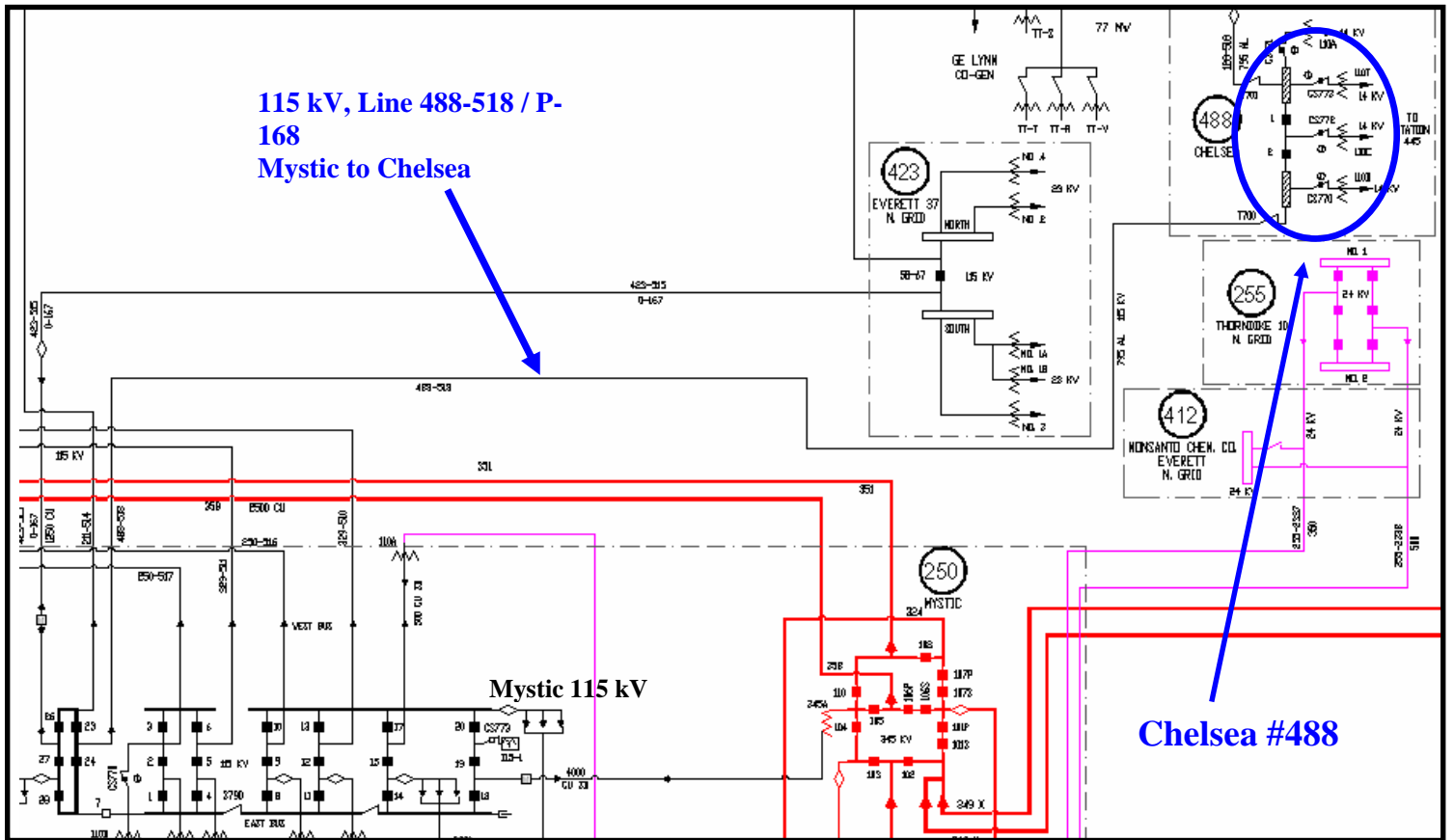
**Figure #1 Existing Chelsea Transmission Configuration**



