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September 28, 1998

Ms. Blanca Bayo, Director
Division of Records and Reporting
Florida Public Service Commission
4750 Esplanade Way, Room 110
Tallahassee, Florida 32399

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98 SEP 28 PM 4:53
RECORDS AND REPORTING

RE: Docket No. 981042-EM

Dear Ms. Bayo:

Enclosed for filing please find the original and fifteen (15) copies of the following:

(1) Direct testimony and exhibits of Michel Armand; 10696-98

(2) Direct testimony and exhibits of Mike Green; 10697-98

(3) Direct testimony of Martha Hesse; 10698-98

(4) Direct testimony of John L'Engle; 10699-98

(5) Direct testimony and exhibits of Mark Locascio; 10700-98

(6) Direct testimony and exhibits of Jeff Meling; 10701-98

(7) Direct testimony and exhibits of Dale Nesbitt; 10702-98

(8) Direct testimony and exhibits of Kennie Sanford; 10703-98

(9) Direct testimony and exhibits of Ronald Vaden; and 10704-98

(10) Direct testimony and exhibits of Larry Wall. 10705-98

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Cordially yours,

Robert Scheffel Wright

Robert Scheffel Wright

cc: Parties of Record (w/enclosures)

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FPSC-BUREAU OF RECORDS

10696-98 9/28/98

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Joint Petition for Determination of Need for an Electrical Power Plant in Volusia County by the Utilities Commission, City of New Smyrna Beach, Florida, and Duke Energy New Smyrna Beach Power Company Ltd., L.L.P.	DOCKET NO. 981042-EM FILED: SEPT. 28, 1998

DIRECT TESTIMONY

OF

MICHEL P. ARMAND, P.E.

ON BEHALF OF

THE UTILITIES COMMISSION, CITY OF NEW SMYRNA BEACH, FLORIDA

AND

DUKE ENERGY NEW SMYRNA BEACH POWER COMPANY LTD., LLP

IN RE: JOINT PETITION FOR DETERMINATION OF NEED BY THE UTILITIES COMMISSION OF NEW SMYRNA BEACH AND DUKE ENERGY NEW SMYRNA BEACH POWER COMPANY, FPSC DOCKET NO. 981042-EM

DIRECT TESTIMONY OF MICHEL P. ARMAND, P.E.

Q: Please state your name and business address.

A: My name is Michel Armand, and my business address is 3100 Zinfandel Drive, Suite 600, Sacramento, California 95670.

Q: By whom are you employed and in what position?

A: I am employed as Principal Executive Consultant by Resource Management International, Inc. ("RMI").

Q: Please describe your duties with RMI.

A: I am responsible for conducting transmission planning and operations studies for RMI clients. These studies cover proposed generating plants and their associated transmission interconnections, actual system performance based on projected seasonal loading conditions, and the determination of potential operating constraints necessary to insure reliable operation of the bulk transmission system.

QUALIFICATIONS AND EXPERIENCE

Q: Please summarize your educational background and experience.

A: I graduated from the City College of the City University of New York in June 1968, with the degree of Bachelor of Engineering - Electrical. In June 1971, I graduated from

the Bernard Baruch College of the City University of New York with the degree of Master of Business Administration.

In 1971, I attended the General Electric Company's one-year course in Advanced Power System Engineering, in Schenectady, New York. In 1978, I attended the one-month Public Utility Executive Program of the Graduate School of Business Administration of the University of Michigan. In 1983, I attended the two-month Executive Program of the Colgate Darden Graduate School of Business Administration of the University of Virginia.

Upon graduation, I was employed by the Consolidated Edison Company of New York. I was assigned to the Distribution Engineering, Station Design, and System Planning Departments. My permanent assignment was in the Transmission Planning Section of the System Planning Department.

In April 1974, I was employed by Florida Power & Light Company (FPL) in the System Planning Department. In April 1976, I was put in charge of the Reliability and System Security Section, responsible for testing and assessing the dynamic performance of the planned generation and transmission system, and for making recommendations based on our tests and assessments. In June 1984, I was transferred to the Power Supply Department as Manager of Technical Services responsible for daily analysis of system

performance, monitoring the adequacy of performance of transmission protective systems, and coordinating the protection and control settings of FPL's generation, transmission, and distribution systems. In May 1991, I became Director of Protection and Control Systems responsible for the design, engineering, installation, and maintenance of all protections and control systems for the generation, transmission, and distribution systems of FPL. In October 1993, I took early retirement from FPL.

From December 1994 to December 1996, I was employed as Energy Consultant in the Office of the Prime Minister of Haiti. In 1997, I assumed my present position as Principal Executive Consultant with RMI.

I am a registered professional engineer in the State of Florida, and I am a member of the Institute of Electrical and Electronic Engineers and a member of the Power Engineering Society.

Q: What is your experience in power plant engineering, construction, operations, permitting, and licensing?

A: As Supervisor of Reliability and System Security, responsible for modeling the dynamic response of the system to disturbances, I was involved with the Power Plant Engineering Department in specifying the electrical parameters of new generators such as power

factor, short circuit ratio, high initial response exciter, power system stabilizer, generator step-up and auxiliary transformers, tap ratio coordination, and switchyard connections. I also initiated studies to add power system stabilizers and modify relay protection schemes for existing high capacity generating units (600 MW and above) on the FPL system.

I was heavily involved in the licensing of FPL's St. Lucie Unit No. 2, a nuclear unit. In this activity, I participated in the Final Safety Analysis Report for the unit's operating license and testified at the evidentiary hearing in Miami, in November 1979, on the issue of grid reliability.

Q: What is your experience in generation planning, transmission planning, transmission design, and load flow studies?

A: In my professional work, the size and location of generation was always a given. My responsibility was the integration of the generators in the transmission grid for optimum delivery of the power under all postulated transmission outages.

I have extensive professional experience in transmission planning. At Consolidated Edison of New York, I was responsible for transmission planning for the borough of Manhattan, representing at that time about 45 percent of

ConEd's total system demand. At FPL, I was responsible for transmission planning in Dade and Broward Counties, representing, at that time, about 60 percent of FPL's total system demand. While not involved in the physical design of transmission lines, studies initiated and conducted by me resulted in the partial transposition of the 500 kV transmission corridor on the East Coast of Florida. The deleterious effects of unbalanced, negative sequence currents on the generators along the corridor were considerably reduced.

Load flow and transient stability studies were the principal tools used to assess the seasonal, yearly, and long-range performance of the Florida Grid. Such studies were conducted by me and by my section internally for FPL, and in participation with the Florida Electric Power Coordinating Group (FCG). Such tools were also used to update the Florida under-frequency load shedding program and to establish the various remedial action systems on FPL's system to mitigate loss of heavily loaded transmission corridors.

Q: Have you previously testified before regulatory authorities or courts?

A: I have testified before the Atomic Safety and Licensing Appeal Board of the U.S. Nuclear Regulatory Commission, in

an evidentiary hearing on the alleged inadequacy of electric power systems for St. Lucie Unit No. 2. The operating license was granted after it was clearly demonstrated that the planned transmission grid would provide adequate and reliable off-site power in an emergency. I have also testified in court in an eminent domain proceeding for the condemnation of property for transmission line right-of-way.

Q: Are you a registered professional engineer?

A: Yes. I am a registered professional engineer in the State of Florida.

SUMMARY AND PURPOSE OF TESTIMONY

Q: What is the purpose of your testimony?

A: I am testifying on behalf of the Utilities Commission of New Smyrna Beach, Florida ("UCNSB"), and Duke Energy New Smyrna Beach Power Company Ltd., LLP ("Duke New Smyrna"), the joint applicants for the Commission's determination of need for the New Smyrna Beach Project (or "the Project"). My testimony describes the transmission interconnection facilities that will connect the proposed power plant to the Smyrna Substation of the UCNSB and the downstream transmission facilities that will be constructed in conjunction with the New Smyrna Beach Project. My testimony also presents and describes the load flow analyses that RMI

conducted to evaluate the transmission impacts of the New Smyrna Beach Project under various power delivery scenarios.

Q: Please summarize your testimony.

A: The New Smyrna Beach Project will be connected to the Smyrna Substation of the Utilities Commission of New Smyrna Beach. This interconnection, together with associated downstream transmission upgrades, will enable power from the Project to be delivered to virtually any retail-service utility in Peninsular Florida under almost all conditions on the Florida transmission grid. The Project's output will not adversely affect any of the "constrained transmission paths" identified by the Florida Reliability Coordinating Council ("FRCC").

Q: Are you sponsoring any exhibits to your testimony?

A: Yes. I am sponsoring the following exhibits:

MPA-1. Qualifications of Michel P. Armand, P.E.

MPA-2. Summary of Transmission Project Experience, Resource Management International, Inc.;

MPA-3. Transmission Interconnection Map for the New Smyrna Beach Power Project (Figure 12 in the Exhibits filed on August 19, 1998);

MPA-4. New Smyrna Beach Power Project, Results of Power Flow Studies - 2001; and

MPA-5. New Smyrna Beach Power Project, Results of Power Flow Studies - 2004.

RMI'S ROLE IN THE NEW SMYRNA BEACH PROJECT

Q: Please describe Resource Management International and its business.

A: Resource Management International, Inc. provides comprehensive consulting and engineering services to a wide range of clients, including the electric power industry. RMI provides consulting and engineering services on power system design, power plant design, and transmission and distribution system design and operations.

Q: What are your responsibilities with respect to the electrical power plant project that is the subject of this proceeding?

A: RMI has been retained to evaluate the transmission impacts of the New Smyrna Beach Project's operation as a merchant power plant selling wholesale power to other utilities that provide retail electric service in Peninsular Florida. I have the primary responsibility for conducting the studies by which we have analyzed the Project's transmission impacts.

Q: With what similar projects has RMI been involved, and in what capacity?

A: RMI has conducted numerous evaluations of the load flow impacts of planned and proposed interconnections of generating units, including merchant power plants, with high-voltage transmission systems, including projects in Oregon, Minnesota, New York, Hawaii, Texas, California, and the ECAR Region. More detail regarding RMI's role in these projects is contained in Exhibit ____ (MPA-2).

TRANSMISSION INTERCONNECTION AND ASSOCIATED DOWNSTREAM TRANSMISSION FACILITIES FOR THE NEW SMYRNA BEACH PROJECT

Q: Please describe the transmission facilities by which the New Smyrna Beach Project will be connected to the Florida transmission grid.

A: The New Smyrna Beach Project will be connected to the existing Smyrna Substation (a 115 kV "breaker-and-a-half" substation) of the Utilities Commission of New Smyrna Beach, which will be expanded to accommodate an additional transmission circuit and three generator connections. The interconnection will include switchgear, circuit breakers, and related equipment appropriate for this type of interconnection.

Q: Please describe any downstream transmission system upgrades that will be made in connection with the Project.

A: In order to support the delivery of wholesale power from the Project to utilities providing retail service in Florida, the following additional downstream transmission upgrades are expected to be made:

1. Addition of a second 115 kV transmission circuit on the existing 115 kV Smyrna to Cassadaga transmission line; and
2. Addition of a new 115 kV transmission line, approximately 7.5 miles in length, from the Cassadaga substation to the Lake Helen substation.

Additionally, my analyses assume the completion of a project re-routing the existing Debary to Altamonte 230 kV transmission circuit and connecting that circuit to the Sanford 230 kV bus. This project is scheduled to be completed in 1998. A map showing the transmission interconnection and the transmission facilities in the New Smyrna Beach area is included here as Exhibit ____ (MPA-3).

TRANSMISSION SYSTEM IMPACTS OF THE NEW SMYRNA BEACH PROJECT

Q: How did you and RMI evaluate the capability of the New Smyrna Beach Project to deliver wholesale power to other retail-service utilities in Florida?

A: We evaluated the transmission system impacts of the Project by conducting power flow studies (also know as load flow studies or load flow analyses) in which we simulated the

power flows that would result from sales from the Project to other key utilities in Peninsular Florida. Our power flow studies utilized standard transmission modeling techniques and assumptions. Basically, as discussed in more detail below, we compared the simulated operations of the Florida transmission system with and without the Project's output being delivered to Florida Power & Light Company ("FPL"), Florida Power Corporation ("FPC"), Tampa Electric Company ("TECO"), Jacksonville Electric Authority ("JEA"), and Seminole Electric Cooperative ("Seminole" or "SEC").

We reviewed and utilized the following documents and reports in preparing our power flow studies.

1. Florida Reliability Coordinating Council ("FRCC"), 1997 Ten Year Plan - State of Florida.
2. Florida Public Service Commission, Review of Electric Utility 1996 Ten Year Site Plans.
3. FPL's 1998 Ten Year Site Plan.
4. Florida Municipal Power Authority, 1998 Ten Year Site Plan.
5. Other Ten Year Site Plans prepared by other generating utilities in Florida.
6. FRCC, 1997 Final Transmission System Constraint Maps.
7. FRCC, 1997 Transfer Capability Study: FLA/SOU Interface, dated June 27, 1997.
8. FRCC, 1999 Reliability Study, dated January 29, 1997.

Q: What are the relevant import and export capabilities of the transmission interface between Peninsular Florida and the Southeastern Electric Reliability Council region?

A: Peninsular Florida has the capability of importing approximately 3,600 MW of power from the SERC region, and the capability of exporting approximately 1,900 MW of power to the SERC region. This difference exists because the transmission system in southern Georgia becomes constrained, on a first-order contingency basis, at lower loads than does Peninsular Florida.

Q: Did you evaluate the Project's capability to deliver power outside Florida?

A: No. I understand from Duke New Smyrna that Duke New Smyrna's intent is to sell wholesale power within Peninsular Florida, and accordingly, RMI was not asked to perform any power flow studies for sales outside Peninsular Florida.

Q: Please describe the power flow studies that you performed in conducting your evaluation.

A: We studied seven load cases or scenarios. First, we conducted power flow studies for four cases in the year 2001, as follows.

1. The 2001. (base case) which includes power flows at the time of the projected Summer 2001 peak demand, with

2,400 MW of power being imported from Georgia into Peninsular Florida.

2. Case 2001-PI, representing projected Summer 2001 peak demand and in which imports were increased to 3,600 MW and FPL generation in the southern part of the Peninsula was decreased by 1,200 MW.

3. Case 2001-60, in which loads in Florida and Georgia were scaled down to 60 percent of peak load levels and imports were maintained at 2,400 MW

4. Case 2001-40, in which loads in Florida and Georgia were scaled down to 40 percent of peak load levels and imports were reduced to 1,500 MW.

We also conducted power flow studies for three cases or scenarios in the year 2004, as listed below. The principal difference between the 2001 power flow studies and the 2004 power flow studies is that the 2004 studies incorporate consideration of two repowering projects proposed by FPL for its existing Sanford and Ft. Myers steam generation plants.

1. The 2004. (base case) which includes power flows at the time of the projected Summer 2004 peak demand, with 2,400 MW of power being imported from Georgia into Peninsular Florida.

2. Case 2004-PI, representing projected Summer 2004 peak demand and in which imports were increased to 3,600 MW and FPL generation in the southern part of the

Peninsula was decreased by 1,200 MW.

3. Case 2004-60, in which loads in Florida and Georgia were scaled down to 60 percent of peak load levels and imports were maintained at 2,400 MW.

Under each load scenario, the sale of 500 MW from the New Smyrna Beach Power Project to FPL, FPC, TECO, JEA, and Seminole was simulated and the effects on the transmission system were evaluated.

A more detailed description of the development of the cases is contained in the two volumes comprising the power flow studies, Exhibit ___ (MPA-4), which presents the 2001 studies, and Exhibit ____ (MPA-5), which presents the 2004 studies.

Q: What do your power flow studies show with respect to the transmission impacts of power sales from the Project?

A: RMI's power flow studies show that under normal operating conditions, i.e., with no significant transmission line or generator outages, the Florida transmission system can accommodate delivery of 500 MW of power from the Project to FPL, FPC, TECO, JEA, or Seminole without any adverse effect, i.e., without causing any facilities to exceed their maximum rated capacity.

The same result is obtained under almost all single-outage conditions analyzed. However, in the system summer

peak demand cases, a simulated outage of the Smyrna-to-Edgewater section of the Smyrna-to-Volusia 115 kV line causes the Smyrna-to-Taylor section of the same line to load slightly above 100 percent of its rated capacity for some sales scenarios. If necessary, this deficiency can be corrected easily by replacing a short segment of transmission line with higher-rated conductors. RMI's simulation analyses indicate that no transmission limitations are expected under any outage scenarios for the 2001-60 and 2001-40 cases. However, all of the 2004 analyses showed no overloads under any scenario. Upon investigation, it was determined that FPL's projected load for the area has been reduced by approximately 30 percent, alleviating any concern regarding transmission line overloading due to the Project's operation.

Detailed descriptions of these cases, and the simulation results, are presented in Exhibit ____ (MPA-4) and Exhibit ____ (MPA-5).

Q: There have recently been some announcements regarding acceleration of the in-service dates of FPL's Sanford and Ft. Myers repowering projects. Does, or would, the acceleration of these repowering projects have any effect on the results of your power flow studies?

A: No.

Q: Does this conclude your direct testimony?

A: Yes, it does.

FPSC Docket No. 981042-EM
UCNSB/Duke New Smyrna
Witness: Armand
Exhibit ____ (MPA-1)

QUALIFICATIONS OF MICHEL P. ARMAND, P.E.

MICHEL P. ARMAND

Michel Armand is a professional electrical engineer with over 30 years of experience in utility transmission and distribution planning and engineering. He is particularly proficient in the areas of transmission reliability and network security, having performed numerous load flow, short-circuit and transient stability studies to justify system development plans, determine the need for system reinforcements or to identify operating limits. Over the past decade, Mr. Armand was instrumental in developing a system-wide breaker evaluation program and introducing an innovative methodology for assessing system-wide losses for Florida Power & Light Company. He also performed the first statistical analysis of the performance of the utility's distribution system, leading to a process of continual improvement in system losses and a reduction in outages. In addition, Mr. Armand has testified before the Nuclear Regulatory Commission and various state courts in condemnation hearings.

EDUCATION

M.B.A. - Engineering Management
Baruch College of City University of New York

B.E. - Electrical Engineering
City College of City University of New York

B.A. - Liberal Arts
College St. Martial, Port-Au-Prince, Haiti

PROFESSIONAL HISTORY

Resource Management International, Inc.
Manager, Transmission Planning

Government of Haiti
Energy Consultant, Prime Minister's Office

Florida Power and Light Company
Director, Protection and Control Systems

Consolidated Edison Company of New York
Senior Engineer

REPRESENTATIVE PROJECT EXPERIENCE

Performed an independent assessment of Florida Power & Light Company's energy reduction product offerings and determined their effectiveness in achieving the goals of the utility's demand-side programs. Based on analysis, recommended a marketing approach based on the market potential for a specific program given the four very distinct weather regions of Florida. The analysis also provided valuable insight into the behavior of load during the state's winter and summer seasons. As a result, the utility rescheduled pool pumps, an 800-MW load at the time, to different time slots to avoid the early morning peak in the winter and the late afternoon peak in the summer.

As a project team member, conducted evaluations necessary to justify Florida Power & Light Company's plans to construct two

500-kV lines from the Georgia state line in the north to a point 310 miles south. Wrote testimony in support of the economic and reliability benefits of the lines in proceedings of the Florida Transmission Line Siting Act before the state Public Service Commission. Performed technical studies to define the line parameters, the ancillary equipment, and the termination of various segments of the project. Given the considerable benefits of reducing oil consumption in favor of coal, the project was given accelerated depreciation privileges for ratemaking purposes.

As a utility manager, developed a set of recommendations for preventing a blackout similar to one on May 17, 1985 that put the Greater Miami-Ft. Lauderdale area in the dark for three hours. Recommended a computer program that monitors Florida Power & Light Company's utility system for specific conditions and takes remedial action within a 15-20 second time window. The utility had incurred severe economic penalties up until the time this computer program was deployed and economic dispatch was resumed. The same computer-supervised program was replicated in another part of the utility system, providing additional economic benefit.

As project manager, oversaw the definition, design, development, testing, and implementation of an automated system for evaluating the adequacy of transmission circuit breakers on the Florida Power & Light Company system. Coordinated the work of equipment specialists, computer programmers, and system planners to arrive at a program that would consistently and accurately perform the numerous calculations required for determining system reliability. The program was instrumental in eliminating the serious potential for human errors associated with the manual methods previously used. The process of an annual evaluation provided the lead time needed to order and install system replacements in a coordinated fashion.

As chief energy advisor, was responsible for developing and recommending options for restructuring Haiti's state-owned utility in response to that government's shrinking ability to fund the utility system. Evaluated various options that included: (1) restructuring the utility to operate as an independent commercial enterprise owned by the state; (2) contracting with a foreign entity to manage and operate the utility within a fixed time period; (3) leasing the utility's assets and the franchise for a 25-30 year period with the assets plus additions reverting to the state at contract expiration; and (4) selling the utility outright to private local and/or foreign investors. Each option was evaluated based on economic, financial and political risk considerations and presented to the government of Haiti. Based on the analysis, recommended proceeding with the lease option to be preceded by a five-year management contract to increase the value of the assets and the

lease. The Haitian parliament approved the approach and is developing a new regulatory framework to allow the state and the system operator to achieve their objectives.

As lead investigator, directed an intensive three-month analysis of electric system losses to help Florida Power & Light Company make more informed economic decisions on system reinforcements. Collected extensive data and interviewed dozens of utility personnel. Determined the techniques used to measure system losses varied throughout the company, leading to capital investment decisions that were often based on crude assumptions. As a result, prepared a reference document in which every component of system losses and their various implications were addressed. Using this systematic approach, the utility is able to reduce system losses more cost-effectively.

As project manager, was charged with researching, developing, and implementing a transmission outage database system for Florida Power & Light Company. The purpose was to collect information in such a way that it could be stored, analyzed, categorized, and used by all departments involved in the design, engineering, construction, and operation of the transmission system. The task involved the collection of valid requirements from all concerned parties, the resolution of conflicting demands, and the acquisition of senior management approval of a plan for collecting, analyzing, and categorizing data from the prior period of 1983 to 1987. The data not only proved invaluable to the system operators, transmission maintenance personnel, and transmission design and engineering staff, it had other unexpected results. The information was used to effectively show potential industrial customers the reliability of a particular transmission line, relied on in court proceedings addressing power quality issues, and used in regulatory hearings dealing with the need for new transmission corridors.

As department supervisor, was responsible for testing and assessing the dynamic performance of the planned generation and transmission system for Florida Power & Light Company. Presented testimony on the ability of the system to support the addition of a second nuclear unit at St. Lucie Power Station in hearings before the Atomic Safety and Licensing Appeal Board of the Nuclear Regulatory Commission. Successfully demonstrated the adequacy of the transmission grid, leading to approval of the operating license.

As project manager, conducted an examination of options available to Florida Power & Light Company to determine final disposition of the utility's questionable power generation assets. The assets could be kept in use, put into long-term reserve, shut down, retired, or sold. Taking into account the various interests of the

operating groups, recommendation was made to choose the long-term reserve shutdown as the most attractive option financially, based on considerations of capacity addition and system adequacy and reliability.

PROFESSIONAL MEMBERSHIPS

Institute of Electric and Electronic Engineers

FPSC Docket No. 981042-EM
UCNSB/Duke New Smyrna
Witness: Armand
Exhibit ____ (MPA-2)

SUMMARY OF TRANSMISSION PROJECT EXPERIENCE,

RESOURCE MANAGEMENT INTERNATIONAL, INC.

Klamath Falls Project - Oregon - RMI conducted an evaluation of the impacts and benefits to the region's 500-kV and 230-kV transmission system associated with the interconnection of a proposed 500 MW cogeneration facility with the system in Southern Oregon. In assessing these effects and benefits, RMI performed pre- and post-project studies modeling both normal and contingency conditions. These studies utilized power flow, post-transient, and transient stability study methodologies and revealed that the project provided voltage support to the system and potentially increased transfer capability.

Proposed Power Project in the ECAR Area - RMI conducted preliminary evaluations of interconnecting proposed generating facilities (ranging from 200 to 800 MW in size) to the transmission system at four sites in the Virginia-West Virginia-Kentucky area and delivering the project output to customers in Virginia, the northeastern United States, or the southeastern United States. The evaluations addressed: (i) pre- and post-project transmission system performance under both normal and contingency conditions for the "as planned" system in the 2004 period; (ii) pre- and post-project transmission system performance with key proposed facilities not in service; and (iii) rates for transmission service over the transmission facilities of major utilities in the area.

Combustion Turbine Siting - Minnesota - RMI performed a preliminary siting study relative to the potential development of a 125-MW combustion turbine project connected to the system of Northern States Power in Minnesota. RMI identified potential sites with proximity to natural gas pipelines and transmission facilities taking into account the location of wetlands and areas which are attainment and non-attainment with respect to SOx and NOx emissions. RMI then used information on potential site locations in powerflow analyses of the NSP system without the combustion turbine project and with the project interconnected at various points on the utility's 115-kV and 345-kV system.

Proposed Power Project - New York - RMI conducted powerflow studies of the system in upper New York to assess the relative merits of the installation of local generation or the development of reinforcements to the transmission system. The results of these studies were subsequently used in developing information regarding reliability and power quality issues facing a municipal electric in the area which is presently served via a radial system with a history of poor reliability.

Proposed Power Project - Hawaii - RMI provided transmission planning services relative to the interconnection of a potential power project with the system of the Hawaii Electric Light Company (HELCO) which serves the island of Hawaii. In doing so, evaluated: (1) the facilities required to properly interconnect the new generating facility to the HELCO transmission system; (2) the system reinforcements, if any, required due to the addition of proposed new generating facilities by HELCO or by the developer; (3) the effects on HELCO's system losses for different resource development plans; and (4) the reasonableness of HELCO's cost estimates associated with the interconnection facilities and system reinforcements for the different plans.

Proposed Merchant Plants- Texas - RMI has conducted assessments regarding the interconnection of merchant plants with the interconnected 345/138-kV system in northeastern Texas and in southern Texas. Those in northeastern Texas were conducted to identify potential interconnection points for 500-1000 MW of new generation facilities while those in southern Texas were conducted to identify potential interconnection points for 200-400 MW of new generation in the Brownsville area. Both studies addressed system impacts associated with such generation and included. included conducting both base case and N-1 outage studies on the pre-and

post-generating project system.

High Desert Power Project - RMI has been involved in the siting and licensing aspects of the High Desert Power Project (located near Victorville, California) since the project's inception. Specific activities have included: (i) performing the initial evaluations of potential contractual transmission paths between the proposed power project and potential municipal customers in southern California and the effects which the proposed project would have on the interconnected transmission system in southern California; (ii) performing more specific technical analyses and developing cost estimates which served as the basis for the "transmission/interconnection" portions of the Application for Certification (AFC); (iii) working with the project proponents in responding to questions raised by CEC staff and an intervener; and (iv) working with the project proponents in review of SCE's activities relative to a project interconnection study.

Merchant Plant Development in Los Angeles Area - RMI provided technical and analytical services to a project developer considering the development of merchant facilities at sites within the Los Angeles area. Activities undertaken by RMI included: (i) reviewing the relationship of the proposed sites to the existing transmission system; (ii) obtaining, reviewing, and updating powerflow base cases and assessing pre-"project" transmission capacity; (iii) developing "site specific" base cases and assessing post-"project" transmission capacity; and (iv) developing information which differentiated the sites.

Expansion of Existing QF Sites - RMI performed a screening level evaluation of the potential for adding natural gas-fired generation at several power project sites in central and northern California owned by an IPP. The projects evaluated are fueled by biomass (wood waste) or coal and range in size from approximately 20 MW to 35 MW and are interconnected with the low voltage transmission systems of Pacific Gas & Electric or Southern California Edison. As part of this evaluation, RMI: (i) assessed if there was sufficient capacity in the existing transmission facilities to deliver both existing and potential new capacity from each site into the main grid; and (ii) identified and developed preliminary cost estimates for the additional transmission facilities that might be required to interconnect each expanded project site with the main grid.

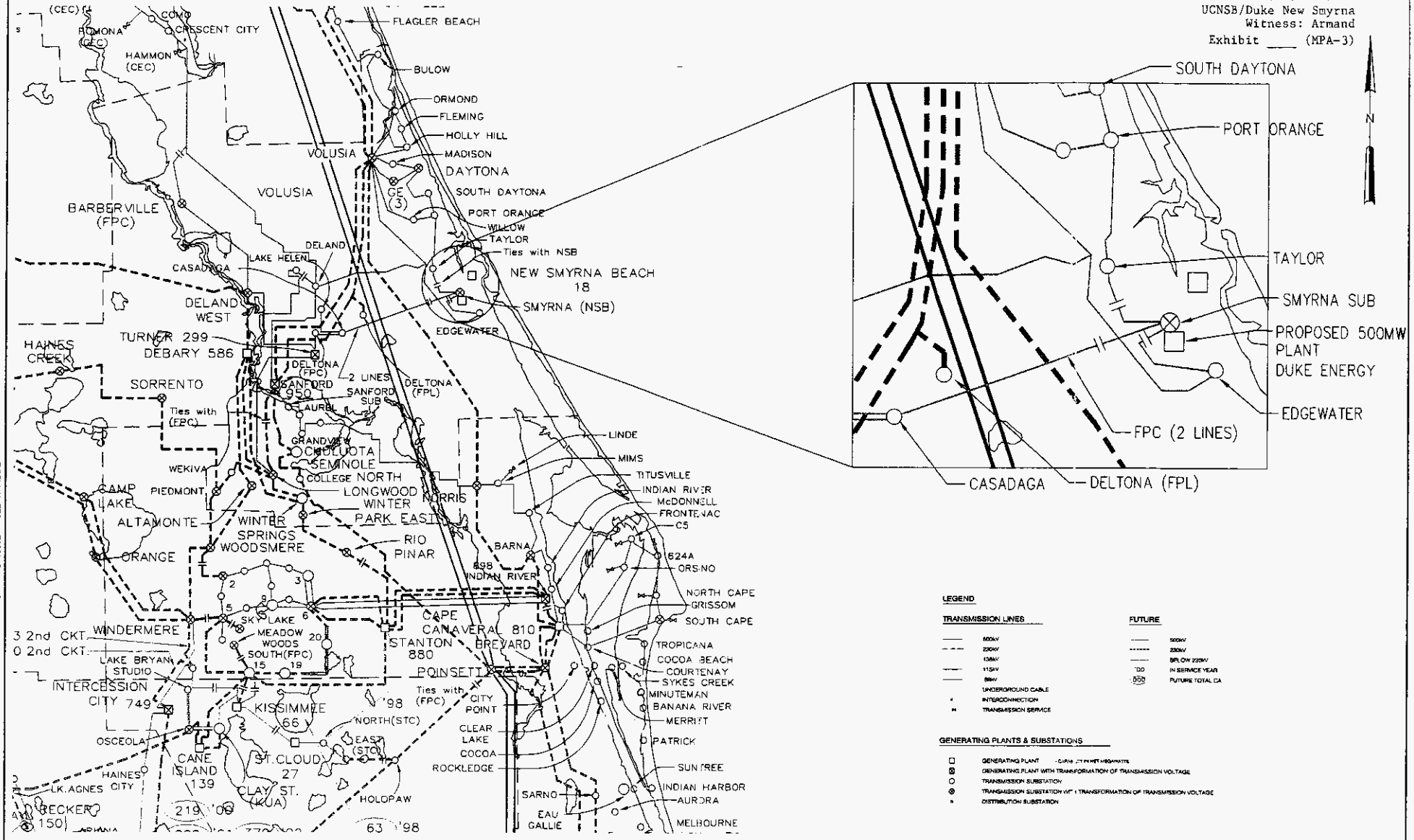
Merchant Plant Development in San Francisco Bay Area - RMI provided technical and analytical services to a project developer considering the development of merchant facilities at sites within the greater San Francisco Bay Area and the potential acquisition of certain generating facilities in the Area. Specific activities undertaken by RMI included: (i) developing information on capacity and energy requirements for various portions of the Area (e.g., the City and County of San Francisco); (ii) identifying and quantifying transmission constraints on identified transmission paths into and within the Area; (iii) assessing the degree to which the addition of generation would mitigate transmission constraints; and (iv) assessing the addition of new generation at both existing and greenfield plant sites on the fringes of the Bay Area.

Characterization of California Electric Supply and Transmission Infrastructure - RMI developed a report for a major project developer which addressed various aspects of the electric power industry including: (i) the Power Exchange (WEPEX) and the Independent System Operator (ISO) organizations and market structures; (ii) the identification of existing in-state generation and other sources of supply and the key attributes of each that would affect its market placement; (iii) current load forecasts and the need for new generation; (iv) the electric transmission system and evolving operating rules for it; and (v) the natural gas bulk transmission system and its future

outlook and the gas supply resources (and their costs) available to the different pipeline systems.

Market Price Projections for California and Southern Nevada/Western Arizona - RMI utilized the General Electric Multi-Area Production Simulation ("MAPS") model to develop projections of market clearing prices in California. Specific activities included: (i) acquiring a MAPS data set for the entire Western Systems Coordinating Council ("WSCC") and updating/expanding the model's transmission, generation, and fuel price assumptions to reflect latest available information; (ii) incorporating specific assumptions about future resources, fuel prices, and markets; (iii) developing data such that the operation of the transmission systems mimicked the postage stamp tariff structures of the Independent System Operator; and (iv) performing numerous simulations under several resource plans and hydroelectric availability conditions to develop market price forecasts and estimates of revenues and total costs for key resources.

FPSC Docket No. 981042-EM
UCNSB/Duke New Smyrna
Witness: Armand
Exhibit ____ (MPA-3)



LEGEND

TRANSMISSION LINES

- 500kV
- 230kV
- 138kV
- 115kV
- 69kV
- UNDERGROUND CABLE
- INTERCONNECTION
- TRANSMISSION SERVICE

FUTURE

- 500kV
- 230kV
- BPLOW 230kV
- IN SERVICE YEAR
- FUTURE TOTAL CA

GENERATING PLANTS & SUBSTATIONS

- GENERATING PLANT
- GENERATING PLANT WITH TRANSFORMATION OF TRANSMISSION VOLTAGE
- TRANSMISSION SUBSTATION
- TRANSMISSION SUBSTATION WITH TRANSFORMATION OF TRANSMISSION VOLTAGE
- DISTRIBUTION SUBSTATION

I:\8513-02\FCG TRANSMISSION FULL MAP.DWG

NO.	DATE	ISSUED FOR	BY	DESIGNED LARRY JAMES DRAWN — CHECKED — PROJ. ENGR. —	FRANK ALONSO 38091 P.E. DATE	RMI Resource Management International, Inc.	SCALE NONE CAD REF. FCG TRANSMISSION FULL MAP PROJ. NO. 8513.02

DUKE ENERGY POWER SERVICES

FIGURE 12
NEW SMYRNA BEACH POWER PROJECT
TRANSMISSION INTERCONNECTION

DATE: AUGUST 1998
SHEET: — OF —
DRAWING: E-1

FPSC Docket No. 981042-EM
UCNSB/Duke New Smyrna
Witness: Armand
Exhibit ____ (MPA-4)

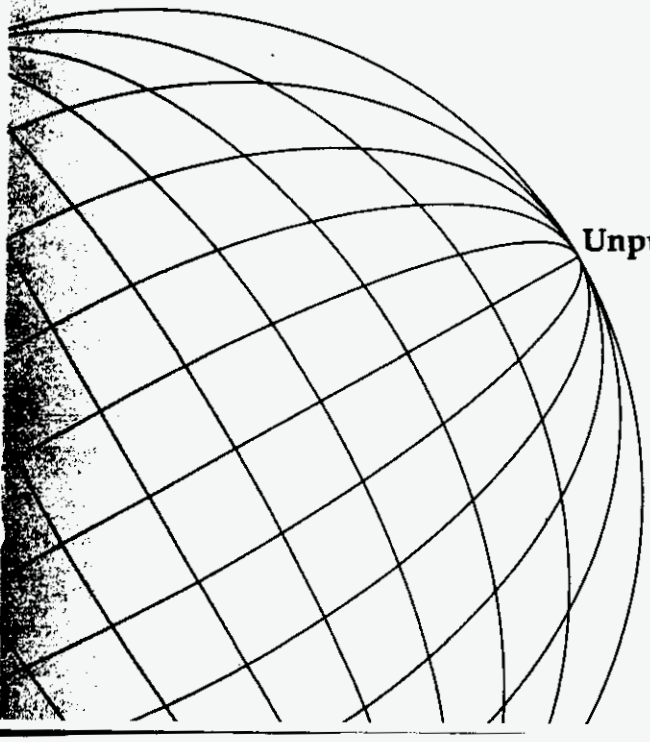
15F

RESULTS OF POWER FLOW STUDIES 2001

Prepared for

DUKE ENERGY POWER SERVICES, INC.

