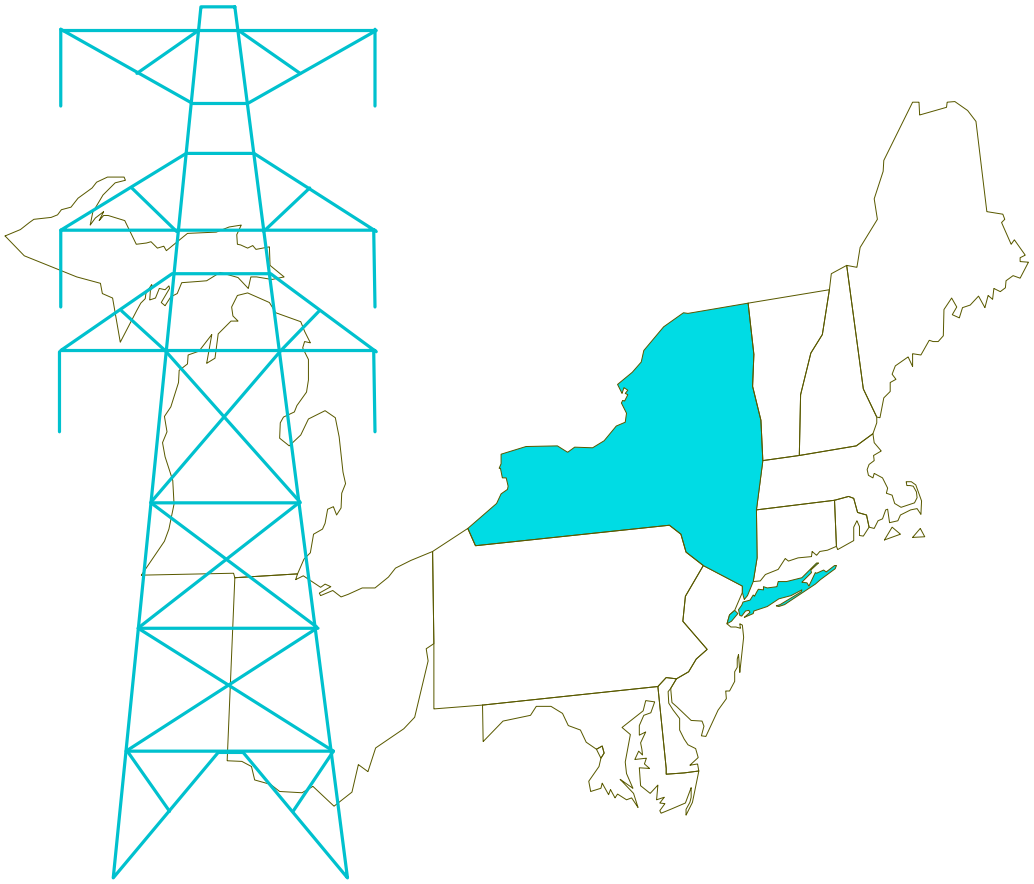
NEW YORK POWER POOL
SUMMER 1999
OPERATING STUDY



APRIL 1999

Prepared by:

Operating Studies Task Force

NYPP OPERATING STUDY - SUMMER 1999

APRIL 1999

Prepared By

The NYPP Operating Studies Task Force

M.	Balcanoff	Central Hudson Gas & Electric Corporation
L.	Henry	Consolidated Edison Co. of NY, Inc.
G.	Wong	Consolidated Edison Co. of NY, Inc.
S.	Beauzile	KeySpan Energy
A. J.	Schuff	New York Power Authority
G. A.	Campoli	New York Power Pool
R. T.	Gonzales	New York Power Pool
W.	Lamanna	New York Power Pool
B. T.	Gordon	New York State Electric & Gas Corp.
T. C.	Nguyen	New York State Electric & Gas Corp.
M. S.	Forchilli	Niagara Mohawk Power Corporation
M..	Schiavone	Niagara Mohawk Power Corporation
J. Y.	Pousty	Orange and Rockland Utilities, Inc.
T.	Dasson	Rochester Gas & Electric Corp.
T. J.	Witowski, Jr.	New England Power Exchange
M.	Falvo	Ontario Hydro
N.	Halladay	PJM Interconnection Office

Principal Investigators

R.R. Tapia	New York Power Pool
D.D. Tran	New York Power Pool
C.G. Giglio	New York Power Pool
B.T. Kranz	New York Power Pool
P.N. Tran Ha	New York Power Pool

TABLE OF CONTENTS

EXECUTIVE REPORT

APPENDICES

L. NYPP OASIS PATHS NON-RECALLABLE TTC'S

NYPP OPERATING STUDY - SUMMER 1999

1. INTRODUCTION

The following report, prepared by the Operating Studies Task Force (OSTF) at the direction and guidance of the System Operations Advisory Subcommittee (SOAS), highlights the significant results of the thermal analysis completed for the Summer 1999 capability period. The thermal transfer limits and voltage limits contained herein were determined for the Summer pool coincident peak loads and represent the system capability determined by thermal and voltage analysis for the condition represented. The results of this investigation indicate that the NYPP interconnected bulk power system can be operated reliably in accordance with the "Standards for Planning and Operating the NYPP Bulk Power System" (November 1, 1996), and the NYPP Operating Policy, for the upcoming Summer capability period.

2. RECOMMENDATIONS

The following recommendations are presented based on the analysis and results documented in this report.

1) System Operators should monitor the critical facilities noted in the enclosed tables, along with other limiting conditions, while maintaining bulk system power transfers within secure operating limits.

2) The OSTF has reviewed NYPP Stability Limits in Appendix K and recommends the continued review and analysis of the cross state stability limits analysis.

3. SYSTEM REPRESENTATION AND BASE STUDY ASSUMPTIONS

I. System Representation

The representation for NYPP was retrieved from the NYPP Databank and reflects a Summer peak load condition. The remaining NPCC members and neighboring pool representations were obtained from MEN/VEM Summer 1999 power flow. The NYPP load level of 29,000MW is based on forecast typical coincident summer peak conditions, as documented in "NYPP Load and Capacity Data 1998" (July 1998).

The 1999 NYPP representation includes approximately 5508 MW of Non-Utility Generation (NUG). Some of the NUG's are modeled conservatively with no reactive capability, others are represented with post-contingency support only. The remainder of the NUG's provide var support as requested by the utility for local voltage support.

With regard to utility-owned generation, the listing below summarizes the significant generating units assumed out of service for the upcoming capability period. The generator outages listed below are based on units anticipated to be out of service for reserve shut down or cold standby. Upon review of the 1999 NYPP Scheduled Maintenance Outages MP7-B, no major generation was scheduled to be out of service.

TABLE 1
NYPP Generation Outages
SUMMER 1999

UNIT NAME	BUS #	UNIT ID	DMNC (MW)
Bowline Pt. 2	79391	2	605
Oswego 6	77953	6	820
Total Outages			**1425**

The inter-pool transactions, modeled in this representation, summarized in Appendix A, were obtained from the MEN/VEM 1999 Summer Basecase.

The PSEG and Con Edison phase-angle-regulator (PAR) schedules were adjusted to reflect the PSEG 1000 MW Wheel with Consolidated Edison. The Branchburg - Ramapo 500 kV (5018) tie is adjusted to reflect transactions as stated in the "Ramapo Phase Angle Regulator Operating Procedure", December 11, 1987. This study was performed based on the assumption that phase angle regulators will not be adjusted following a contingency until their effect and new desired loadings are determined.

II Base Study Assumptions

The Normal and Emergency Criteria thermal limits have been determined by the PTI PSS/e thermal analysis activities (TLTG). The thermal limits presented have been determined for all transmission facilities scheduled in service during the 1999 Summer period. The voltage analysis was determined using NYPP's Voltage Contingency Analysis Package (VCAP). It utilizes PTI PSS/e AC power flows to determine post contingency voltage conditions. The thermal and voltage analysis presented in this report has been performed in accordance with the "Standards for Planning and Operating the NYPP Bulk Power System", November 1, 1996.

Thermal transfer capability between NYPP and Neighboring Pools is also provided as part of this report. These transfer limits supplement, but do not change, existing internal operating limits. There undoubtedly are *lines internal to each pool, which if they should trip or be placed out of service, could reduce the transfer capability between pools. Reductions due to these situations are considered to be the responsibility of the individual pools.* Furthermore, the transfer condition between neighboring areas can have a significant effect on NYPP-PJM and OH-NYPP incremental transfer capacity. Since the converse is also true, continued coordination of transfers between Ontario-Hydro, Michigan, PJM and NYPP is required to provide optimal transfer conditions while maintaining total system security.

4. DISCUSSION

I. NYPP Cross-State Analysis

A. Thermal Analysis

The transfer limits have been determined for various internal operating interfaces. The limits have been reported as interface limits for normal and emergency criteria contingencies. The results of the thermal analysis are presented in Section 5, Table 1.

B. Thermal Limit Sensitivities Testing

The thermal limits presented in Section 5 were determined using the base conditions and transactions. The cumulative effects of various intra and inter-pool transactions and significant changes in load or generation patterns in the system may cause significant changes in transfer limits. Some of these effects have been presented in Appendix G.

Since the schedule of various phase shifters can vary from day-to-day, sensitivity analysis for various Interfaces have been determined. Graphs showing the effect of phase shifters on these interfaces limits are included in Appendix G.

C. NYPP System Conditions

CHG&E and Northeast Utilities will operate the Smithfield-Falls Village 69 kV line (FV/690) normally closed through the Summer 1999 capability period. The maximum allowable transfer on this line is 28 MVA, based on a thermal limit in the Northeast Utilities 69 kV system. The FV/690 will have overcurrent protection that will trip the line in the event of an actual overload. This facility will not limit NYPP-NE transfers.

New England expects to have Millstone unit number two back in service for the Summer 99 Capability period at 862 MW. The import from Hydro Quebec into New England through the DC Ties (Phase II and Highgate) is at 2000 MW, and the import from New Brunswick to New England is 700 MW.

During this Summer Capability period, several of the Ontario Hydro nuclear units will not be available. Pickering A units one through four which are located on the northern shore of Lake Ontario just east of Toronto, will be out of service under the Nuclear Recovery Program, and they are not likely to be back in service before the year 2000. Three units at the Bruce station which is located on the eastern shore of Lake Huron will not be available on an

extended forced outage and they are not likely to be back in service before the year 2000. Ontario Hydro is operating the Lenox units three and four at 550 MW each. This creates a reduction of generation in the province of Ontario of over 3300 MW.

D. West Woodbourne Transformer

The Total-East interface may become restricted to significantly lower transfer levels for certain contingencies which would overload the West Woodbourne transformer. Therefore, when the West Woodbourne tie becomes the limiting facility, it may be removed from service to allow an increase in the Total-East transfer limit. An overcurrent relay is installed at West Woodbourne to protect for contingency overloads.

E. LIPA Import Analysis

Import limits for normal conditions were analyzed with base generator dispatch and PAR settings as described in Appendix B. Both normal and emergency limits are dispatch dependant and can vary based on generation and load patterns in the western LIPA region.

Import levels for emergency conditions were analyzed with base case conditions modified. The Con Ed - LIPA PARS were adjusted to allow for maximum transfer capability into LIPA. The PAR settings employed for this condition are described below:

LIPA PAR Settings for Emergency Conditions

Lake Success	0 MW
Valley Stream	300 MW (into LIPA)
East Garden City	145 MW (into LIPA)

F. NYPP Oasis Firm Total Transfer Capability

The total transfer capabilities (TTC) are posted on the NYPP OASIS for transmission reservation purposes. The TTC's are reported and posted on an OASIS path basis. These paths are subsets of the existing NYPP operating interfaces and are shown in Appendix E. The firm TTC's for the NYPP paths are documented in Appendix L. These TTC's are reviewed and maintained on a seasonal basis. Also included is an OASIS map identifying the paths.

G. Transfer Limits for Outage Conditions

Determination of transfer limits for outage conditions are the responsibility of the NYPP Operations Planning section based on their daily analysis using actual and forecast system conditions.

H Transient Stability Limits

The thermal interface limits in Section 5 do not include the results of transient stability testing. The existing all lines in service and maintenance outage stability interface limits are summarized in Appendix K.

I Voltage Analysis

Central East

The Central East area voltage performance was tested at transfer levels over 3100 MW with 3 of 5 Oswego Complex units and Sithes generation in service. The maximum stability limit for Central East under these conditions is 3100 MW. Under these conditions, voltage drop limits were not reviewed in detail. The results from the analysis indicated that the existing OP-1 Appendix B voltage limits are adequate for these predicted voltage conditions. A summary of critical OP-1 voltage limits are listed in Section 5, Table 5.

The VCAP analysis focused on the post-contingency Central East transfer level for critical voltage collapse contingencies. The post-contingency Central East transfer limits have been determined for various New England contingencies and critical line contingencies internal to NYPP. The three most limiting elements are the loss of Marcy South Northern Double Circuit Tower, loss of New England Phase II HVDC at 1200 MW and loss of New Scotland #99 345 kV bus fault. This voltage analysis is a review of previously determined post-contingency voltage collapse limits based on the report "NYPP Central East Voltage Analysis - 1995 ". The scenario tested was 3 of 5 Oswego Complex units in services, including Nine Mile Pt. 2. The results are summarized in table 5 and are comparable to the existing post contingency limits for this condition. Review of the Central East Maximum Transfer Levels has indicated that the existing limits are adequate.

Dysinger East

The Dysinger East interface was varied with generation shifts between Ontario Hydro, and SENY. The contingency caused by a stuck breaker at Rochester 345 kV station has been found to be one of the limiting contingencies. This contingency includes loss of Pannell Rd. to Rochester 345 kV and Rochester to Kintigh 345 kV. The projected precontingency voltage limits required to maintain the post-contingency voltage limit at Rochester (St80) is 337 kV. The projected precontingency voltage limits required to maintain the post-contingency voltage limit at Pannell Rd. is 337 kV for the loss of Massena-Marcy (MSU-1) and cross-tripping of Chateauguay. The existing OP-1 Appendix B voltage limits are adequate for

these predicted voltage conditions for the system tested. A summary of critical OP-1 voltage limits are listed in Section 5, Table 5.

The loss of Massena-Marcy (MSU-1) and cross-tripping of Chateauguay can be the worst contingency for the Rochester (ST80) 345 kV bus. The severity of this contingency is dependent on coincident levels of Dysinger East and Chateauguay Import levels. Sensitivities for these conditions were not addressed in this study.

Southern Tier

The Homer City-Watercure (30) 345 kV line was used to monitor the voltage response in the Southern Tier area.

The analysis indicates that for the loss of Lafayette-Oakdale the pre contingency voltage limit at the Oakdale 345 kV bus is 334 kV. This contingency resulted in a 15 kV voltage drop at the Oakdale 345 kV bus. The analysis also shows that a 214 kV limit is required for Watercure 230 kV station to protect for the loss of Massena-Marcy (MSU-1) and cross tripping of Chateauguay. This contingency results in an 7 kV voltage drop at Watercure 230 kV station. A summary of critical OP-1 voltage limits are listed in Section 5, Table 5.

II. NYPP - NEW ENGLAND ANALYSIS

A. Thermal Analysis

The transfer limits have been determined for the NYPP - New England interface. The limits have been reported as transfer capability for normal and emergency criteria contingencies. Since this is a closed interface the interface limit and the tranfer capability limit for NYPP - New England and New England - NYPP are one in the same. The results of this analysis is presented in Section 5, Table 2.

B. Guides for Optimum Utilization of Ties

These transfer limits were determined for a particular load and generation pattern. When system conditions vary from those forecast in the study, Stability and Thermal Transfer Limits will vary. The following guides are not contained in the TLTG output presented but should be used in addition to the enclosed tables.

In addition, the exhibits in Appendix G demonstrate the optimization of the net transfer limit by regulating the flow on the Northport-Norwalk Harbor tie.

NYPP to NEW ENGLAND

Northport - Norwalk Harbor Cable Flow

With power flowing from NYPP to New England on the Northport to Norwalk Harbor (1385) cable, potential overloads of the Norwalk Harbor to Rowayton Junction (1867) and the Norwalk Harbor to Rowayton Junction (1880) circuits must be considered as follows:

The sum of the flow from Norwalk Harbor to Rowayton Junction (1867) should not exceed 237 MVA (Normal rating of Norwalk Harbor to Rowayton Junction (1867).

The sum of the flow from Norwalk Harbor to Rowayton Junction (1880) should not exceed 214 MVA (Normal rating of Norwalk Harbor to Rowayton Junction (1880)).

NEW ENGLAND to NYPP

Norwalk Harbor - Northport Cable Flow

With power flowing from New England to NYPP on the Norwalk Harbor to Northport (1385) cable, potential overloads of the Trumbull Junction to Weston (1730) circuit must be considered as follows:

The algebraic sum of the flow from Trumball Junction to Weston (1730) and 27% of the flow from Pequonnock to Trumball Junction (1710) and 29% of the flow from Devon to Trumball Junction (1710) should not exceed 239 MVA (STE rating of Trumball Junction to Weston (1730)).

The algebraic sum of the flow from Trumbull Junction to Weston (1730) and 25% of the flow from Pequonnock to Ash Creek (91001) and 21% of the flow from Bridgeport Resco should not exceed 239 MVA (STE rating of Trumbull Junction to Weston (1730)).

In order to transfer 200 MVA from Norwalk Harbor to Northport, Norwalk Harbor generation should be on.

C. Overload Mitigation System

The Plattsburgh, New York to Sandbar, Vermont circuit (PV-20) including a phase angle regulating transformer is protected by VELCOs Overload Mitigation System (OMS). When a contingency causes the flow on the PV-20 to increase beyond the 249 MVA threshold for OMS activation, the system inserts a series inductor which lowers the post-contingency flow. This system is modeled in the loadflow in VCAP and TLTG for several generation and HVDC contingencies.

D. Stuck Breaker Contingencies in New England

During all lines in conditions, New England and the satellites are observing stuck breaker contingencies in New England that could lead to an unacceptable inter - area impact for normal transmission contingencies.

E. Transient Stability Limitations

For certain system configurations, stability performance determines the transfer capability between the pools. For those instances, the limits have been obtained from the report "1992-1996 NYPP-NEPOOL TRANSFER LIMIT STUDY - OCTOBER 1992", and have been adjusted to include the NYPP safety margin. These stability transfer limits are presented in Appendix K.

The stability limits are expressed in terms of the transfer on the "Northern Ties", i.e., excluding LIPA cable flow. Stability limits for transfers from New England to New York are a function of the New England MW load level, and incorporate the effect of Northfield and Bear Swamp in the generating and pumping mode.

III. NYPP - PJM ANALYSIS

A. Thermal Analysis

The thermal limits have been determined for the NYPP - PJM interface. The limits have been reported as interface limits for normal and emergency criteria contingencies. The interface limits are a measure of the power transfer capabilities between PJM and NYPP. The results of this analysis is presented in Section 5, Table 3.

B. PJM - NYPP Transfer Cases

Additional test level transfer cases were developed for the NYPP to PJM and PJM to NYPP emergency criteria thermal analysis. The interfaces were preloaded with anticipated generation shifts to reduce the linear effects of the thermal analysis and the phase shifters associated with the interface were optimized in the direction of the transfer. The cases were dispatched to levels described in Appendix B, page 4 and the PAR's were adjusted to reflect the higher transfer conditions, also shown in Appendix B, page 4.

C. Opening of PJM to NYPP 115 kV Ties as Required

The normal criteria thermal transfer limits presented in Section 5 were determined for an all-lines-in service condition. The PJM-NYPP 115 kV facilities (Warren-Falconer, North Waverly-East Sayre, and Tiffany-Goudey), may be opened under specific transfer conditions if they impose a limit on the PJM or NYPP operation. Since overcurrent relays exist on both the Warren-Falconer 115 kV line as well as the North Waverly-East Sayre 115 kV lines, these lines would trip by relay action for an *actual overload* condition. Laurel Lake-Goudey may be opened if it imposes an actual or post-contingency overload condition since there is no overload protection.

The PJM - NYPP emergency criteria limits presented in this report consider if these ties can be opened in accordance with existing NYPP and PJM Operating Procedures. In some cases these lines were opened to obtain a higher emergency transfer. The results illustrated in Table 3 assume these lines would be opened if necessary. A more detailed review of the control actions and the lines which were opened is presented in appendix F.

IV. OH - NYPP

A. Thermal Analysis

The thermal limits have been determined for the NYPP - Ontario interface. The limits have been reported as interface limits for normal and emergency criteria contingencies. The interface limits are a measure of the power transfer capabilities between Ontario and NYPP. The results of this analysis is presented in Section 5, Table 4.

B. Transient Stability Limitations

At the direction of the OH-NYPP System Studies Subcommittee, the OH-NYPP Transient Stability Study Working Group has conducted a thorough review and analysis of appropriate transient stability limits. The report "NYPP OH TRANSIENT STABILITY TESTING REPORT on DIRECT TIE TRANSFER CAPABILITY - OCTOBER 1993", summarizes the results of single line outage stability testing which are listed in Appendix K of this report. Additional transient stability limits will be reported by the OH-NYPP SSS as appropriate.

C. Generation Rejection for Loss of L33P/L34P-Moses

The preceding interface limits were determined for a particular load, transmission and generation pattern. When system conditions vary from those forecast in the study, normal interface limits may vary. Generation rejection facilities are available at Beauharnois and Saunders to reject specific amounts of generation for the loss of Moses-L33P and/or Moses-L34P interconnection. These rejection facilities will be implemented by Ontario Hydro, consistent with the economic operation and system limits.

Of the two circuits, L33P is most limiting. At 0 degrees phase shift the limiting STE rating is 465 MVA (regulator rating). The outage distribution factor for the loss of L34P is 0.601 and based on this, the maximum pre-contingency flow on each circuit should not exceed 290 MW. At 40 degrees phase shift the limiting STE rating is 334 MVA (phase shifter rating). The outage distribution factor for the loss of L34P is 0.462 and based on this, the maximum pre-contingency flow on each circuit should not exceed 228 MW.

This page is intentionally left blank

5. RESULTS: THERMAL ANALYSIS

This page is intentionally left blank

TABLE 1

NYPP CROSS STATE INTERFACE THERMAL LIMITS-SUMMER 1999
ALL LINES I/S

	DYSINGER EAST	WEST CENTRAL	UPNY-CONED	SPRAINBRK/ DUNWD-SO.	CONED-LIPA
NORMAL	3100(1)	2100(1)	4275(3)	3975(5)	950(6)
EMERGENCY	3200(1a)	2500(2)	4850(4)	3975(5)	1025(6a)*

	LIMITING ELEMENT				LIMITING CONTINGENCY
(1)	Rochester-Pannell Rd. (RP-2) 345 kV	@ LTE =	1501 MW	L/O	(S. BKR @ Rochester 345 kV) Rochester-Pannell 345 kV Rochester- 345/115 kV
(1a)	Niagara - Rochester (NR-2) 345 kV	@STE=	1686 MW	L/O	Kintigh-Rochester (SR-1) 345 kV
(2)	Rochester-Pannell Rd. (RP-2) 345 kV	@STE =	1685 MW	L/O	Rochester-Pannell (RP-1) 345kV
(3)	Leeds - Pleasant Valley (91)	@ LTE =	1538 MW	L/O	Leeds - Pleasant Valley (92)
(4)	Leeds - Pleasant Valley (91)	@STE =	1724 MW	L/O	Leeds - Pleasant Valley (92)
(5)	Dunwoodie - Rainey 345 kV	@ Nor =	715 MW	for	Pre - Contingency Loading
(6)	Dunwoodie - Shore Rd (Y50) 345 kV	@ LTE =	877 MW	L/O	Hmp Hrbr - Dvnpt (Y49) 345 kV
(6a)	Dunwoodie - Shore Rd (Y50) 345 kV	@Nor =	599 MW	L/O	Pre - Contingency Loading

* This limit assumes Emergency Transfer Condition assumptions as discussed in the Executive Summary, Section 4.H. and is supplied by LIPA

NOTE: Some transfers may be stability limited. See Appendix K for existing transient stability limits.

TABLE 1.a

NYPP CROSS STATE INTERFACE THERMAL LIMITS-SUMMER 1999
ALL LINES I/S

	HQ -> NY @ 1200 MW	HQ -> NY @ 800 MW
CENTRAL EAST		
NORMAL	3000 MW (7)	2975 MW (7)
EMERGENCY	3300 MW (8)	3300 MW (8)
TOTAL EAST		
NORMAL	5975 MW (7)	6000 MW (7)
EMERGENCY	6600 MW (8)	6625 MW (8)
MOSES SOUTH		
NORMAL	2200 MW (11)	1900 MW (12)
EMERGENCY	3075 MW (13)	2900 MW (13)

	LIMITING ELEMENT				LIMITING CONTINGENCY
(7)	N. Scotland - Leeds (93) 345 kV	@ LTE =	1538 MW	L/O	N. Scotland - Leeds (94) 345 kV
(8)	N. Scotland - Leeds (93) 345 kV	@ STE =	1724 MW	L/O	N. Scotland - Leeds (94) 345 kV
(9)	Adirondack B1 - Moses 230 kV	@ LTE =	359 MW	L/O	Moses - Massena (A) 230 kV Moses - Massena (B) 230 kV
(10)	Adirondack B1 - Moses 230 kV	@ STE =	440 MW	L/O	Moses - Adirondack B2 230 kV
(11)	Adirondack-Porter B2 230 kV	@LTE=	359 MW	L/O	Adirondack-Porter B1 230 kV
(12)	Adirondack-Porter B1 230 kV	@LTE=	353 MW	L/O	Moses - Massena (A) 230 kV Moses - Massena (B) 230 kV
(13)	Adirondack-Porter B1 230 kV	@STE=	449 MW	L/O	Adirondack-Porter B2 230 kV

NOTE: Some transfers may be stability limited. See Appendix K for existing transient stability limits.

TABLE 2

NYPP-NEPOOL THERMAL INTERFACE/TRANSFER LIMITS - SUMMER 1999
ALL LINES I/S
DIRECT TIE LIMITS

N.Y. -> N.E.

	LIPA Cable @ 100 MW	LIPA Cable @ 0 MW
NORMAL	1025 MW (1)	1425 MW (1)
EMERGENCY	2025 MW (2)	2175 MW (1a)

N.E. -> N.Y.

	LIPA Cable @ 100 MW	LIPA Cable @ 200 MW
NORMAL	1650 MW (3)	1225 MW (3)
EMERGENCY	2350 MW (2)	1925 MW (2)

Note: LIPA Cable flow is positive in the direction of transfer.

	LIMITING ELEMENT				LIMITING CONTINGENCY
(1)	Norwalk - Northport 138 kV	@LTE=	315 MW	L/O	Long Mtn- Plumtree 345 kV Long Mtn -Frstbdge 345 kV Pleasant Vly-Long Mtn 345kV Frstbdge-Frost BR 345/115 kV
(1a)	Pleasant Vly - Long Mtn 345 kV	@STE=	1601 MW	L/O	Sandy Pond HVDC @ 1800MW
(2)	Norwalk - Northport 138 kV	@STE=	428 MW	L/O	Pleasant Vly - Long Mtn 345 kV
(3)	Norwalk - Northport 138 kV	@ LTE =	315 MW	L/O	(Sbkr @ Pleasant Vly 345 kV) Pleasant Vly - Long Mtn 345 kV Pleasant Vly - E.Fishkill 345 kV

Note: The NY-NE Direct Tie Limits were analyzed with Millstone #1 out-of-service, Connecticut Yankee and Maine Yankee retired.

TABLE 2.a

NYPP-NEPOOL THERMAL INTERFACE/TRANSFER LIMITS - SUMMER 1999
ALL LINES I/S
NYPP INTERNAL LIMITS

N.Y. -> N.E.

	LIPA Cable @ 100 MW	LIPA Cable @ 0 MW
NORMAL	1025 MW (1)	1250 MW (1a)
EMERGENCY	2025 MW (2)	1525 MW (4)

N.E. -> N.Y.

	LIPA Cable @ 100 MW	LIPA Cable @ 200 MW
NORMAL	1650 MW (3)	1225 MW (3)
EMERGENCY	1925 MW (5)	1975 MW(5)

Note: LIPA Cable flow is positive in the direction of transfer.

	LIMITING ELEMENT				LIMITING CONTINGENCY
(1)	Norwalk - Northport 138 kV	@LTE=	315 MW	L/O	Long Mtn - Plumtree 345 kV Long Mtn- Frstbdge 345 kV Pleasant Vly-LongMtn 345kV Frstbdge 345/115 kV
(1a)	Reynolds Rd. - Greenbush 115 kV	@ LTE =	197 MW	L/O	New Scotland - Alps (2) 345 kV
(2)	Norwalk - Northport 138 kV	@ STE =	428 MW	L/O	Pleasant Vly - Long Mtn 345kV
(3)	Norwalk - Northport 138 kV	@ LTE =	315 MW	L/O	(Sbkr@ Pleasant Valley 345 kV) Pleasant Vly-E. Fishkill 345kV Pleasant Vly-Long Mtn 345 kV
(4)	Reynolds Rd. - Greenbush - 115 kV	@ STE =	248 MW	L/O	Alps -New Scotland 345 kV
(5)	Bennington - Hoosick 115 kV	@ STE =	159 MW	L/O	Alps - Berkshire-Northfield 345 kV

Note: The NYPP Internal Limits were analyzed with Millstone #1 out-of-service, Connecticut Yankee and Maine Yankee retired.

TABLE 2.b

NYPP-NEPOOL THERMAL INTERFACE LIMITS-SUMMER 1999
ALL LINES I/S
NEPOOL INTERNAL LIMITS

	Total Ties	Total Ties
N.Y. -> N.E.	LIPA Cable @ 100MW	LIPA Cable @ 0MW
NORMAL	1525 MW[(1)]	1500 MW[(1)]
EMERGENCY	1525 MW[(1)]	1500 MW[(1)]
N.E. -> N.Y.	LIPA Cable @ 100MW	LIPA Cable @ 200MW
NORMAL	1600 MW[(2)]	1750 MW[(3)]
EMERGENCY	1700 MW[(4)]	1750 MW[(4)]

Note: LIPA Cable flow is positive in the direction of transfer.

	LIMITING ELEMENT				LIMITING CONTINGENCY
(1)	Bear Swamp-Pratts (E205E) 230 kV	@ STE =	369 MW	L/O	HQ - Phase II @ 1800 MW
(2)	Derby Junction-Stevenson (1560)115 kV	@ STE =	193 MW	L/O	(S. BKR @ Southington 345 kV) Southington-Frst Bridge(329) 345kV Haddam-Southington (362) 345 kV
(3)	Southington-Todd (1910) 115 kV	@ STE =	306 MW	L/O	(S. Bkr @Southington 345 kV) Southington-Frost Bridge (329) 345 kV Southington 345/115 kV (3X) XF
(4)	Southington - Todd (1910) 115 kV	@STE =	306 MW	L/O	Southington-Frst Bridge(329)345 kV

Note: The NEPOOL Internal Limits were analyzed with Millstone #1 out-of-service, Connecticut Yankee and Maine Yankee retired.

TABLE 3

NYPP PJM THERMAL LIMITS-SUMMER 1999
ALL LINES I/S

INTERFACE LIMITS

	NYPP FACILITY	DIRECT TIE	PJM FACILITY
PJM -> NYPP			
NORMAL	2725(3)	1425(2)	1800(1)
EMERGENCY	4200(5)	4025(4)	2775(1)
NYPP -> PJM			
NORMAL		-625(8)	-125(6)
EMERGENCY		1775(7)	1675(6)

TRANSFER CAPABILITY

	NYPP FACILITY	DIRECT TIE	PJM FACILITY
PJM -> NYPP			
NORMAL	3150(3)	1375(2)	1875(1)
EMERGENCY	5650(5)	5400(4)	3575(1)
NYPP -> PJM			
NORMAL		-275(8)	325(6)
EMERGENCY		2425(7)	2300(6)

	LIMITING ELEMENT				LIMITING CONTINGENCY
(1)	N. Meshoppen 230/115kV	@Emrg=	141 MW	L/O	Homer City - Watercure 345 kV
(2)	Warren-Falconer (171) 115 kV	@ Nor=	82 MW	for	Pre Contingency Loading
(3)	Oakdale - Watercure (71) 230 kV	@ LTE =	400 MW	L/O	Oakdale - Watercure (31) 345 kV
(4)	E. Towanda - Hillside (70) 230 kV	@ STE =	531 MW	L/O	Homer City - Watercure (30) 345 kV
(5)	Dunkirk-S. Ripley (68) 230 kV	@ STE =	530 MW	L/O	Homer City-Stolle Rd (37) 345 kV
(6)	Homer City 345/230 kV	@ Emrg =	733 MW	L/O	Homer City 345/230 kV
(7)	E. Towanda-Hillside (70) 230 kV	@ STE =	531 MW	L/O	Forest - Glade Tap-Lewis Run 230 kV
(8)	E. Sayre - N. Waverly 115 kV	@LTE=	124 MW	L/O	E. Towanda - Hillside 230 kV

NOTE: Emergency Limits may have required line outages as described in Section 4.III. Also PAR schedules have been optimized for the emergency limits

as described in appendix B. Some transfers may be stability limited. See Appendix K for existing transient stability limits.

TABLE 4

NYPP OH THERMAL INTERFACE LIMITS - SUMMER 1999
ALL LINES I/S

	L33/34P @ 0 MW			L33/34P @ 400 MW*		
	NYPP FACILITY	OH FACILITY	DIRECT TIE	NYPP FACILITY	OH FACILITY	DIRECT TIE
OH -> NY						
NORMAL	1150 (1)	2075 (3)	1975 (6)	1575 (1)	2475 (3)	2350 (6)
EMERGENCY	1275 (2)	2450 (4)	2350 (7)	1700 (2)	2775 (5)	2725 (7)

		L33/34P @ 200 MW**	
NY -> OH			
NORMAL	1075 (8)	1275 (8)	1650 (10)
EMERGENCY	1525 (8)	1725 (9)	1850 (11)

	LIMITING ELEMENT				LIMITING CONTINGENCY
(1)	Pannell - Rochester 345 kV (2)	@ LTE =	1501 MW	L/O	(SBKR @ Rochester 345 kV) Pannell Rd. - Rochester 345 kV (2) Rochester 345/115 kV Bank
(2)	Rochester-Niagara 345 kV (NR-2)	@ STE =	1686 MW	L/O	Kintigh - Rochester 345 kV (SR-1)
(3)	Middleport - Allanburg 220 kV (Q30)	@ LTE =	459 MW	L/O	Beck- Hannon-Middleport 220 kV(Q24) Beck-Neale-Middleport 220 kV (Q29)
(4)	Middleport - Allanburg 220 kV (Q30)	@ STE =	459 MW	L/O	Beck-Hannon-Middleport (Q29)
(5)	Allanburg-Middleport 220 kV (Q30)	@STE=	459 MW	L/O	Marcy-Massena 765 kV (MSU1)
(6)	Niagara - Beck 230 kV (PA27)	@ LTE =	460 MW	L/O	Niagara - Beck 345 kV (PA302)
(7)	Niagara - Beck 230 kV (PA27)	@ STE =	558 MW	L/O	Niagara - Beck 345 kV (PA302)
(8)	Beck-Hannon 220 kV (J24)	@ LTE =	623 MW	L/O	Beck-Neale-Middleport 220 kV (Q25) Beck-Hannon-Middleport-220 kV (Q29)
(9)	Beck - Hannon 220 kV (J24))	@ STE =	623 MW	L/O	Beck-Hannon-NEBO-Middleport 220 kV(Q29)
(10)	Niagara - Beck 230 kV (PA27)	@ LTE =	460 MW	L/O	Niagara - Beck 345 kV (PA302)
(11)	Niagara - Beck 230 kV (PA27)	@ Nor =	400 MW	for	Pre Contingency Loading

* Interface Limits w/L33P PAR range of +40/-40

** For NY-OH @ 200 MW, there is insufficient angle to achieve the desired transfer. Actual power transfer was 91 MW (L33P) and 107 MW (L34P).

NOTE: Some transfers may be stability limited. See Appendix K for existing transient stability limits.

TABLE 5

NYPP BULK POWER SYSTEM

OP-1 VOLTAGE LIMITS

ALL LINES I/S

Area	Bus Name		Pre kV	Post kV
Rochester	Rochester 345 kV	*	343	328
	Pannell Rd 345 kV	*	341	328
	Clay 345 kV		345	328
Southern Tier	Oakdale 345 kV		335	320
	Fraser 345 kV		338	328
	Gardenville 230 kV		217	207
	Watercure 230 kV		215	207
UPNY-Con Ed	Bowline Point 345 kv		345	328
	Buchanan 345 kv		345	328
	Dunwoodie 345 kv		348	328
	Hurley Ave. 345 kv		348	328
	Ladentown 345 kv		348	328
	Millwood 345 kv		345	328
	Pleasant Valley 345 kv		343	328
	Ramapo 345 kv		345	328
	Roseton 345 kv		345	328
	Sprainbrook 345 kv		348	328
Central East	New Scotland 345 kV		348	328
	Marcy 345 kV		348	328
	Edic 345 kV		347	328
	Leeds 345 kV		345	328

Note : * Indicates limits are sensitive to HQ - NYPP transfers. Sensitivities to HQ transfers were not tested

Pre Pre-Contingency Voltage Limit
Post Post-Contingency Voltage Limit

CENTRAL EAST MAXIMUM TRANSFER LEVELS (MTL)
(All Facilities In Service Post Contingency Levels and 3 out of 5 Oswego Complex Units In Service (including Nine Mile Pt #2)

Critical Contingencies	Pre MTL (MW)	Post MTL (MW)
Loss of New England Phase II HVDC @ 1200 MW	3234	3537
Loss of Marcy-South double circuit (northern circuits)	3276	4082
Loss of New Scotland 345 kV #99 Bus	3314	2602

Note : The Pre MTL is determined from the Post MTL and is calculated on - line at the NYPP PCC.

APPENDIX A

TRANSACTION PARTICIPATION FACTORS

APPENDIX A

SCHEDULE OF NET INTERCHANGES

NYPP OPERATING STUDY - SUMMER 1999

TO FROM	NYPP	PJM	OH	NEPEX	NB/NS	DET/MICH	ECAR/ MAPP	HQ	Total Export (+)/Import(-)
NYPP		-896	0	126	0	0	82	-779	-1467
PJM	896		0	0	0	0	232	0	1128
OH	0	0		0	0	600	-200	-800	-400
NEPEX	-126	0	0		-700	0	0	-2000	-2826
NB/NS	0	0	0	700		0	0	-600	100
DET/MICH	0	0	-600	0	0		643	0	43
ECAR/MAPP	-82	-232	200	0	0	-643		0	-757
HQ	779	0	800	2000	600	0	0		4179

APPENDIX A
SUMMARY OF SUMMER 1999 BASE TRANSFERS

NEW BRUNSWICK	
New Brunswick to Hydro-Quebec: HVDC: MAD/EEL River	-600
New Brunswick to New England: New Brunswick to N.E.	700
New Brunswick to New England: Economy Sales	0
Total Export (+) / Import (-)	**100**
NEW ENGLAND	
New England to New Brunswick: New Brunswick to N.E.	-700
New England to Hydro-Quebec: S. Pond & Highgate	-2000
New England to New York: New England to N.Y.	-126
New England to Ontario Hydro: OH to NEPEX	0
New England to New Brunswick: Economy Sales	0
New England to New York: Economy Sales	0
Total Export (+) / Import (-)	**-2826**
NEW YORK POWER POOL	
New York to Hydro Quebec: Chateaugauy Import	-800
New York to New England: New England to N.Y.	126
New York to Hydro Quebec: NMPC North	21
New York to PJM: NYPA to Coop. (PJM)	94
New York to PJM: NYPP to PJM	-49
New York to PJM: NYPP NUGS in PJM	0
New York to Equivalent Area: NYPA to Ohio	82
New York to Ontario Hydro: OH to NYPP	0
New York to PJM: NYPP to PJM	0
New York to PJM: Homer City (NYSEG)	-941
New York to New England: Economy Sales	0
New York to PJM: Economy Sales	0
Total Export (+) / Import (-)	-1467

APPENDIX A
SUMMARY OF SUMMER 1999 BASE TRANSFERS

ONTARIO HYDRO	
Ontario Hydro to New England: New England to OH	0
Ontario Hydro to Hydro-Quebec: HQ to Ontario	-800
Ontario Hydro to New York: OH to NYPP	0
Ontario Hydro to Det-Michigan: Ontario-DECO	600
Ontario Hydro to Equivalent Area: Ontario-MAPP	-200
Ontario Hydro to PJM: Ontario-PJM	0
Ontario Hydro to Det-Michigan: Economy Sales	0
Total Export (+) / Import (-)	**-400**
DET-MICHIGAN	
Detriot - Michigan to Ontario Hydro: Ontario to DECO	-600
Detriot-Michigan to Equivalent Area: Det/Mich to ECAR	643
Detriot-Michigan to Ontario Hydro: Economy Sales	0
Detriot-Michigan to Equivalent Area: Economy Sales	0
Total Export (+) / Import (-)	**43**

APPENDIX A *SUMMARY OF SUMMER 1999 BASE TRANSFERS*	
PJM	
PJM to New York: NYPA to COOP. (PJM)	-94
PJM to New York: NYPP to PJM	49
PJM to New York: NYPP NUGS in PJM	0
PJM to New York: NYPP to PJM	0
PJM to Ontario Hydro: Ontario to PJM	0
PJM to Equivalent Area: PJM to ECAR	332
PJM to Equivalent Area: PJM to DUKE	250
PJM to Equivalent Area: PJM to DLCO	-100
PJM to Equivalent Area: PEPCO to FE	-450
PJM to Equivalent Area: PJM to HE	-200
PJM to Equivalent Area: PJM to VP	0
PJM to Equivalent Area: PJM to CPL-E	400
PJM to Equivalent Area: PJM to EKP	0
PJM to Equivalent Area: PJM to LGE	0
PJM to Equivalent Area: PJM to Cinergy	0
PJM to New York: Homer City (NYSEG)	941
PJM to Equivalent Area: Seneca Pumped Hydro	-81
PJM to New York: Economy Sales	0
PJM to Equivalent Area: Economy Sales	81
Total Export (+) / Import (-)	**1128**

APPENDIX A
SUMMARY OF SUMMER 1999 BASE TRANSFERS

HYDRO-QUEBEC	
Hydro-Quebec to New Brunswick: HVDC: Mad/Eel River	600
Hydro-Quebec to New England: S. Pond & Highgate	2000
Hydro-Quebec to New York: Chateauguay Import	800
Hydro-Quebec to New York: NMPC North	-21
Hydro-Quebec to Ontario Hydro: HQ to Ontario	800
Total Export (+) / Import (-)	**4179**
EQUIVALENT AREA	
Equivalent Area to New York: NYPA to Ohio	-82
Equivalent Area to OH: ONTARIO-MAPP	200
Equivalent Area to Det-Michigan: Det/Mich to ECAR	-643
Equivalent Area to PJM: PJM to ECAR	-332
Equivalent Area to PJM: PJM to DUKE	-250
Equivalent Area to PJM: PJM to DLCO	100
Equivalent Area to PJM: PEPCO to FE	450
Equivalent Area to PJM: PJM to HE	200
Equivalent Area to PJM: PJM to VP	0
Equivalent Area to PJM: PJM to CPL-E	-400
Equivalent Area to PJM: PJM toEKP	0
Equivalent Area to PJM: PJM to LGE	0
Equivalent Area to PJM: PJM to Cinergy	0
Equivalent Area to PJM: Seneca Pumped Hydro	81
Equivalent Area to Det-Michigan: Economy Sales	0
Equivalent Area to PJM: Economy Sales	-81
Total Export (+) / Import (-)	**-757**

APPENDIX B

PERTINENT INFORMATION

&

ONE-LINE DIAGRAMS

INDEX

PERTINENT INFORMATION

A. Summer 1999 Conditions

TRANSMISSION FACILITIES

Significant facility changes or additions since Summer 1998, which are represented in this analysis are shown below..

NYPP

Pannell Transformer #3	345/115 kV	RG&E

GENERATION FACILITIES (LEVEL OF MWS IN CASE)

The status and dispatch of generation represented in this analysis is listed below.