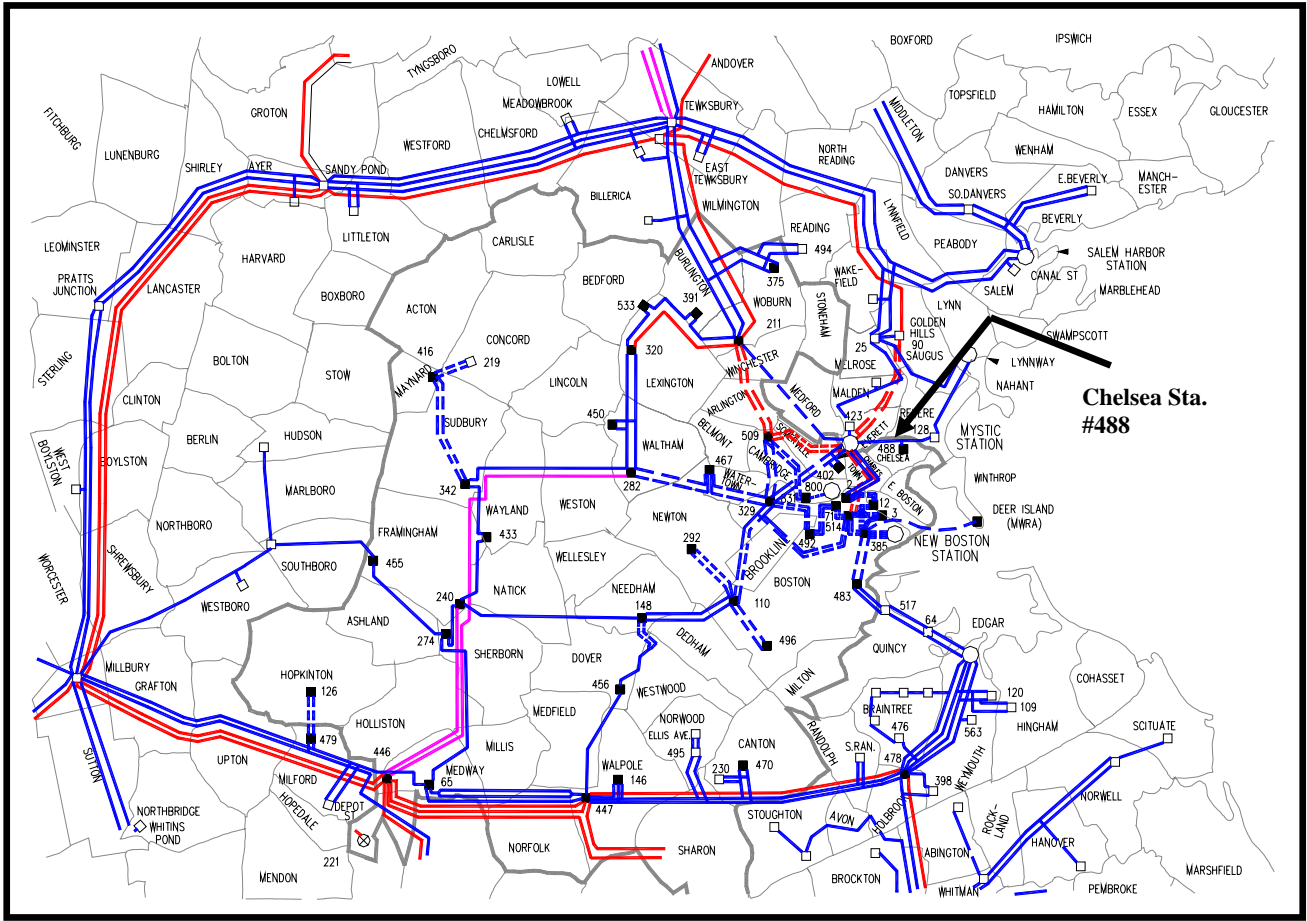
**Figure #2 Chelsea Station #488 Ring Bus Configuration**