July 2, 1998



10696-98
Exhibits

RMI

RESOURCE MANAGEMENT INTERNATIONAL, INC.

RMI

RESOURCE MANAGEMENT
INTERNATIONAL, INC.

CONFIDENTIAL

July 2, 1998

Mr. Peter J. Ledig
Managing Director
Duke Energy Power Services, Inc.
5400 Westheimer Court
Houston, TX 77251

Subject: Transmission System Analysis in Support of
Duke Energy New Smyrna Beach Power Company

Dear Peter:

Enclosed are four copies of the subject report prepared in accordance with our agreement with Duke Energy Power Services. The study was re-run to accommodate the change in transmission configuration: a new 115kV circuit from Cassadaga to Lake Helen in place of the second 115kV circuit from Cassadaga to Detlona East.

The starting point for the analysis was supposed to be the powerflow base case, which we obtained from the Florida Municipal Power Agency. The electronic copy we received exhibited serious modeling flaws, and it became obvious that unless we were a member of the Florida Reliability Coordinating Council (FRCC), we would not have the means to thoroughly validate the model. After several frustrating attempts, we decided to obtain the 2001 Florida Electric Power Coordinating Group (FCG) model submitted to FERC in 1996. This model, after extensive testing, revealed itself to be a much better representation of the Florida transmission system. This is the model we used and which we believe to be accurate. This was confirmed, as the study progressed, when we received a copy of the FRCC 1999 Reliability Study and reviewed the 1998 Ten-Year Plan documents of the major utilities in Florida.

Therefore, the powerflow studies discussed in the enclosed report evaluated:

- Pre- and post-project transmission system performance for the year 2001 when the Florida system experiences peak loading conditions and imports 3,600 MW of power from Georgia.
- Pre- and post-project transmission system performance for the year 2001 when the Florida system is at peak load and imports 2,400 MW from Georgia.

3100 ZINFANDEL DRIVE, SUITE 600 • SACRAMENTO, CA 95670-6026
P.O. BOX 15516 • SACRAMENTO, CA 95852-1516
(916) 852-1300 • FAX (916) 852-1073 • www.rmiinc.com

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- Pre- and post-project transmission system performance for the year 2001 when the Florida system is loaded to 60% of summer peak load and imports 2,400 MW from Georgia. This load level is considered the average loading of the Florida system.
- Pre- and post-project transmission system performance for the year 2001 when the Florida system is experiencing 40% of summer peak load and imports 1,500 MW from Georgia. This load level is considered the minimum loading which occurs in the early morning hours in the spring.

Based on the studies discussed in the enclosed report, it appears that:

1. The proposed 500 MW project at New Smyrna Beach can reliably deliver its output into the Florida Transmission System.
2. The dispatch of generation at Florida Power Corporation's Debary plant has an impact on the distribution of the plant output at peak load conditions.
3. At average load conditions, 60% of summer peak, the output of the plant more evenly distributes itself on the transmission systems of Florida Power & Light and Florida Power Corporation.

We look forward to discussing the enclosed report with you and your counsel, Scheff Wright, at your convenience. In the interim, please call me at (916) 852-1300 should you have any questions on the enclosed.

Sincerely,

Michel P. Armand

Michel P. Armand
Manager

Enclosures

DUKE ENERGY POWER SERVICES, INC.

PROPOSED 500 MW FLORIDA GENERATING FACILITY
RESULTS OF POWER FLOW STUDIES
2001

Prepared for

DUKE ENERGY POWER SERVICES, INC.

Prepared by

RMI
RESOURCE MANAGEMENT INTERNATIONAL, INC.

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DUKE ENERGY NEW SMYRNA BEACH POWER COMPANY LTD., L.L.P.

PROPOSED 500 MW FLORIDA GENERATING FACILITY

RESULTS OF POWER FLOW STUDIES - 2001

EXECUTIVE SUMMARY

Duke Energy New Smyrna Beach Power Company Ltd., L.L.P. is proposing to build a 500 MW merchant plant in Florida in a joint venture with the Utilities Commission, City of New Smyrna Beach, Florida. The facility will be sited adjacent to the City's Smyrna Substation in Volusia County, Florida, and is scheduled to begin commercial operation by the summer of 2001. Duke Energy New Smyrna Beach Power Company Ltd., L.L.P. retained Resource Management International, Inc. (RMI) to assist them in evaluating the interconnection of the proposed project with the Florida Transmission network.

In providing this support, RMI performed a series of preliminary power flow studies evaluating:

- Summer 2001 transmission system performance at peak load, importing 3,600 MW from the Southern Company, with and without the project.
- Summer 2001 transmission system performance at peak load, importing 2,400 MW from the Southern Company, with and without the project.
- Summer 2001 transmission system performance at an average 60% of peak load, importing 2,400 MW from the Southern Company, with and without the project.
- Summer 2001 transmission system performance at valley, 40% of summer peak, load condition importing 1,500 MW from the Southern Company, with and without the project.

To determine the ability of the project to deliver its output over the Florida transmission system, it was agreed that the total plant output will be scheduled alternatively to Florida Power and Light Company (FPL), Florida Power Corporation (FPC), Tampa Electric Company (TEC), Jacksonville Electric Authority (JEA), and Seminole Electric Cooperative (SEC). Each of these dispatch scenarios were modeled and tested with the four base cases.

It was also assumed, based on information received from the Utilities Commission, City of New Smyrna Beach, that the transmission configuration around the plant would be reinforced as follows:

1. Addition of a second Smyrna to Cassadaga 115-kV transmission circuit;
2. Addition of a new Cassadaga to Lake Helen 115-kV transmission circuit; and
3. Existing Debary to Altamonte 230-kV transmission circuit re-routed and connected to the Sanford 230-kV bus.

These transmission additions were modeled in all the power flow cases.

In summary, these studies (which are summarized in Table ES-1 and discussed in detail in Sections 1 and 2) show that for the conditions modeled:

1. None of the lines in the vicinity of the proposed Duke project were overloaded in the twenty-four base cases which were developed for these studies, and which model system normal conditions.
2. During the summer 2001 peak load period, loss of the Smyrna-Edgewater section of the Smyrna to Volusia 115-kV circuit No. 2 causes the Smyrna-Taylor section of the Smyrna to Volusia 115-kV circuit No. 1 to overload for all dispatch scenarios, when importing 3,600 MW from Georgia.
3. During the summer 2001 peak load period, when importing 2,400 MW from Georgia, loss of the Smyrna-Edgewater section of the Smyrna to Volusia 115-kV circuit No. 2 overloads the Smyrna-Taylor section of the Smyrna to Volusia 115-kV circuit No. 1. The highest overload occurs when the plant output is scheduled to Seminole. This same Smyrna-Taylor line section is also overloaded for loss of one of the two Cassadaga to Smyrna 115-kV circuits.
4. At loading levels of sixty percent and forty percent modeled in the study, no overload is noticed for all the contingencies simulated and for all dispatch scenarios. This is essentially the result of generation dispatched at FPC's Turner and Debary plants. At lower load levels, there is no unit dispatched at Turner and only 108 MW is dispatched at Debary. At peak load, Debary carries 610 MW and Turner 58 MW, which increases the initial flow on the Smyrna to Volusia two 115-kV circuits and results in one circuit overloading under certain outage conditions.

TABLE ES-1
SUMMARY OF POWERFLOW BASE CASES EVALUATED

Year	Case	Georgia Imports (MW)	Duke Generation (MW)	Output Delivered to:
2001	2001.PI	3,600	- 0 -	N/A
	2001.PIa	3,600	500	Florida Power & Light
	2001.PIb	3,600	500	Florida Power Corporation
	2001.PIc	3,600	500	Tampa Electric Company
	2001.PId	3,600	500	Jacksonville Electric Authority
	2001.PIe	3,600	500	Seminole Electric Cooperative
2001	2001.	2,400	- 0 -	N/A
	2001.a	2,400	500	Florida Power & Light
	2001.b	2,400	500	Florida Power Corporation
	2001.c	2,400	500	Tampa Electric Company
	2001.d	2,400	500	Jacksonville Electric Authority
	2001.e	2,400	500	Seminole Electric Cooperative
2001	2001-60	2,400	- 0 -	N/A
	2001-60a	2,400	500	Florida Power & Light
	2001-60b	2,400	500	Florida Power Corporation
	2001-60c	2,400	500	Tampa Electric Company
	2001-60d	2,400	500	Jacksonville Electric Authority
	2001-60e	2,400	500	Seminole Electric Cooperative
2001	2001-40	1,500	- 0 -	N/A
	2001-40a	1,500	500	Florida Power & Light
	2001-40b	1,500	500	Florida Power Corporation
	2001-40c	1,500	500	Tampa Electric Company
	2001-40d	1,500	500	Jacksonville Electric Authority
	2001-40e	1,500	500	Seminole Electric Cooperative

Therefore, based on the preliminary studies discussed in this report, it appears that:

1. 500 MW can be reliably sited at the Smyrna Substation of the Utilities Commission, City of New Smyrna Beach with the proposed transmission reinforcements.
2. The output of the plant minus the portion reserved for New Smyrna Beach, can be delivered without imposing undue burden on the Florida Transmission system under most dispersed dispatch scenarios.

As discussed in Section 2 (Results of Powerflow Studies), each of the cases summarized in Table ES-1 were used as a starting point in evaluating system performance under both normal and single facility-line or generator-(N-1) outage conditions. Comparison of pre- and post-project power flows over key lines in the proximity of the project shows that at peak most of the plant output, 55.4%, flows over the two Smyrna to Volusia transmission circuits, while the two Smyrna to Cassadaga transmission circuits carry a lower, 33.4%, percentage. The remainder is absorbed by loads in the City of New Smyrna Beach. At lower load levels, when Turner plant is not dispatched and the output of Debary plant is reduced, the projected plant output is more evenly distributed between FPL: (49.0%) and FPC (41.5%).

Documents reviewed and utilized by RMI during these studies included:

- The Florida Reliability Coordinating Council (FRCC) "1997 Ten Year Plan - State of Florida" prepared in early 1997.
- The Florida Public Service Commission "Review of Electric Utility 1996 Ten Year Site Plans"
- FPL's "1998 Ten Year Plant Site Plan"
- FMPA's "1998 Ten Year Site Plan"
- The "Ten Year Site Plans" prepared by the other generating utilities in Florida
- FRCC's "1997 Final Transmission System Constraint Maps"
- FRCC's "1997 Transfer Capability Study: FLA/SOU Interface
- FRCC's "1999 Reliability Study"

The powerflow base cases used in these studies were based on the 2001 summer peak case filed with FERC by the Florida Coordinating Group (FCG) in the spring of 1996. The FCG case was reviewed and modified as necessary to represent both the existing

and planned utility generation anticipated to be on-line in 2001 based on information in the documents referenced above. The original case was also updated to reflect approximately 95 percent of the amount of firm non-utility generation capacity anticipated to be on-line in 2001. The resultant 2001 summer peak case (case 2001) was then used to derive the other cases: 2001-PI, 2001-60, and 2001-40.

Case 2001-PI was obtained by increasing import from George to 3,600 MW and reducing FPL generation in the south end by approximately 1,200 MW. All loads were maintained at peak load.

Case 2001-60 was obtained by scaling loads in Florida and Georgia to represent 60% of peak load level. Generation in Florida was redispatched for each control area. Generation in Georgia was scaled down. Import was maintained at 2,400 MW.

Case 2001-40 was derived by scaling loads in Florida and Georgia to represent 40% of peak load level. Generation in Florida was redispatched for each control area. Generation in Georgia was scaled down. Import from Georgia was reduced to 1,500 MW and interchange schedules were modified.

SECTION 1 POWERFLOW BASE CASE DEVELOPMENT

As noted in the Executive Summary, the powerflow base cases used in these studies were based on the 2001 summer peak case filed with FERC by the Florida Electric Power Coordinating Group (FCG) in the spring of 1996. This powerflow case represented the system in peninsular Florida as consisting of fifteen control areas with a combined load of slightly over 36,000 MW and with approximately 34,400 MW of generation (both utility and non-utility) as being on-line. Imports into Florida from Georgia were approximately 2,400 MW and Florida system losses were approximately 740 MW. The fifteen control areas and the load and generation represented in each, are summarized in Table 1-1.

TABLE 1-1
FLORIDA CONTROL AREA LOADS AND GENERATION IN FCG 2001 PEAK CASE

Control Area	Load (MW)	Generation (MW)
FP&L	17,107	15,350
FPC	7,092	7,918
Ft. Pierce/Vero Beach	255	164
Gainsville	382	393
Homestead	57	15
Jacksonville	2,247	2,549
Key West	114	49
Kissimmee 1/	235	335
Lake Worth	83	57
New Smyrna Beach	83	20
FMPP 2/	1,183	1,932
Seminole	2,430	1,682
City of Starke	16	6
Tallahassee	497	471
Tampa Electric	3,298	3,494

1/ includes all of the generation at Cane Island.

2/ Includes FMPA, Orlando, Lakeland, and St. Cloud.

As shown in Table 1-1, the FCG 1996 base case for 2001 assumed that Fort Pierce and Vero Beach would operate as a mini-pool and that Kissimmee would operate its own

control area. RMI is aware that Kissimmee has become a member of the FMPP and of the current FMPA IDO pool changes taking place, which separate Fort Pierce's and Vero Beach's operations. Knowing that these IDO arrangements are still being sutdied and are likely to result in further changes, RMI assumed that Fort Pierce and Vero Beach would continue to operate as a mini-pool, and that Kissimmee would operate its own control area in the studies performed for Duke Energy Services. The same control areas were identically replicated in the latest FRCC transmission study: 1999 Reliability Study.

RMI is also aware of the fact that loads on the system in Florida tend to be higher in the winter than in the summer. However, because the peak winter load periods tend to be of relatively short duration compared to those during the summer, it is believed that studies of summer conditions are more appropriate in the preliminary types of studies conducted for Duke Energy Services.

The FCG case was carefully reviewed and the data on generation resources was compared to information contained in the FRCC's 1997 Ten Year Plan - State of Florida (Plan), and the other documents referenced in the Executive Summary. Data on the transmission system was also carefully reviewed and appropriate adjustments made. Specifically:

1. The maximum capacity available (the "Pmax") for each utility generating unit in-service as of January 1, 1997, was set equal to the "summer net capability."
2. Utility generating units were added based on information in the Plan such that the data base represented generation anticipated to be available as of the summer of 2001. One of the units added was a 120 MW FMPA combustion turbine at Cane island denoted in the Plan as being in service in June 2001.
3. A list of non-utility generators modeled in the FCG case was developed and compared to the information relative to the firm capacity from such resources presented in the Plan. Efforts were made to replicate, as closely as possible, the information in the Plan. The final result was a data set that modeled a total of 2,395 MW of firm non-utility generation in peninsular Florida (the Plan shows that total of non-utility generation in peninsular Florida would be 2,416 MW as of January 1, 1997, and 2,531 MW as of January 1, 1999).
4. The transmission system around the Smyrna 115 kV Substation, belonging to the Utilities Commission, City of New Smyrna Beach, was found to be substantially different than the actual system configuration. A new 230/115-kV substation belonging to Florida Power and Light was modeled at a site named Sugarmill north of the Smyrna Substation. Extensive transmission

reconfiguration was also modeled. Upon research, it was concluded that such substation, although represented in the case, was not reported in any public document by FP&L for the period extending to the year 2007. Therefore, the transmission system around Smyrna substation was restored to present day configuration.

The result of these efforts was a new base case (Case 2001) with the load and resource characteristics summarized in Table 1-2. This new case was modified to reflect the proposed 500MW plant connected at the Smyrna Substation and the additional transmission as proposed by the Utilities Commission, City of Smyrna Beach. Specifically:

1. The addition of a second 115-kV transmission circuit between Smyrna Substation and the Cassadaga Substation of Florida Power Corporation.
2. The addition of a new 115-kV transmission circuit between the Cassadaga and Lake Helen Substations of Florida Power Corporation.
3. The rerouting of the existing 230-kV transmission circuit between Debary generating station and Altamonte Substation of Florida Power Corporation into the Sanford generating station 230-kV switchyard of Florida Power and Light. The result is a new Debary-Sanford 230-kV circuit and a new Sanford-Altamonte 230-kV circuit.

The 2001. base case, modified with the proposed plant and the added transmission reinforcement, was then used to develop the peak import case, representing a 3,600 MW of import from Georgia. This was accomplished by increasing generation in Georgia by slightly over 1,200 MW, and decreasing FP&L generation at Turkey Point by approximately 770 MW and at Port Everglades by approximately 410 MW. The FP&L swing generator (at Cape Canaveral) adjusted to provide the slight amounts of additional capacity required. The resultant case was denoted Case 2001-PI (peak import).

TABLE 1-2: CASE 2001 - FLORIDA PENINSULAR LOADS AND RESOURCES

	Control Area			Interchange				Generation			On Line	Spinning		Total	Ready 1/	
	Load	Losses	Total	Net	GA Firm	Scherer	Other	Required	QF/IPP	Utility	Capacity	MW	% 2/	Capacity	MW	% 2/
FP&L 3/	17,107	344	17,451	(2,054)	(913)	(633)	(508)	15,397	907	14,490	15,055	565	3.30	15,534	479	2.80
FPC	7,092	190	7,282	763	(405)	0	1,168	8,045	1,152	6,893	7,217	324	4.57	7,591	374	5.27
Ft. Pierce/Vero Bch	255	2	257	(94)	0	0	(94)	163	0	163	164	1	0.39	279	115	45.10
Gainesville	382	4	386	8	0	0	8	394	0	394	413	19	4.97	512	99	25.92
Homestead	57	0	57	(42)	0	0	(42)	15	0	15	27	12	21.05	52	25	43.86
Jacksonville	2,247	38	2,285	266	(220)	(200)	686	2,551	0	2,551	2,665	114	5.07	2,720	55	2.45
Key West	114	2	116	(67)	0	0	(67)	49	0	49	54	5	4.39	88	34	29.82
Kissimmee	235	4	239	75	0	0	75	314	0	314	325	11	4.68	325	0	0.00
Lake Worth	83	0	83	(26)	0	0	(26)	57	0	57	78	21	25.30	78	0	0.00
New Smyrna Bch	83	0	83	(64)	0	0	(64)	19	0	19	20	1	1.20	20	0	0.00
FMPP 4/	2,194	27	2,221	(152)	0	0	(152)	2,069	0	2,069	2,346	277	12.63	2,775	429	19.55
Seminole	2,430	34	2,464	(972)	0	0	(972)	1,492	296	1,196	1,250	54	2.22	1,250	0	0.00
Stark	16	0	16	(10)	0	0	(10)	6	0	6	7	1	6.25	7	0	0.00
Tallahassee	497	13	510	(35)	0	0	(35)	475	0	475	510	35	7.04	694	184	37.02
Tampa EC	3,305	51	3,356	33	0	0	33	3,389	41	3,348	3,530	182	5.51	3,530	0	0.00
Total	36,097	709	36,806	(2,371)	(1,538)	(833)	0	34,435	2,396	32,039	33,661	1,622	4.49	35,455	1,794	4.97

1/ "Ready (reserves)" consists of capacity that is not in operation but which would be avialable to serve load upon startup.

2/ As percent of load

3/ Does not include 14 MW of diesels at Turkey Point

4/ Does not include 5 MW of diesels at Larsen

Total Reserves (MW)	3,416
Total Reserves (% of load)	9.46

The 2001. base case, representing peak load level and 2,400 MW of import from Georgia, was modified to represent loading conditions of 60% of peak. This load level is considered average loading for the Florida system, and represents a considerable portion of the load duration curve for Florida. Therefore, this load level has always been the benchmark of all transmission assessment studies by powerflow or by transient stability conducted by the Florida Electric Power Coordinating Group, the predecessor of the FRCC. To achieve such reduction, the load in each control area was scaled down to sixty percent. The total generation required for each area was calculated by adding load plus generation plus interchange and then re-dispatching each area by the removal of appropriate generating units to achieve total required generation. The only exception was Area 10, New Smyrna Beach, where the total generation was removed. The resultant case was denoted 2001-60.

The 2001. base case, representing peak load level and 2,400 MW of import from Georgia, was modified to represent loading conditions of 40% of peak and a 1,500 MW of import from Georgia. This minimum load level, usually called valley load, is experienced in the spring time and is considered in most FRCC analysis of the Florida transmission system. The concern of valley load is high voltage on the transmission system necessitating removal of most shunt capacitors, activation of available shunt reactors and ultimately in the extreme, removal of high-voltage transmission circuits. The great majority of shunt capacitors were removed due to high voltage, but no transmission line was removed and the new case denoted 2001-40.

The dispatch for FPL, modeled after the FRCC 1999 Reliability Study of January 29, 1997, shows one St. Lucie Nuclear out on refueling, both Manatee units at full output (presumably on Orimulsion) and the combined cycle units at Martin Plant shut down. With only the nuclear units at Turkey Point, the Lauderdale combined cycle at full output, the only way to model sale of 500 MW to FPL in case 2001-40a. was to reduce one Manatee unit output by 500 MW. Similarly, the dispatch for FPC modeled after the same FRCC 1999 Reliability Study requires the reduction of output for the two Crystal River fossil units on line as modeled in case 2001-40b.

APPENDIX I

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIB Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PID Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-1	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-1	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-1	IND RIV	230	STANTON	230	1	11						
2001-PI-1	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-1	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-1	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-1	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-1	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-1	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-1	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-1	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-1	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-1	SN PLANT	115	TURNER	115	1	1						
2001-PI-1	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-1	MICHIGAN	115	KALEY	115	1	11						
2001-PI-1	MICHIGAN	115	GRANT	115	1	11						
2001-PI-1	PERSHING	115	GRANT	115	1	11						
2001-PI-1	AMERICA	115	KALEY	115	1	11						
2001-PI-1	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-1	AZALEA	115	BENNETT	115	1	11						
2001-PI-1	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-1	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-1	PASADENA	230	PASADENA	115	1	2						
2001-PI-1	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-1	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-1	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-1	IND RIV	230	IND RIV	115	1	11						
2001-PI-1	LARGO	230	LARGO A	69	1	2						
2001-PI-1	SHELD	230	SHELD-NW	69	1	16						
2001-PI-1	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-1	WINDERME	230	WINDERME	69	1	2						
2001-PI-1	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-1	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-1	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-1	JASPER	115	JASPER	69	1	2						
2001-PI-2	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-2	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-2	IND RIV	230	STANTON	230	1	11						
2001-PI-2	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-2	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-2	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-2	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-2	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-2	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-2	NSB-SMYR	115	TAYLOR	115	1	1		103.7	103.8	105.8	105.8	110.5
2001-PI-2	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-2	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-2	SN PLANT	115	TURNER	115	1	1						
2001-PI-2	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-2	MICHIGAN	115	KALEY	115	1	11						
2001-PI-2	MICHIGAN	115	GRANT	115	1	11						
2001-PI-2	PERSHING	115	GRANT	115	1	11						
2001-PI-2	AMERICA	115	KALEY	115	1	11						
2001-PI-2	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-2	AZALEA	115	BENNETT	115	1	11						
2001-PI-2	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-2	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-2	PASADENA	230	PASADENA	115	1	2						
2001-PI-2	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-2	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-2	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-2	IND RIV	230	IND RIV	115	1	11						
2001-PI-2	LARGO	230	LARGO A	69	1	2						
2001-PI-2	SHELD	230	SHELD-NW	69	1	16						
2001-PI-2	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-2	WINDERME	230	WINDERME	69	1	2						
2001-PI-2	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-2	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-2	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-2	JASPER	115	JASPER	69	1	2						

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIB Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PID Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-3	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-3	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-3	IND RIV	230	STANTON	230	1	11						
2001-PI-3	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-3	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-3	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-3	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-3	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-3	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-3	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-3	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-3	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-3	SN PLANT	115	TURNER	115	1	1						
2001-PI-3	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-3	MICHIGAN	115	KALEY	115	1	11						
2001-PI-3	MICHIGAN	115	GRANT	115	1	11						
2001-PI-3	PERSHING	115	GRANT	115	1	11						
2001-PI-3	AMERICA	115	KALEY	115	1	11						
2001-PI-3	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-3	AZALEA	115	BENNETT	115	1	11						
2001-PI-3	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-3	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-3	PASADENA	230	PASADENA	115	1	2						
2001-PI-3	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-3	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-3	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-3	IND RIV	230	IND RIV	115	1	11						
2001-PI-3	LARGO	230	LARGO A	69	1	2						
2001-PI-3	SHELD	230	SHELD-NW	69	1	16						
2001-PI-3	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-3	WINDERME	230	WINDERME	69	1	2						
2001-PI-3	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-3	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-3	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-3	JASPER	115	JASPER	69	1	2						
2001-PI-4	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-4	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-4	IND RIV	230	STANTON	230	1	11						
2001-PI-4	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-4	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-4	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-4	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-4	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-4	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-4	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-4	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-4	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-4	SN PLANT	115	TURNER	115	1	1						
2001-PI-4	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-4	MICHIGAN	115	KALEY	115	1	11						
2001-PI-4	MICHIGAN	115	GRANT	115	1	11						
2001-PI-4	PERSHING	115	GRANT	115	1	11						
2001-PI-4	AMERICA	115	KALEY	115	1	11						
2001-PI-4	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-4	AZALEA	115	BENNETT	115	1	11						
2001-PI-4	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-4	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-4	PASADENA	230	PASADENA	115	1	2						
2001-PI-4	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-4	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-4	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-4	IND RIV	230	IND RIV	115	1	11						
2001-PI-4	LARGO	230	LARGO A	69	1	2						
2001-PI-4	SHELD	230	SHELD-NW	69	1	16						
2001-PI-4	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-4	WINDERME	230	WINDERME	69	1	2						
2001-PI-4	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-4	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-4	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-4	JASPER	115	JASPER	69	1	2						

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIB Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PID Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-5	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-5	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-5	IND RIV	230	STANTON	230	1	11						
2001-PI-5	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-5	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-5	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-5	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-5	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-5	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-5	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-5	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-5	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-5	SN PLANT	115	TURNER	115	1	1						
2001-PI-5	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-5	MICHIGAN	115	KALEY	115	1	11						
2001-PI-5	MICHIGAN	115	GRANT	115	1	11						
2001-PI-5	PERSHING	115	GRANT	115	1	11						
2001-PI-5	AMERICA	115	KALEY	115	1	11						
2001-PI-5	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-5	AZALEA	115	BENNETT	115	1	11						
2001-PI-5	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-5	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-5	PASADENA	230	PASADENA	115	1	2						
2001-PI-5	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-5	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-5	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-5	IND RIV	230	IND RIV	115	1	11						
2001-PI-5	LARGO	230	LARGO A	69	1	2						
2001-PI-5	SHELD	230	SHELD-NW	69	1	16						
2001-PI-5	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-5	WINDERME	230	WINDERME	69	1	2						
2001-PI-5	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-5	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-5	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-5	JASPER	115	JASPER	69	1	2						
2001-PI-6	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-6	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-6	IND RIV	230	STANTON	230	1	11						
2001-PI-6	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-6	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-6	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-6	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-6	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-6	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-6	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-6	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-6	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-6	SN PLANT	115	TURNER	115	1	1						
2001-PI-6	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-6	MICHIGAN	115	KALEY	115	1	11						
2001-PI-6	MICHIGAN	115	GRANT	115	1	11						
2001-PI-6	PERSHING	115	GRANT	115	1	11						
2001-PI-6	AMERICA	115	KALEY	115	1	11						
2001-PI-6	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-6	AZALEA	115	BENNETT	115	1	11						
2001-PI-6	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-6	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-6	PASADENA	230	PASADENA	115	1	2						
2001-PI-6	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-6	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-6	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-6	IND RIV	230	IND RIV	115	1	11						
2001-PI-6	LARGO	230	LARGO A	69	1	2						
2001-PI-6	SHELD	230	SHELD-NW	69	1	16						
2001-PI-6	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-6	WINDERME	230	WINDERME	69	1	2						
2001-PI-6	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-6	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-6	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-6	JASPER	115	JASPER	69	1	2						

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

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Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIB Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PIC Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-7	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-7	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-7	IND RIV	230	STANTON	230	1	11						
2001-PI-7	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-7	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-7	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-7	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-7	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-7	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-7	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-7	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-7	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-7	SN PLANT	115	TURNER	115	1	1						
2001-PI-7	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-7	MICHIGAN	115	KALEY	115	1	11						
2001-PI-7	MICHIGAN	115	GRANT	115	1	11						
2001-PI-7	PERSHING	115	GRANT	115	1	11						
2001-PI-7	AMERICA	115	KALEY	115	1	11						
2001-PI-7	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-7	AZALEA	115	BENNETT	115	1	11						
2001-PI-7	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-7	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-7	PASADENA	230	PASADENA	115	1	2						
2001-PI-7	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-7	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-7	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-7	IND RIV	230	IND RIV	115	1	11						
2001-PI-7	LARGO	230	LARGO A	69	1	2						
2001-PI-7	SHELD	230	SHELD-NW	69	1	16						
2001-PI-7	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-7	WINDERME	230	WINDERME	69	1	2						
2001-PI-7	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-7	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-7	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-7	JASPER	115	JASPER	69	1	2						
2001-PI-8	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-8	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-8	IND RIV	230	STANTON	230	1	11						
2001-PI-8	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-8	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-8	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-8	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-8	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-8	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-8	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-8	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-8	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-8	SN PLANT	115	TURNER	115	1	1						
2001-PI-8	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-8	MICHIGAN	115	KALEY	115	1	11						
2001-PI-8	MICHIGAN	115	GRANT	115	1	11						
2001-PI-8	PERSHING	115	GRANT	115	1	11						
2001-PI-8	AMERICA	115	KALEY	115	1	11						
2001-PI-8	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-8	AZALEA	115	BENNETT	115	1	11						
2001-PI-8	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-8	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-8	PASADENA	230	PASADENA	115	1	2						
2001-PI-8	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-8	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-8	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-8	IND RIV	230	IND RIV	115	1	11						
2001-PI-8	LARGO	230	LARGO A	69	1	2						
2001-PI-8	SHELD	230	SHELD-NW	69	1	16						
2001-PI-8	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-8	WINDERME	230	WINDERME	69	1	2						
2001-PI-8	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-8	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-8	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-8	JASPER	115	JASPER	69	1	2						

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIB Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PID Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-9	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-9	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-9	IND RIV	230	STANTON	230	1	11						
2001-PI-9	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-9	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-9	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-9	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-9	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-9	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-9	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-9	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-9	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-9	SN PLANT	115	TURNER	115	1	1						
2001-PI-9	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-9	MICHIGAN	115	KALEY	115	1	11						
2001-PI-9	MICHIGAN	115	GRANT	115	1	11						
2001-PI-9	PERSHING	115	GRANT	115	1	11						
2001-PI-9	AMERICA	115	KALEY	115	1	11						
2001-PI-9	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-9	AZALEA	115	BENNETT	115	1	11						
2001-PI-9	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-9	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-9	PASADENA	230	PASADENA	115	1	2						
2001-PI-9	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-9	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-9	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-9	IND RIV	230	IND RIV	115	1	11						
2001-PI-9	LARGO	230	LARGO A	69	1	2						
2001-PI-9	SHELD	230	SHELD-NW	69	1	16						
2001-PI-9	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-9	WINDERME	230	WINDERME	69	1	2						
2001-PI-9	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-9	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-9	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-9	JASPER	115	JASPER	69	1	2						
2001-PI-10	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-10	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-10	IND RIV	230	STANTON	230	1	11						
2001-PI-10	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-10	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-10	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-10	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-10	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-10	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-10	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-10	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-10	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-10	SN PLANT	115	TURNER	115	1	1						
2001-PI-10	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-10	MICHIGAN	115	KALEY	115	1	11						
2001-PI-10	MICHIGAN	115	GRANT	115	1	11						
2001-PI-10	PERSHING	115	GRANT	115	1	11						
2001-PI-10	AMERICA	115	KALEY	115	1	11						
2001-PI-10	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-10	AZALEA	115	BENNETT	115	1	11						
2001-PI-10	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-10	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-10	PASADENA	230	PASADENA	115	1	2						
2001-PI-10	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-10	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-10	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-10	IND RIV	230	IND RIV	115	1	11						
2001-PI-10	LARGO	230	LARGO A	69	1	2						
2001-PI-10	SHELD	230	SHELD-NW	69	1	16						
2001-PI-10	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-10	WINDERME	230	WINDERME	69	1	2						
2001-PI-10	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-10	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-10	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-10	JASPER	115	JASPER	69	1	2						

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIB Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PID Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-11	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-11	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-11	IND RIV	230	STANTON	230	1	11						
2001-PI-11	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-11	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-11	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-11	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-11	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-11	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-11	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-11	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-11	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-11	SN PLANT	115	TURNER	115	1	1						
2001-PI-11	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-11	MICHIGAN	115	KALEY	115	1	11						
2001-PI-11	MICHIGAN	115	GRANT	115	1	11						
2001-PI-11	PERSHING	115	GRANT	115	1	11						
2001-PI-11	AMERICA	115	KALEY	115	1	11						
2001-PI-11	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-11	AZALEA	115	BENNETT	115	1	11						
2001-PI-11	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-11	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-11	PASADENA	230	PASADENA	115	1	2						
2001-PI-11	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-11	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-11	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-11	IND RIV	230	IND RIV	115	1	11						
2001-PI-11	LARGO	230	LARGO A	69	1	2						
2001-PI-11	SHELD	230	SHELD-NW	69	1	16						
2001-PI-11	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-11	WINDERME	230	WINDERME	69	1	2						
2001-PI-11	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-11	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-11	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-11	JASPER	115	JASPER	69	1	2						
2001-PI-12	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-12	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-12	IND RIV	230	STANTON	230	1	11						
2001-PI-12	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-12	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-12	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-12	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-12	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-12	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-12	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-12	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-12	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-12	SN PLANT	115	TURNER	115	1	1						
2001-PI-12	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-12	MICHIGAN	115	KALEY	115	1	11						
2001-PI-12	MICHIGAN	115	GRANT	115	1	11						
2001-PI-12	PERSHING	115	GRANT	115	1	11						
2001-PI-12	AMERICA	115	KALEY	115	1	11						
2001-PI-12	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-12	AZALEA	115	BENNETT	115	1	11						
2001-PI-12	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-12	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-12	PASADENA	230	PASADENA	115	1	2						
2001-PI-12	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-12	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-12	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-12	IND RIV	230	IND RIV	115	1	11						
2001-PI-12	LARGO	230	LARGO A	69	1	2						
2001-PI-12	SHELD	230	SHELD-NW	69	1	16						
2001-PI-12	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-12	WINDERME	230	WINDERME	69	1	2						
2001-PI-12	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-12	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-12	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-12	JASPER	115	JASPER	69	1	2						