NYPP

Indian Pt #2	931 MW	In Service
Indian Pt #3	980 MW	In Service
Kintigh	675 MW	In Service
Nine Mile Pt #1	607 MW	In Service
Nine Mile Pt #2	1030 MW	In Service
Oswego #5	0 MW	O/S
Oswego #6	0 MW	O/S
Albany 1-4	291 MW	In Service
Ravenswood #3	756 MW	In Service
Roseton 1	497 MW	In Service
Roseton 2	386 MW	In Service
Bowline Pt 1	550 MW	In Service
Bowline Pt 2	0 MW	O/S
Niagara	2815 MW	In Service
Moses	912 MW	In Service
Poletti	529 MW	In Service
Gilboa	500 MW	In Service
CoGen Tech	646 MW	In Service
J.A. Fitzpatrick	870 MW	In Service
JMC Selkirk II (A,B,C)	252 MW	In Service
Falcon Seaboard (1,2,3)	239 MW	In Service
Sithe	1043 MW	In Service

NEPOOL		
Millstone Point #1	0 MW	O/S
Millstone Point #2	857 MW	In Service
Millstone Point #3	1137 MW	In Service
Connecticut Yankee	0 MW	O/S
Vermont Yankee	496 MW	In Service
Maine Yankee	0 MW	O/S
Northfield 1-4	750 MW	In Service
Bear Swamp 1+2	440 MW	In Service
Norwalk Harbor 1+2	159/168 MW	In Service
Seabrook	1150 MW	In Service
NEA	270 MW	In Service
OSP	506 MW	In Service
OH		
Darlington 1-4	3720 MW	In Service
Beck	1443 MW	In Service
Bruce Station	3046 MW	In Service
Lambton Station	1500 MW	In Service
Lakeview Station	874 MW	In Service
Pickering Station	1620 MW	In Service
Nanticoke Station	3500 MW	In Service
PJM		
Peach Bottom Station	2181 MW	In Service
Homer City Station	1881 MW	In Service
Salem Station	1106 MW	In Service
Limerick Station	1155 MW	In Service
Hope Creek	1031 MW	In Service

HQ HVDC TIES

Chateauguay HVDC at	1200 MW	In Service
Sandy Pond HVDC at	1800 MW	In Service
Highgate HVDC at	200 MW	In Service
Madawaska HVDC at	300 MW	In Service
Eel River HVDC at	300 MW	In Service

POOL LOADS & LOSSES

NYPP	29021 MW
NEPOOL	23011 MW
OH	23218 MW
PJM	49090 MW

PHASE ANGLE REGULATOR FLOWS

Inghams Bus Tie (CD-ED)	120 MW
Plattsburgh-Sandbar (PV-20)	120 MW*
St. Lawrence-Moses L33P	0 MW
St. Lawrence-Moses L34P	0 MW
Northport-Norwalk Harbor	100 MW
Jamaica-Valley Stream	0 MW
Jamaica-Lake Success	200 MW
Hudson-Farragut (B3402)	500 MW
Hudson-Farragut (C3403)	500 MW
Linden-Goethals	0 MW
Waldwick-Hinchman	310 MW
Waldwick-Fairlawn	300 MW
Waldwick-Hillsdale	330 MW
Ramapo PAR #1 (+ to NY)	410 MW
Ramapo PAR #2 (+ to NY) 174	410 MW
SprainBrook-EGC #1	300 MW
SprainBrook-EGC #2	300 MW

*schedule for tie line

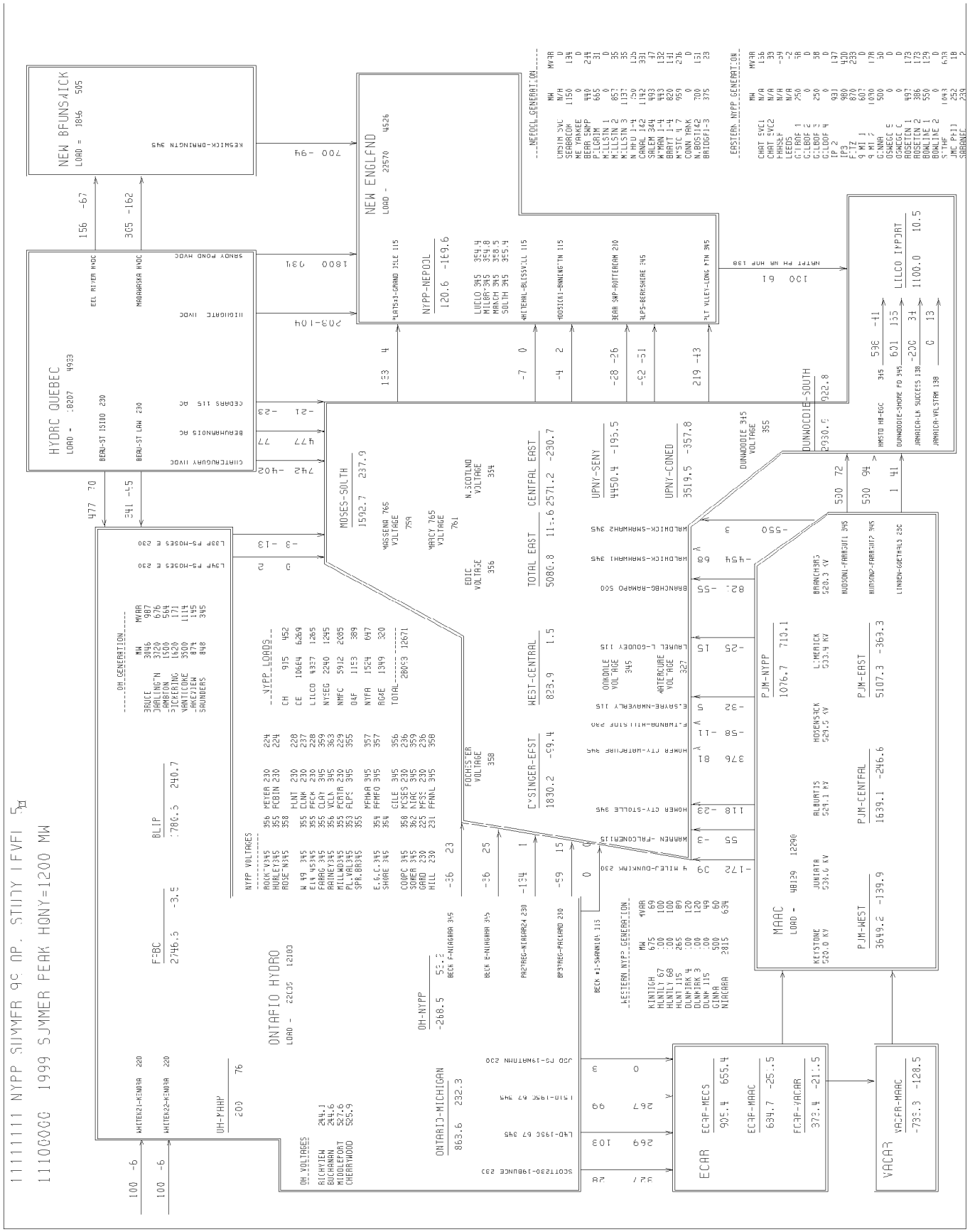
PAR SCHEDULES - BASE CASE & SENSITIVITY CASES

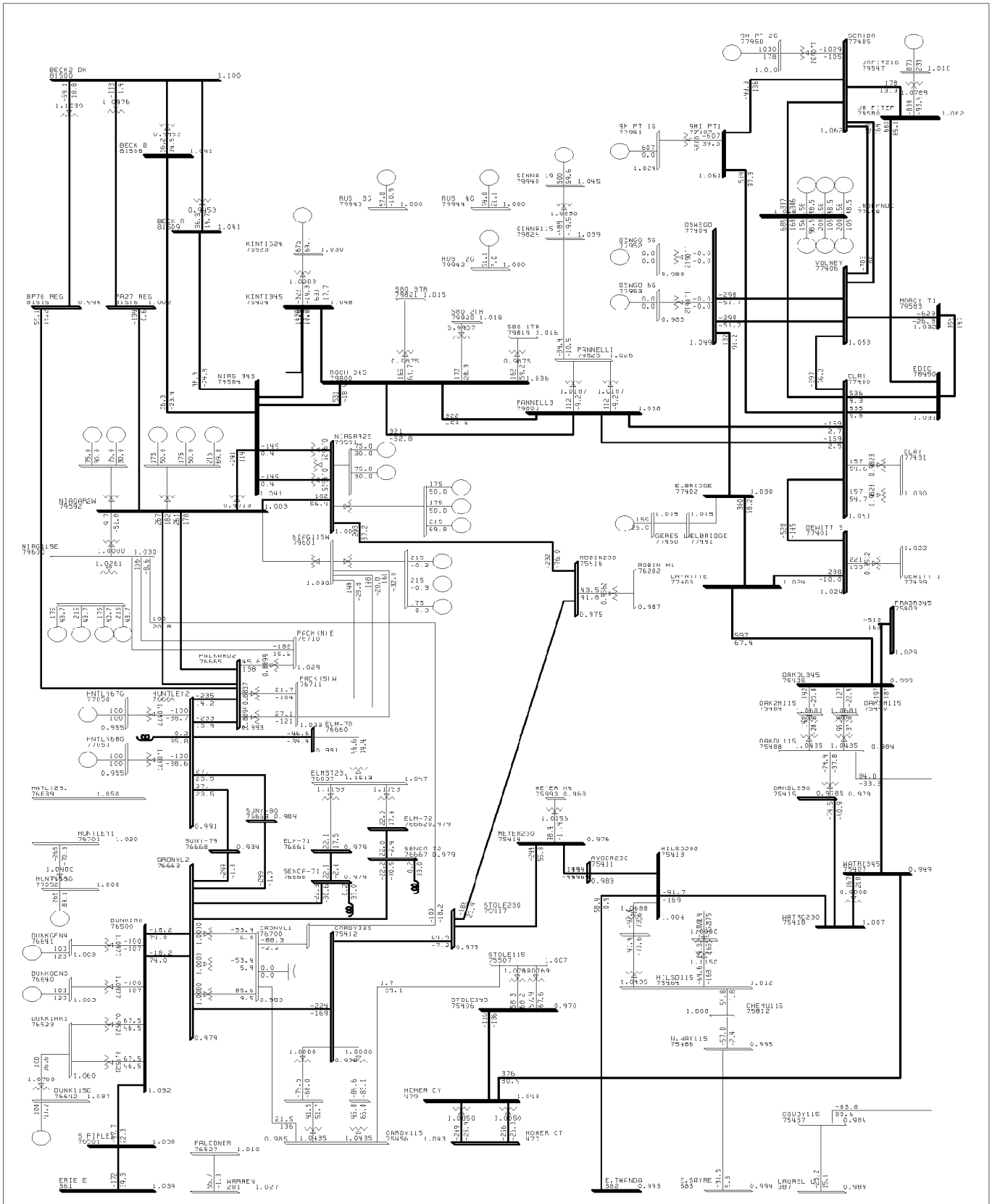
		Case		
PJM - NYPP		**Base Case**	**PJM-NYPP**	**NYPP-PJM**
BRANCHBG 500	RAMAPO 5 500	820	1000	-1000
HUDSON 1 345	FARRGUT1 345	500	400	400
HUDSON 2 345	FARRGUT2 345	500	400	400
LINDEN 230	GOETHALS 230	0	347	160
WALDWICK 345	SMAHWAH1 345	-455	-148	-464
WALDWICK 345	SMAHWAH2 345	-550	-258	-545
Free Flowing Ties		260	1287	-496
PJM - NYPP Interface Flow		1075	3028	-1545
PJM - NYPP Transfer		896	3896	-2104

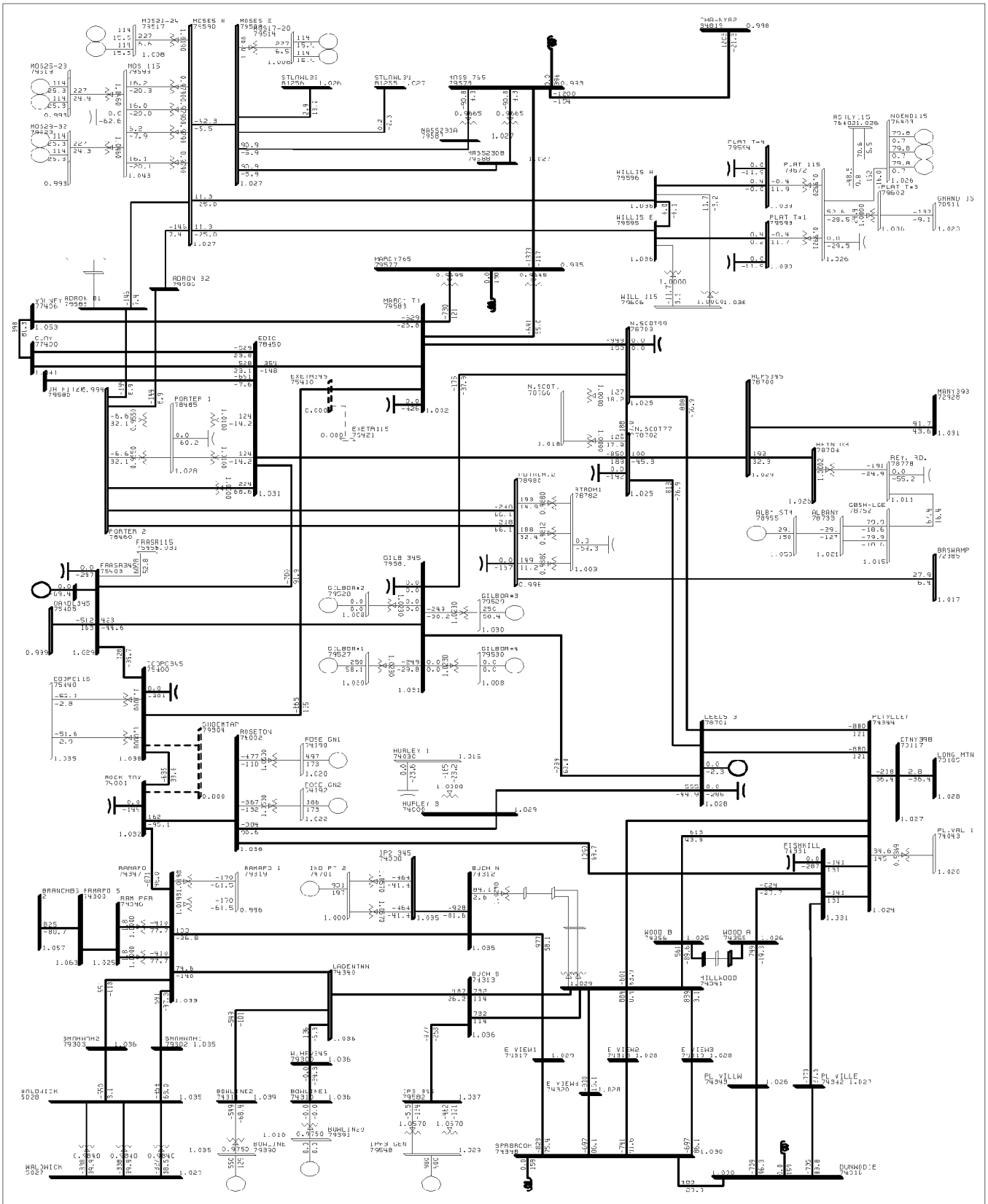
Note:
Base Case : Used for All Cases Except Where Noted
PJM - NYPP : Used for PJM - NYPP Emergency Transfer TLTG
NYPP - PJM : Used for NYPP - PJM Emergency Transfer TLTG

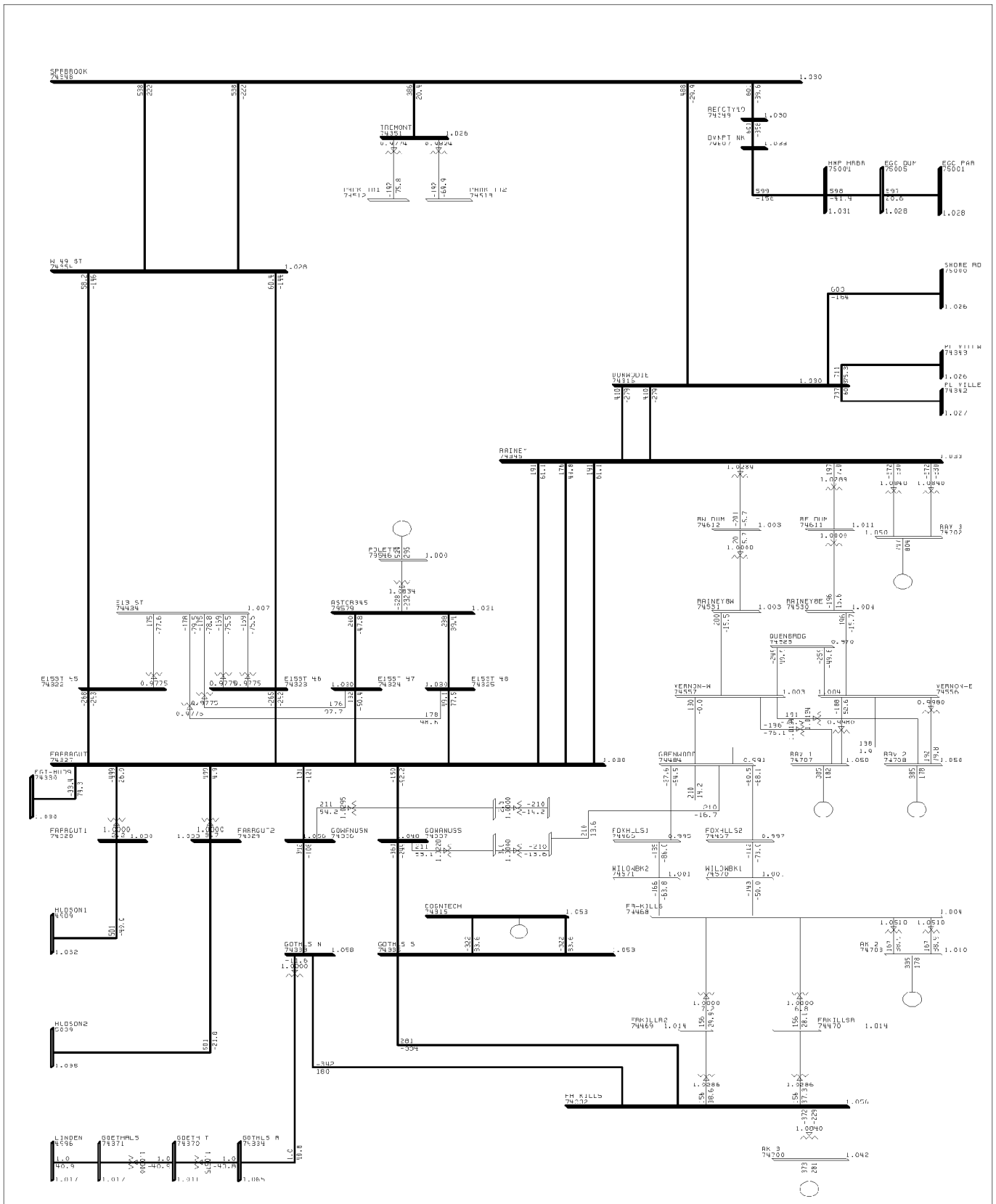
		Case		
OH - NY		**Base Case**	**OH-NY**	**NY-OH**
St. Lawrence	Moses (L33P)	0	200	-91
St. Lawrence	Moses (L34P)	0	200	-107
Free Flowing Ties		-267	-565	-119
Total Interface Flow		-267	-165	-317

		Case		
NY - NE		**Base Case**	**NY-NE**	**NE-NY**
Plattsburgh	Vermont (PV20)	132	131	133
Northport	Norwalk (1385)	-100	100	-200
Other		94	-105	193
Total Interface Flow		126	126	126

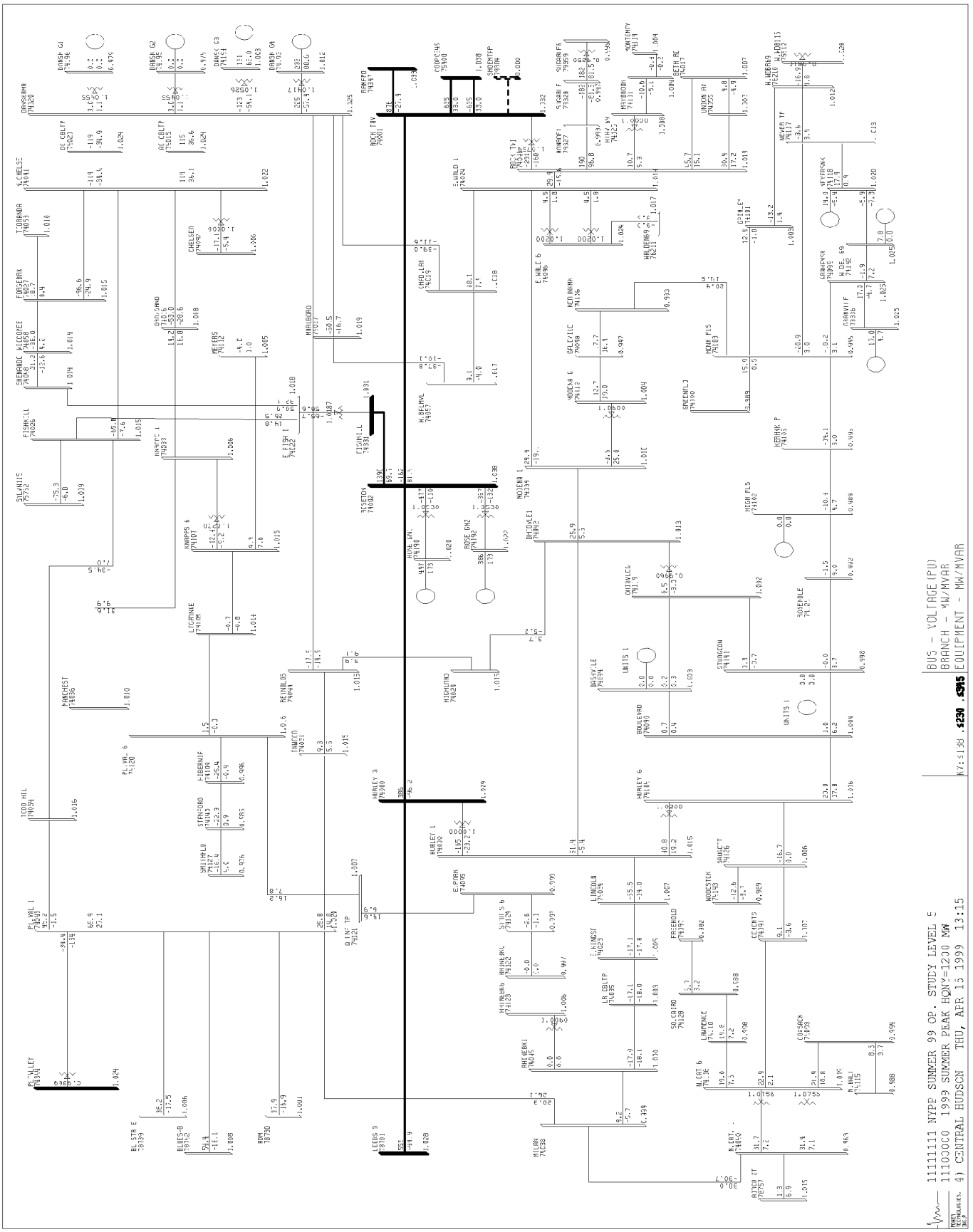

11111111 NYPP SUMMER 9c OP. STUDY IFVFI 5
11100000 1999 SUMMER PEAK HONY=1200 MW
NEW BRUNSWICK
LOAD = 1846 505
KESWICK-ORRINGTN 345
700 -94
156 -67
305 -162
HYDRO QUEBEC
LOAD - 8207 4933
EEL RIVER HVDC
MADAWASKA HVDC
SANDY POND HVDC
CHATEAUGUAY HVDC
BEAUHARNOIS RC
CEDARS 115 RC
BEAU-ST LAW 230
BEAU-ST 1S100 230
1800 231
203-104
-7 0
-4 2
-28 -26
-52 -51
219 -43
133 4
NEW ENGLND
LOAD - 22570 4526
NEPOOL GENERATION
NYPP-NEPOOL
120.6 -139.6
PLANT4-GRAND ISLE 115
LUCLO 345 354.4
MILLR 345 354.8
MARCH 345 358.5
SOUTH 345 355.4
WHITEHL-BLISSVLL 115
HUDSON-BANKNKTN 115
BEAR SWP-ROTTERDM 230
ALPS-BERKSHIRE 345
PLT VLEY-LONG PTN 345
NRTRT PH NA HNP 138
120 61
EASTERN NYPP GENERATION
CHAT SVC1 N/A 136
CHAT SVC2 N/A 33
FARGF N/A -39
EEFS N/A 2
G-LBOF 1 256 58
G-LBOF 2 0 0
G-LBOF 3 250 58
G-LBOF 4 0 0
IP 2 931 197
IP3 980 430
FITZ 870 233
9 MI 1 607 0
9 MI 2 1030 178
G-NMP 500 30
OSWEGC E 0 0
OSWEGC C 0 0
ROSETN 1 493 173
ROSETN 2 386 135
BOWLNE 1 550 129
BOWLNE 2 0 0
STHF 1043 673
JMC PH1 252 18
SABNEC 239 2
DUNWOODIE-SOUTH
2930.8
DUNWOODIE 345
VOLTAGE
355
530 72
530 94
1 41
LILCO TYPJRT
1100.0 10.5
DUNWOODIE-SHORE FD 345 536 -11
JAMAICA-LK SUCCESS 138 -220 34
JAMAICA-VALSTRM 138 0 13
HMSTD MB-EGC 345 536 -11
MOSES-SOUTH
1592.7 237.9
MASSENA 765
VOLTAGE
759
MARCY 765
VOLTAGE
761
N.SCOTLND
VOLTAGE
354
EDIC
VOLTAGE
356
TOTAL EAST 5086.8
CENTRAL EAST 2571.2 -230.7
UPNY-SENY
4450.4 -195.5
UPNY-CONED
3519.5 -357.8
WEST-CENTRAL 823.9 1.5
C-SINGER-EAST 1830.2 -59.4
FOCHSTER
VOLTAGE
358
NYPP VOLTAGES
ROCK-W345 356
HURLEY345 355
ROSE-N345 358
W 49 345 355
E14 45345 355
FARRAG 345 355
MILLWD345 356
PL VAL345 353
SPR.BR345 355
E.G.C.345 354
SHORE 345 354
COOPC 345 358
SOMER 345 362
GRAD 230 225
MILL 230 231
MYNHA 345 357
FRMFD 345 357
PENNL 345 358
CILE 345 356
MCGEE 230 236
KIAC 345 359
MFSE 230 236
PENNL 345 358
NYPP LOADS
CH 915 452
CE 10664 6269
LILCO 9337 1265
NYSEG 2240 1245
NMPC 5912 2095
O&E 1113 389
NYPA 1564 647
ROSE 1349 320
TOTAL 28093 12671
OH GENERATION
MW MVAR
3ROUE 3046 987
JARLND'N 3120 676
JAMAICA 1500 564
SICKERING 1620 171
YANTICOKE 3500 1114
AMERICAN 874 195
SAUNDERS 848 345
BLIP
780.5 240.7
FE&C
2746.5 -3.5
OH-NYPP
-268.5 58.2
BECK #1-SKANNL01 115
BECK #1-NIAGARA 345
-36 23
-36 25
-134 1
-59 15
0
BECK #1-SKANNL01 115
PA2REG-NIAGARA 230
BP3REG-PACKARD 230
ONTARIO HYDRO
LOAD - 22035 12103
ONTARIO-MICHIGAN
863.6 232.3
OH-VARIOUS
BUCHANAN 244.1
BUCHANAN 237.6
MIDDLEPORT 237.6
CHERRYWOOD 525.9
OH-MAHP
200 76
WHITEK21-K3N01A 220
WHITEK22-K3N01A 220
100 -6
100 -6
L33P P9-MOSES E 230
L34P P9-MOSES E 230
-1 -13
-1 -3
477 70
341 -45
742 1402
477 77
-21 -2
133 4
SCOTT230-19BUNCE 230
L40-19SC 67 345
-310-19SC 67 345
J20 P3-19WATRMN 230
103 269
97 267
ECAR
EC3F-MECS
905.4 655.4
EC3F-MAAC
694.7 -25.5
EC3F-YADAR
373.4 -21.5
VACAR
VACAR-MAAC
-733.3 -128.5
MAAC
LOAD - 48129 12290
PJM-NYPP
1076.7 713.1
PJM-WEST
3649.2 -139.9
PJM-CENTFAL
1639.1 -246.6
PJM-EAST
5107.3 -363.3
KEYSTONE 520.0 KV
JUNIATA 539.6 KV
ALBURTIS 524.1 KV
HOSENSACK 529.5 KV
LIMERICK 533.4 KV
BRANCHBG 520.3 KV
WINDMP-FARRSVL2 345
WDSDNJ-FARRSVL1 345
LINDEN-GOETHALS 230
4 MILE-J-DUNKIRK 230
HOMER CTY-WATRCURE 345
HOMER CTY-STOLLE 345
F.IWANNB-HILLSTDE 230
E.SHORE-NWAVERLY 115
WATERCURE 327
LEHIGH L-GOUDEY 115
BRANCHBG-RARARPO 500
WHLDWICK-SMAHWAH1 345
WHLDWICK-SMAHWAH2 345
KINTIGH 675 69
HUNTLY 67 100 100
HUNTLY 68 100 100
HUNTLY 15 100 80
DUNKIRK 4 100 120
DUNKIRK 3 100 120
DUNK 115 100 99
GINNA 500 60
NIAGARA 2815 634

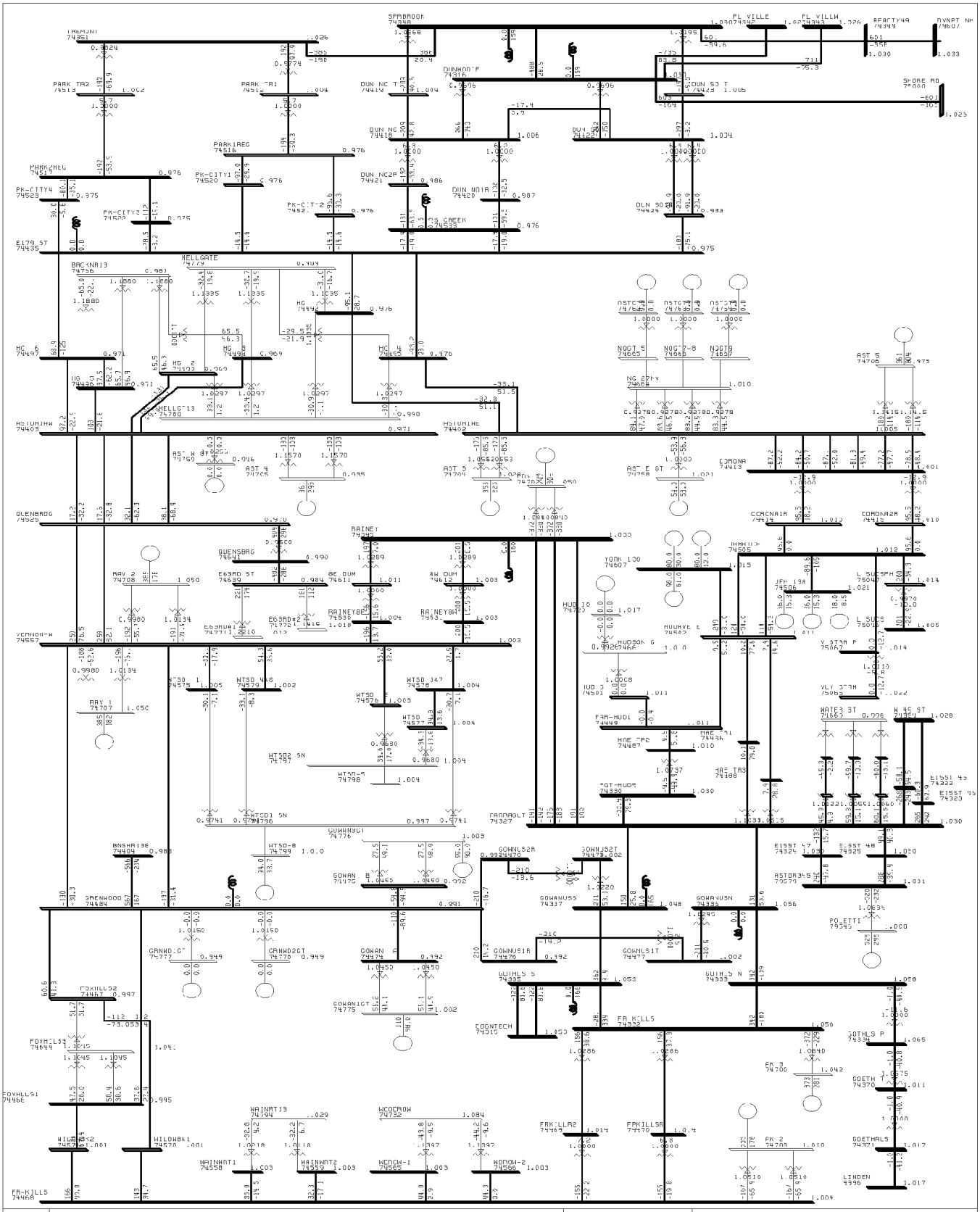

11111111 NYPP SUMMER 99 OP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK HDNY=12000 MW
1) WESTERN NYPP THU, APR 15 1999 13:14
BJS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV=<138 .<230 .<345

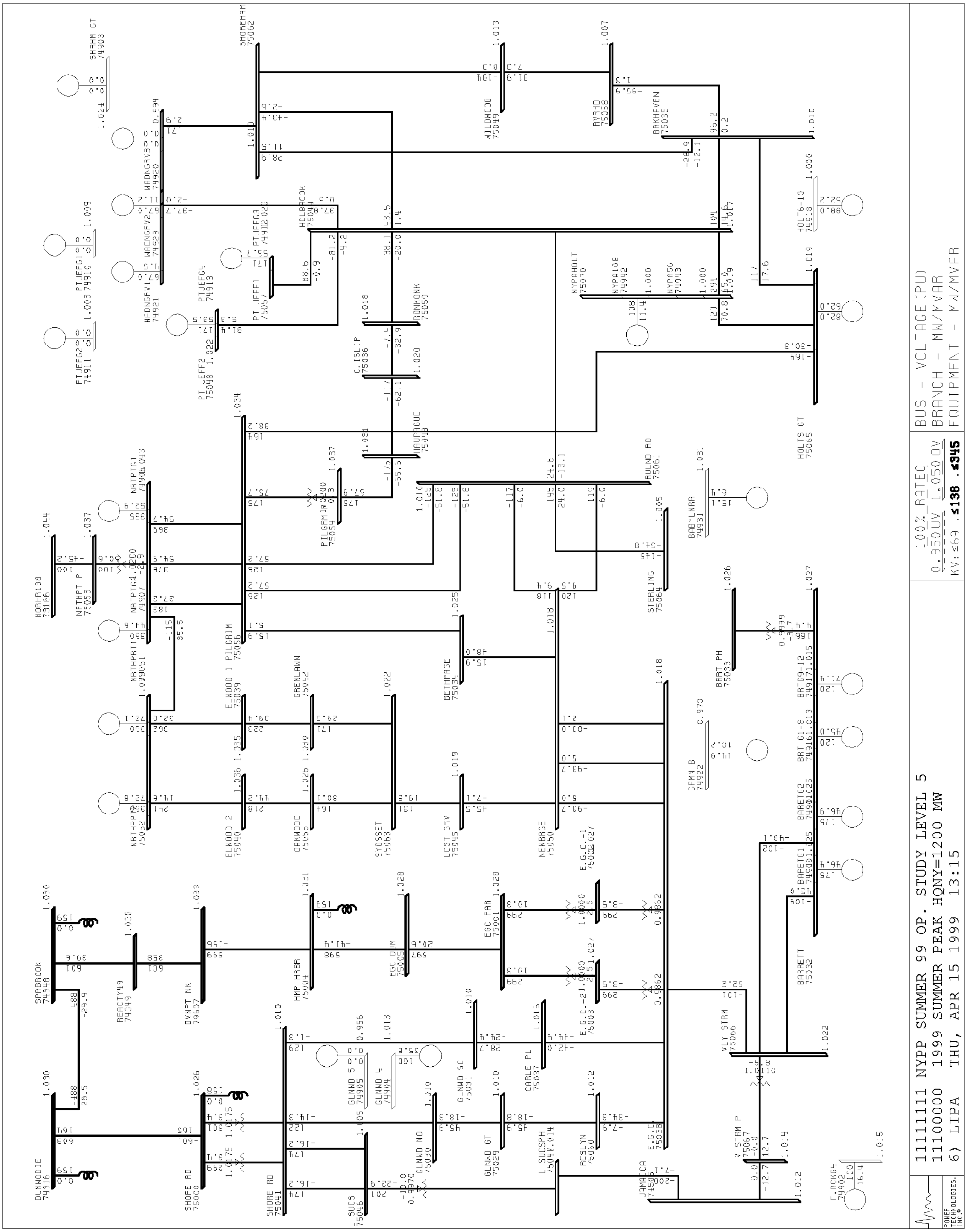

11111111 NYPP SUMMER 99 OP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK HQNY-1200 MW
2) EASTERN NYPP THU, APR 15 1999 13:14
POWER TECHNOLOGIES, INC.
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
KV: ≤138 .≤230 .≤345 EQUIPMENT - MW/MVAR

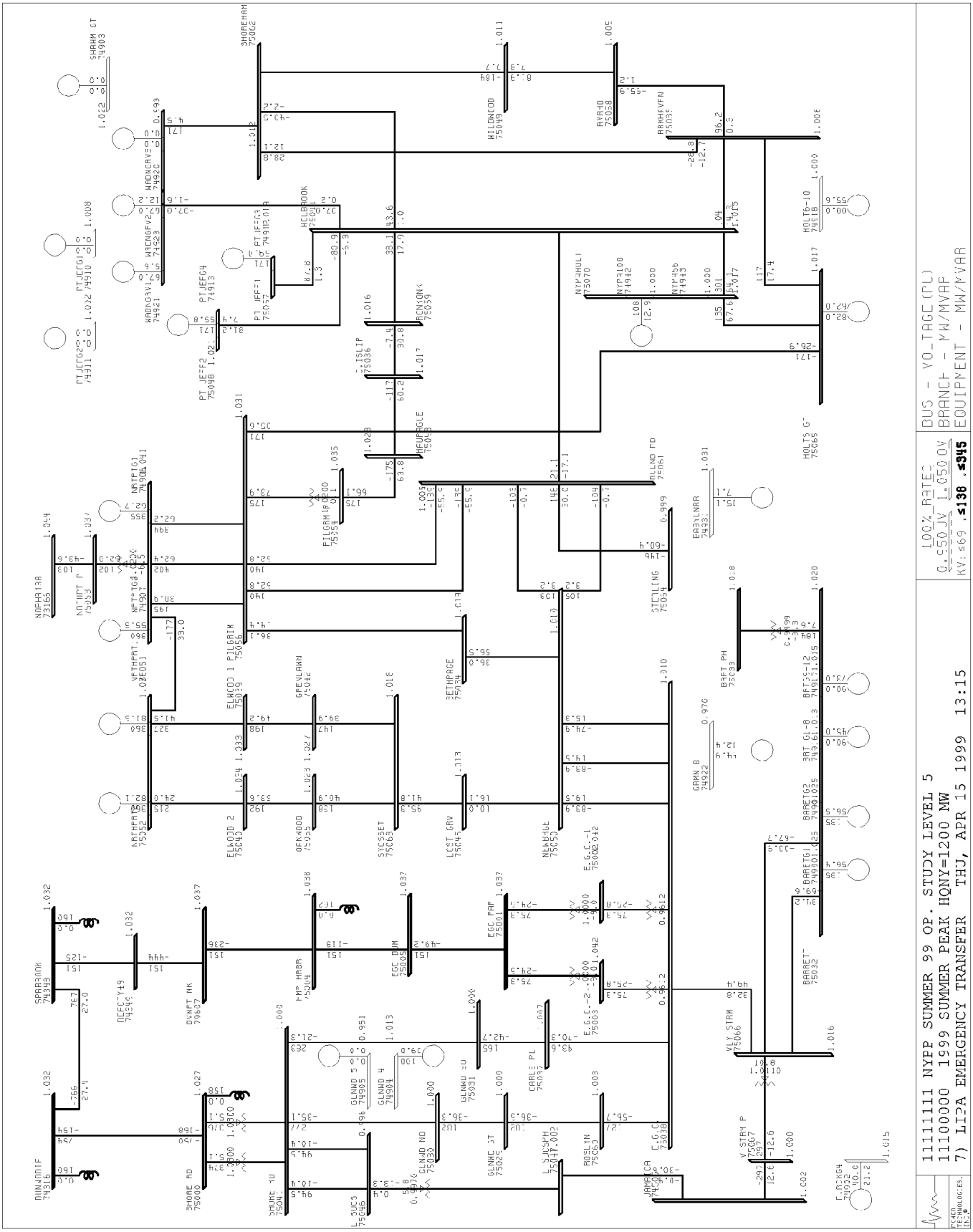


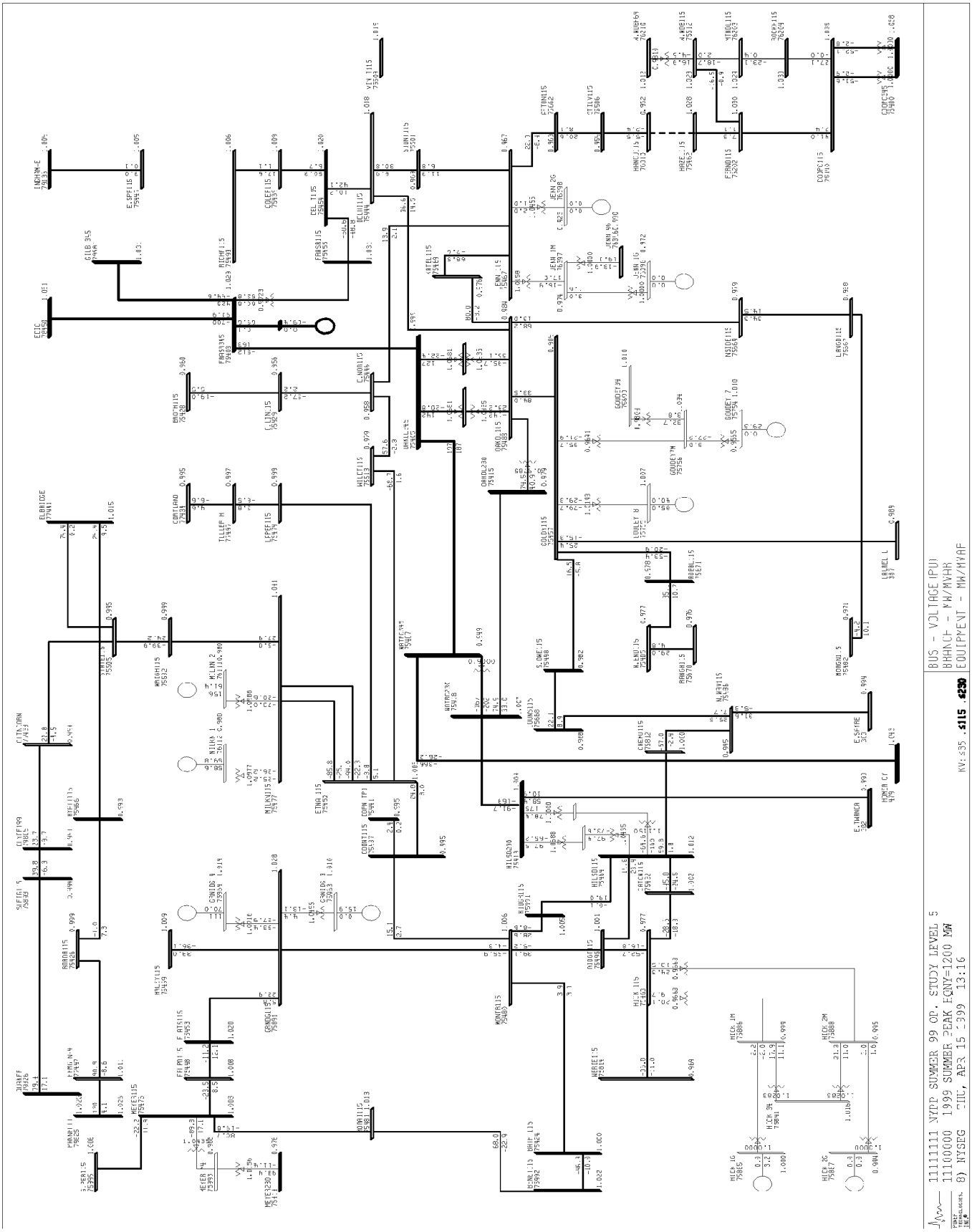
POWER TECHNOLOGIES, INC.	11111111 NYPP SUMMER 99 OP. STUDY LEVEL 5 11100000 1999 SUMMER PEAK HONY=1200 MW 3) SOUTHERN NYPP THU, APR 15 1999 13:14	KV= ≤138 , ≤230 , ≤345	BUS - VOLTAGE (PU) BRANCH - MW/MVAR EQUIPMENT - MW/MVAR

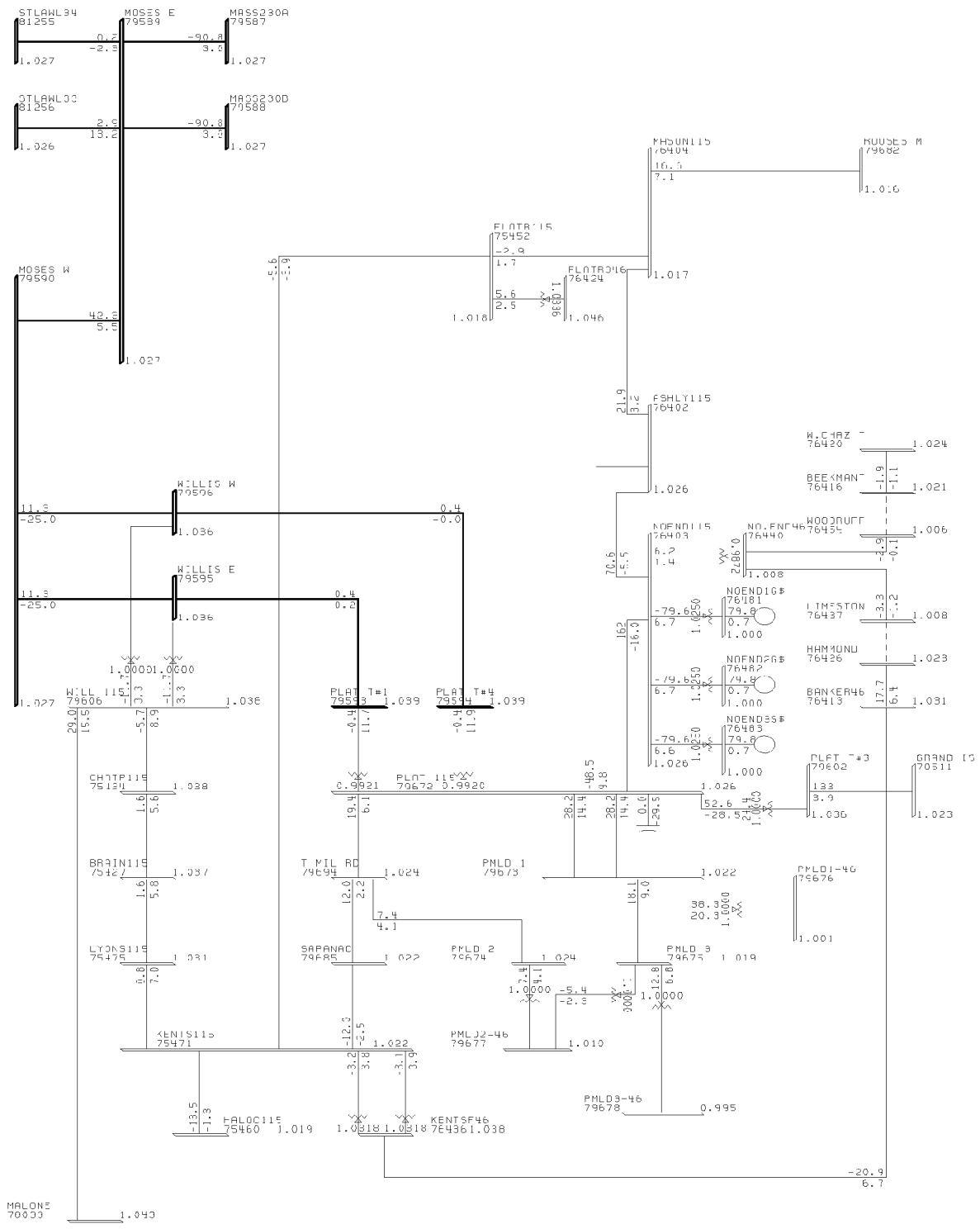

11111111 NYPP SUMMER 99 OP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK HOUR=12200 MW
4) CENTRAL HUDSON THU, APR 15 1999 13:15
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV:≤138 .≤230 .≤345


11111111 NYPP SUMMER 99 OP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK HQNY-1200 MW
5) CON EDISON TEU, APR 15 1999 13:15
KV: ≤34 .≤138 .≤345
BUS VOLTAGE (PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR

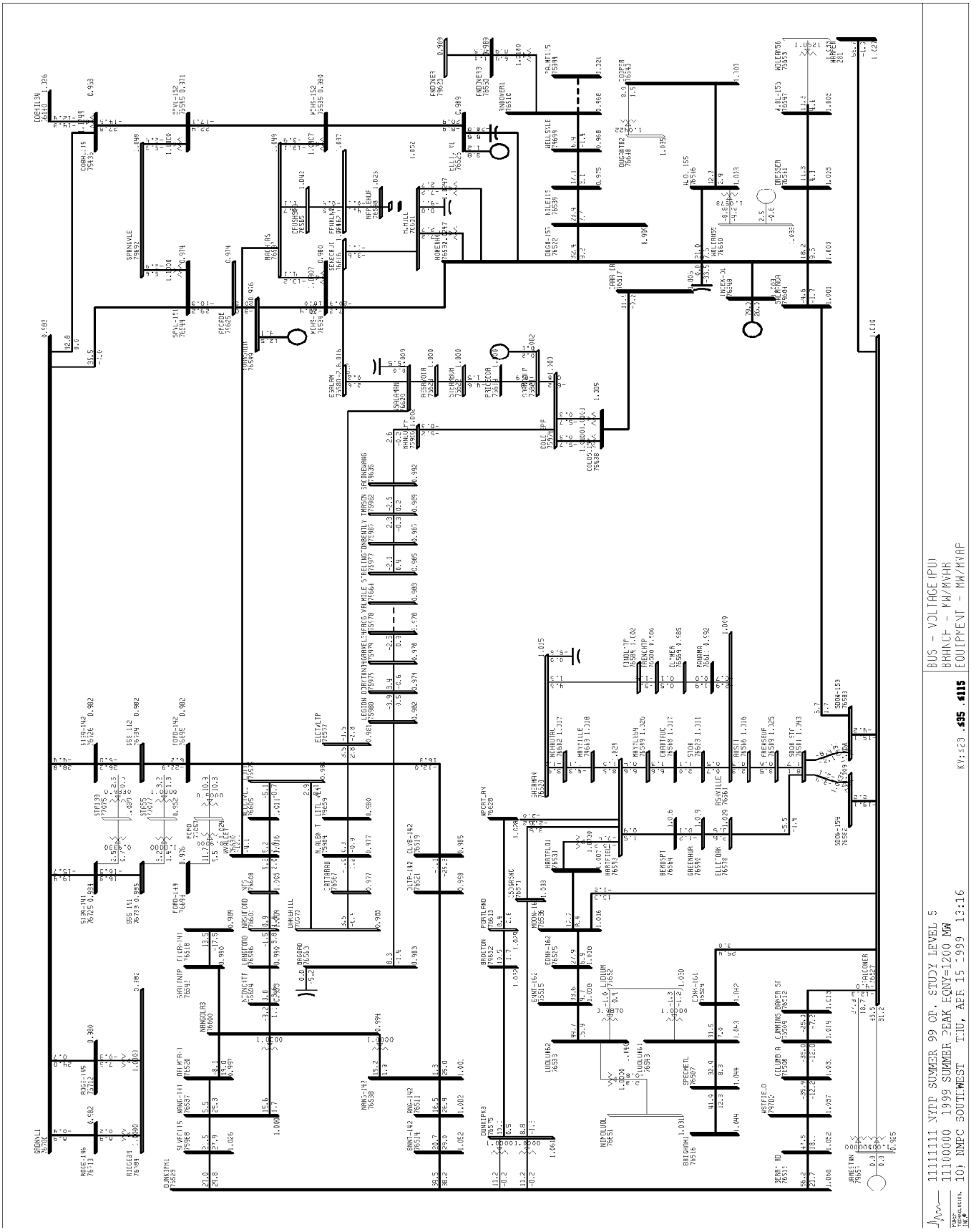

11111111 NYPP SUMMER 99 OP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK HQNY=1200 MW
6) LIPA THU, APR 15 1999 13:15
BUS - VOLTAGE (PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR

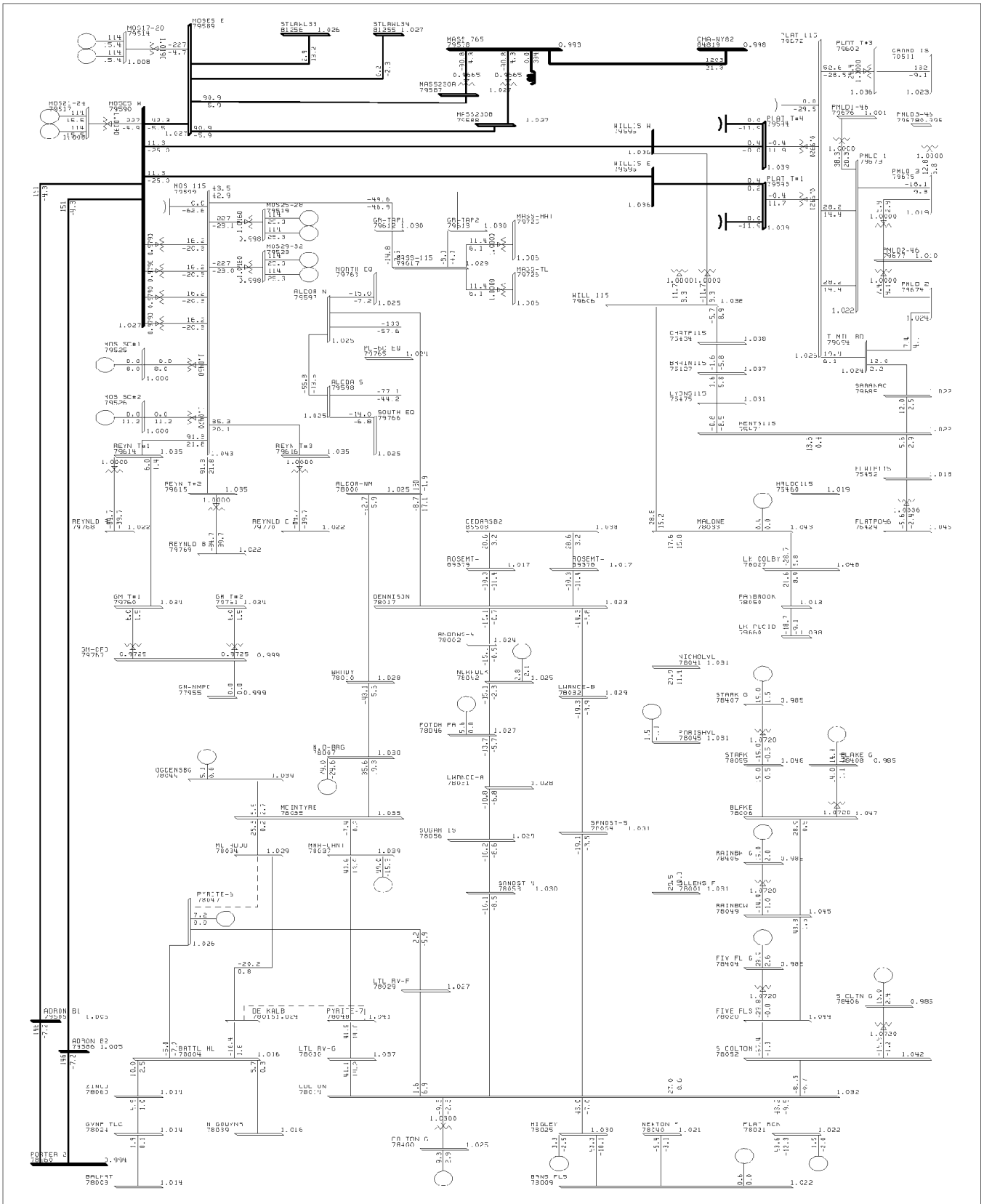

11111111 NYPP SUMMER 99 OP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK HQNY=1200 NW
7) L12A EMERGENCY TRANSFER THJ, APR 15 1999 13:15
100% RATES
0.≤50 JV 1.050 OV
KV: ≤69 .≤138 .≤345
BUS - YO_TAGE(PL)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR

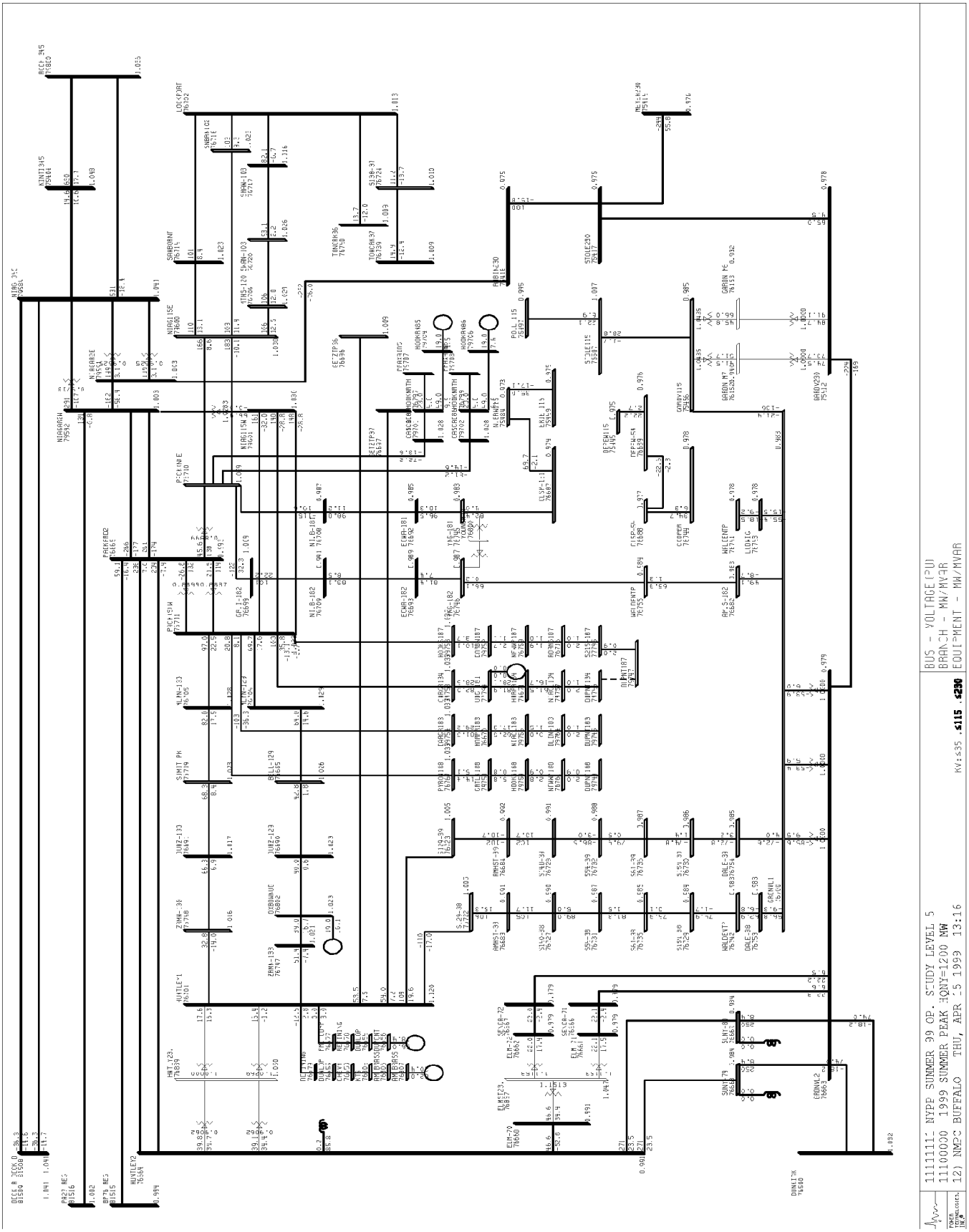

11111111 NYPP SUMMER 99 OP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK ENY=12000 MW
8) NYSEG TUE, APR 15 1999 13:16
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV: ≤35 ≤115 ≤230

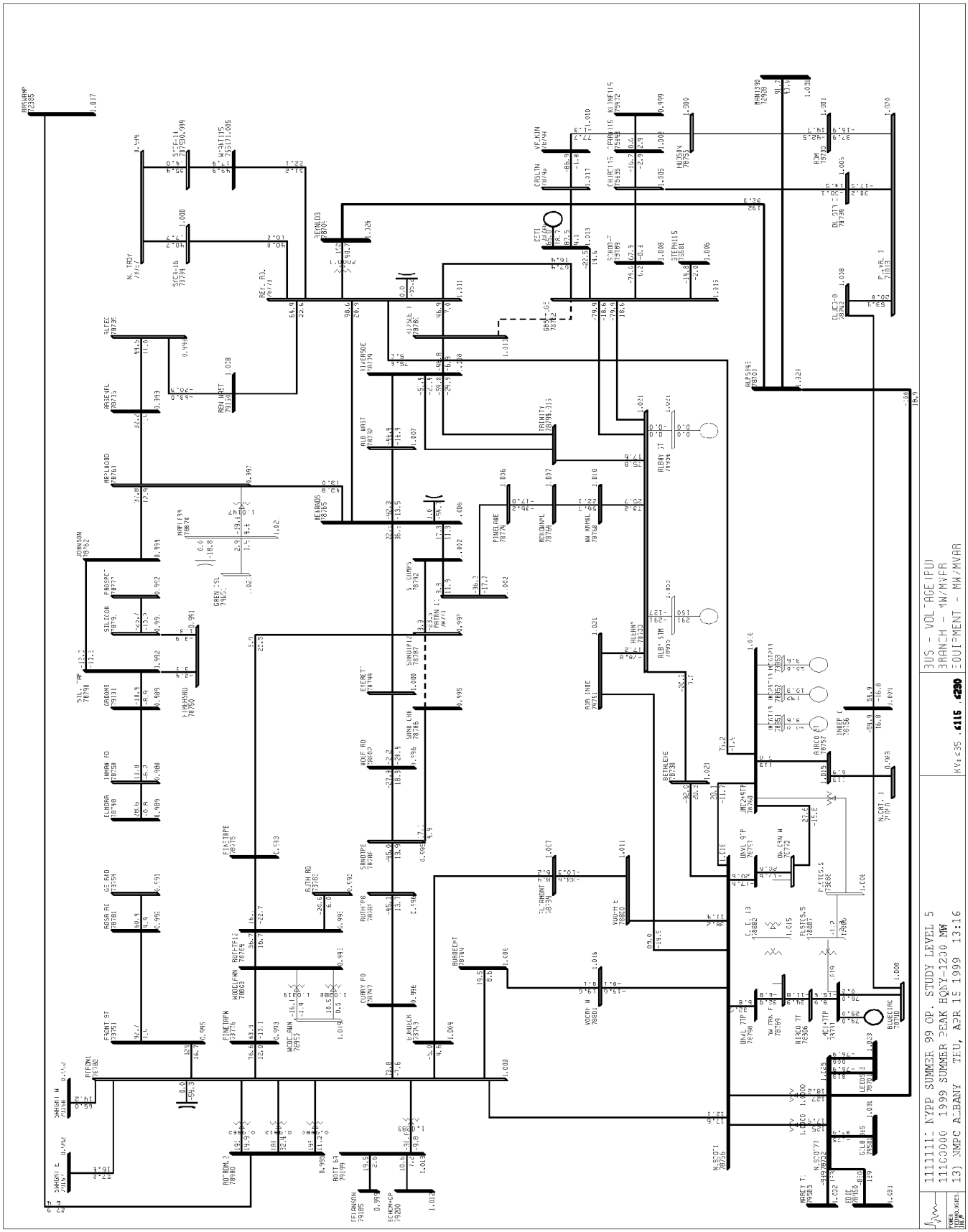


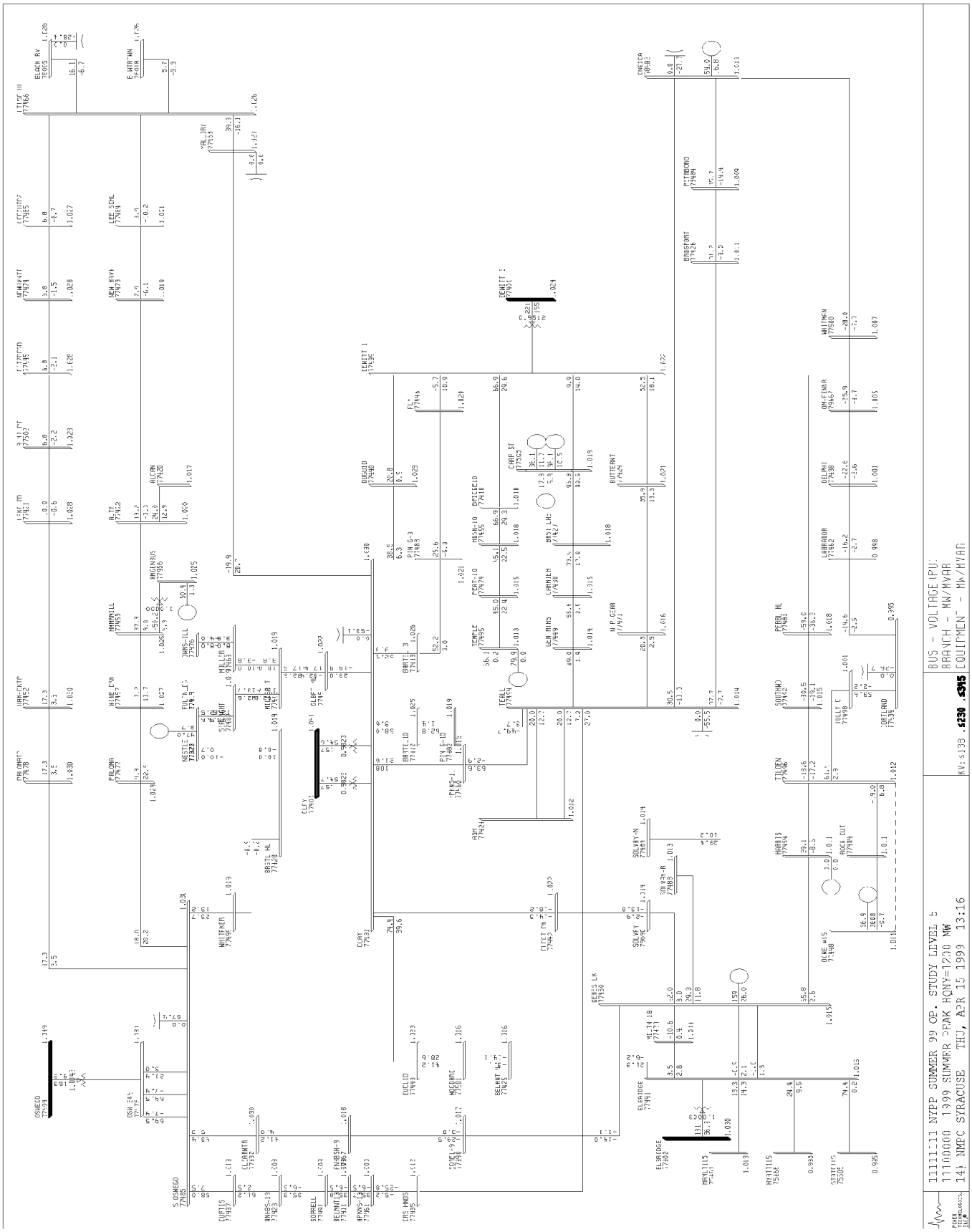
POWER TECHNOLOGIES, INC.	11111111 NYPP SUMMER 99 OP. STUDY LEVEL 5 11100000 1999 SUMMER PEAK HQNY=1200 MW 9) NYSEG PLATTSBG THU, APR 15 1999 13:16	kV: ≤138 . ≤230 . ≤345	BUS - VOLTAGE(PU) BRANCH - MW/MVAR EQUIPMENT - MW/MVAR

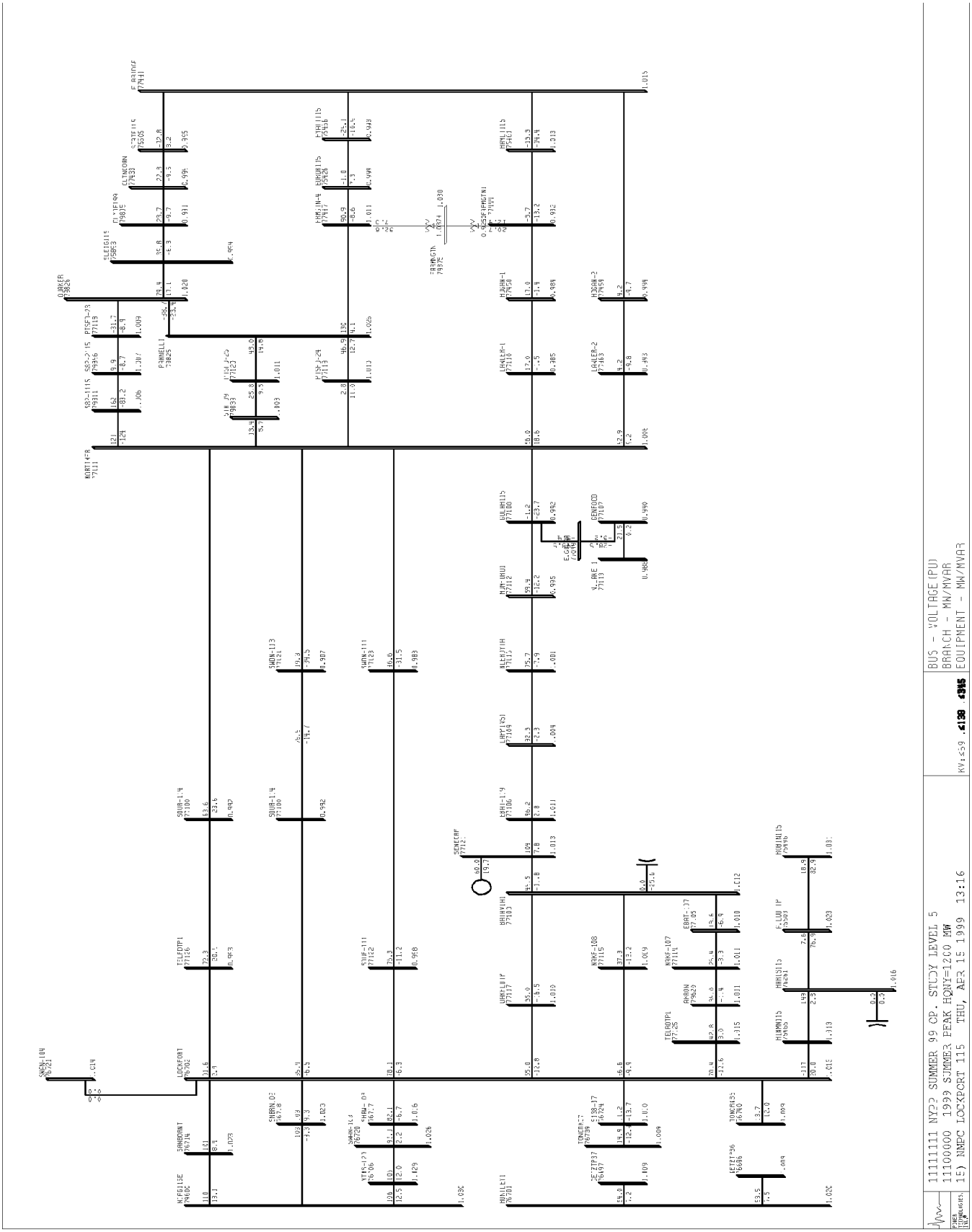

11111111 NYPP SUMMER 99 OP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK EQNY=1200 MW
10) NMPC SOUTHWEST TUE, APR 15 1999 13:16
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV:<23 .535 .6115

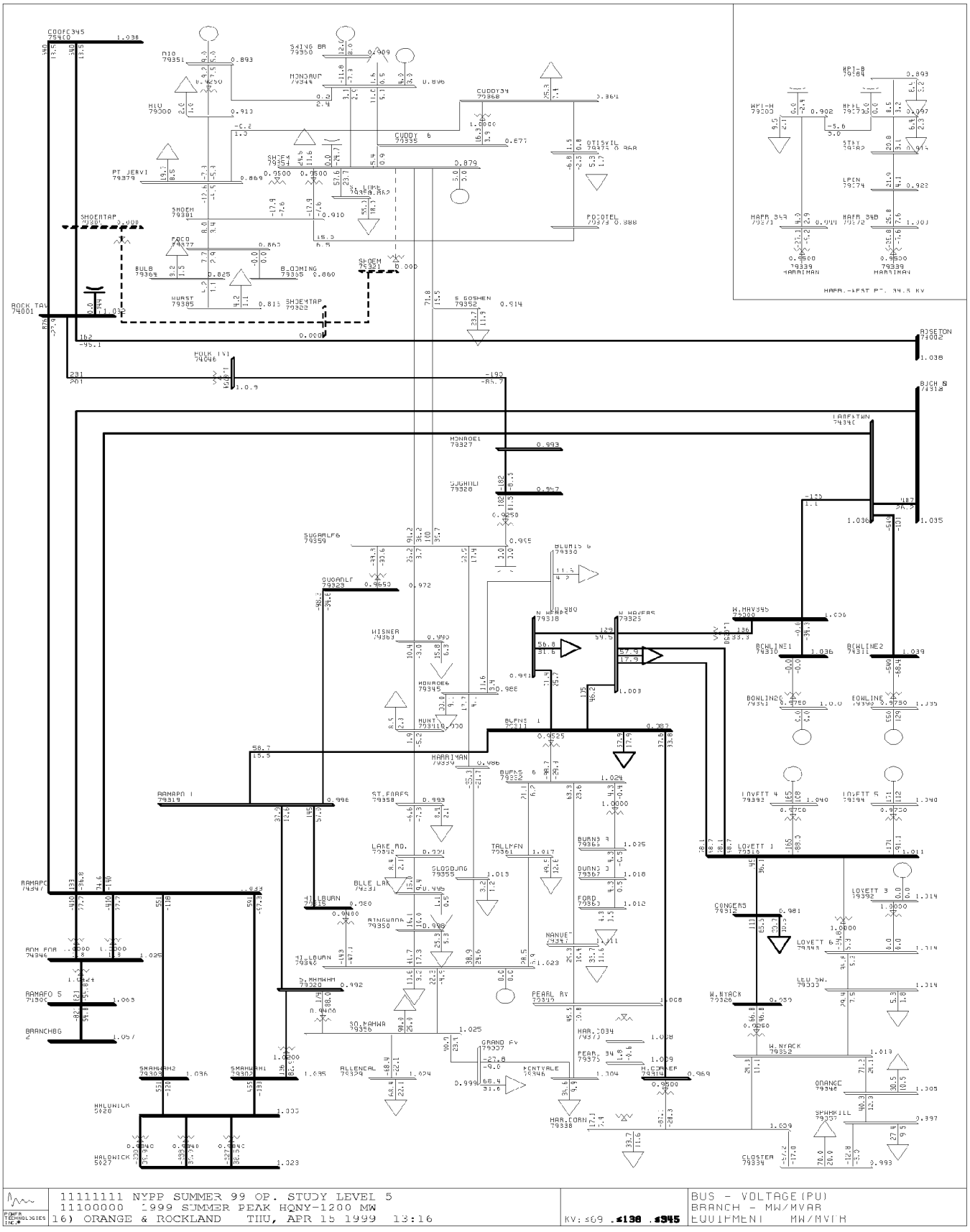

11111111 NYPP SUMMER 99 OP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK HONY-1200 MW
11) NMPC NORTH THU, APR 15 1999 13:16
KV: ≤.38 .≤230 .≤345
BUS VOLTAGE (PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
POWER TECHNOLOGIES, INC.®

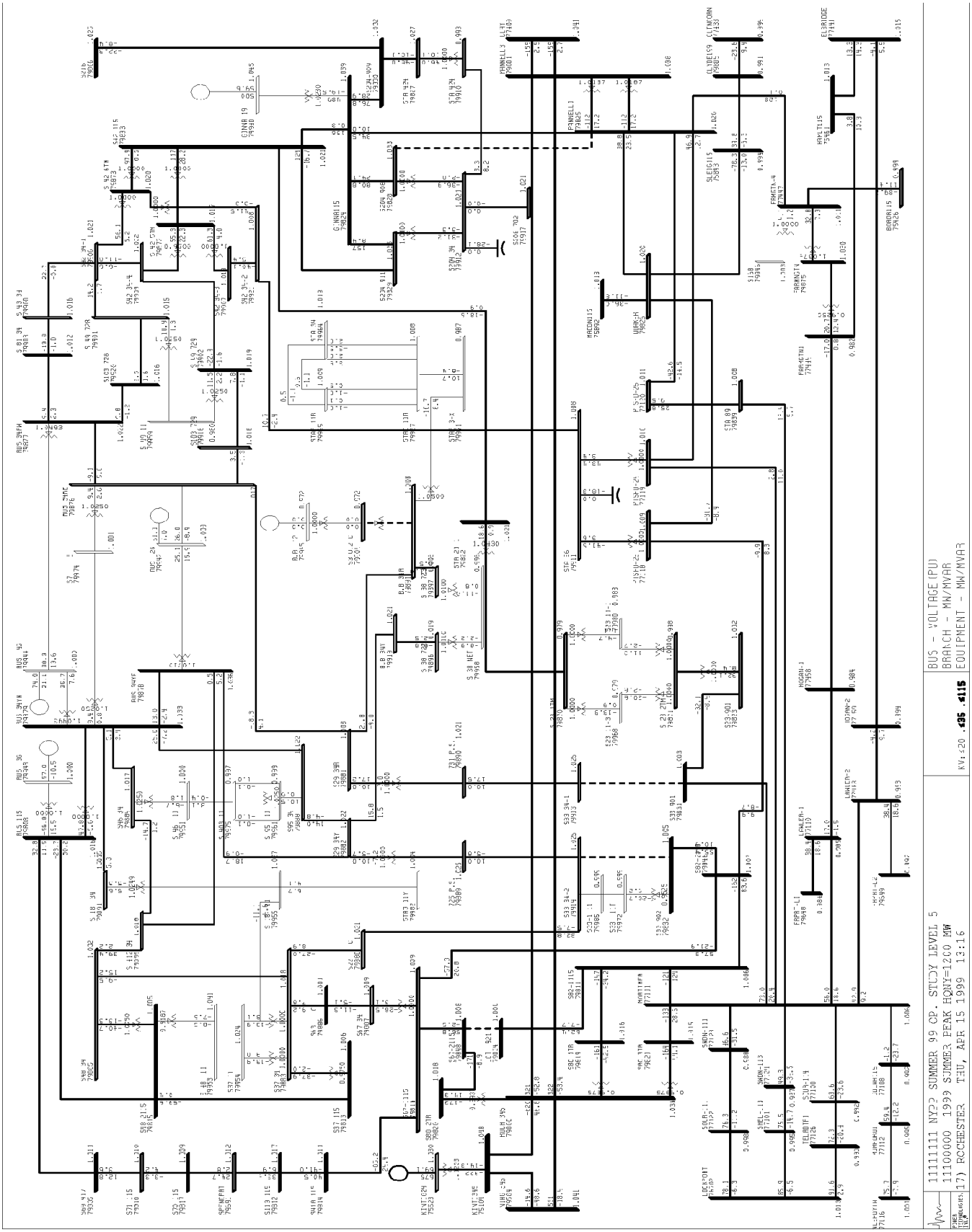

11111111: NYPP SUMMER 99 OP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK (QNY=1200 MW
12) NMPC BUFFALO THU, APR -5 1999 13:16
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV:>35 :≤115 :≤230

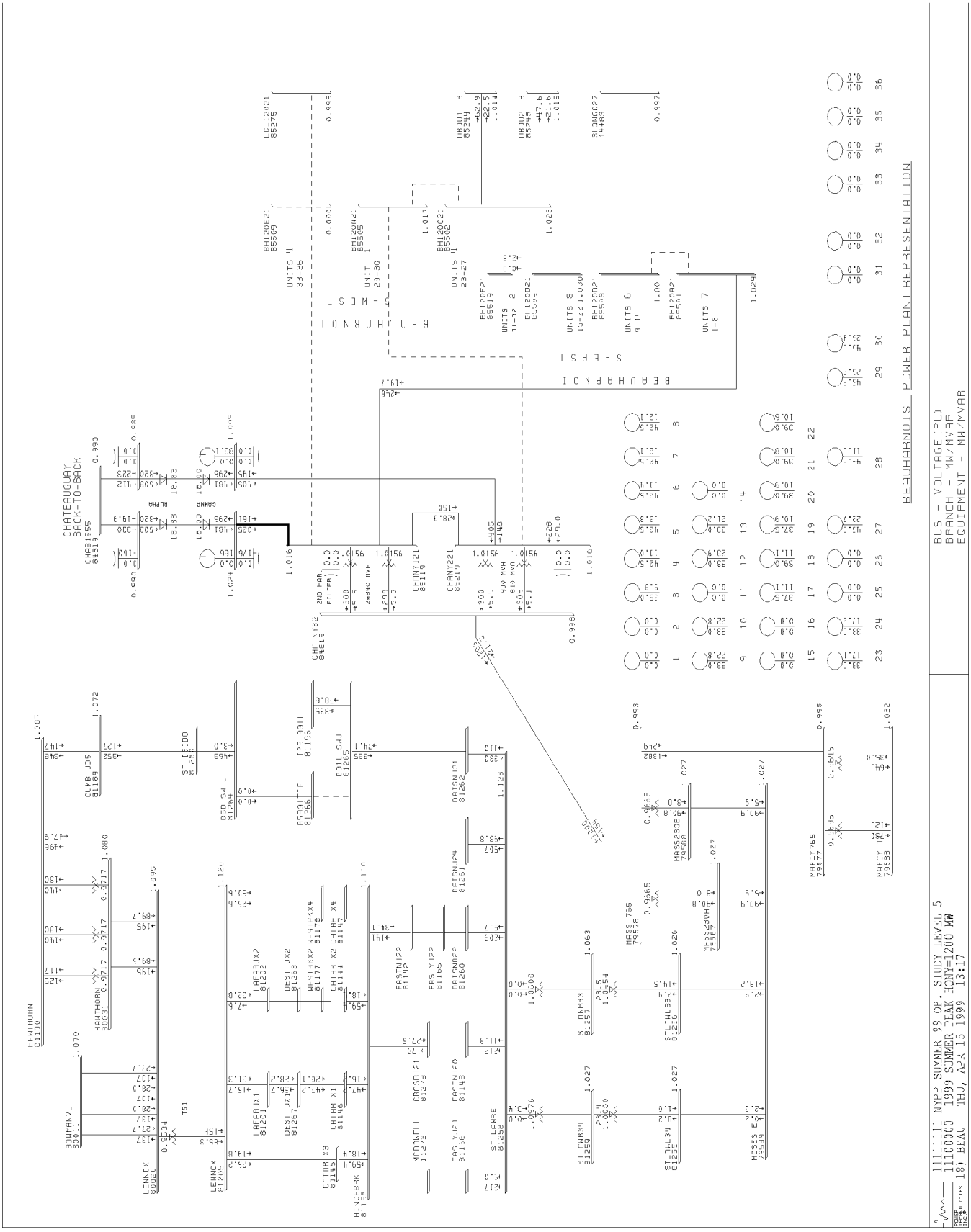

1111111: NYPP SUMMER 99 OP. STUDY LEVEL 5
1110000: 1999 SUMMER PEAK HOUR-1200 MW
13) NMPC ALBANY TEU, APR 15 1999 13:16
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV<35 .<115 .>230

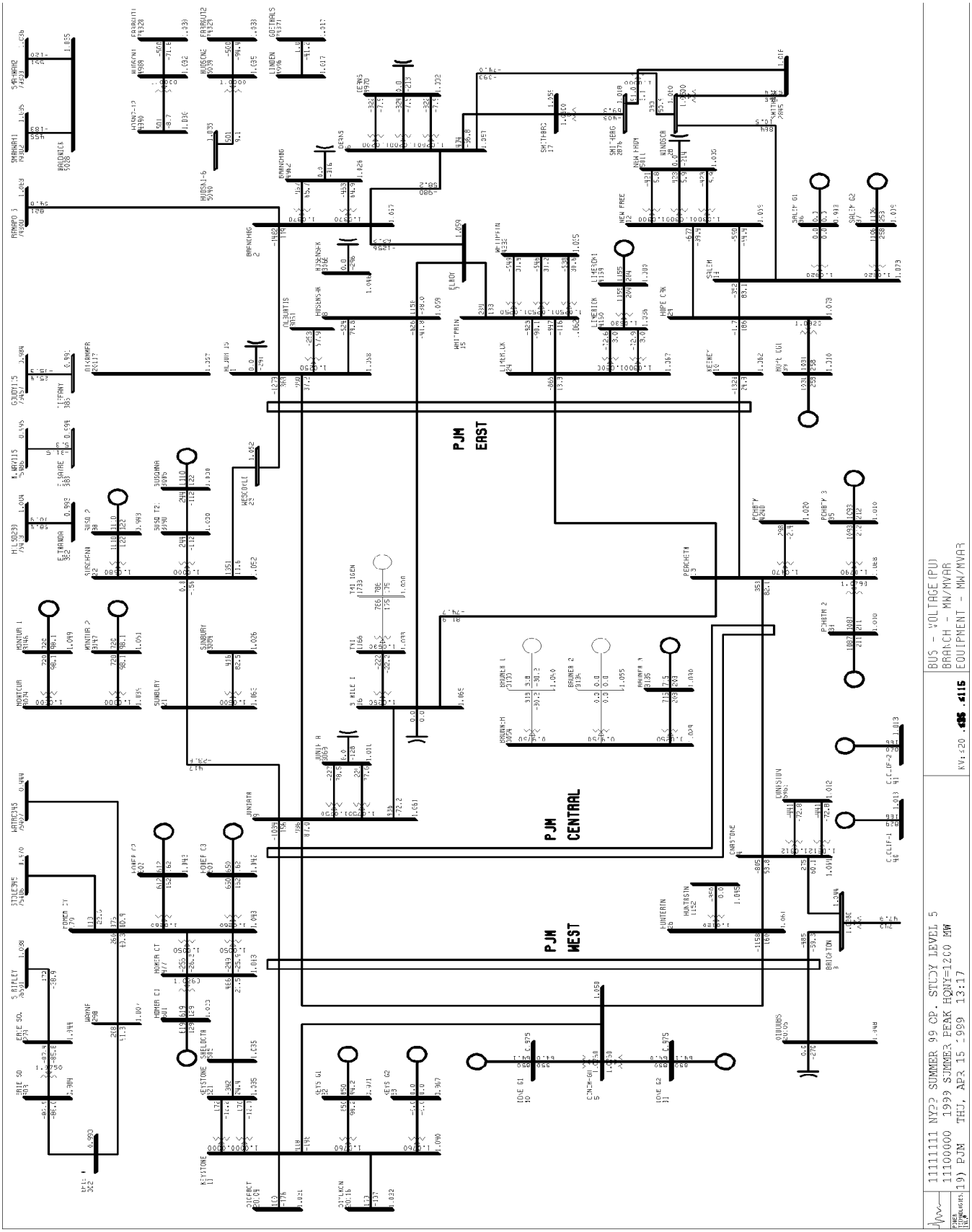

11111-11 NYPP SUMMER 99 OP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK HQNY=12300 MW
14) NMPC SYRACUSE THU, APR 15 1999 13:16
BUS - VOLTAGE (PU)
BRANCH - MW/MVAR
KV<133 <230 <345 EQUIPMENT - MW/MVAR

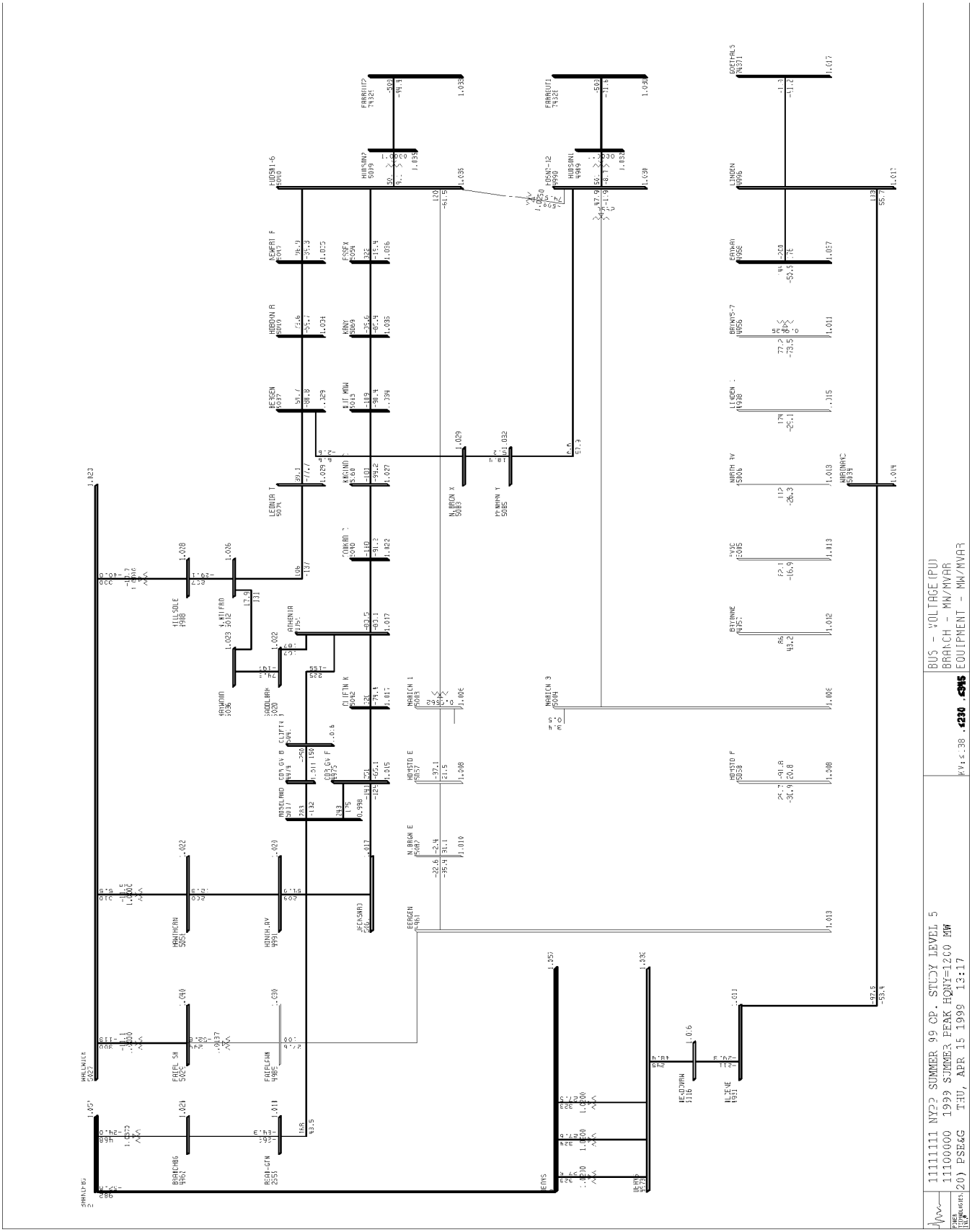

11111111 NYPP SUMMER 99 CP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK HOUR-1260 MW
15) NMPC LOCKPORT 115 THU, APR 15 1999 13:16
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV≥59 .138 .345
KV≤59 .138 .345

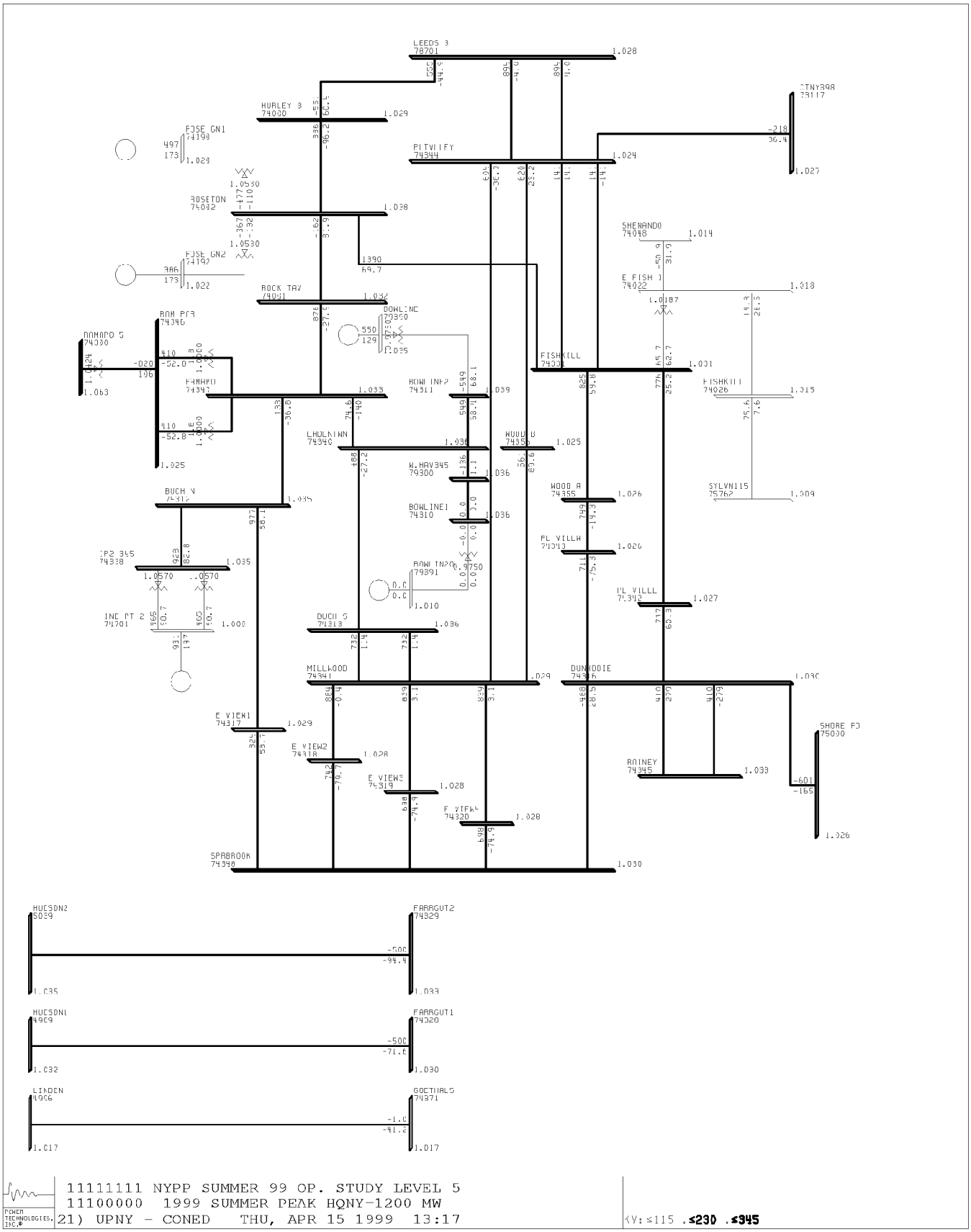

11111111 NYPP SUMMER 99 OP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK HQNY-1200 MW
16) ORANGE & ROCKLAND THU, APR 15 1999 13:16
KV: ≤69 .≥138 .≥345
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT MW/MVTR


BUS - VOLTAGE (PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV:≥20 .635 .4115
11111111 NYPP SUMMER 99 CP, STUDY LEVEL 5
11100000 1999 SUMMER PEAK HOUR-1200 MW
17) ROCHESTER THU, APR 15 1999 13:16


BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
BEAUHARNOIS POWER PLANT REPRESENTATION
1111 111 NYPP SUMMER 99 OP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK HQNY=1200 MW
18) BZAU THU, AUG 15 1999 13:17


PJM
EAST
PJM
CENTRAL
PJM
WEST
11111111 NYPP SUMMER 99 CP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK HOUR-1200 MW
19) PJM THU, APR 15 1999 13:17
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV:≥20 .85 .115


11111111 NY22 SUMMER 99 CP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK HOUR-1200 MW
(20) PSE&G THU, APR 15 1999 13:17
BUS - VOLTAGE (PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR


LEEDS 3
78701
1.028
HURLEY 3
74030
1.029
FOSE GN1
74190
1.020
PITVILFY
74344
1.024
ROSETON
74082
1.038
FOSE GN2
74192
1.022
ROCK TAV
74041
1.032
SHENANDO
74048
1.014
E FISH 1
74022
1.018
DOWLINC
73950
1.035
FISHKILL
74331
1.031
RAMAPO 5
74030
1.063
RAMAPO
74342
1.033
ROWINF2
74311
1.039
FISHKIII
74026
1.015
LHULNIWN
74340
1.036
WOODB
74356
1.025
W.HAV345
79300
1.036
BUCH N
74312
1.035
WOOD A
74355
1.026
SYLVN115
75762
1.009
BOWLINEJ
74310
1.036
PL VILLW
74313
1.026
CP2 345
74338
1.035
ROWIN20
79391
1.010
PL VILLL
74312
1.027
INC PT 2
74701
1.003
DUCH 5
74313
1.036
MILLWOOD
74341
1.029
DUNWODIE
74346
1.030
E VIEW1
74317
1.029
E VIEW2
74318
1.028
E VIEW3
74319
1.028
E VIEW4
74320
1.028
SHORE RD
75030
1.026
RAINEY
74345
1.033
SPRBROOK
74348
1.030
HUDSON2
75029
1.035
FARRGUT2
74329
1.033
HUDSON1
74909
1.032
FARRGUT1
74320
1.030
LINDEN
74906
1.017
GOETHALS
74371
1.017
11111111 NYPP SUMMER 99 OP. STUDY LEVEL 5
11100000 1999 SUMMER PEAK HQNY-1200 MW
21) UPNY - CONED THU, APR 15 1999 13:17
POWER TECHNOLOGIES, INC.
KV: ≤115 .≤230 .≤345

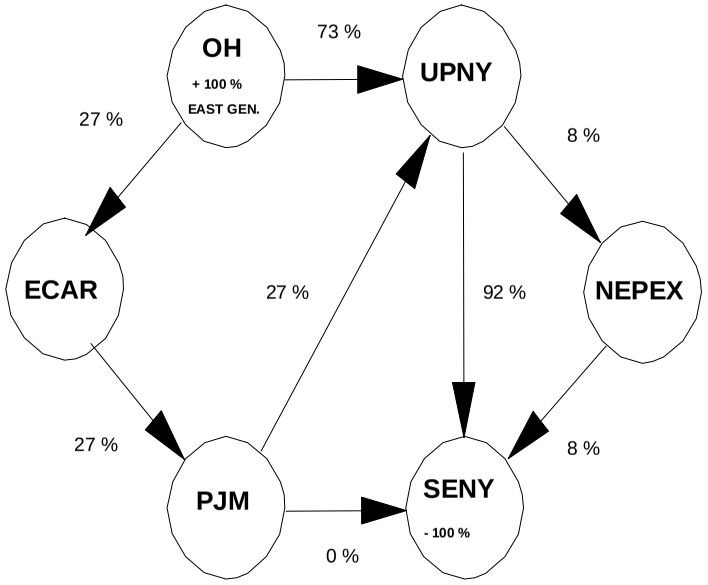
APPENDIX C

INTER-POOL WINTER 1997 TIE LINE

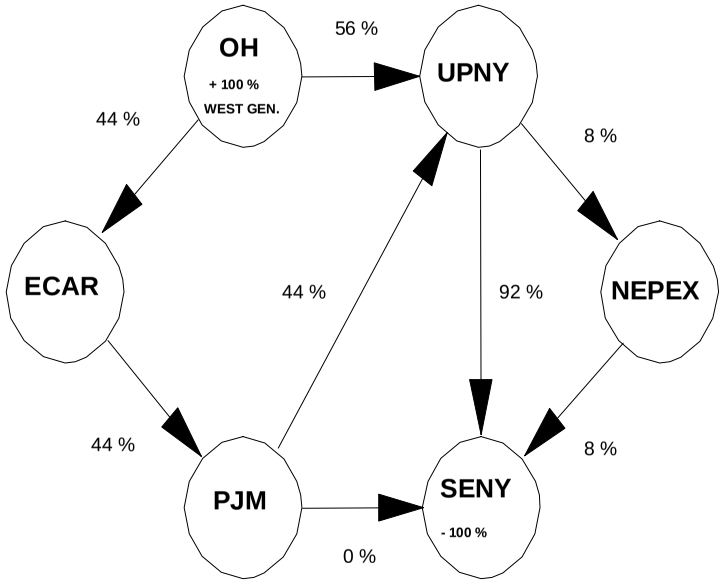
DISTRIBUTION FACTOR DIAGRAM

NYPP CROSS-STATE SUMMER 1999

TIE LINE DIAGRAM FOR TRANSFER CONDITIONS



INTER-REGIONAL TRANSFER DISTRIBUTION FACTORS (IN PERCENT) FOR OH-SENY TRANSFERS PICKUP OH EASTERN GENERATION



INTER-REGIONAL TRANSFER DISTRIBUTION FACTORS (IN PERCENT) FOR OH-SENY TRANSFERS PICKUP OH WESTERN GENERATION

This page intentionally left blank.