**Figure #3 Local Area Transmission One Line (Chelsea and to the North)**



**Figure #4 Local Area Transmission One Line (Chelsea and to the South)**



**Figure #5      Transmission Geographic Diagram**

YEAR 2006 - SUMMER PEAK LOAD  
CASE A

GENERATION

						GENERATION											
						V	MAX	MW	MX								
						V	MAX	MW	MX								
73562	MILL#2	0.992	904	900	131	73563	MILL#3	0.993	1146	1137	174	73555	MIDDTN#2	0.000	117	0	0
73556	MIDDTN#3	0.992	233	233	49	73557	MIDDTN#4	1.000	400	400	80	73558	MONTV#5	0.976	81	81	0
73559	MONTV#6	0.980	402	402	-60	73549	SMD1112J	1.048	93	93	4*	73550	SMD1314J	1.048	93	93	4*
73551	NORHAR#1	1.006	162	159	43	73552	NORHAR#2	1.005	168	168	43	73646	BPTHBR#1	0.000	0	0	0
73647	BPTHBR#2	0.988	170	170	33	73648	BPTHBR#3	0.971	375	375	33	73649	BPTHBR#4	0.000	22	0	0
73651	NH HARBR	0.966	447	447	0	73553	DEVON#7	0.998	107	107	18	73554	DEVON#8	0.998	107	107	18
71739	TAUNTON	0.000	0	0	0	72372	BP #1 GN	1.016	241	238	71	72375	BP #2 GN	1.016	241	232	71
72370	BP #3 GN	1.017	605	398	28	72371	BP #4 GN	0.000	425	0	0	72661	MANCH09A	1.007	119	100	24
72662	MANCH10A	1.007	119	100	24	72663	MANCH11A	1.007	119	100	24	72666	FRSQ SC1	0.991	46	42	3
72667	FRSQ SC2	0.992	46	42	-5	72668	FRSQ SC3	0.991	46	41	-4	71522	SOM G6	0.988	105	105	54
71531	OSP1 PF	1.032	77	77	19	71532	OSP2 PF	1.032	77	77	19	71533	OSP3 PF	1.032	108	99	24
71534	OSP4 PF	1.032	77	77	19	71535	OSP5 PF	1.032	77	77	19	71536	OSP6 PF	1.032	108	99	24
71084	NEA GTPF	1.047	111	95	40*	71085	NEA GTPF	1.047	110	95	40*	71086	NEA STPF	0.000	80	0	0
71251	CANAL G1	1.024	566	566	165	71252	CANAL G2	1.022	576	115	120*	71094	PLGRM G1	1.029	702	702	87
71060	MYST G4	0.000	133	0	0	71061	MYST 5G	0.000	129	0	0	71062	MYST G6	0.000	136	0	0
71063	MYST G7	1.019	565	565	83	71067	MYS8 GTS	1.029	520	460	83	71068	MYS8 ST	1.045	290	290	83
71069	MYS9 GTS	1.036	460	416	176	71070	MYS9 ST	1.055	290	290	130	71126	KEND CT	0.000	187	0	0
71123	KENDALL	0.000	63	0	0	71124	KND JETS	0.000	48	0	0	71073	N.BOST 1	0.000	380	0	0
71074	N.BOST 2	0.000	380	0	0	72066	WAMEBYNW	0.000	0	0	0	71946	SALEM G1	1.021	81	79	7
71947	SALEM G2	1.022	78	78	7	71948	SALEM G3	1.017	143	143	15	71949	SALEM G4	1.017	360	350	44
72869	SBRK G1	1.014	1318	1295	362	72868	NWNGT G1	0.989	422	422	37	72702	CONEDG1	1.000	169	169	37
72703	CONEDG2	1.000	169	169	37	72704	CONEDG3	0.998	195	195	37	72870	SCHILLER	1.014	48	48	15
72871	SCHILLER	1.014	50	50	15	72872	SCHILLER	1.014	48	48	15	72866	MERKM G1	1.017	113	110	2
72867	MERKM G2	1.018	320	310	6	70365	WF WY #1	1.010	57	50	9	70366	WF WY #2	1.010	57	50	9
70367	WF WY #3	1.010	125	95	18	70368	WF WY #4	1.018	636	636	118	70705	VTYAK G	0.990	563	540	135
73083	NRTHFD12	1.004	540	540	73	73084	NRTHFD34	1.008	540	400	73	72512	BRSWP G1	1.020	294	280	79
72513	BRSWP G2	1.022	294	200	79	73085	MT.TOM	0.000	146	0	0	70375		0.000	0	0	0
70376		0.000	0	0	0	70377	AEC G1	0.000	55	0	0	70378	AEC G2	0.000	55	0	0
70379	AEC G3	0.000	55	0	0	72373	MPLP 1PF	1.045	109	108	53*	72374	MPLP 2PF	1.028	45	44	27*
73652	BE 11	1.005	170	90	33	73653	BE 12	0.998	170	170	33	72986	BERKFWR	1.022	305	280	25
73654	BE 10 ST	0.998	180	180	33	73072	ALT12 PF	1.015	65	65	6	73073	ALT34 PF	1.014	81	81	6
73069	MAPR1 PF	1.031	106	83	34	73070	MAPR2 PF	1.031	106	83	34	73071	MAPR3 PF	1.022	95	78	34
73080	WSPFLD 3	0.993	107	107	1	70389	BUCKS GT	1.043	191	174	83	70060	MIS GT1	1.041	0	117	68*
70061	MIS GT2	0.000	0	0	0	70062	MIS ST	0.000	0	0	0	70386	WBK G1	0.000	185	0	0
70387	WBK G2	1.043	185	172	85	70388	WBK G3	1.043	196	187	86	70381	RPA CG1	1.043	179	179	75
70382	RPA SG2	1.043	93	93	35	73566	LAKERD#2	0.989	305	305	23	73565	LAKERD#1	0.991	280	280	23
73567	LAKERD#3	0.000	305	0	0	71095	ANPBLCK1	1.040	9999	290	32	71096	ANPBLCK2	0.000	9999	0	0
72671	RISE G1	1.048	176	176	77	72672	RISE G2	1.048	176	176	77	72673	RISE G3	0.000	196	0	0
72377	BELL #1	1.041	290	270	37	72378	BELL #2	0.000	290	0	0	91787		0.000	0	0	0
91786		0.000	0	0	0	91787		0.000	0	0	0	71950	GRANRDG1	1.045	280	280	40
71951	GRANRDG2	1.083	280	280	140*	72701	AESSTG	1.035	250	281	13	0	0.000	0	0	0	

			MW	MX				MW	MX				MW	MX
MILLSTONE			2037	305	BRPT-Energy		170	33	MIDDLETOWN			633	129	
MONTVILLE			483	-60	NORWALK		327	87	BRIDGEPORT			985	165	
NHHARBOR			447	0	DEVON		214	36	BRAYTONPT			868	169	
MANCHSTRST			425	66	SOMERSET		105	54	OSP			506	124	
NEA			190	80	PAWTKTPWR		63	-12	ENRON			152	80	
CANAL			681	285	PILGRIM		702	87	MYSTIC			2021	554	
NEWBOSTON			0	0	SALEMHR		650	73	SEABROOK			1295	362	
NEWINGTON			422	37	SCHILLER		146	44	MERRIMACK			420	8	
STONYBROOK			0	0	WYMAN		831	153	VTYANKEE			540	135	
BEARSWAMP			480	159	NORTHFIELD		940	146	MASSPWR			244	101	
ANP-BELLINGHAM			270	37	ANP-BLACKSTONE		290	32	EMI-TIVERTON			0	0	
EMI-DIGHTON			185	30	MILLENNIUM		0	0	ALTRESKO			146	12	
MIS			117	68	AEC		0	0	RPA			272	111	
Westbrook			359	171	Bucksport		174	83	Meriden			0	0	
Wallingford			153	20	HOPE-RISE		352	154	Berkshire			280	25	
LakeRd			585	46	Granite-Ridge		841	193	Fore_River			587	-13	
Kendall			0	0	SEMASH		70	11	DPA			62	25	
Potter			76	-5	Taunton		124	60	UAE_Lowell			0	0	
UAE_TEWKS			0	0										