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIB Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PID Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-13	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-13	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-13	IND RIV	230	STANTON	230	1	11						
2001-PI-13	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-13	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-13	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-13	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-13	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-13	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-13	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-13	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-13	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-13	SN PLANT	115	TURNER	115	1	1						
2001-PI-13	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-13	MICHIGAN	115	KALEY	115	1	11						
2001-PI-13	MICHIGAN	115	GRANT	115	1	11						
2001-PI-13	PERSHING	115	GRANT	115	1	11						
2001-PI-13	AMERICA	115	KALEY	115	1	11						
2001-PI-13	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-13	AZALEA	115	BENNETT	115	1	11						
2001-PI-13	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-13	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-13	PASADENA	230	PASADENA	115	1	2						
2001-PI-13	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-13	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-13	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-13	IND RIV	230	IND RIV	115	1	11						
2001-PI-13	LARGO	230	LARGO A	69	1	2						
2001-PI-13	SHELD	230	SHELD-NW	69	1	16						
2001-PI-13	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-13	WINDERME	230	WINDERME	69	1	2						
2001-PI-13	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-13	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-13	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-13	JASPER	115	JASPER	69	1	2						
2001-PI-14	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-14	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-14	IND RIV	230	STANTON	230	1	11						
2001-PI-14	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-14	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-14	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-14	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-14	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-14	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-14	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-14	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-14	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-14	SN PLANT	115	TURNER	115	1	1						
2001-PI-14	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-14	MICHIGAN	115	KALEY	115	1	11						
2001-PI-14	MICHIGAN	115	GRANT	115	1	11						
2001-PI-14	PERSHING	115	GRANT	115	1	11						
2001-PI-14	AMERICA	115	KALEY	115	1	11						
2001-PI-14	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-14	AZALEA	115	BENNETT	115	1	11						
2001-PI-14	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-14	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-14	PASADENA	230	PASADENA	115	1	2						
2001-PI-14	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-14	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-14	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-14	IND RIV	230	IND RIV	115	1	11						
2001-PI-14	LARGO	230	LARGO A	69	1	2						
2001-PI-14	SHELD	230	SHELD-NW	69	1	16						
2001-PI-14	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-14	WINDERME	230	WINDERME	69	1	2						
2001-PI-14	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-14	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-14	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-14	JASPER	115	JASPER	69	1	2						

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIB Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PID Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-15	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-15	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-15	IND RIV	230	STANTON	230	1	11						
2001-PI-15	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-15	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-15	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-15	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-15	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-15	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-15	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-15	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-15	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-15	SN PLANT	115	TURNER	115	1	1						
2001-PI-15	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-15	MICHIGAN	115	KALEY	115	1	11						
2001-PI-15	MICHIGAN	115	GRANT	115	1	11						
2001-PI-15	PERSHING	115	GRANT	115	1	11						
2001-PI-15	AMERICA	115	KALEY	115	1	11						
2001-PI-15	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-15	AZALEA	115	BENNETT	115	1	11						
2001-PI-15	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-15	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-15	PASADENA	230	PASADENA	115	1	2						
2001-PI-15	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-15	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-15	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-15	IND RIV	230	IND RIV	115	1	11						
2001-PI-15	LARGO	230	LARGO A	69	1	2						
2001-PI-15	SHELD	230	SHELD-NW	69	1	16						
2001-PI-15	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-15	WINDERME	230	WINDERME	69	1	2						
2001-PI-15	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-15	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-15	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-15	JASPER	115	JASPER	69	1	2						
2001-PI-16	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-16	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-16	IND RIV	230	STANTON	230	1	11						
2001-PI-16	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-16	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-16	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-16	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-16	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-16	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-16	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-16	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-16	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-16	SN PLANT	115	TURNER	115	1	1						
2001-PI-16	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-16	MICHIGAN	115	KALEY	115	1	11						
2001-PI-16	MICHIGAN	115	GRANT	115	1	11						
2001-PI-16	PERSHING	115	GRANT	115	1	11						
2001-PI-16	AMERICA	115	KALEY	115	1	11						
2001-PI-16	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-16	AZALEA	115	BENNETT	115	1	11						
2001-PI-16	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-16	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-16	PASADENA	230	PASADENA	115	1	2						
2001-PI-16	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-16	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-16	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-16	IND RIV	230	IND RIV	115	1	11						
2001-PI-16	LARGO	230	LARGO A	69	1	2						
2001-PI-16	SHELD	230	SHELD-NW	69	1	16						
2001-PI-16	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-16	WINDERME	230	WINDERME	69	1	2						
2001-PI-16	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-16	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-16	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-16	JASPER	115	JASPER	69	1	2						

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIB Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PID Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-17	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-17	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-17	IND RIV	230	STANTON	230	1	11						
2001-PI-17	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-17	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-17	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-17	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-17	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-17	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-17	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-17	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-17	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-17	SN PLANT	115	TURNER	115	1	1						
2001-PI-17	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-17	MICHIGAN	115	KALEY	115	1	11						
2001-PI-17	MICHIGAN	115	GRANT	115	1	11						
2001-PI-17	PERSHING	115	GRANT	115	1	11						
2001-PI-17	AMERICA	115	KALEY	115	1	11						
2001-PI-17	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-17	AZALEA	115	BENNETT	115	1	11						
2001-PI-17	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-17	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-17	PASADENA	230	PASADENA	115	1	2						
2001-PI-17	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-17	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-17	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-17	IND RIV	230	IND RIV	115	1	11						
2001-PI-17	LARGO	230	LARGO A	69	1	2						
2001-PI-17	SHELD	230	SHELD-NW	69	1	16						
2001-PI-17	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-17	WINDERME	230	WINDERME	69	1	2						
2001-PI-17	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-17	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-17	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-17	JASPER	115	JASPER	69	1	2						
2001-PI-18	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-18	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-18	IND RIV	230	STANTON	230	1	11						
2001-PI-18	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-18	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-18	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-18	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-18	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-18	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-18	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-18	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-18	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-18	SN PLANT	115	TURNER	115	1	1						
2001-PI-18	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-18	MICHIGAN	115	KALEY	115	1	11						
2001-PI-18	MICHIGAN	115	GRANT	115	1	11						
2001-PI-18	PERSHING	115	GRANT	115	1	11						
2001-PI-18	AMERICA	115	KALEY	115	1	11						
2001-PI-18	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-18	AZALEA	115	BENNETT	115	1	11						
2001-PI-18	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-18	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-18	PASADENA	230	PASADENA	115	1	2						
2001-PI-18	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-18	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-18	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-18	IND RIV	230	IND RIV	115	1	11						
2001-PI-18	LARGO	230	LARGO A	69	1	2						
2001-PI-18	SHELD	230	SHELD-NW	69	1	16						
2001-PI-18	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-18	WINDERME	230	WINDERME	69	1	2						
2001-PI-18	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-18	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-18	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-18	JASPER	115	JASPER	69	1	2						

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIB Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PID Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-19	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-19	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-19	IND RIV	230	STANTON	230	1	11						
2001-PI-19	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-19	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-19	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-19	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-19	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-19	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-19	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-19	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-19	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-19	SN PLANT	115	TURNER	115	1	1						
2001-PI-19	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-19	MICHIGAN	115	KALEY	115	1	11						
2001-PI-19	MICHIGAN	115	GRANT	115	1	11						
2001-PI-19	PERSHING	115	GRANT	115	1	11						
2001-PI-19	AMERICA	115	KALEY	115	1	11						
2001-PI-19	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-19	AZALEA	115	BENNETT	115	1	11						
2001-PI-19	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-19	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-19	PASADENA	230	PASADENA	115	1	2						
2001-PI-19	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-19	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-19	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-19	IND RIV	230	IND RIV	115	1	11						
2001-PI-19	LARGO	230	LARGO A	69	1	2						
2001-PI-19	SHELD	230	SHELD-NW	69	1	16						
2001-PI-19	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-19	WINDERME	230	WINDERME	69	1	2						
2001-PI-19	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-19	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-19	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-19	JASPER	115	JASPER	69	1	2						
2001-PI-20	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-20	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-20	IND RIV	230	STANTON	230	1	11						
2001-PI-20	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-20	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-20	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-20	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-20	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-20	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-20	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-20	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-20	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-20	SN PLANT	115	TURNER	115	1	1						
2001-PI-20	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-20	MICHIGAN	115	KALEY	115	1	11						
2001-PI-20	MICHIGAN	115	GRANT	115	1	11						
2001-PI-20	PERSHING	115	GRANT	115	1	11						
2001-PI-20	AMERICA	115	KALEY	115	1	11						
2001-PI-20	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-20	AZALEA	115	BENNETT	115	1	11						
2001-PI-20	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-20	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-20	PASADENA	230	PASADENA	115	1	2						
2001-PI-20	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-20	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-20	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-20	IND RIV	230	IND RIV	115	1	11						
2001-PI-20	LARGO	230	LARGO A	69	1	2						
2001-PI-20	SHELD	230	SHELD-NW	69	1	16						
2001-PI-20	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-20	WINDERME	230	WINDERME	69	1	2						
2001-PI-20	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-20	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-20	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-20	JASPER	115	JASPER	69	1	2						

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIE Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PIC Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-21	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-21	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-21	IND RIV	230	STANTON	230	1	11						
2001-PI-21	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-21	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-21	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-21	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-21	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-21	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-21	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-21	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-21	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-21	SN PLANT	115	TURNER	115	1	1						
2001-PI-21	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-21	MICHIGAN	115	KALEY	115	1	11						
2001-PI-21	MICHIGAN	115	GRANT	115	1	11						
2001-PI-21	PERSHING	115	GRANT	115	1	11						
2001-PI-21	AMERICA	115	KALEY	115	1	11						
2001-PI-21	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-21	AZALEA	115	BENNETT	115	1	11						
2001-PI-21	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-21	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-21	PASADENA	230	PASADENA	115	1	2						
2001-PI-21	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-21	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-21	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-21	IND RIV	230	IND RIV	115	1	11						
2001-PI-21	LARGO	230	LARGO A	69	1	2						
2001-PI-21	SHELD	230	SHELD-NW	69	1	16						
2001-PI-21	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-21	WINDERME	230	WINDERME	69	1	2						
2001-PI-21	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-21	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-21	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-21	JASPER	115	JASPER	69	1	2						
2001-PI-22	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-22	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-22	IND RIV	230	STANTON	230	1	11						
2001-PI-22	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-22	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-22	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-22	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-22	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-22	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-22	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-22	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-22	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-22	SN PLANT	115	TURNER	115	1	1						
2001-PI-22	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-22	MICHIGAN	115	KALEY	115	1	11						
2001-PI-22	MICHIGAN	115	GRANT	115	1	11						
2001-PI-22	PERSHING	115	GRANT	115	1	11						
2001-PI-22	AMERICA	115	KALEY	115	1	11						
2001-PI-22	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-22	AZALEA	115	BENNETT	115	1	11						
2001-PI-22	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-22	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-22	PASADENA	230	PASADENA	115	1	2						
2001-PI-22	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-22	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-22	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-22	IND RIV	230	IND RIV	115	1	11						
2001-PI-22	LARGO	230	LARGO A	69	1	2						
2001-PI-22	SHELD	230	SHELD-NW	69	1	16						
2001-PI-22	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-22	WINDERME	230	WINDERME	69	1	2						
2001-PI-22	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-22	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-22	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-22	JASPER	115	JASPER	69	1	2						

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIE Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PID Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-23	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-23	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-23	IND RIV	230	STANTON	230	1	11						
2001-PI-23	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-23	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-23	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-23	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-23	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-23	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-23	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-23	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-23	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-23	SN PLANT	115	TURNER	115	1	1						
2001-PI-23	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-23	MICHIGAN	115	KALEY	115	1	11						
2001-PI-23	MICHIGAN	115	GRANT	115	1	11						
2001-PI-23	PERSHING	115	GRANT	115	1	11						
2001-PI-23	AMERICA	115	KALEY	115	1	11						
2001-PI-23	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-23	AZALEA	115	BENNETT	115	1	11						
2001-PI-23	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-23	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-23	PASADENA	230	PASADENA	115	1	2						
2001-PI-23	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-23	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-23	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-23	IND RIV	230	IND RIV	115	1	11						
2001-PI-23	LARGO	230	LARGO A	69	1	2						
2001-PI-23	SHELD	230	SHELD-NW	69	1	16						
2001-PI-23	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-23	WINDERME	230	WINDERME	69	1	2						
2001-PI-23	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-23	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-23	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-23	JASPER	115	JASPER	69	1	2						
2001-PI-24	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-24	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-24	IND RIV	230	STANTON	230	1	11						
2001-PI-24	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-24	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-24	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-24	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-24	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-24	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-24	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-24	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-24	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-24	SN PLANT	115	TURNER	115	1	1						
2001-PI-24	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-24	MICHIGAN	115	KALEY	115	1	11						
2001-PI-24	MICHIGAN	115	GRANT	115	1	11						
2001-PI-24	PERSHING	115	GRANT	115	1	11						
2001-PI-24	AMERICA	115	KALEY	115	1	11						
2001-PI-24	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-24	AZALEA	115	BENNETT	115	1	11						
2001-PI-24	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-24	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-24	PASADENA	230	PASADENA	115	1	2						
2001-PI-24	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-24	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-24	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-24	IND RIV	230	IND RIV	115	1	11						
2001-PI-24	LARGO	230	LARGO A	69	1	2						
2001-PI-24	SHELD	230	SHELD-NW	69	1	16						
2001-PI-24	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-24	WINDERME	230	WINDERME	69	1	2						
2001-PI-24	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-24	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-24	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-24	JASPER	115	JASPER	69	1	2						

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIB Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PID Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-25	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-25	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-25	IND RIV	230	STANTON	230	1	11						
2001-PI-25	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-25	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-25	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-25	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-25	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-25	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-25	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-25	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-25	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-25	SN PLANT	115	TURNER	115	1	1						
2001-PI-25	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-25	MICHIGAN	115	KALEY	115	1	11						
2001-PI-25	MICHIGAN	115	GRANT	115	1	11						
2001-PI-25	PERSHING	115	GRANT	115	1	11						
2001-PI-25	AMERICA	115	KALEY	115	1	11						
2001-PI-25	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-25	AZALEA	115	BENNETT	115	1	11						
2001-PI-25	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-25	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-25	PASADENA	230	PASADENA	115	1	2						
2001-PI-25	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-25	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-25	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-25	IND RIV	230	IND RIV	115	1	11						
2001-PI-25	LARGO	230	LARGO A	69	1	2						
2001-PI-25	SHELD	230	SHELD-NW	69	1	16						
2001-PI-25	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-25	WINDERME	230	WINDERME	69	1	2						
2001-PI-25	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-25	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-25	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-25	JASPER	115	JASPER	69	1	2						
2001-PI-26	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-26	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-26	IND RIV	230	STANTON	230	1	11						
2001-PI-26	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-26	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-26	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-26	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-26	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-26	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-26	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-26	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-26	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-26	SN PLANT	115	TURNER	115	1	1						
2001-PI-26	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-26	MICHIGAN	115	KALEY	115	1	11						
2001-PI-26	MICHIGAN	115	GRANT	115	1	11						
2001-PI-26	PERSHING	115	GRANT	115	1	11						
2001-PI-26	AMERICA	115	KALEY	115	1	11						
2001-PI-26	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-26	AZALEA	115	BENNETT	115	1	11						
2001-PI-26	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-26	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-26	PASADENA	230	PASADENA	115	1	2						
2001-PI-26	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-26	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-26	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-26	IND RIV	230	IND RIV	115	1	11						
2001-PI-26	LARGO	230	LARGO A	69	1	2						
2001-PI-26	SHELD	230	SHELD-NW	69	1	16						
2001-PI-26	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-26	WINDERME	230	WINDERME	69	1	2						
2001-PI-26	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-26	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-26	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-26	JASPER	115	JASPER	69	1	2						

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
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100% Load Base Case

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Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIB Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PID Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-27	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-27	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-27	IND RIV	230	STANTON	230	1	11						
2001-PI-27	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-27	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-27	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-27	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-27	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-27	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-27	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-27	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-27	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-27	SN PLANT	115	TURNER	115	1	1						
2001-PI-27	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-27	MICHIGAN	115	KALEY	115	1	11						
2001-PI-27	MICHIGAN	115	GRANT	115	1	11						
2001-PI-27	PERSHING	115	GRANT	115	1	11						
2001-PI-27	AMERICA	115	KALEY	115	1	11						
2001-PI-27	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-27	AZALEA	115	BENNETT	115	1	11						
2001-PI-27	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-27	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-27	PASADENA	230	PASADENA	115	1	2						
2001-PI-27	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-27	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-27	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-27	IND RIV	230	IND RIV	115	1	11						
2001-PI-27	LARGO	230	LARGO A	69	1	2						
2001-PI-27	SHELD	230	SHELD-NW	69	1	16						
2001-PI-27	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-27	WINDERME	230	WINDERME	69	1	2						
2001-PI-27	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-27	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-27	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-27	JASPER	115	JASPER	69	1	2						
2001-PI-28	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-28	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-28	IND RIV	230	STANTON	230	1	11						
2001-PI-28	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-28	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-28	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-28	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-28	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-28	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-28	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-28	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-28	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-28	SN PLANT	115	TURNER	115	1	1						
2001-PI-28	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-28	MICHIGAN	115	KALEY	115	1	11						
2001-PI-28	MICHIGAN	115	GRANT	115	1	11						
2001-PI-28	PERSHING	115	GRANT	115	1	11						
2001-PI-28	AMERICA	115	KALEY	115	1	11						
2001-PI-28	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-28	AZALEA	115	BENNETT	115	1	11						
2001-PI-28	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-28	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-28	PASADENA	230	PASADENA	115	1	2						
2001-PI-28	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-28	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-28	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-28	IND RIV	230	IND RIV	115	1	11						
2001-PI-28	LARGO	230	LARGO A	69	1	2						
2001-PI-28	SHELD	230	SHELD-NW	69	1	16						
2001-PI-28	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-28	WINDERME	230	WINDERME	69	1	2						
2001-PI-28	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-28	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-28	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-28	JASPER	115	JASPER	69	1	2						

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIB Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PID Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-29	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-29	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-29	IND RIV	230	STANTON	230	1	11						
2001-PI-29	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-29	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-29	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-29	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-29	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-29	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-29	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-29	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-29	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-29	SN PLANT	115	TURNER	115	1	1						
2001-PI-29	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-29	MICHIGAN	115	KALEY	115	1	11						
2001-PI-29	MICHIGAN	115	GRANT	115	1	11						
2001-PI-29	PERSHING	115	GRANT	115	1	11						
2001-PI-29	AMERICA	115	KALEY	115	1	11						
2001-PI-29	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-29	AZALEA	115	BENNETT	115	1	11						
2001-PI-29	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-29	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-29	PASADENA	230	PASADENA	115	1	2						
2001-PI-29	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-29	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-29	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-29	IND RIV	230	IND RIV	115	1	11						
2001-PI-29	LARGO	230	LARGO A	69	1	2						
2001-PI-29	SHELD	230	SHELD-NW	69	1	16						
2001-PI-29	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-29	WINDERME	230	WINDERME	69	1	2						
2001-PI-29	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-29	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-29	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-29	JASPER	115	JASPER	69	1	2						
2001-PI-30	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-30	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-30	IND RIV	230	STANTON	230	1	11						
2001-PI-30	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-30	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-30	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-30	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-30	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-30	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-30	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-30	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-30	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-30	SN PLANT	115	TURNER	115	1	1						
2001-PI-30	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-30	MICHIGAN	115	KALEY	115	1	11						
2001-PI-30	MICHIGAN	115	GRANT	115	1	11						
2001-PI-30	PERSHING	115	GRANT	115	1	11						
2001-PI-30	AMERICA	115	KALEY	115	1	11						
2001-PI-30	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-30	AZALEA	115	BENNETT	115	1	11						
2001-PI-30	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-30	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-30	PASADENA	230	PASADENA	115	1	2						
2001-PI-30	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-30	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-30	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-30	IND RIV	230	IND RIV	115	1	11						
2001-PI-30	LARGO	230	LARGO A	69	1	2						
2001-PI-30	SHELD	230	SHELD-NW	69	1	16						
2001-PI-30	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-30	WINDERME	230	WINDERME	69	1	2						
2001-PI-30	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-30	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-30	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-30	JASPER	115	JASPER	69	1	2						

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIB Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PID Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-31	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-31	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-31	IND RIV	230	STANTON	230	1	11						
2001-PI-31	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-31	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-31	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-31	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-31	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-31	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-31	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-31	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-31	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-31	SN PLANT	115	TURNER	115	1	1						
2001-PI-31	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-31	MICHIGAN	115	KALEY	115	1	11						
2001-PI-31	MICHIGAN	115	GRANT	115	1	11						
2001-PI-31	PERSHING	115	GRANT	115	1	11						
2001-PI-31	AMERICA	115	KALEY	115	1	11						
2001-PI-31	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-31	AZALEA	115	BENNETT	115	1	11						
2001-PI-31	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-31	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-31	PASADENA	230	PASADENA	115	1	2						
2001-PI-31	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-31	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-31	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-31	IND RIV	230	IND RIV	115	1	11						
2001-PI-31	LARGO	230	LARGO A	69	1	2						
2001-PI-31	SHELD	230	SHELD-NW	69	1	16						
2001-PI-31	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-31	WINDERME	230	WINDERME	69	1	2						
2001-PI-31	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-31	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-31	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-31	JASPER	115	JASPER	69	1	2						
2001-PI-32	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-32	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-32	IND RIV	230	STANTON	230	1	11						
2001-PI-32	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-32	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-32	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-32	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-32	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-32	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-32	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-32	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-32	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-32	SN PLANT	115	TURNER	115	1	1						
2001-PI-32	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-32	MICHIGAN	115	KALEY	115	1	11						
2001-PI-32	MICHIGAN	115	GRANT	115	1	11						
2001-PI-32	PERSHING	115	GRANT	115	1	11						
2001-PI-32	AMERICA	115	KALEY	115	1	11						
2001-PI-32	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-32	AZALEA	115	BENNETT	115	1	11						
2001-PI-32	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-32	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-32	PASADENA	230	PASADENA	115	1	2						
2001-PI-32	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-32	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-32	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-32	IND RIV	230	IND RIV	115	1	11						
2001-PI-32	LARGO	230	LARGO A	69	1	2						
2001-PI-32	SHELD	230	SHELD-NW	69	1	16						
2001-PI-32	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-32	WINDERME	230	WINDERME	69	1	2						
2001-PI-32	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-32	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-32	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-32	JASPER	115	JASPER	69	1	2						

Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIB Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PID Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-33	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-33	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-33	IND RIV	230	STANTON	230	1	11						
2001-PI-33	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-33	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-33	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-33	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-33	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-33	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-33	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-33	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-33	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-33	SN PLANT	115	TURNER	115	1	1						
2001-PI-33	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-33	MICHIGAN	115	KALEY	115	1	11						
2001-PI-33	MICHIGAN	115	GRANT	115	1	11						
2001-PI-33	PERSHING	115	GRANT	115	1	11						
2001-PI-33	AMERICA	115	KALEY	115	1	11						
2001-PI-33	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-33	AZALEA	115	BENNETT	115	1	11						
2001-PI-33	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-33	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-33	PASADENA	230	PASADENA	115	1	2						
2001-PI-33	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-33	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-33	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-33	IND RIV	230	IND RIV	115	1	11						
2001-PI-33	LARGO	230	LARGO A	69	1	2						
2001-PI-33	SHELD	230	SHELD-NW	69	1	16						
2001-PI-33	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-33	WINDERME	230	WINDERME	69	1	2						
2001-PI-33	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-33	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-33	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-33	JASPER	115	JASPER	69	1	2						
2001-PI-34	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-34	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-34	IND RIV	230	STANTON	230	1	11						
2001-PI-34	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-34	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-34	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-34	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-34	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-34	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-34	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-34	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-34	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-34	SN PLANT	115	TURNER	115	1	1						
2001-PI-34	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-34	MICHIGAN	115	KALEY	115	1	11						
2001-PI-34	MICHIGAN	115	GRANT	115	1	11						
2001-PI-34	PERSHING	115	GRANT	115	1	11						
2001-PI-34	AMERICA	115	KALEY	115	1	11						
2001-PI-34	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-34	AZALEA	115	BENNETT	115	1	11						
2001-PI-34	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-34	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-34	PASADENA	230	PASADENA	115	1	2						
2001-PI-34	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-34	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-34	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-34	IND RIV	230	IND RIV	115	1	11						
2001-PI-34	LARGO	230	LARGO A	69	1	2						
2001-PI-34	SHELD	230	SHELD-NW	69	1	16						
2001-PI-34	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-34	WINDERME	230	WINDERME	69	1	2						
2001-PI-34	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-34	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-34	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-34	JASPER	115	JASPER	69	1	2						

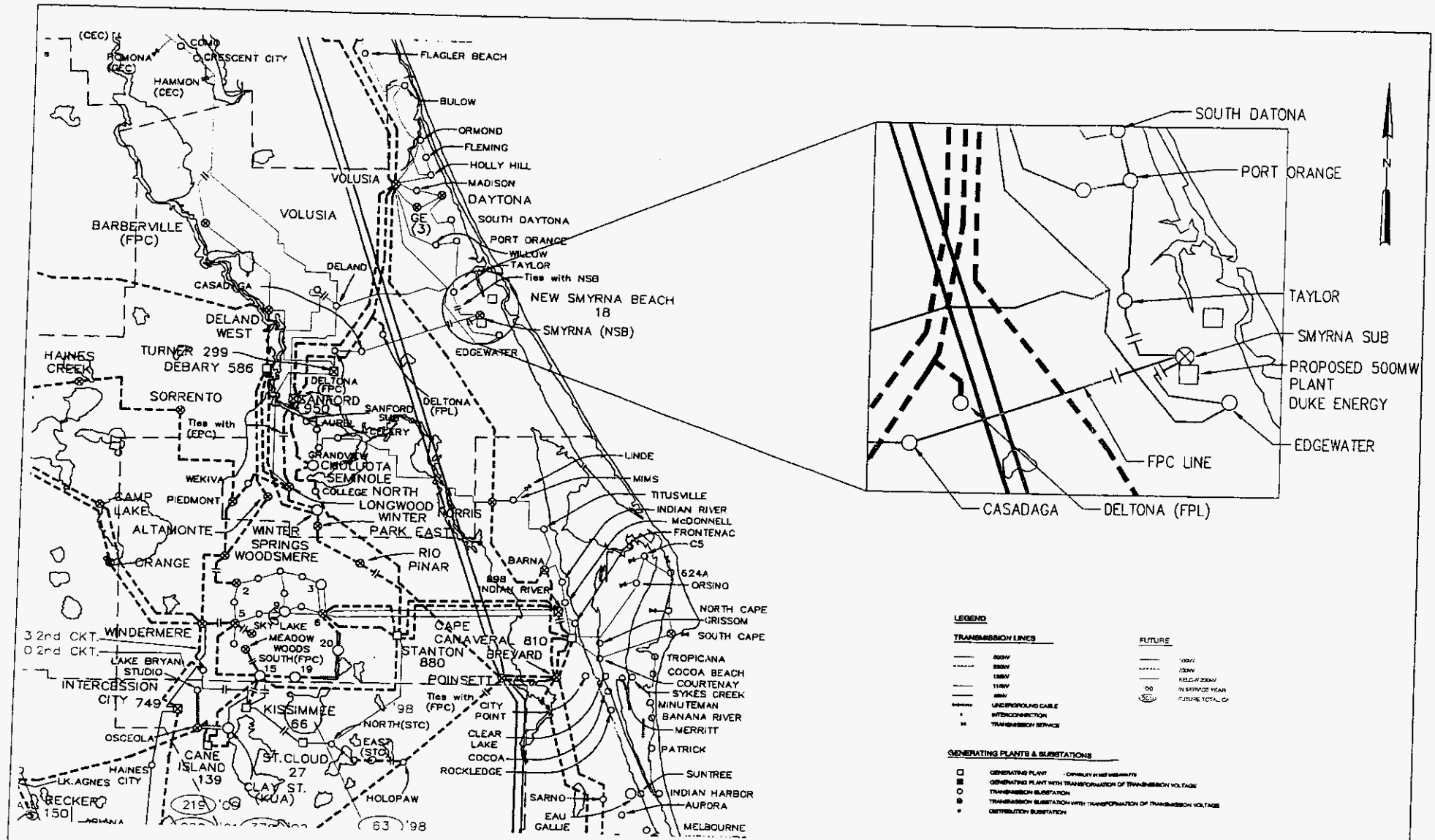
Table II

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-PI Base No NSB Gen	Case 2001-PIA Sell to FPL	Case 2001-PIB Sell to FPC	Case 2001-PIC Sell to TEC	Case 2001-PID Sell to JEA	Case 2001-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-PI-35	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-35	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-35	IND RIV	230	STANTON	230	1	11						
2001-PI-35	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-35	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-35	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-35	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-35	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-35	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-35	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-35	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-35	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-35	SN PLANT	115	TURNER	115	1	1						
2001-PI-35	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-35	MICHIGAN	115	KALEY	115	1	11						
2001-PI-35	MICHIGAN	115	GRANT	115	1	11						
2001-PI-35	PERSHING	115	GRANT	115	1	11						
2001-PI-35	AMERICA	115	KALEY	115	1	11						
2001-PI-35	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-35	AZALEA	115	BENNETT	115	1	11						
2001-PI-35	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-35	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-35	PASADENA	230	PASADENA	115	1	2						
2001-PI-35	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-35	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-35	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-35	IND RIV	230	IND RIV	115	1	11						
2001-PI-35	LARGO	230	LARGO A	69	1	2						
2001-PI-35	SHELD	230	SHELD-NW	69	1	16						
2001-PI-35	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-35	WINDERME	230	WINDERME	69	1	2						
2001-PI-35	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-35	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-35	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-35	JASPER	115	JASPER	69	1	2						
2001-PI-36	SN PLANT	230	SYLVAN	230	1	1						
2001-PI-36	SYLVAN	230	N LONGWD	230	1	1						
2001-PI-36	IND RIV	230	STANTON	230	1	11						
2001-PI-36	SILVR SP	230	SILV SPN	230	1	2						
2001-PI-36	SILVR SP	230	SILV SPN	230	2	2						
2001-PI-36	RIO PINR	230	CURRY FD	230	1	2						
2001-PI-36	JUNEAU-W	138	GANNON	138	1	16						
2001-PI-36	NSB-SMYR	115	CASSADAG	115	1	2						
2001-PI-36	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-PI-36	NSB-SMYR	115	TAYLOR	115	1	1						
2001-PI-36	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-PI-36	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-PI-36	SN PLANT	115	TURNER	115	1	1						
2001-PI-36	PASADENA	115	40ST-DUM	115	1	2						
2001-PI-36	MICHIGAN	115	KALEY	115	1	11						
2001-PI-36	MICHIGAN	115	GRANT	115	1	11						
2001-PI-36	PERSHING	115	GRANT	115	1	11						
2001-PI-36	AMERICA	115	KALEY	115	1	11						
2001-PI-36	JASPER	115	WGHTCHPL	115	1	2						
2001-PI-36	AZALEA	115	BENNETT	115	1	11						
2001-PI-36	FLORALTP	69	INVERNTP	69	1	2						
2001-PI-36	ALACH TP	69	HIGH SPG	69	1	2						
2001-PI-36	PASADENA	230	PASADENA	115	1	2						
2001-PI-36	SUWANNEE	230	SUWANNEE	115	1	2						
2001-PI-36	SUWANNEE	230	SUWANNEE	115	2	2						
2001-PI-36	E CLRWTR	230	E CLRWTR	115	1	2						
2001-PI-36	IND RIV	230	IND RIV	115	1	11						
2001-PI-36	LARGO	230	LARGO A	69	1	2						
2001-PI-36	SHELD	230	SHELD-NW	69	1	16						
2001-PI-36	CLMT EST	230	CLMT EST	69	1	2						
2001-PI-36	WINDERME	230	WINDERME	69	1	2						
2001-PI-36	RIVER-S	230	RIVER-S	69	1	16						
2001-PI-36	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-PI-36	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-PI-36	JASPER	115	JASPER	69	1	2						



DRAWN LARRY JAMES	FRANK ALONZO P.E.	RMI Resource Management International, Inc.	NONE	DUKE ENERGY POWER SERVICES	TRANSMISSION INTERCONNECTION 500 MW PLANT AT NEW SMYRNA BEACH
CHECKED —					DATE: MARCH 1998 SHEET — OF — DRAWING E-1

SECTION 2 RESULTS OF POWERFLOW STUDIES

As discussed in Section 1, twenty-four powerflow base cases (Summarized in Table 2-1) were developed in order to evaluate the effects of the proposed 500 MW plant on the performance of the Florida system. Each of the cases summarized in Table 2-1 were used as a starting point in evaluating system performance under normal conditions by comparing pre- and post-project powerflows over key lines in the proximity of the plant and over certain lines monitored in past FCG transmission assessment studies.

In addition, a number of single line or generator outages (N-1) were simulated on all of the base cases to assess performance under other than normal conditions. RMI also checked flows over twelve of the thirteen constrained transmission paths discussed in the FRCC 1997 Final Transmission System Constraint Maps. Table 2-2 is a list of the single outages simulated on each of the twenty-four base cases. Table 2-3 is tabulation of the FRCC constrained paths and the transmission circuits affected. Constrained paths #15 and #16 are the Stanton-Rio Pinar 230-kV line. Because the studies performed represent summer season peak load conditions and, therefore, power transfers from Georgia to Florida, Constraint #13 (which deals with flows from Florida to Georgia) was not checked. Appendix V is a summary of total constrained path flows in graph form, representing the pre- and post-project performance for the 24 bases cases.

The contingencies listed in Table 2-2 represent a broad array of outages throughout the Florida system designed to test any negative impact this new plant may have. Those outages are similar to those selected for FRCC transmission assessment studies. Some were not expected to be impacted by the new plant. Others could potentially be influenced by whether the output was scheduled to the different receiving parties. In all cases, the most pessimistic conditions were modeled.

The circuits monitored as shown in Table 2-4 represent transmission lines that showed a tendency to experience loading problems in an earlier 1989 FCG study of the "1999 Long-Range Bulk Transmission Study." Those overloaded lines were localized phenomenons which seem to have since been corrected as we will see later in the discussion.