APPENDIX D

RATINGS OF MAJOR TRANSMISSION FACILITIES

IN NEW YORK

NYPP SUMMER 1999 OPERATING STUDY 17:04 Monday, March 22, 1999

SUMMER ONLINE RATINGS

LINE NAME	LINE_ID	NORMAL	LTE	STE	MLF_NO	PTID	FBUS	TBUS	CKT
ADRON B1 - MOSES W	MA-1	348	359	440	782	25269	79585	-79590	1
ADRON B2 - MOSES W	MA-2	348	386	440	784	25270	79586	-79590	1
ALBANY - AIR INDE	8	278	321	368	2817	25496	78733	-79751	1
ALCOA N - GR-TAP1	MAL-6	218	253	291	792	25582	79597	-79612	1
ALCOA-NM - ALCOA N	R8105	206	247	310	786	25202	78000	-79597	1
ALCOA-NM - BRADY	13	128	147	159	787	25230	78000	-78010	1
ALCOA-NM - BRADY	9	159	159	159	820	25230	78000	-78010	1
ALCOA-NM - DENNISON	12	166	191	210	788	25227	78000	-78017	1
ALLENS F - COLTON	3	119	128	152	846	25241	78001	-78014	1
ALPS345 - N.SCOT77	2	1204	1326	1589	993	25217	78700	-78702	1
ALPS345 - REYNLD3	1	459	562	755	994	25587	78700	-78704	1
ANDRWS-4 - DENNISON	5	182	197	248	861	25226	78002	-78017	1
ASTORIAE - CORONA	34186	154	239	387	133	25282	74402	-74413	1
ASTORIAE - CORONA	34185	154	239	387	132	25281	74402	-74413	2
ASTORIAE - CORONA	34184	154	239	387	131	25280	74402	-74413	3
ASTORIAE - CORONA	34183	154	239	387	130	25279	74402	-74413	4
ASTORIAE - CORONA	34182	154	239	387	129	25278	74402	-74413	5
ASTORIAE - CORONA	34181	154	239	387	128	25277	74402	-74413	6
ASTORIAE - HG 1	34052	161	245	393	134	25324	74402	-74492	1
ASTORIAE - HG 4	34051	161	245	393	135	25323	74402	-74495	1
ASTORIAW - HG 2	24054	140	186	186	146	25213	74403	-74493	1
ASTORIAW - HG 3	24053	140	186	186	147	25212	74403	-74494	1
ASTORIAW - HG 5	24051	177	249	480	148	25210	74403	-74496	1
ASTORIAW - HG 6	24052	177	249	480	149	25211	74403	74497	1
ASTORIAW - QUENBRDG	28244	308	478	645	153	25318	74403	-74525	1
ASTORIAW - QUENBRDG	28243	308	478	645	152	25317	74403	-74525	2
ASTORIAW - QUENBRDG	28241	154	239	387	151	25315	74403	-74525	3
ASTORIAW - QUENBRDG	28242	154	239	387	150	25316	74403	-74525	4
BARRETT - BRRT PH	461	184	243	297	2	25155	75032	75033	1
BARRETT - VLY STRM	291	233	289	364	9	25312	75032	-75066	1
BARRETT - VLY STRM	292	233	289	364	10	25313	75032	-75066	2
BATAVIA1 - EBAT-107	107	119	128	152	636	25124	77103	-77105	1
BATAVIA1 - NAKR-108	108	130	136	159	647	25125	77103	-77115	1
BATAVIA1 - OAKFLDTP	112	128	136	159	446	25126	77103	-77117	1
BELL-129 - DURZ-129	129	168	185	199	765	69854	76685	-76690	1
BELL-129 - MLPN-129	129	168	185	199	765	69854	76685	-76704	1
BLUE LAK - LAKE RD.	89/993	112	130	137	483	69353	79331	-79342	1
BLUE LAK - RINGWOD6	89/993	112	130	137	483	69353	79331	-79350	1
BORDR115 - FRMGTN-4	977/4	150	179	195	507	25057	75426	-77447	1
BORDR115 - HYATT115	979	129	148	160	506	25106	75426	-75466	1
BOWLINE1 - W.HAV345	67	687	747	747	164	25567	74310	-79300	10
BOWLINE2 - LADENTWN	68	687	747	747	166	25249	74311	-74340	1
BRANCHBG - RAMAPO 5	5018	999	1303	1751	366	25019	2	-74300	1
BRDGPORT - PETRBORO	5	116	120	145	940	25896	77426	-78484	1
BRDGPORT - TEALL	5	116	120	145	940	25896	77426	-77494	1
BUCH N - E VIEW1	W93	1720	1890	2401	175	25133	74312	-74317	1
BUCH N - RAMAPO	Y94	1703	1890	2401	178	25184	74312	-74347	1
BUCH S - LADENTWN	Y88	1703	1890	2401	180	25185	74313	-74340	1
BUCH S - MILLWOOD	W98	1493	1680	1902	182	25146	74313	-74341	1
BUCH S - MILLWOOD	W97	1493	1680	1902	181	25247	74313	-74341	2
BUCHANAN - MLWD TA	96952	275	302	384	173	25283	74409	-74508	1
BUCHANAN - MLWD TA	96951	275	302	384	172	25284	74409	-74508	2
BURNS 1 - W.HAVERS	530/531	224	260	274	473	68644	79311	-79325	1
BURNS 6 - TALLMAN	59/591	50	104	110	469	68642	79332	-79361	1
CARLE PL - E.G.C.	361	250	288	322	18	25533	75037	-75038	1
CARML115 - UNION115	991/992	215	247	270	190	68885	75431	-75765	1
CATON115 - HICK 115	958/960	102	113	120	574	69341	75432	-75463	1
CHURC115 - BL STR E	987/13	119	120	120	1002	68475	75435	-78739	1
CLAY - CLAY	BK#1	308	367	405	826	25387	77400	-77431	1
CLAY - CLAY	BK#2	308	367	405	827	25421	77400	-77431	1
CLAY - DEWITT 3	13	1032	1284	1434	835	25168	77400	-77401	1

NYPP SUMMER 1999 OPERATING STUDY 17:04 Monday, March 22, 1999

SUMMER ONLINE RATINGS

LINE NAME	LINE_ID	NORMAL	LTE	STE	MLF_NO	PTID	FBUS	TBUS	CKT
CLAY - DUGUID	5	193	213	240	829	25519	77431	77440	1
CLAY - EDIC	2-15	1032	1284	1434	837	25200	77400	-78450	1
CLAY - EDIC	1-16	1032	1284	1434	836	25169	77400	-78450	2
CLAY - HPKNS-11	11	220	239	239	831	25516	77431	77460	1
CLAY - HPKNS-11	10	116	120	145	834	25520	77431	77460	1
CLAY - PANNELL3	2	1032	1284	1434	768	25050	77400	79801	1
CLAY - PANNELL3	1	1032	1284	1434	769	25058	77400	79801	2
CLAY - VOLNEY	6	1032	1284	1434	838	25198	77400	-77406	1
CLAY - 9MI PT1	8	1032	1271	1562	839	25167	77400	-77407	1
CLINTON - MARSH115	11/12	125	143	154	1012	68794	79127	-79141	1
CLTNCORN - CLYDE199	971/3	108	128	145	510	25063	77433	-79805	1
CLYDE199 - CLYDE 34	3	125	143	154	509	25221	79918	79805	1
COBHL115 - COBHIL34	906	40	41	45	513	25426	76140	75436	1
CODNT115 - ETNA 115	998	227	253	283	515	25734	75437	-75450	1
CODNT115 - MONTR115	982	53	75	85	516	25728	75437	-75480	1
COFFEEN - E WTRTWN	5	116	119	119	840	25504	78013	-78018	1
COOPC345 - COOPC115	#2	212	266	300	519	25433	75400	-75440	1
COOPC345 - COOPC115	#3	232	296	300	520	25434	75400	-75440	2
COOPC345 - FRASR345	33	1207	1404	1703	521	25236	75400	-75403	1
COOPC345 - MARCY T1	41	1345	1345	1345	2803	25113	75400	-79583	1
CORONA1R - JAMAICA	18001	161	245	393	185	25285	74414	-74505	1
CORONA2R - JAMAICA	18002	161	245	393	186	25286	74415	-74505	1
CORTLAND - LABRADOR	3	125	143	154	855	25894	77434	-77462	1
CORTLAND - TULLER H	947	108	128	143	631	25059	77434	77497	1
CROTN115 - UNION115	991/992	215	247	270	190	68885	75760	-75765	1
DELPHI - LABRADOR	3	125	143	154	855	25894	77438	77462	1
DELPHI - OM-FENNR	3	125	143	154	855	25894	77438	-79667	1
DENNISON - LWRNCE-B	4	182	197	248	796	25225	78017	-78032	1
DENNISON - LWRNCE-B	4	182	197	248	935	25225	78017	-78032	1
DEWITT 3 - DEWITT 1	2	516	657	796	862	25418	77401	-77439	1
DEWITT 3 - LAFAYTTE	22	1434	1434	1434	866	25174	77401	-77403	1
DUN NO - DUN SO	99997	226	317	342	194	25532	74418	-74422	1
DUN NO1R - S CREEK	99031	129	188	290	197	25193	74420	-74533	1
DUN NO2R - S CREEK	99032	129	188	290	198	25239	74421	-74533	1
DUN SO1R - E179 ST	99153LM	223	314	396	203	25287	74424	74435	1
DUNKIRK - DUNKIRK1	41	139	177	226	657	25386	76500	-76523	1
DUNKIRK - DUNKIRK1	31	138	173	223	656	25430	76500	-76523	1
DUNKIRK - GRDNVL2	73	556	637	637	663	25166	76500	-76663	1
DUNKIRK - GRDNVL2	74	556	637	637	664	25197	76500	-76663	1
DUNWODIE - DUN NO	W74	352	484	578	195	25209	74316	-74418	1
DUNWODIE - DUN SO	W73	352	484	578	202	25208	74316	-74422	1
DUNWODIE - PL VILLE	W89	1720	1976	2265	206	25182	74316	-74342	1
DUNWODIE - PL VILLW	W90	1720	1976	2265	205	25250	74316	-74343	1
DUNWODIE - RAINEY	72	715	817	1081	208	25191	74316	-74345	3
DUNWODIE - RAINEY	71	715	817	1081	207	25151	74316	-74345	4
DUNWODIE - SHORE RD	Y50	599	877	1416	115	25091	74316	-75000	1
DUNWODIE - SPRBROOK	W75	2384	2708	3247	209	25071	74316	-74348	1
DURZ-130 - SUMIT PK	130	168	181	206	764	69855	76691	-76719	1
DURZ-130 - ZRMN-130	130	168	181	206	764	69855	76691	-76748	1
E FISH I - FISHKILL	F33	412	445	445	2868	25724	74022	-74331	1
E VIEW1 - EASTVIEW	87874	370	424	424	211	25471	74317	-74428	1
E VIEW1 - SPRBROOK	W79	1720	2214	2657	224	25153	74317	-74348	1
E VIEW2 - EASTVIEW	87873	370	424	424	210	25472	74318	-74428	1
E VIEW2 - MILLWOOD	W82	2293	2708	3236	225	25147	74318	-74341	1
E VIEW2 - SPRBROOK	W64	2293	2708	3236	223	25143	74318	-74348	1
E VIEW3 - EASTVIEW	87872	370	424	424	212	25470	74319	-74428	1
E VIEW3 - MILLWOOD	W99	2293	2708	3236	222	25255	74319	-74341	1
E VIEW3 - SPRBROOK	W65	1720	2214	2657	226	25144	74319	-74348	2
E VIEW4 - EASTVIEW	87871	370	424	424	2835	25373	74320	-74428	1
E VIEW4 - MILLWOOD	W85	2293	2708	3236	325	25258	74320	-74341	1
E VIEW4 - SPRBROOK	W78	2293	2708	3236	2834	25346	74320	-74348	1

NYPP SUMMER 1999 OPERATING STUDY 17:04 Monday, March 22, 1999

SUMMER ONLINE RATINGS

LINE NAME	LINE_ID	NORMAL	LTE	STE	MLF_NO	PTID	FBUS	TBUS	CKT
E.G.C. - NEWBRGE	463	218	332	364	25	25304	75038	-75050	2
E.G.C. - NEWBRGE	465	216	311	424	26	25304	75038	-75050	2
E.G.C. - NEWBRGE	462	218	332	364	24	25303	75038	-75050	3
E.G.C. - ROSLYN	362	263	303	339	28	25534	75038	-75060	1
E.G.C. - VLY STRM	262	218	275	353	30	25244	75038	-75066	1
E.NOR115 - JENN 115	946	80	110	131	530	25729	75446	-75467	1
E.NOR115 - WILET115	945	108	128	145	531	25732	75446	-75513	1
E.SAYRE - N.WAV115	956	90	124	124	608	25013	383	-75486	1
E.SPR115 - INGHAM-E	941	80	106	131	536	25061	75447	-79136	1
E.TWANDA - HILSD230	70	483	531	554	582	25014	382	75413	1
E.WALD 1 - ROCK TV1	D	232	265	311	416	69038	74024	-74046	2
EDIC - JA FITZP	1	1434	1434	1912	867	25077	78450	79580	1
EDIC - MARCY T1	UE1-7	1677	1792	1792	868	25229	78450	-79583	1
EDIC - N.SCOT77	14	1331	1538	1724	873	25170	78450	-78702	1
EDIC - PORTER 1	10	455	539	679	871	25424	78450	-78485	1
EDIC - PORTER 1	20	505	629	794	870	25454	78450	-78485	2
EDIC - PORTER 2	17	478	562	637	872	25422	78450	-78460	1
ELBRIDGE - ELBRIDGE	BK#1	470	557	717	874	25448	77402	-77441	1
ELBRIDGE - LAFAYTTE	17	940	1562	1912	880	25149	77402	-77403	1
ELBRIDGE - OSWEGO	17	1206	1326	1685	881	25234	77402	-77404	1
ELWOOD 1 - NRTHPRT2	681	352	504	604	33	25544	75039	-75052	1
ELWOOD 2 - NRTHPRT2	678	352	504	604	2863	25543	75040	-75052	1
ERIE SO. - S RIPLEY	69	499	607	617	665	25016	361	76501	1
ETNA 115 - WILET115	945	108	128	145	540	25731	75450	-75513	1
E15ST 45 - E13 ST	37375	232	305	321	228	25468	74322	-74434	15
E15ST 45 - FARRAGUT	45	726	882	1258	234	25190	74322	-74327	1
E15ST 45 - W 49 ST	M55	774	866	1291	237	25222	74322	-74354	1
E15ST 46 - E13 ST	37373	225	299	362	230	25465	74323	-74434	12
E15ST 46 - FARRAGUT	46	726	882	1258	236	25251	74323	-74327	1
E15ST 46 - W 49 ST	M54	774	866	1291	235	25228	74323	-74354	1
E15ST 47 - ASTOR345	Q35L	538	621	1476	139	25134	74324	-79579	1
E15ST 47 - E RIVER	44371	240	254	275	217	25459	74324	-74632	17
E15ST 47 - E13 ST	37378	240	305	384	231	25469	74324	-74434	16
E15ST 47 - FARRAGUT	B47	419	683	1124	238	25177	74324	-74327	1
E15ST 48 - ASTOR345	Q35M	538	621	1476	140	25142	74325	-79579	1
E15ST 48 - E13 ST	37376	232	305	321	232	25463	74325	-74434	10
E15ST 48 - FARRAGUT	48	419	683	1124	239	25252	74325	-74327	1
E179 ST - HG 1	15054	161	245	393	240	25290	74435	-74492	1
E179 ST - HG 4	15053	161	245	393	241	25289	74435	-74495	1
E179 ST - HG 6	15055	222	328	480	242	25288	74435	-74497	1
E179 ST - PK-CITY1	38X01	108	151	189	243	25327	74435	-74520	1
E179 ST - PK-CITY2	38X02	108	151	189	244	25328	74435	-74521	1
E179 ST - PK-CITY3	38X03	108	151	189	245	25330	74435	-74522	1
E179 ST - PK-CITY4	38X04	108	151	189	246	25329	74435	-74523	1
E179 ST - S CREEK	15032	161	245	393	248	25156	74435	-74533	1
E179 ST - S CREEK	15031	161	245	393	247	25157	74435	-74533	2
FARRAGUT - GOWANUSN	41	618	807	1183	260	25141	74327	-74336	1
FARRAGUT - GOWANUSS	42	618	807	1183	261	25140	74327	-74337	1
FARRAGUT - HAE TR1	32078	110	155	195	263	25637	74327	-74486	1
FARRAGUT - RAINEY	63	661	758	1081	267	25152	74327	-74345	1
FARRAGUT - RAINEY	62	694	791	1097	266	25253	74327	-74345	2
FARRAGUT - RAINEY	61	661	758	1081	265	25254	74327	-74345	3
FISHKILL - PLTVLLEY	F36	1720	2214	2657	268	25256	74331	-74344	1
FISHKILL - PLTVLLEY	F37	1720	2214	2657	269	25257	74331	-74344	2
FISHKILL - SYLVN115	A/990	119	153	179	376	25066	74026	75762	1
FISHKILL - WOOD A	F38/Y86	1839	2606	3105	270	25367	74331	-74355	1
FISHKILL - WOOD A	F39	1839	2606	3400	271	25368	74331	-74355	1
FOXHLLS1 - GRENWOOD	29231	154	239	387	276	25321	74466	-74484	1
FOXHLLS2 - GRENWOOD	29232	154	239	387	278	25322	74467	-74484	1
FR KILLS - FRKILLR2	TA1	275	387	486	283	25457	74332	-74469	1
FR KILLS - FRKILLSR	TB1	272	372	440	284	25458	74332	-74470	1

NYPP SUMMER 1999 OPERATING STUDY 17:04 Monday, March 22, 1999

SUMMER ONLINE RATINGS

LINE NAME	LINE_ID	NORMAL	LTE	STE	MLF_NO	PTID	FBUS	TBUS	CKT
FR KILLS - GOTHLS N	22	982	1390	1624	285	25137	74332	-74333	1
FR KILLS - GOTHLS S	21	920	1010	1283	286	25138	74332	-74335	1
FR-KILLS - FRKILLR2	21192	275	387	486	2804	25639	74469	-74468	1
FR-KILLS - FRKILLSR	21192	272	372	440	280	25640	74470	-74468	1
FR-KILLS - WILOWBK1	29211	169	271	452	277	25319	74468	-74570	1
FR-KILLS - WILOWBK1	29212	169	271	452	281	25319	74468	-74570	1
FR-KILLS - WILOWBK2	29212	169	271	452	279	25320	74468	-74571	1
FR-KILLS - WILOWBK2	29211	169	271	452	282	25320	74468	-74571	1
FRASR345 - EDIC	EF24-40	1380	1380	1380	2802	25112	75403	-78450	1
FRASR345 - FRASR115	BK#2	305	386	420	2851	25391	75403	75455	1
FRASR345 - GILB 345	35	1428	1524	1524	544	25060	75403	79581	1
FRASR345 - OAKDL345	32	1255	1380	1380	543	25235	75403	75405	1
FRMGTN-4 - PANNELLI	4	207	247	280	887	25080	77447	-79825	1
GALEVILE - KERHNKMK	P	33	41	44	427	69391	74098	-74106	1
GALEVILE - MODENA 6	MK	33	41	44	425	69391	74098	-74113	1
GARDV115 - GRDNVL1	T10-12	550	682	947	548	25085	75456	-76700	1
GARDV115 - LANGN115	903/904	139	163	183	524	68914	75456	-76117	1
GARDV230 - GARDN M6	#6	316	409	420	545	25405	75412	-76153	1
GARDV230 - GARDN M6	#7	204	246	300	546	25435	75412	-76153	1
GARDV230 - GRDNVL2	T8-12	663	739	773	550	25089	75412	-76663	1
GARDV230 - STOLE230	66	474	478	478	549	25180	75412	-75417	1
GERES LK - SOREL-9	9	142	151	185	890	25510	77450	-77490	1
GINNA115 - PANNELLI	912	207	247	285	1074	25260	79824	-79825	1
GLNWD NO - SHORE RD	366	447	499	572	44	25154	75030	-75041	1
GLNWD SO - SHORE RD	365	492	549	630	46	25205	75031	-75041	1
GOETH T - GOETHALS	BKA2253	528	727	817	287	25642	74370	-74371	1
GOTHLS N - GOWANUSN	25	460	683	1022	290	25139	74333	-74336	1
GOTHLS R - GOETH T	BKA2253	528	727	817	287	25642	74334	74370	1
GOTHLS S - GOWANUSS	26	460	683	1022	291	25571	74335	-74337	1
GOUDY115 - S.OWE115	961	112	131	143	555	25725	75457	-75498	1
GOWANUSN - GOWNUS1T	T2	238	276	328	292	25476	74336	-74477	1
GOWANUSS - GOWNUS2T	T14	238	276	328	293	25475	74337	-74479	1
GOWNUS1R - GRENWOOD	42232	226	301	409	301	25214	74476	-74484	1
GOWNUS2R - GRENWOOD	42231	226	301	409	297	25215	74478	-74484	1
GRDNVL2 - GRDNVL1	2	257	280	354	677	25385	76663	-76700	1
GRDNVL2 - GRDNVL1	4	141	183	250	679	25417	76663	-76700	2
GRDNVL2 - GRDNVL1	3	141	182	250	678	25416	76663	-76700	3
GRDNVL2 - SUNY-79	79	566	654	755	690	25165	76663	-76668	1
GRDNVL2 - SUNY-80	80	566	654	755	691	25196	76663	-76669	1
GRENWOOD - VERNON-E	31232	154	239	387	305	25298	74484	-74556	1
GRENWOOD - VERNON-E	31231	154	239	387	304	25299	74484	-74556	1
HAE TR1 - HUDAVE E	32077	110	155	195	264	25291	74486	-74502	1
HAE TR1 - HUDAVE E	32711	110	155	195	262	25293	74486	-74502	1
HAM-CKTP - PALOMATP	4	116	120	145	904	25501	77452	77478	1
HAMLT115 - ELBRIDGE	983	125	143	154	878	69053	75461	-77441	1
HAMLT115 - FARMGTN1	983	125	143	154	884	69138	75461	-77444	1
HAMLT115 - HAMLTN34	1	30	37	56	563	25394	75554	75461	1
HAR.CORN - W.NYACK	751	65	76	79	478	69314	79338	-79362	1
HARRIMAN - SLOSBURG	31/311	112	130	137	479	69318	79339	-79355	1
HILLBURN - RINGWOD6	89/993	112	130	137	483	69353	79340	-79350	1
HILLBURN - SLOSBURG	31/311	112	130	137	479	69318	79340	-79355	1
HILLBURN - TALLMAN	59/591	50	104	110	469	68642	79340	-79361	1
HILSD230 - HILSD M3	BK#3	231	294	336	576	25397	75413	75843	1
HILSD230 - WATRC230	69	504	584	657	581	25181	75413	-75418	1
HINMN115 - LOCKPORT	100	220	252	280	585	25087	75465	-76702	1
HOLBROOK - PT JEFF1	886	284	312	373	61	25540	75044	-75057	1
HOLBROOK - RONKONK	889	230	346	420	67	25682	75044	-75059	1
HOLBROOK - RULND RD	882	468	520	623	68	25538	75044	-75061	1
HOLBROOK - SHOREHAM	925	203	226	239	547	25116	75044	75062	1
HOMER CY - STOLE345	37	605	757	840	630	25036	479	75406	1
HOMER CY - WATRC345	30	926	927	927	635	25018	479	75407	1

NYPP SUMMER 1999 OPERATING STUDY 17:04 Monday, March 22, 1999

SUMMER ONLINE RATINGS

LINE NAME	LINE_ID	NORMAL	LTE	STE	MLF_NO	PTID	FBUS	TBUS	CKT
HONK FLS - KERHNKMK	P	33	41	44	427	69391	74103	-74106	1
HUDAVE E - JAMAICA	702	129	213	366	317	25295	74502	-74505	1
HUDAVE E - JAMAICA	701	129	213	366	316	25294	74502	-74505	2
HUNT - ST.FORES	89/993	112	130	137	483	69353	79341	-79358	1
HUNT - WISNER	89/993	112	130	137	483	69353	79341	-79363	1
HUNTLEY1 - S129-39	38	129	151	185	703	69428	76701	-76723	1
HUNTLEY1 - ZRMN-130	129	168	181	199	705	69426	76701	-76748	1
HUNTLEY2 - PACKARD2	78	556	644	746	707	25164	76664	-76665	1
HUNTLEY2 - PACKARD2	77	556	644	746	706	25195	76664	-76665	1
HUNTLEY2 - SUNY-79	79	566	654	755	708	25127	76664	-76668	1
HUNTLEY2 - SUNY-80	80	566	654	755	709	25128	76664	-76669	1
HURLEY 3 - HURLEY 1	BK 1	419	481	488	431	25419	74030	-74000	1
HURLEY 3 - LEEDS 3	301	1529	1766	1912	435	25055	74000	-78701	1
HURLEY 3 - ROSETON	303	1395	1623	1870	434	25218	74000	-74002	1
HYATT115 - ELBRIDGE	15	129	148	160	587	25109	75466	-77441	1
INGMS-CD - INGHAM-E	2	167	197	239	898	25242	78478	-79136	1
JAMAICA - L SUCSPH	903	238	341	428	78	25090	74505	-75047	1
JAMAICA - V STRM P	901L&M	272	361	441	118	25048	74505	-75067	1
KINTI345 - ROCH 345	39	1301	1501	1685	624	25073	75404	-79800	1
KNAPPS 6 - LAGRANGE	G	41	44	51	438	69534	74107	-74108	1
LADENTWN - RAMAPO	W72	1720	1890	2401	320	25233	74340	-74347	1
LADENTWN - W.HAV345	67	1720	2214	2657	321	25248	74340	-79300	1
LAGRANGE - PL.VAL 6	G	41	44	51	438	69534	74108	-74120	1
LAKE RD - HAM-CKTP	4	116	120	145	904	25501	77421	77452	1
LAKE RD - 9 MI PT	4	116	120	145	904	25501	77421	77502	1
LAKE RD. - ST.FORES	89/993	112	130	137	483	69353	79342	-79358	1
LAUREL L - GOUDY115	952	108	128	143	556	25012	387	-75457	1
LCST GRV - NEWBRGE	558&9	393	466	568	83	25158	75045	-75050	1
LEEDS 3 - GILB 345	GL-3	1428	1605	1912	1017	25219	78701	-79581	1
LEEDS 3 - N.SCOT77	93	1331	1538	1724	1029	25171	78701	-78702	1
LEEDS 3 - N.SCOT99	94	1331	1538	1724	1028	25203	78701	-78703	2
LOCKPORT - NAKR-108	108	130	136	165	712	25266	76702	77115	1
LOCKPORT - OAKFLDTP	112	131	144	159	646	25300	76702	77117	1
LOCKPORT - SHEL-113	113	143	165	180	718	25263	76702	77101	1
LOCKPORT - SOUR-111	111	131	144	159	717	25262	76702	77122	1
LOCKPORT - TELRDTP1	107	199	199	199	637	25265	76702	77125	1
LOCKPORT - TELRDTP1	114	143	165	180	721	25264	76702	77126	1
LONGTAP - NIAG115E	180	160	166	206	681	25104	76703	-79600	1
LTHSE HL - BLACK RV	6	106	114	134	805	25506	77466	-78005	1
LTHSE HL - E WTRTWN	5	116	119	119	840	25504	77466	-78018	1
MACDN115 - QUAKER	930	60	75	112	594	25093	75892	-79826	1
MALONE - NICHOLVL	3	119	128	152	905	25585	78033	-78041	1
MALONE - WILL 115	910	129	159	175	906	25586	78033	-79606	1
MARCY765 - MARCY T1	MAR-AT2	1488	1793	2338	908	25456	79577	-79583	1
MARCY765 - MARCY T1	MAR-AT1	1488	1654	1654	907	25455	79577	-79583	2
MARCY765 - MASS 765	MSU1	3975	3975	5300	911	25224	79577	-79578	1
MASS 765 - CHA-NY82	MSC7040	3975	3975	5300	825	25301	79578	84819	1
MASS 765 - MASS230A	MAS-AT1	936	1151	1348	912	25665	79578	-79587	1
MASS 765 - MASS230B	MAS-AT2	936	1151	1348	914	25666	79578	-79588	1
MASS230A - MOSES E	MMS1	936	1151	1348	913	25274	79587	-79589	1
MASS230B - MOSES E	MMS2	936	1151	1348	915	25275	79588	-79589	1
MEYER230 - MEYER M4	BK#4	231	294	336	595	25398	75414	75993	1
MEYER230 - STOLE230	67	430	494	540	598	25064	75414	-75417	1
MILAN - N.CAT. 1	T7	124	138	159	441	69719	74038	-74040	1
MILAN - PL.VAL 1	R10	129	166	206	338	69896	74038	-74043	1
MILLWOOD - MLWD TA	96922	216	307	346	323	25530	74341	-74508	1
MILLWOOD - MLWD TA	96921	205	297	321	322	25531	74341	-74508	2
MILLWOOD - WOOD B	W80	1720	2214	2657	326	25148	74341	-74356	1
MLPN-129 - PACK(S)W	133	168	181	199	465	69854	76704	-76711	1
MLPN-130 - PACK(S)W	130	168	181	206	764	69855	76705	-76711	1
MLPN-130 - SUMIT PK	130	168	181	206	764	69855	76705	-76719	1

NYPP SUMMER 1999 OPERATING STUDY 17:04 Monday, March 22, 1999

SUMMER ONLINE RATINGS

LINE NAME	LINE_ID	NORMAL	LTE	STE	MLF_NO	PTID	FBUS	TBUS	CKT
MORAI115 - BENET115	966	124	139	159	503	68439	75481	-75992	1
MORTIMER - PTSFD-24	24	129	148	160	728	25096	77111	-77119	1
MORTIMER - STA 89	25	114	123	142	729	25095	77111	-79839	1
MORTIMER - SWDN-111	111	129	136	153	723	25347	77111	-77123	1
MORTIMER - S33 901	901	129	159	159	731	25097	77111	-79831	1
MORTIMER - S33 901	902	90	90	90	1117	25097	77111	-79831	1
MORTIMER - S80 3TR	904	227	251	284	732	25081	77111	-79821	1
MORTIMER - S82-1115	7X8272	259	366	480	730	25098	77111	-79811	1
MOS 115 - GR-TAP1	MAL-6	218	253	291	792	25582	79599	-79612	1
MOS 115 - GR-TAP2	MAL-5	238	275	310	794	25583	79599	-79613	1
MOSES W - MOS 115	SL-AT1	401	490	646	922	25411	79590	-79599	1
MOSES W - MOS 115	SL-AT2	401	490	646	923	25451	79590	-79599	2
MOSES W - MOS 115	SL-AT3	192	240	287	920	25452	79590	-79599	3
MOSES W - MOS 115	SL-AT4	537	598	773	921	25453	79590	-79599	4
MOSES W - WILLIS E	MW-2	349	418	512	927	25188	79590	-79595	1
MOSES W - WILLIS W	MW-1	349	418	512	926	25271	79590	-79596	1
MOUNTAIN - NIAG115E	121	176	211	240	2902	25070	76778	79600	1
MOUNTAIN - NIAG115E	122	176	211	240	2903	25072	76778	79600	2
MTNS-120 - NIAG115E	120	176	211	239	733	25135	76706	-79600	1
N.SCOT1 - AIR INDE	8	278	321	368	2817	25496	78766	-79751	1
N.SCOT1 - RTRDM1	13	241	265	318	1041	25494	78766	-78782	1
N.SCOT77 - N.SCOT1	BK#1	458	474	489	1039	25445	78702	78766	1
N.SCOT99 - GILB 345	GNS-1	1242	1386	1589	1018	25052	78703	-79581	1
N.SCOT99 - MARCY T1	18	1488	1792	1792	910	25276	78703	79583	1
N.SCOT99 - N.SCOT1	BK#2	455	461	484	2816	25460	78703	78766	1
N.WAV115 - CHEMU115	962	112	131	143	577	25726	75486	-75812	1
N.WAV115 - LOUNS115	962	112	131	143	607	25727	75486	-75668	1
NEWBRGE - RULND RD	561	255	294	329	81	25305	75050	-75061	2
NEWBRGE - RULND RD	562	255	294	329	80	25306	75050	-75061	2
NI.B-181 - PACK(N)E	181/922	124	139	159	737	69816	76708	-76710	1
NIAG 345 - BECK A	PA302	1070	1322	1714	759	25041	79584	81509	1
NIAG 345 - BECK B	PA301	1070	1322	1714	758	25040	79584	81508	1
NIAG 345 - NIAGAR2E	N-AT5	384	479	575	745	25408	79591	-79584	1
NIAG 345 - NIAGAR2E	N-AT3	384	479	575	744	25450	79591	-79584	2
NIAG 345 - NIAGAR2W	N-AT4	767	943	1104	752	25449	79592	-79584	1
NIAGAR2W - NIAG115E	N-AT1	192	239	288	739	25409	79600	-79592	1
NIAGAR2W - NIAG115W	N-AT2	229	276	359	747	25410	79601	-79592	1
NIAGAR2W - PA27 REG	PA27	400	460	558	756	25025	79592	81516	1
NRTHPRT1 - NRTHPRT2	BUS/PS2	407	505	570	91	25599	75051	75052	1
NRTHPRT1 - PILGRIM	672	204	288	353	94	25307	75051	-75056	1
NRTHPRT1 - PILGRIM	677	409	575	604	92	25308	75051	-75056	2
NRTHPRT1 - PILGRIM	679	409	575	604	93	25309	75051	-75056	3
OAKDL230 - OAKDL115	BK#1	275	400	440	609	25400	75415	75488	1
OAKDL230 - WATRC230	71	275	400	440	612	25179	75415	-75418	1
OAKDL345 - LAFAYTTE	4-36	1255	1380	1380	614	25049	75405	-77403	1
OAKDL345 - OAK2M115	BK#3	428	556	600	571	25399	75405	75489	1
OAKDL345 - OAK3M115	BK#2	428	556	600	610	25401	75405	75490	1
OAKDL345 - WATRC345	31	926	1076	1076	613	25178	75405	-75407	1
OAKWOOD - SYOSSET	675	269	358	541	96	25547	75055	-75063	1
ONEIDA - PETRBORO	5	116	120	145	940	25896	78483	-78484	1
OSW 3&4 - S OSWEGO	5	209	239	239	952	25508	77475	77485	1
OSW 3&4 - S OSWEGO	8	400	462	478	953	25509	77475	77485	2
OSWEGO - OSW 3&4	BK 7	496	552	690	966	25372	77404	-77475	1
OSWEGO - VOLNEY	11	1200	1326	1685	948	25199	77404	-77406	1
OSWEGO - VOLNEY	12	1200	1326	1685	949	25201	77404	-77406	1
OW CRN W - UNVL 9TP	2	116	120	145	450	25067	78770	-78797	1
PACK(N)E - NIAG115E	191	248	299	354	742	25075	76710	-79600	1
PACK(N)E - NIAG115E	192	248	299	354	741	25099	76710	-79600	2
PACK(S)W - NIAG115W	194	248	299	354	750	25100	76711	-79601	1
PACK(S)W - NIAG115W	193	248	299	354	749	25101	76711	-79601	2
PACK(S)W - NIAG115W	195	233	253	335	751	25102	76711	-79601	3

NYPP SUMMER 1999 OPERATING STUDY 17:04 Monday, March 22, 1999

SUMMER ONLINE RATINGS

LINE NAME	LINE_ID	NORMAL	LTE	STE	MLF_NO	PTID	FBUS	TBUS	CKT
PACKARD2 - BP76 REG	76	478	492	569	763	25024	76665	-81515	1
PACKARD2 - NIAGAR2W	62	620	717	841	755	25186	76665	-79592	1
PACKARD2 - NIAGAR2W	61	620	717	841	754	25220	76665	-79592	1
PACKARD2 - PACK(N)E	3	141	182	250	760	25414	76665	-76710	1
PACKARD2 - PACK(S)W	2	106	136	183	761	25383	76665	-76711	1
PACKARD2 - PACK(S)W	4	141	182	250	762	25415	76665	-76711	2
PALMT115 - ANDOVER1	932	78	85	98	615	25094	75994	-76510	1
PALOMA - S OSWEGO	6	114	120	142	903	25513	77477	-77485	1
PALOMA - S OSWEGO	6	116	120	145	954	25513	77477	-77485	1
PALOMATP - S OSWEGO	4	116	120	145	904	25501	77478	-77485	1
PANNELLI - QUAKER	914	207	247	285	1081	25261	79825	-79826	1
PANNELL3 - PANNELLI	122 2TR	255	320	330	771	25396	79801	-79825	1
PANNELL3 - PANNELLI	122 1TR	255	320	330	770	25431	79801	-79825	2
PARK TR1 - PARK1REG	R11	215	301	379	330	25649	74512	-74516	1
PARK TR2 - PARK2REG	R12	215	301	379	333	25650	74513	-74517	1
PAWLN115 - SYLVN115	990/994	176	179	179	188	68887	75492	-75762	1
PILGRIM - RULND RD	661	549	549	549	105	25310	75056	-75061	1
PILGRIM - RULND RD	662	549	549	549	104	25311	75056	-75061	2
PL VILLE - PLTVILLE	1	59	67	67	345	25477	74342	-74783	1
PL VILLW - PLTVILLE	2	59	67	67	344	25478	74343	-74783	1
PL VILLW - WOOD A	Y87	1839	2605	3105	352	25132	74343	-74355	1
PL.VAL 1 - PLTVLLEY	BK S1	415	450	450	334	25382	74344	74043	1
PLAT T#1 - WILLIS E	WP-1	170	203	249	967	25272	79593	-79595	1
PLAT T#4 - WILLIS W	WP-2	170	203	249	956	25273	79594	-79596	1
PLAT 115 - T MIL RD	PS-1/B	96	123	150	959	25078	79672	-79694	1
PLTVLLEY - LEEDS 3	91	1331	1538	1724	347	25054	74344	-78701	1
PLTVLLEY - LEEDS 3	92	1331	1538	1724	348	25056	74344	-78701	2
PLTVLLEY - WOOD B	F30	1720	2214	2657	346	25237	74344	-74356	1
PORTER 1 - ILION	5	116	120	145	896	25232	78485	-79655	1
PORTER 1 - ILION	2	116	120	145	991	25232	78485	-79655	1
PORTER 1 - VALLEY	4	116	120	145	973	25231	78485	-78496	1
PORTER 2 - ADRON B1	11	321	353	449	783	25051	78460	-79585	1
PORTER 2 - ADRON B2	12	321	353	449	785	25082	78460	-79586	1
PORTER 2 - PORTER 1	2	268	320	338	972	25389	78460	-78485	1
PORTER 2 - PORTER 1	1	268	320	338	971	25423	78460	-78485	1
PORTER 2 - ROTRDM.2	30	440	505	560	974	25173	78460	-78980	1
PORTER 2 - ROTRDM.2	31	439	505	560	975	25194	78460	-78980	1
PTSFD-24 - PANNELLI	24	129	148	160	1079	69863	77119	-79825	1
PTSFD-25 - PANNELLI	25	114	123	142	1080	69862	77120	-79825	1
QUENBRDG - VERNON-E	31282	308	478	602	354	25159	74525	-74556	2
QUENBRDG - VERNON-W	31281	312	542	602	353	25160	74525	-74557	1
RAINEY - 8E DUM	36311	215	302	348	358	25296	74345	-74611	8
RAINEY - 8W DUM	36312	215	305	358	359	25297	74345	-74612	8
RAM PAR - RAMAPO	BK4500	545	741	999	2806	25370	74346	-74347	1
RAM PAR - RAMAPO	BK3500	545	741	999	2805	25371	74346	-74347	2
RAMAPO - RAMAPO 1	1300	391	513	567	363	25441	74347	-79319	1
RAMAPO - RAMAPO 1	2300	391	513	567	362	25442	74347	-79319	2
RAMAPO - SMAHWAH1	69	1226	1737	2271	364	25021	74347	79302	1
RAMAPO - SMAHWAH2	70	1720	1890	2401	365	25259	74347	79303	1
RAMAPO 5 - RAM PAR	1500	995	1304	1752	360	25656	74300	74346	1
REYNLD3 - REY. RD.	BK#2	459	562	755	1050	25403	78704	-78778	1
ROBIN230 - NIAGAR2E	64	496	598	704	618	25088	75416	-79591	1
ROBIN230 - ROBIN M1	BK#1	297	367	420	616	25395	75416	-76282	1
ROBIN230 - STOLE230	65	550	637	717	617	25065	75416	-75417	1
ROCH 345 - PANNELL3	1	1301	1501	1685	767	25192	79800	-79801	1
ROCH 345 - PANNELL3	2	1301	1501	1685	766	25172	79800	-79801	2
ROCH 345 - S80 1TR	BK #1TR	207	247	284	772	25412	79800	-79819	1
ROCH 345 - S80 2TR	BK #2TR	239	294	333	773	25432	79820	79800	2
ROCH 345 - S80 3TR	BK #3TR	245	296	360	774	25446	79800	-79821	3
ROCK TAV - COOPC345	CRT-34	1464	1793	1793	2800	25110	74001	75400	1
ROCK TAV - COOPC345	CRT-42	1554	1733	1793	2801	25111	74001	75400	2

NYPP SUMMER 1999 OPERATING STUDY 17:04 Monday, March 22, 1999

SUMMER ONLINE RATINGS

LINE NAME	LINE_ID	NORMAL	LTE	STE	MLF_NO	PTID	FBUS	TBUS	CKT
ROCK TAV - RAMAPO	77	1720	1890	2283	361	25183	74001	74347	1
ROCK TAV - ROCK TV1	BK TR	396	445	445	457	25406	74046	-74001	1
ROCK TAV - ROSETON	311	1395	1623	1870	458	25069	74001	-74002	1
ROCK TV1 - SUGARLF	SL/6108	176	203	217	498	25420	74046	79328	1
ROSETON - FISHKILL	305	1935	2677	3137	272	25108	74002	74331	1
RTRDM1 - ROTRDM.2	BK#6	345	375	522	1056	25407	78980	78782	1
RTRDM1 - ROTRDM.2	BK#7	300	355	402	1057	25392	78980	78782	2
RTRDM1 - ROTRDM.2	BK#8	326	369	423	1058	25413	78980	78782	3
S.PER115 - STA 162	7X16272	125	152	180	625	25062	75995	79810	1
SANBORNT - NIAG115E	101	233	253	318	713	25267	76714	-79600	1
SARANAC - T MIL RD	PS-1/B	96	123	150	959	25078	79685	-79694	1
SCRIBA - JA FITZP	FS-10	1434	1434	1912	900	25076	77405	-79580	1
SCRIBA - VOLNEY	20	1200	1396	1686	978	25204	77405	-77406	1
SCRIBA - VOLNEY	21	1670	1912	1912	979	25314	77405	-77406	1
SCRIBA - 9M PT 2G	23	1670	1931	2211	981	70513	77405	-77950	1
SCRIBA - 9MI PT1	9	994	1109	1271	980	25359	77405	-77407	1
SHEL-113 - SWDN-113	113	129	149	153	724	25263	77101	77124	1
SHORE RD - L SUCS	368	228	317	518	76	25150	75041	-75046	1
SHORE RD - L SUCS	367	228	317	518	75	25145	75041	-75046	2
SHORE RD - SHORE RD	BK#2	457	569	731	114	25440	75000	75041	1
SHORE RD - SHORE RD	BK#1	457	569	731	113	25439	75000	75041	2
SLEIG115 - QUAKER	980	150	170	189	621	25079	75893	-79826	1
SMAHWAH1 - S.MAHWAH	258	436	528	602	496	25393	79302	-79320	1
SNBRN102 - NIAG115E	102	233	253	318	743	25103	76718	-79600	1
SOUR-114 - MORTIMER	114	129	149	153	725	25349	77100	-77111	1
SPRBROOK - REACTY49	Y49	693	936	1392	2856	25105	74348	74349	1
SPRBROOK - TREMONT	X28	452	656	879	373	25175	74348	-74351	1
SPRBROOK - W 49 ST	M52	774	866	1291	375	25223	74348	-74354	1
SPRBROOK - W 49 ST	M51	774	866	1291	374	25053	74348	-74354	2
STATE115 - CLTNCORN	971/3	108	128	145	510	25063	75505	-77433	1
STATE115 - ELBRIDGE	972/5	108	128	145	627	25107	75505	-77441	1
STILV115 - HANCO115	954/955	102	113	120	565	69271	75506	-76310	1
STOLE345 - STOLE115	#4	305	387	420	629	25462	75507	-75406	1
STOLE345 - STOLE115	#3	300	370	420	628	25461	75507	-75406	2
SUGARLF6 - WISNER	89/993	112	130	137	483	69353	79359	-79363	1
TEALL - ONEIDA	2	116	120	145	939	25895	77494	-78483	1
TREMONT - PARK TR1	R11	215	301	379	350	25473	74351	-74512	1
TREMONT - PARK TR2	R12	215	301	379	351	25474	74351	-74513	1
VOLNEY - MARCY T1	19	1434	1793	1912	909	25345	77406	-79583	1
W.HAV345 - W.HAVERS	BK#194	432	600	623	382	25447	79300	79325	1
W.WDB115 - W.WDBR69	T152	48	50	50	467	25404	76210	-75512	1
WALDA113 - AM.S-182	923	38	39	42	633	25429	76198	-76682	1
WARREN - FALCONER	171	82	120	136	673	25015	281	76527	1
WATRC345 - WATRC230	BK#1	452	584	600	634	25402	75407	75418	1
WHITMAN - ONEIDA	3	125	143	154	855	25894	77500	-78483	1
WILLIS E - WILL 115	WIL-AT1	150	184	216	984	25388	79606	79595	1
WILLIS W - WILL 115	WIL-AT2	150	184	216	983	25390	79606	79596	1
WOODA345 - WOODS115	BK#1	327	409	420	384	25437	75408	75515	1
WOODB345 - WOODS115	BK#2	325	406	420	383	25438	75409	75515	1
WOODS115 - AMWLK115	996	215	247	275	327	25574	75515	-75759	1
WYANT115 - REY. RD.	13	186	214	237	1052	69928	75517	-78778	1

APPENDIX E

GENERATION CHANGES ASSUMED FOR THERMAL ANALYSIS

NYPP OPERATING INTERFACES & OASIS TRANSMISSION PATHS

CENTRAL EAST		
Name	**Line ID**	**Voltage(kV)**
Edic-New Scotland*	14	345
Marcy-New Scotland*	UNS-18	345
Porter-Rotterdam*	30	230
Porter-Rotterdam*	31	230
Grand Isle (Vermont)-	PV-20	115
Inghams-Richfield Springs	942	115
Inghams CE*PAR	PAR	115
Inghams CE*	R81 (N.O.)	115

TOTAL EAST		
Central-Capital/MidHudson		
Name	**Line ID**	**Voltage(kV)**
Coopers-Rock Tavern*	CCRT-34	345
Coopers-Rock Tavern*	CCRT-42	345
Edic-New Scotland*	14	345
*Fraser-Gilboa	35	345
Marcy-New Scotland*	UNS-18	345
Porter-Rotterdam*	30	230
Porter-Rotterdam*	31	230
*Inghams-E. Springfield	941	115
Inghams Bus Tie Breaker	R81	115
West Woodbourne*115/69	T152	BK
PJM East-Capital/MidHudson		
Branchburg-Ramapo*	5018	500
S. Mahwah-Waldwick*	J3410	345
S. Mahwah-Waldwick*	K3411	345
PJM East-New York City		
Hudson-Farragut*	C3403	345
Hudson-Farragut*	B3402	345
Linden-Goethals*	A2253	230
Adirondack-NEPEX VT N		
*Plattsburg-Grand Isle	PV-20/B	115

MOSES SOUTH

Adirondack-Central

Name	Line ID	Voltage (kV)
*Massena-Marcy	MSU1	765
*Moses Adirondack	MA-1	230
*Moses Adirondack	MA-2	230
*Dennison-Colton	4	115
*Dennison-Colton	5	115
*Alcoa-N. Ogdensburg	13	115
*Colton-Malone	3	115

DYSINGER EAST

Frontier-Genessee

Name	Line ID	Voltage (kV)
*Kintigh-Rochester (Sta 80)	SR-1/39	345
Niagara-Rochester*	NR2	345
*Stolle-Meyer	67	230
*Bennett-Palmiter-NMPC	932	115
*Lockport-Batavia	107	115
*Lockport-N. Akron	108	115
*Lockport-Oakfield	112	115
*Lockport-Sweden 1	111	115
*Lockport-Sweden 3	113	115
*Lockport-Telegraph	114	115

WEST CENTRAL

Genessee-Central

Name	Line ID	Voltage(kV)
Pannell*Road-Clay	PC-1	345
Pannell Road-Clay*	PC-2	345
Stolle-Meyer	67	230
*Bennett-Palmiter-NMPC	932	115
Macedon-Quaker*	930	115
*Mortimer-Elbridge	1	115
*Mortimer-Elbridge	2	115
*Pannell-Farmington	4	115
*Quaker Road-Sleight Road	980	115
St. 162 - S. Perry	906	115
*Clyde 199(RG&E) - Sleight Rd (NYS)		115
(Clyde 199 - Clinton Corn)		115
*Farmington (RG&E) NMPC		115
(Farmngtn 34.5 - Farmgtn 115)		34.5/115
(Farmngtn 34.5 - Farmgtn-4 115)		34.5/115

UPNY-CONED		
Capital/MidHudson-Westchester		
Name	**Line ID**	**Voltage(kV)**
Ladentown-Buchanan*	Y88	345
*Pleasant Valley-Wood St.	F30	345
*Pleasant Valley-E. Fishkill	F36	345
*Pleasant Valley-E. Fishkill	F37	345
*Pleasant Valley-Millwood	F31	345
*Ramapo-Buchanan	Y94	345
Roseton-E. Fishkill*	305	345
*Fishkill Plaine-Sylvan Lake	A/990	115
East Fishkill 345/115*	Bank	345/115

SPRAINBROOK-DUNWOODIE SOUTH		
Name	**Line ID**	**Voltage(kV)**
*Dunwoodie-Rainey	71	345
*Dunwoodie-Rainey	72	345
Sprainbrook-Tremont*	28	345
*Sprainbrook-West 49th Street	M51	345
*Sprainbrook-West 49th Street	M52	345
Lake Success - Jamaica	903	138
Valley Stream - Jamaica	901	138
*Dunwoodie-Sherman Creek	31	138
Dunwoodie-Sherman Creek*	32	138
*Dunwoodie-East 179th Street		138

NEW ENGLAND - NYPP		
Adirondack-NEPEX VT N		
Name	**Line ID**	**Voltage (kV)**
*Plattsburg-Grand Isle	PV-20/B	115
Capital/MidHudson-NEPEX VT/NE/NU		
*Alps-Berkshire	393	345
*Pleasant Valley-Long Mnt.	398	345
Rotterdam-Bear Swamp*	E205W	230
North Troy-*Hoosick-Bennington	6	115
*Whitehall-Rutland (Velco)	7/K37	115
Long Island-NEPEX NUS.		
*Northport-Norwalk	1385A&B	138

PJM-NYPP		
PJM East-New York City		
Name	**Line ID**	**Voltage (kV)**
Hudson-Farragut*	C3403	345
Hudson-Farragut*	B3402	345
Linden-Goethals*	A2253	230
PJM West-Central		
*Homer City-Watercure	30	345
E. Towanda-Hillside*	70	230
Goudey-Tiffany (Penelec)	952	115
*E. Sayre-N. Waverly	956	115
PJM West-Frontier		
*Homer City-Stolle Road	37	345
Erie South-South Ripley*	69	230
Falconer-Warren (Penelec)*	171	115
PJM East-Capital/MidHudson		
Branchburg-Ramapo*	5018	500
S. Mahwah-Waldwick*	J3410	345
S. Mahwah-Waldwick*	K3411	345

OH-NYPP		
Ontario East-Adirondack		
Name	**Line ID**	**Voltage (kV)**
*Moses-St. Lawrence	L33P	240
*Moses-St. Lawrence	L34P	230
Ontario South-Frontier		
Beck-Niagara*	PA301	345
Beck-Niagara*	PA302	345
Beck-Niagara*	PA27	230
*Beck-Packard	BP76	230

Westchester - Long Island		
Name	**Line ID**	**Voltage (kV)**
*Dunwoodie-Shore Road	Y50	345
*Sprainbrook-East Garden City	Y49	345
New York City - Long Island		
Name	**Line ID**	**Voltage (kV)**
Jamaica-Valley Stream*	901L&M	138
Jamaica-Lake Success*	903	138

GENERATION PARTICIPATION FOR INTERFACES

DYSINGER EAST, WEST CENTRAL

<---------- STUDY SYSTEM ---------->				<---------- OPPOSING SYSTEM ---------->			
	<---- GENERATOR MW ---->				<---- GENERATOR MW ---->		
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
80900	LAKEVWG518.0	298.2	1298.2	1000.0	74632	E RIVER 69.0	300.0	20.0	-280.0
81765	NANTICG622.0	500.0	1500.0	1000.0	74702	RAV 3 22.0	757.1	197.1	-560.0
					74705	AST 4 20.0	361.0	161.0	-200.0
					74706	AST 5 20.0	361.0	121.0	-240.0
					74906	NRTPTG1 22.0	355.3	215.3	-140.0
					79390	BOWLINE 20.0	550.1	350.1	-200.0
					79546	POLETTI 26.0	529.3	149.3	-380.0

TOTAL EAST, CENTRAL EAST

<---------- STUDY SYSTEM ---------->				<---------- OPPOSING SYSTEM ---------->			
	<---- GENERATOR MW ---->				<---- GENERATOR MW ---->		
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
76640	DUNKGEN313.8	100.0	200.0	100.0	74632	E RIVER 69.0	300.0	20.0	-280.0
77051	HNTLY68G13.8	100.0	200.0	100.0	74702	RAV 3 22.0	757.1	197.1	-560.0
77951	9M PT 1G23.0	607.2	1607.2	1000.0	74705	AST 4 20.0	361.0	161.0	-200.0
79515	MOS19-2013.8	114.0	314.0	200.0	74706	AST 5 20.0	361.0	121.0	-240.0
80900	LAKEVWG518.0	298.2	598.2	300.0	74906	NRTPTG1 22.0	355.3	215.3	-140.0
81765	NANTICG622.0	500.0	800.0	300.0	79390	BOWLINE 20.0	550.1	350.1	-200.0
					79546	POLETTI 26.0	529.3	149.3	-380.0

GENERATION PARTICIPATION FOR INTERFACES

UPNY - CONED, SPRAINBROOK/DUNWOODIE SOUTH

STUDY SYSTEM					OPPOSING SYSTEM				
		GENERATOR MW					GENERATOR MW		
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
76640	DUNKGEN3 13.8	100.0	150.0	50.0	74632	E RIVER 69.0	300.0	160.0	-140.0
77051	HNTLY68G1 3.8	100.0	150.0	50.0	74702	RAV 3 22.0	757.1	477.1	-280.0
77951	9M PT 1G2 3.0	607.2	1107.2	500.0	74705	AST 4 20.0	361.0	261.0	-100.0
79515	MOS19-20 13.8	114.0	214.0	100.0	74706	AST 5 20.0	361.0	241.0	-120.0
80900	LAKEVWG5 18.0	298.2	448.2	150.0	74906	NRTPTG1 22.0	355.3	285.3	-70.0
81765	NANTICG6 22.0	500.0	650.0	150.0	79390	BOWLINE 20.0	550.1	450.1	-100.0
					79546	POLETTI 26.0	529.3	339.3	-190.0