INTERFACE FLOWS

BOSTON IMPORT	3600	3046	-133*	NB-NE	700	701	-8	NORWLK-STAMFORD	1000	926	-51
SEMA/RI EXPORT	2200	786	7*	MAINE-NH	1400	928	-133	NNE-SCOBIE+394	2550	2678	93
NORTH-SOUTH	3400	2723	-87	SEABROOK-SOUTH	1400	1757	171	CMFD/MOORE-SO	920	42	29*
EAST-WEST	2000	477	-12*	SNDYPOND-SOUTH	4000	968	29*	CONN EXPORT	2100	-824	179*
NY-NE	2200	487	-220*	SW CONN IMPORT	1700	870	8	NEMA/BOS IMPORT	4000	3555	-151*
PLAT PAR	600	114	11	SEMA EXPORT		-189	-98	CONN IMPORT	2500	1413	-253*

HVDC TRANSFERS FROM H-Q

HIGHGATE = 197

PHII-P1 = 750

PHII-P2 = 750

BUS VOLTAGES

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          V LMT
72694 SEBRK345 345 357.
71781 GLDN HIL 345 360.
70815 N.CAMB 115 117.
70766 KINGSTON 345 359.
70788 HYDE PK 345 356.
71797 MILLBURY 345 355.
70895 W WALPOL 115 116.
71193 CANAL 345 359.
70795 FRMNGHAM 230 239.
70810 WLTHM PS 115 116.
70860 K ST 115 0. *E
70818 MYSTC MA 115 118.
71133 CARVER 345 357.
71217 BOURNE 115 120.
71266 HIGH HIL 115 116.

          V LMT
71786 SANDY PD 345 355.
71884 GLDN HLS 115 119.
70756 WOBURN 345 359.
70831 KINGB BE 115 118.
70791 HYDE115 115 119.
70772 W MEDWAY 345 356.
70783 PILGRIM 345 358.
70781 HOLBROOK 345 356.
70870 FRMNGHAM 115 116.
70836 K-ST-1 115 118.
70888 BAKER ST 115 118.
71891 SALEM HR 115 119.
71139 CARVR CE 115 118.
71141 TREMONT 115 118.
72096 MILLBURY 115 115. 126.0 *

          V LMT
71789 TEWKS 345 357.
70758 NO. CAMB 345 360.
70799 WOBURN 115 118.
70786 STOUGHNTN 345 357.
70759 MYSTIC 345 360.
70780 WWALP345 345 356.
70773 NEA 336 345 357.
70900 HOLBROOK 115 117.
70789 WALTHAM 230 238.
70837 K-ST-2 115 118.
70759 MYSTIC 345 360.
71193 CANAL 345 359.
71202 BRNSTBL 115 119.
71264 ACUSHNET 115 117.

          AREA/ZONE TOTALS
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NEPOOL_GEN      25801  NEPOOL_LOAD  28024  NEPOOL_LOSS    691  NEPOOL_INT    -2909

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YEAR 2006 - SUMMER PEAK LOAD  
CASE B