TABLE 2-1
SUMMARY OF POWERFLOW BASE CASES EVALUATED

Year	Case	Georgia Imports (MW)	Duke Generation (MW)	Output Delivered to:
2001	2001.PI	3,600	- 0 -	N/A
	2001.PIa	3,600	500	Florida Power & Light
	2001.PIb	3,600	500	Florida Power Corporation
	2001.PIc	3,600	500	Tampa Electric Company
	2001.PId	3,600	500	Jacksonville Electric Authority
	2001.PIe	3,600	500	Seminole Electric Cooperative
2001	2001.	2,400	- 0 -	N/A
	2001.a	2,400	500	Florida Power & Light
	2001.b	2,400	500	Florida Power Corporation
	2001.c	2,400	500	Tampa Electric Company
	2001.d	2,400	500	Jacksonville Electric Authority
	2001.e	2,400	500	Seminole Electric Cooperative
2001	2001-60	2,400	- 0 -	N/A
	2001-60a	2,400	500	Florida Power & Light
	2001-60b	2,400	500	Florida Power Corporation
	2001-60c	2,400	500	Tampa Electric Company
	2001-60d	2,400	500	Jacksonville Electric Authority
	2001-60e	2,400	500	Seminole Electric Cooperative
2001	2001-40	1,500	- 0 -	N/A
	2001-40a	1,500	500	Florida Power & Light
	2001-40b	1,500	500	Florida Power Corporation
	2001-40c	1,500	500	Tampa Electric Company
	2001-40d	1,500	500	Jacksonville Electric Authority
	2001-40e	1,500	500	Seminole Electric Cooperative

TABLE 2-2
INDEX TO OUTAGE CONTINGENCIES

Outage #	Bus 1	kV	Bus 2	kV	CKT
1	NSB-SMYR	115	CASSADAG	115	1
2	NSB-SMYR	115	EDGEWATR	115	1
3	NSB-SMYR	115	TAYLOR	115	1
4	NSB-SMYR	115	NSB-ARP	115	1
5	NSB-SMYR	115	NSB-FELD	115	1
6	CAMP LK	230	CENT FLA	230	1
7	SUWANNEE	230	SUWANNEE	115	1
8	SHELD	230	SHELD-NW	69	1
9	SHELD	230	SHELD-SE	69	1
10	OHIO	138	TMPBAY T	138	1
11	AZALEA	115	BENNETT	115	1
12	PERSHING	115	MICHIGAN	115	1
13	DUVAL	500	POINSETT	500	1
14	SILVR SP	230	SILVSPN	230	1
15	DUVAL	500	HATCH	500	1
16	ARCHER	230	HAILE	230	1
17	FT WHT N	230	SUWANNEE	230	1
18	OHIO-N	230	ELEVEN W	230	1
19	WOODSMER	230	PINEHILL	230	1
20	SO WOOD	230	SO WOOD	115	1
21	IND RIV	230	STANTON	230	1
22	CURRY FD	230	STANTON	230	1
23	BRKRIDGE	500	CRYST RV	500	1
24	KATHLEEN	500	CENT FLA	500	1
25	SUWANNEE	230	STERLING	230	1
26	KATH-DUM	500	KATHLEEN	230	1
27	NLONGWD	230	WTR SPGS	230	1
28	SKY LAKE	230	SO WOOD	230	1
29	WINDERME	230	SO WOOD	230	1
30	SO GIB	230	B BEND	230	1
31	SANFORD4	24	390 MW Gen		1
32	TP.4	22	693 MW Gen		1
33	STLUCIE1	22	839 MW Gen		1
34	MANATEE1	22	819 MW Gen		1
35	CR RV G3	22	812 MW Gen		1

TABLE 2-3
LIST OF CONSTRAINED PATHS IN FLORIDA

Const. Number	Constrained Path Name	Transmission Lines Involved
5	Lake Tarpon - Sheldon	Three Lake Tarpon-Sheldon: 230-kV lines.
6	Central-South East	Poinsett-Martin & Poinsett-Midway: 500-kV Lines Malabar-Midway & Malabar-Emerson: 230-kV Lines Malabar-West: 138-kV Line
7	Central-South	Ruskin-Manatee: 230-kV Line Big Bend-Manatee: 230-kV Line Big Bend-Ruskin: 230-kV Line
8	Northwest-Central	2 Silver Spring North-Silver Springs: 230-kv Line
9	Brookridge-South	Brookridge-Lake Tarpon: 500-kV Line Brookridge-Brooksville West: 230-kV Line Brookridge-Hudson: 230-kV Line
10	Northeast-Central	Duval-Poinsett & Rice-Poinsett: 500-kV Lines Putnam-Volusia & Burnel-Volusia: 230-kV Lines
11	Sylvan-North Longwood	Sylvan-North Longwood: 230-kV Line
12	Georgia-Florida	Hatch-Duval & Thalman-Duval: 500-kV Line Pine Grove-Sunannee & Kingsland-Yulee: 230-kV Line South Bainbridge-Tallahassee (sub 20): 230-kV Line Callaway-Port St. Joe: 230-kV Line Pine Grove-Jasper, Tarver-Jasper: 115-kV Line Scholtz-Woodruff: 115-kV Line Twin Lake-Suwannee Pl: 115-kV Line
13	Florida-Georgia	Same as 12 (flows reversed)
14	Crystal River-South	Crystal River-Brookridge: 500-kV Line CR Plant-Brookridge: 230-kV Line CR Plant-Cryst RE: 230-kV Line
15	Cape Canaveral-Indian River	Cape Canaveral-Indian River: 230-kV Line
16	Indian River-Cape Canaveral	Indian River-Cape Canaveral: 230-kV Line
17	Stanton-Central Florida	Stanton-Rio Pinar: 230-kV Line

TABLE 2-4
MONITORED BRANCHES

Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area
2001-Pl-1	SN PLANT	230	SYLVAN	230	1	1
2001-Pl-1	SYLVAN	230	N LONGWD	230	1	1
2001-Pl-1	IND RIV	230	STANTON	230	1	11
2001-Pl-1	SILVR SP	230	SILV SPN	230	1	2
2001-Pl-1	SILVR SP	230	SILV SPN	230	2	2
2001-Pl-1	RIO PINR	230	CURRY FD	230	1	2
2001-Pl-1	JUNEAU-W	138	GANNON	138	1	16
2001-Pl-1	NSB-SMYR	115	CASSADAG	115	1	2
2001-Pl-1	NSB-SMYR	115	EDGEWATR	115	1	1
2001-Pl-1	NSB-SMYR	115	TAYLOR	115	1	1
2001-Pl-1	NSB-SMYR	115	NSB-ARP	115	1	10
2001-Pl-1	NSB-SMYR	115	NSB-FELD	115	1	10
2001-Pl-1	SN PLANT	115	TURNER	115	1	1
2001-Pl-1	PASADENA	115	40ST-DUM	115	1	2
2001-Pl-1	MICHIGAN	115	KALEY	115	1	11
2001-Pl-1	MICHIGAN	115	GRANT	115	1	11
2001-Pl-1	PERSHING	115	GRANT	115	1	11
2001-Pl-1	AMERICAN	115	KALEY	115	1	11
2001-Pl-1	JASPER	115	WGHTCHPL	115	1	2
2001-Pl-1	AZALEA	115	BENNETT	115	1	11
2001-Pl-1	FLORALTP	69	INVERNTP	69	1	2
2001-Pl-1	ALACH TP	69	HIGH SPG	69	1	2
2001-Pl-1	PASADENA	230	PASADENA	115	1	2
2001-Pl-1	SUWANNEE	230	SUWANNEE	115	1	2
2001-Pl-1	SUWANNEE	230	SUWANNEE	115	2	2
2001-Pl-1	E CLRWTR	230	E CLRWTR	115	1	2
2001-Pl-1	IND RIV	230	IND RIV	115	1	11
2001-Pl-1	LARGO	230	LARGO A	69	1	2
2001-Pl-1	SHELD	230	SHELD-NW	69	1	16
2001-Pl-1	CLMT EST	230	CLMT EST	69	1	2
2001-Pl-1	WINDERME	230	WINDERME	69	1	2
2001-Pl-1	RIVER-S	230	RIVER-S	69	1	16
2001-Pl-1	ELEVEN W	230	ELEVEN-E	69	1	16
2001-Pl-1	JUNEAU-E	138	JUNEAU-E	69	1	16
2001-Pl-1	JASPER	115	JASPER	69	1	2

2000 - PI CASES

The result of these cases, representing summer peak loading in Florida and peak import of 3600 MW from Georgia, are summarized in Appendix I, which presents information about the lines monitored, the specific outage, and the five dispatch scenarios: the plant output respectively delivered to FPL, FPC, TEC, JEA, and SEC.

The analysis reveals that for the simulated outage of one Smyrna to Cassadaga 115-kV circuit, the Smyrna to Taylor Section of the Smyrna to Volusia No. 1, 115-kV circuit, loads to 100% of its rating when the output of the plant is delivered to Seminole.

Similarly, for the simulated outage of the Smyrna to Edgewater section of the Smyrna to Volusia No. 2 115-kV circuit, the Smyrna to Taylor Section of the Smyrna to Volusia No. 1 115-kV circuit is loaded above 100% for all dispatch scenarios. The configuration between Volusia Substation and Smyrna Substation is described in Figure 2-1, which presents the various line sections, their impedance values, and their MVA ratings. The loading of the substations supplied by each circuit is shown in Table 2-5. From our analysis of the result of this simulation, it appears that the overload on the Smyrna to Taylor section can be remedied by upgrading the section rating to 254 MVA if desired. However, the probability of failure of the line section between Smyrna and Edgewater must be carefully evaluated before such action is contemplated.

Redispatching was not considered a viable option since most units in Florida were on line at peak load. The redispatch to allow the import from Georgia to reach 3,600 MW was achieved by decreasing FPL generation at Turkey Point by approximately 770 MW, and at Port Everglades by approximately 440 MW. All generating stations around the proposed 500 MW project, Putnam, Debary, Sanford, Cape Canaveral, Stanton, and Indian River were at or near maximum dispatch level. Only FPC Turner plant, next to Debary, seems to have available capacity. However, dispatching more generation at Turner Plant would only increase the loading of the Smyrna to Volusia 115-kV circuits. It appears that, if the concern is the loss of the Smyrna to Edgewater section of the Smyrna to Volusia 115-kV circuit No. 2 at time of system peak, the output of the plant may have to be curtailed from peak value. This is not expected to be a common occurrence.

The strength of the network north of the plant causes a greater portion of its output to flow over the circuits between Smyrna and Volusia Substations, and a smaller portion to be delivered over the Smyrna to Cassadaga 115-kV circuits. The distribution of flows over the various lines emanating from Smyrna Substation for the various dispatch scenarios are shown in Appendix I-A.

2001. CASES

The result of these cases representing summer peak loading in Florida and an import of 2,400 MW from Georgia are summarized in Appendix II, which presents information about the lines monitored, the specific outage, and the five dispatch scenarios: the plant output respectively delivered to FPL, FPC, TEC, JEA, and SEC.

The analysis reveals that for the simulated outage of one Smyrna to Cassadaga 115-kV circuit, the Smyrna to Taylor section of the Smyrna to Volusia No. 1 115-kV circuit, exceeded its rating when the plant output is delivered to TECO, JEA, or SEC.

For the simulated outage of the Smyrna to Edgewater section of the Smyrna to Volusia No. 2 115-kV circuit, the Smyrna to Taylor section of the Smyrna to Volusia No. 1, 115-kV circuit is loaded above 100% of its rating for all dispatch scenarios. That same line section operates at its maximum rating when the plant output is delivered to Seminole under other simulated outages.

Appendix II-A shows the distribution of flows over the various lines emanating from Smyrna Substation for the various dispatch scenarios.

2001-60 CASES

The result of these cases representing 60% of summer peak loading condition in Florida, and an import of 2,400 MW from Georgia are summarized in Appendix III, which present information about the lines monitored, the specific outage and the five dispatch scenarios: the plant ouput respectively delivered to FPL, FPC, TEC, JEA, and SEC.

Review of the distribution of line flows around the plant, Appendix III-A, reveals a more even distribution of plant output between the lines going to FPL and FPC. The Smyrna to Volusia circuits carry approximately 49% of plant output, while the Smyrna to Cassadaga circuits carry about 41% of plant output. The decreased loading of the Smyrna to Volusia circuit No. 1 makes it less prone to overload under simulated outages. The difference resides in the dispatch of generation around the proposed plant.

At peak load, cases 2001. and 2001-PI, all the generators in Central East Florida were on line at Sanford, Cape Canaveral, Debary, Turner, Indian River, and Stanton. Most units were at their peak rating. The result was a tendency of the proposed plant output to flow toward Volusia and the FPL 230-kV system. At 60% load level, with

less generation on line in the Central East Area, more of the plant output is going over the Smyrna to Cassadaga circuits and less over the Smyrna to Volusia circuits.

The analysis reveals that for all the scenarios and all contingencies, no monitored line reached its maximum rating. Since 60% load level is representative of average loading of the Florida system, it appears the proposed plant can be dispatched most of the time.

2001-40 CASES

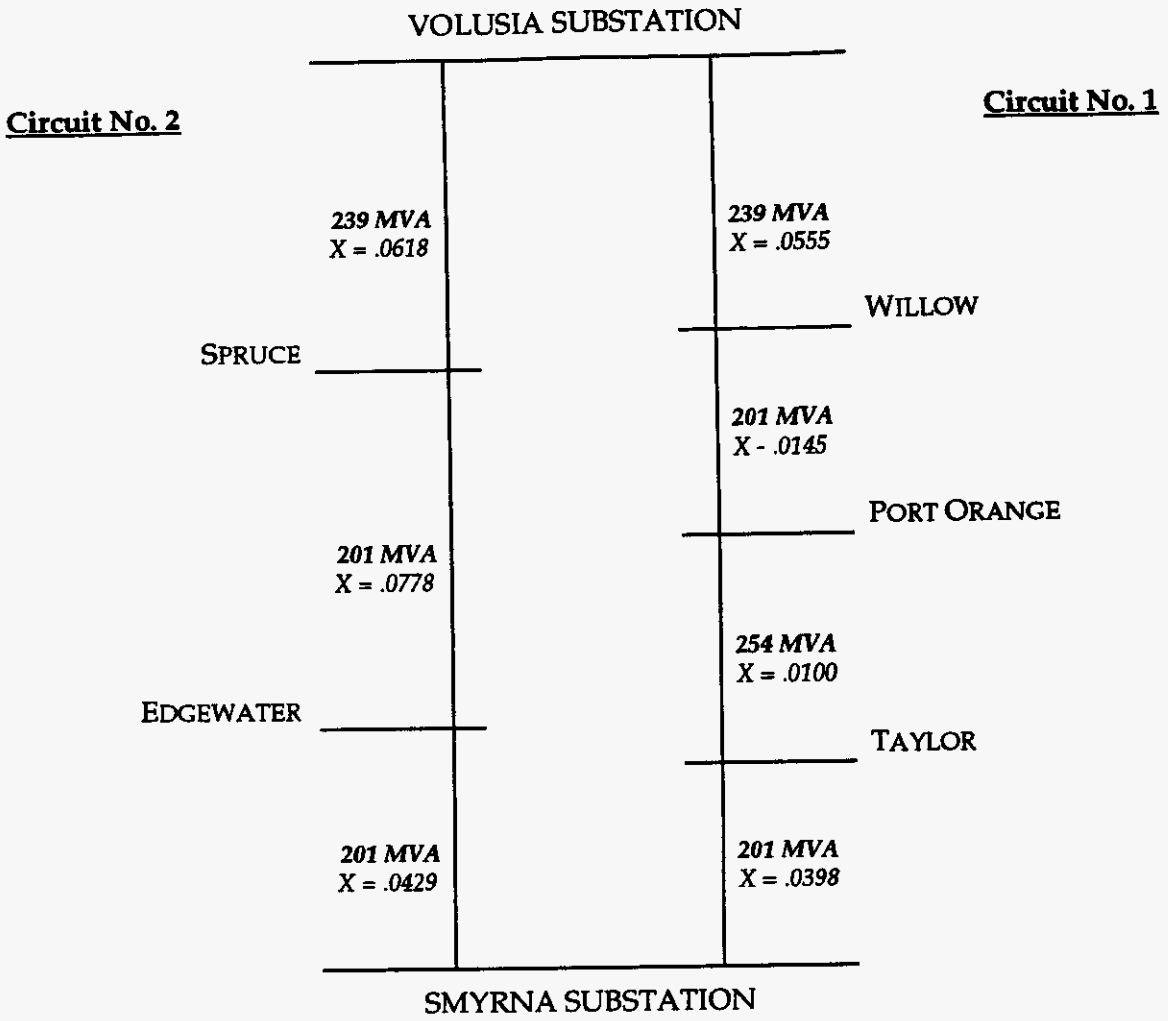
The result of these cases representing valley load conditions in Florida, 40% of summer peak load, and import of 1,500 MW shows that no simulated contingency causes any monitored line to exceed its rating. While the total plant output was dispatched in the five scenarios; realistically, less than maximum output would be needed. The Eastern interconnection is notorious for overgenerating in this season due to minimum loading requirements on the big coal units north of the Florida border. Scheduling 1,500 MW from Georgia may aggravate the project dispatch priority. Therefore, there is no expected transmission limitation at 40% load level to the full dispatch of the plant output. The results are summarized in Appendix IV. .

Appendix IV-A shows the distribution of flows over the various lines coming out of the proposed plant. The distribution of flows is more evenly divided between FPL (48.5%) and FPC (45.8%). This is due to the reduced level of generation around the proposed plant. The reduced loading of the Smyrna to Volusia No. 1 circuit makes it less susceptible to overload under specific outages as was the case in the peak load and peak import cases.

TABLE 2-5
SUBSTATION LOADS BY CIRCUIT

	Substation	P Load	Q Load
Circuit No. 1			
	Willow	46.70	16.40
	Port Orange	83.00	29.30
	Taylor	38.50	10.90
	Total	168.20	56.60
Circuit No. 2			
	Edgewater	45.50	15.70
	Spruce	24.10	8.10
	Total	69.60	23.80

FIGURE 2-1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Circuit No. 1
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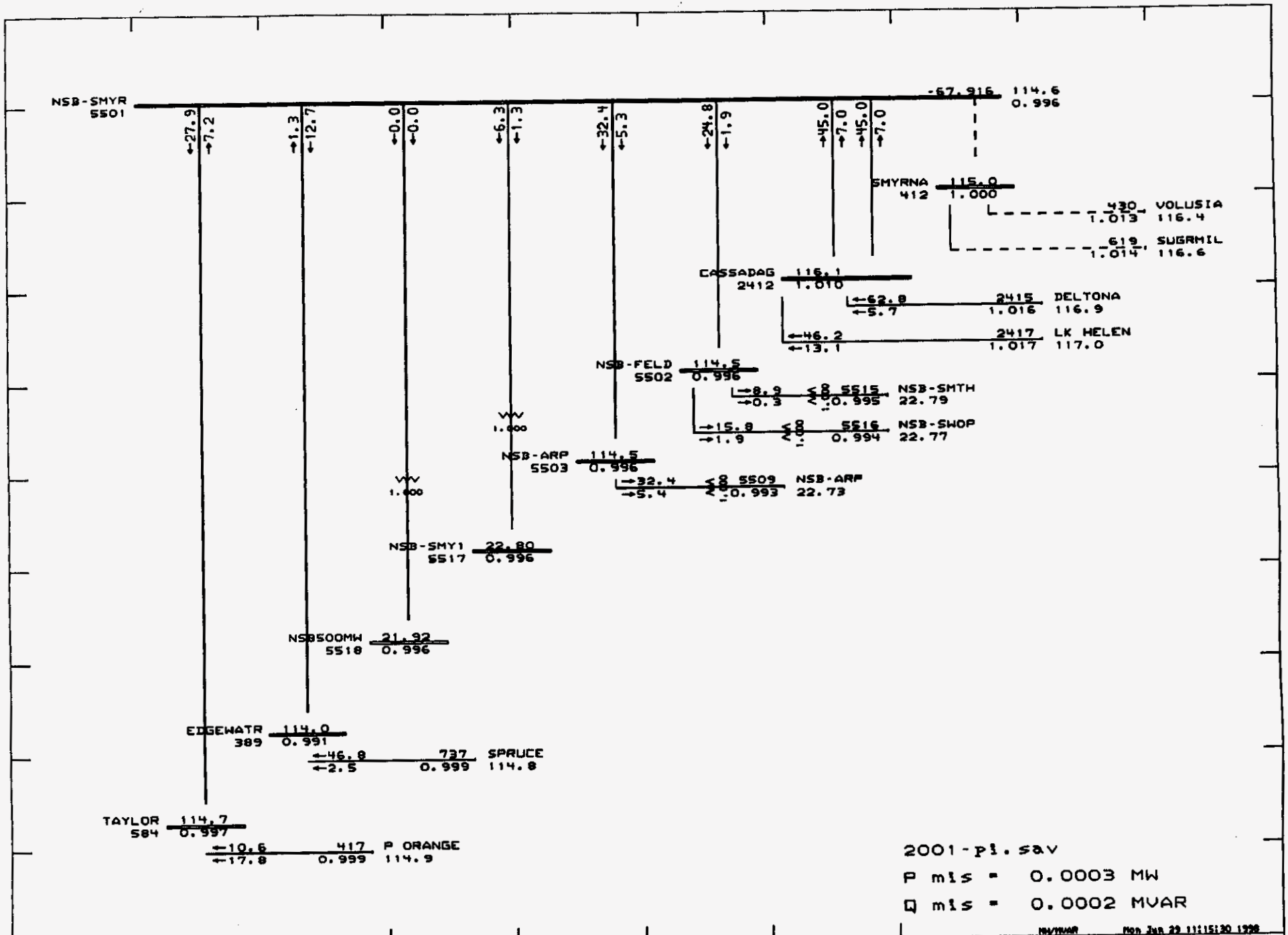
239 MVA
X = .0555
WILLOW
SPRUCE
201 MVA
X - .0145
PORT ORANGE
201 MVA
X = .0778
254 MVA
X = .0100
EDGEWATER
TAYLOR
201 MVA
X = .0429
201 MVA
X = .0398
SMYRNA SUBSTATION

APPENDIX I-A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CASSADAG 116.1
2412 1.010
2415 DELTONA
1.016 116.9
2417 LK HELEN
1.017 117.0
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5502 0.996
5515 NSB-SMTH
0.995 22.79
5516 NSB-SWDP
0.994 22.77
NSB-ARP 114.5
5503 0.996
5509 NSB-ARP
0.993 22.73
NSB-SMY1 22.80
5517 0.996
NSB500MW 21.92
5518 0.996
EDGEWATR 114.0
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737 SPRUCE
0.999 114.8
TAYLOR 114.7
584 0.997
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0.999 114.9
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Resource Management International, Inc.
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BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FPCC 10-YEAR PLAN AND ADD ESTIMATED RATINGS TO CERTAIN FP&L LINES
2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LAKE HELEN 115-KV
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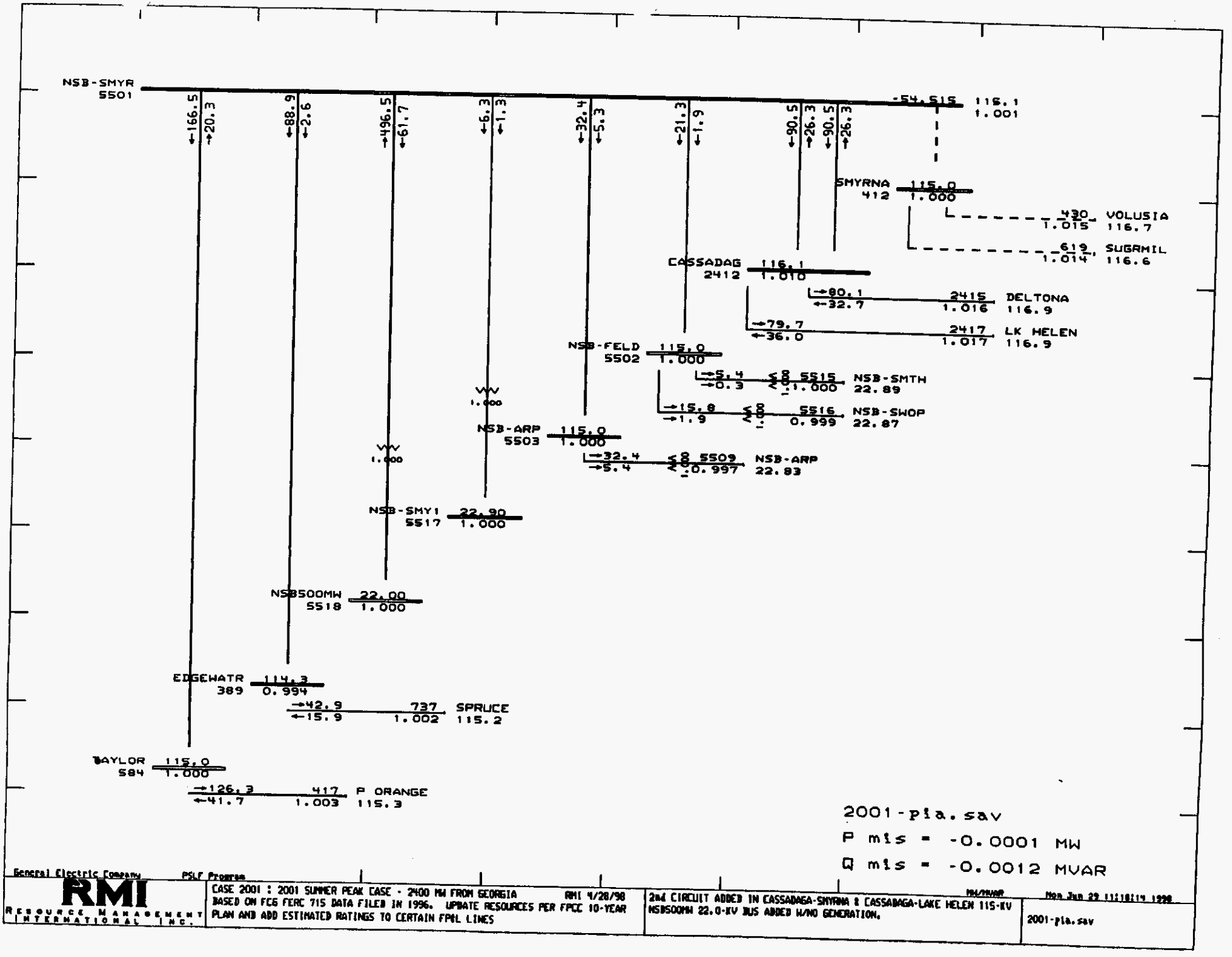

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Q mis = -0.0012 MVAR

General Electric Company PSLF Program

RMI Resource Management International, Inc.

CASE 2001 : 2001 SUMMER PEAK CASE - 2400 MW FROM GEORGIA RMI 4/28/98
BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FPCC 10-YEAR PLAN AND ADD ESTIMATED RATINGS TO CERTAIN FP&L LINES

2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSABAGA-LAKE HELEN 115-KV
NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.

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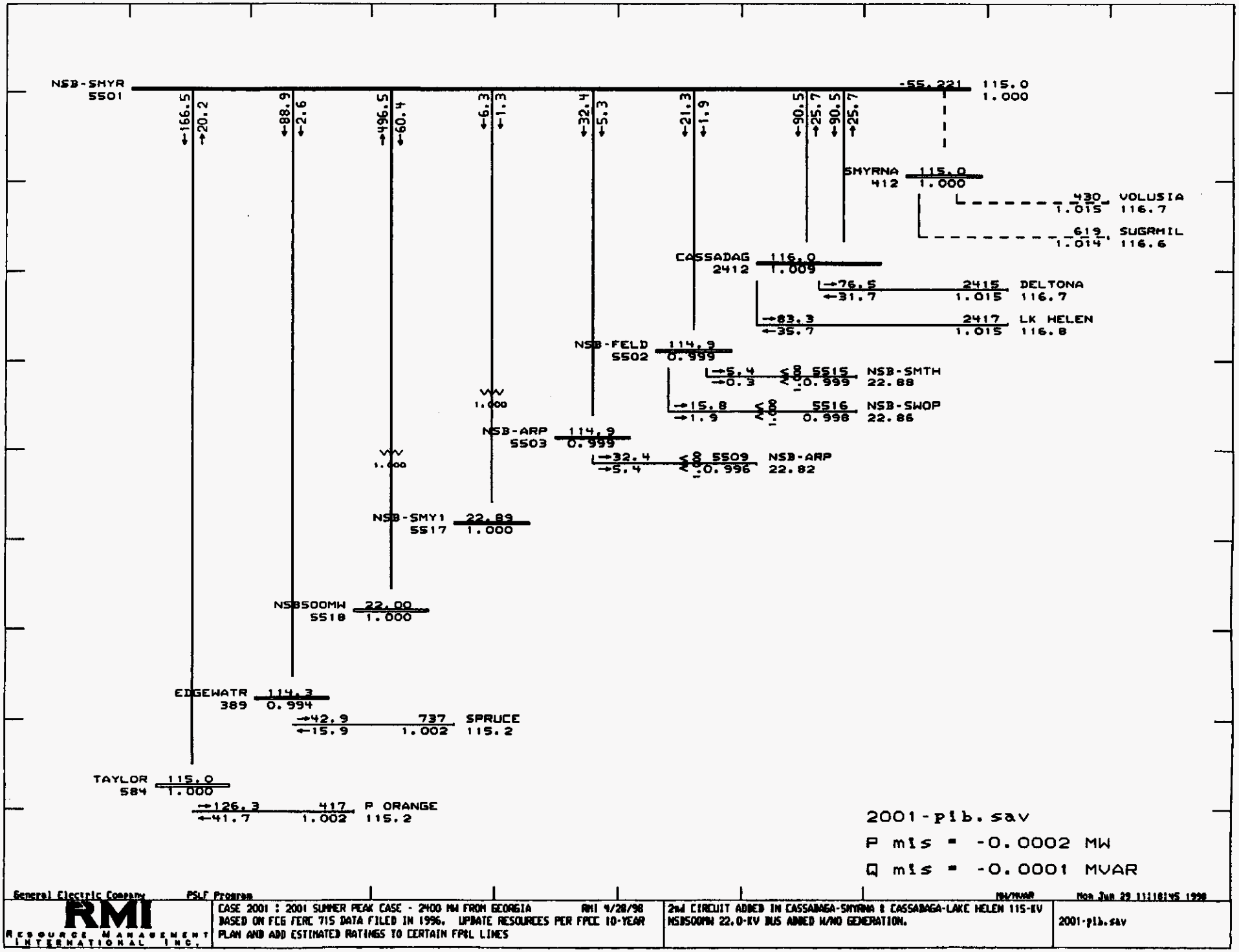
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←88.9
→2.6
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→5.3
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→1.9
←90.5
→25.7
←90.5
→25.7
SMYRNA 115.0
412 1.000
430 VOLUSIA
1.015 116.7
619 SUGRMIL
1.014 116.6
CASSADAG 116.0
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→76.5 2415 DELTONA
←31.7 1.015 116.7
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←35.7 1.015 116.8
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5502 0.999
→5.4 ≤θ 5515 NSB-SMTH
→0.3 |V| 0.999 22.88
1.000
→15.8 ≤θ 5516 NSB-SWOP
→1.9 |V| 0.998 22.86
NSB-ARP 114.9
5503 0.999
1.000
→32.4 ≤θ 5509 NSB-ARP
→5.4 |V| 0.996 22.82
NSB-SMY1 22.89
5517 1.000
NSB500MW 22.00
5518 1.000
EDGEWATR 114.3
389 0.994
→42.9 737 SPRUCE
←15.9 1.002 115.2
TAYLOR 115.0
584 1.000
→126.3 417 P ORANGE
←41.7 1.002 115.2
2001-pib.sav
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BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FPCC 10-YEAR
PLAN AND ADD ESTIMATED RATINGS TO CERTAIN FP&L LINES
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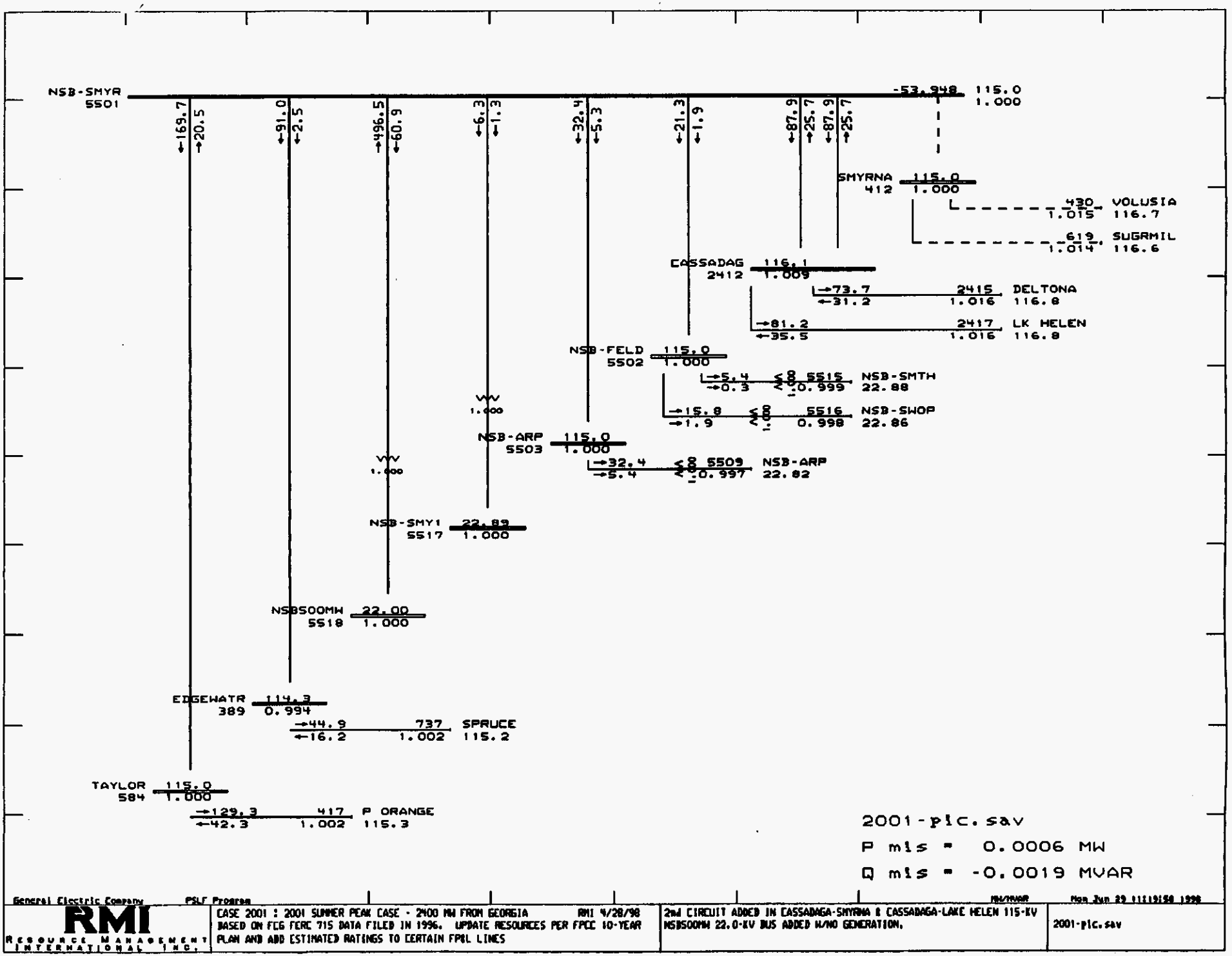
2001-pib.sav



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RMI Resource Management International, Inc.