MOSES - SOUTH

STUDY SYSTEM					OPPOSING SYSTEM				
		GENERATOR MW					GENERATOR MW		
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
79513	MOS17-18 13.8	114.0	314.0	200.0	74702	RAV 3 22.0	757.1	717.1	-40.0
79516	MOS21-22 13.8	114.0	314.0	200.0	76640	DUNKGEN3 13.8	100.0	60.0	-40.0
					77051	HNTLY68G1 3.8	100.0	60.0	-40.0
					77951	9M PT 1G2 3.0	607.2	407.2	-200.0
					79546	POLETTI 26.0	529.3	449.3	-80.0

CONED - LILCO

STUDY SYSTEM					OPPOSING SYSTEM				
		GENERATOR MW					GENERATOR MW		
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
74190	ROSE GN1 24.0	497.0	582.0	85.0	74906	NRTPTG1 22.0	355.3	265.3	-90.0
74632	E RIVER 69.0	300.0	325.0	25.0	74908	NRTPTG3 22.0	360.0	270.0	-90.0
74702	RAV 3 22.0	757.1	882.1	125.0	74909	NRTPTG4 22.0	360.0	270.0	-90.0
74705	AST 4 20.0	361.0	386.0	25.0	74913	PTJEFG4 20.0	171.0	-9.0	-180.0
74706	AST 5 20.0	361.0	403.5	42.5	74942	NYPA108 13.8	108.0	58.0	-50.0
74707	RAV 1 20.0	385.0	465.0	80.0					
79390	BOWLINE 20.0	550.1	592.6	42.5					
79546	POLETTI 26.0	529.3	604.3	75.0					

GENERATION PARTICIPATION FOR INTERFACES

NEW YORK - NEW ENGLAND

<---------- STUDY SYSTEM ---------->					<---------- OPPOSING SYSTEM ---------->				
		<---- GENERATOR MW ---->					<---- GENERATOR MW ---->		
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
74190	ROSE GN124.0	497.2	797.2	300.0	71063	MYST G7 22.0	565.0	315.0	-250.0
74193	DANSK G416.1	233.0	533.0	300.0	71252	CANAL G218.0	576.0	276.0	-300.0
78955	ALBY STM13.2	291.0	391.0	100.0	72868	NWNGT G124.0	270.0	20.0	-250.0
79390	BOWLINE 20.0	550.3	700.3	150.0	73558	MONTV#5 13.8	81.0	-119.0	-200.0
79546	POLETTI 26.0	529.2	679.2	150.0					

NEW ENGLAND - NEW YORK

<---------- STUDY SYSTEM ---------->					<---------- OPPOSING SYSTEM ---------->				
		<---- GENERATOR MW ---->					<---- GENERATOR MW ---->		
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
71063	MYST G7 22.0	565.0	815.0	250.0	74190	ROSE GN124.0	496.9	196.9	-300.0
71252	CANAL G218.0	576.0	876.0	300.0	74193	DANSK G416.1	233.0	183.0	-50.0
72868	NWNGT G124.0	270.0	520.0	250.0	78955	ALBY STM13.2	291.0	191.0	-100.0
73558	MONTV#5 13.8	81.0	281.0	200.0	79390	BOWLINE 20.0	550.0	400.0	-150.0
					79394	LOVETT 520.0	171.1	21.1	-150.0
					79527	GILBOA#117.0	250.0	0.0	-250.0

GENERATION PARTICIPATION FOR INTERFACES

PJM - NEW YORK

STUDY SYSTEM					OPPOSING SYSTEM				
		GENERATOR MW					GENERATOR MW		
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
					74190	ROSE GN1 24.0	497.0	97.0	-400.0
					74702	RAV 3 22.0	757.1	357.1	-400.0
ECONOMICALLY DISPATCHED					75523	KINTIG2 424.0	674.9	274.9	-400.0
					76640	DUNKGEN3 13.8	100.0	0.0	-100.0
					77051	HNTLY 68G 13.8	100.0	0.0	-100.0
					79547	JAFITZ1G 24.0	870.0	270.0	-600.0

NEW YORK - PJM

STUDY SYSTEM					OPPOSING SYSTEM				
		GENERATOR MW					GENERATOR MW		
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
74190	ROSE GN1 24.0	497.0	997.0	500.0					
74702	RAV 3 22.0	757.1	1057.1	300.0					
74807	WTSD 6G 13.0	69.0	269.0	200.0					
76642	DUNK115G 13.8	100.0	300.0	200.0		ECONOMICALLY DISPATCHED			
77951	9M PT 1G 23.0	607.2	1207.2	600.0					
78955	ALBY STM 13.2	291.0	491.0	200.0					

GENERATION PARTICIPATION FOR INTERFACES

ONTARIO - NEW YORK

<---------- STUDY SYSTEM ---------->					<---------- OPPOSING SYSTEM ---------->			
		<---- GENERATOR MW ---->				<---- GENERATOR MW ---->		
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
80900	LAKEVWG518.0	298.5	798.5	500.0	74190	ROSE GN124.0	496.9	196.9	-300.0
81765	NANTICG622.0	500.0	1000.0	500.0	74702	RAV 3 22.0	760.1	510.1	-250.0
					76640	DUNKGEN313.8	100.0	50.0	-50.0
					77051	HNTLY68G13.8	100.0	50.0	-50.0
					78955	ALBY STM13.2	291.0	241.0	-50.0
					79547	JAFITZ1G24.0	870.0	570.0	-300.0

NEW YORK - ONTARIO

<---------- STUDY SYSTEM ---------->					<---------- OPPOSING SYSTEM ---------->			
		<---- GENERATOR MW ---->				<---- GENERATOR MW ---->		
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
74190	ROSE GN124.0	497.0	797.0	300.0	80900	LAKEVWG518.0	298.2	-201.8	-500.0
74193	DANSK G416.1	233.0	533.0	300.0	81765	NANTICG622.0	500.0	0.0	-500.0
78955	ALBY STM13.2	291.0	391.0	100.0					
79390	BOWLINE 20.0	550.1	700.1	150.0					
79546	POLETTI 26.0	529.3	679.3	150.0					

TABLE 1

DISTRIBUTION FACTORS FOR DYSINGER EAST CIRCUITS

SUMMER 1999

TABLE1

<------ FACILITY ------->			%PICKUP OF TRANSFER	KINTI -ROCH	NIAGAR -ROCH	STOLLE -MEYER	LOCKPT -SOUR	LOCKPT -SHEL	NIAGAR -ROCH
GOLAH66K	MORT66KV	# 1	**	**	**	**	**	**	**
KINTI345	ROCH 345	# 1	21.2	TRIP	46.0	14.8	14.9	13.2	O/S
LOCKPORT	NAKR-108	# 1	1.0	1.3	1.6	1.4	4.2	3.9	3.0
LOCKPORT	OAKFLDTP	# 1	1.2	1.6	1.9	1.7	4.9	4.6	3.6
LOCKPORT	SHEL-113	# 1	2.7	3.5	4.3	3.8	14.3	TRIP	7.9
LOCKPORT	SOUR-111	# 1	2.5	3.5	4.0	3.6	TRIP	12.2	7.5
LOCKPORT	TELRDTP1	# 1	2.6	1.6	1.9	1.7	6.2	6.7	3.6
LOCKPORT	TELRDTP1	# 1	1.2	3.4	4.1	3.7	11.8	19.4	7.6
NIAG 345	ROCH 345	# 1	31.0	55.6	TRIP	24.6	21.6	19.9	TRIP
STOLE230	MEYER230	# 1	9.0	6.0	7.3	TRIP	6.4	5.9	14.2
*** SUB-TOTALS ***			72.4	76.8	71.4	55.6	85.1	86.5	46.4
*** L33P-L34P ***				8.3	10.5	8.5	4.3	3.9	18.6
*** PJM-NYPP ***			27.6	14.9	18.1	35.9	10.6	9.6	33.4
*** TOTALS ***			100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Generation dispatched as described in the previous section
Flow on all Phase Shifters held fixed.

** Less than 1.0% pickup

TABLE 2

DISTRIBUTION FACTORS FOR WEST CENTRAL CIRCUITS

SUMMER 1999

TABLE2

<------ FACILITY ------->			%PICKUP OF TRANSFER	PANNEL -CLAY	STOLLE -MEYER	QUAKER -SLEGH	PANNEL -FARM	PANNEL -CLAY
MORTIMER	LAWLER-1	# 1	2.2	2.6	1.3	4.1	17.2	6.2
MORTIMER	LAWLER-2	# 1	2.3	2.9	1.1	4.8	4.2	7.0
PANNELLI	FRMGTN-4	# 1	2.5	6.2	10.9	18.1	TRIP	14.9
PANNELL3	CLAY	# 1	27.1	TRIP	10.9	18.7	20.3	O/S
PANNELL3	CLAY	# 2	27.0	58.5	11.9	18.8	20.8	TRIP
QUAKER	MACDN115	# 1	**	**	**	20.5	2.9	1.0
QUAKER	SLEIG115	# 1	2.1	3.6	2.0	TRIP	11.7	8.5
STA 162	S.PER115	# 1	**	1.9	18.1	2.4	5.5	4.5
STOLE230	MEYER230	# 1	9.0	3.1	TRIP	3.0	8.3	7.4
*** SUB-TOTALS ***			72.2	79.2	55.6	90.4	90.9	49.5
*** L33P-L34P ***			**	7.4	8.5	3.0	2.3	18.3
*** PJM-NYPP ***			27.8	13.4	35.9	6.6	6.8	32.2
*** TOTALS ***			100.0	100.0	100.0	100.0	100.0	100.0

* Generation dispatched as described in the previous section
Flow on all Phase Shifters held fixed.

** Less than 1.0% pickup

TABLE 3

DISTRIBUTION FACTORS FOR TOTAL EAST CIRCUITS

SUMMER 1999

TABLE3

<------ FACILITY ------->			%PICKUP OF TRANSFER	PORTER -RTRDM	EDIC34 -N3COT	MARCY3 -N3COT	FRASER -GILBA	BRBURG -RAMPO	WALDWK -3MAWA	HUDSON -FARGT	LINDEN -GOETH	WALDWK -3MAWA	HUDSON -FARGT
BRANCHBG	RAMAPO 5	# 1	**	2.1	3.5	3.6	3.2	TRIP	3.1	7.8	22.1	26.5	11.9
COOPC345	ROCK TAV	# 1	17.2	3.8	6.7	7.1	17.9	4.5	**	**	1.4	3.1	**
COOPC345	ROCK TAV	# 2	17.2	3.8	6.7	7.1	17.9	4.5	**	**	1.4	3.1	**
E.3PR115	INGHAM-E	# 1	**	1.0	**	**	2.6	**	**	**	**	**	**
EDIC	N.3COT77	# 1	18.9	14.0	TRIP	33.5	19.5	3.3	**	1.4	2.5	1.4	2.2
FRA3R345	GILB 345	# 1	17.0	9.4	23.6	23.8	TRIP	3.5	**	2.2	3.4	1.1	3.3
HUD3ON1	FARRGUT1	# 1	**	1.0	1.7	1.7	2.2	8.4	2.9	TRIP	18.6	25.2	0/3
HUD3ON2	FARRGUT2	# 1	**	1.1	1.9	1.9	2.4	9.6	3.2	33.9	21.7	27.8	TRIP
INGM3-CD	INGHAM-E	# 1	**	9.4	3.6	3.6	**	**	**	**	**	**	**
LINDEN	GOETHAL3	# 1	**	1.0	1.7	1.8	2.1	14.5	1.0	11.3	TRIP	9.2	17.4
MARCY T1	N.3COT99	# 1	20.3	14.9	35.1	TRIP	22.1	3.5	**	1.5	2.7	1.5	2.3
PLAT T#3	GRAND I3	# 1	**	2.5	2.1	2.2	1.3	**	**	**	**	**	**
PORTER 2	ROTRDM.2	# 1	4.8	TRIP	5.5	5.5	3.1	**	**	**	**	**	**
PORTER 2	ROTRDM.2	# 2	4.6	34.5	5.6	5.7	3.2	**	**	**	**	**	**
WALDWICK	3MAHWAH1	# 1	**	**	1.3	1.4	**	23.0	88.5	20.4	12.4	0/3	30.6
WALDWICK	3MAHWAH2	# 1	**	**	1.2	1.3	**	22.6	TRIP	19.6	11.8	TRIP	29.4
*** TOTALS ***			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Generation dispatched as described in the previous section
Flow on all Phase Shifters held fixed.

** Less than 1.0% pickup

TABLE 4

DISTRIBUTION FACTORS FOR UPNY - CONED CIRCUITS

SUMMER 1999

TABLE4

<------ FACILITY ------->			%PICKUP OF TRANSFER	PLVLLY -MILLW	PLVLLY -FISHK	RAMAPO -BUCHN	LADNTW -BUCHS	LINDEN -GOETH	HUDSON -FARGT	ROSETN -FISHK
E FISH I	FISHKILL	# 1	3.1	**	2.4	**	**	**	**	5.9
FISHKILL	SYLVN115	# 1	**	**	**	**	**	**	**	**
LADENTWN	BUCH S	# 1	8.6	17.6	-3.7	54.9	TRIP	23.9	23.8	23.4
PLTVLLEY	FISHKILL	# 1	8.9	23.9	TRIP	**	-7.1	1.1	**	32.5
PLTVLLEY	FISHKILL	# 2	8.9	23.9	66.7	**	-7.1	1.1	**	32.5
PLTVLLEY	MILLWOOD	# 1	19.0	TRIP	8.8	2.9	12.6	2.8	1.8	-8.8
PLTVLLEY	WOOD B	# 1	18.7	35.3	9.2	2.9	12.1	2.8	1.8	-8.5
RAMAPO	BUCH N	# 1	12.1	3.1	**	TRIP	41.7	16.4	16.2	13.1
ROSETON	FISHKILL	# 1	20.7	-11.1	15.2	15.7	21.2	9.3	8.2	TRIP
*** SUB-TOTALS ***			100.0	93.0	98.4	76.4	74.9	58.3	53.7	90.6
*** HUDSON-FAR#1 ***			**	1.1	**	9.0	10.0	21.5	33.9	3.8
*** HUDSON-FAR#2 ***			**	**	**	8.1	9.0	18.6	TRIP	3.4
*** LINDEN-GOETH ***			**	**	**	4.9	5.4	TRIP	11.2	2.3
*** NORHBR-NRPRT ***			**	4.1	1.3	1.6	**	1.6	1.2	**
*** TOTALS ***			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Generation dispatched as described in the previous section
Flow on all Phase Shifters held fixed.

** Less than 1.0% pickup

TABLE 5

DISTRIBUTION FACTORS FOR SPRAINBROOK\DUNWOODIE-SOUTH CIRCUITS

SUMMER 1999

TABLE5

<------ FACILITY ------->			%PICKUP OF TRANSFER	SPRAIN -TRMNT	SPRAIN -W49TH	DUNWDE -RAINY	DUNWDE -SHORE	SPRAIN -DVNPT	SPRAIN -W49TH	DUNWDE -RAINY
DUN NO1R	S CREEK	# 1	**	15.0	**	**	2.1	1.5	**	**
DUN NO2R	S CREEK	# 1	**	15.1	**	**	2.1	1.5	**	**
DUN SO1R	E179 ST	# 1	**	22.3	**	**	3.1	2.2	**	1.1
DUNWODIE	RAINEY	# 3	25.7	8.2	23.9	TRIP	9.5	3.2	43.5	O/S
DUNWODIE	RAINEY	# 4	25.7	8.2	23.9	45.5	9.5	3.2	43.4	TRIP
DUNWODIE	SHORE RD	# 1	9.0	5.9	**	1.2	TRIP	54.6	1.0	2.1
REACTY49	DVNPT NK	# 1	**	4.4	**	**	48.4	TRIP	1.5	**
SPRBROOK	TREMONT	# 1	**	TRIP	**	**	4.0	3.4	1.4	1.2
SPRBROOK	W 49 ST	# 1	19.8	8.8	TRIP	23.4	4.4	7.2	O/S	43.0
SPRBROOK	W 49 ST	# 2	19.8	8.8	44.9	23.4	4.4	7.2	TRIP	43.0
*** SUB-TOTALS ***			100.0	96.7	95.7	96.0	87.5	87.0	92.5	92.6
*** HUDSON-FAR#1 ***			**	**	1.8	1.6	**	**	3.1	3.0
*** HUDSON-FAR#2 ***			**	**	1.6	1.4	**	**	2.8	2.7
*** LINDEN-GOETH ***			**	2.1	**	**	**	**	1.5	1.6
*** NORHBR-NRPRT ***			**	1.0	**	**	12.6	16.4	**	**
*** TOTALS ***			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Generation dispatched as described in the previous section
Flow on all Phase Shifters held fixed.

** Less than 1.0% pickup

TABLE 6

DISTRIBUTION FACTORS FOR MOSES SOUTH CIRCUITS

SUMMER 1999

TABLE6

<------ FACILITY ------->			%PICKUP OF TRANSFER	MASSEN -MARCY	MASSEN -CHAT	MOSES2 -ADRON	MOSES2 -PORTR
ALCOA-NM	BRADY	# 1	1.5	2.0	**	**	1.8
DENNISON	ANDRWS-4	# 1	2.4	4.5	**	1.5	3.9
DENNISON	LWRNCE-B	# 1	2.4	4.5	**	1.5	3.9
MASS 765	MARCY765	# 1	74.7	TRIP	67.6	45.2	O/S
MOSES W	ADRON B1	# 1	9.5	20.1	3.5	TRIP	TRIP
MOSES W	ADRON B2	# 1	9.5	20.1	3.5	36.5	50.2
*** SUB-TOTALS ***			100.0	51.2	76.8	85.4	59.8
*** MOSES-L33P ***			**	15.3	8.4	4.4	12.4
*** MOSES-L34P ***			**	21.7	11.8	6.2	17.6
*** MOSES-WILLE ***			**	5.9	1.5	2.0	5.1
*** MOSES-WILLW ***			**	5.9	1.5	2.0	5.1
*** TOTALS ***			100.0	100.0	100.0	100.0	100.0

* Generation dispatched as described in the previous section
Flow on all Phase Shifters held fixed.

** Less than 1.0% pickup

TABLE 7

DISTRIBUTION FACTORS FOR NYPP - NEPOOL CIRCUITS

SUMMER 1999

TABLENE

<------ FACILITY ------->			% OF PICKUP OF TRANSFER	ALPS34 -MANY	PV.345 -LNGMT	NHHAR -GEN	VTYANK -GEN	YRMTH -GEN	SBRK -GEN	HIGATE -DC	ELLRIV ER	MADWAS -DC
ALPS345	MANY393	# 1	40.4	TRIP	42.2	21.3	44.5	38.4	38.0	16.1	38.4	38.4
HOOSICK	BNNINGTN	# 1	3.1	10.6	2.9	1.5	2.3	2.7	2.8	**	2.7	2.7
NRTHPT P	NORHR138	# 1	**	12.3	39.9	20.5	9.4	10.4	10.5	5.6	10.4	10.4
PLAT T#3	GRAND IS	# 1	**	6.0	3.7	2.9	5.0	5.5	5.4	51.9	5.5	5.5
PLTVLLEY	CTNY398	# 1	44.4	45.0	TRIP	47.4	26.7	30.3	30.6	13.9	30.3	30.3
ROTRDM.2	BRSWAMP	# 1	7.6	17.1	7.5	4.5	6.7	8.2	8.3	2.4	8.2	8.2
WHITEHAL	BLISSVIL	# 1	4.5	9.0	3.8	1.9	5.4	4.5	4.4	9.5	4.5	4.5
*** TOTALS ***			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Generation dispatched as described in the previous section
Flow on all Phase Shifters held fixed.

** Less than 1.0% pickup

TABLE 8

DISTRIBUTION FACTORS FOR NYPP - ONTARIO CIRCUITS

SUMMER 1999

TABLEOH

<------ FACILITY ------->			%PICKUP OF TRANSFER	PA27 -NIAGAR	BP76 -PACKD2	STLAWR -MOSES	STLAWR -MOSES	BECKB -NIAGAR
BECK A	NIAG 345	# 1	24.1	33.7	30.8	10.8	9.0	52.7
BECK B	NIAG 345	# 1	24.1	33.9	30.9	10.9	9.0	TRIP
BP76 REG	PACKARD2	# 1	11.5	26.2	TRIP	5.5	4.6	17.7
PA27 REG	NIAGAR2W	# 1	13.8	TRIP	31.7	6.4	5.4	23.5
STLAWL33	MOSES E	# 1	**	**	**	48.0	TRIP	1.0
STLAWL34	MOSES E	# 1	**	1.3	1.3	TRIP	56.6	1.5
*** SUB-TOTALS ***			73.5	96.0	95.6	81.6	84.6	96.4
*** OH-MICH ***			26.5	4.0	4.4	18.4	15.4	3.6
*** TOTALS ***			100.0	100.0	100.0	100.0	100.0	100.0

* Generation dispatched as described in the previous section
Flow on all Phase Shifters held fixed.

** Less than 1.0% pickup

TABLE 9

DISTRIBUTION FACTORS FOR NYPP - PJM CIRCUITS

SUMMER 1999

TABLEPJ

<------ FACILITY ------->			% PICKUP OF TRANSFER	ERIESO -FALCS	HMRCTY -STOLL	HMRCTY -WATER	E.TOWD -HILLS	BRBURG -RAMPO	WALDWK -SMAWA	HUDSON -FARGT	LINDEN -GOETH	WALDWK -SMAWA	HUDSON -FARGT
BRANCHBG	RAMAPO 5	# 1	**	7.4	7.1	12.5	8.0	TRIP	3.1	7.8	22.3	26.8	11.9
E.SAYRE	N.WAV115	# 1	6.8	2.0	1.4	4.1	30.7	1.3	**	**	**	**	**
E.TWANDA	HILSD230	# 1	18.9	6.1	3.6	20.0	TRIP	3.5	**	1.3	2.2	2.2	2.0
ERIE E	S RIPLEY	# 1	13.3	TRIP	22.8	7.5	4.8	2.4	**	**	1.5	1.1	1.1
HOMER CY	STOLE345	# 1	8.5	15.6	TRIP	15.8	2.0	1.8	**	**	1.1	**	**
HOMER CY	WATRC345	# 1	16.6	6.6	19.2	TRIP	13.5	3.8	**	1.1	2.3	1.7	1.7
HUDSON1	FARRGUT1	# 1	**	2.3	2.4	4.0	3.3	8.4	2.9	TRIP	18.6	25.2	O/S
HUDSON2	FARRGUT2	# 1	**	2.6	2.7	4.5	3.7	9.6	3.2	33.9	21.5	27.9	TRIP
LAUREL L	GOUDY115	# 1	5.4	**	**	2.2	11.4	1.1	**	**	**	**	**
LINDEN	GOETHALS	# 1	**	2.8	2.8	4.9	3.3	14.4	1.0	11.2	TRIP	9.2	17.3
WALDWICK	SMAHWAH1	# 1	**	3.0	3.0	5.1	4.4	23.4	88.6	20.6	12.4	O/S	30.9
WALDWICK	SMAHWAH2	# 1	**	2.8	2.8	4.8	4.2	22.6	TRIP	19.6	11.8	TRIP	29.4
WARREN	FALCONER	# 1	5.4	23.1	8.4	1.8	3.0	**	**	**	**	**	**
*** SUB-TOTALS ***			74.9	75.2	76.9	87.2	92.3	93.1	99.6	97.9	95.7	96.7	96.8
*** OH-MICH ***			25.1	24.8	23.1	12.8	7.7	6.9	**	2.1	4.3	3.3	3.2
*** TOTALS ***			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Generation dispatched as described in the previous section
Flow on all Phase Shifters held fixed.

** Less than 1.0% pickup

TABLE 10A
GENERATION SHIFT FACTORS WITH ALL PHASE ANGLE REGULATORS HOLDING MW FLOW

SUMMER 1999

TABLE10A

<------ FACILITY ------->	BBURG -RAMAPO	CENTRAL -EAST	MARCY -SOUTH	OH -MICH	OH -NYPP	PJM -NYPP	UTICA -ALBANY	WEST -CENTRAL
*** ALBANY ***	**	14.8	-10.7	**	**	**	12.8	**
*** BB-RAMAPO ***	-100.0	43.7	17.5	-25.9	25.9	-26.0	41.3	49.1
*** BECK ***	**	-46.9	-22.1	-13.7	-86.3	-13.6	-44.7	-77.9
*** BOWEN ***	**	-44.2	-18.2	31.9	-31.9	-68.1	-41.8	-54.0
*** BOWLINE ***	**	-1.2	1.0	**	**	**	-1.1	**
*** BRANDON ***	**	-43.9	-17.8	27.8	-27.8	-72.2	-41.5	-51.1
*** BRAYTON ***	**	10.2	-7.7	**	**	**	7.8	**
*** CHAT ***	**	-55.8	-33.2	**	**	**	-53.3	1.6
*** CONEMAUGH ***	**	-43.8	-17.8	26.7	-26.7	-73.3	-41.4	-50.8
*** DUNKIRK ***	**	-45.6	-20.3	3.3	-3.3	3.4	-43.4	-70.2
*** EDDYSTONE ***	**	-43.7	-17.6	26.2	-26.2	-73.8	-41.3	-49.5
*** GILBOA ***	**	-1.3	-1.4	**	**	**	**	**
*** HATFIELD ***	**	-44.0	-18.0	28.8	-28.8	-71.1	-41.6	-52.5
*** HUDSON ***	**	-43.6	-17.5	25.6	-25.6	-74.3	-41.2	-48.6
*** HUNTLEY ***	**	-46.6	-21.7	-7.1	7.1	-7.0	-44.4	-77.8
*** INDIANPT2 ***	**	-1.0	**	**	**	**	**	**
*** JEAMOS ***	**	-44.2	-18.3	31.9	-31.9	-68.0	-41.8	-54.2
*** LAMBTON ***	**	-45.4	-20.0	-44.3	-55.7	-44.2	-43.1	-64.8
*** LUDINGTON ***	**	-44.6	-18.8	38.9	-38.9	-61.1	-42.2	-57.4
*** MEYANKEE ***	**	11.2	-8.4	**	**	**	8.2	**
*** MONROE ***	**	-44.6	-18.9	40.3	-40.4	-59.6	-42.3	-58.2
*** MTSTORM ***	**	-44.0	-18.0	29.2	-29.2	-70.7	-41.6	-52.5
*** NANTICOKE ***	**	-46.2	-21.2	-27.3	-72.8	-27.2	-44.0	-72.1
*** NIAGARA ***	**	-46.8	-22.0	-6.9	6.9	-6.8	-44.6	-78.7
*** NORWALK ***	**	6.2	-4.7	**	**	**	5.0	**
*** OSWEGO ***	**	-51.7	-29.2	-1.3	1.3	-1.2	-50.0	2.7
*** PORTLAND ***	**	-43.6	-17.4	25.3	-25.3	-74.7	-41.2	-48.1
*** ROSETON ***	**	**	**	**	**	**	**	**
*** SALEM ***	**	-43.7	-17.6	26.3	-26.3	-73.7	-41.3	-49.6

* Generation dispatched as described in the previous section
Flow on all Phase Shifters held fixed.
** Less than 1.0% pickup.

TABLE 10B
GENERATION SHIFT FACTORS WITH ALL PHASE ANGLE REGULATORS FREE FLOWING
SUMMER 1999

TABLE10B

<------ FACILITY ------->	BBURG -RAMAPO	CENTRAL -EAST	MARCY -SOUTH	OH -MICH	OH -NYPP	PJM -NYPP	UTICA -ALBANY	WEST -CENTRAL
*** ALBANY ***	-1.7	20.6	-8.6	-4.0	4.3	-1.1	16.0	4.6
*** BB-RAMAPO ***	-100.0	9.3	4.9	-6.9	7.4	38.2	8.3	8.4
*** BECK ***	-11.6	-30.4	-15.0	-21.4	-77.2	-27.7	-27.1	-47.5
*** BOWEN ***	-20.2	-16.4	-6.6	16.1	-17.7	-94.1	-14.5	-15.9
*** BOWLINE ***	4.8	-1.3	**	**	**	13.2	-1.2	**
*** BRANDON ***	-22.5	-12.8	-4.6	9.9	-10.6	-103.1	-11.3	-11.2
*** BRAYTON ***	-1.0	14.4	-5.8	-3.1	3.3	**	9.5	3.2
*** CHAT ***	-5.1	-45.6	-26.4	-9.9	10.6	-10.0	-40.1	4.0
*** CONEMAUGH ***	-21.8	-13.7	-4.9	9.4	-10.0	-103.1	-12.1	-11.8
*** DUNKIRK ***	-14.0	-25.7	-11.7	-7.3	7.8	-14.6	-22.9	-39.6
*** EDDYSTONE ***	-24.8	-9.5	-3.0	6.1	-6.5	-108.9	-8.4	-7.4
*** GILBOA ***	-1.8	4.4	1.3	-3.7	4.0	**	4.7	4.7
*** HATFIELD ***	-20.8	-15.3	-5.8	12.6	-13.5	-98.8	-13.5	-14.2
*** HUDSON ***	-5.7	-3.0	**	1.5	-1.6	-126.5	-2.6	-1.8
*** HUNTLEY ***	-11.9	-29.5	-14.2	-15.7	16.7	-21.8	-26.3	-49.0
*** INDIANPT2 ***	3.8	-1.1	**	**	**	10.5	**	**
*** JEAMOS ***	-20.0	-16.7	-6.7	16.6	-17.8	-93.9	-14.7	-16.3
*** LAMBTON ***	-15.8	-23.8	-11.0	-55.4	-44.0	-64.2	-21.0	-26.6
*** LUDINGTON ***	-18.5	-19.1	-8.2	25.6	-26.5	-84.0	-16.9	-19.8
*** MEYANKEE ***	-1.1	15.9	-6.5	-3.4	3.6	**	9.9	3.4
*** MONROE ***	-18.1	-19.9	-8.6	28.4	-28.9	-81.2	-17.6	-21.0
*** MTSTORM ***	-21.1	-14.9	-5.7	12.7	-13.6	-98.9	-13.2	-13.8
*** NANTICOKE ***	-12.9	-29.0	-14.2	-34.0	-63.9	-42.0	-25.5	-33.8
*** NIAGARA ***	-11.6	-30.0	-14.6	-15.4	16.4	-21.3	-26.9	-50.8
*** NORWALK ***	**	5.2	-1.8	-1.3	1.4	1.4	3.7	1.4
*** OSWEGO ***	-5.5	-41.6	-23.7	-8.1	8.7	-8.4	-38.1	13.2
*** PORTLAND ***	-18.6	-8.2	-2.3	4.4	-4.7	-117.6	-7.2	-5.4
*** ROSETON ***	**	1.6	1.3	-1.4	1.5	4.1	1.5	1.8
*** SALEM ***	-24.8	-9.5	-3.0	6.2	-6.6	-108.6	-8.4	-7.4

* Generation dispatched as described in the previous section
Flow on all Phase Shifters held fixed.

** Less than 1.0% pickup.

APPENDIX F

ANNOTATED TLTG OUTPUT

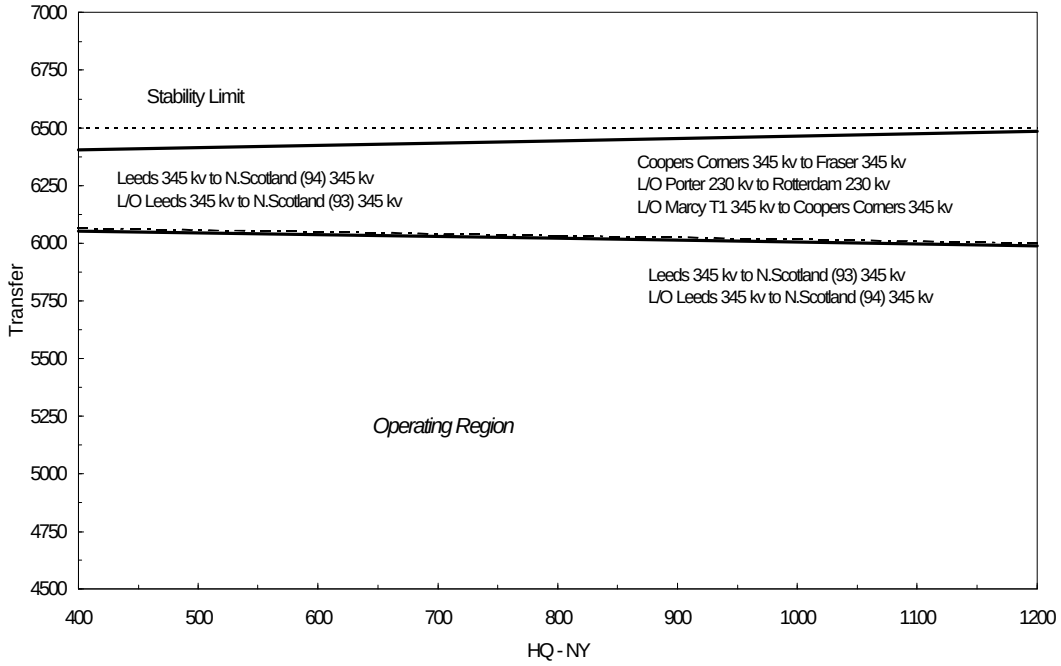
This Section Is Available
On Computer Diskette If Requested

APPENDIX G

TRANSFER LIMIT SENSITIVITY GRAPHS

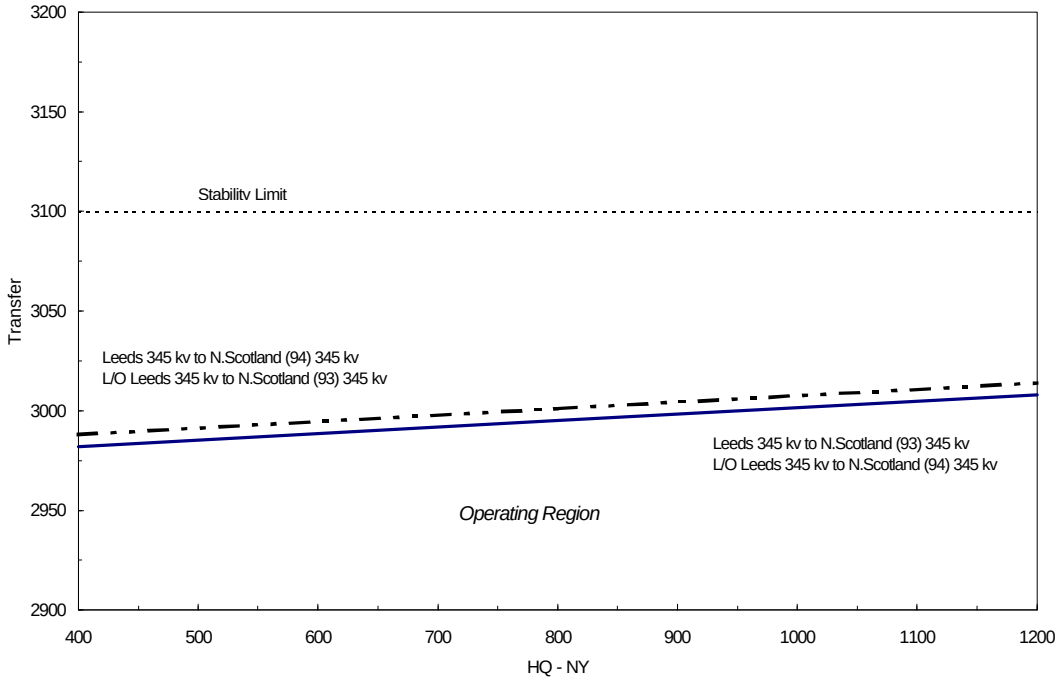
INDEX

Total East vs. HQ-NY
For Normal Transfer Criteria
Summer 1999



Positive Flow in Direction of Transfer

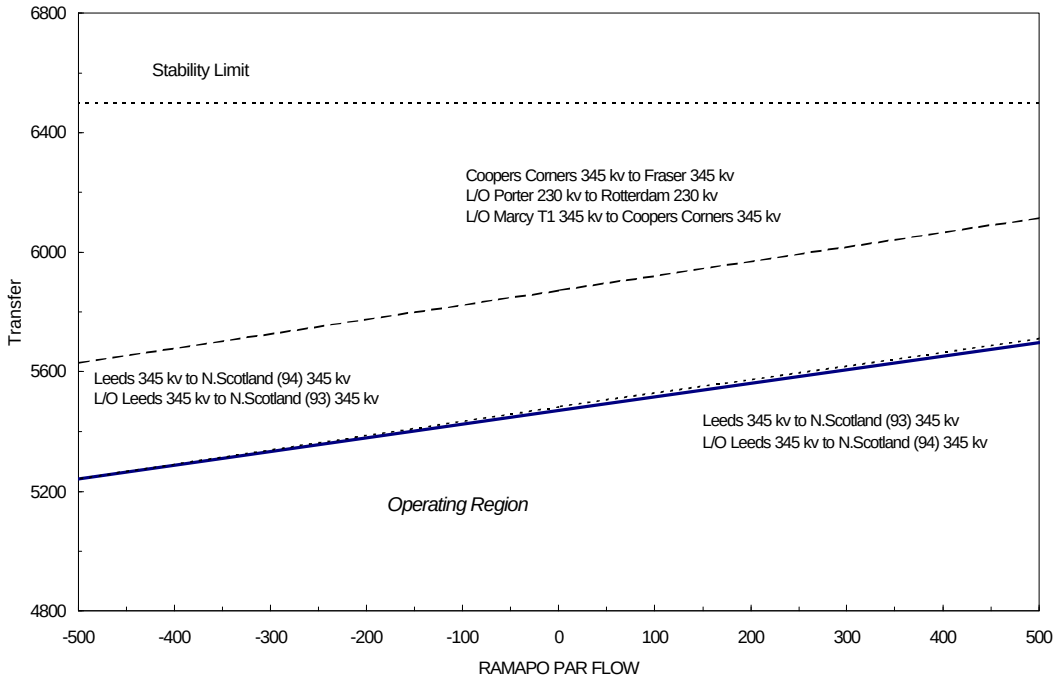
Central East vs. HQ-NY
For Normal Transfer Criteria
Summer 1999



Positive Flow in Direction of Transfer

Total East vs. RAMAPO PAR Flow

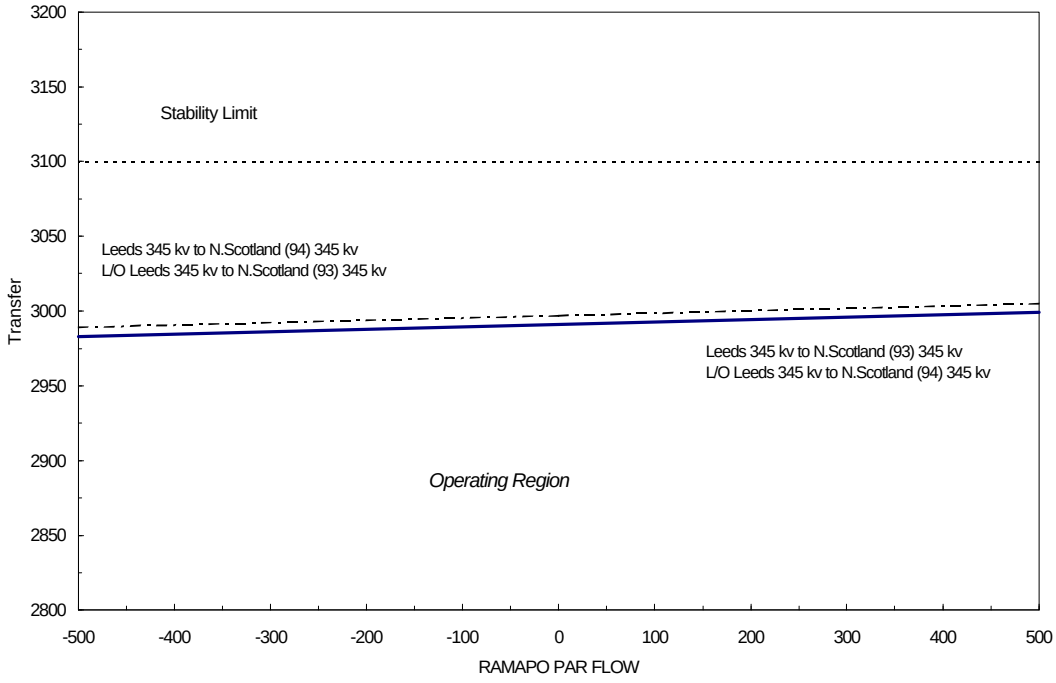
For Normal Transfer Criteria
Summer 1999



Positive Flow in Direction of Transfer

Central East vs. RAMAPO PAR Flow

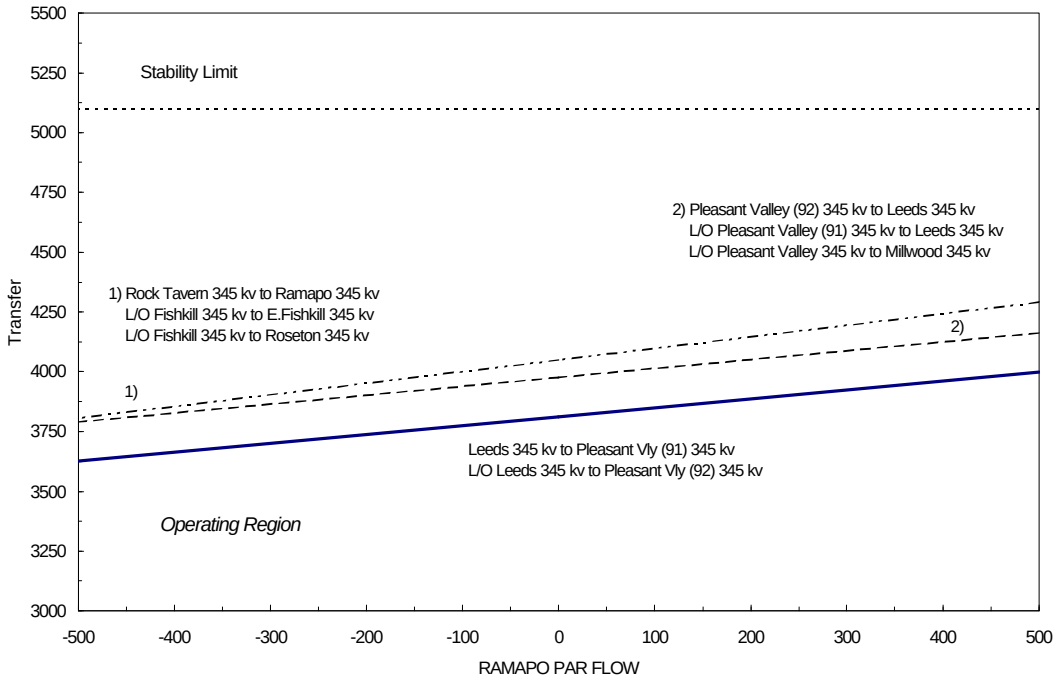
For Normal Transfer Criteria
Summer 1999



Positive Flow in Direction of Transfer

UPNY CONED vs. RAMAPO PAR Flow

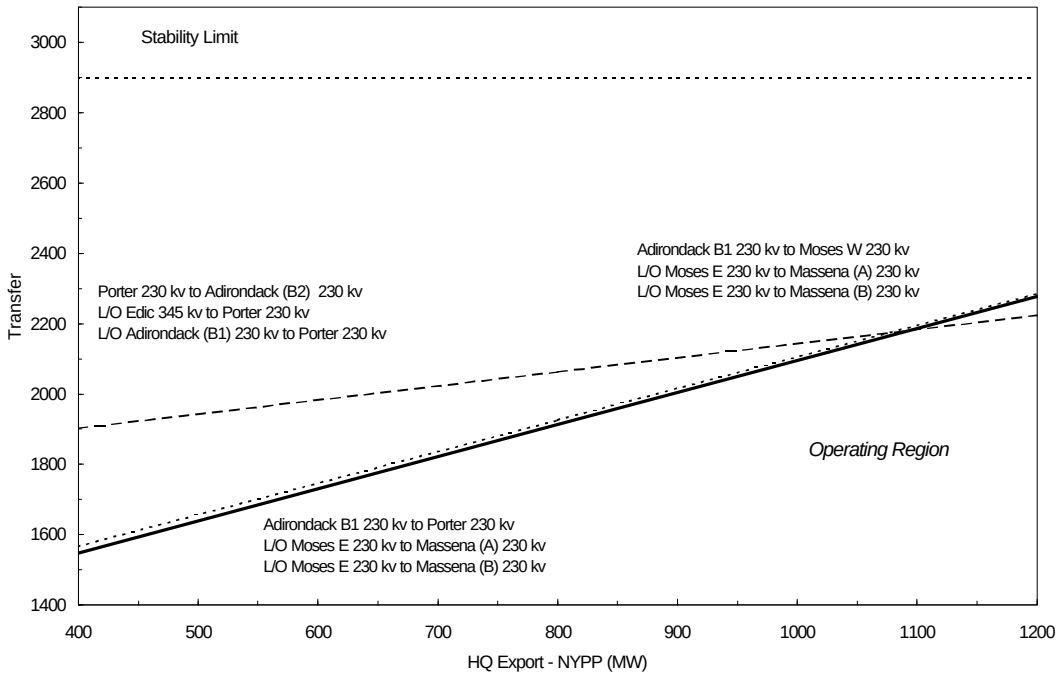
For Normal Transfer Criteria
Summer 1999



Positive Flow in Direction of Transfer

Moses South vs. HQ Export to New York

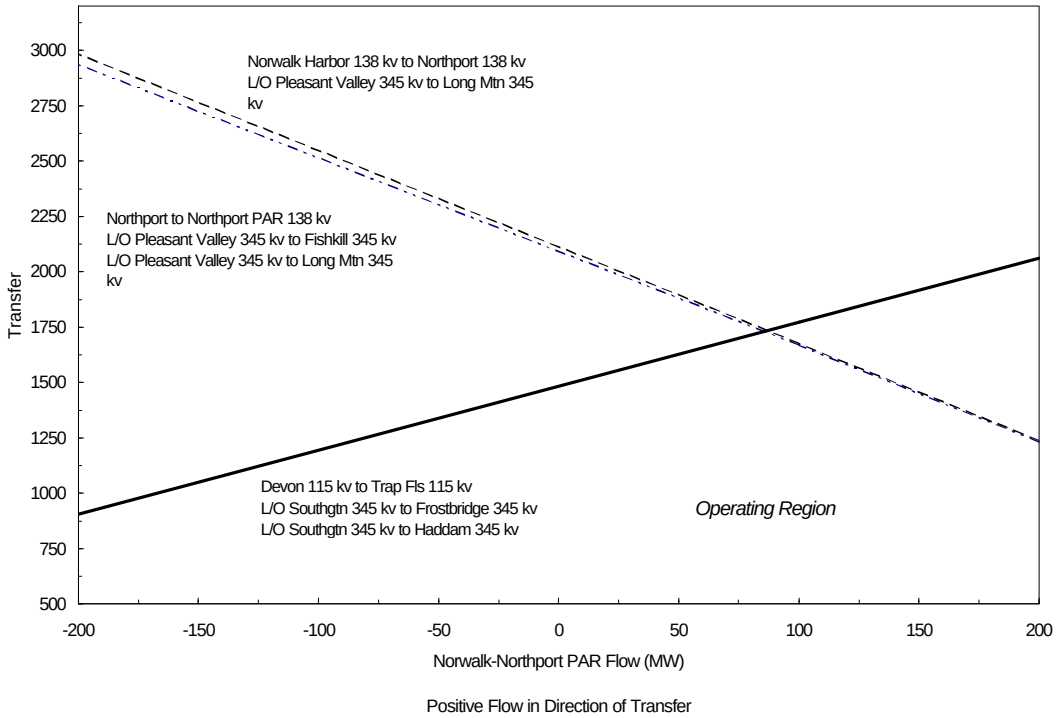
For Normal Transfer Criteria
Summer 1999



Positive Flow in Direction of Transfer

NE-NY vs. NORWALK-NORTHPORT PAR Flow

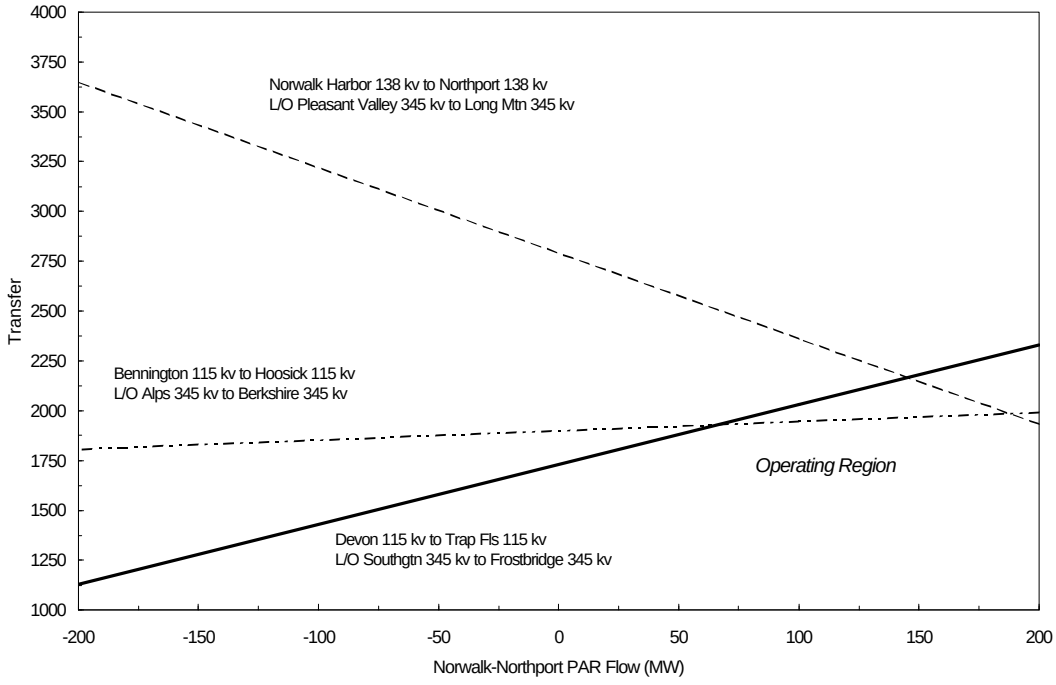
For Normal Transfer Criteria
Summer 1999