GENERATION

				V				MAX				MW				MX			
				V	MAX	MW	MX					V	MAX	MW	MX				
73562	MILL#2	0.993	904	900	136	73563	MILL#3	0.993	1146	1137	180	73555	MIDDTN#2	0.000	117	0	0	0	
73556	MIDDTN#3	0.992	233	233	50	73557	MIDDTN#4	1.002	400	400	86	73558	MONTV#5	0.976	81	81	0	0	
73559	MONTV#6	0.980	402	402	-60	73549	SMD1112J	1.048	93	93	4*	73550	SMD1314J	1.048	93	93	4*	0	
73551	NORHAR#1	1.006	162	159	43	73552	NORHAR#2	1.005	168	168	43	73646	BPTHBR#1	0.000	0	0	0	0	
73647	BPTHBR#2	0.988	170	170	33	73648	BPTHBR#3	0.971	375	375	33	73649	BPTHBR#4	0.000	22	0	0	0	
73651	NH HARBR	0.966	447	447	0	73553	DEVON#7	0.999	107	107	18	73554	DEVON#8	0.998	107	107	18	0	
71739	TAUNTON	0.000	0	0	0	72372	BP #1 GN	1.016	241	238	73	72375	BP #2 GN	1.016	241	232	73	0	
72370	BP #3 GN	1.018	605	398	32	72371	BP #4 GN	0.000	425	0	0	72661	MANCH09A	1.007	119	100	24	0	
72662	MANCH10A	1.007	119	100	24	72663	MANCH11A	1.007	119	100	24	72666	FRSQ SC1	0.991	46	42	3	0	
72667	FRSQ SC2	0.992	46	42	-5	72668	FRSQ SC3	0.991	46	41	-4	71522	SOM G6	0.990	105	105	57	0	
71531	OSP1 PF	1.032	77	77	19	71532	OSP2 PF	1.032	77	77	19	71533	OSP3 PF	1.032	108	99	25	0	
71534	OSP4 PF	1.032	77	77	19	71535	OSP5 PF	1.032	77	77	19	71536	OSP6 PF	1.032	108	99	25	0	
71084	NEA GTPF	1.047	111	95	40*	71085	NEA GTPF	1.047	110	95	40*	71086	NEA STPF	0.000	80	0	0	0	
71251	CANAL G1	1.025	566	566	170	71252	CANAL G2	1.022	576	115	120*	71094	PLGRM G1	1.030	702	702	96	0	
71060	MYST G4	0.000	133	0	0	71061	MYST 5G	0.000	129	0	0	71062	MYST G6	0.000	136	0	0	0	
71063	MYST G7	1.036	565	565	231	71067	MYS8 GTS	1.059	520	460	231	71068	MYS8 ST	1.089	290	290	200*	0	
71069	MYS9 GTS	0.000	460	0	0	71070	MYS9 ST	0.000	290	0	0	71126	KEND CT	0.000	187	0	0	0	
71123	KENDALL	0.000	63	0	0	71124	KND JETS	0.000	48	0	0	71073	N.BOST 1	0.000	380	0	0	0	
71074	N.BOST 2	0.000	380	0	0	72066	WAMEBYNW	0.000	0	0	0	71946	SALEM G1	1.024	81	79	11	0	
71947	SALEM G2	1.025	78	78	11	71948	SALEM G3	1.020	143	143	21	71949	SALEM G4	1.021	360	350	64	0	
72869	SBRK G1	1.018	1318	1295	414	72868	NWNGT G1	0.990	422	422	42	72702	CONEDG1	1.002	169	169	42	0	
72703	CONEDG2	1.002	169	169	42	72704	CONEDG3	0.999	195	195	42	72870	SCHILLER	1.018	48	48	16	0	
72871	SCHILLER	1.017	50	50	16	72872	SCHILLER	1.018	48	48	16	72866	MERKM G1	1.019	113	110	5	0	
72867	MERKM G2	1.020	320	310	13	70365	WF WY #1	1.011	57	50	9	70366	WF WY #2	1.011	57	50	9	0	
70367	WF WY #3	1.011	125	95	19	70368	WF WY #4	1.022	636	636	139	70705	VTYAK G	0.992	563	540	144	0	
73083	NRTHFD12	1.003	540	540	69	73084	NRTHFD34	1.007	540	400	69	72512	BRSWP G1	1.020	294	280	79	0	
72513	BRSWP G2	1.022	294	200	79	73085	MT.TOM	0.000	146	0	0	70375	0.000	0	0	0	0		
70376	0.000	0	0	0	70377	AEC G1	0.000	55	0	0	70378	AEC G2	0.000	55	0	0	0		
70379	AEC G3	0.000	55	0	0	72373	MPLP 1PF	1.042	109	108	53*	72374	MPLP 2PF	1.025	45	44	27*	0	
73652	BE 11	1.005	170	90	33	73653	BE 12	0.998	170	170	33	72986	BERKFW	1.021	305	280	23	0	
73654	BE 10 ST	0.998	180	180	33	73072	ALT12 PF	1.014	65	65	6	73073	ALT34 PF	1.013	81	81	6	0	
73069	MAPR1 PF	1.030	106	83	33	73070	MAPR2 PF	1.031	106	83	33	73071	MAPR3 PF	1.022	95	78	33	0	
73080	WSPFLD 3	0.993	107	107	1	70389	BUCKS G4	1.043	191	174	66	70060	MIS GT1	1.079	0	117	68*	0	
70061	MIS GT2	1.079	0	117	68*	70062	MIS ST	1.074	0	116	60*	70386	WBK G1	0.000	185	0	0	0	
70387	WBK G2	1.043	185	172	86	70388	WBK G3	1.043	196	187	88	70381	RPA CG1	1.043	179	179	75	0	
70382	RPA SG2	1.043	93	93	35	73566	LAKERD#2	0.991	305	305	27	73565	LAKERD#1	0.993	280	280	27	0	
73567	LAKERD#3	0.991	305	305	27	71095	ANPBLCK1	1.045	9999	290	42	71096	ANPBLCK2	1.045	9999	290	42	0	
72671	RISE G1	1.049	176	176	78	72672	RISE G2	1.049	176	176	78	72673	RISE G3	0.000	196	0	0	0	
72377	BELL #1	1.067	290	270	92	72378	BELL #2	0.000	290	0	0	91787	0.000	0	0	0	0		
91786	0.000	0	0	0	91787	0.000	0	0	0	0	71950	GRANRDG1	1.051	280	280	50	0		
71951	GRANRDG2	1.081	280	280	140*	72701	AESSTG	1.035	250	281	16	0	0.000	0	0	0	0		