CASE 2001 : 2001 SUMMER PEAK CASE - 2400 MW FROM GEORGIA RMI 4/28/98
BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FPCC 10-YEAR PLAN AND ADD ESTIMATED RATINGS TO CERTAIN FP&L LINES

2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LAKE HELEN 115-KV
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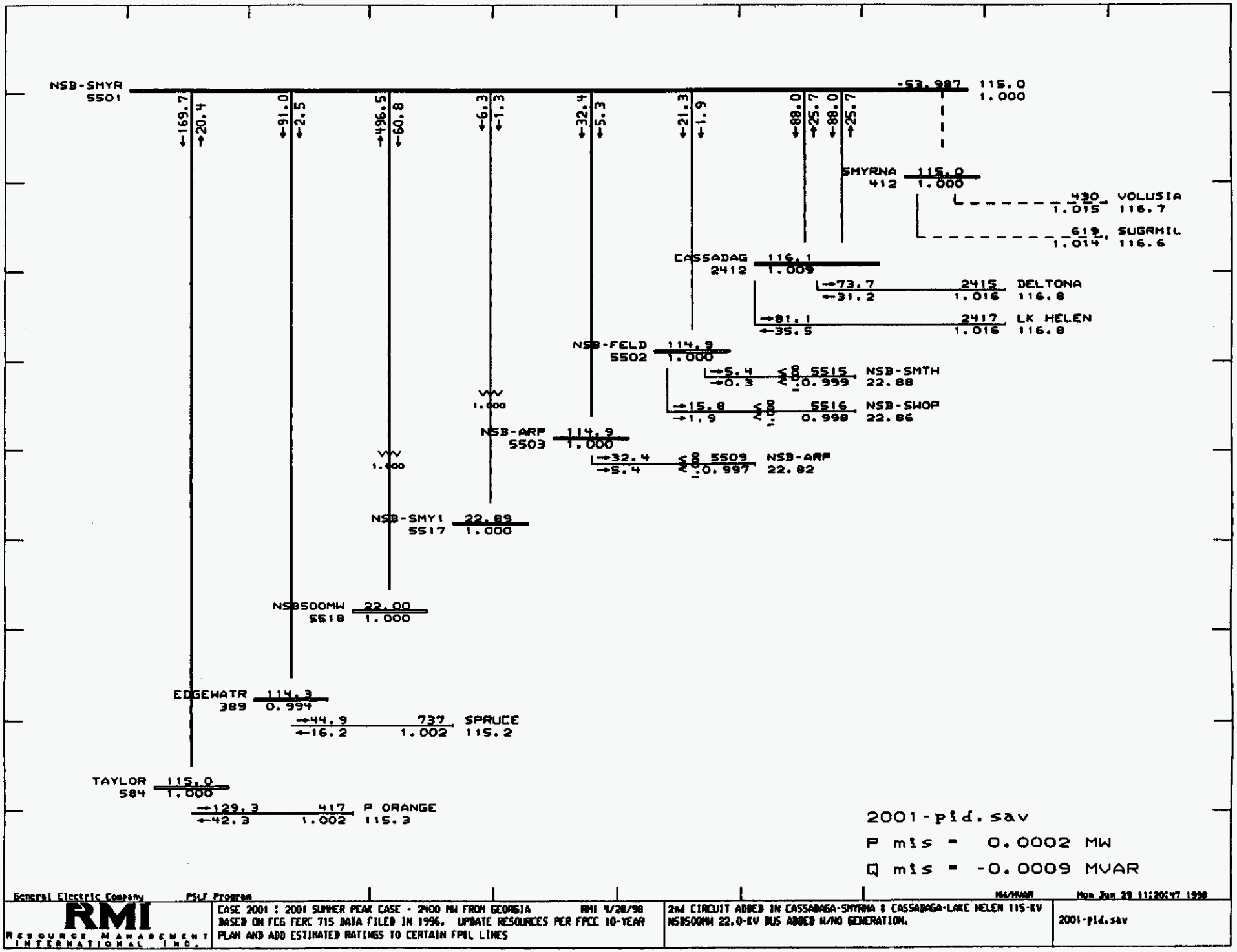
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←88.0
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SMYRNA 115.0
412 1.000
430 VOLUSIA
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619 SUGRMIL
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2412 1.009
→73.7 2415 DELTONA
←31.2 1.016 116.8
→81.1 2417 LK HELEN
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→1.9 0.998 22.86
1.000
NSB-ARP 114.9
5503 1.000
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→5.4 0.997 22.82
1.000
NSB-SMY1 22.89
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NSB500MW 22.00
5518 1.000
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CASE 2001 : 2001 SUMMER PEAK CASE - 2400 MW FROM GEORGIA RMI 4/28/98
BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FPCC 10-YEAR PLAN AND ADD ESTIMATED RATINGS TO CERTAIN FP&L LINES
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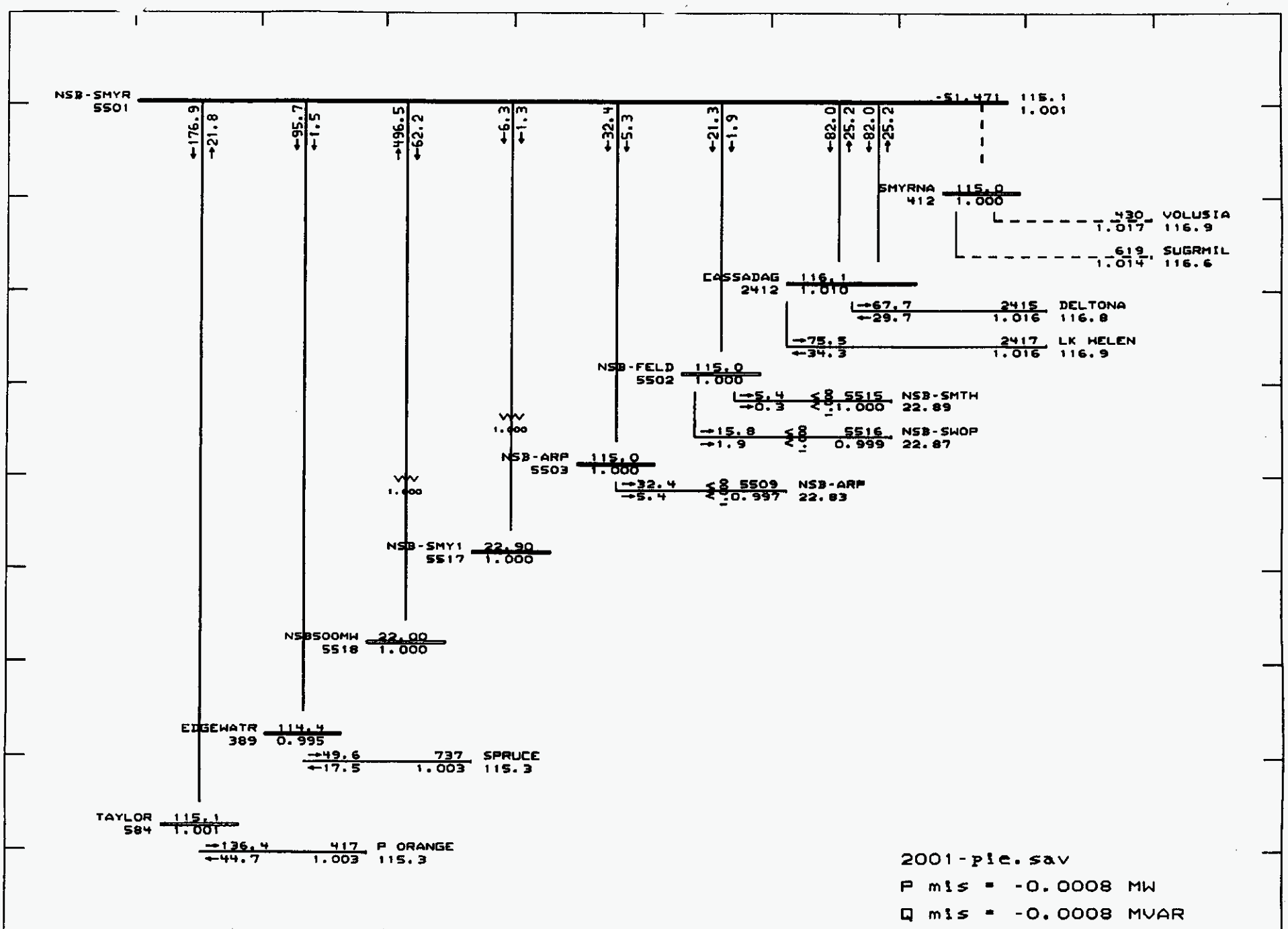
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SMYRNA 115.0
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1.014 116.6
CASSADAG 116.1
2412 1.010
2415 DELTONA
1.016 116.8
2417 LK HELEN
1.016 116.9
NSB-FELD 115.0
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NSB-SMTH
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NSB-ARP
22.83
NSB-SMY1 22.90
5517 1.000
NSB500MW 22.00
5518 1.000
EDGEWATR 114.4
389 0.995
737 SPRUCE
1.003 115.3
TAYLOR 115.1
584 1.001
417 P ORANGE
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2001-pie.sav
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General Electric Company
PSLF Program
MW/MVAR
Mon Jun 29 11:21:11 1998
RMI
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CASE 2001 : 2001 SUMMER PEAK CASE - 2400 MW FROM GEORGIA
BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FRCC 10-YEAR
PLAN AND ADD ESTIMATED RATINGS TO CERTAIN FP&L LINES
RMI 4/28/98
2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LAKE HELEN 115-KV
NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.
2001-pie.sav

APPENDIX II

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-1	SN PLANT	230	SYLVAN	230	1	1						
2001-1	SYLVAN	230	N LONGWD	230	1	1						
2001-1	IND RIV	230	STANTON	230	1	11						
2001-1	SILVR SP	230	SILV SPN	230	1	2						
2001-1	SILVR SP	230	SILV SPN	230	2	2						
2001-1	RIO PINR	230	CURRY FD	230	1	2						
2001-1	JUNEAU-W	138	GANNON	138	1	16						
2001-1	NSB-SMYR	115	CASSADAG	115	1	2						
2001-1	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-1	NSB-SMYR	115	TAYLOR	115	1	1					100.8	
2001-1	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-1	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-1	SN PLANT	115	TURNER	115	1	1						
2001-1	PASADENA	115	40ST-DUM	115	1	2						
2001-1	MICHIGAN	115	KALEY	115	1	11						
2001-1	MICHIGAN	115	GRANT	115	1	11						
2001-1	PERSHING	115	GRANT	115	1	11						
2001-1	AMERICA	115	KALEY	115	1	11						
2001-1	JASPER	115	WGHTCHPL	115	1	2						
2001-1	AZALEA	115	BENNETT	115	1	11						
2001-1	FLORALTP	69	INVERNTP	69	1	2						
2001-1	ALACH TP	69	HIGH SPG	69	1	2						
2001-1	PASADENA	230	PASADENA	115	1	2						
2001-1	SUWANNEE	230	SUWANNEE	115	1	2						
2001-1	SUWANNEE	230	SUWANNEE	115	2	2						
2001-1	E CLRWTR	230	E CLRWTR	115	1	2						
2001-1	IND RIV	230	IND RIV	115	1	11						
2001-1	LARGO	230	LARGO A	69	1	2						
2001-1	SHELD	230	SHELD-NW	69	1	16						
2001-1	CLMT EST	230	CLMT EST	69	1	2						
2001-1	WINDERME	230	WINDERME	69	1	2						
2001-1	RIVER-S	230	RIVER-S	69	1	16						
2001-1	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-1	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-1	JASPER	115	JASPER	69	1	2						
2001-2	SN PLANT	230	SYLVAN	230	1	1						
2001-2	SYLVAN	230	N LONGWD	230	1	1						
2001-2	IND RIV	230	STANTON	230	1	11						
2001-2	SILVR SP	230	SILV SPN	230	1	2						
2001-2	SILVR SP	230	SILV SPN	230	2	2						
2001-2	RIO PINR	230	CURRY FD	230	1	2						
2001-2	JUNEAU-W	138	GANNON	138	1	16						
2001-2	NSB-SMYR	115	CASSADAG	115	1	2						
2001-2	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-2	NSB-SMYR	115	TAYLOR	115	1	1		108.1	108.1	110.1	114.6	111.9
2001-2	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-2	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-2	SN PLANT	115	TURNER	115	1	1						
2001-2	PASADENA	115	40ST-DUM	115	1	2						
2001-2	MICHIGAN	115	KALEY	115	1	11						
2001-2	MICHIGAN	115	GRANT	115	1	11						
2001-2	PERSHING	115	GRANT	115	1	11						
2001-2	AMERICA	115	KALEY	115	1	11						
2001-2	JASPER	115	WGHTCHPL	115	1	2						
2001-2	AZALEA	115	BENNETT	115	1	11						
2001-2	FLORALTP	69	INVERNTP	69	1	2						
2001-2	ALACH TP	69	HIGH SPG	69	1	2						
2001-2	PASADENA	230	PASADENA	115	1	2						
2001-2	SUWANNEE	230	SUWANNEE	115	1	2						
2001-2	SUWANNEE	230	SUWANNEE	115	2	2						
2001-2	E CLRWTR	230	E CLRWTR	115	1	2						
2001-2	IND RIV	230	IND RIV	115	1	11						
2001-2	LARGO	230	LARGO A	69	1	2						
2001-2	SHELD	230	SHELD-NW	69	1	16						
2001-2	CLMT EST	230	CLMT EST	69	1	2						
2001-2	WINDERME	230	WINDERME	69	1	2						
2001-2	RIVER-S	230	RIVER-S	69	1	16						
2001-2	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-2	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-2	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-3	SN PLANT	230	SYLVAN	230	1	1						
2001-3	SYLVAN	230	N LONGWD	230	1	1						
2001-3	IND RIV	230	STANTON	230	1	11						
2001-3	SILVR SP	230	SILV SPN	230	1	2						
2001-3	SILVR SP	230	SILV SPN	230	2	2						
2001-3	RIO PINR	230	CURRY FD	230	1	2						
2001-3	JUNEAU-W	138	GANNON	138	1	16						
2001-3	NSB-SMYR	115	CASSADAG	115	1	2						
2001-3	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-3	NSB-SMYR	115	TAYLOR	115	1	1						
2001-3	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-3	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-3	SN PLANT	115	TURNER	115	1	1						
2001-3	PASADENA	115	40ST-DUM	115	1	2						
2001-3	MICHIGAN	115	KALEY	115	1	11						
2001-3	MICHIGAN	115	GRANT	115	1	11						
2001-3	PERSHING	115	GRANT	115	1	11						
2001-3	AMERICA	115	KALEY	115	1	11						
2001-3	JASPER	115	WGHTCHPL	115	1	2						
2001-3	AZALEA	115	BENNETT	115	1	11						
2001-3	FLORALTP	69	INVERNTP	69	1	2						
2001-3	ALACH TP	69	HIGH SPG	69	1	2						
2001-3	PASADENA	230	PASADENA	115	1	2						
2001-3	SUWANNEE	230	SUWANNEE	115	1	2						
2001-3	SUWANNEE	230	SUWANNEE	115	2	2						
2001-3	E CLRWTR	230	E CLRWTR	115	1	2						
2001-3	IND RIV	230	IND RIV	115	1	11						
2001-3	LARGO	230	LARGO A	69	1	2						
2001-3	SHELD	230	SHELD-NW	69	1	16						
2001-3	CLMT EST	230	CLMT EST	69	1	2						
2001-3	WINDERME	230	WINDERME	69	1	2						
2001-3	RIVER-S	230	RIVER-S	69	1	16						
2001-3	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-3	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-3	JASPER	115	JASPER	69	1	2						
2001-4	SN PLANT	230	SYLVAN	230	1	1						
2001-4	SYLVAN	230	N LONGWD	230	1	1						
2001-4	IND RIV	230	STANTON	230	1	11						
2001-4	SILVR SP	230	SILV SPN	230	1	2						
2001-4	SILVR SP	230	SILV SPN	230	2	2						
2001-4	RIO PINR	230	CURRY FD	230	1	2						
2001-4	JUNEAU-W	138	GANNON	138	1	16						
2001-4	NSB-SMYR	115	CASSADAG	115	1	2						
2001-4	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-4	NSB-SMYR	115	TAYLOR	115	1	1						
2001-4	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-4	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-4	SN PLANT	115	TURNER	115	1	1						
2001-4	PASADENA	115	40ST-DUM	115	1	2						
2001-4	MICHIGAN	115	KALEY	115	1	11						
2001-4	MICHIGAN	115	GRANT	115	1	11						
2001-4	PERSHING	115	GRANT	115	1	11						
2001-4	AMERICA	115	KALEY	115	1	11						
2001-4	JASPER	115	WGHTCHPL	115	1	2						
2001-4	AZALEA	115	BENNETT	115	1	11						
2001-4	FLORALTP	69	INVERNTP	69	1	2						
2001-4	ALACH TP	69	HIGH SPG	69	1	2						
2001-4	PASADENA	230	PASADENA	115	1	2						
2001-4	SUWANNEE	230	SUWANNEE	115	1	2						
2001-4	SUWANNEE	230	SUWANNEE	115	2	2						
2001-4	E CLRWTR	230	E CLRWTR	115	1	2						
2001-4	IND RIV	230	IND RIV	115	1	11						
2001-4	LARGO	230	LARGO A	69	1	2						
2001-4	SHELD	230	SHELD-NW	69	1	16						
2001-4	CLMT EST	230	CLMT EST	69	1	2						
2001-4	WINDERME	230	WINDERME	69	1	2						
2001-4	RIVER-S	230	RIVER-S	69	1	16						
2001-4	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-4	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-4	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-5	SN PLANT	230	SYLVAN	230	1	1						
2001-5	SYLVAN	230	N LONGWD	230	1	1						
2001-5	IND RIV	230	STANTON	230	1	11						
2001-5	SILVR SP	230	SILV SPN	230	1	2						
2001-5	SILVR SP	230	SILV SPN	230	2	2						
2001-5	RIO PINR	230	CURRY FD	230	1	2						
2001-5	JUNEAU-W	138	GANNON	138	1	16						
2001-5	NSB-SMYR	115	CASSADAG	115	1	2						
2001-5	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-5	NSB-SMYR	115	TAYLOR	115	1	1						
2001-5	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-5	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-5	SN PLANT	115	TURNER	115	1	1						
2001-5	PASADENA	115	40ST-DUM	115	1	2						
2001-5	MICHIGAN	115	KALEY	115	1	11						
2001-5	MICHIGAN	115	GRANT	115	1	11						
2001-5	PERSHING	115	GRANT	115	1	11						
2001-5	AMERICA	115	KALEY	115	1	11						
2001-5	JASPER	115	WGHTCHPL	115	1	2						
2001-5	AZALEA	115	BENNETT	115	1	11						
2001-5	FLORALTP	69	INVERNTP	69	1	2						
2001-5	ALACH TP	69	HIGH SPG	69	1	2						
2001-5	PASADENA	230	PASADENA	115	1	2						
2001-5	SUWANNEE	230	SUWANNEE	115	1	2						
2001-5	SUWANNEE	230	SUWANNEE	115	2	2						
2001-5	E CLRWTR	230	E CLRWTR	115	1	2						
2001-5	IND RIV	230	IND RIV	115	1	11						
2001-5	LARGO	230	LARGO A	69	1	2						
2001-5	SHELD	230	SHELD-NW	69	1	16						
2001-5	CLMT EST	230	CLMT EST	69	1	2						
2001-5	WINDERME	230	WINDERME	69	1	2						
2001-5	RIVER-S	230	RIVER-S	69	1	16						
2001-5	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-5	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-5	JASPER	115	JASPER	69	1	2						
2001-6	SN PLANT	230	SYLVAN	230	1	1						
2001-6	SYLVAN	230	N LONGWD	230	1	1						
2001-6	IND RIV	230	STANTON	230	1	11						
2001-6	SILVR SP	230	SILV SPN	230	1	2						
2001-6	SILVR SP	230	SILV SPN	230	2	2						
2001-6	RIO PINR	230	CURRY FD	230	1	2						
2001-6	JUNEAU-W	138	GANNON	138	1	16						
2001-6	NSB-SMYR	115	CASSADAG	115	1	2						
2001-6	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-6	NSB-SMYR	115	TAYLOR	115	1	1						
2001-6	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-6	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-6	SN PLANT	115	TURNER	115	1	1						
2001-6	PASADENA	115	40ST-DUM	115	1	2						
2001-6	MICHIGAN	115	KALEY	115	1	11						
2001-6	MICHIGAN	115	GRANT	115	1	11						
2001-6	PERSHING	115	GRANT	115	1	11						
2001-6	AMERICA	115	KALEY	115	1	11						
2001-6	JASPER	115	WGHTCHPL	115	1	2						
2001-6	AZALEA	115	BENNETT	115	1	11						
2001-6	FLORALTP	69	INVERNTP	69	1	2						
2001-6	ALACH TP	69	HIGH SPG	69	1	2						
2001-6	PASADENA	230	PASADENA	115	1	2						
2001-6	SUWANNEE	230	SUWANNEE	115	1	2						
2001-6	SUWANNEE	230	SUWANNEE	115	2	2						
2001-6	E CLRWTR	230	E CLRWTR	115	1	2						
2001-6	IND RIV	230	IND RIV	115	1	11						
2001-6	LARGO	230	LARGO A	69	1	2						
2001-6	SHELD	230	SHELD-NW	69	1	16						
2001-6	CLMT EST	230	CLMT EST	69	1	2						
2001-6	WINDERME	230	WINDERME	69	1	2						
2001-6	RIVER-S	230	RIVER-S	69	1	16						
2001-6	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-6	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-6	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-7	SN PLANT	230	SYLVAN	230	1	1						
2001-7	SYLVAN	230	N LONGWD	230	1	1						
2001-7	IND RIV	230	STANTON	230	1	11						
2001-7	SILVR SP	230	SILV SPN	230	1	2						
2001-7	SILVR SP	230	SILV SPN	230	2	2						
2001-7	RIO PINR	230	CURRY FD	230	1	2						
2001-7	JUNEAU-W	138	GANNON	138	1	16						
2001-7	NSB-SMYR	115	CASSADAG	115	1	2						
2001-7	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-7	NSB-SMYR	115	TAYLOR	115	1	1						
2001-7	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-7	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-7	SN PLANT	115	TURNER	115	1	1						
2001-7	PASADENA	115	40ST-DUM	115	1	2						
2001-7	MICHIGAN	115	KALEY	115	1	11						
2001-7	MICHIGAN	115	GRANT	115	1	11						
2001-7	PERSHING	115	GRANT	115	1	11						
2001-7	AMERICA	115	KALEY	115	1	11						
2001-7	JASPER	115	WGHTCHPL	115	1	2						
2001-7	AZALEA	115	BENNETT	115	1	11						
2001-7	FLORALTP	69	INVERNTP	69	1	2						
2001-7	ALACH TP	69	HIGH SPG	69	1	2						
2001-7	PASADENA	230	PASADENA	115	1	2						
2001-7	SUWANNEE	230	SUWANNEE	115	1	2						
2001-7	SUWANNEE	230	SUWANNEE	115	2	2						
2001-7	E CLRWTR	230	E CLRWTR	115	1	2						
2001-7	IND RIV	230	IND RIV	115	1	11						
2001-7	LARGO	230	LARGO A	69	1	2						
2001-7	SHELD	230	SHELD-NW	69	1	16						
2001-7	CLMT EST	230	CLMT EST	69	1	2						
2001-7	WINDERME	230	WINDERME	69	1	2						
2001-7	RIVER-S	230	RIVER-S	69	1	16						
2001-7	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-7	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-7	JASPER	115	JASPER	69	1	2						
2001-8	SN PLANT	230	SYLVAN	230	1	1						
2001-8	SYLVAN	230	N LONGWD	230	1	1						
2001-8	IND RIV	230	STANTON	230	1	11						
2001-8	SILVR SP	230	SILV SPN	230	1	2						
2001-8	SILVR SP	230	SILV SPN	230	2	2						
2001-8	RIO PINR	230	CURRY FD	230	1	2						
2001-8	JUNEAU-W	138	GANNON	138	1	16						
2001-8	NSB-SMYR	115	CASSADAG	115	1	2						
2001-8	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-8	NSB-SMYR	115	TAYLOR	115	1	1						
2001-8	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-8	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-8	SN PLANT	115	TURNER	115	1	1						
2001-8	PASADENA	115	40ST-DUM	115	1	2						
2001-8	MICHIGAN	115	KALEY	115	1	11						
2001-8	MICHIGAN	115	GRANT	115	1	11						
2001-8	PERSHING	115	GRANT	115	1	11						
2001-8	AMERICA	115	KALEY	115	1	11						
2001-8	JASPER	115	WGHTCHPL	115	1	2						
2001-8	AZALEA	115	BENNETT	115	1	11						
2001-8	FLORALTP	69	INVERNTP	69	1	2						
2001-8	ALACH TP	69	HIGH SPG	69	1	2						
2001-8	PASADENA	230	PASADENA	115	1	2						
2001-8	SUWANNEE	230	SUWANNEE	115	1	2						
2001-8	SUWANNEE	230	SUWANNEE	115	2	2						
2001-8	E CLRWTR	230	E CLRWTR	115	1	2						
2001-8	IND RIV	230	IND RIV	115	1	11						
2001-8	LARGO	230	LARGO A	69	1	2						
2001-8	SHELD	230	SHELD-NW	69	1	16						
2001-8	CLMT EST	230	CLMT EST	69	1	2						
2001-8	WINDERME	230	WINDERME	69	1	2						
2001-8	RIVER-S	230	RIVER-S	69	1	16						
2001-8	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-8	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-8	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-9	SN PLANT	230	SYLVAN	230	1	1						
2001-9	SYLVAN	230	N LONGWD	230	1	1						
2001-9	IND RIV	230	STANTON	230	1	11						
2001-9	SILVR SP	230	SILV SPN	230	1	2						
2001-9	SILVR SP	230	SILV SPN	230	2	2						
2001-9	RIO PINR	230	CURRY FD	230	1	2						
2001-9	JUNEAU-W	138	GANNON	138	1	16						
2001-9	NSB-SMYR	115	CASSADAG	115	1	2						
2001-9	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-9	NSB-SMYR	115	TAYLOR	115	1	1						
2001-9	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-9	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-9	SN PLANT	115	TURNER	115	1	1						
2001-9	PASADENA	115	40ST-DUM	115	1	2						
2001-9	MICHIGAN	115	KALEY	115	1	11						
2001-9	MICHIGAN	115	GRANT	115	1	11						
2001-9	PERSHING	115	GRANT	115	1	11						
2001-9	AMERICA	115	KALEY	115	1	11						
2001-9	JASPER	115	WGHTCHPL	115	1	2						
2001-9	AZALEA	115	BENNETT	115	1	11						
2001-9	FLORALTP	69	INVERNTP	69	1	2						
2001-9	ALACH TP	69	HIGH SPG	69	1	2						
2001-9	PASADENA	230	PASADENA	115	1	2						
2001-9	SUWANNEE	230	SUWANNEE	115	1	2						
2001-9	SUWANNEE	230	SUWANNEE	115	2	2						
2001-9	E CLRWTR	230	E CLRWTR	115	1	2						
2001-9	IND RIV	230	IND RIV	115	1	11						
2001-9	LARGO	230	LARGO A	69	1	2						
2001-9	SHELD	230	SHELD-NW	69	1	16						
2001-9	CLMT EST	230	CLMT EST	69	1	2						
2001-9	WINDERME	230	WINDERME	69	1	2						
2001-9	RIVER-S	230	RIVER-S	69	1	16						
2001-9	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-9	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-9	JASPER	115	JASPER	69	1	2						
2001-10	SN PLANT	230	SYLVAN	230	1	1						
2001-10	SYLVAN	230	N LONGWD	230	1	1						
2001-10	IND RIV	230	STANTON	230	1	11						
2001-10	SILVR SP	230	SILV SPN	230	1	2						
2001-10	SILVR SP	230	SILV SPN	230	2	2						
2001-10	RIO PINR	230	CURRY FD	230	1	2						
2001-10	JUNEAU-W	138	GANNON	138	1	16						
2001-10	NSB-SMYR	115	CASSADAG	115	1	2						
2001-10	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-10	NSB-SMYR	115	TAYLOR	115	1	1						
2001-10	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-10	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-10	SN PLANT	115	TURNER	115	1	1						
2001-10	PASADENA	115	40ST-DUM	115	1	2						
2001-10	MICHIGAN	115	KALEY	115	1	11						
2001-10	MICHIGAN	115	GRANT	115	1	11						
2001-10	PERSHING	115	GRANT	115	1	11						
2001-10	AMERICA	115	KALEY	115	1	11						
2001-10	JASPER	115	WGHTCHPL	115	1	2						
2001-10	AZALEA	115	BENNETT	115	1	11						
2001-10	FLORALTP	69	INVERNTP	69	1	2						
2001-10	ALACH TP	69	HIGH SPG	69	1	2						
2001-10	PASADENA	230	PASADENA	115	1	2						
2001-10	SUWANNEE	230	SUWANNEE	115	1	2						
2001-10	SUWANNEE	230	SUWANNEE	115	2	2						
2001-10	E CLRWTR	230	E CLRWTR	115	1	2						
2001-10	IND RIV	230	IND RIV	115	1	11						
2001-10	LARGO	230	LARGO A	69	1	2						
2001-10	SHELD	230	SHELD-NW	69	1	16						
2001-10	CLMT EST	230	CLMT EST	69	1	2						
2001-10	WINDERME	230	WINDERME	69	1	2						
2001-10	RIVER-S	230	RIVER-S	69	1	16						
2001-10	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-10	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-10	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
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100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-11	SN PLANT	230	SYLVAN	230	1	1						
2001-11	SYLVAN	230	N LONGWD	230	1	1						
2001-11	IND RIV	230	STANTON	230	1	11						
2001-11	SILVR SP	230	SILV SPN	230	1	2						
2001-11	SILVR SP	230	SILV SPN	230	2	2						
2001-11	RIO PINR	230	CURRY FD	230	1	2						
2001-11	JUNEAU-W	138	GANNON	138	1	16						
2001-11	NSB-SMYR	115	CASSADAG	115	1	2						
2001-11	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-11	NSB-SMYR	115	TAYLOR	115	1	1						
2001-11	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-11	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-11	SN PLANT	115	TURNER	115	1	1						
2001-11	PASADENA	115	40ST-DUM	115	1	2						
2001-11	MICHIGAN	115	KALEY	115	1	11						
2001-11	MICHIGAN	115	GRANT	115	1	11						
2001-11	PERSHING	115	GRANT	115	1	11						
2001-11	AMERICA	115	KALEY	115	1	11						
2001-11	JASPER	115	WGHTCHPL	115	1	2						
2001-11	AZALEA	115	BENNETT	115	1	11						
2001-11	FLORALTP	69	INVERNTP	69	1	2						
2001-11	ALACH TP	69	HIGH SPG	69	1	2						
2001-11	PASADENA	230	PASADENA	115	1	2						
2001-11	SUWANNEE	230	SUWANNEE	115	1	2						
2001-11	SUWANNEE	230	SUWANNEE	115	2	2						
2001-11	E CLRWTR	230	E CLRWTR	115	1	2						
2001-11	IND RIV	230	IND RIV	115	1	11						
2001-11	LARGO	230	LARGO A	69	1	2						
2001-11	SHELD	230	SHELD-NW	69	1	16						
2001-11	CLMT EST	230	CLMT EST	69	1	2						
2001-11	WINDERME	230	WINDERME	69	1	2						
2001-11	RIVER-S	230	RIVER-S	69	1	16						
2001-11	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-11	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-11	JASPER	115	JASPER	69	1	2						
2001-12	SN PLANT	230	SYLVAN	230	1	1						
2001-12	SYLVAN	230	N LONGWD	230	1	1						
2001-12	IND RIV	230	STANTON	230	1	11						
2001-12	SILVR SP	230	SILV SPN	230	1	2						
2001-12	SILVR SP	230	SILV SPN	230	2	2						
2001-12	RIO PINR	230	CURRY FD	230	1	2						
2001-12	JUNEAU-W	138	GANNON	138	1	16						
2001-12	NSB-SMYR	115	CASSADAG	115	1	2						
2001-12	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-12	NSB-SMYR	115	TAYLOR	115	1	1						
2001-12	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-12	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-12	SN PLANT	115	TURNER	115	1	1						
2001-12	PASADENA	115	40ST-DUM	115	1	2						
2001-12	MICHIGAN	115	KALEY	115	1	11						
2001-12	MICHIGAN	115	GRANT	115	1	11						
2001-12	PERSHING	115	GRANT	115	1	11						
2001-12	AMERICA	115	KALEY	115	1	11						
2001-12	JASPER	115	WGHTCHPL	115	1	2						
2001-12	AZALEA	115	BENNETT	115	1	11						
2001-12	FLORALTP	69	INVERNTP	69	1	2						
2001-12	ALACH TP	69	HIGH SPG	69	1	2						
2001-12	PASADENA	230	PASADENA	115	1	2						
2001-12	SUWANNEE	230	SUWANNEE	115	1	2						
2001-12	SUWANNEE	230	SUWANNEE	115	2	2						
2001-12	E CLRWTR	230	E CLRWTR	115	1	2						
2001-12	IND RIV	230	IND RIV	115	1	11						
2001-12	LARGO	230	LARGO A	69	1	2						
2001-12	SHELD	230	SHELD-NW	69	1	16						
2001-12	CLMT EST	230	CLMT EST	69	1	2						
2001-12	WINDERME	230	WINDERME	69	1	2						
2001-12	RIVER-S	230	RIVER-S	69	1	16						
2001-12	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-12	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-12	JASPER	115	JASPER	69	1	2						

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Comparison of Line & Transformer Flows
Following N-1 Disturbances
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100% Load Base Case