Positive Flow in Direction of Transfer

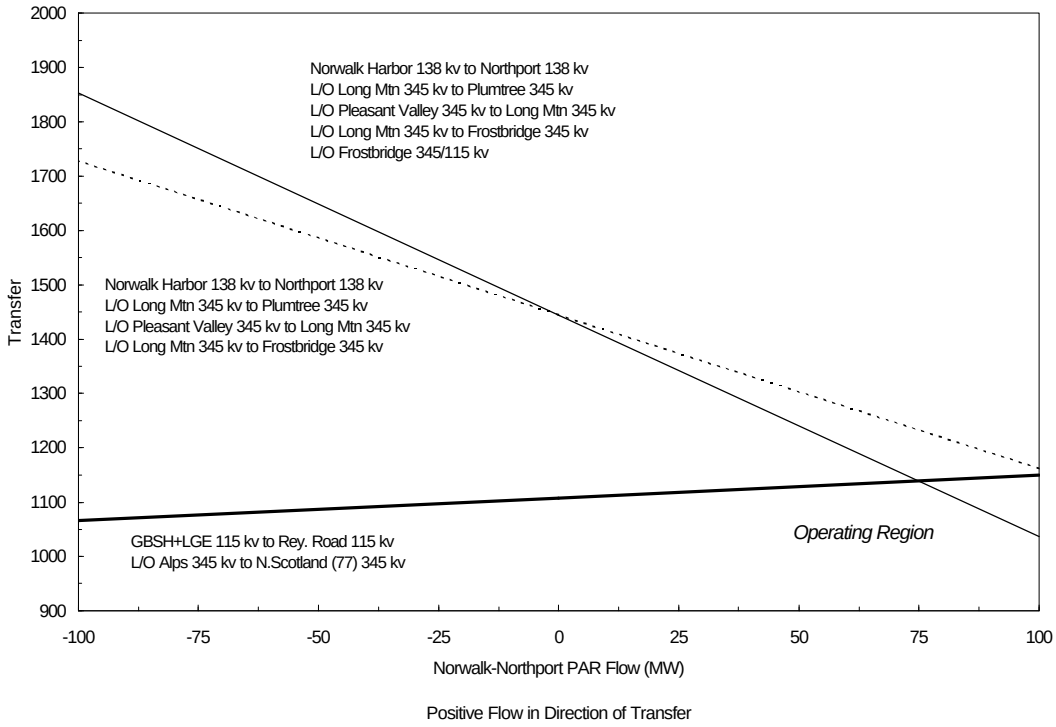
NE-NY vs. NORWALK-NORTHPORT PAR Flow

For Emergency Transfer Criteria
Summer 1999



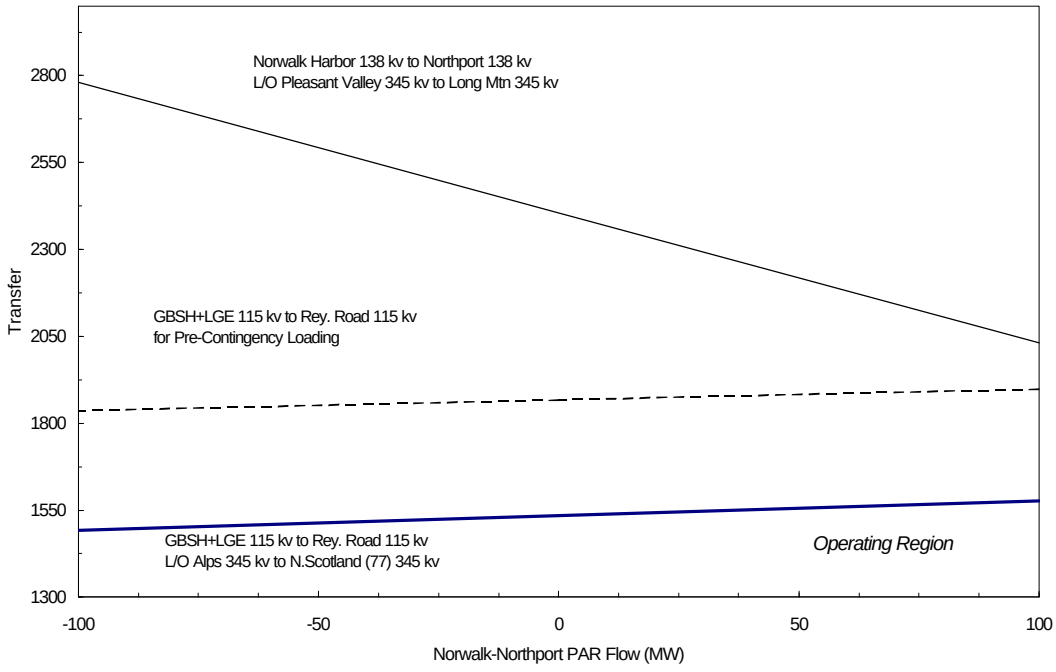
Positive Flow in Direction of Transfer

NY-NE vs. NORWALK-NORTHPORT PAR Flow
For Normal Transfer Criteria
Summer 1999



Positive Flow in Direction of Transfer

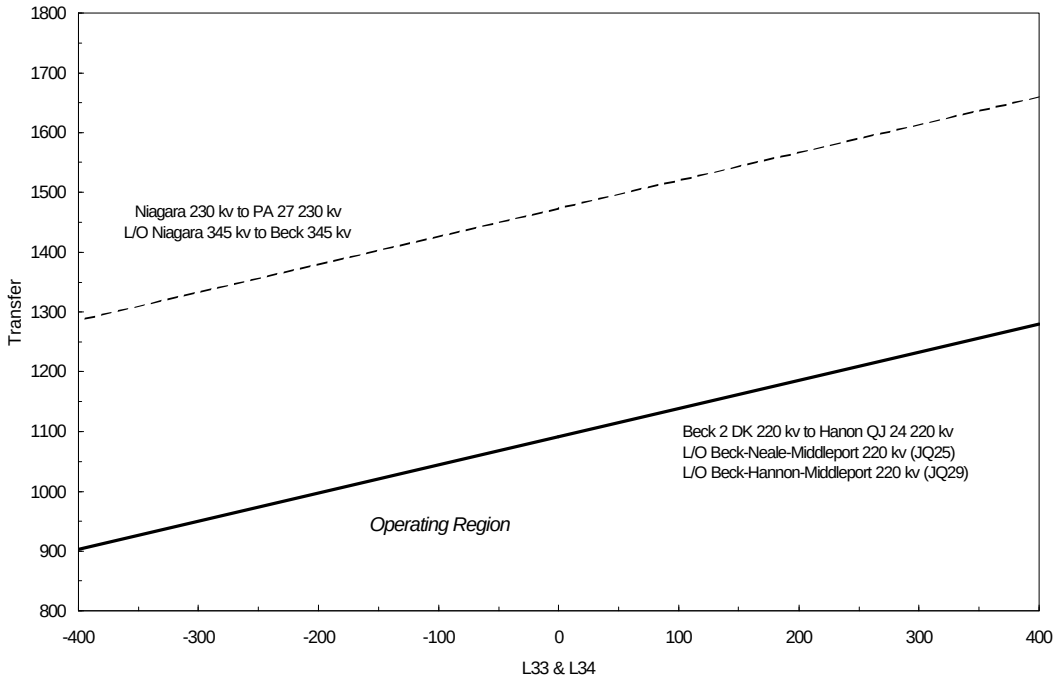
NY-NE vs. NORWALK-NORTHPORT PAR Flow
For Emergency Transfer Criteria
Summer 1999



Positive Flow in Direction of Transfer

NYPP-OH Transfer vs. L33 & L34

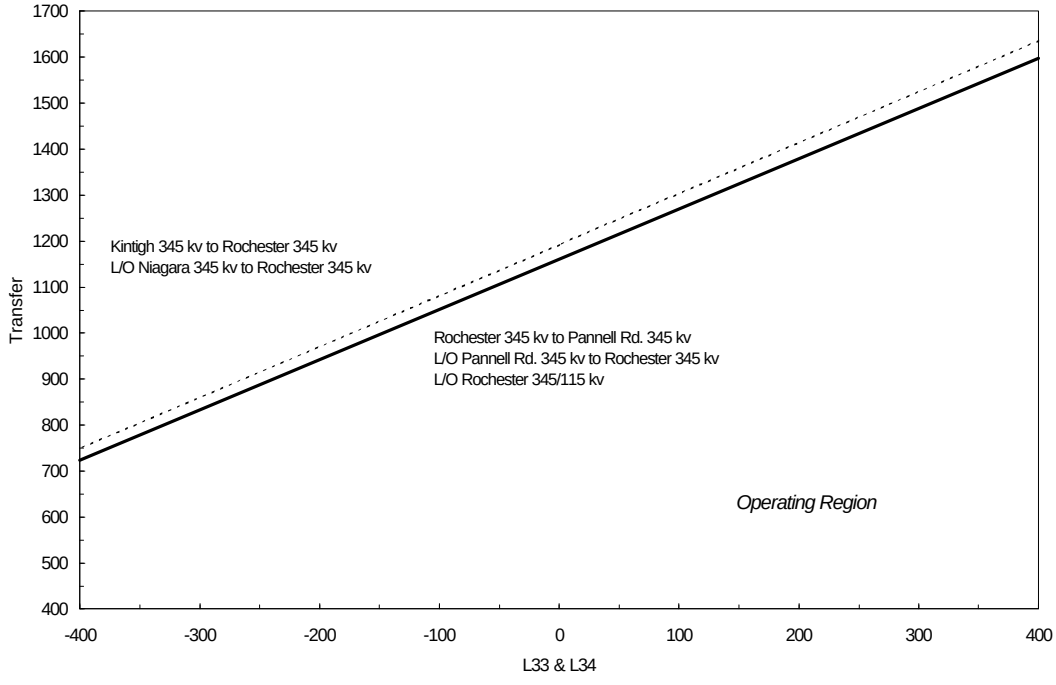
For Normal Transfer Criteria
Summer 1999



Positive Flow in Direction of Transfer

OH-NYPP Transfer vs. L33 & L34

For Normal Transfer Criteria
Summer 1999



Positive Flow in Direction of Transfer

APPENDIX H

CROSS-STATE TRANSFER LIMITS
ALL LINES IN-SERVICE FOR SUMMER 1999
COMPARED WITH SUMMER 1998

SUMMER 1999

NYPP SUMMER 1999 CROSS-STATE THERMAL LIMITS

		SUMMER 1999		SUMMER 1998		DELTA
Interface	Rating	Limit (MW)	Contingency	Limit (MW)	Contingency	
Dysinger East	Normal	3112	1	3134	1	-22
	Emergency	3214	1a	3249	1a	-35
West Central	Normal	2120	1	2219	1	-99
	Emergency	2517	2	2600	2	-83
Upny - ConEd	Normal	4281	3	4127	3	154
	Emergency	4860	4	4764	4	96
Sprn/Dun-South	Normal	3994	5	3942	5	52
	Emergency	3994	5	3942	5	52
Con Ed - LIPA	Normal	951	6	954	6	-3
	Emergency	1047	6a	1389	6b	-342

NYPP SUMMER 1999 CROSS-STATE THERMAL LIMITS

Interface	Rating	SUMMER 1999 Limit (MW)	SUMMER 1999 Contingency	SUMMER 1998 Limit (MW)	SUMMER 1998 Contingency	DELTA
Central East						
HQ > NY 1200 MW	Normal	3008	7	3062	7	-54
	Emergency	3321	8	3371	8	-50
HQ > NY 800 MW	Normal	2995	7	2990	7	5
	Emergency	3308	8	3299	8	9
Total East						
HQ > NY 1200 MW	Normal	5988	7	5752	7	236
	Emergency	6617	8	6376	8	241
HQ > NY 800 MW	Normal	6021	7	5667	7	354
	Emergency	6649	8	6291	8	358
Moses - South						
HQ > NY 1200 MW	Normal	2223	11	2073	9	150
	Emergency	3081	13	3071	10	10
HQ > NY 800 MW	Normal	1913	12	1727	9	186
	Emergency	2912	13	2931	10	-19

NYPP SUMMER 1999 CROSS-STATE THERMAL LIMIT CONTINGENCY LIST

	Limiting Element			Contingency
(1)	Pannell Rd. - Rochester (RP-2) 345 kV	@ LTE =	1501 MW for L/O	(S. BKR @ Rochester 345 kV) Rochester - Pannell Rd. 345 kV Rochester 345/115 kV
(1a)	Niagara - Rochester (NR-2) 345 kV	@ STE =	1686 MW for L/O	Kintigh - Rochester (SR-1) 345 kV
(2)	Pannell Rd. - Rochester (RP-2) 345 kV	@ STE =	1685 MW for L/O	Rochester - Pannell Rd. (RP-1)345 kV
(3)	Leeds - Pleasant Valley (91) 345 kV	@ LTE =	1538 MW for L/O	Leeds - Pleasant Valley (92) 345 kV
(4)	Leeds - Pleasant Valley (91) 345 kV	@ STE =	1724 MW for L/O	Leeds - Pleasant Valley (92) 345 KV
(5)	Dunwoodie - Rainey 345 KV	@ Nor =	715 MW for L/O	Pre - Contingency Loading
(6)	Dunwoodie - Shore Road (Y50) 345 kV	@ LTE =	877 MW for L/O	Hmp Hrbr - Dvnpt (Y49) 345 kV
(6a)	Dunwoodie-Shore Road (Y50) 345 kV	@ Nor =	599 MW for L/O	Pre - Contingency Loading
(6b)	Glnwd No.-Glnwd GT 138 kV	@ STE =	379 MW for L/O	Glnwd So.-Shore Road 138 kV

NYPP SUMMER 1999 CROSS-STATE THERMAL LIMIT CONTINGENCY LIST

	Limiting Element			Contingency
(7)	New Scotland - Leeds (93) 345 kV	@ LTE =	1538 MW for L/O	New Scotland - Leeds (94) 345 kV
(8)	New Scotland - Leeds (93) 345 kV	@ STE =	1724 MW for L/O	New Scotland - Leeds (94) 345 kV
(9)	Moses - Adirondack B1 230 kV	@ LTE =	299 MW for L/O	Moses - Massena (A) 230 kV Moses - Massena (B) 230 kV
(10)	Moses - Adirondack B1 230 kV	@STE=	398 MW for L/O	Moses - Adirondack B2 230 kV
(11)	Adirondack - Porter B2 230 kV	@LTE=	353 MW for L/O	Adirondack - Porter B1 230 kV Edic - Porter 345/230 kV
(12)	Adirondack - Porter B1 230 kV	@ LTE =	353 MW for L/O	Moses - Massena (A) 230 kV Moses - Massena (B) 230 kV
(13)	Adirondack - Porter B1 230 kV	@STE=	449 MW for L/O	Adirondack - Porter B2 230 kV

APPENDIX I

VOLTAGE ANALYSIS

INDEX

VOLTAGE ANALYSIS

<------FACILITY------>	<----CONTINGENCY----->	]-------KV-------] <-PRE-->	<-POST->	DELTA KV	]-INT FLOW-] PRE	POST	FLAG	LF ID
EDIC 345 KV	**** OP-1 LIMIT ****	347.0	328.0	19.0	3218	3218		NYPP
	L/O M-SOUTH N.	343.4	328.0	15.4	3280	4084	>E	NYPP
	L/O PH2 DC 1200	342.8	328.0	14.8	3294	3582	>E	NYPP
	L/O MILL #3	342.2	328.0	14.2	3299	3524	>E	NYPP
	L/O SEABROOK #1	342.2	328.0	14.2	3305	3581	>E	NYPP
	L/O M-SOUTH S.	340.7	328.0	12.7	3324	3871	>E	NYPP
	L/O NS BUS-GILB	339.1	328.0	11.1	3313	2602		NYPP
	L/O NS BUS-ALPS	338.5	328.0	10.5	3318	2692	>E	NYPP
	L/O MARCY-N.SCT	338.0	328.0	10.0	3320	2573		NYPP
	L/O EDIC-N.SCOT	337.6	328.0	9.6	3323	2748		NYPP
	L/O EDIC-FRASER	334.7	328.0	6.7	3337	3676		NYPP
	L/O MARCY-C.CRNS	333.4	328.0	5.4	3342	3668		NYPP
	L/O IND PT #2	328.0	328.0	0.0	3343	3343	>E	NYPP
LEEDS 345 KV	L/O M-SOUTH S.	346.5	328.0	18.5	3334	3878	>E	NYPP
	**** OP-1 LIMIT ****	345.0	328.0	17.0	3318	3318		NYPP
	L/O PH2 DC 1200	342.9	328.0	14.9	3478	3720	>E	NYPP
	L/O M-SOUTH N.	342.6	328.0	14.6	3420	4157	>E	NYPP
	L/O SEABROOK #1	341.9	328.0	13.9	3507	3737	>E	NYPP
	L/O MILL #3	340.8	328.0	12.8	3460	3632	>E	NYPP
	L/O MARCY-C.CRNS	331.5	328.0	3.5	3345	3618	>E	NYPP
	L/O NS BUS-ALPS	330.6	328.0	2.6	3472	2769	>E	NYPP
	L/O EDIC-FRASER	328.8	328.0	0.8	3346	3608	>E	NYPP
	L/O IND PT #2	328.0	328.0	0.0	3346	3346	>E	NYPP
	L/O EDIC-N.SCOT	328.0	328.0	0.0	3392	2728	>E	NYPP
	L/O MARCY-N.SCT	328.0	328.0	0.0	3459	2587	>E	NYPP
	L/O NS BUS-GILB	328.0	328.0	0.0	3499	2680	>E	NYPP
MARCY 345 KV	**** OP-1 LIMIT ****	348.0	328.0	20.0	3219	3219		NYPP
	L/O M-SOUTH N.	344.1	328.0	16.1	3287	4088	>E	NYPP
	L/O PH2 DC 1200	343.4	328.0	15.4	3306	3591	>E	NYPP
	L/O MILL #3	342.8	328.0	14.8	3308	3530	>E	NYPP
	L/O SEABROOK #1	342.7	328.0	14.7	3318	3592	>E	NYPP
	L/O M-SOUTH S.	341.1	328.0	13.1	3336	3879	>E	NYPP
	L/O NS BUS-ALPS	339.1	328.0	11.1	3321	2694	>E	NYPP
	L/O NS BUS-GILB	339.0	328.0	11.0	3322	2605	>E	NYPP
	L/O EDIC-N.SCOT	338.3	328.0	10.3	3325	2750		NYPP
	L/O MARCY-N.SCT	338.2	328.0	10.2	3325	2573		NYPP
	L/O EDIC-FRASER	335.3	328.0	7.3	3339	3676		NYPP
	L/O MARCY-C.CRNS	333.7	328.0	5.7	3342	3665		NYPP
	L/O IND PT #2	328.0	328.0	0.0	3344	3344	>E	NYPP
NW SCTLND 345 KV	**** OP-1 LIMIT ****	348.0	328.0	20.0	3252	3252		NYPP
	L/O M-SOUTH S.	347.9	328.0	19.9	3254	3824		NYPP

NOTE: >> INDICATES LIMIT WAS ABOVE LAST POINT AVAILABLE
<< INDICATES LIMIT WAS BELOW FIRST POINT AVAILABLE
>E INDICATES LIMIT WAS ABOVE LAST POINT AVAILABLE - EXTRAPOLATED !
<E INDICATES LIMIT WAS BELOW FIRST POINT AVAILABLE - EXTRAPOLATED !
** INDICATES LIMITING FACILITY AND CONTINGENCY HAS OCCURRED MORE THAN ONCE !

N.Y.P.P. VCAP (VOLTAGE CONTINGENCY ANALYSIS PROCEDURE) 03/22/99 16:13:44

(OEASP99 - CE00i) INTERFACE: CENTRAL EAST MW PART 3 PAGE: 2 OF 2

<------FACILITY------>	<----CONTINGENCY----->	KV <-PRE-->	KV <-POST->	DELTA KV	INT FLOW PRE	INT FLOW POST	FLAG	LF ID
	L/O M-SOUTH N.	345.9	328.0	17.9	3291	4090	>E	NYPP
	L/O PH2 DC 1200	342.9	328.0	14.9	3353	3626	>E	NYPP
	L/O MILL #3	342.3	328.0	14.3	3357	3563	>E	NYPP
	L/O SEABROOK #1	342.2	328.0	14.2	3366	3629	>E	NYPP
	L/O NS BUS-ALPS	337.2	328.0	9.2	3357	2711	>E	NYPP
	L/O NS BUS-GILB	336.9	328.0	8.9	3359	2621	>E	NYPP
	L/O EDIC-FRASER	333.7	328.0	5.7	3343	3663		NYPP
	L/O MARCY-C.CRNS	333.7	328.0	5.7	3343	3655		NYPP
	L/O MARCY-N.SCT	333.0	328.0	5.0	3379	2579	>E	NYPP
	L/O EDIC-N.SCOT	331.9	328.0	3.9	3357	2743	>E	NYPP
	L/O IND PT #2	328.0	328.0	0.0	3344	3344	>E	NYPP

NOTE: >> INDICATES LIMIT WAS ABOVE LAST POINT AVAILABLE
<< INDICATES LIMIT WAS BELOW FIRST POINT AVAILABLE
>E INDICATES LIMIT WAS ABOVE LAST POINT AVAILABLE - EXTRAPOLATED !
<E INDICATES LIMIT WAS BELOW FIRST POINT AVAILABLE - EXTRAPOLATED !
** INDICATES LIMITING FACILITY AND CONTINGENCY HAS OCCURRED MORE THAN ONCE !

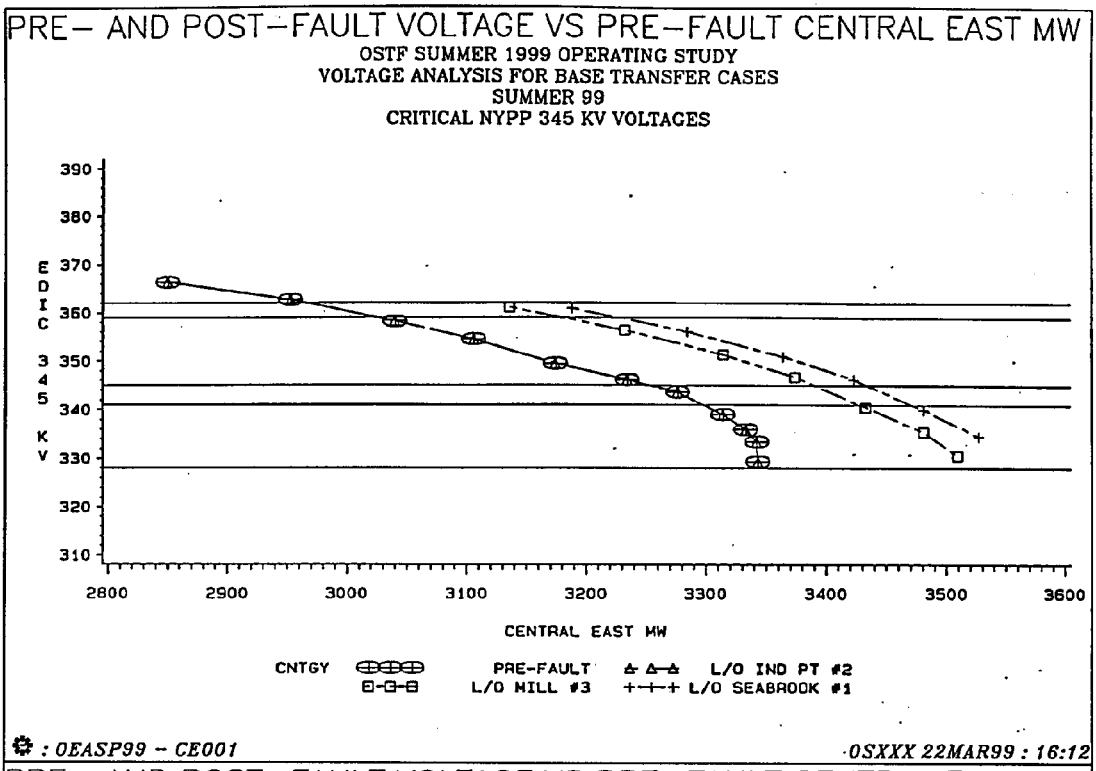
(OEASP99 - CE001)

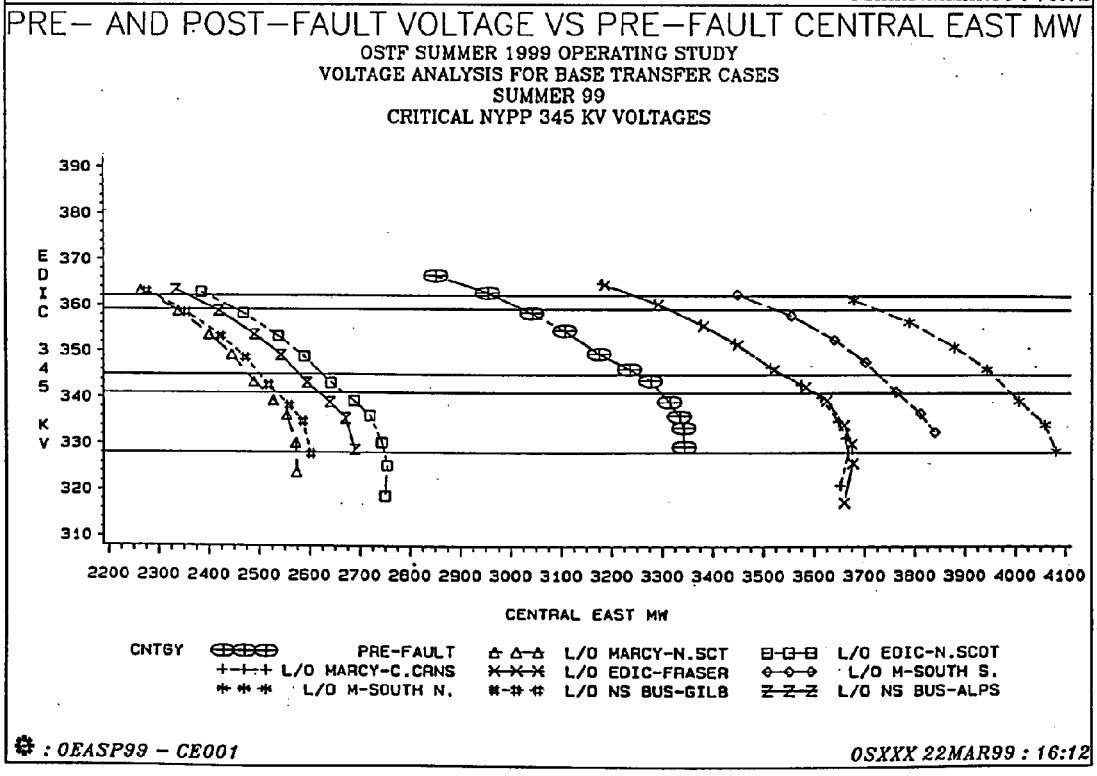
N.Y.P.P. VCAP (VOLTAGE CONTINGENCY ANALYSIS PROCEDURE) 03/22/99 16:13:45

INTERFACE: PART 4

<----CONTINGENCY----->		]----------MW----------] <-PRE-->	<-POST->	<-ADJ-->	FACILITY <-PRE-->	NEXT <-XFER->
L/O PH2 DC 1200	**	3234.0	3537.0	3100.0	365.0	42.0
L/O SEABROOK #1	**	3234.0	3527.0	3090.0	.	42.0
L/O MILL #3	**	3276.0	3509.0	3095.0	.	38.0
L/O M-SOUTH S.	**	3276.0	3839.0	3400.0	.	38.0
L/O M-SOUTH N.	**	3276.0	4082.0	3590.0	.	38.0
L/O NS BUS-GILB	**	3314.0	2602.0	2200.0	.	19.0
L/O NS BUS-ALPS	**	3314.0	2690.0	2270.0	.	19.0
L/O MARCY-N.SCT 345	**	3333.0	2574.0	2175.0	.	9.0
L/O EDIC-N.SCOT 345		3333.0	2754.0	2360.0	.	9.0
L/O MARCY-C.CRNS 345		3342.0	3668.0	3255.0	.	1.0
L/O EDIC-FRASER 345		3342.0	3677.0	3260.0	.	1.0
L/O IND PT #3	**	3343.0	3343.0	2980.0	980.0	.

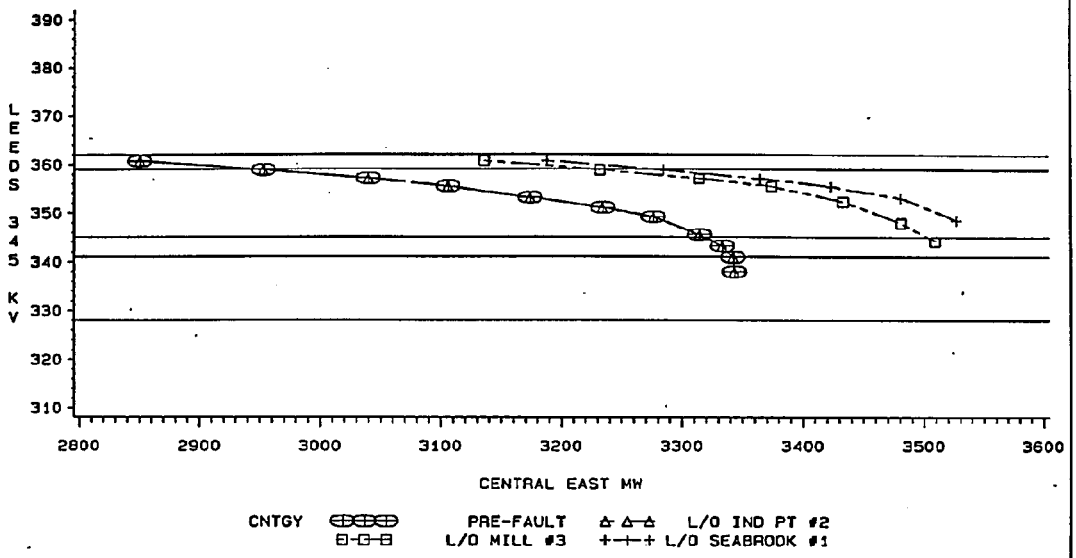
NOTE: ** INDICATES LIMIT OCCURS FOR LAST SOLVED LOADFLOW


PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT CENTRAL EAST MW
OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES
EDIC 345 KV
390
380
370
360
350
340
330
320
310
2800 2900 3000 3100 3200 3300 3400 3500 3600
CENTRAL EAST MW
CNTGY
PRE-FAULT
L/O IND PT #2
L/O MILL #3
L/O SEABROOK #1
: OEASP99 – CE001
OSXXX 22MAR99 : 16:12


PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT CENTRAL EAST MW
OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES
EDIC 345 KV
390
380
370
360
350
340
330
320
310
2200 2300 2400 2500 2600 2700 2800 2900 3000 3100 3200 3300 3400 3500 3600 3700 3800 3900 4000 4100
CENTRAL EAST MW
CNTGY
PRE-FAULT
L/O MARCY-N.SCT
L/O EDIC-N.SCOT
L/O MARCY-C.CANS
L/O EDIC-FRASER
L/O M-SOUTH S.
L/O M-SOUTH N.
L/O NS BUS-GILB
L/O NS BUS-ALPS
: OEASP99 – CE001
OSXXX 22MAR99 : 16:12

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT CENTRAL EAST MW

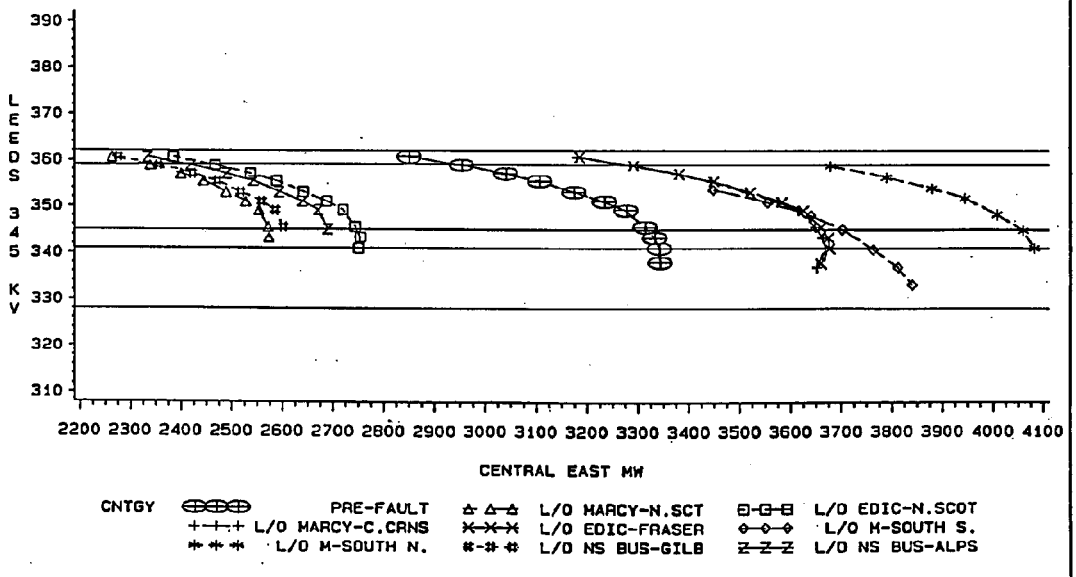
OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES



: 0EASP99 – CE001 *0SXXX 22MAR99 : 16:12*

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT CENTRAL EAST MW

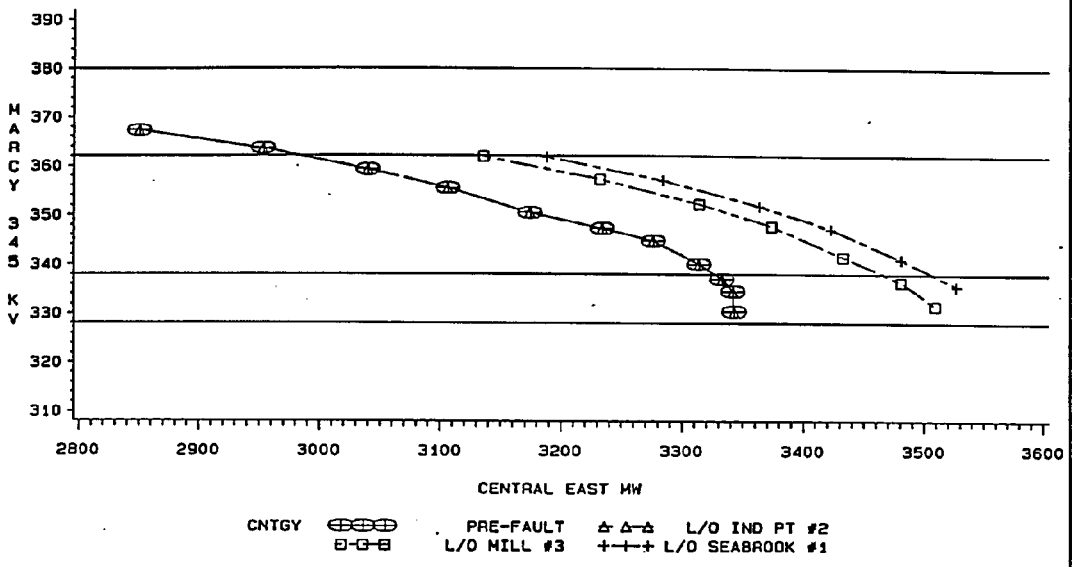
OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES



: 0EASP99 – CE001 *0SXXX 22MAR99 : 16:12*

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT CENTRAL EAST MW

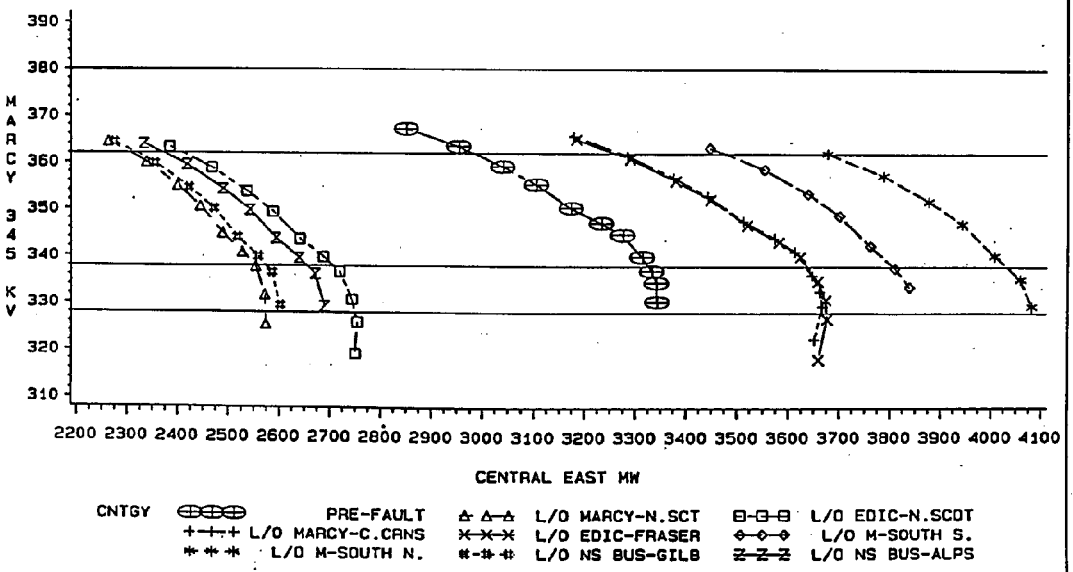
OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES



: OEASP99 – CE001 OSXXX 22MAR99 : 16:12

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT CENTRAL EAST MW

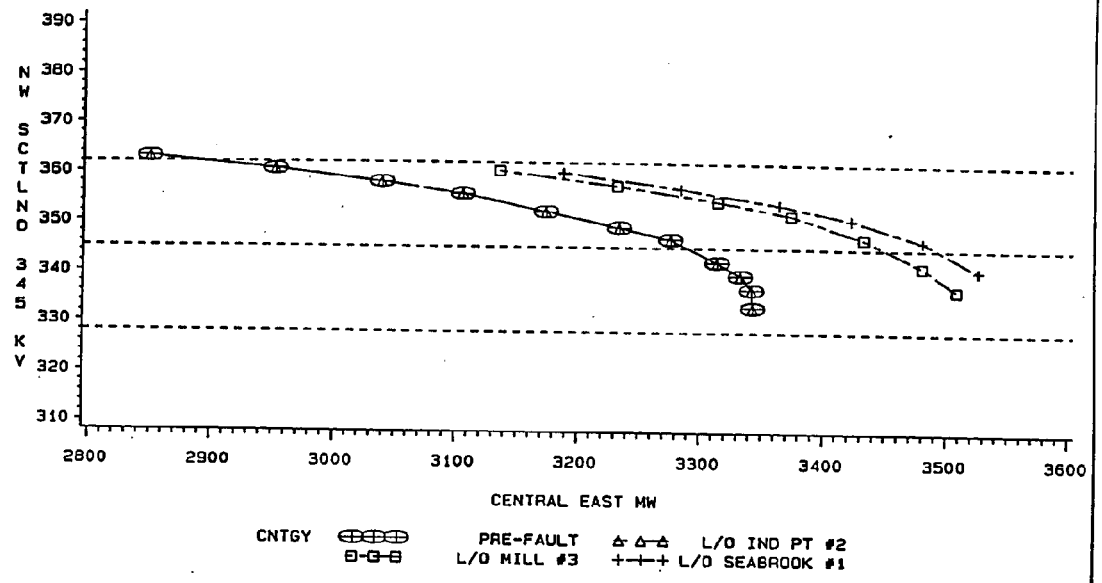
OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES



: OEASP99 – CE001 OSXXX 22MAR99 : 16:12

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT CENTRAL EAST MW

OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES

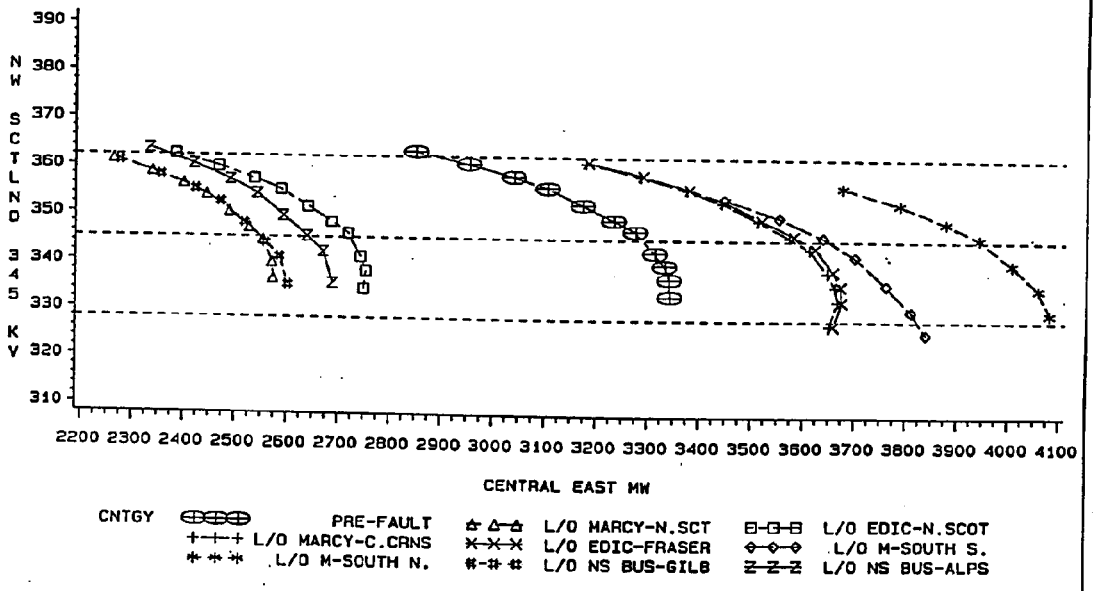


: 0EASP99 – CE001

0SXXX 22MAR99 : 16:12

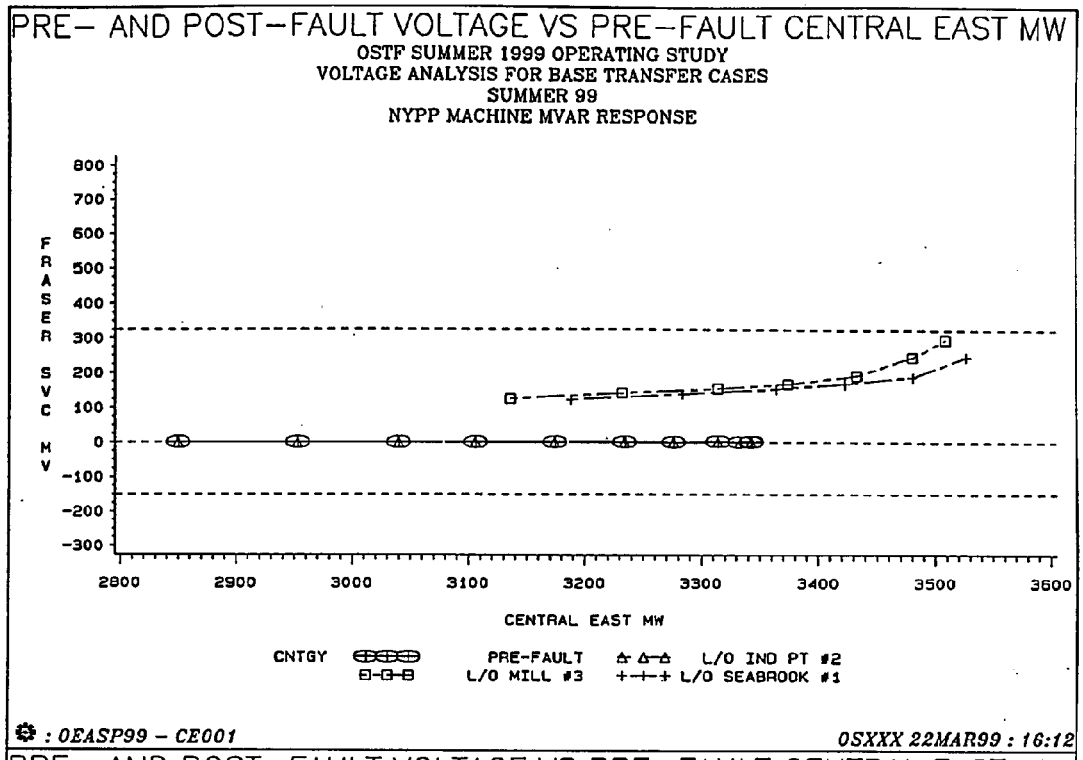
PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT CENTRAL EAST MW

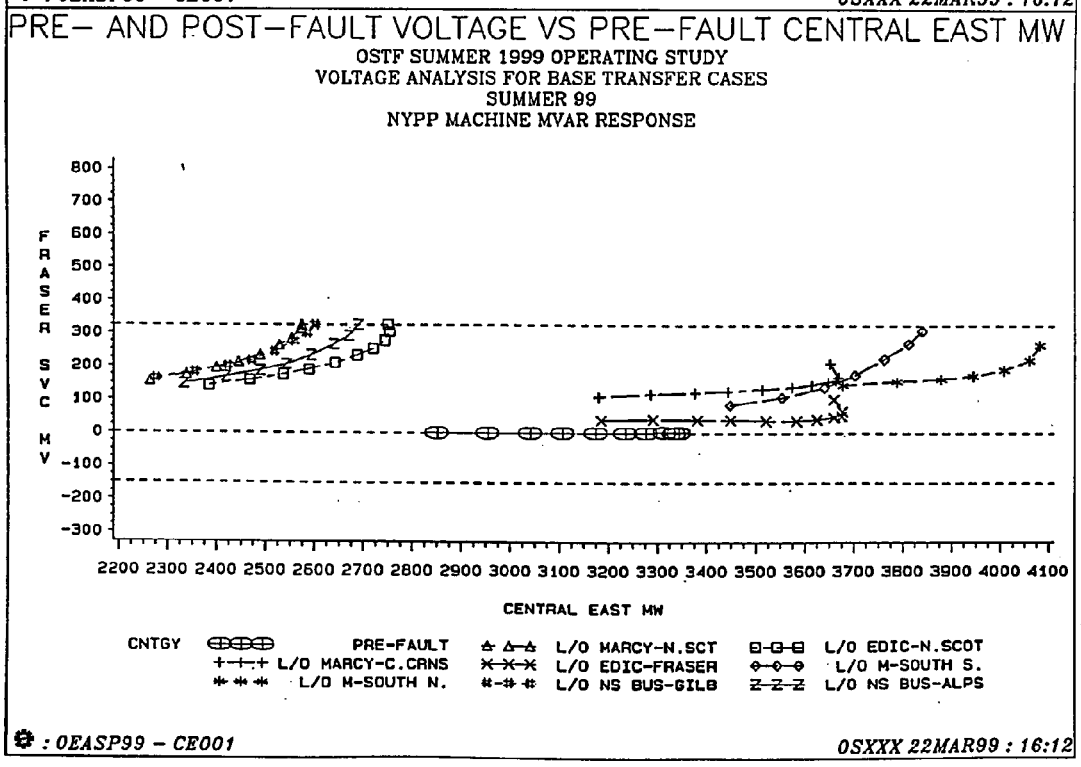
OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES



: 0EASP99 – CE001

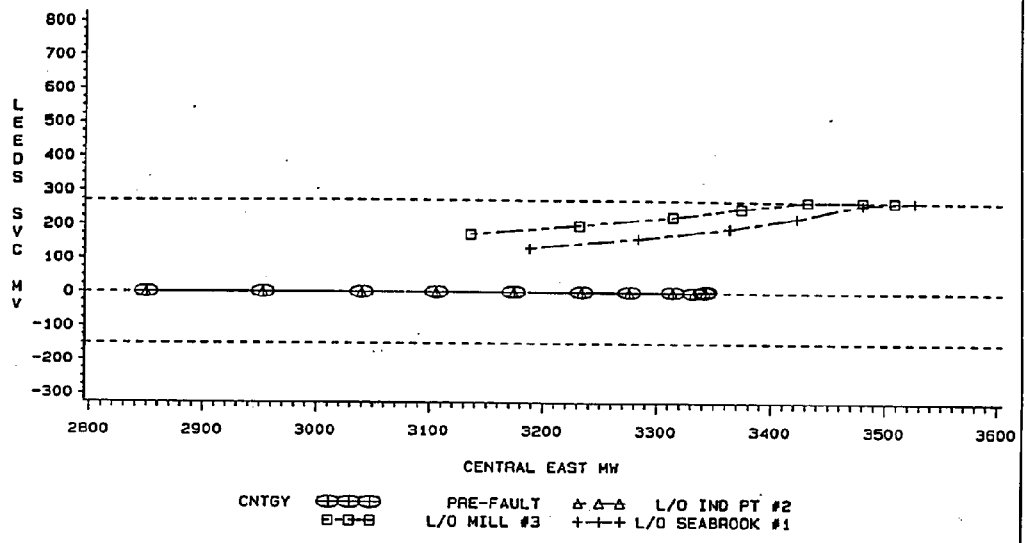
0SXXX 22MAR99 : 16:12


PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT CENTRAL EAST MW
OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
NYPP MACHINE MVAR RESPONSE
FRASER SVC MV
800
700
600
500
400
300
200
100
0
-100
-200
-300
2800 2900 3000 3100 3200 3300 3400 3500 3600
CENTRAL EAST MW
CNTGY
PRE-FAULT
L/O MILL #3
L/O IND PT #2
L/O SEABROOK #1
: 0EASP99 – CE001
0SXXX 22MAR99 : 16:12


PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT CENTRAL EAST MW
OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
NYPP MACHINE MVAR RESPONSE
FRASER SVC MV
800
700
600
500
400
300
200
100
0
-100
-200
-300
2200 2300 2400 2500 2600 2700 2800 2900 3000 3100 3200 3300 3400 3500 3600 3700 3800 3900 4000 4100
CENTRAL EAST MW
CNTGY
PRE-FAULT
L/O MARCY-N.SCT
L/O EDIC-N.SCOT
L/O MARCY-C.CRNS
L/O EDIC-FRASER
L/O M-SOUTH S.
L/O M-SOUTH N.
L/O NS BUS-GILB
L/O NS BUS-ALPS
: 0EASP99 – CE001
0SXXX 22MAR99 : 16:12

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT CENTRAL EAST MW

OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
NYPP MACHINE MVAR RESPONSE

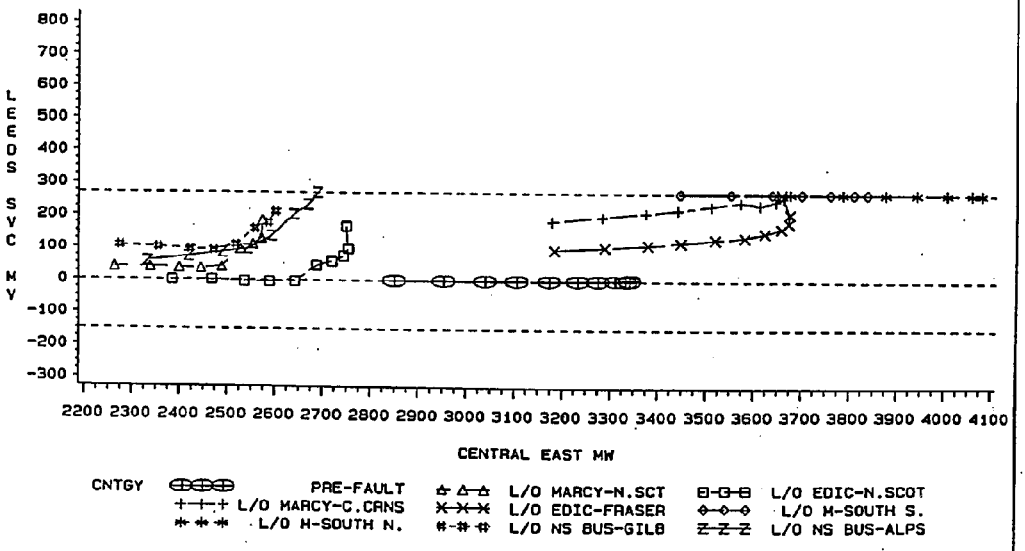


: 0EASP99 – CE001

0SXXX 22MAR99 : 16:12

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT CENTRAL EAST MW

OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
NYPP MACHINE MVAR RESPONSE



: 0EASP99 – CE001

0SXXX 22MAR99 : 16:12

N.Y.P.P. VCAP (VOLTAGE CONTINGENCY ANALYSIS PROCEDURE) 03/17/99 11:28:58

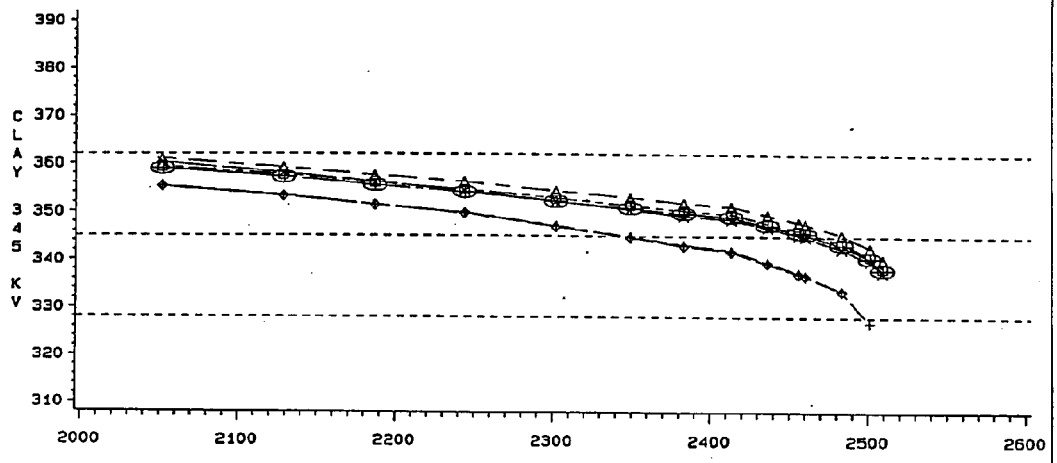
(OEASP99 - DE001) INTERFACE: DYSINGER-EAST MW PART 3 PAGE: 1 OF 1

<------FACILITY------>	<----CONTINGENCY----->	]-------KV-------] <-PRE-->	<-POST->	DELTA KV	]-INT FLOW-] PRE	POST	FLAG	LF ID
CLAY 345 KV	**** OP-1 LIMIT ****	345.0	328.0	17.0	2465	2465		NYPP
	L/O MILL #3	340.8	328.0	12.8	2498	2692		NYPP
	L/O MSU1 & HQ	340.2	328.0	12.2	2502	2879		NYPP
	L/O SEABROOK #1	339.2	328.0	11.2	2523	2734	>E	NYPP
	L/O STOLLE-MEYER	330.3	328.0	2.3	2535	2369	>E	NYPP
	L/O SOMER-ROCH 3	328.8	328.0	0.8	2540	2258	>E	NYPP
	L/O KIN-ROCH-PAN	328.5	328.0	0.5	2541	2228	>E	NYPP
	L/O 9 MILE #2	328.1	328.0	0.1	2542	2836	>E	NYPP
	L/O GINNA	327.5	328.0	-0.5	2544	2771	>E	NYPP
	L/O SOMERSET	325.7	328.0	-2.3	2550	2231	>E	NYPP
GRDNVL 230 KV	**** OP-1 LIMIT ****	217.0	207.0	10.0	2517	2517	>E	NYPP
	L/O MSU1 & HQ	212.9	207.0	5.9	2564	2840	>E	NYPP
	L/O MILL #3	212.8	207.0	5.8	2753	2777	>E	NYPP
	L/O KIN-ROCH-PAN	212.5	207.0	5.5	2568	2242	>E	NYPP
	L/O SOMER-ROCH 3	211.7	207.0	4.7	2577	2282	>E	NYPP
	L/O SEABROOK #1	208.3	207.0	1.3	3288	3433	>E	NYPP
	L/O 9 MILE #2	207.8	207.0	0.8	2622	2926	>E	NYPP
	L/O GINNA	207.3	207.0	0.3	2628	2866	>E	NYPP
	L/O SOMERSET	206.8	207.0	-0.2	2634	2293	>E	NYPP
	L/O STOLLE-MEYER	193.6	207.0	-13.4	2785	2588	>E	NYPP
PNL RD 345 KV	**** OP-1 LIMIT ****	341.0	328.0	13.0	2235	2235		NYPP
	L/O MSU1 & HQ	337.0	328.0	9.0	2351	2737		NYPP
	L/O SEABROOK #1	335.3	328.0	7.3	2416	2636		NYPP
	L/O MILL #3	335.1	328.0	7.1	2420	2631		NYPP
	L/O SOMER-ROCH 3	333.9	328.0	5.9	2441	2187		NYPP
	L/O KIN-ROCH-PAN	333.8	328.0	5.8	2443	2163		NYPP
	L/O 9 MILE #2	333.0	328.0	5.0	2454	2742		NYPP
	L/O GINNA	331.8	328.0	3.8	2473	2694		NYPP
	L/O STOLLE-MEYER	331.3	328.0	3.3	2480	2322		NYPP
	L/O SOMERSET	325.5	328.0	-2.5	2519	2207	>E	NYPP
STTN 80 345 KV	**** OP-1 LIMIT ****	343.0	328.0	15.0	2138	2138		NYPP
	L/O KIN-ROCH-PAN	336.9	328.0	8.9	2324	2064		NYPP
	L/O MSU1 & HQ	336.7	328.0	8.7	2331	2717		NYPP
	L/O SOMER-ROCH 3	335.3	328.0	7.3	2377	2132		NYPP
	L/O SEABROOK #1	334.8	328.0	6.8	2402	2622		NYPP
	L/O MILL #3	334.6	328.0	6.6	2410	2621		NYPP
	L/O 9 MILE #2	333.2	328.0	5.2	2440	2728		NYPP
	L/O GINNA	332.2	328.0	4.2	2454	2675		NYPP
	L/O STOLLE-MEYER	331.3	328.0	3.3	2470	2313		NYPP
	L/O SOMERSET	326.1	328.0	-1.9	2516	2205	>E	NYPP

NOTE: >> INDICATES LIMIT WAS ABOVE LAST POINT AVAILABLE
<< INDICATES LIMIT WAS BELOW FIRST POINT AVAILABLE
>E INDICATES LIMIT WAS ABOVE LAST POINT AVAILABLE - EXTRAPOLATED !
<E INDICATES LIMIT WAS BELOW FIRST POINT AVAILABLE - EXTRAPOLATED !
** INDICATES LIMITING FACILITY AND CONTINGENCY HAS OCCURRED MORE THAN ONCE !