	MW	MX		MW	MX		MW	MX
MILLSTONE	2037	316	BRPT-Energy	170	33	MIDDLETOWN	633	136
MONTVILLE	483	-60	NORWALK	327	87	BRIDGEPORT	985	165
NHHARBOUR	447	0	DEVON	214	37	BRAYTONPT	868	178
MANCHSTRST	425	67	SOMERSET	105	57	OSP	506	126
NEA	190	80	PAWTKTPWR	63	-12	ENRON	152	80
CANAL	681	290	PILGRIM	702	96	MYSTIC	1315	661
NEWBOSTON	0	0	SALEMHBR	650	106	SEABROOK	1295	414
NEWINGTON	422	42	SCHILLER	146	49	MERRIMACK	420	18
STONYBROOK	0	0	WYMAN	831	177	VTYANKEE	540	144
BEARSWAMP	480	158	NORTHFIELD	940	139	MASSPWR	244	100
ANP-BELLINGHAM	270	92	ANP-BLACKSTONE	580	83	EMI-TIVERTON	0	0
EMI-DIGHTON	185	30	MILLENNIUM	0	0	ALTRESCO	146	11
MIS	350	196	AEC	0	0	RPA	272	110
Westbrook	359	174	Bucksport	174	66	Meriden	0	0
Wallingford	153	20	HOPE-RISE	352	156	Berkshire	280	23
LakeRd	890	82	Granite-Ridge	841	206	Fore_River	587	-5
Kendall	0	0	SEMASS	70	12	DPA	62	25
Potter	76	-3	Taunton	124	60	UAE_Lowell	0	0
UAE_TEWKS	0	0						

INTERFACE FLOWS

BOSTON IMPORT	3600	3636	-7*	NB-NE	700	701	-8	NORWLK-STAMFORD	1000	926	-51
SEMA/RI EXPORT	2200	1245	53*	MAINE-NH	1400	1145	-136	NNE-SCOBIE+394	2550	2865	139
NORTH-SOUTH	3400	2932	-58	SEABROOK-SOUTH	1400	1817	215	CMFD/MOORE-SO	920	48	29*
EAST-WEST	2000	565	-20*	SNOPYOND-SOUTH	4000	1215	27*	CONN EXPORT	2100	-522	153*
NY-NE	2200	408	-216*	SW CONN IMPORT	1700	869	7	NEMA/BOS IMPORT	4000	4146	-32*
PLAT PAR	600	114	11	SEMA EXPORT		-154	-76	CONN IMPORT	2500	1415	-248*