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Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-13	SN PLANT	230	SYLVAN	230	1	1						
2001-13	SYLVAN	230	N LONGWD	230	1	1						
2001-13	IND RIV	230	STANTON	230	1	11						
2001-13	SILVR SP	230	SILV SPN	230	1	2						
2001-13	SILVR SP	230	SILV SPN	230	2	2						
2001-13	RIO PINR	230	CURRY FD	230	1	2						
2001-13	JUNEAU-W	138	GANNON	138	1	16						
2001-13	NSB-SMYR	115	CASSADAG	115	1	2						
2001-13	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-13	NSB-SMYR	115	TAYLOR	115	1	1						
2001-13	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-13	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-13	SN PLANT	115	TURNER	115	1	1						
2001-13	PASADENA	115	40ST-DUM	115	1	2						
2001-13	MICHIGAN	115	KALEY	115	1	11						
2001-13	MICHIGAN	115	GRANT	115	1	11						
2001-13	PERSHING	115	GRANT	115	1	11						
2001-13	AMERICA	115	KALEY	115	1	11						
2001-13	JASPER	115	WGHTCHPL	115	1	2						
2001-13	AZALEA	115	BENNETT	115	1	11						
2001-13	FLORALTP	69	INVERNTP	69	1	2						
2001-13	ALACH TP	69	HIGH SPG	69	1	2						
2001-13	PASADENA	230	PASADENA	115	1	2						
2001-13	SUWANNEE	230	SUWANNEE	115	1	2						
2001-13	SUWANNEE	230	SUWANNEE	115	2	2						
2001-13	E CLRWTR	230	E CLRWTR	115	1	2						
2001-13	IND RIV	230	IND RIV	115	1	11						
2001-13	LARGO	230	LARGO A	69	1	2						
2001-13	SHELD	230	SHELD-NW	69	1	16						
2001-13	CLMT EST	230	CLMT EST	69	1	2						
2001-13	WINDERME	230	WINDERME	69	1	2						
2001-13	RIVER-S	230	RIVER-S	69	1	16						
2001-13	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-13	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-13	JASPER	115	JASPER	69	1	2						
2001-14	SN PLANT	230	SYLVAN	230	1	1						
2001-14	SYLVAN	230	N LONGWD	230	1	1						
2001-14	IND RIV	230	STANTON	230	1	11						
2001-14	SILVR SP	230	SILV SPN	230	1	2						
2001-14	SILVR SP	230	SILV SPN	230	2	2						
2001-14	RIO PINR	230	CURRY FD	230	1	2						
2001-14	JUNEAU-W	138	GANNON	138	1	16						
2001-14	NSB-SMYR	115	CASSADAG	115	1	2						
2001-14	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-14	NSB-SMYR	115	TAYLOR	115	1	1						
2001-14	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-14	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-14	SN PLANT	115	TURNER	115	1	1						
2001-14	PASADENA	115	40ST-DUM	115	1	2						
2001-14	MICHIGAN	115	KALEY	115	1	11						
2001-14	MICHIGAN	115	GRANT	115	1	11						
2001-14	PERSHING	115	GRANT	115	1	11						
2001-14	AMERICA	115	KALEY	115	1	11						
2001-14	JASPER	115	WGHTCHPL	115	1	2						
2001-14	AZALEA	115	BENNETT	115	1	11						
2001-14	FLORALTP	69	INVERNTP	69	1	2						
2001-14	ALACH TP	69	HIGH SPG	69	1	2						
2001-14	PASADENA	230	PASADENA	115	1	2						
2001-14	SUWANNEE	230	SUWANNEE	115	1	2						
2001-14	SUWANNEE	230	SUWANNEE	115	2	2						
2001-14	E CLRWTR	230	E CLRWTR	115	1	2						
2001-14	IND RIV	230	IND RIV	115	1	11						
2001-14	LARGO	230	LARGO A	69	1	2						
2001-14	SHELD	230	SHELD-NW	69	1	16						
2001-14	CLMT EST	230	CLMT EST	69	1	2						
2001-14	WINDERME	230	WINDERME	69	1	2						
2001-14	RIVER-S	230	RIVER-S	69	1	16						
2001-14	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-14	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-14	JASPER	115	JASPER	69	1	2						

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for Various NSB 500 MW Generation Alternatives

100% Load Base Case

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Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-15	SN PLANT	230	SYLVAN	230	1	1						
2001-15	SYLVAN	230	N LONGWD	230	1	1						
2001-15	IND RIV	230	STANTON	230	1	11						
2001-15	SILVR SP	230	SILV SPN	230	1	2						
2001-15	SILVR SP	230	SILV SPN	230	2	2						
2001-15	RIO PINR	230	CURRY FD	230	1	2						
2001-15	JUNEAU-W	138	GANNON	138	1	16						
2001-15	NSB-SMYR	115	CASSADAG	115	1	2						
2001-15	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-15	NSB-SMYR	115	TAYLOR	115	1	1						
2001-15	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-15	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-15	SN PLANT	115	TURNER	115	1	1						
2001-15	PASADENA	115	40ST-DUM	115	1	2						
2001-15	MICHIGAN	115	KALEY	115	1	11						
2001-15	MICHIGAN	115	GRANT	115	1	11						
2001-15	PERSHING	115	GRANT	115	1	11						
2001-15	AMERICA	115	KALEY	115	1	11						
2001-15	JASPER	115	WGHTCHPL	115	1	2						
2001-15	AZALEA	115	BENNETT	115	1	11						
2001-15	FLORALTP	69	INVERNTP	69	1	2						
2001-15	ALACH TP	69	HIGH SPG	69	1	2						
2001-15	PASADENA	230	PASADENA	115	1	2						
2001-15	SUWANNEE	230	SUWANNEE	115	1	2						
2001-15	SUWANNEE	230	SUWANNEE	115	2	2						
2001-15	E CLRWTR	230	E CLRWTR	115	1	2						
2001-15	IND RIV	230	IND RIV	115	1	11						
2001-15	LARGO	230	LARGO A	69	1	2						
2001-15	SHELD	230	SHELD-NW	69	1	16						
2001-15	CLMT EST	230	CLMT EST	69	1	2						
2001-15	WINDERME	230	WINDERME	69	1	2						
2001-15	RIVER-S	230	RIVER-S	69	1	16						
2001-15	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-15	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-15	JASPER	115	JASPER	69	1	2						
2001-16	SN PLANT	230	SYLVAN	230	1	1						
2001-16	SYLVAN	230	N LONGWD	230	1	1						
2001-16	IND RIV	230	STANTON	230	1	11						
2001-16	SILVR SP	230	SILV SPN	230	1	2						
2001-16	SILVR SP	230	SILV SPN	230	2	2						
2001-16	RIO PINR	230	CURRY FD	230	1	2						
2001-16	JUNEAU-W	138	GANNON	138	1	16						
2001-16	NSB-SMYR	115	CASSADAG	115	1	2						
2001-16	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-16	NSB-SMYR	115	TAYLOR	115	1	1						
2001-16	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-16	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-16	SN PLANT	115	TURNER	115	1	1						
2001-16	PASADENA	115	40ST-DUM	115	1	2						
2001-16	MICHIGAN	115	KALEY	115	1	11						
2001-16	MICHIGAN	115	GRANT	115	1	11						
2001-16	PERSHING	115	GRANT	115	1	11						
2001-16	AMERICA	115	KALEY	115	1	11						
2001-16	JASPER	115	WGHTCHPL	115	1	2						
2001-16	AZALEA	115	BENNETT	115	1	11						
2001-16	FLORALTP	69	INVERNTP	69	1	2						
2001-16	ALACH TP	69	HIGH SPG	69	1	2						
2001-16	PASADENA	230	PASADENA	115	1	2						
2001-16	SUWANNEE	230	SUWANNEE	115	1	2						
2001-16	SUWANNEE	230	SUWANNEE	115	2	2						
2001-16	E CLRWTR	230	E CLRWTR	115	1	2						
2001-16	IND RIV	230	IND RIV	115	1	11						
2001-16	LARGO	230	LARGO A	69	1	2						
2001-16	SHELD	230	SHELD-NW	69	1	16						
2001-16	CLMT EST	230	CLMT EST	69	1	2						
2001-16	WINDERME	230	WINDERME	69	1	2						
2001-16	RIVER-S	230	RIVER-S	69	1	16						
2001-16	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-16	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-16	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-17	SN PLANT	230	SYLVAN	230	1	1						
2001-17	SYLVAN	230	N LONGWD	230	1	1						
2001-17	IND RIV	230	STANTON	230	1	11						
2001-17	SILVR SP	230	SILV SPN	230	1	2						
2001-17	SILVR SP	230	SILV SPN	230	2	2						
2001-17	RIO PINR	230	CURRY FD	230	1	2						
2001-17	JUNEAU-W	138	GANNON	138	1	16						
2001-17	NSB-SMYR	115	CASSADAG	115	1	2						
2001-17	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-17	NSB-SMYR	115	TAYLOR	115	1	1						
2001-17	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-17	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-17	SN PLANT	115	TURNER	115	1	1						
2001-17	PASADENA	115	40ST-DUM	115	1	2						
2001-17	MICHIGAN	115	KALEY	115	1	11						
2001-17	MICHIGAN	115	GRANT	115	1	11						
2001-17	PERSHING	115	GRANT	115	1	11						
2001-17	AMERICA	115	KALEY	115	1	11						
2001-17	JASPER	115	WGHTCHPL	115	1	2						
2001-17	AZALEA	115	BENNETT	115	1	11						
2001-17	FLORALTP	69	INVERNTP	69	1	2						
2001-17	ALACH TP	69	HIGH SPG	69	1	2						
2001-17	PASADENA	230	PASADENA	115	1	2						
2001-17	SUWANNEE	230	SUWANNEE	115	1	2						
2001-17	SUWANNEE	230	SUWANNEE	115	2	2						
2001-17	E CLRWTR	230	E CLRWTR	115	1	2						
2001-17	IND RIV	230	IND RIV	115	1	11						
2001-17	LARGO	230	LARGO A	69	1	2						
2001-17	SHELD	230	SHELD-NW	69	1	16						
2001-17	CLMT EST	230	CLMT EST	69	1	2						
2001-17	WINDERME	230	WINDERME	69	1	2						
2001-17	RIVER-S	230	RIVER-S	69	1	16						
2001-17	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-17	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-17	JASPER	115	JASPER	69	1	2						
2001-18	SN PLANT	230	SYLVAN	230	1	1						
2001-18	SYLVAN	230	N LONGWD	230	1	1						
2001-18	IND RIV	230	STANTON	230	1	11						
2001-18	SILVR SP	230	SILV SPN	230	1	2						
2001-18	SILVR SP	230	SILV SPN	230	2	2						
2001-18	RIO PINR	230	CURRY FD	230	1	2						
2001-18	JUNEAU-W	138	GANNON	138	1	16						
2001-18	NSB-SMYR	115	CASSADAG	115	1	2						
2001-18	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-18	NSB-SMYR	115	TAYLOR	115	1	1						
2001-18	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-18	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-18	SN PLANT	115	TURNER	115	1	1						
2001-18	PASADENA	115	40ST-DUM	115	1	2						
2001-18	MICHIGAN	115	KALEY	115	1	11						
2001-18	MICHIGAN	115	GRANT	115	1	11						
2001-18	PERSHING	115	GRANT	115	1	11						
2001-18	AMERICA	115	KALEY	115	1	11						
2001-18	JASPER	115	WGHTCHPL	115	1	2						
2001-18	AZALEA	115	BENNETT	115	1	11						
2001-18	FLORALTP	69	INVERNTP	69	1	2						
2001-18	ALACH TP	69	HIGH SPG	69	1	2						
2001-18	PASADENA	230	PASADENA	115	1	2						
2001-18	SUWANNEE	230	SUWANNEE	115	1	2						
2001-18	SUWANNEE	230	SUWANNEE	115	2	2						
2001-18	E CLRWTR	230	E CLRWTR	115	1	2						
2001-18	IND RIV	230	IND RIV	115	1	11						
2001-18	LARGO	230	LARGO A	69	1	2						
2001-18	SHELD	230	SHELD-NW	69	1	16						
2001-18	CLMT EST	230	CLMT EST	69	1	2						
2001-18	WINDERME	230	WINDERME	69	1	2						
2001-18	RIVER-S	230	RIVER-S	69	1	16						
2001-18	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-18	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-18	JASPER	115	JASPER	69	1	2						

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Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-19	SN PLANT	230	SYLVAN	230	1	1						
2001-19	SYLVAN	230	N LONGWD	230	1	1						
2001-19	IND RIV	230	STANTON	230	1	11						
2001-19	SILVR SP	230	SILV SPN	230	1	2						
2001-19	SILVR SP	230	SILV SPN	230	2	2						
2001-19	RIO PINR	230	CURRY FD	230	1	2						
2001-19	JUNEAU-W	138	GANNON	138	1	16						
2001-19	NSB-SMYR	115	CASSADAG	115	1	2						
2001-19	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-19	NSB-SMYR	115	TAYLOR	115	1	1						
2001-19	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-19	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-19	SN PLANT	115	TURNER	115	1	1						
2001-19	PASADENA	115	40ST-DUM	115	1	2						
2001-19	MICHIGAN	115	KALEY	115	1	11						
2001-19	MICHIGAN	115	GRANT	115	1	11						
2001-19	PERSHING	115	GRANT	115	1	11						
2001-19	AMERICA	115	KALEY	115	1	11						
2001-19	JASPER	115	WGHTCHPL	115	1	2						
2001-19	AZALEA	115	BENNETT	115	1	11						
2001-19	FLORALTP	69	INVERNTP	69	1	2						
2001-19	ALACH TP	69	HIGH SPG	69	1	2						
2001-19	PASADENA	230	PASADENA	115	1	2						
2001-19	SUWANNEE	230	SUWANNEE	115	1	2						
2001-19	SUWANNEE	230	SUWANNEE	115	2	2						
2001-19	E CLRWTR	230	E CLRWTR	115	1	2						
2001-19	IND RIV	230	IND RIV	115	1	11						
2001-19	LARGO	230	LARGO A	69	1	2						
2001-19	SHELD	230	SHELD-NW	69	1	16						
2001-19	CLMT EST	230	CLMT EST	69	1	2						
2001-19	WINDERME	230	WINDERME	69	1	2						
2001-19	RIVER-S	230	RIVER-S	69	1	16						
2001-19	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-19	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-19	JASPER	115	JASPER	69	1	2						
2001-20	SN PLANT	230	SYLVAN	230	1	1						
2001-20	SYLVAN	230	N LONGWD	230	1	1						
2001-20	IND RIV	230	STANTON	230	1	11						
2001-20	SILVR SP	230	SILV SPN	230	1	2						
2001-20	SILVR SP	230	SILV SPN	230	2	2						
2001-20	RIO PINR	230	CURRY FD	230	1	2						
2001-20	JUNEAU-W	138	GANNON	138	1	16						
2001-20	NSB-SMYR	115	CASSADAG	115	1	2						
2001-20	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-20	NSB-SMYR	115	TAYLOR	115	1	1						
2001-20	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-20	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-20	SN PLANT	115	TURNER	115	1	1						
2001-20	PASADENA	115	40ST-DUM	115	1	2						
2001-20	MICHIGAN	115	KALEY	115	1	11						
2001-20	MICHIGAN	115	GRANT	115	1	11						
2001-20	PERSHING	115	GRANT	115	1	11						
2001-20	AMERICA	115	KALEY	115	1	11						
2001-20	JASPER	115	WGHTCHPL	115	1	2						
2001-20	AZALEA	115	BENNETT	115	1	11						
2001-20	FLORALTP	69	INVERNTP	69	1	2						
2001-20	ALACH TP	69	HIGH SPG	69	1	2						
2001-20	PASADENA	230	PASADENA	115	1	2						
2001-20	SUWANNEE	230	SUWANNEE	115	1	2						
2001-20	SUWANNEE	230	SUWANNEE	115	2	2						
2001-20	E CLRWTR	230	E CLRWTR	115	1	2						
2001-20	IND RIV	230	IND RIV	115	1	11						
2001-20	LARGO	230	LARGO A	69	1	2						
2001-20	SHELD	230	SHELD-NW	69	1	16						
2001-20	CLMT EST	230	CLMT EST	69	1	2						
2001-20	WINDERME	230	WINDERME	69	1	2						
2001-20	RIVER-S	230	RIVER-S	69	1	16						
2001-20	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-20	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-20	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
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100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-21	SN PLANT	230	SYLVAN	230	1	1						
2001-21	SYLVAN	230	N LONGWD	230	1	1						
2001-21	IND RIV	230	STANTON	230	1	11						
2001-21	SILVR SP	230	SILV SPN	230	1	2						
2001-21	SILVR SP	230	SILV SPN	230	2	2						
2001-21	RIO PINR	230	CURRY FD	230	1	2						
2001-21	JUNEAU-W	138	GANNON	138	1	16						
2001-21	NSB-SMYR	115	CASSADAG	115	1	2						
2001-21	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-21	NSB-SMYR	115	TAYLOR	115	1	1						
2001-21	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-21	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-21	SN PLANT	115	TURNER	115	1	1						
2001-21	PASADENA	115	40ST-DUM	115	1	2						
2001-21	MICHIGAN	115	KALEY	115	1	11						
2001-21	MICHIGAN	115	GRANT	115	1	11						
2001-21	PERSHING	115	GRANT	115	1	11						
2001-21	AMERICA	115	KALEY	115	1	11						
2001-21	JASPER	115	WGHTCHPL	115	1	2						
2001-21	AZALEA	115	BENNETT	115	1	11						
2001-21	FLORALTP	69	INVERNTP	69	1	2						
2001-21	ALACH TP	69	HIGH SPG	69	1	2						
2001-21	PASADENA	230	PASADENA	115	1	2						
2001-21	SUWANNEE	230	SUWANNEE	115	1	2						
2001-21	SUWANNEE	230	SUWANNEE	115	2	2						
2001-21	E CLRWTR	230	E CLRWTR	115	1	2						
2001-21	IND RIV	230	IND RIV	115	1	11						
2001-21	LARGO	230	LARGO A	69	1	2						
2001-21	SHELD	230	SHELD-NW	69	1	16						
2001-21	CLMT EST	230	CLMT EST	69	1	2						
2001-21	WINDERME	230	WINDERME	69	1	2						
2001-21	RIVER-S	230	RIVER-S	69	1	16						
2001-21	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-21	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-21	JASPER	115	JASPER	69	1	2						
2001-22	SN PLANT	230	SYLVAN	230	1	1						
2001-22	SYLVAN	230	N LONGWD	230	1	1						
2001-22	IND RIV	230	STANTON	230	1	11						
2001-22	SILVR SP	230	SILV SPN	230	1	2						
2001-22	SILVR SP	230	SILV SPN	230	2	2						
2001-22	RIO PINR	230	CURRY FD	230	1	2						
2001-22	JUNEAU-W	138	GANNON	138	1	16						
2001-22	NSB-SMYR	115	CASSADAG	115	1	2						
2001-22	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-22	NSB-SMYR	115	TAYLOR	115	1	1						
2001-22	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-22	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-22	SN PLANT	115	TURNER	115	1	1						
2001-22	PASADENA	115	40ST-DUM	115	1	2						
2001-22	MICHIGAN	115	KALEY	115	1	11						
2001-22	MICHIGAN	115	GRANT	115	1	11						
2001-22	PERSHING	115	GRANT	115	1	11						
2001-22	AMERICA	115	KALEY	115	1	11						
2001-22	JASPER	115	WGHTCHPL	115	1	2						
2001-22	AZALEA	115	BENNETT	115	1	11						
2001-22	FLORALTP	69	INVERNTP	69	1	2						
2001-22	ALACH TP	69	HIGH SPG	69	1	2						
2001-22	PASADENA	230	PASADENA	115	1	2						
2001-22	SUWANNEE	230	SUWANNEE	115	1	2						
2001-22	SUWANNEE	230	SUWANNEE	115	2	2						
2001-22	E CLRWTR	230	E CLRWTR	115	1	2						
2001-22	IND RIV	230	IND RIV	115	1	11						
2001-22	LARGO	230	LARGO A	69	1	2						
2001-22	SHELD	230	SHELD-NW	69	1	16						
2001-22	CLMT EST	230	CLMT EST	69	1	2						
2001-22	WINDERME	230	WINDERME	69	1	2						
2001-22	RIVER-S	230	RIVER-S	69	1	16						
2001-22	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-22	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-22	JASPER	115	JASPER	69	1	2						

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100% Load Base Case

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Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-23	SN PLANT	230	SYLVAN	230	1	1						
2001-23	SYLVAN	230	N LONGWD	230	1	1						
2001-23	IND RIV	230	STANTON	230	1	11						
2001-23	SILVR SP	230	SILV SPN	230	1	2						
2001-23	SILVR SP	230	SILV SPN	230	2	2						
2001-23	RIO PINR	230	CURRY FD	230	1	2						
2001-23	JUNEAU-W	138	GANNON	138	1	16						
2001-23	NSB-SMYR	115	CASSADAG	115	1	2						
2001-23	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-23	NSB-SMYR	115	TAYLOR	115	1	1						
2001-23	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-23	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-23	SN PLANT	115	TURNER	115	1	1						
2001-23	PASADENA	115	40ST-DUM	115	1	2						
2001-23	MICHIGAN	115	KALEY	115	1	11						
2001-23	MICHIGAN	115	GRANT	115	1	11						
2001-23	PERSHING	115	GRANT	115	1	11						
2001-23	AMERICA	115	KALEY	115	1	11						
2001-23	JASPER	115	WGHTCHPL	115	1	2						
2001-23	AZALEA	115	BENNETT	115	1	11						
2001-23	FLORALTP	69	INVERNTP	69	1	2						
2001-23	ALACH TP	69	HIGH SPG	69	1	2						
2001-23	PASADENA	230	PASADENA	115	1	2						
2001-23	SUWANNEE	230	SUWANNEE	115	1	2						
2001-23	SUWANNEE	230	SUWANNEE	115	2	2						
2001-23	E CLRWTR	230	E CLRWTR	115	1	2						
2001-23	IND RIV	230	IND RIV	115	1	11						
2001-23	LARGO	230	LARGO A	69	1	2						
2001-23	SHELD	230	SHELD-NW	69	1	16						
2001-23	CLMT EST	230	CLMT EST	69	1	2						
2001-23	WINDERME	230	WINDERME	69	1	2						
2001-23	RIVER-S	230	RIVER-S	69	1	16						
2001-23	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-23	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-23	JASPER	115	JASPER	69	1	2						
2001-24	SN PLANT	230	SYLVAN	230	1	1						
2001-24	SYLVAN	230	N LONGWD	230	1	1						
2001-24	IND RIV	230	STANTON	230	1	11						
2001-24	SILVR SP	230	SILV SPN	230	1	2						
2001-24	SILVR SP	230	SILV SPN	230	2	2						
2001-24	RIO PINR	230	CURRY FD	230	1	2						
2001-24	JUNEAU-W	138	GANNON	138	1	16						
2001-24	NSB-SMYR	115	CASSADAG	115	1	2						
2001-24	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-24	NSB-SMYR	115	TAYLOR	115	1	1						
2001-24	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-24	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-24	SN PLANT	115	TURNER	115	1	1						
2001-24	PASADENA	115	40ST-DUM	115	1	2						
2001-24	MICHIGAN	115	KALEY	115	1	11						
2001-24	MICHIGAN	115	GRANT	115	1	11						
2001-24	PERSHING	115	GRANT	115	1	11						
2001-24	AMERICA	115	KALEY	115	1	11						
2001-24	JASPER	115	WGHTCHPL	115	1	2						
2001-24	AZALEA	115	BENNETT	115	1	11						
2001-24	FLORALTP	69	INVERNTP	69	1	2						
2001-24	ALACH TP	69	HIGH SPG	69	1	2						
2001-24	PASADENA	230	PASADENA	115	1	2						
2001-24	SUWANNEE	230	SUWANNEE	115	1	2						
2001-24	SUWANNEE	230	SUWANNEE	115	2	2						
2001-24	E CLRWTR	230	E CLRWTR	115	1	2						
2001-24	IND RIV	230	IND RIV	115	1	11						
2001-24	LARGO	230	LARGO A	69	1	2						
2001-24	SHELD	230	SHELD-NW	69	1	16						
2001-24	CLMT EST	230	CLMT EST	69	1	2						
2001-24	WINDERME	230	WINDERME	69	1	2						
2001-24	RIVER-S	230	RIVER-S	69	1	16						
2001-24	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-24	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-24	JASPER	115	JASPER	69	1	2						

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Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-25	SN PLANT	230	SYLVAN	230	1	1						
2001-25	SYLVAN	230	N LONGWD	230	1	1						
2001-25	IND RIV	230	STANTON	230	1	11						
2001-25	SILVR SP	230	SILV SPN	230	1	2						
2001-25	SILVR SP	230	SILV SPN	230	2	2						
2001-25	RIO PINR	230	CURRY FD	230	1	2						
2001-25	JUNEAU-W	138	GANNON	138	1	16						
2001-25	NSB-SMYR	115	CASSADAG	115	1	2						
2001-25	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-25	NSB-SMYR	115	TAYLOR	115	1	1						
2001-25	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-25	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-25	SN PLANT	115	TURNER	115	1	1						
2001-25	PASADENA	115	40ST-DUM	115	1	2						
2001-25	MICHIGAN	115	KALEY	115	1	11						
2001-25	MICHIGAN	115	GRANT	115	1	11						
2001-25	PERSHING	115	GRANT	115	1	11						
2001-25	AMERICA	115	KALEY	115	1	11						
2001-25	JASPER	115	WGHTCHPL	115	1	2						
2001-25	AZALEA	115	BENNETT	115	1	11						
2001-25	FLORALTP	69	INVERNTP	69	1	2						
2001-25	ALACH TP	69	HIGH SPG	69	1	2						
2001-25	PASADENA	230	PASADENA	115	1	2						
2001-25	SUWANNEE	230	SUWANNEE	115	1	2						
2001-25	SUWANNEE	230	SUWANNEE	115	2	2						
2001-25	E CLRWTR	230	E CLRWTR	115	1	2						
2001-25	IND RIV	230	IND RIV	115	1	11						
2001-25	LARGO	230	LARGO A	69	1	2						
2001-25	SHELD	230	SHELD-NW	69	1	16						
2001-25	CLMT EST	230	CLMT EST	69	1	2						
2001-25	WINDERME	230	WINDERME	69	1	2						
2001-25	RIVER-S	230	RIVER-S	69	1	16						
2001-25	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-25	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-25	JASPER	115	JASPER	69	1	2						
2001-26	SN PLANT	230	SYLVAN	230	1	1						
2001-26	SYLVAN	230	N LONGWD	230	1	1						
2001-26	IND RIV	230	STANTON	230	1	11						
2001-26	SILVR SP	230	SILV SPN	230	1	2						
2001-26	SILVR SP	230	SILV SPN	230	2	2						
2001-26	RIO PINR	230	CURRY FD	230	1	2						
2001-26	JUNEAU-W	138	GANNON	138	1	16						
2001-26	NSB-SMYR	115	CASSADAG	115	1	2						
2001-26	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-26	NSB-SMYR	115	TAYLOR	115	1	1						
2001-26	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-26	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-26	SN PLANT	115	TURNER	115	1	1						
2001-26	PASADENA	115	40ST-DUM	115	1	2						
2001-26	MICHIGAN	115	KALEY	115	1	11						
2001-26	MICHIGAN	115	GRANT	115	1	11						
2001-26	PERSHING	115	GRANT	115	1	11						
2001-26	AMERICA	115	KALEY	115	1	11						
2001-26	JASPER	115	WGHTCHPL	115	1	2						
2001-26	AZALEA	115	BENNETT	115	1	11						
2001-26	FLORALTP	69	INVERNTP	69	1	2						
2001-26	ALACH TP	69	HIGH SPG	69	1	2						
2001-26	PASADENA	230	PASADENA	115	1	2						
2001-26	SUWANNEE	230	SUWANNEE	115	1	2						
2001-26	SUWANNEE	230	SUWANNEE	115	2	2						
2001-26	E CLRWTR	230	E CLRWTR	115	1	2						
2001-26	IND RIV	230	IND RIV	115	1	11						
2001-26	LARGO	230	LARGO A	69	1	2						
2001-26	SHELD	230	SHELD-NW	69	1	16						
2001-26	CLMT EST	230	CLMT EST	69	1	2						
2001-26	WINDERME	230	WINDERME	69	1	2						
2001-26	RIVER-S	230	RIVER-S	69	1	16						
2001-26	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-26	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-26	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-27	SN PLANT	230	SYLVAN	230	1	1						
2001-27	SYLVAN	230	N LONGWD	230	1	1						
2001-27	IND RIV	230	STANTON	230	1	11						
2001-27	SILVR SP	230	SILV SPN	230	1	2						
2001-27	SILVR SP	230	SILV SPN	230	2	2						
2001-27	RIO PINR	230	CURRY FD	230	1	2						
2001-27	JUNEAU-W	138	GANNON	138	1	16						
2001-27	NSB-SMYR	115	CASSADAG	115	1	2						
2001-27	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-27	NSB-SMYR	115	TAYLOR	115	1	1						
2001-27	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-27	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-27	SN PLANT	115	TURNER	115	1	1						
2001-27	PASADENA	115	40ST-DUM	115	1	2						
2001-27	MICHIGAN	115	KALEY	115	1	11						
2001-27	MICHIGAN	115	GRANT	115	1	11						
2001-27	PERSHING	115	GRANT	115	1	11						
2001-27	AMERICA	115	KALEY	115	1	11						
2001-27	JASPER	115	WGHTCHPL	115	1	2						
2001-27	AZALEA	115	BENNETT	115	1	11						
2001-27	FLORALTP	69	INVERNTP	69	1	2						
2001-27	ALACH TP	69	HIGH SPG	69	1	2						
2001-27	PASADENA	230	PASADENA	115	1	2						
2001-27	SUWANNEE	230	SUWANNEE	115	1	2						
2001-27	SUWANNEE	230	SUWANNEE	115	2	2						
2001-27	E CLRWTR	230	E CLRWTR	115	1	2						
2001-27	IND RIV	230	IND RIV	115	1	11						
2001-27	LARGO	230	LARGO A	69	1	2						
2001-27	SHELD	230	SHELD-NW	69	1	16						
2001-27	CLMT EST	230	CLMT EST	69	1	2						
2001-27	WINDERME	230	WINDERME	69	1	2						
2001-27	RIVER-S	230	RIVER-S	69	1	16						
2001-27	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-27	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-27	JASPER	115	JASPER	69	1	2						
2001-28	SN PLANT	230	SYLVAN	230	1	1						
2001-28	SYLVAN	230	N LONGWD	230	1	1						
2001-28	IND RIV	230	STANTON	230	1	11						
2001-28	SILVR SP	230	SILV SPN	230	1	2						
2001-28	SILVR SP	230	SILV SPN	230	2	2						
2001-28	RIO PINR	230	CURRY FD	230	1	2						
2001-28	JUNEAU-W	138	GANNON	138	1	16						
2001-28	NSB-SMYR	115	CASSADAG	115	1	2						
2001-28	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-28	NSB-SMYR	115	TAYLOR	115	1	1						
2001-28	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-28	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-28	SN PLANT	115	TURNER	115	1	1						
2001-28	PASADENA	115	40ST-DUM	115	1	2						
2001-28	MICHIGAN	115	KALEY	115	1	11						
2001-28	MICHIGAN	115	GRANT	115	1	11						
2001-28	PERSHING	115	GRANT	115	1	11						
2001-28	AMERICA	115	KALEY	115	1	11						
2001-28	JASPER	115	WGHTCHPL	115	1	2						
2001-28	AZALEA	115	BENNETT	115	1	11						
2001-28	FLORALTP	69	INVERNTP	69	1	2						
2001-28	ALACH TP	69	HIGH SPG	69	1	2						
2001-28	PASADENA	230	PASADENA	115	1	2						
2001-28	SUWANNEE	230	SUWANNEE	115	1	2						
2001-28	SUWANNEE	230	SUWANNEE	115	2	2						
2001-28	E CLRWTR	230	E CLRWTR	115	1	2						
2001-28	IND RIV	230	IND RIV	115	1	11						
2001-28	LARGO	230	LARGO A	69	1	2						
2001-28	SHELD	230	SHELD-NW	69	1	16						
2001-28	CLMT EST	230	CLMT EST	69	1	2						
2001-28	WINDERME	230	WINDERME	69	1	2						
2001-28	RIVER-S	230	RIVER-S	69	1	16						
2001-28	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-28	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-28	JASPER	115	JASPER	69	1	2						

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Comparison of Line & Transformer Flows
Following N-1 Disturbances
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100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-29	SN PLANT	230	SYLVAN	230	1	1						
2001-29	SYLVAN	230	N LONGWD	230	1	1						
2001-29	IND RIV	230	STANTON	230	1	11						
2001-29	SILVR SP	230	SILV SPN	230	1	2						
2001-29	SILVR SP	230	SILV SPN	230	2	2						
2001-29	RIO PINR	230	CURRY FD	230	1	2						
2001-29	JUNEAU-W	138	GANNON	138	1	16						
2001-29	NSB-SMYR	115	CASSADAG	115	1	2						
2001-29	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-29	NSB-SMYR	115	TAYLOR	115	1	1						
2001-29	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-29	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-29	SN PLANT	115	TURNER	115	1	1						
2001-29	PASADENA	115	40ST-DUM	115	1	2						
2001-29	MICHIGAN	115	KALEY	115	1	11						
2001-29	MICHIGAN	115	GRANT	115	1	11						
2001-29	PERSHING	115	GRANT	115	1	11						
2001-29	AMERICA	115	KALEY	115	1	11						
2001-29	JASPER	115	WGHTCHPL	115	1	2						
2001-29	AZALEA	115	BENNETT	115	1	11						
2001-29	FLORALTP	69	INVERNTP	69	1	2						
2001-29	ALACH TP	69	HIGH SPG	69	1	2						
2001-29	PASADENA	230	PASADENA	115	1	2						
2001-29	SUWANNEE	230	SUWANNEE	115	1	2						
2001-29	SUWANNEE	230	SUWANNEE	115	2	2						
2001-29	E CLRWTR	230	E CLRWTR	115	1	2						
2001-29	IND RIV	230	IND RIV	115	1	11						
2001-29	LARGO	230	LARGO A	69	1	2						
2001-29	SHELD	230	SHELD-NW	69	1	16						
2001-29	CLMT EST	230	CLMT EST	69	1	2						
2001-29	WINDERME	230	WINDERME	69	1	2						
2001-29	RIVER-S	230	RIVER-S	69	1	16						
2001-29	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-29	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-29	JASPER	115	JASPER	69	1	2						
2001-30	SN PLANT	230	SYLVAN	230	1	1						
2001-30	SYLVAN	230	N LONGWD	230	1	1						
2001-30	IND RIV	230	STANTON	230	1	11						
2001-30	SILVR SP	230	SILV SPN	230	1	2						
2001-30	SILVR SP	230	SILV SPN	230	2	2						
2001-30	RIO PINR	230	CURRY FD	230	1	2						
2001-30	JUNEAU-W	138	GANNON	138	1	16						
2001-30	NSB-SMYR	115	CASSADAG	115	1	2						
2001-30	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-30	NSB-SMYR	115	TAYLOR	115	1	1						
2001-30	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-30	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-30	SN PLANT	115	TURNER	115	1	1						
2001-30	PASADENA	115	40ST-DUM	115	1	2						
2001-30	MICHIGAN	115	KALEY	115	1	11						
2001-30	MICHIGAN	115	GRANT	115	1	11						
2001-30	PERSHING	115	GRANT	115	1	11						
2001-30	AMERICA	115	KALEY	115	1	11						
2001-30	JASPER	115	WGHTCHPL	115	1	2						
2001-30	AZALEA	115	BENNETT	115	1	11						
2001-30	FLORALTP	69	INVERNTP	69	1	2						
2001-30	ALACH TP	69	HIGH SPG	69	1	2						
2001-30	PASADENA	230	PASADENA	115	1	2						
2001-30	SUWANNEE	230	SUWANNEE	115	1	2						
2001-30	SUWANNEE	230	SUWANNEE	115	2	2						
2001-30	E CLRWTR	230	E CLRWTR	115	1	2						
2001-30	IND RIV	230	IND RIV	115	1	11						
2001-30	LARGO	230	LARGO A	69	1	2						
2001-30	SHELD	230	SHELD-NW	69	1	16						
2001-30	CLMT EST	230	CLMT EST	69	1	2						
2001-30	WINDERME	230	WINDERME	69	1	2						
2001-30	RIVER-S	230	RIVER-S	69	1	16						
2001-30	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-30	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-30	JASPER	115	JASPER	69	1	2						