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT DYSINGER–EAST MW

OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES

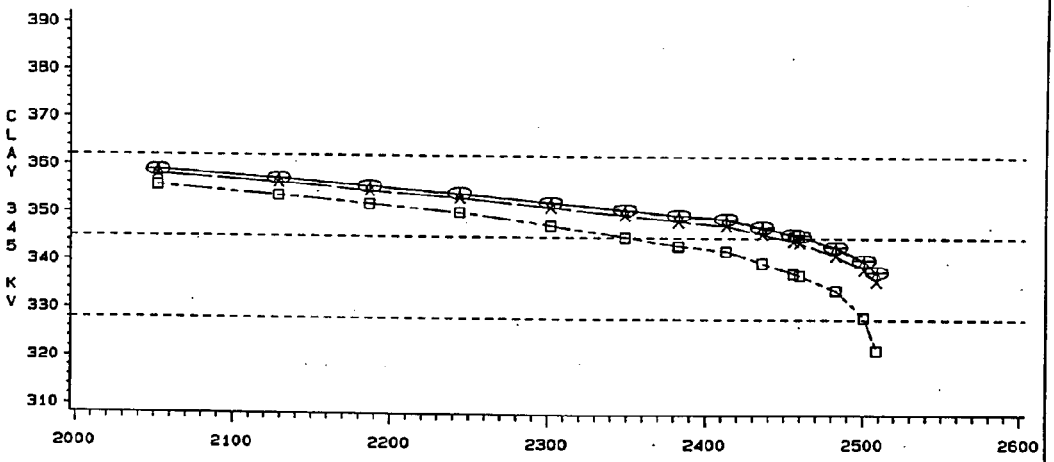


: OEASP99 – DE001

OSXXX 17MAR99 : 11:27

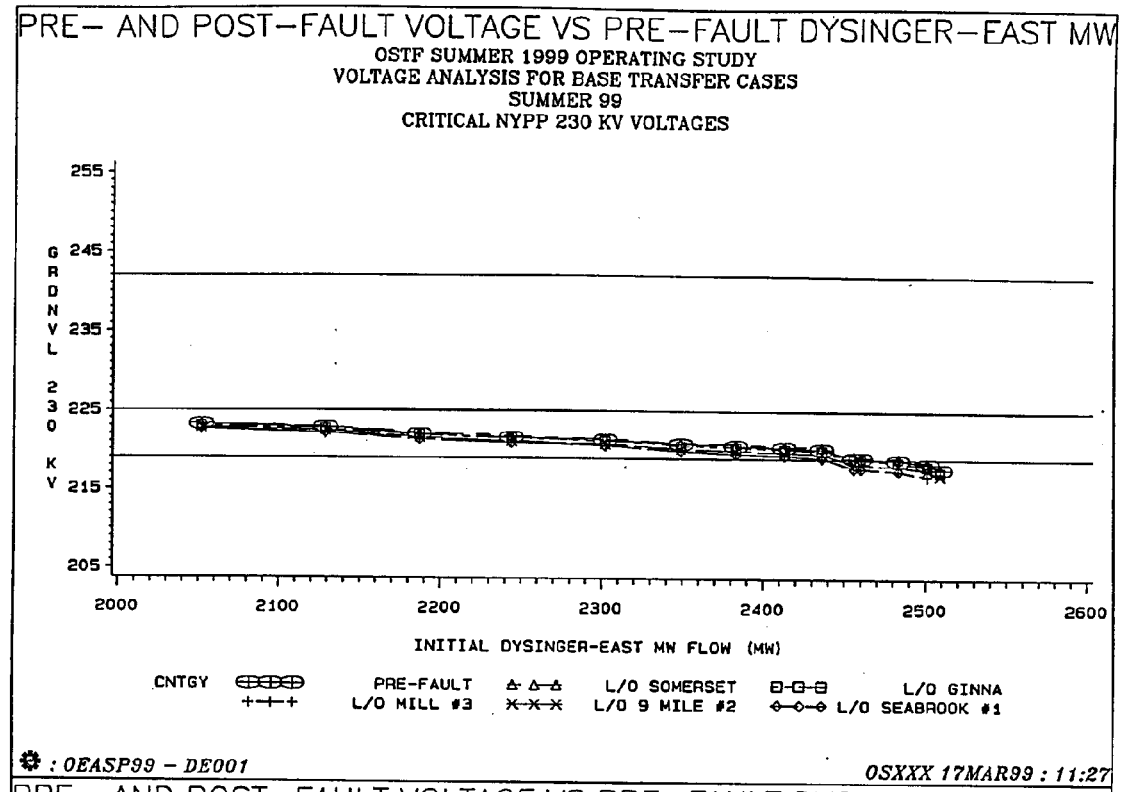
PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT DYSINGER–EAST MW

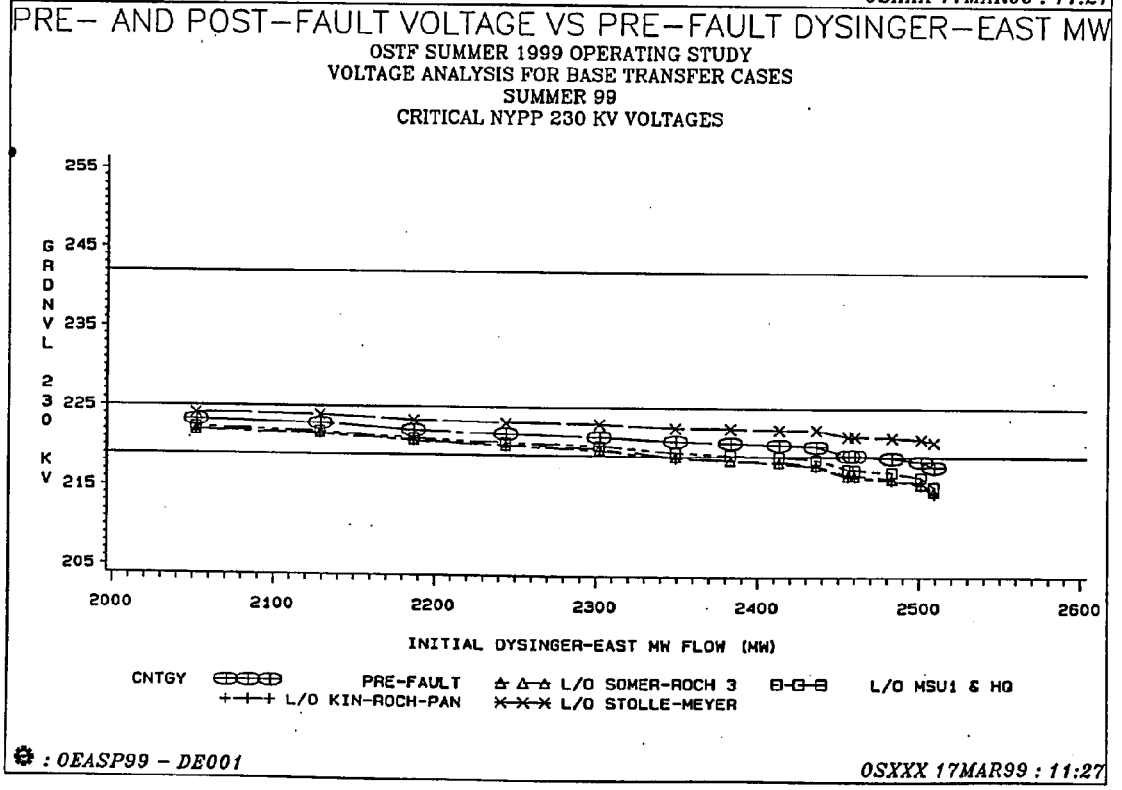
OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES



: OEASP99 – DE001

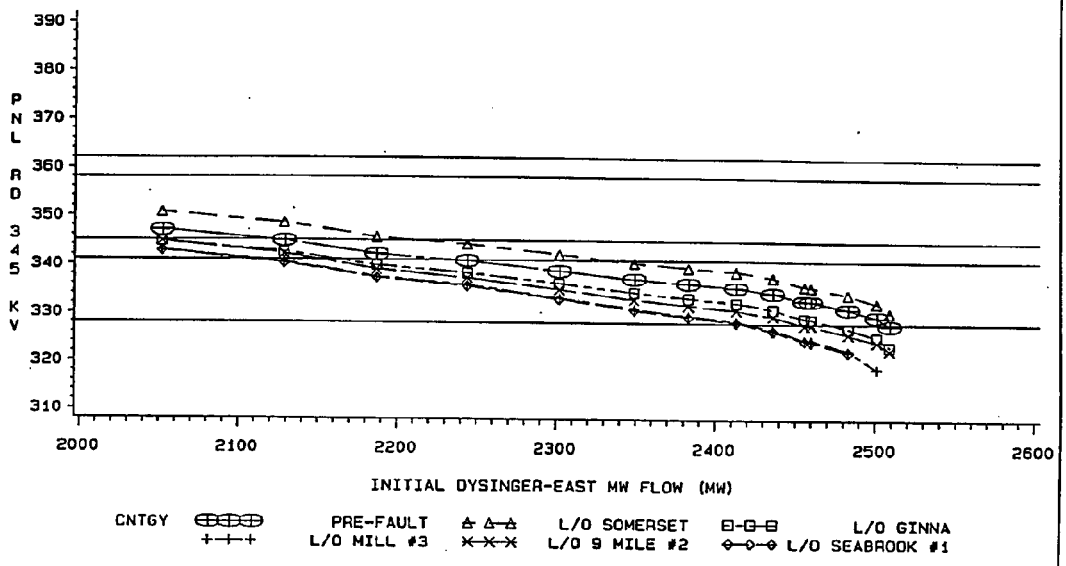
OSXXX 17MAR99 : 11:27


PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT DYSINGER–EAST MW
OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 230 KV VOLTAGES
GRDNVL 230 KV
255
245
235
225
215
205
2000
2100
2200
2300
2400
2500
2600
INITIAL DYSINGER-EAST MW FLOW (MW)
CNTGY
PRE-FAULT
L/O MILL #3
L/O SOMERSET
L/O 9 MILE #2
L/O GINNA
L/O SEABROOK #1
: OEASP99 – DE001
OSXXX 17MAR99 : 11:27


PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT DYSINGER–EAST MW
OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 230 KV VOLTAGES
GRDNVL 230 KV
255
245
235
225
215
205
2000
2100
2200
2300
2400
2500
2600
INITIAL DYSINGER-EAST MW FLOW (MW)
CNTGY
PRE-FAULT
L/O KIN-ROCH-PAN
L/O SOMER-ROCH 3
L/O STOLLE-MEYER
L/O MSU1 & HQ
: OEASP99 – DE001
OSXXX 17MAR99 : 11:27

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT DYSINGER–EAST MW

OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES

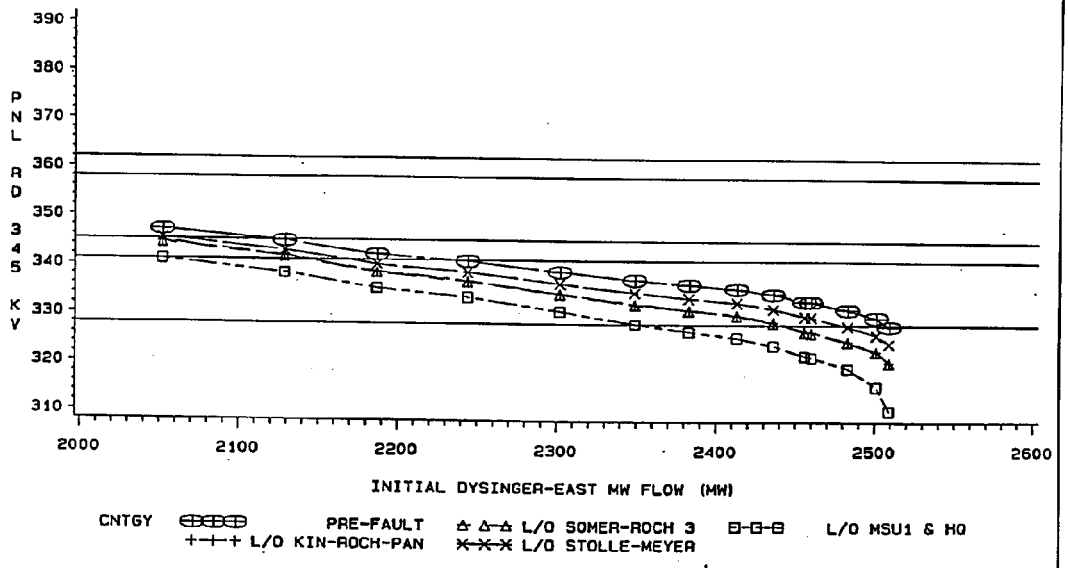


: 0EASP99 – DE001

0SXXX 17MAR99 : 11:27

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT DYSINGER–EAST MW

OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES

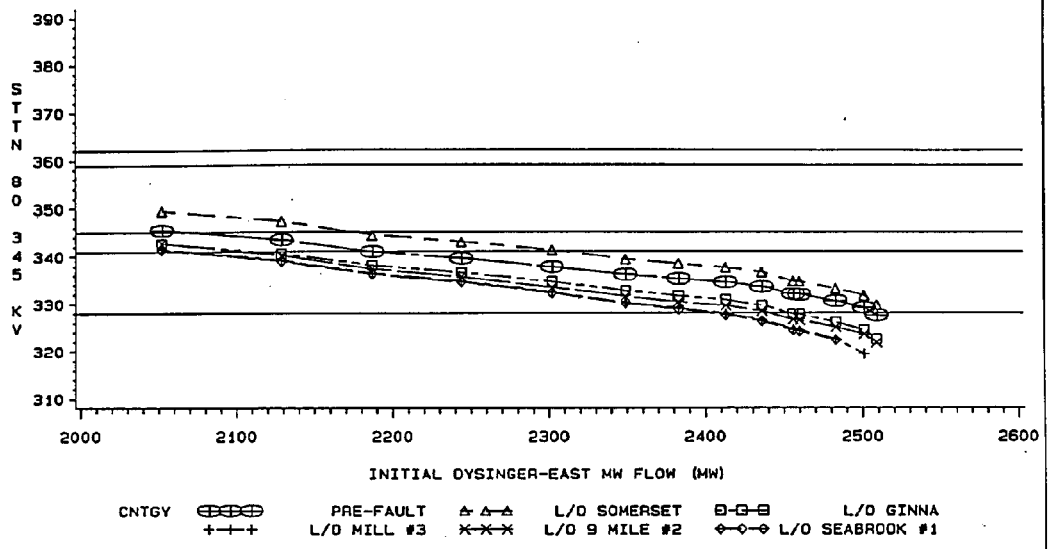


: 0EASP99 – DE001

0SXXX 17MAR99 : 11:27

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT DYSINGER–EAST MW

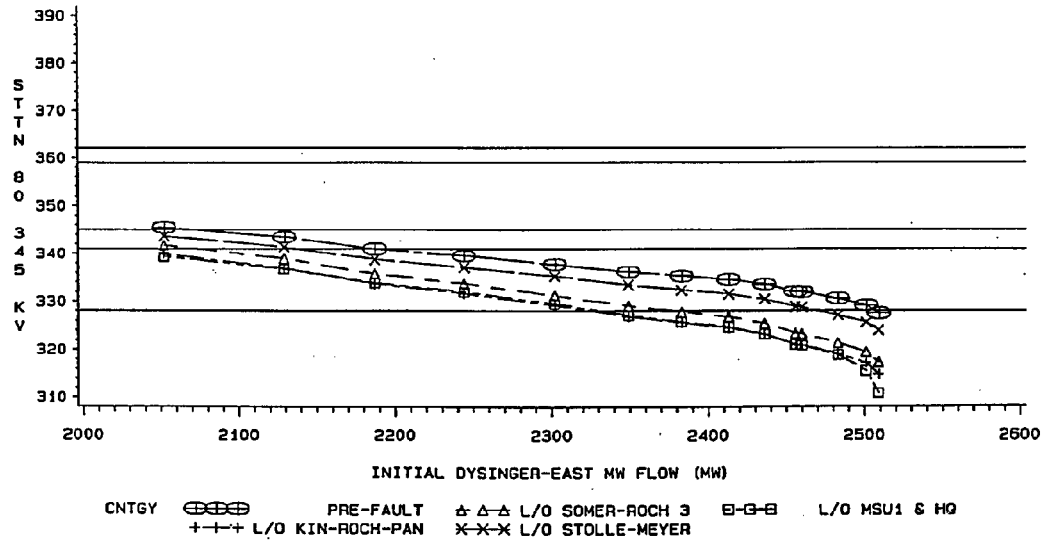
OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES



: OEASP99 – DE001 OSXXX 17MAR99 : 11:27

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT DYSINGER–EAST MW

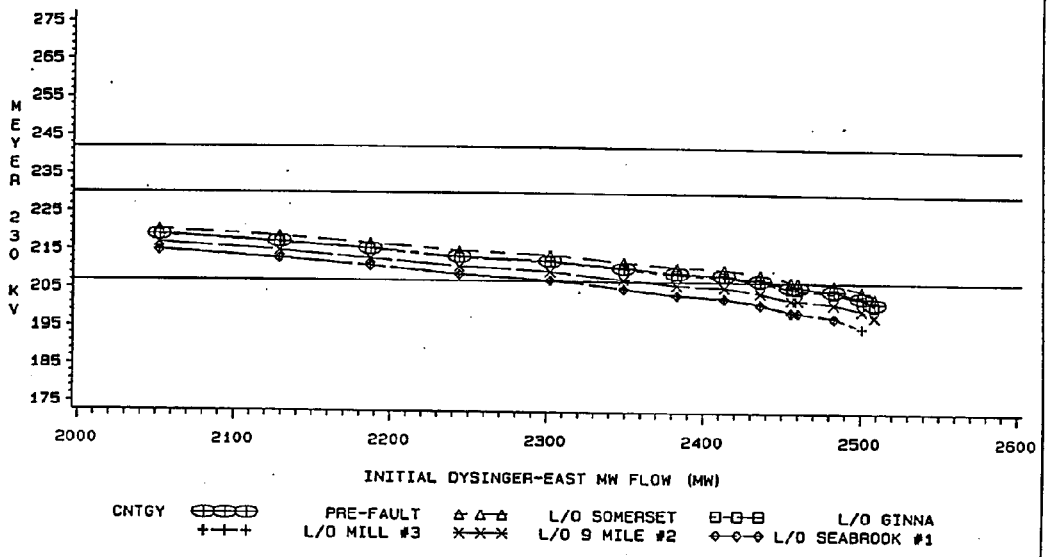
OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES



: OEASP99 – DE001 OSXXX 17MAR99 : 11:27

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT DYSINGER–EAST MW

OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 230 KV VOLTAGES

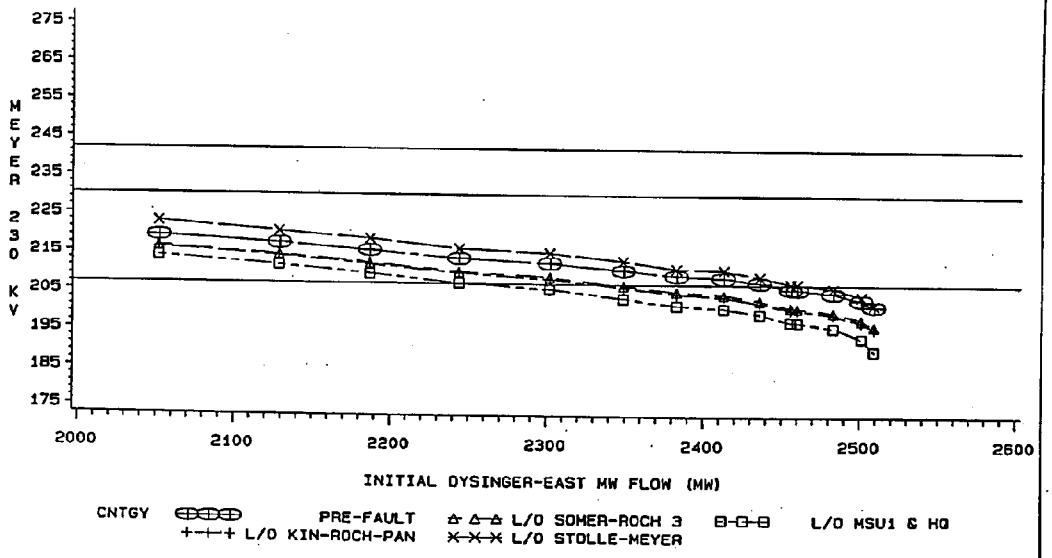


: OEASP99 – DE001

OSXXX 17MAR99 : 11:27

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT DYSINGER–EAST MW

OSTF SUMMER 1999 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 230 KV VOLTAGES



: OEASP99 – DE001

OSXXX 17MAR99 : 11:27

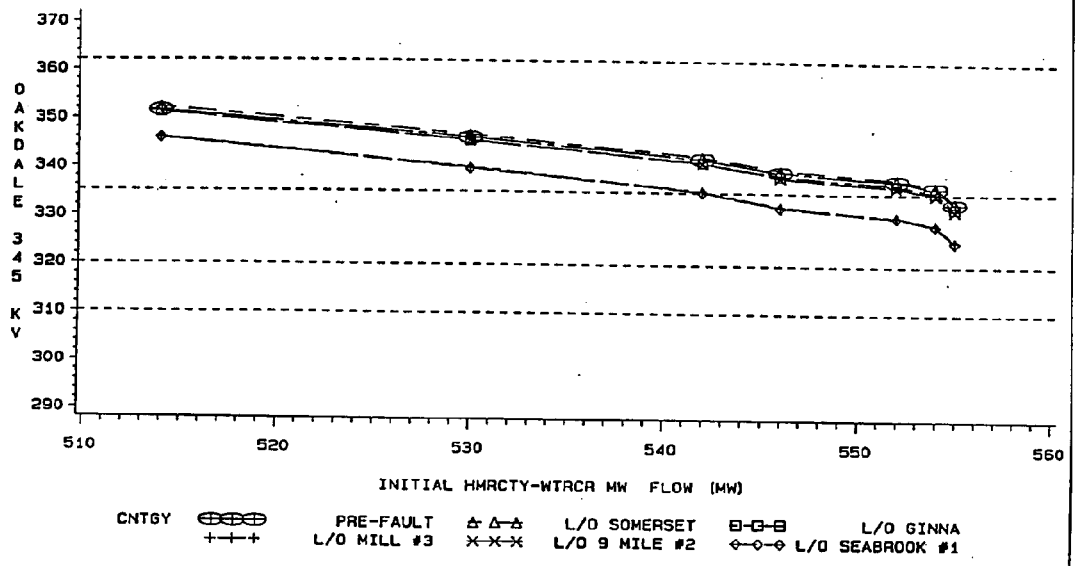
N.Y.P.P. VCAP (VOLTAGE CONTINGENCY ANALYSIS PROCEDURE) 03/31/99 16:12:49

(OEAWP98 - ST002) INTERFACE: HMRCTY-WTRCR MW PART 3 PAGE: 1 OF 1

<------FACILITY------>	<----CONTINGENCY----->	]-------KV-------] <-PRE-->	<-POST->	DELTA KV	]-INT FLOW-] PRE	POST	FLAG	LF ID
FRASER 345 KV	**** OP-1 LIMIT ****	338.0	328.0	10.0	562	562	>E	NYPP
	L/O M-SOUTH N.	332.5	328.0	4.5	565	551	>E	NYPP
	L/O MILL #3	331.2	328.0	3.2	565	583	>E	NYPP
	L/O SEABROOK #1	331.1	328.0	3.1	565	585	>E	NYPP
	L/O LAFF-OAKDALE	330.7	328.0	2.7	566	551	>E	NYPP
	L/O M-SOUTH S.	330.5	328.0	2.5	566	531	>E	NYPP
	L/O STOLLE-MEYER	328.0	328.0	0.0	567	608	>E	NYPP
	L/O SOMER-ROCH 3	327.9	328.0	-0.1	567	585	>E	NYPP
	L/O MSU1 & HQ	327.9	328.0	-0.1	567	595	>E	NYPP
	L/O GINNA	327.6	328.0	-0.4	567	589	>E	NYPP
	L/O 9 MILE #2	327.4	328.0	-0.6	567	598	>E	NYPP
	L/O SOMERSET	327.3	328.0	-0.7	567	575	>E	NYPP
	L/O WATERCURE-OA	325.3	328.0	-2.7	568	426	>E	NYPP
	L/O OAK-FRASER 3	322.9	328.0	-5.1	569	513	>E	NYPP
OAKDALE 345 KV	**** OP-1 LIMIT ****	335.0	320.0	15.0	554	554		NYPP
	L/O LAFF-OAKDALE	334.2	320.0	14.2	555	573		NYPP
	L/O M-SOUTH N.	333.2	320.0	13.2	555	551		NYPP
	L/O MSU1 & HQ	330.1	320.0	10.1	556	628	>E	NYPP
	L/O SEABROOK #1	328.3	320.0	8.3	556	594	>E	NYPP
	L/O MILL #3	327.9	320.0	7.9	557	591	>E	NYPP
	L/O OAK-FRASER 3	324.1	320.0	4.1	558	490	>E	NYPP
	L/O SOMER-ROCH 3	321.6	320.0	1.6	558	576	>E	NYPP
	L/O 9 MILE #2	321.4	320.0	1.4	559	590	>E	NYPP
	L/O GINNA	320.4	320.0	0.4	559	581	>E	NYPP
	L/O STOLLE-MEYER	320.2	320.0	0.2	559	592	>E	NYPP
	L/O SOMERSET	319.1	320.0	-0.9	559	575	>E	NYPP
	L/O M-SOUTH S.	314.1	320.0	-5.9	561	521	>E	NYPP
	L/O WATERCURE-OA	296.2	320.0	-23.8	566	426	>E	NYPP
WATERCURE 230 KV	**** OP-1 LIMIT ****	215.0	207.0	8.0	354	354	<E	NYPP
	L/O MSU1 & HQ	214.0	207.0	7.0	511	615	<E	NYPP
	L/O OAK-FRASER 3	213.8	207.0	6.8	526	428	>E	NYPP
	L/O M-SOUTH S.	213.8	207.0	6.8	528	456	>E	NYPP
	L/O SEABROOK #1	213.8	207.0	6.8	555	596		NYPP
	L/O WATERCURE-OA	213.8	207.0	6.8	555	426		NYPP
	L/O M-SOUTH N.	213.8	207.0	6.8	555	551		NYPP
	L/O MILL #3	213.8	207.0	6.8	556	592	>E	NYPP
	L/O 9 MILE #2	213.8	207.0	6.8	576	607	>E	NYPP
	L/O SOMER-ROCH 3	213.8	207.0	6.8	598	616	>E	NYPP
	L/O GINNA	213.8	207.0	6.8	606	628	>E	NYPP
	L/O SOMERSET	213.8	207.0	6.8	618	575	>E	NYPP
	L/O LAFF-OAKDALE	213.7	207.0	6.7	541	568		NYPP
	L/O STOLLE-MEYER	207.8	207.0	0.8	601E3	601E3	>E	NYPP

NOTE: >> INDICATES LIMIT WAS ABOVE LAST POINT AVAILABLE
<< INDICATES LIMIT WAS BELOW FIRST POINT AVAILABLE
>E INDICATES LIMIT WAS ABOVE LAST POINT AVAILABLE - EXTRAPOLATED !
<E INDICATES LIMIT WAS BELOW FIRST POINT AVAILABLE - EXTRAPOLATED !
** INDICATES LIMITING FACILITY AND CONTINGENCY HAS OCCURRED MORE THAN ONCE !

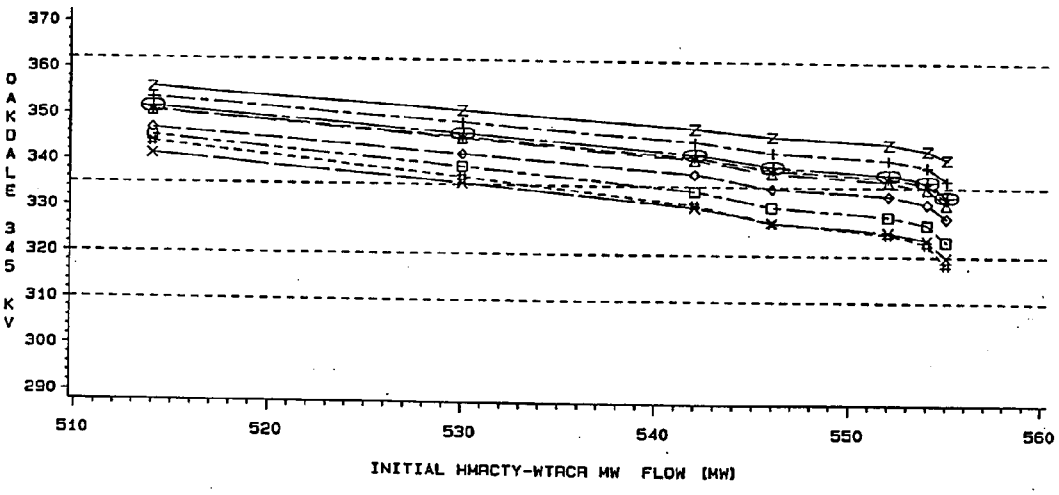
PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT HMRCTY–WTRCR MW
OSTF SUMMER 1998 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES



: OEAWP98 – ST002

OSXXX 31MAR99 : 16:11

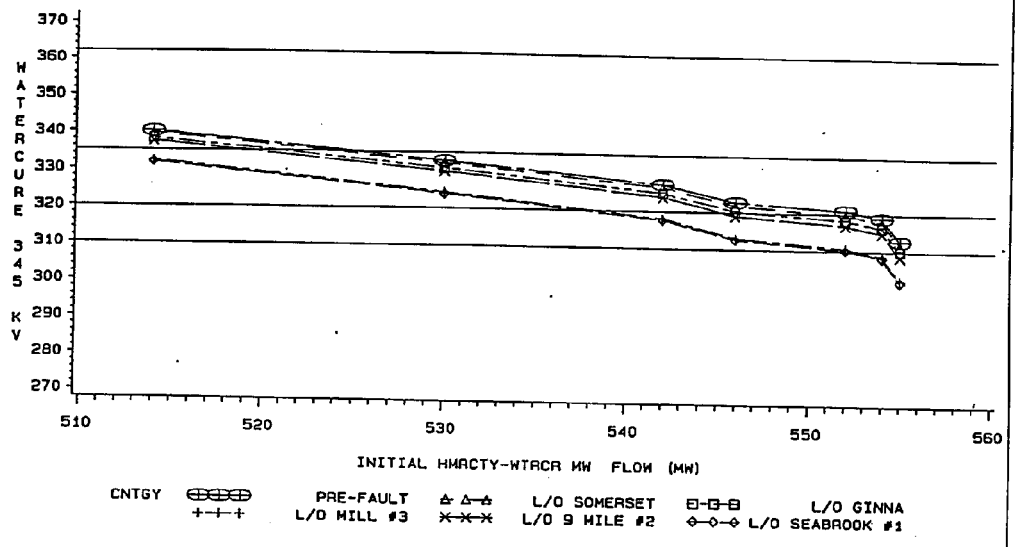
PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT HMRCTY–WTRCR MW
OSTF SUMMER 1998 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES



: OEAWP98 – ST002

OSXXX 31MAR99 : 16:11

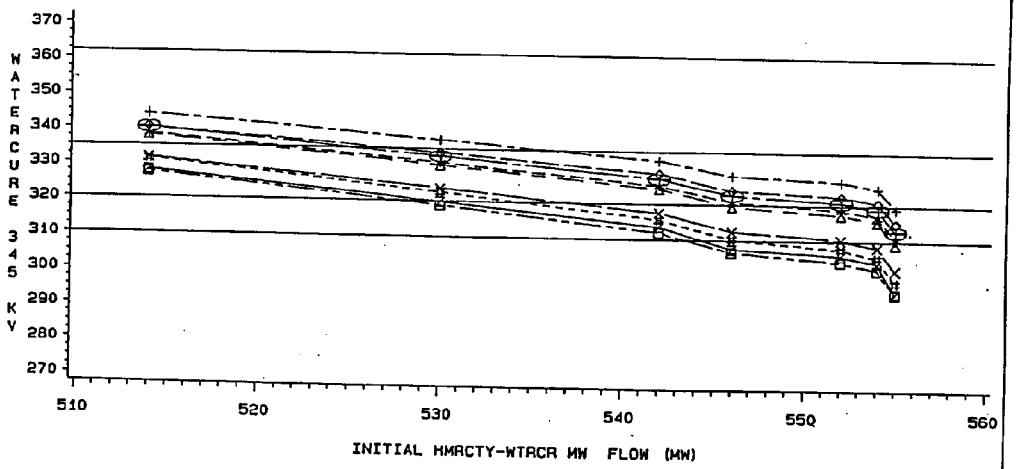
PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT HMRCTY–WTRCR MW
OSTF SUMMER 1998 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES



: OEAWP98 – ST002

OSXXX 31MAR99 : 16:11

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT HMRCTY–WTRCR MW
OSTF SUMMER 1998 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 345 KV VOLTAGES

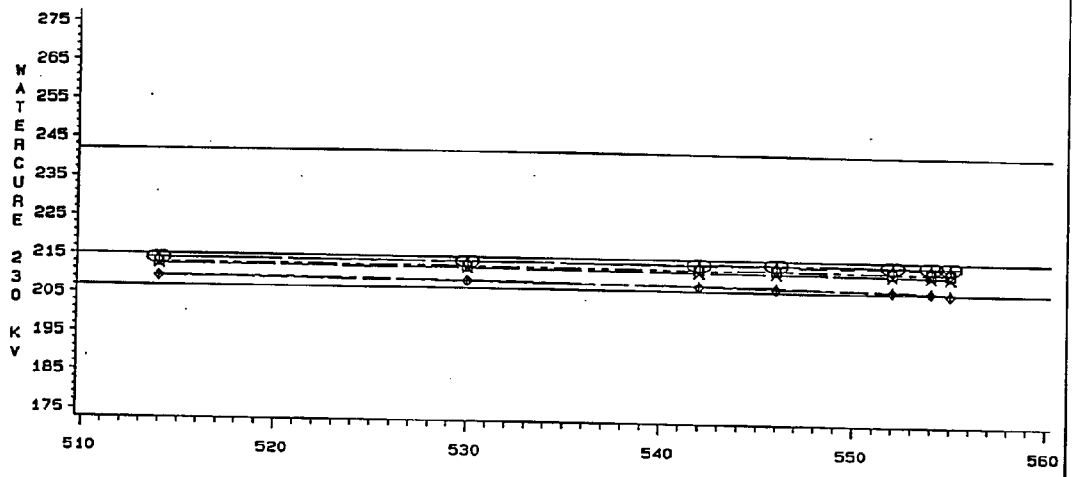


: OEAWP98 – ST002

OSXXX 31MAR99 : 16:11

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT HMRCTY–WTRCR MW

OSTF SUMMER 1998 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 230 KV VOLTAGES

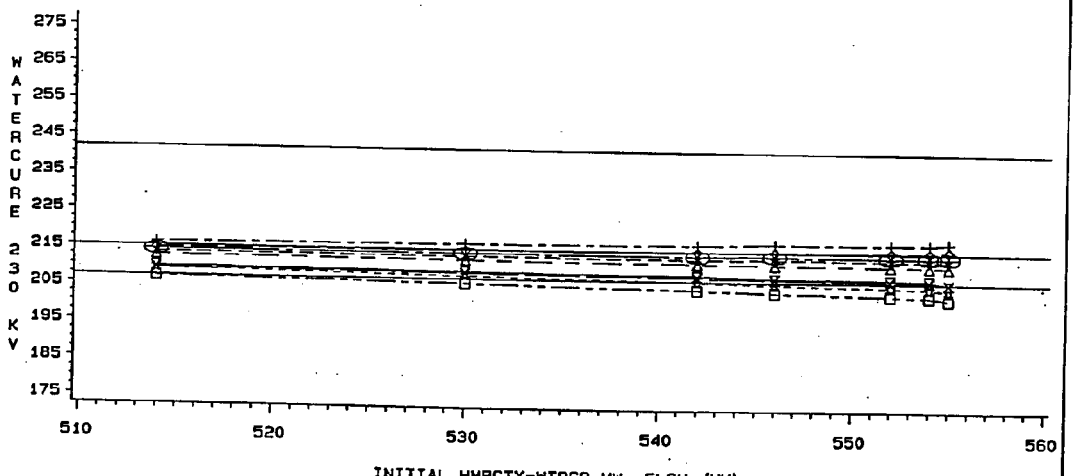


: OEAWP98 – ST002

OSXXX 31MAR99 : 16:11

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT HMRCTY–WTRCR MW

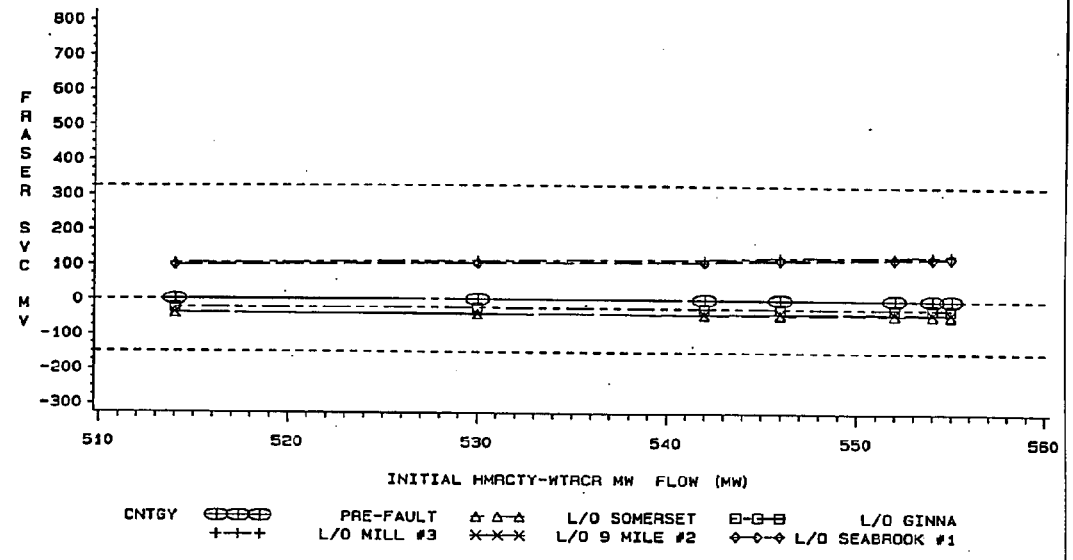
OSTF SUMMER 1998 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
CRITICAL NYPP 230 KV VOLTAGES



: OEAWP98 – ST002

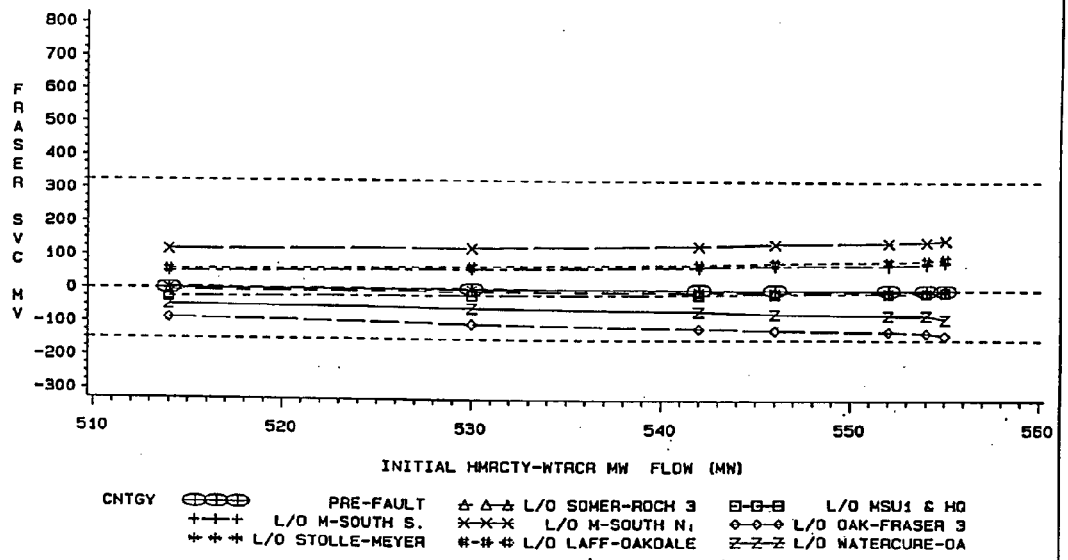
OSXXX 31MAR99 : 16:11

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT HMRCTY–WTRCR MW
OSTF SUMMER 1998 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
NYPP MACHINE MVAR RESPONSE



: OEAWP98 – ST002 *OSXXX 31MAR99 : 16:11*

PRE– AND POST–FAULT VOLTAGE VS PRE–FAULT HMRCTY–WTRCR MW
OSTF SUMMER 1998 OPERATING STUDY
VOLTAGE ANALYSIS FOR BASE TRANSFER CASES
SUMMER 99
NYPP MACHINE MVAR RESPONSE