HVDC TRANSFERS FROM H-Q

HIGHGATE = 197                      PHII-P1 = 750                      PHII-P2 = 750





BUS VOLTAGES

~~~~~				~~~~~				~~~~~			
	V	LMT		V	LMT		V	LMT		V	LMT
72694	SEBRK345	345	357.	71786	SANDY PD	345	352.	71789	TEWKS	345	354.
71781	GLDN HIL	345	355.	71884	GLDN HLS	115	118.	70758	NO. CAMB	345	355.
70815	N.CAMB	115	117.	70756	WOBURN	345	355.	70799	WOBURN	115	117.
70766	KINGSTON	345	355.	70831	KINGB BE	115	119.	70786	STOUGHTN	345	0. *E
70788	HYDE PK	345	0. *E	70791	HYDE PK	115	0. *E	70759	MYSTIC	345	355.
71797	MILLBURY	345	352.	70772	W MEDWAY	345	353.	70780	WWALP345	345	353.
70895	W WALPOL	115	118.	70783	PILGRIM	345	358.	70773	NEA 336	345	353.
71193	CANAL	345	355.	70781	HOLBROOK	345	354.	70900	HOLBROOK	115	117.
70795	FRMNGHAM	230	233.	70870	FRMNGHAM	115	119.	70789	WALTHAM	230	234.
70810	WLTHM PS	115	119.	70836	K-ST-1	115	118.	70837	K-ST-2	115	118.
70860	K ST	115	0. *E	70888	BAKER ST	115	119.	70759	MYSTIC	345	355.
70818	MYSTC MA	115	118.	71891	SALEM HR	115	117.	71193	CANAL	345	355.
71133	CARVER	345	355.	71139	CARVR CE	115	118.	71202	BRNSTBL	115	120.
71217	BOURNE	115	119.	71141	TREMONT	115	119.	71264	ACUSHNET	115	118.
71266	HIGH HIL	115	118.	72096	MILLBURY	115	117.				

0.0  
AREA/ZONE TOTALS

NEPOOL_GEN	12125	NEPOOL_LOAD	11955	NEPOOL_LOSS	309	NEPOOL_INT	-135
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YEAR 2006 - SPRING LIGHT LOAD  
CASE D

GENERATION

				GENERATION													
	V	MAX	MW	MX		V	MAX	MW	MX		V	MAX	MW	MX			
73562	MILL#2	0.000	904	0	0*	73563	MILL#3	0.000	1146	0	0*	73555	MIDDTN#2	0.000	117	0	0*
73556	MIDDTN#3	0.000	233	0	0*	73557	MIDDTN#4	1.027	400	300	200*	73558	MONTV#5	0.969	81	81	0
73559	MONTV#6	0.000	402	0	0	73549	SMD11112J	1.058	93	72	4*	73550	SMD1314J	1.058	93	72	4*
73551	NORHAR#1	0.000	162	0	0	73552	NORHAR#2	0.000	168	0	0	73646	BPTHBR#1	0.000	0	0	0
73647	BPTHBR#2	0.960	170	165	0	73648	BPTHBR#3	0.948	375	375	-24	73649	BPTHBR#4	0.000	22	0	0
73651	NH HARBR	0.975	447	447	0	73553	DEVON#7	0.000	107	0	0	73554	DEVON#8	0.000	107	0	0
71739	TAUNTON	0.000	0	0	0	72372	BP #1 GN	0.000	241	0	0	72375	BP #2 GN	0.000	241	0	0
72370	BP #3 GN	0.992	605	510	-18	72371	BP #4 GN	0.988	425	421	-14	72661	MANCH09A	0.000	119	0	0
72662	MANCH10A	0.000	119	0	0	72663	MANCH11A	0.000	119	0	0	72666	FRSQ SC1	0.000	46	0	0
72667	FRSQ SC2	0.000	46	0	0	72668	FRSQ SC3	0.000	46	0	0	71522	SOM G6	0.000	105	0	0
71531	OSP1	PF 0.000	77	0	0	71532	OSP2	PF 0.000	77	0	0	71533	OSP3	PF 0.000	108	0	0
71534	OSP4	PF 0.000	77	0	0	71535	OSP5	PF 0.000	77	0	0	71536	OSP6	PF 0.000	108	0	0
71084	NEA GTPF	0.994	111	95	0	71085	NEA GTPF	0.994	110	95	0	71086	NEA STPF	0.995	80	80	0
71251	CANAL G1	0.969	566	566	0	71252	CANAL G2	0.000	576	0	0	71094	PLGRM G1	1.046	702	702	212
71060	MYST G4	0.000	133	0	0	71061	MYST 5G	0.000	129	0	0	71062	MYST G6	0.000	136	0	0
71063	MYST G7	0.978	565	300	-150	71067	MYS8 GTS	0.000	520	0	0	71068	MYS8 ST	0.000	290	0	0
71069	MYS9 GTS	0.000	460	0	0	71070	MYS9 ST	0.000	290	0	0	71126	KEND CT	0.000	187	0	0
71123	KENDALL	1.025	63	63	27	71124	KND JETS	0.000	48	0	0	71073	N.BOST 1	0.000	380	0	0
71074	N.BOST 2	0.000	380	0	0	72066	WAMEBYNW	0.000	0	0	0	71946	SALEM G1	0.000	81	0	0
71947	SALEM G2	0.000	78	0	0	71948	SALEM G3	0.000	143	0	0	71949	SALEM G4	0.977	360	413	-72
72869	SBRK G1	1.004	1318	1295	239	72868	NWNGT G1	0.000	422	0	0	72702	CONEDG1	0.000	169	0	0
72703	CONEDG2	0.000	169	0	0	72704	CONEDG3	0.000	195	0	0	72870	SCHILLER	1.009	48	48	11
72871	SCHILLER	1.009	50	50	11	72872	SCHILLER	1.009	48	48	11	72866	MERMK G1	0.000	113	0	0
72867	MERMK G2	0.000	320	0	0	70365	WF WY #1	1.003	57	52	5	70366	WF WY #2	1.004	57	32	5
70367	WF WY #3	1.004	125	94	11	70368	WF WY #4	0.000	636	0	0	70705	VTYAK G	0.958	630	630	75
73083	NRTHFD12	0.965	540	-500	36	73084	NRTHFD34	0.965	540	-500	36	72512	BRSWP G1	0.000	294	0	0
72513	BRSWP G2	0.000	294	0	0	73085	MT.TOM	0.999	146	146	0	70375		0.000	0	0	0