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Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-31	SN PLANT	230	SYLVAN	230	1	1						
2001-31	SYLVAN	230	N LONGWD	230	1	1						
2001-31	IND RIV	230	STANTON	230	1	11						
2001-31	SILVR SP	230	SILV SPN	230	1	2						
2001-31	SILVR SP	230	SILV SPN	230	2	2						
2001-31	RIO PINR	230	CURRY FD	230	1	2						
2001-31	JUNEAU-W	138	GANNON	138	1	16						
2001-31	NSB-SMYR	115	CASSADAG	115	1	2						
2001-31	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-31	NSB-SMYR	115	TAYLOR	115	1	1						
2001-31	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-31	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-31	SN PLANT	115	TURNER	115	1	1						
2001-31	PASADENA	115	40ST-DUM	115	1	2						
2001-31	MICHIGAN	115	KALEY	115	1	11						
2001-31	MICHIGAN	115	GRANT	115	1	11						
2001-31	PERSHING	115	GRANT	115	1	11						
2001-31	AMERICA	115	KALEY	115	1	11						
2001-31	JASPER	115	WGHTCHPL	115	1	2						
2001-31	AZALEA	115	BENNETT	115	1	11						
2001-31	FLORALTP	69	INVERNTP	69	1	2						
2001-31	ALACH TP	69	HIGH SPG	69	1	2						
2001-31	PASADENA	230	PASADENA	115	1	2						
2001-31	SUWANNEE	230	SUWANNEE	115	1	2						
2001-31	SUWANNEE	230	SUWANNEE	115	2	2						
2001-31	E CLRWTR	230	E CLRWTR	115	1	2						
2001-31	IND RIV	230	IND RIV	115	1	11						
2001-31	LARGO	230	LARGO A	69	1	2						
2001-31	SHELD	230	SHELD-NW	69	1	16						
2001-31	CLMT EST	230	CLMT EST	69	1	2						
2001-31	WINDERME	230	WINDERME	69	1	2						
2001-31	RIVER-S	230	RIVER-S	69	1	16						
2001-31	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-31	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-31	JASPER	115	JASPER	69	1	2						
2001-32	SN PLANT	230	SYLVAN	230	1	1						
2001-32	SYLVAN	230	N LONGWD	230	1	1						
2001-32	IND RIV	230	STANTON	230	1	11						
2001-32	SILVR SP	230	SILV SPN	230	1	2						
2001-32	SILVR SP	230	SILV SPN	230	2	2						
2001-32	RIO PINR	230	CURRY FD	230	1	2						
2001-32	JUNEAU-W	138	GANNON	138	1	16						
2001-32	NSB-SMYR	115	CASSADAG	115	1	2						
2001-32	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-32	NSB-SMYR	115	TAYLOR	115	1	1						
2001-32	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-32	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-32	SN PLANT	115	TURNER	115	1	1						
2001-32	PASADENA	115	40ST-DUM	115	1	2						
2001-32	MICHIGAN	115	KALEY	115	1	11						
2001-32	MICHIGAN	115	GRANT	115	1	11						
2001-32	PERSHING	115	GRANT	115	1	11						
2001-32	AMERICA	115	KALEY	115	1	11						
2001-32	JASPER	115	WGHTCHPL	115	1	2						
2001-32	AZALEA	115	BENNETT	115	1	11						
2001-32	FLORALTP	69	INVERNTP	69	1	2						
2001-32	ALACH TP	69	HIGH SPG	69	1	2						
2001-32	PASADENA	230	PASADENA	115	1	2						
2001-32	SUWANNEE	230	SUWANNEE	115	1	2						
2001-32	SUWANNEE	230	SUWANNEE	115	2	2						
2001-32	E CLRWTR	230	E CLRWTR	115	1	2						
2001-32	IND RIV	230	IND RIV	115	1	11						
2001-32	LARGO	230	LARGO A	69	1	2						
2001-32	SHELD	230	SHELD-NW	69	1	16						
2001-32	CLMT EST	230	CLMT EST	69	1	2						
2001-32	WINDERME	230	WINDERME	69	1	2						
2001-32	RIVER-S	230	RIVER-S	69	1	16						
2001-32	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-32	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-32	JASPER	115	JASPER	69	1	2						

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100% Load Base Case

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Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-33	SN PLANT	230	SYLVAN	230	1	1						
2001-33	SYLVAN	230	N LONGWD	230	1	1						
2001-33	IND RIV	230	STANTON	230	1	11						
2001-33	SILVR SP	230	SILV SPN	230	1	2						
2001-33	SILVR SP	230	SILV SPN	230	2	2						
2001-33	RIO PINR	230	CURRY FD	230	1	2						
2001-33	JUNEAU-W	138	GANNON	138	1	16						
2001-33	NSB-SMYR	115	CASSADAG	115	1	2						
2001-33	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-33	NSB-SMYR	115	TAYLOR	115	1	1						
2001-33	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-33	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-33	SN PLANT	115	TURNER	115	1	1						
2001-33	PASADENA	115	40ST-DUM	115	1	2						
2001-33	MICHIGAN	115	KALEY	115	1	11						
2001-33	MICHIGAN	115	GRANT	115	1	11						
2001-33	PERSHING	115	GRANT	115	1	11						
2001-33	AMERICA	115	KALEY	115	1	11						
2001-33	JASPER	115	WGHTCHPL	115	1	2						
2001-33	AZALEA	115	BENNETT	115	1	11						
2001-33	FLORALTP	69	INVERNTP	69	1	2						
2001-33	ALACH TP	69	HIGH SPG	69	1	2						
2001-33	PASADENA	230	PASADENA	115	1	2						
2001-33	SUWANNEE	230	SUWANNEE	115	1	2						
2001-33	SUWANNEE	230	SUWANNEE	115	2	2						
2001-33	E CLRWTR	230	E CLRWTR	115	1	2						
2001-33	IND RIV	230	IND RIV	115	1	11						
2001-33	LARGO	230	LARGO A	69	1	2						
2001-33	SHELD	230	SHELD-NW	69	1	16						
2001-33	CLMT EST	230	CLMT EST	69	1	2						
2001-33	WINDERME	230	WINDERME	69	1	2						
2001-33	RIVER-S	230	RIVER-S	69	1	16						
2001-33	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-33	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-33	JASPER	115	JASPER	69	1	2						
2001-34	SN PLANT	230	SYLVAN	230	1	1						
2001-34	SYLVAN	230	N LONGWD	230	1	1						
2001-34	IND RIV	230	STANTON	230	1	11						
2001-34	SILVR SP	230	SILV SPN	230	1	2						
2001-34	SILVR SP	230	SILV SPN	230	2	2						
2001-34	RIO PINR	230	CURRY FD	230	1	2						
2001-34	JUNEAU-W	138	GANNON	138	1	16						
2001-34	NSB-SMYR	115	CASSADAG	115	1	2						
2001-34	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-34	NSB-SMYR	115	TAYLOR	115	1	1						
2001-34	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-34	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-34	SN PLANT	115	TURNER	115	1	1						
2001-34	PASADENA	115	40ST-DUM	115	1	2						
2001-34	MICHIGAN	115	KALEY	115	1	11						
2001-34	MICHIGAN	115	GRANT	115	1	11						
2001-34	PERSHING	115	GRANT	115	1	11						
2001-34	AMERICA	115	KALEY	115	1	11						
2001-34	JASPER	115	WGHTCHPL	115	1	2						
2001-34	AZALEA	115	BENNETT	115	1	11						
2001-34	FLORALTP	69	INVERNTP	69	1	2						
2001-34	ALACH TP	69	HIGH SPG	69	1	2						
2001-34	PASADENA	230	PASADENA	115	1	2						
2001-34	SUWANNEE	230	SUWANNEE	115	1	2						
2001-34	SUWANNEE	230	SUWANNEE	115	2	2						
2001-34	E CLRWTR	230	E CLRWTR	115	1	2						
2001-34	IND RIV	230	IND RIV	115	1	11						
2001-34	LARGO	230	LARGO A	69	1	2						
2001-34	SHELD	230	SHELD-NW	69	1	16						
2001-34	CLMT EST	230	CLMT EST	69	1	2						
2001-34	WINDERME	230	WINDERME	69	1	2						
2001-34	RIVER-S	230	RIVER-S	69	1	16						
2001-34	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-34	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-34	JASPER	115	JASPER	69	1	2						

Table I

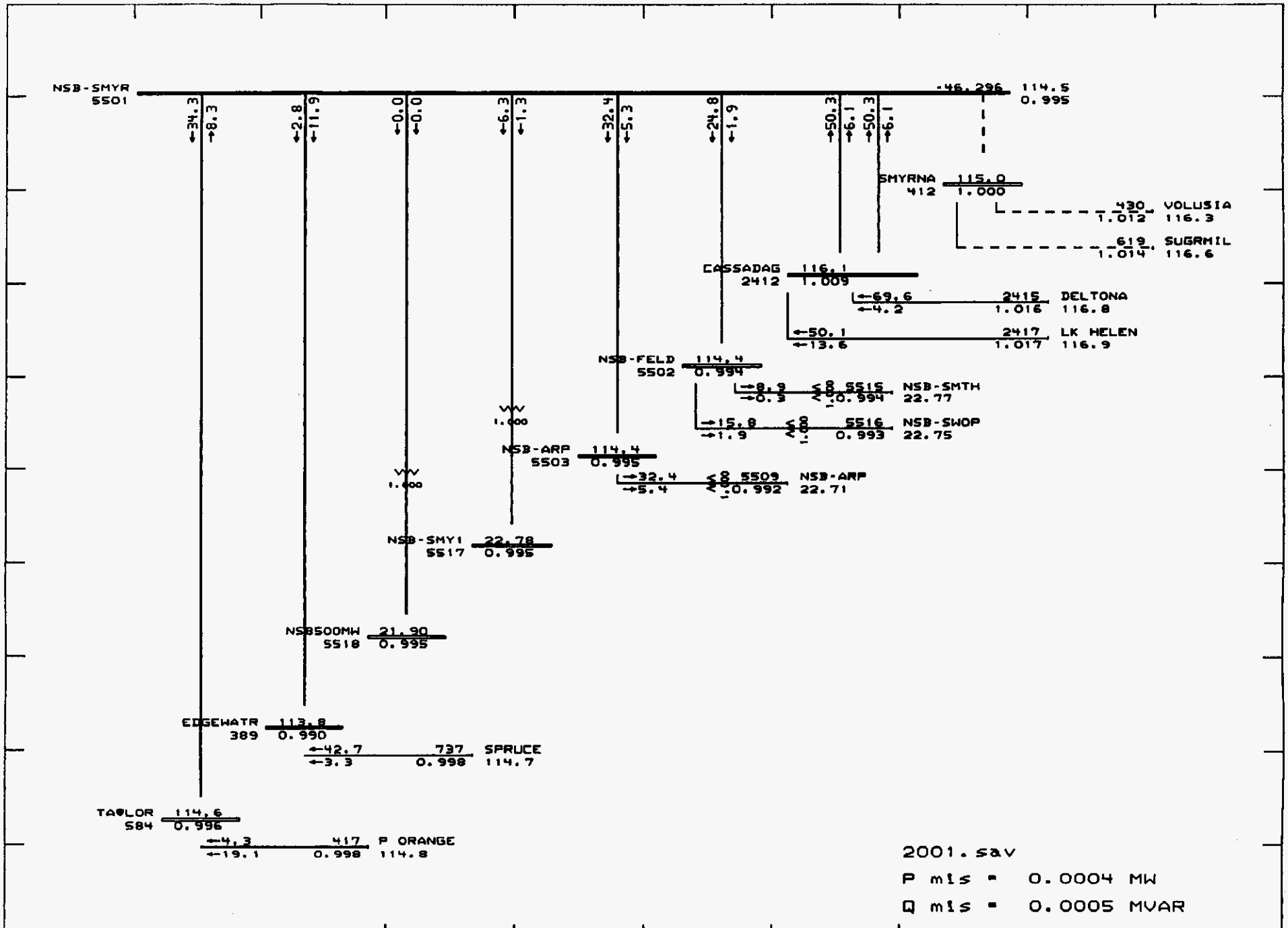
Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001 Base No NSB Gen	Case 2001A Sell to FPL	Case 2001B Sell to FPC	Case 2001C Sell to TEC	Case 2001D Sell to JEA	Case 2001E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-35	SN PLANT	230	SYLVAN	230	1	1						
2001-35	SYLVAN	230	N LONGWD	230	1	1						
2001-35	IND RIV	230	STANTON	230	1	11						
2001-35	SILVR SP	230	SILV SPN	230	1	2						
2001-35	SILVR SP	230	SILV SPN	230	2	2						
2001-35	RIO PINR	230	CURRY FD	230	1	2						
2001-35	JUNEAU-W	138	GANNON	138	1	16						
2001-35	NSB-SMYR	115	CASSADAG	115	1	2						
2001-35	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-35	NSB-SMYR	115	TAYLOR	115	1	1						
2001-35	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-35	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-35	SN PLANT	115	TURNER	115	1	1						
2001-35	PASADENA	115	40ST-DUM	115	1	2						
2001-35	MICHIGAN	115	KALEY	115	1	11						
2001-35	MICHIGAN	115	GRANT	115	1	11						
2001-35	PERSHING	115	GRANT	115	1	11						
2001-35	AMERICA	115	KALEY	115	1	11						
2001-35	JASPER	115	WGHTCHPL	115	1	2						
2001-35	AZALEA	115	BENNETT	115	1	11						
2001-35	FLORALTP	69	INVERNTP	69	1	2						
2001-35	ALACH TP	69	HIGH SPG	69	1	2						
2001-35	PASADENA	230	PASADENA	115	1	2						
2001-35	SUWANNEE	230	SUWANNEE	115	1	2						
2001-35	SUWANNEE	230	SUWANNEE	115	2	2						
2001-35	E CLRWTR	230	E CLRWTR	115	1	2						
2001-35	IND RIV	230	IND RIV	115	1	11						
2001-35	LARGO	230	LARGO A	69	1	2						
2001-35	SHELD	230	SHELD-NW	69	1	16						
2001-35	CLMT EST	230	CLMT EST	69	1	2						
2001-35	WINDERME	230	WINDERME	69	1	2						
2001-35	RIVER-S	230	RIVER-S	69	1	16						
2001-35	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-35	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-35	JASPER	115	JASPER	69	1	2						
2001-36	SN PLANT	230	SYLVAN	230	1	1						
2001-36	SYLVAN	230	N LONGWD	230	1	1						
2001-36	IND RIV	230	STANTON	230	1	11						
2001-36	SILVR SP	230	SILV SPN	230	1	2						
2001-36	SILVR SP	230	SILV SPN	230	2	2						
2001-36	RIO PINR	230	CURRY FD	230	1	2						
2001-36	JUNEAU-W	138	GANNON	138	1	16						
2001-36	NSB-SMYR	115	CASSADAG	115	1	2						
2001-36	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-36	NSB-SMYR	115	TAYLOR	115	1	1						
2001-36	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-36	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-36	SN PLANT	115	TURNER	115	1	1						
2001-36	PASADENA	115	40ST-DUM	115	1	2						
2001-36	MICHIGAN	115	KALEY	115	1	11						
2001-36	MICHIGAN	115	GRANT	115	1	11						
2001-36	PERSHING	115	GRANT	115	1	11						
2001-36	AMERICA	115	KALEY	115	1	11						
2001-36	JASPER	115	WGHTCHPL	115	1	2						
2001-36	AZALEA	115	BENNETT	115	1	11						
2001-36	FLORALTP	69	INVERNTP	69	1	2						
2001-36	ALACH TP	69	HIGH SPG	69	1	2						
2001-36	PASADENA	230	PASADENA	115	1	2						
2001-36	SUWANNEE	230	SUWANNEE	115	1	2						
2001-36	SUWANNEE	230	SUWANNEE	115	2	2						
2001-36	E CLRWTR	230	E CLRWTR	115	1	2						
2001-36	IND RIV	230	IND RIV	115	1	11						
2001-36	LARGO	230	LARGO A	69	1	2						
2001-36	SHELD	230	SHELD-NW	69	1	16						
2001-36	CLMT EST	230	CLMT EST	69	1	2						
2001-36	WINDERME	230	WINDERME	69	1	2						
2001-36	RIVER-S	230	RIVER-S	69	1	16						
2001-36	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-36	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-36	JASPER	115	JASPER	69	1	2						

APPENDIX II-A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32.4
5.3
24.8
1.9
50.3
6.1
50.3
6.1
SMYRNA 115.0
412 1.000
430 VOLUSIA
1.012 116.3
619 SUGRMIL
1.014 116.6
CASSADAG 116.1
2412 1.009
69.6
4.2
2415 DELTONA
1.016 116.8
50.1
13.6
2417 LK HELEN
1.017 116.9
NSB-FELD 114.4
5502 0.994
8.9
0.3
5515 NSB-SMTH
0.994 22.77
15.8
1.9
5516 NSB-SWOP
0.993 22.75
1.000
NSB-ARP 114.4
5503 0.995
32.4
5.4
5509 NSB-ARP
0.992 22.71
1.000
NSB-SMYI 22.78
5517 0.995
NSB500MW 21.90
5518 0.995
EDGEWATR 113.8
389 0.990
42.7
3.3
737 SPRUCE
0.998 114.7
TAYLOR 114.6
584 0.996
4.3
19.1
417 P ORANGE
0.998 114.8
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Q mis = 0.0005 MVAR
General Electric Company PSLF Program MW/MVAR Mon Jun 29 11:30:07 1998
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CASE 2001 : 2001 SUMMER PEAK CASE - 2400 MW FROM GEORGIA RMI 4/28/98
BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FRCC 10-YEAR
PLAN AND ADD ESTIMATED RATINGS TO CERTAIN FP&L LINES
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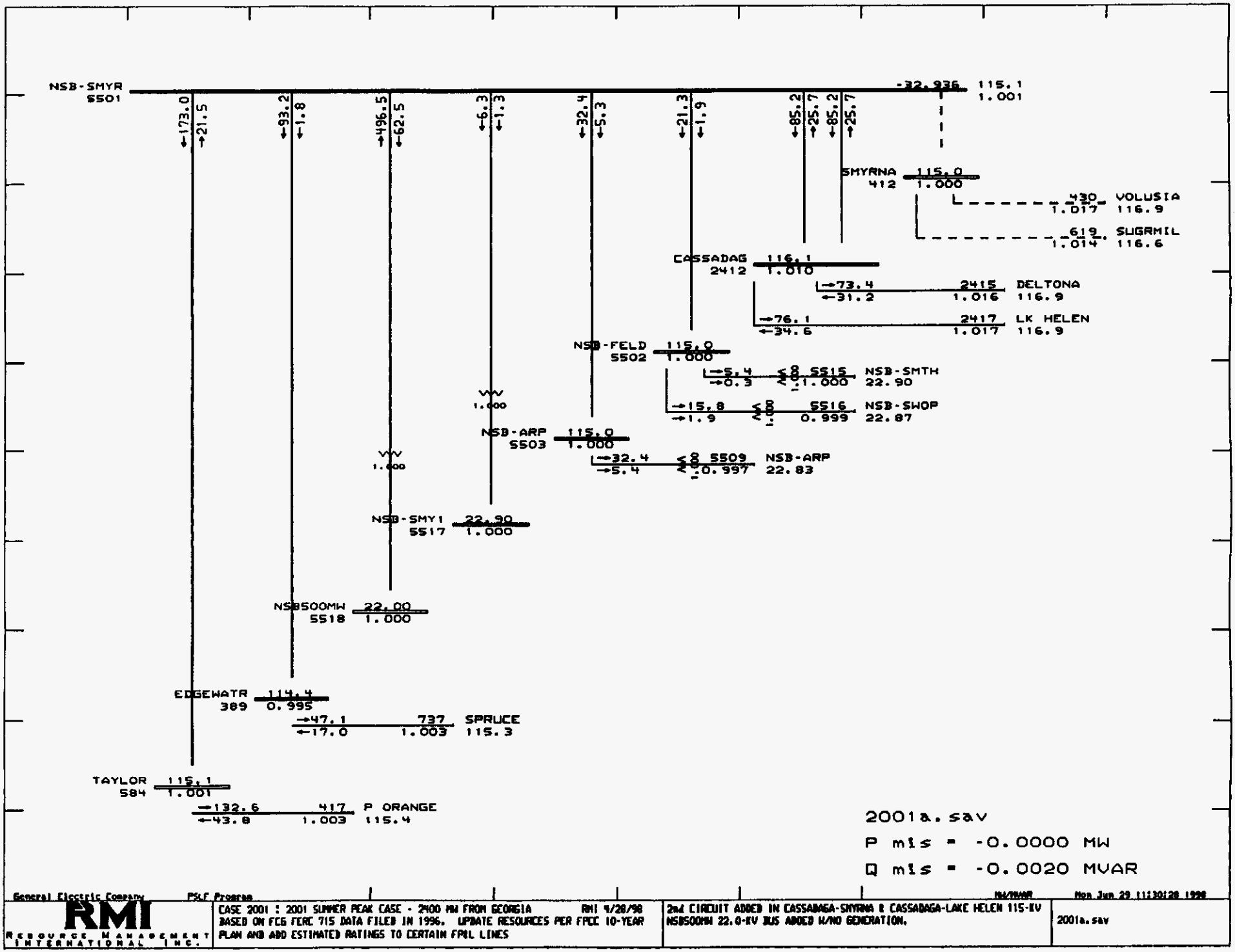
NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.
2001.sav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←1.8
←496.5
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←32.4
←5.3
←21.3
←1.9
←85.2
←25.7
←85.2
←25.7
SMYRNA 115.0
412 1.000
430 VOLUSIA
1.017 116.9
619 SUGRMIL
1.014 116.6
CASSADAG 116.1
2412 1.010
→73.4 2415 DELTONA
←31.2 1.016 116.9
→76.1 2417 LK HELEN
←34.6 1.017 116.9
NSB-FELD 115.0
5502 1.000
→5.4 5515 NSB-SMTH
→0.3 1.000 22.90
→15.8 5516 NSB-SWDP
→1.9 0.999 22.87
1.000
NSB-ARP 115.0
5503 1.000
→32.4 5509 NSB-ARP
→5.4 0.997 22.83
1.000
NSB-SMY1 22.90
5517 1.000
NSB500MW 22.00
5518 1.000
EDGEWATR 114.4
389 0.995
→47.1 737 SPRUCE
←17.0 1.003 115.3
TAYLOR 115.1
584 1.001
→132.6 417 P ORANGE
←43.8 1.003 115.4
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RESOURCE MANAGEMENT INTERNATIONAL INC.
CASE 2001 : 2001 SUMMER PEAK CASE - 2400 MW FROM GEORGIA RMI 4/28/98
BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FPCC 10-YEAR
PLAN AND ADD ESTIMATED RATINGS TO CERTAIN FPCL LINES
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NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.
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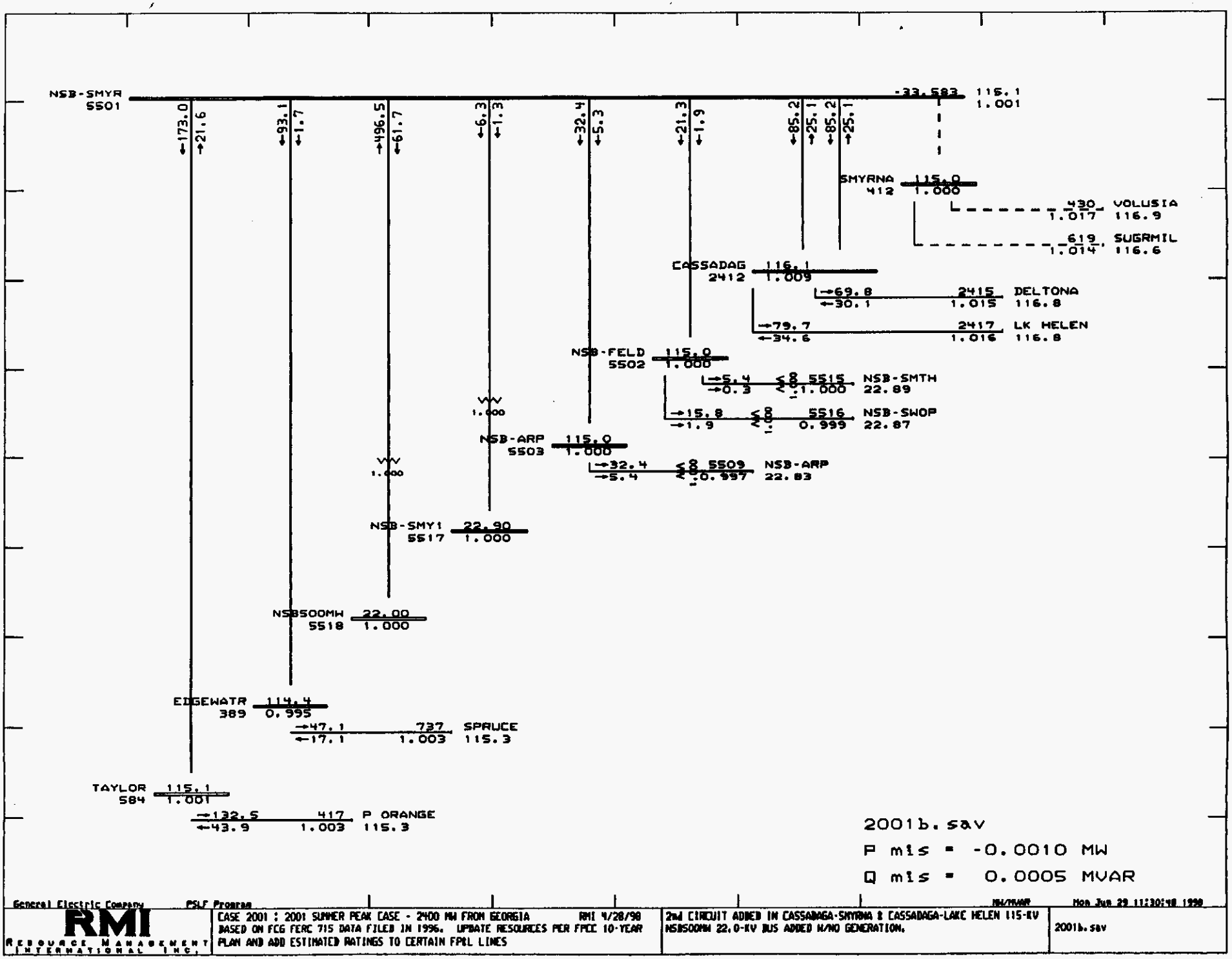
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←1.3
←32.4
←5.3
←21.3
←1.9
←85.2
→25.1
←85.2
→25.1
SMYRNA 115.0
412 1.000
430
1.017
VOLUSIA
116.9
619
1.014
SUGRMIL
116.6
CASSADAG 116.1
2412 1.009
→69.8
←30.1
2415
1.015
DELTONA
116.8
→79.7
←34.6
2417
1.016
LK HELEN
116.8
NSB-FELD 115.0
5502 1.000
→5.4
→0.3
5515
1.000
NSB-SMTH
22.89
1.000
→15.8
→1.9
5516
0.999
NSB-SWOP
22.87
NSB-ARP 115.0
5503 1.000
1.000
→32.4
→5.4
5509
0.997
NSB-ARP
22.83
NSB-SMY1 22.90
5517 1.000
NSB500MW 22.00
5518 1.000
EDGEWATR 114.4
389 0.995
→47.1
←17.1
737
1.003
SPRUCE
115.3
TAYLOR 115.1
584 1.001
→132.5
←43.9
417
1.003
P ORANGE
115.3
2001b.sav
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Q mis = 0.0005 MVAR
General Electric Company PSLF Program MW/MVAR Mon Jun 29 11:30:48 1998
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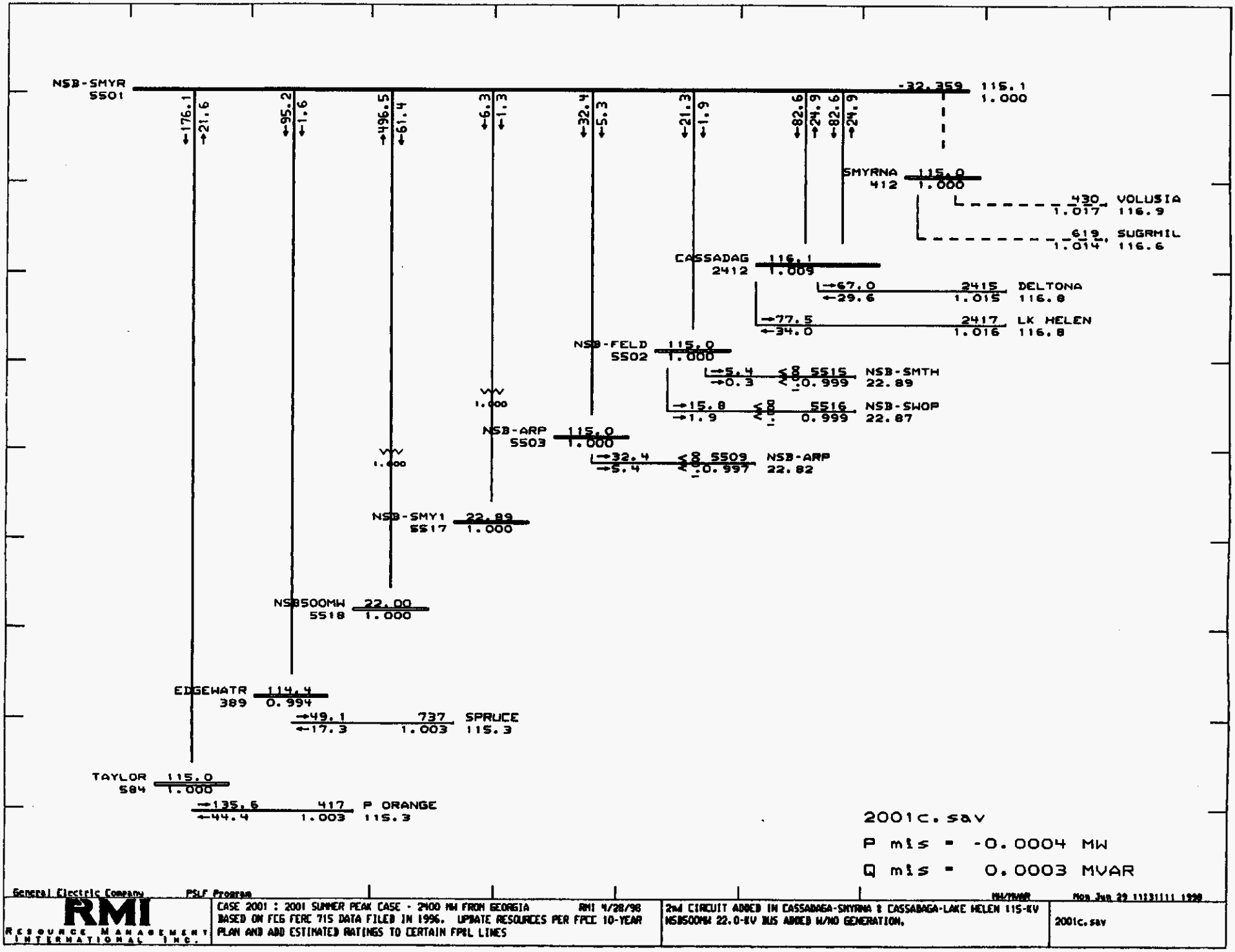
CASE 2001 : 2001 SUMMER PEAK CASE - 2400 MW FROM GEORGIA RMI 4/28/98
BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FPCC 10-YEAR
PLAN AND ADD ESTIMATED RATINGS TO CERTAIN FP&L LINES
2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LAKE HELEN 115-KV
NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.
2001b.sav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619 SUGRMIL
1.014 116.6
CASSADAG 116.1
2412 1.009
DELTONA
2415
1.015
116.8
LK HELEN
2417
1.016
116.8
NSB-FELD 115.0
5502 1.000
NSB-SMTH
5515
0.999
22.89
NSB-SWDP
5516
0.999
22.87
NSB-ARP 115.0
5503 1.000
NSB-ARP
5509
0.997
22.82
NSB-SMY1 22.89
5517 1.000
NSB500MW 22.00
5518 1.000
EDGEWATR 114.4
389 0.994
SPRUCE
737
1.003
115.3
TAYLOR 115.0
584 1.000
P ORANGE
417
1.003
115.3
2001c.sav
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Q mis = 0.0003 MVAR
General Electric Company PSLF Program
MW/MVAR
Mon Jun 29 11:31:11 1998
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RESOURCE MANAGEMENT INTERNATIONAL INC.
CASE 2001 : 2001 SUMMER PEAK CASE - 2400 MW FROM GEORGIA RMI 4/28/98
BASED ON FEB FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FPSC 10-YEAR PLAN AND ADD ESTIMATED RATINGS TO CERTAIN FP&L LINES
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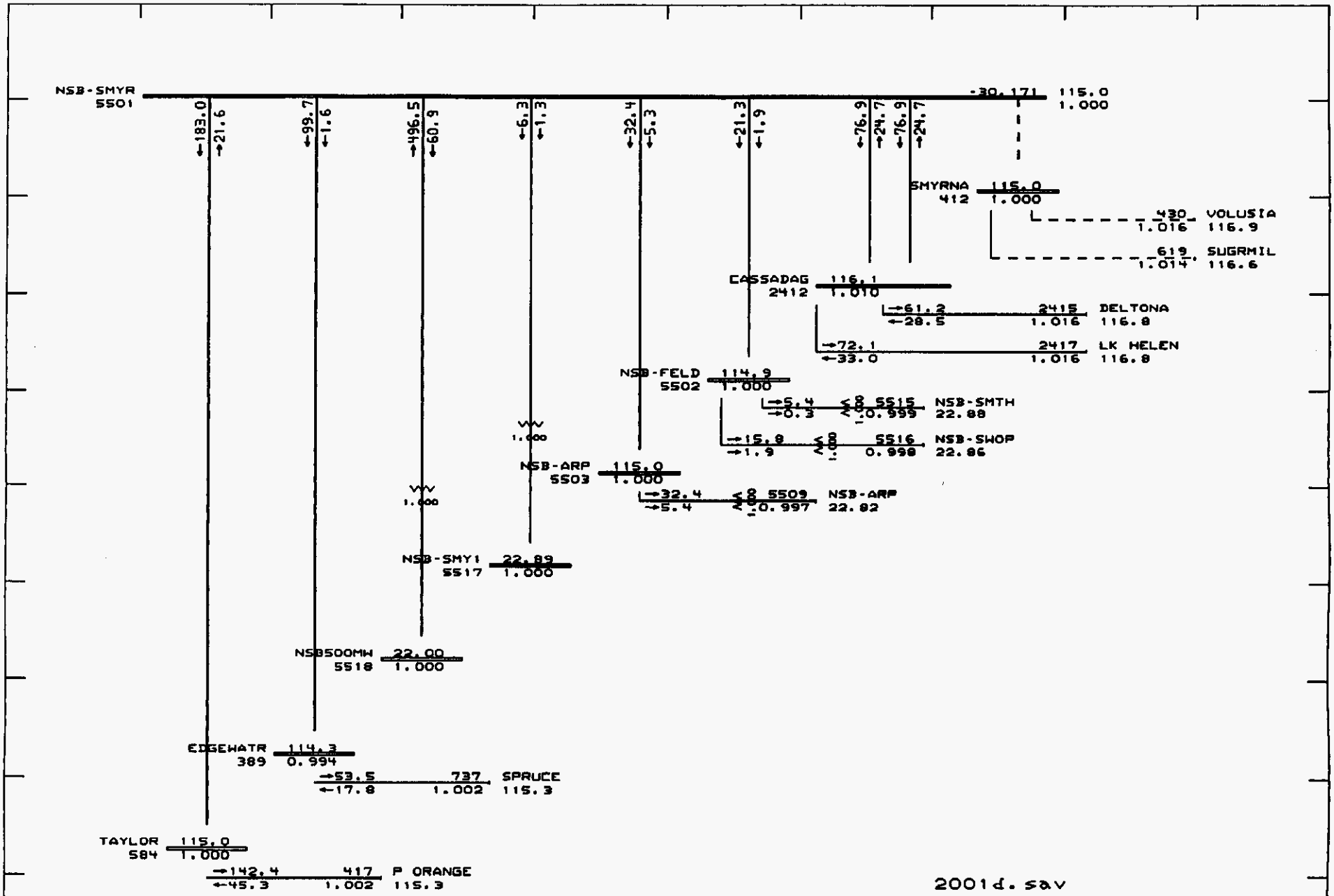
NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.
2001c.sav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←6.3
←1.3
←32.4
←5.3
←21.3
←1.9
←76.9
→24.7
←76.9
→24.7
SMYRNA 115.0
412 1.000
430 VOLUSIA
1.016 116.9
619 SUGRMIL
1.014 116.6
CASSADAG 116.1
2412 1.010
→61.2
←28.5
2415 DELTONA
1.016 116.8
→72.1
←33.0
2417 LK HELEN
1.016 116.8
NSB-FELD 114.9
5502 1.000
→5.4
→0.3
5515 NSB-SMTH
22.88
1.000
→15.8
→1.9
5516 NSB-SWDP
22.86
NSB-ARP 115.0
5503 1.000
→32.4
→5.4
5509 NSB-ARP
22.82
1.000
NSB-SMY1 22.89
5517 1.000
NSB500MW 22.00
5518 1.000
EDGEWATR 114.3
389 0.994
→53.5
←17.8
737 SPRUCE
1.002 115.3
TAYLOR 115.0
584 1.000
→142.4
←45.3
417 P ORANGE
1.002 115.3
2001d.sav
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Q mis = 0.0012 MVAR
General Electric Company
PSLF Program
MW/MVAR
Mon Jun 29 11:31:35 1998
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RESOURCE MANAGEMENT INTERNATIONAL INC.
CASE 2001 : 2001 SUMMER PEAK CASE - 2400 MW FROM GEORGIA
BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FPCC 10-YEAR
PLAN AND ADD ESTIMATED RATINGS TO CERTAIN FP&L LINES
RMI 4/28/98
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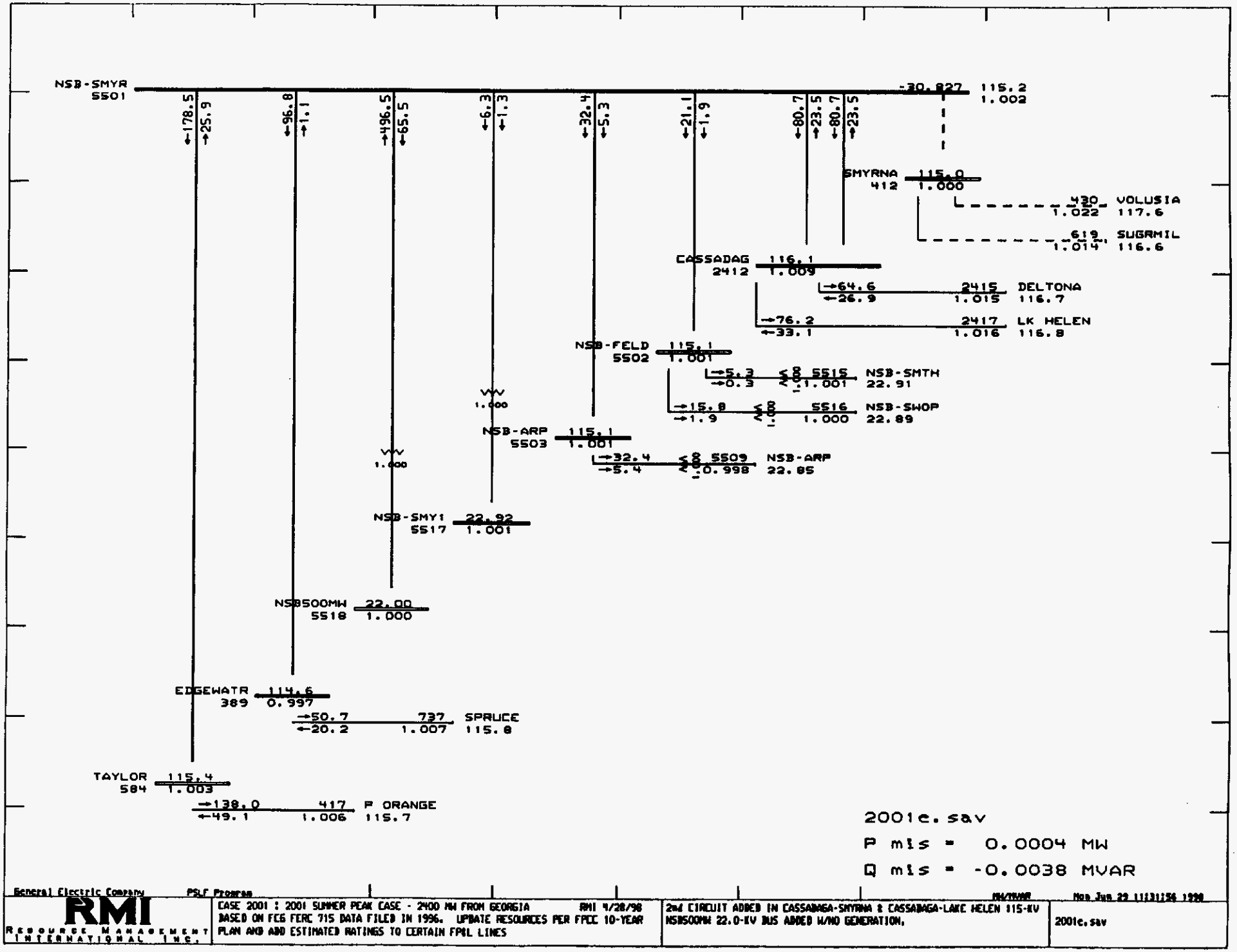
2001d.sav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→1.9
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→23.5
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→23.5
SMYRNA 115.0
412 1.000
430 VOLUSIA
1.022 117.6
619 SUBRMIL
1.014 116.6
CASSADAG 116.1
2412 1.009
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←26.9 1.015 116.7
→76.2 2417 LK HELEN
←33.1 1.016 116.8
NSB-FELD 115.1
5502 1.001
→5.3 ≤8 5515 NSB-SMTH
→0.3 1.001 22.91
→15.8 ≤8 5516 NSB-SWDP
→1.9 1.000 22.89
1.000
NSB-ARP 115.1
5503 1.001
→32.4 ≤8 5509 NSB-ARP
→5.4 0.998 22.85
1.000
NSB-SMYI 22.92
5517 1.001
NSB500MW 22.00
5518 1.000
EDGEWATR 114.6
389 0.997
→50.7 737 SPRUCE
←20.2 1.007 115.8
TAYLOR 115.4
584 1.003
→138.0 417 P ORANGE
←49.1 1.006 115.7
2001c.sav
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Q mis = -0.0038 MVAR
General Electric Company PSLF Program
MW/MVAR Mon Jun 29 11:31:56 1998
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CASE 2001 : 2001 SUMMER PEAK CASE - 2400 MW FROM GEORGIA RMI 4/28/98
BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FPCC 10-YEAR PLAN AND ADD ESTIMATED RATINGS TO CERTAIN FP&L LINES
2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LAKE HELEN 115-KV
NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.
2001c.sav