: OEAWP98 – ST002 *OSXXX 31MAR99 : 16:11*

APPENDIX J

NON-UTILITY GENERATION (NUG) SUMMARY

```
0    100.00          / MON, MAR 01 1999  16:27
11111111 NYPP SUMMER 99 OP. STUDY LEVEL 5
11100000  1999 SUMMER PEAK HQNY=1200 MW


CENTRAL HUDSON
**************

BUS     BUS NAME   UNIT  IPP IDENT.      CONTRACT   PGEN      QGEN      QMAX     QMIN   RATING    DATBANK
ZONE
----------------   ----  ----------      --------  ------    -----     -----    -----   ------
---------------

74024 E.WALD 1 115   1   WALLKILL   $     230        0.5       0.0       0.0       0.0    0.5       10
74027 FORGEBRK 115   1   GROVEVILLE $     193        0.8       0.0       0.0       0.0    0.8       10
74033 KNAPPS 1 115   1   WAPPINGERS $     232        2.0       0.0       0.0       0.0    2.0       10
74046 ROCK TV1 115   1   SALISBURY M$     213        0.5       0.0       0.0       0.0    0.5       10
74046 ROCK TV1 115   2   MONTGOMERY $     229        0.2       0.0       0.0       0.0    0.2       10
74116 N.CAT 6  69    2   MILLPOND   $     239        0.9       0.0       0.0       0.0    0.9       10
74142 W DEL 69 69    1   WEST DELAWA$     225        7.8       0.0       0.0       0.0    7.3       10
74197 DUT. RES 115   1   DUTCH R REC$     207        6.2       0.0       0.0       0.0    8.5       10

                                     SUBTOTAL   ------     -----     -----     -----
                                                18.9       0.0       0.0       0.0

CON EDISON
**************

BUS     BUS NAME   UNIT  IPP IDENT.      CONTRACT   PGEN      QGEN      QMAX     QMIN   RATING    DATBANK
ZONE
----------------   ----  ----------      --------  ------    -----     -----    -----   ------
---------------

77965 SITH-G1  18    1   SITHE GT 1 $     403      156.0      98.5       127       -80  170.0        2
77966 SITH-G2  18    2   SITHE GT 2 $     403      156.0      98.5       127       -80  170.0        2
77969 SITH-S5  18    5   SITHE STM 5$     403      209.3       105       105       -75  200.0        2
77970 SITH-S6  18    6   SITHE STM 6$     403      209.3       105       105       -75  200.0        2
*****
78951 JMCGT13  13.8  1   JMC-PH2A   $     346       60.0       3.6      43.0       -12  107.0        4
78952 JMC2ST13 13.8  1   JMC-PH2B   $     346      132.0      10.3      49.0       -49   79.0        4
78953 JMCGT213 13.8  1   JMC-PH2C   $     346       60.0       3.6      43.0       -12   79.0        4
79289 INDECK-C 13.8  1   INDECK-CORI$     324       80.0      46.1      55.3       -36   80.4        4
79289 INDECK-C 13.8  2   INDECK-CORI$     324       48.0      30.9      37.1       -24   53.6        4
*****
74654 BRNSVL#1 27    1   MASPETH    $     453       21.0       0.0       0.0       0.0   28.5       15
74709 COGENGT1 13.8  1   COGEN GT1  $     344       78.5       -20      50.0       -20   78.0       15
74710 COGENGT2 13.8  1   COGEN GT2  $     344       78.5       -20      50.0       -20   78.0       15
74711 COGENGT3 13.8  1   COGEN GT3  $     344       78.5       -20      50.0       -20   78.0       15
74712 COGENGT4 13.8  1   COGEN GT4  $     344       78.5       -20      50.0       -20   78.0       15
74713 COGENGT5 13.8  1   COGEN GT5  $     344       78.5       -20      50.0       -20   78.0       15
74714 COGENST1 13.8  1   COGEN ST1  $     344       84.5       -20      50.0       -20   85.0       15
74715 COGENST2 13.8  1   COGEN ST2  $     344       84.5       -20      50.0       -20   85.0       15
74716 COGENST3 13.8  1   COGEN ST3  $     344       84.5       -20      50.0       -20   85.0       15
74734 YORK G1  13.8  1   NAVY YARD A$     411       80.0      30.0      30.0       -16  260.0       15
74735 YORK G2  13.8  1   NAVY YARD B$     .         80.0      12.0      12.0      -7.0   40.0       15
74736 YORK G3  13.8  1   NAVY YARD C$     .         90.0      54.8      68.0       -36   90.0       15
*****
74409 BUCHANAN 138   1   PEEKSKILL  $     241       55.0       0.0      35.0       0.0   55.0       23

                                     SUBTOTAL   ------     -----     ------    ------
                                               2082.8     435.7    1236.0    -662.0

LILCO
**************

BUS     BUS NAME   UNIT  IPP IDENT.      CONTRACT   PGEN      QGEN      QMAX     QMIN   RATING    DATBANK
ZONE
----------------   ----  ----------      --------  ------    -----     -----    -----   ------
---------------

74922 GRMN B   13.8  1   TBG-GRUM GT$     285       18.1       3.8       7.5      -3.6   45.0       12
74922 GRMN B   13.8  2   TBG-GRUM GT$     .         18.1       3.8       7.5      -3.6   29.0       12
74922 GRMN B   13.8  3   TBG-GRUM ST$     .          8.7       1.8       3.6      -1.7   14.0       12
74924 ISLIP LF 13.8  1   ISLIP (LF) $     291        2.7       0.0       2.5       0.0    1.7       12
74926 TRIGEN   13.8  1   TRIGEN  GT $     324       13.8      -1.0       7.7      -3.7   42.0       12
74926 TRIGEN   13.8  2   TRIGEN STM $     .         34.5      -2.4      19.3      -9.3   34.5       12
74927 ISLIP RR 13.8  1   ISLIP(RR)  $     377        7.5       0.4       6.2       0.0    9.6       12
74930 HEMP RR  13.8  1   HEMPSTEAD ($     249       68.0      14.8      37.0       -17   68.8       12
74931 BABYLNRR 13.8  1   BABYLON (RR$     214       15.1       6.2      11.0       0.0   15.1       12
74945 NISSQUOG 13    1   SUNY STONY $     .         38.5      -1.5      21.0       -14   38.5       12
75032 BARRETT  138   1   OCEANSIDE ($     370        4.3       0.0       0.0       0.0    3.0       12
```

75130	HUNT RR	13	1	HUNTINGTON $	367	19.0	-1.4	15.0	-5.0	20.0	12
75165	GRT RVER	69	1	HUBBARD $	260	3.0	0.0	0.0	0.0	0.0	12
75367	LONGBCH	34.5	1	LONG BEACH $	284	2.6	0.0	0.0	0.0	2.8	12
				SUBTOTAL		254.0	24.6	138.3	-57.9		

NYSEG
****

BUS	BUS NAME	UNIT	IPP IDENT.	CONTRACT	PGEN	QGEN	QMAX	QMIN	RATING	DATBANK ZONE
76162	LANDFIL$	34.5 1	LAN LANFIL1$	446	2.8	0.0	0.0	0.0	3.3	5
76162	LANDFIL$	34.5 2	LAN LANFIL2$	446	2.8	0.0	0.0	0.0	3.3	5
76296	LEA 1G $	13.8 1	LOCK LEA 1G$	480	41.4	-8.0	25.5	-8.0	41.4	5
76297	LEA 2G $	13.8 2	LOCK LEA 2G$	480	41.4	-8.0	25.5	-8.0	41.4	5
76298	LEA 3G $	13.8 3	LOCK LEA 3G$	480	41.4	-8.0	25.5	-8.0	41.4	5
76299	LEA 4S $	13.8 4	LOCK LEA 4S$	480	49.5	-19	24.0	-19	50.5	5
*****										
75533	AUB HY $	115 1	AUB HY MILL$	330	0.4	0.0	0.0	0.0	0.4	6
75533	AUB HY $	115 2	AUB HY NORT$	534	0.9	0.0	0.0	0.0	1.0	6
75533	AUB HY $	115 3	YANKEE AURE$	.	0.4	0.0	0.0	0.0	0.4	6
75533	AUB HY $	115 4	YANKEE AURE$	.	0.4	0.0	0.0	0.0	0.7	6
75534	AUB HSC$	34.5 1	AUB HI SCHL$	.	0.3	0.0	0.0	0.0	0.3	6
75890	DIKE HY$	34.5 1	DIKE 1$	.	1.1	0.0	0.0	0.0	1.1	6
75894	GARLOCK$	34.5 1	GARLOCKS $	.	1.5	0.0	0.0	0.0	1.5	6
75895	NEWARK $	34.5 1	NEWARK FLOR$	.	1.0	0.0	0.0	0.0	1.0	6
75895	NEWARK $	34.5 2	NEW WAY HY $	.	1.0	0.0	0.0	0.0	1.0	6
75896	HI ACRE$	34.5 1	HIGH ACRES $	459	1.6	0.0	0.0	0.0	2.4	6
75962	SEN ME2$	34.5 1	SENECA MEA2$	.	2.0	0.0	0.0	0.0	2.0	6
76043	INDEC S$	13.8 1	INDECK-S GT$	432	39.0	1.0	20.0	-5.5	41.9	6
76043	INDEC S$	13.8 2	INDECK-S ST$	432	16.0	0.4	8.1	-3.8	17.3	6
76049	CORNEL $	115 1	CORNELL-HYD$	.	1.4	0.0	0.0	0.0	2.0	6
76049	CORNEL $	115 2	CORNELL-COA$	.	6.9	0.0	0.0	0.0	9.1	6
76050	FING LK$	34.5 1	FINGER LAKE$	581	0.1	0.0	0.0	0.0	0.2	6
*****										
76207	JEFSNVL$	115 1	JEFERSONVIL$	392	0.1	0.0	0.0	0.0	0.1	7
76317	GOODYR $	46 1	GOODYEAR LK$	229	1.5	0.0	0.0	0.0	1.5	7
*****										
76258	WALD HY$	13.1 1	WALDEN HYD $	347	3.7	0.0	0.0	0.0	3.7	8
*****										
76411	ALICE F$	46 1	ALICE FALL1$	447	1.4	0.0	0.0	0.0	1.6	19
76411	ALICE F$	46 2	ALICE FALL2$	447	0.7	0.0	0.0	0.0	0.7	19
76478	LOW SAR$	46 1	LOWER SARAN$	448	6.7	0.0	0.0	0.0	5.7	19
76479	CHATGY $	34.5 1	CHASM HYDRO$	336	1.7	0.0	0.0	0.0	1.6	19
76479	CHATGY $	34.5 2	TRITON $	414	1.7	0.0	0.0	0.0	1.8	19
76479	CHATGY $	34.5 3	KES-CHATGY $	449	16.5	0.0	0.0	0.0	17.8	19
76481	NOEND1G$	13.8 1	FALCN SB 1G$	486	79.8	0.7	36.0	-12	89.9	19
76482	NOEND2G$	13.8 2	FALCN SB 2G$	486	79.8	0.7	36.0	-12	89.9	19
76483	NOEND3S$	13.8 3	FALCN SB 3S$	486	79.8	0.7	56.5	-39	89.9	19
*****										
75582	COWEE 1$	115 1	COWEE 1$	400	0.5	0.0	0.0	0.0	0.5	21
*****										
75768	CROTON $	115 1	CROTON FALL$	417	0.2	0.0	0.0	0.0	0.2	30
75769	PAT HOU$	46 1	PATER HOUSE$	.	1.5	0.0	0.0	0.0	1.5	30
			SUBTOTAL		528.9	-39.4	257	-114.8		

NMPC
****

BUS	BUS NAME	UNIT	IPP IDENT.	CONTRACT	PGEN	QGEN	QMAX	QMIN	RATING	DATBANK ZONE
76526	ELLICTVL	115 1	ELLICOTVILL$	519	3.8	1.3	1.3	-1.3	3.5	1
76548	INDEK-OL	115 1	INDECK-OL 1$	576	38.0	12.5	12.5	-13	41.5	1
76548	INDEK-OL	115 2	INDECK-OL 2$	.	41.0	13.5	13.5	-14	41.0	1
76549	YORKSHIR	115 1	MEDINA POWE$	.	12.5	4.1	4.1	-4.1	12.5	1
76616	SENECAJC	34.5 1	BIG WHEEL M$	.	0.4	0.0	0.0	0.0	0.4	1
76621	SRANDOLP	34.5 1	GLOVERS MIL$	754	0.2	0.1	0.1	-0.1	0.2	1
76627	WHITSVLE	34.5 1	EBENEZER OI$	.	0.3	0.0	0.0	0.0	0.3	1
76643	NORCON1	13.8 1	NORCON(FALC$	606	32.5	-0.2	10.7	-11	32.4	1
76644	NORCON2	13.8 2	NORCON(FALC$	606	27.7	0.5	10.0	-10	32.4	1
76644	NORCON2	13.8 3	NORCON(FALC$	606	14.8	0.3	5.4	-5.4	14.0	1
76650	WOLEAN55	13.2 1	HYDROCARBON$	681	2.0	-0.5	0.5	-0.5	1.6	1
76650	WOLEAN55	13.2 2	CAL BAN POW$	.	0.5	-0.1	0.1	-0.1	0.2	1

76656	DUPONT	115	1	INDECK/YERK$	485	56.0	18.4	18.4	-18	51.1	1
76707	BETHENRG	13.8	1	BETH ENERGY$	550	25.0	8.2	8.2	-8.2	23.5	1
76764	GENMLS61	34.5	1	GENERAL MIL$	487	3.5	1.2	1.2	-1.2	4.0	1
76802	OXBOWNUG	115	1	OXBOW/OCCID$	498	49.0	16.1	16.1	-16	56.5	1
76807	AM BRASS	115	1	AMERICAN BR$	545	62.0	20.4	20.4	-20	63.5	1
77121	SENECAP	115	1	SENECA PWR $	587	42.9	14.1	14.1	-14	42.1	1
77121	SENECAP	115	2	SENECA PWR $	.	17.1	5.6	5.6	-5.6	17.0	1
77204	BURT	34.5	1	BURT DAM $	460	0.5	0.0	0.0	0.0	0.3	1
77277	W MANAGE	34.5	1	MONROE-LIVI$	481	3.2	0.0	0.0	0.0	6.0	1
77794	UDG-184	115	1	UDG/NIAGARA$	515	52.0	-17	17.1	-17	53.0	1
*****											
77414	FULTN_CG	13.8	1	NESTLES $	523	47.0	3.7	22.3	-8.6	46.0	2
77450	GERES LK	115	1	SALT CITY E$	452	79.5	13.0	13.0	-13	80.0	2
77450	GERES LK	115	2	ENRGY INIT-$	507	79.5	13.0	13.0	-13	79.5	2
77454	HARRIS	115	1	ENERGY TACT$	511	1.0	0.0	0.0	0.0	0.9	2
77480	PEAT-7	115	1	NOTTINGHAM $	554	0.2	0.0	0.0	0.0	0.1	2
77495	TEMPLE	115	1	GAS ALTERNA$	449	79.9	0.0	0.0	0.0	79.3	2
77550	HIGH DAM	46	4	HIGH DAM 4 $	805	2.0	-0.4	1.5	-1.5	6.2	2
77567	BALDW1T9	34.5	3	SENECA LIMI$	379	0.3	0.0	0.0	0.0	0.7	2
77583	BRIST HL	34.5	1	OSWEGO COUN$	358	3.6	0.0	0.0	0.0	0.9	2
77687	NPT GEN	34.5	1	SYRACUSE PO$	535	5.0	1.6	1.6	-1.6	6.0	2
77812	PHOENIX	34.5	1	LLEC PHOENI$	618	2.7	0.0	0.0	0.0	1.8	2
77954	OCWE GEN	13.8	1	ONONDAGA CN$	320	36.9	3.8	22.9	-12	31.8	2
77956	HMGENBUS	13.8	1	INDECK - OS$	547	50.4	1.3	23.8	-9.4	54.1	2
77967	SITH-G3	18	3	SITHE GT 3 $	729	156.0	98.5	127	-80	170.0	2
77968	SITH-G4	18	4	SITHE GT 4 $	729	156.0	98.5	127	-80	170.0	2
77978	ESYR GT1	13.2	1	US GEN (OLD$	588	36.1	11.7	27.0	-8.0	34.1	2
77979	ESYR GT2	13.2	2	US GEN (OLD$	.	36.1	10.5	27.0	-8.0	36.1	2
77980	ESYR ST1	13.2	3	US GEN (OLD$	.	17.8	5.8	13.1	-4.1	17.8	2
*****											
78007	N.O-BRG	115	1	OGDENSBURG1$	529	38.3	-12	11.9	-12	40.4	3
78007	N.O-BRG	115	2	OGDENSBURG2$	.	19.9	-6.2	6.2	-6.2	20.0	3
78007	N.O-BRG	115	3	OGDENSBURG3$	.	20.8	-6.5	6.5	-6.5	19.0	3
78009	BRNS FLS	115	1	CRANBERRY L$	495	0.6	0.0	0.0	0.0	0.4	3
78011	BU+LY+MO	115	1	HARZA MOOSE$	373	11.8	1.7	1.7	-1.7	12.4	3
78011	BU+LY+MO	115	2	GEORGIA PAC$	202	7.6	1.1	1.1	-1.1	7.6	3
78011	BU+LY+MO	115	3	LYONSDALE A$	297	3.0	0.4	0.4	-0.4	2.0	3
78011	BU+LY+MO	115	4	BURROWS-LYO$	514	19.0	2.7	2.7	-2.7	20.0	3
78012	CLIMAX	115	1	P & N ENERG$	510	8.3	-2.1	2.5	-2.5	9.6	3
78012	CLIMAX	115	2	KAMINE(CART$	503	57.8	-15	17.6	-18	62.4	3
78013	COFFEEN	115	1	TRAFALGAR A$	365	0.5	0.0	0.0	0.0	0.0	3
78022	FT. DRUM	115	1	FORT DRUM $	442	49.9	0.0	0.0	0.0	52.8	3
78023	GLEN PRK	115	1	GLEN PARK A$	337	32.7	0.0	11.0	0.0	36.9	3
78036	MOSH-SUN	115	1	STILLWATER $	369	2.5	0.0	0.0	0.0	1.6	3
78037	MRA-CANT	115	1	MRA CANTON $	528	49.0	-15	15.3	-15	0.0	3
78038	N CARTHG	115	1	LLE - DIANA$	263	2.5	0.0	0.0	0.0	1.1	3
78038	N CARTHG	115	2	KINGS FALLS$	492	2.0	0.0	0.0	0.0	0.3	3
78044	OGDENSBG	115	1	OGDENSBURG $	506	2.6	0.0	0.0	0.0	1.7	3
78044	OGDENSBG	115	2	BRUCE B. NI$	.	0.6	0.0	0.0	0.0	0.0	3
78044	OGDENSBG	115	3	ASE ENRGY(O$	.	1.9	0.0	0.0	0.0	2.0	3
78046	POTDM PA	115	1	AD.HY POTSD$	277	5.6	0.0	0.0	0.0	5.6	3
78047	PYRITE-6	115	1	PYRITES ASS$	362	7.2	0.0	0.0	0.0	7.3	3
78115	UNION	46	1	UNION FALLS$	429	2.6	0.0	0.0	0.0	2.4	3
78223	CAR PAPE	23	1	CARTHAGE PA$	250	0.7	0.1	0.1	0.1	0.0	3
78223	CAR PAPE	23	2	BESHA LONG $	575	3.3	0.5	0.5	0.5	1.3	3
78228	CATALDO	23	1	EMPIRE HYDR$	315	1.0	0.0	0.0	0.0	0.7	3
78241	COPENGEN	23	1	COPENHAGEN $	845	0.1	0.1	0.1	0.1	1.0	3
78241	COPENGEN	23	2	COPENHAGN2 $	.	0.1	0.1	0.1	0.1	1.7	3
78248	DENLEY	23	1	BLACK RIV 2$	342	1.6	0.0	0.0	0.0	0.1	3
78265	FOWLER	23	1	FOWLER $	196	0.1	0.0	0.0	0.0	0.8	3
78265	FOWLER	23	2	H.D.G.(FOWL$	.	0.2	0.0	0.0	0.0	1.5	3
78269	GLENFIEL	23	1	OTTER CREEK$	417	0.5	0.0	0.0	0.0	0.3	3
78270	GOUVERNE	23	1	VILL. GOUVE$	236	0.2	0.0	0.0	0.0	0.7	3
78272	H.D.G.#3	23	1	H.D.G. (#3 $	845	0.1	0.0	0.0	0.0	1.7	3
78273	H.D.G.#6	23	1	H.D.G.(HAIL$	845	0.2	0.0	0.0	0.0	0.7	3
78275	HAILSBOR	23	1	HDG (HAILSB$	845	0.3	0.0	0.0	0.0	2.2	3
78281	HOLOW DM	23	1	HOLLOW DAM $	435	1.0	0.0	0.0	0.0	0.7	3
78282	INDIAN F	23	1	INDIAN FALL$	399	0.7	0.0	0.0	0.0	0.2	3
78303	NATUR DM	23	1	JAMES RIVER$	294	1.0	0.0	0.0	0.0	0.0	3
78309	P LEYD H	23	1	BLACK RIV 3$	343	2.2	0.0	0.0	0.0	2.4	3
78310	PHILA HY	23	1	HARZA PHILA$	370	3.4	0.0	0.0	0.0	1.3	3
78321	ROCK ISL	23	1	BLACK RIV 1$	341	1.9	0.0	0.0	0.0	0.9	3
78326	SANDY HO	23	1	SANDY HOLLO$	383	0.6	0.0	0.0	0.0	0.3	3
78334	TALCVILE	23	1	HDI ASSOCIA$	.	0.9	0.0	0.0	0.0	0.9	3
78337	WAT.MUNI	23	1	CITY OF WAT$	662	6.8	1.5	1.5	1.5	4.8	3
78403	LAWRENCE	13.2	1	VILL. OF PO$	395	0.8	0.0	0.0	0.0	3.1	3
78403	LAWRENCE	13.2	2	ADIR. SISSO$	418	2.3	0.0	0.0	0.0	2.5	3
78414	MILL ST	4.8	1	FILTRATION $	207	0.5	0.3	0.3	0.3	0.9	3
78414	MILL ST	4.8	2	BEEBEE IS W$	193	0.1	0.1	0.1	0.1	9.1	3
78414	MILL ST	4.8	3	BEEBEE IS. $	.	3.2	1.7	1.7	1.7	6.4	3
78415	WESTENDH	4.16	1	SNC-CROWN Z$	377	1.7	0.0	0.0	0.0	3.1	3
78418	EMERYVLE	2.4	1	HAMPSHIRE P$	428	0.2	0.0	0.0	0.0	3.0	3
78419	FRONTENA	2.4	1	H.D.G.(DEXT$	845	7.3	2.0	2.0	2.0	1.6	3
78420	THER HYD	2.4	1	H.D.G. (THE$	845	1.3	0.3	0.3	0.3	1.0	3
78421	BEAVR FA	2.3	1	BEAVER FALL$	360	1.5	0.0	0.0	0.0	1.4	3

78421	BEAVR FA	2.3	2	BEAVER FALL$	361	1.0	0.0	0.0	0.0	0.9	3
78425	DIAM ISL	2.3	1	HDG (DIAMON$	845	1.2	0.3	0.3	0.3	1.1	3
78429	FRANK HY	2.3	3	FRANKLIN HY$	675	0.3	0.0	0.1	-0.1	0.5	3
78437	TANNERYH	0.6	1	TANNERY ISL$	380	0.8	0.0	0.0	0.0	1.3	3
78480	LEHIGH	115	1	HARDEN FURN$	242	0.7	0.0	0.0	0.0	1.5	3
78483	ONEIDA	115	1	CURTAIN BRO$	.	0.1	0.0	0.0	0.0	0.1	3
78483	ONEIDA	115	2	STERLING PO$	573	38.5	12.0	12.0	-12	41.2	3
78483	ONEIDA	115	3	STERLING PO$	.	15.4	4.8	4.8	-4.8	15.0	3
78487	ROME	115	1	ONEIDA COUN$	.	2.3	0.0	0.0	0.0	2.3	3
78490	SCHUYLER	115	1	WASTE MANAG$	642	1.6	0.0	0.0	0.0	1.6	3
78523	BUROWS P	46	1	BURRWS-LITT$	422	4.3	0.0	0.0	0.0	4.1	3
78531	DOLGEVIL	46	1	DANIEL GREE$	218	0.8	-0.1	0.3	-0.1	0.0	3
78531	DOLGEVIL	46	2	LLE - DOLGE$	262	4.7	-0.9	1.7	-0.9	7.1	3
78539	FORSTPHY	46	1	FORRESTPORT$	496	2.9	-0.3	2.0	-2.0	1.5	3
78547	HERKM HY	46	1	TRAFALGR HE$	494	1.6	-0.5	0.5	-0.5	0.7	3
78554	KAYUTAHY	46	1	TRAFALGAR K$	366	0.5	0.0	0.0	0.0	0.3	3
78558	LTLFLSHY	46	1	LITTLE FALL$	307	8.6	1.5	1.5	-1.0	12.6	3
78571	NEWPRTHY	46	1	NEWPORT HYD$	484	1.5	0.0	0.0	0.0	1.0	3
78592	TRENTON	46	1	CITY OF UTI$	670	0.3	0.0	0.0	0.0	0.2	3
78592	TRENTON	46	2	CITY OF UTI$	669	0.2	0.0	0.0	0.0	0.1	3
*****											
78731	JMC1+7TP	115	1	JMC-SELKIRK$	524	79.0	25.0	25.0	-25	84.9	4
78746	CETI	115	1	CETI FORT O$	509	40.7	11.7	11.7	-12	40.2	4
78746	CETI	115	2	CETI FORT O$	509	24.3	7.0	7.0	-7.0	24.5	4
78773	PBUSH W	115	1	CITY - WATE$	393	1.2	0.0	0.0	0.0	0.5	4
78794	SYCA-16	115	1	POESTENKILL$	.	0.1	0.0	0.0	0.0	0.1	4
78802	WOLF RD	115	1	TURBOSYSTEM$	.	3.0	0.0	0.0	0.0	3.0	4
78825	AVE-A+ST	34.5	1	ALBANY JEWI$	.	0.1	0.0	0.0	0.0	0.1	4
78835	CIBRO	34.5	1	CIBRO PETRO$	620	3.5	0.0	0.0	0.0	0.0	4
78866	LIBERTY	34.5	1	MT. IDA ASS$	299	2.9	0.0	0.0	0.0	1.1	4
78877	NORT+NSH	34.5	1	ALBANY COGN$	521	25.0	2.1	7.8	-7.8	26.5	4
78889	RENSSELA	34.5	1	MILL CREEK $	403	0.1	0.0	0.0	0.0	0.0	4
78906	ST+RR+LB	34.5	2	CHITTENDEN $	.	0.5	0.0	0.0	0.0	0.4	4
78917	UNIONVIL	34.5	1	ALBANY HYDR$	434	0.1	0.0	0.0	0.0	0.1	4
78919	VAL+GYP	34.5	1	VALATIE HYD$	679	0.3	0.0	0.0	0.0	0.1	4
78925	WF+AH+MP	34.5	1	4TH BRANCH $	497	3.3	0.0	0.0	0.0	1.5	4
78925	WF+AH+MP	34.5	2	N.Y. STATE $	419	10.3	0.0	0.0	0.0	10.4	4
78959	LGE-GT	13.8	1	RENNSLR GT$	540	44.1	-12	13.8	-14	39.4	4
78960	LGE-ST	13.8	1	RENNSLR ST$	540	34.9	-7.4	10.9	-11	40.4	4
79115	BATKILL	115	1	UPPER GREEN$	410	0.8	0.0	0.0	0.0	0.3	4
79115	BATKILL	115	2	MIDDLE GREE$	411	0.4	0.0	0.0	0.0	0.4	4
79135	HOOSICK	115	1	HOOSICK FAL$	516	0.8	0.0	0.0	0.0	0.5	4
79137	IP CORIN	115	1	I.P. CORINT$	338	29.0	15.0	15.0	0.0	29.5	4
79137	IP CORIN	115	2	I.P. CORINT$	338	29.0	15.0	15.0	0.0	29.5	4
79143	MOHICAN	115	2	KAMINE-S GL$	502	53.4	10.3	10.3	-10	59.9	4
79143	MOHICAN	115	3	ADIRON. RES$	445	9.8	1.9	1.9	-1.9	12.5	4
79143	MOHICAN	115	4	FINCH PRUY3$	.	6.1	1.2	1.2	-1.2	6.9	4
79143	MOHICAN	115	5	FINCH PRUY $	.	17.8	3.4	3.4	-3.4	20.0	4
79143	MOHICAN	115	6	FINCH PRUY1$	798	1.9	0.4	0.4	-0.4	2.2	4
79148	PORT HEN	115	1	RIV.RAT GLA$	425	0.5	0.0	0.0	0.0	0.6	4
79160	TICN+OTN	115	1	LACHUTE LOW$	421	3.5	0.0	0.0	0.0	3.6	4
79160	TICN+OTN	115	2	LACHUTE UPP$	420	4.7	0.0	0.0	0.0	4.8	4
79167	WHITEHAL	115	1	CHAMPLAIN S$	672	0.8	0.0	0.0	0.0	0.3	4
79214	BATKL+HV	34.5	1	HOLLINGS UP$	857	1.0	0.0	0.0	0.0	1.1	4
79214	BATKL+HV	34.5	2	HOLLINGS VL$	797	1.2	0.0	0.0	0.0	1.2	4
79214	BATKL+HV	34.5	3	FORT MILLER$	367	5.0	0.0	0.0	0.0	5.0	4
79223	CM+UN+HV	34.5	1	HOLLINGS #3$	.	1.2	0.0	0.0	0.0	1.2	4
79229	FDR DAM	34.5	1	MOREAU MFG $	206	5.0	0.0	0.0	0.0	1.8	4
79238	JOHNSVIL	34.5	2	VALLEY FALL$	368	2.8	0.0	0.0	0.0	1.2	4
79242	AHDC-MOR	34.5	1	ADIR.HY HUD$	862	36.0	0.0	0.0	0.0	42.0	4
79244	MECHANIC	34.5	1	MECHANICVIL$	633	3.0	0.0	0.0	0.0	3.0	4
79245	MIDFL+ST	34.5	1	STEVENS &TH$	483	10.5	0.0	0.0	0.0	5.6	4
79245	MIDFL+ST	34.5	2	MIDDLE FALL$	548	2.0	0.0	0.0	0.0	1.4	4
79248	PA+CP+RF	34.5	1	COTTRELL PA$	477	0.6	0.0	0.0	0.0	0.1	4
79251	S.GLNGEN	34.5	1	ADIR.HY SGL$	863	13.5	0.0	0.0	0.0	14.8	4
79254	SCHUVL	34.5	2	SNC VICTORY$	453	1.2	0.0	0.0	0.0	0.8	4
79256	SCOKE+RR	34.5	1	L.LAKE STIL$	617	3.0	0.0	0.0	0.0	0.9	4
79267	WRNS+SWT	34.5	1	SCHROON RIV$	416	2.8	0.0	0.0	0.0	0.5	4
79274	LKPL+CHL	23	1	CHRISTINE F$	374	0.8	0.0	0.0	0.0	0.6	4
79282	WELLS	23	1	TOWN OF WEL$	458	0.7	0.0	0.0	0.0	0.4	4
*****											
78000	ALCOA-NM	115	1	MASSENA ENR$	574	79.0	21.0	24.7	-25	79.8	31
78033	MALONE	115	1	BELLOWS TOW$	396	0.4	0.0	0.0	0.0	0.2	31
*****											
79655	ILION	115	1	INDECK-ILIO$	624	54.7	15.7	17.1	-17	56.3	293

SUBTOTAL	------	-----	-----	-----
WESTERN	484.9	98.5	159.3	-159.5
CENTRAL	1403.9	270.3	567.8	-361.7
EASTERN	522.2	73.6	123.4	-93.7
TOTAL NMPC	2411.0	442.4	850.5	-614.9

ORANGE & ROCK
****

BUS ZONE	BUS NAME	UNIT	IPP IDENT.	CONTRACT	PGEN	QGEN	QMAX	QMIN	RATING	DATBANK
79349	PEARL RV 69	1	LEDERLE $	145	18.0	0.0	0.0	0.0	18.0	11
79354	SHOEM 69	1	MIDDLE.T LF$	140	2.7	0.0	0.0	0.0	3.0	11
79354	SHOEM 69	2	BUTTERMILK $	131	0.1	0.0	0.0	0.0	0.1	11
79354	SHOEM 69	3	LANDFILL G.$	142	2.2	0.0	0.0	0.0	2.5	11
79356	SO.MAHWA 69	1	INTL. CROSS$	139	3.0	0.0	0.0	0.0	3.0	11
			SUBTOTAL		26.0	0.0	0.0	0.0		

NYPA
****

BUS ZONE	BUS NAME	UNIT	IPP IDENT.	CONTRACT	PGEN	QGEN	QMAX	QMIN	RATING	DATBANK
79704	HOOKRN85 115	1	AMER. REF 1$	795	19.0	4.5	11.2	-6.6	18.9	13
79706	HOOKRN86 115	1	AMER. REF 2$	795	19.0	7.5	11.2	-6.6	18.9	13
*****										
74512	PARK TR1 138	1	BRONX ZOO $	.	2.0	0.0	0.0	0.0	2.0	15
74655	BRNSVL#2 27	1	ATLAS BIO E$	.	2.0	0.0	0.0	0.0	2.0	15
74724	JFK G1 13.8	1	JFK G1 $	.	36.0	14.0	26.0	-14	40.0	15
74725	JFK G2 13.8	1	JFK G2 $	.	36.0	14.0	26.0	-14	40.0	15
74726	JFK G3 13.8	1	JFK G3 $	.	18.0	7.7	12.0	-7.0	20.0	15
			SUBTOTAL		132.0	47.7	86.3	-48.2		

ROCHESTER
****

BUS ZONE	BUS NAME	UNIT	IPP IDENT.	CONTRACT	PGEN	QGEN	QMAX	QMIN	RATING	DATBANK
79995	KAMIN 13 13.8	1	KAMINE GT$	101	35.8	1.8	11.7	-8.5	44.0	9
79995	KAMIN 13 13.8	2	KAMINE ST$	101	19.2	0.9	6.3	-4.5	25.0	9
			SUBTOTAL		55.0	2.7	18.0	-13.0		

TOTAL NYPP IPP GENERATION	5508.6	916.3	2586.5	-1510.8

APPENDIX K

SUMMARY OF EXISTING STABILITY LIMITS

APPENDIX K
NYPP STABILITY LIMITS

				LIMIT	***REPORT***	***DATE***
TOTAL-EAST						
SEASONAL LIMIT				6500	TE-2	1995
5018 BRANCHBURG-RAMAPO 500 KV O/S				6400	TE-3	3/95
5018 BRANCHBURG-RAMAPO 500 KV O/S WITH ANY SVC O/S				6300	TE-3	3/95
UPNY-CONED						
SEASONAL LIMIT				5100	TE-1	1988
Y88 LADENTOWN-BUCHANAN 345 KV O/S				4150	UC-2	1/93
Y94 RAMAPO-BUCHANAN N. 345 KV O/S				4150	UC-2	1/93
RFK-305 ROSETON-E. FISHKILL 345 KV O/S				4100	UC-2	1/93
5018 BRANCHBURG-RAMAPO 500 KV O/S				4000	UC-1	1/93
CENTRAL-EAST						
SEASONAL LIMIT WITH 3 OSWEGO & 6 SITHE UNITS BOTH SVC'S				3100	CE-7	1995
4 LAFAYETTE-OAKDALE 345 KV O/S				2900	CE-8	6/95
32 OAKDALE-FRASER 345 KV O/S				3050	CE-8	6/95
	SVC STATUS					
OSWEGO COMPLEX PENALTY	***MIN SITHE UNITS I/S***	***ALL I/S***	***ANY O/S***	***BOTH O/S***		
4 OF 5 UNITS I/S	6 0	0 300	100 400	650 650	CE-7 CE-6	2/95 10/94
3 OF 5 UNITS I/S	3 0	0 300	150 300	300 450	CE-8 CE-8	1/30/96
2 OF 5 UNITS I/S	3 0	0 300	150 300	300 450	CE-9 CE-9	4/17/96
1 OF 5 UNITS I/S	3 0	300 600	300 600	300 600	CE-10 CE-10	4/17/96
0 OF 5 UNITS I/S	5 4 3 0	600 700 800 1200	600 700 800 1200	600 700 800 1200	CE-11	6/97
MOSES GEN REJECTION O/S: LESS 150MW W/ANY SVC O/S OR 300MW W/BOTH SVC'S O/S						

2 CHAT HVDC POLES O/S OR 1 CHAT HVDC POLE I/S <100 MW OR 2 CHAT HVDC POLES <150 MW LIMIT OSWEGO COMPLEX TO 3200 MW FOR 4 UNITS I/S & SITHE O/S LIMIT OSWEGO COMPLEX TO 3500 MW FOR 5 UNITS I/S & SITHE O/S OR 4600 FOR 5 UNITS I/S & SITHE I/S		CE-3	9/20/93
NEW SCOTLAND 77 OR 99 BUS O/S	2050	CE-1	5/10/89
14 EDIC-NEW SCOTLAND 345 KV O/S	2050	CE-1	5/10/89
UNS-18 MARCY-NEW SCOTLAND 345 KV O/S	2050	CE-1	5/10/89
MSU-1 MASSENA-MARCY 765 KV O/S	2000	CE-1	7/12/90
SUBTRACT 350 FOR ANY SVC O/S FOR ABOVE LIMITS			
MOSES-SOUTH			
SEASONAL LIMIT WITH 2 HVDC POLES I/S (MAX CHAT-MASSENA = 2370)	2900	MS-6	5/6/93
R8105 ALCOA BUS TIE 115 KV O/S	2600	MS-1	1/23/91
3 CHAT BANKS 765/120 KV I/S, (MAX CHAT-MASSENA = 1800)	2500		
ONE MOSES-ADIRONDACK-PORTER 230 KV CKT O/S	2450	MS-2	1/9/88
4 CHAT 765/120 kV BANKS I/S - SPLIT BUS & 1 HVDC POLE I/S (MAX CHAT - MASSENA = 1870 MW)	2600	MS-7	3/15/94
2 CHAT 765/120 KV BANKS I/S & 1 HVDC POLE I/S (MAX CHAT-MASSENA = 1650 MW)	2350	MS-5	1/14/94
3 CHAT 765/120 KV BANKS I/S & 1 HVDC POLE I/S (MAX CHAT-MASSENA = 1400)	2150	MS-5	1/14/94
2 HVDC POLES O/S (MAX CHAT-MASSENA = 1170)	2000	MS-4	1990
MSU-1 I/S WITH NO DIRECT TRANSFER TRIP FOR GEN REJECTION AT QUEBEC (MAX CHAT-MASSENA = 650)	1100	MS-2	11/29/84
MSU-1 MASSENA-MARCY 765KV O/S (MAX CHAT-MASSENA= 475)	675		2/9/84
MSU-1 MASSENA-MARCY 765 KV AND ONE MOSES-ADIRONDACK-PORTER 230 KV O/S	500		
MOSES-NORTH			
SEASONAL LIMIT	1600	MN-1	12/1/89
ONE OR TWO MOSES-ADIRONDACK-PORTER 230 KV CKTS O/S	1600	MN-2	2/10/90
MSU-1 MASSENA-MARCY 765 KV O/S	1100	MN-2	

WEST-CENTRAL			
SEASONAL LIMIT	2350	WC-1	9/18/89
NR-2 NIAGARA-ROCHESTER 345 KV OR SR-1 KINTIGH-ROCHESTER 345 KV O/S	2150	WC-2	10/14/91
DYSINGER-EAST			
SEASONAL LIMIT	2850	DE-1	7/27/92
67 STOLLE ROAD-MEYER 230 KV OR 68 MEYER-HILLSIDE 230 KV O/S	2650	DE-1	7/27/92
NR-2 NIAGARA - ROCHESTER 345 KV OR SR-1 KINTIGH - ROCHESTER 345 KV O/S	2500	DE-1	7/27/92
NYPP-PJM			
SEASONAL LIMIT	3600	NP-1	9/94
PJM-NYPP			
SEASONAL LIMIT	3600	NP-1	9/94
NYPP-OH			
SEASONAL LIMIT	2500	NOH-1	11/10/93
PA301 OR PA302 BECK-NIAGARA 345 KV O/S	2300	NOH-1	11/10/93
PA27 OR BP76 OR L33P OR L34P O/S	2300	NOH-1	11/10/93
PA301 & PA302 BECK-NIAGARA 345 KV O/S	500	NOH-3	1995
OH-NYPP			
SEASONAL LIMIT	2500	NOH-1	11/10/93
PA301 OR PA302 BECK-NIAGARA 345 KV O/S	2300	NOH-1	11/10/93
PA27 OR BP76 OR L33P OR L34P O/S	2300	NOH-1	11/10/93
PA301 & PA302 BECK-NIAGARA 345 KV O/S	800	NOH-3	1995
WESTERN NY EXPORT			
BOTH BECK-NIAGARA 345 KV CKTS O/S W/ NIAGARA GEN REJ I/S	1700	NOH-3	2/95
BOTH BECK-NIAGARA 345 KV CKTS O/S W/ NIAGARA GEN REJ O/S OR BOTH BECK-NIAGARA 345 KV CKTS O/S & PA27 CKT O/S OR ONE BECK-NIAGARA 345KV CKT O/S & PA27 & BP76 CKTS O/S	1100	NOH-3	2/95

NYPP-NE			
SEASONAL LIMIT	2200	NE-1	10/92-1996
2 NEW SCOTLAND - ALPS 345 KV O/S	2150	NE-1	10/92
329 FROST BRIDGE - SOUTHINGTON 345 KV O/S	2100	NE-1	10/92
312 BERKSHIRE - NORTHFIELD 345 KV O/S	1950	NE-1	10/92
352 LONG MOUNTAIN - FROST BRIDGE 345 KV O/S	1850	NE-1	10/92
393 ALPS - BERKSHIRE 345 KV O/S	1600	NE-1	10/92
393/312 ALPS-BERKSHIRE-NORTHFIELD 345 KV O/S	1500	NE-1	10/92
398 PLEASANT VALLEY - LONG MOUNTAIN 345 KV O/S	1150	NE-1	10/92
NE-NYPP			
THIS LIMIT IS SET BY NE, NYPP SPD MUST CALL FOR LIMIT		NE-1	10/92

NYPP STABILITY REPORT
SUMMARY

REPORT	REPORT TITLE	LAST REVISED DATE
TE-2	TOTAL EAST STABILITY ANALYSIS WITH SITHE GENERATION O/S	1/95
TE-3	NYPP TOTAL EAST ANALYSIS - A. HARGRAVE	3/95
UC-1	REVISED MAINTENANCE STABILITY TRANSFER LIMITS FOR BRANCH- RAMAPO O/S-NYPP	1/93
UC-2	RWW ANALYSIS - NYPP	1/93
CE-1	REVISED CENTRAL EAST STABILITY LIMITS BASED ON SVC RESERVE - K. TAMMAR TO C. COREY	5/10/89
CE-2	CENTRAL EAST STABILITY LIMIT W/ 765 KV SYSTEM O/S - NYPA TO K. TAMMAR	7/12/90
CE-3	CE & OSWEGO COMPLEX STABILITY LIMITS FOR THE CHATEAUGUAY HVDC O/S-NYPP/NYPA	9/20/93
CE-5	NYPP CE STABILITY LIMITS FOR LEEDS OR FRASER SVC 0/S	4/12/94
CE-6	CENTRAL EAST STABILITY ANALYSIS PRE-SITHE CONFIGURATION	10/94
CE-7	CENTRAL EAST STABILITY ANALYSIS POST SITHE CONFIGURATION	2/95
CE-8	CENTRAL EAST STABILITY LIMITS FOR THREE OSWEGO UNITS I/S	6/1/95
CE-9	CENTRAL EAST STABILITY LIMITS FOR TWO OSWEGO UNITS I/S	4/17/96
CE-10	CENTRAL EAST STABILITY LIMITS FOR ONE OSWEGO UNIT I/S	4/1796
CE-11	CENTRAL EAST STABILITY LIMITS FOR ZERO OSWEGO UNITS I/S	6/27/97
MS-2	RT GONZALES ANALYSIS	1/9/88
MS-3	RWW ANLAYSI - NYPP	11/29/84
MS-4	NYPA ANALYSIS W/2 HVDC POLES O/S	1990
MS-5	OPERATION OF THE MSC-7040 LINE W/1650 MW IMPORT FROM HYDRO QUEBEC & ONE HVDC CONVERTER I/S	12/20/93
MS-6	CHATEAUGUAY 2370MW IMPORT ANAYLSIS	5/6/93
MS-7	SPLIT 120 KV BUS OPERATION OF THE CHAT/BEAU COMPLEX W/ ONE HVDC CONVERTER O/S -NYPA	3/15/94
MN-1	RWW ANALYSIS 12/13/89 KT MEMO TO JEK	12/1/89
MN-2	JAM ANALYSIS #89030S MOSES-SOUTH W/MAP OS	2/10/90
WC-1	AWH ANALYSIS - NYPP	9/18/89
WC-2	WEST CENTRAL TRANSIENT STABILITY LIMITS FOR LINE OUTAGE CONDITIONS - NYPP	10/14/91

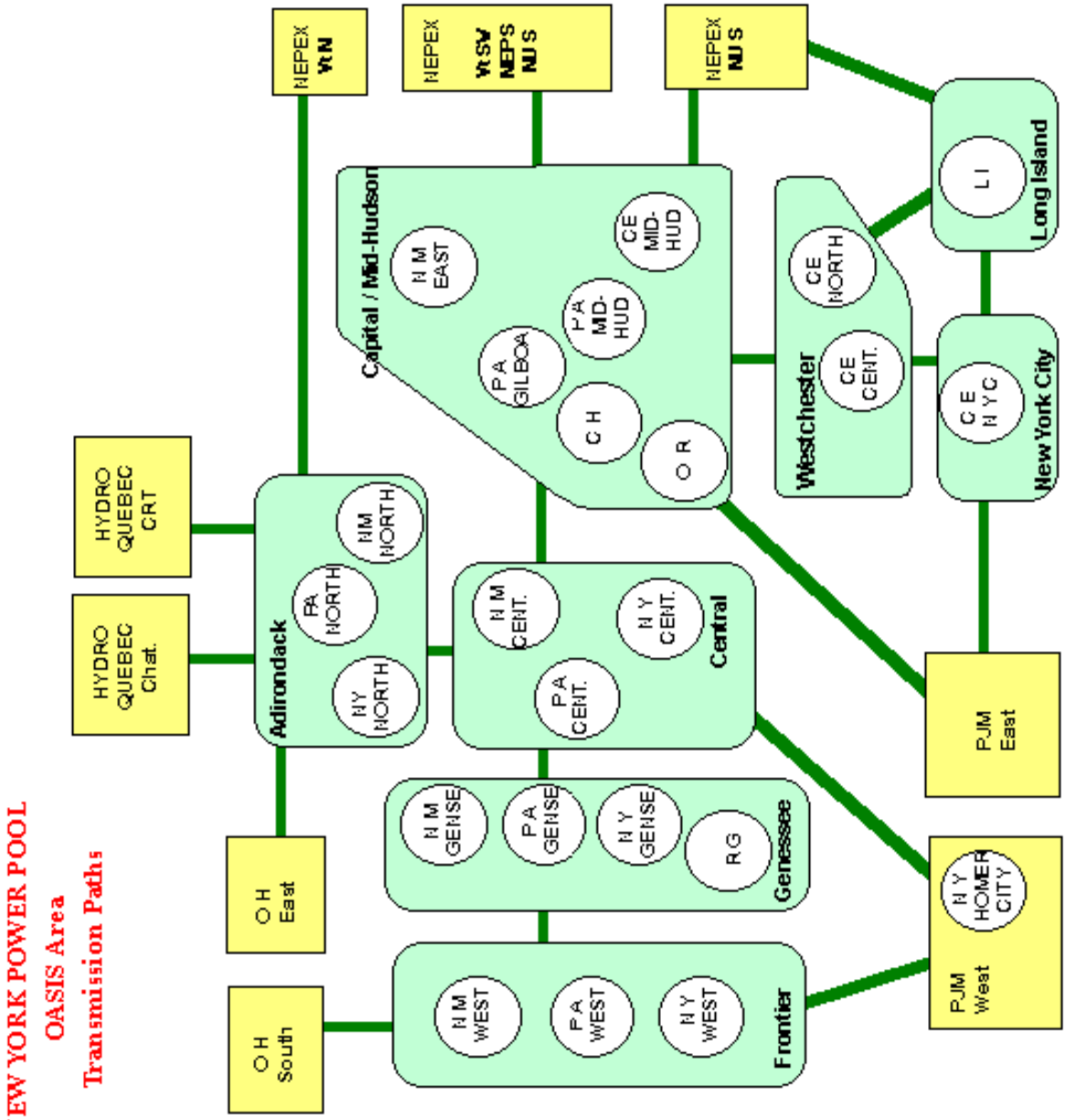
DE-1	DYSINGER EAST TRANSIENT STABILITY LIMITS FOR LINE OUTAGE CONDITIONS - NYPP	7/27/92
NOH-1	NYPP-OH DIRECT TIE STUDY OCTOBER 1993 SEE CA KING LETTER TO SOAS DATED 11/10/93	10/93
NOH-2	OH-NYPP TS STUDY GROUP ANALYSIS	1983-1984
NOH-3	NYPP STABILITY ANALYSIS WITH PA301/PA303 O/S	2/95
NE-1	1992-1996 NYPP-NEPOOL TRANSFER LIMIT STUDY	10/92
NP-1	NYPP-PJM STABILITY ANALYSIS ON THE DIRECT TIE TRANSFER CAPABILITY	9/94

APPENDIX L

NYPP OASIS PATHS
NON-RECALLABLE TCC'S

NYPP OASIS Transmission Paths
Non-Recallable TTC's

OASIS Path Name	NYPP Interface / Co.	TTC for all lines I/S forward	TTC for all lines I/S reverse
Adirondack-Central	MOSES SOUTH	2000	2000
Adirondack-Nepex Vt N	NYPP to NEPEX - PA	140	125
Capital/MidHudson-NEPEX NU S.	NYPP to NEPEX - (398)	700	700
Capital/MidHudson-NEPEX NU S.	NYPP to NEPEX / CH	28	28
Capital/MidHudson-NEPEX VT/NE/NU	NYPP to NEPEX (NM)	1200	1200
Capital/MidHudson-Westchester	UPNY-CONED	5100	5100
Central-Capital/MidHudson	TOTAL EAST (C-E)	4650	4650
Central-Capital/MidHudson	TOTAL EAST / NY	50	50
Frontier-Genessee	DYSINGER EAST	2850	2850
Genessee-Central	WEST CENTRAL	2350	2350
HQ-Adirondack	HQ to NYPP (PA)	2350	2350
HQ-Adirondack	HQ to NYPP (NM)	150	150
Long Island-Nepex NU S.	NYPP to NEPEX (LI)	150	175
New York City-Long Island	CONED-LILCO	550	550
Ontario East-Adirondack	OH to NYPP (PA)	450	450
Ontario South-Frontier	OH to NYPP	1900	1900
PJM East-Capital/MidHudson	TOTAL EAST (5018/K3411)	1150	1150
PJM East-Capital/MidHudson	PJM to NYPP (J3410)	0	600
PJM East-New York City	TOTAL EAST (A/B/C)	400	400
PJM West-Central	PJM to NYPP C.	1300	1300
PJM West-Frontier	PJM to NYPP W.	1100	1100
Westchester-Long Island	CONED-LILCO (Y49)	625	625
Westchester-Long Island	CONED-LILCO Y50	600	600


NEW YORK POWER POOL
OASIS Area
Transmission Paths
NEPEX
Vt N
NEPEX
Vt SV
NEPS
NU S
NEPEX
NU S
HYDRO
QUEBEC
CRT
HYDRO
QUEBEC
Chat.
Adirondack
NM
NORTH
PA
NORTH
NY
NORTH
Capital / Mid-Hudson
NM
EAST
CE
MID-
HUD
PA
MID-
HUD
PA
GILBOA
C H
O R
Westchester
CE
NORTH
CE
CENT.
Long Island
LI
New York City
C E
N Y C
Central
NM
CENT.
PA
CENT.
NY
CENT.
PJM
East
O H
East
Genessee
NM
GENSE
PA
GENSE
NY
GENSE
R G
O H
South
Frontier
NM
WEST
PA
WEST
NY
WEST
PJM
West
N Y
HOMER
CITY

This page intentionally left blank.