70376		0.000	0	0	0	70377	AEC G1	0.000	55	0	0	70378	AEC G2	1.113	55	50	36
70379	AEC G3	1.113	55	50	36	72373	MPLP 1PF	0.985	109	108	-36	72374	MPLP 2PF	0.997	45	44	-21
73652	BE 11	0.000	170	0	0	73653	BE 12	0.935	170	170	-24	72986	BERKFWR	1.043	305	280	63
73654	BE 10 ST	0.000	180	0	0	73072	ALT12 PF	1.008	65	65	0	73073	ALT34 PF	1.006	81	81	0
73069	MAPR1 PF	1.008	106	83	16	73070	MAPR2 PF	1.008	106	83	16	73071	MAPR3 PF	1.006	95	78	16
73080	WSPFLD 3	0.957	107	107	-37	70389	BUCKS G4	0.000	191	0	0	70060	MIS GT1	1.027	0	128	38*
70061	MIS GT2	1.027	0	128	38*	70062	MIS ST	1.022	0	152	32*	70386	WBK G1	1.043	185	172	87
70387	WBK G2	0.000	185	0	0	70388	WBK G3	0.000	196	0	0	70381	RPA CG1	0.000	179	0	0
70382	RPA SG2	0.000	93	0	0	73566	LAKERD#2	0.000	280	0	0	73565	LAKERD#1	1.050	280	280	174*
73567	LAKERD#3	0.000	280	0	0	71095	ANPBLCK1	0.998	9999	290	-23	71096	ANPBLCK2	0.998	9999	290	-23
72671	RISE G1	0.991	176	176	7	72672	RISE G2	0.000	176	0	0	72673	RISE G3	0.997	196	0	7
72377	BELL #1	0.000	290	0	0	72378	BELL #2	0.000	290	0	0	91787		0.000	0	0	0
91786		0.000	0	0	0	91787		0.000	0	0	0	71950	GRANRDG1	0.000	280	0	0
71951	GRANRDG2	0.000	280	0	0	72701	AESSTG	0.000	250	0	0	0	0.000	0	0	0	

	MW	MX		MW	MX		MW	MX
MILLSTONE	0	0	BRPT-Energy	165	0	MIDDLETOWN	300	200
MONTVILLE	81	0	NORWALK	0	0	BRIDGEPORT	710	-49
NHHARBOUR	447	0	DEVON	0	0	BRAYTONPT	931	-32
MANCHSTRST	0	0	SOMERSET	0	0	OSP	0	0
NEA	270	0	PAWTKTPWR	63	-8	ENRON	152	-57
CANAL	566	0	PILGRIM	702	212	MYSTIC	300	-150
NEWBOSTON	0	0	SALEMHR	413	-72	SEABROOK	1295	239
NEWINGTON	0	0	SCHILLER	145	34	MERRIMACK	0	0
STONYBROOK	0	0	WYMAN	177	21	VTYANKEE	630	75
BEARSWAMP	0	0	NORTHFIELD	-1000	72	MASSPWR	244	49
ANP-BELLINGHAM	0	0	ANP-BLACKSTONE	580	-46	EMI-TIVERTON	0	0
EMI-DIGHTON	0	19	MILLENNIUM	0	0	ALTRESKO	146	0
MIS	408	108	AEC	99	72	RPA	0	0
Westbrook	172	87	Bucksport	0	0	Meriden	0	0
Wallingford	0	0	HOPE-RISE	176	14	Berkshire	280	63
LakeRd	280	174	Granite-Ridge	0	0	Fore_River	587	-79
Kendall	63	27	SEMASH	70	-7	DPA	62	-10
Potter	76	-10	Taunton	39	7	UAE_Lowell	0	0
UAE_TEWKS	0	0						

INTERFACE FLOWS

BOSTON IMPORT	3600	1362	-127*	NB-NE	700	262	33	NORWLK-STAMFORD	1000	488	-132
SEMA/RI EXPORT	2200	2291	-165*	MAINE-NH	1400	785	-69	NNE-SCOBIE+394	2550	1727	50
NORTH-SOUTH	3400	1744	-13	SEABROOK-SOUTH	1400	1138	87	CMFD/MOORE-SO	920	-11	-30*
EAST-WEST	2000	1737	-65*	SNDYPOND-SOUTH	4000	469	-118*	CONN EXPORT	2100	-906	134*
NY-NE	2200	-387	74*	SW CONN IMPORT	1700	240	-91	NEMA/BOS IMPORT	4000	1501	-177*
PLAT PAR	600	109	-30	SEMA EXPORT		541	-82*	CONN IMPORT	2500	1193	-60*

HVDC TRANSFERS FROM H-Q

HIGHGATE = 197                      PHII-P1 = 0                      PHII-P2 = 0

BUS VOLTAGES

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	V	LMT		V	LMT		V	LMT		V	LMT		
72694	SEBRK345	345	357.	71786	SANDY PD	345	352.	71789	TEWKS	345	354.		
71781	GLDN HIL	345	355.	71884	GLDN HLS	115	118.	70758	NO. CAMB	345	355.		
70815	N.CAMB	115	117.	70756	WOBURN	345	355.	70799	WOBURN	115	117.		
70766	KINGSTON	345	355.	70831	KINGB BE	115	119.	70786	STOUGHTN	345	0.		
70788	HYDE PK	345	0.	*E	70791	HYDE PK	115	0.	*E	70759	MYSTIC	345	355.
71797	MILLBURY	345	353.	70772	W MEDWAY	345	353.	70780	WWALP345	345	353.		
70895	W WALPOL	115	118.	70783	PILGRIM	345	358.	70773	NEA 336	345	353.		
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70810	WLTHM PS	115	119.	70836	K-ST-1	115	119.	70837	K-ST-2	115	119.		
70860	K ST	115	0.	*E	70888	BAKER ST	115	119.	70759	MYSTIC	345	355.	
70818	MYSTC MA	115	119.	71891	SALEM HR	115	117.	71193	CANAL	345	355.		
71133	CARVER	345	355.	71139	CARVR CE	115	118.	71202	BRNSTBL	115	120.		
71217	BOURNE	115	119.	71141	TREMONT	115	119.	71264	ACUSHNET	115	119.		
71266	HIGH HIL	115	118.	72096	MILLBURY	115	117.						

0.0  
AREA/ZONE TOTALS

NEPOOL\_GEN 12164 NEPOOL\_LOAD 11955 NEPOOL\_LOSS 288 NEPOOL\_INT -76