APPENDIX III

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-1	SN PLANT	230	SYLVAN	230	1	1						
2001-60-1	SYLVAN	230	N LONGWD	230	1	1						
2001-60-1	IND RIV	230	STANTON	230	1	11						
2001-60-1	SILVR SP	230	SILV SPN	230	1	2						
2001-60-1	SILVR SP	230	SILV SPN	230	2	2						
2001-60-1	RIO PINR	230	CURRY FD	230	1	2						
2001-60-1	JUNEAU-W	138	GANNON	138	1	16						
2001-60-1	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-1	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-1	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-1	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-1	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-1	SN PLANT	115	TURNER	115	1	1						
2001-60-1	PASADENA	115	40ST-DUM	115	1	2						
2001-60-1	MICHIGAN	115	KALEY	115	1	11						
2001-60-1	MICHIGAN	115	GRANT	115	1	11						
2001-60-1	PERSHING	115	GRANT	115	1	11						
2001-60-1	AMERICA	115	KALEY	115	1	11						
2001-60-1	JASPER	115	WGHTCHPL	115	1	2						
2001-60-1	AZALEA	115	BENNETT	115	1	11						
2001-60-1	FLORALTP	69	INVERNTP	69	1	2						
2001-60-1	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-1	PASADENA	230	PASADENA	115	1	2						
2001-60-1	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-1	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-1	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-1	IND RIV	230	IND RIV	115	1	11						
2001-60-1	LARGO	230	LARGO A	69	1	2						
2001-60-1	SHELD	230	SHELD-NW	69	1	16						
2001-60-1	CLMT EST	230	CLMT EST	69	1	2						
2001-60-1	WINDERME	230	WINDERME	69	1	2						
2001-60-1	RIVER-S	230	RIVER-S	69	1	16						
2001-60-1	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-1	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-1	JASPER	115	JASPER	69	1	2						
2001-60-2	SN PLANT	230	SYLVAN	230	1	1						
2001-60-2	SYLVAN	230	N LONGWD	230	1	1						
2001-60-2	IND RIV	230	STANTON	230	1	11						
2001-60-2	SILVR SP	230	SILV SPN	230	1	2						
2001-60-2	SILVR SP	230	SILV SPN	230	2	2						
2001-60-2	RIO PINR	230	CURRY FD	230	1	2						
2001-60-2	JUNEAU-W	138	GANNON	138	1	16						
2001-60-2	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-2	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-2	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-2	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-2	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-2	SN PLANT	115	TURNER	115	1	1						
2001-60-2	PASADENA	115	40ST-DUM	115	1	2						
2001-60-2	MICHIGAN	115	KALEY	115	1	11						
2001-60-2	MICHIGAN	115	GRANT	115	1	11						
2001-60-2	PERSHING	115	GRANT	115	1	11						
2001-60-2	AMERICA	115	KALEY	115	1	11						
2001-60-2	JASPER	115	WGHTCHPL	115	1	2						
2001-60-2	AZALEA	115	BENNETT	115	1	11						
2001-60-2	FLORALTP	69	INVERNTP	69	1	2						
2001-60-2	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-2	PASADENA	230	PASADENA	115	1	2						
2001-60-2	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-2	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-2	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-2	IND RIV	230	IND RIV	115	1	11						
2001-60-2	LARGO	230	LARGO A	69	1	2						
2001-60-2	SHELD	230	SHELD-NW	69	1	16						
2001-60-2	CLMT EST	230	CLMT EST	69	1	2						
2001-60-2	WINDERME	230	WINDERME	69	1	2						
2001-60-2	RIVER-S	230	RIVER-S	69	1	16						
2001-60-2	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-2	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-2	JASPER	115	JASPER	69	1	2						

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-3	SN PLANT	230	SYLVAN	230	1	1						
2001-60-3	SYLVAN	230	N LONGWD	230	1	1						
2001-60-3	IND RIV	230	STANTON	230	1	11						
2001-60-3	SILVR SP	230	SILV SPN	230	1	2						
2001-60-3	SILVR SP	230	SILV SPN	230	2	2						
2001-60-3	RIO PINR	230	CURRY FD	230	1	2						
2001-60-3	JUNEAU-W	138	GANNON	138	1	16						
2001-60-3	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-3	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-3	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-3	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-3	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-3	SN PLANT	115	TURNER	115	1	1						
2001-60-3	PASADENA	115	40ST-DUM	115	1	2						
2001-60-3	MICHIGAN	115	KALEY	115	1	11						
2001-60-3	MICHIGAN	115	GRANT	115	1	11						
2001-60-3	PERSHING	115	GRANT	115	1	11						
2001-60-3	AMERICA	115	KALEY	115	1	11						
2001-60-3	JASPER	115	WGHTCHPL	115	1	2						
2001-60-3	AZALEA	115	BENNETT	115	1	11						
2001-60-3	FLORALTP	69	INVERNTP	69	1	2						
2001-60-3	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-3	PASADENA	230	PASADENA	115	1	2						
2001-60-3	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-3	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-3	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-3	IND RIV	230	IND RIV	115	1	11						
2001-60-3	LARGO	230	LARGO A	69	1	2						
2001-60-3	SHELD	230	SHELD-NW	69	1	16						
2001-60-3	CLMT EST	230	CLMT EST	69	1	2						
2001-60-3	WINDERME	230	WINDERME	69	1	2						
2001-60-3	RIVER-S	230	RIVER-S	69	1	16						
2001-60-3	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-3	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-3	JASPER	115	JASPER	69	1	2						
2001-60-4	SN PLANT	230	SYLVAN	230	1	1						
2001-60-4	SYLVAN	230	N LONGWD	230	1	1						
2001-60-4	IND RIV	230	STANTON	230	1	11						
2001-60-4	SILVR SP	230	SILV SPN	230	1	2						
2001-60-4	SILVR SP	230	SILV SPN	230	2	2						
2001-60-4	RIO PINR	230	CURRY FD	230	1	2						
2001-60-4	JUNEAU-W	138	GANNON	138	1	16						
2001-60-4	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-4	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-4	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-4	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-4	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-4	SN PLANT	115	TURNER	115	1	1						
2001-60-4	PASADENA	115	40ST-DUM	115	1	2						
2001-60-4	MICHIGAN	115	KALEY	115	1	11						
2001-60-4	MICHIGAN	115	GRANT	115	1	11						
2001-60-4	PERSHING	115	GRANT	115	1	11						
2001-60-4	AMERICA	115	KALEY	115	1	11						
2001-60-4	JASPER	115	WGHTCHPL	115	1	2						
2001-60-4	AZALEA	115	BENNETT	115	1	11						
2001-60-4	FLORALTP	69	INVERNTP	69	1	2						
2001-60-4	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-4	PASADENA	230	PASADENA	115	1	2						
2001-60-4	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-4	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-4	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-4	IND RIV	230	IND RIV	115	1	11						
2001-60-4	LARGO	230	LARGO A	69	1	2						
2001-60-4	SHELD	230	SHELD-NW	69	1	16						
2001-60-4	CLMT EST	230	CLMT EST	69	1	2						
2001-60-4	WINDERME	230	WINDERME	69	1	2						
2001-60-4	RIVER-S	230	RIVER-S	69	1	16						
2001-60-4	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-4	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-4	JASPER	115	JASPER	69	1	2						

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-5	SN PLANT	230	SYLVAN	230	1	1						
2001-60-5	SYLVAN	230	N LONGWD	230	1	1						
2001-60-5	IND RIV	230	STANTON	230	1	11						
2001-60-5	SILVR SP	230	SILV SPN	230	1	2						
2001-60-5	SILVR SP	230	SILV SPN	230	2	2						
2001-60-5	RIO PINR	230	CURRY FD	230	1	2						
2001-60-5	JUNEAU-W	138	GANNON	138	1	16						
2001-60-5	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-5	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-5	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-5	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-5	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-5	SN PLANT	115	TURNER	115	1	1						
2001-60-5	PASADENA	115	40ST-DUM	115	1	2						
2001-60-5	MICHIGAN	115	KALEY	115	1	11						
2001-60-5	MICHIGAN	115	GRANT	115	1	11						
2001-60-5	PERSHING	115	GRANT	115	1	11						
2001-60-5	AMERICA	115	KALEY	115	1	11						
2001-60-5	JASPER	115	WGHTCHPL	115	1	2						
2001-60-5	AZALEA	115	BENNETT	115	1	11						
2001-60-5	FLORALTP	69	INVERNTP	69	1	2						
2001-60-5	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-5	PASADENA	230	PASADENA	115	1	2						
2001-60-5	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-5	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-5	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-5	IND RIV	230	IND RIV	115	1	11						
2001-60-5	LARGO	230	LARGO A	69	1	2						
2001-60-5	SHELD	230	SHELD-NW	69	1	16						
2001-60-5	CLMT EST	230	CLMT EST	69	1	2						
2001-60-5	WINDERME	230	WINDERME	69	1	2						
2001-60-5	RIVER-S	230	RIVER-S	69	1	16						
2001-60-5	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-5	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-5	JASPER	115	JASPER	69	1	2						
2001-60-6	SN PLANT	230	SYLVAN	230	1	1						
2001-60-6	SYLVAN	230	N LONGWD	230	1	1						
2001-60-6	IND RIV	230	STANTON	230	1	11						
2001-60-6	SILVR SP	230	SILV SPN	230	1	2						
2001-60-6	SILVR SP	230	SILV SPN	230	2	2						
2001-60-6	RIO PINR	230	CURRY FD	230	1	2						
2001-60-6	JUNEAU-W	138	GANNON	138	1	16						
2001-60-6	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-6	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-6	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-6	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-6	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-6	SN PLANT	115	TURNER	115	1	1						
2001-60-6	PASADENA	115	40ST-DUM	115	1	2						
2001-60-6	MICHIGAN	115	KALEY	115	1	11						
2001-60-6	MICHIGAN	115	GRANT	115	1	11						
2001-60-6	PERSHING	115	GRANT	115	1	11						
2001-60-6	AMERICA	115	KALEY	115	1	11						
2001-60-6	JASPER	115	WGHTCHPL	115	1	2						
2001-60-6	AZALEA	115	BENNETT	115	1	11						
2001-60-6	FLORALTP	69	INVERNTP	69	1	2						
2001-60-6	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-6	PASADENA	230	PASADENA	115	1	2						
2001-60-6	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-6	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-6	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-6	IND RIV	230	IND RIV	115	1	11						
2001-60-6	LARGO	230	LARGO A	69	1	2						
2001-60-6	SHELD	230	SHELD-NW	69	1	16						
2001-60-6	CLMT EST	230	CLMT EST	69	1	2						
2001-60-6	WINDERME	230	WINDERME	69	1	2						
2001-60-6	RIVER-S	230	RIVER-S	69	1	16						
2001-60-6	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-6	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-6	JASPER	115	JASPER	69	1	2						

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-7	SN PLANT	230	SYLVAN	230	1	1						
2001-60-7	SYLVAN	230	N LONGWD	230	1	1						
2001-60-7	IND RIV	230	STANTON	230	1	11						
2001-60-7	SILVR SP	230	SILV SPN	230	1	2						
2001-60-7	SILVR SP	230	SILV SPN	230	2	2						
2001-60-7	RIO PINR	230	CURRY FD	230	1	2						
2001-60-7	JUNEAU-W	138	GANNON	138	1	16						
2001-60-7	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-7	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-7	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-7	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-7	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-7	SN PLANT	115	TURNER	115	1	1						
2001-60-7	PASADENA	115	40ST-DUM	115	1	2						
2001-60-7	MICHIGAN	115	KALEY	115	1	11						
2001-60-7	MICHIGAN	115	GRANT	115	1	11						
2001-60-7	PERSHING	115	GRANT	115	1	11						
2001-60-7	AMERICA	115	KALEY	115	1	11						
2001-60-7	JASPER	115	WGHTCHPL	115	1	2						
2001-60-7	AZALEA	115	BENNETT	115	1	11						
2001-60-7	FLORALTP	69	INVERNTP	69	1	2						
2001-60-7	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-7	PASADENA	230	PASADENA	115	1	2						
2001-60-7	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-7	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-7	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-7	IND RIV	230	IND RIV	115	1	11						
2001-60-7	LARGO	230	LARGO A	69	1	2						
2001-60-7	SHELD	230	SHELD-NW	69	1	16						
2001-60-7	CLMT EST	230	CLMT EST	69	1	2						
2001-60-7	WINDERME	230	WINDERME	69	1	2						
2001-60-7	RIVER-S	230	RIVER-S	69	1	16						
2001-60-7	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-7	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-7	JASPER	115	JASPER	69	1	2						
2001-60-8	SN PLANT	230	SYLVAN	230	1	1						
2001-60-8	SYLVAN	230	N LONGWD	230	1	1						
2001-60-8	IND RIV	230	STANTON	230	1	11						
2001-60-8	SILVR SP	230	SILV SPN	230	1	2						
2001-60-8	SILVR SP	230	SILV SPN	230	2	2						
2001-60-8	RIO PINR	230	CURRY FD	230	1	2						
2001-60-8	JUNEAU-W	138	GANNON	138	1	16						
2001-60-8	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-8	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-8	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-8	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-8	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-8	SN PLANT	115	TURNER	115	1	1						
2001-60-8	PASADENA	115	40ST-DUM	115	1	2						
2001-60-8	MICHIGAN	115	KALEY	115	1	11						
2001-60-8	MICHIGAN	115	GRANT	115	1	11						
2001-60-8	PERSHING	115	GRANT	115	1	11						
2001-60-8	AMERICA	115	KALEY	115	1	11						
2001-60-8	JASPER	115	WGHTCHPL	115	1	2						
2001-60-8	AZALEA	115	BENNETT	115	1	11						
2001-60-8	FLORALTP	69	INVERNTP	69	1	2						
2001-60-8	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-8	PASADENA	230	PASADENA	115	1	2						
2001-60-8	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-8	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-8	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-8	IND RIV	230	IND RIV	115	1	11						
2001-60-8	LARGO	230	LARGO A	69	1	2						
2001-60-8	SHELD	230	SHELD-NW	69	1	16						
2001-60-8	CLMT EST	230	CLMT EST	69	1	2						
2001-60-8	WINDERME	230	WINDERME	69	1	2						
2001-60-8	RIVER-S	230	RIVER-S	69	1	16						
2001-60-8	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-8	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-8	JASPER	115	JASPER	69	1	2						

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-9	SN PLANT	230	SYLVAN	230	1	1						
2001-60-9	SYLVAN	230	N LONGWD	230	1	1						
2001-60-9	IND RIV	230	STANTON	230	1	11						
2001-60-9	SILVR SP	230	SILV SPN	230	1	2						
2001-60-9	SILVR SP	230	SILV SPN	230	2	2						
2001-60-9	RIO PINR	230	CURRY FD	230	1	2						
2001-60-9	JUNEAU-W	138	GANNON	138	1	16						
2001-60-9	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-9	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-9	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-9	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-9	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-9	SN PLANT	115	TURNER	115	1	1						
2001-60-9	PASADENA	115	40ST-DUM	115	1	2						
2001-60-9	MICHIGAN	115	KALEY	115	1	11						
2001-60-9	MICHIGAN	115	GRANT	115	1	11						
2001-60-9	PERSHING	115	GRANT	115	1	11						
2001-60-9	AMERICA	115	KALEY	115	1	11						
2001-60-9	JASPER	115	WGHTCHPL	115	1	2						
2001-60-9	AZALEA	115	BENNETT	115	1	11						
2001-60-9	FLORALTP	69	INVERNTP	69	1	2						
2001-60-9	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-9	PASADENA	230	PASADENA	115	1	2						
2001-60-9	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-9	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-9	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-9	IND RIV	230	IND RIV	115	1	11						
2001-60-9	LARGO	230	LARGO A	69	1	2						
2001-60-9	SHELD	230	SHELD-NW	69	1	16						
2001-60-9	CLMT EST	230	CLMT EST	69	1	2						
2001-60-9	WINDERME	230	WINDERME	69	1	2						
2001-60-9	RIVER-S	230	RIVER-S	69	1	16						
2001-60-9	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-9	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-9	JASPER	115	JASPER	69	1	2						
2001-60-10	SN PLANT	230	SYLVAN	230	1	1						
2001-60-10	SYLVAN	230	N LONGWD	230	1	1						
2001-60-10	IND RIV	230	STANTON	230	1	11						
2001-60-10	SILVR SP	230	SILV SPN	230	1	2						
2001-60-10	SILVR SP	230	SILV SPN	230	2	2						
2001-60-10	RIO PINR	230	CURRY FD	230	1	2						
2001-60-10	JUNEAU-W	138	GANNON	138	1	16						
2001-60-10	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-10	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-10	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-10	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-10	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-10	SN PLANT	115	TURNER	115	1	1						
2001-60-10	PASADENA	115	40ST-DUM	115	1	2						
2001-60-10	MICHIGAN	115	KALEY	115	1	11						
2001-60-10	MICHIGAN	115	GRANT	115	1	11						
2001-60-10	PERSHING	115	GRANT	115	1	11						
2001-60-10	AMERICA	115	KALEY	115	1	11						
2001-60-10	JASPER	115	WGHTCHPL	115	1	2						
2001-60-10	AZALEA	115	BENNETT	115	1	11						
2001-60-10	FLORALTP	69	INVERNTP	69	1	2						
2001-60-10	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-10	PASADENA	230	PASADENA	115	1	2						
2001-60-10	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-10	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-10	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-10	IND RIV	230	IND RIV	115	1	11						
2001-60-10	LARGO	230	LARGO A	69	1	2						
2001-60-10	SHELD	230	SHELD-NW	69	1	16						
2001-60-10	CLMT EST	230	CLMT EST	69	1	2						
2001-60-10	WINDERME	230	WINDERME	69	1	2						
2001-60-10	RIVER-S	230	RIVER-S	69	1	16						
2001-60-10	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-10	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-10	JASPER	115	JASPER	69	1	2						

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-11	SN PLANT	230	SYLVAN	230	1	1						
2001-60-11	SYLVAN	230	N LONGWD	230	1	1						
2001-60-11	IND RIV	230	STANTON	230	1	11						
2001-60-11	SILVR SP	230	SILV SPN	230	1	2						
2001-60-11	SILVR SP	230	SILV SPN	230	2	2						
2001-60-11	RIO PINR	230	CURRY FD	230	1	2						
2001-60-11	JUNEAU-W	138	GANNON	138	1	16						
2001-60-11	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-11	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-11	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-11	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-11	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-11	SN PLANT	115	TURNER	115	1	1						
2001-60-11	PASADENA	115	40ST-DUM	115	1	2						
2001-60-11	MICHIGAN	115	KALEY	115	1	11						
2001-60-11	MICHIGAN	115	GRANT	115	1	11						
2001-60-11	PERSHING	115	GRANT	115	1	11						
2001-60-11	AMERICA	115	KALEY	115	1	11						
2001-60-11	JASPER	115	WGHTCHPL	115	1	2						
2001-60-11	AZALEA	115	BENNETT	115	1	11						
2001-60-11	FLORALTP	69	INVERNTP	69	1	2						
2001-60-11	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-11	PASADENA	230	PASADENA	115	1	2						
2001-60-11	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-11	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-11	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-11	IND RIV	230	IND RIV	115	1	11						
2001-60-11	LARGO	230	LARGO A	69	1	2						
2001-60-11	SHELD	230	SHELD-NW	69	1	16						
2001-60-11	CLMT EST	230	CLMT EST	69	1	2						
2001-60-11	WINDERME	230	WINDERME	69	1	2						
2001-60-11	RIVER-S	230	RIVER-S	69	1	16						
2001-60-11	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-11	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-11	JASPER	115	JASPER	69	1	2						
2001-60-12	SN PLANT	230	SYLVAN	230	1	1						
2001-60-12	SYLVAN	230	N LONGWD	230	1	1						
2001-60-12	IND RIV	230	STANTON	230	1	11						
2001-60-12	SILVR SP	230	SILV SPN	230	1	2						
2001-60-12	SILVR SP	230	SILV SPN	230	2	2						
2001-60-12	RIO PINR	230	CURRY FD	230	1	2						
2001-60-12	JUNEAU-W	138	GANNON	138	1	16						
2001-60-12	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-12	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-12	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-12	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-12	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-12	SN PLANT	115	TURNER	115	1	1						
2001-60-12	PASADENA	115	40ST-DUM	115	1	2						
2001-60-12	MICHIGAN	115	KALEY	115	1	11						
2001-60-12	MICHIGAN	115	GRANT	115	1	11						
2001-60-12	PERSHING	115	GRANT	115	1	11						
2001-60-12	AMERICA	115	KALEY	115	1	11						
2001-60-12	JASPER	115	WGHTCHPL	115	1	2						
2001-60-12	AZALEA	115	BENNETT	115	1	11						
2001-60-12	FLORALTP	69	INVERNTP	69	1	2						
2001-60-12	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-12	PASADENA	230	PASADENA	115	1	2						
2001-60-12	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-12	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-12	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-12	IND RIV	230	IND RIV	115	1	11						
2001-60-12	LARGO	230	LARGO A	69	1	2						
2001-60-12	SHELD	230	SHELD-NW	69	1	16						
2001-60-12	CLMT EST	230	CLMT EST	69	1	2						
2001-60-12	WINDERME	230	WINDERME	69	1	2						
2001-60-12	RIVER-S	230	RIVER-S	69	1	16						
2001-60-12	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-12	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-12	JASPER	115	JASPER	69	1	2						

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-13	SN PLANT	230	SYLVAN	230	1	1						
2001-60-13	SYLVAN	230	N LONGWD	230	1	1						
2001-60-13	IND RIV	230	STANTON	230	1	11						
2001-60-13	SILVR SP	230	SILV SPN	230	1	2						
2001-60-13	SILVR SP	230	SILV SPN	230	2	2						
2001-60-13	RIO PINR	230	CURRY FD	230	1	2						
2001-60-13	JUNEAU-W	138	GANNON	138	1	16						
2001-60-13	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-13	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-13	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-13	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-13	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-13	SN PLANT	115	TURNER	115	1	1						
2001-60-13	PASADENA	115	40ST-DUM	115	1	2						
2001-60-13	MICHIGAN	115	KALEY	115	1	11						
2001-60-13	MICHIGAN	115	GRANT	115	1	11						
2001-60-13	PERSHING	115	GRANT	115	1	11						
2001-60-13	AMERICA	115	KALEY	115	1	11						
2001-60-13	JASPER	115	WGHTCHPL	115	1	2						
2001-60-13	AZALEA	115	BENNETT	115	1	11						
2001-60-13	FLORALTP	69	INVERNTP	69	1	2						
2001-60-13	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-13	PASADENA	230	PASADENA	115	1	2						
2001-60-13	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-13	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-13	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-13	IND RIV	230	IND RIV	115	1	11						
2001-60-13	LARGO	230	LARGO A	69	1	2						
2001-60-13	SHELD	230	SHELD-NW	69	1	16						
2001-60-13	CLMT EST	230	CLMT EST	69	1	2						
2001-60-13	WINDERME	230	WINDERME	69	1	2						
2001-60-13	RIVER-S	230	RIVER-S	69	1	16						
2001-60-13	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-13	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-13	JASPER	115	JASPER	69	1	2						
2001-60-14	SN PLANT	230	SYLVAN	230	1	1						
2001-60-14	SYLVAN	230	N LONGWD	230	1	1						
2001-60-14	IND RIV	230	STANTON	230	1	11						
2001-60-14	SILVR SP	230	SILV SPN	230	1	2						
2001-60-14	SILVR SP	230	SILV SPN	230	2	2						
2001-60-14	RIO PINR	230	CURRY FD	230	1	2						
2001-60-14	JUNEAU-W	138	GANNON	138	1	16						
2001-60-14	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-14	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-14	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-14	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-14	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-14	SN PLANT	115	TURNER	115	1	1						
2001-60-14	PASADENA	115	40ST-DUM	115	1	2						
2001-60-14	MICHIGAN	115	KALEY	115	1	11						
2001-60-14	MICHIGAN	115	GRANT	115	1	11						
2001-60-14	PERSHING	115	GRANT	115	1	11						
2001-60-14	AMERICA	115	KALEY	115	1	11						
2001-60-14	JASPER	115	WGHTCHPL	115	1	2						
2001-60-14	AZALEA	115	BENNETT	115	1	11						
2001-60-14	FLORALTP	69	INVERNTP	69	1	2						
2001-60-14	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-14	PASADENA	230	PASADENA	115	1	2						
2001-60-14	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-14	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-14	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-14	IND RIV	230	IND RIV	115	1	11						
2001-60-14	LARGO	230	LARGO A	69	1	2						
2001-60-14	SHELD	230	SHELD-NW	69	1	16						
2001-60-14	CLMT EST	230	CLMT EST	69	1	2						
2001-60-14	WINDERME	230	WINDERME	69	1	2						
2001-60-14	RIVER-S	230	RIVER-S	69	1	16						
2001-60-14	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-14	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-14	JASPER	115	JASPER	69	1	2						

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-15	SN PLANT	230	SYLVAN	230	1	1						
2001-60-15	SYLVAN	230	N LONGWD	230	1	1						
2001-60-15	IND RIV	230	STANTON	230	1	11						
2001-60-15	SILVR SP	230	SILV SPN	230	1	2						
2001-60-15	SILVR SP	230	SILV SPN	230	2	2						
2001-60-15	RIO PINR	230	CURRY FD	230	1	2						
2001-60-15	JUNEAU-W	138	GANNON	138	1	16						
2001-60-15	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-15	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-15	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-15	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-15	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-15	SN PLANT	115	TURNER	115	1	1						
2001-60-15	PASADENA	115	40ST-DUM	115	1	2						
2001-60-15	MICHIGAN	115	KALEY	115	1	11						
2001-60-15	MICHIGAN	115	GRANT	115	1	11						
2001-60-15	PERSHING	115	GRANT	115	1	11						
2001-60-15	AMERICA	115	KALEY	115	1	11						
2001-60-15	JASPER	115	WGHTCHPL	115	1	2						
2001-60-15	AZALEA	115	BENNETT	115	1	11						
2001-60-15	FLORALTP	69	INVERNTP	69	1	2						
2001-60-15	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-15	PASADENA	230	PASADENA	115	1	2						
2001-60-15	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-15	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-15	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-15	IND RIV	230	IND RIV	115	1	11						
2001-60-15	LARGO	230	LARGO A	69	1	2						
2001-60-15	SHELD	230	SHELD-NW	69	1	16						
2001-60-15	CLMT EST	230	CLMT EST	69	1	2						
2001-60-15	WINDERME	230	WINDERME	69	1	2						
2001-60-15	RIVER-S	230	RIVER-S	69	1	16						
2001-60-15	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-15	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-15	JASPER	115	JASPER	69	1	2						
2001-60-16	SN PLANT	230	SYLVAN	230	1	1						
2001-60-16	SYLVAN	230	N LONGWD	230	1	1						
2001-60-16	IND RIV	230	STANTON	230	1	11						
2001-60-16	SILVR SP	230	SILV SPN	230	1	2						
2001-60-16	SILVR SP	230	SILV SPN	230	2	2						
2001-60-16	RIO PINR	230	CURRY FD	230	1	2						
2001-60-16	JUNEAU-W	138	GANNON	138	1	16						
2001-60-16	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-16	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-16	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-16	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-16	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-16	SN PLANT	115	TURNER	115	1	1						
2001-60-16	PASADENA	115	40ST-DUM	115	1	2						
2001-60-16	MICHIGAN	115	KALEY	115	1	11						
2001-60-16	MICHIGAN	115	GRANT	115	1	11						
2001-60-16	PERSHING	115	GRANT	115	1	11						
2001-60-16	AMERICA	115	KALEY	115	1	11						
2001-60-16	JASPER	115	WGHTCHPL	115	1	2						
2001-60-16	AZALEA	115	BENNETT	115	1	11						
2001-60-16	FLORALTP	69	INVERNTP	69	1	2						
2001-60-16	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-16	PASADENA	230	PASADENA	115	1	2						
2001-60-16	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-16	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-16	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-16	IND RIV	230	IND RIV	115	1	11						
2001-60-16	LARGO	230	LARGO A	69	1	2						
2001-60-16	SHELD	230	SHELD-NW	69	1	16						
2001-60-16	CLMT EST	230	CLMT EST	69	1	2						
2001-60-16	WINDERME	230	WINDERME	69	1	2						
2001-60-16	RIVER-S	230	RIVER-S	69	1	16						
2001-60-16	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-16	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-16	JASPER	115	JASPER	69	1	2						

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-17	SN PLANT	230	SYLVAN	230	1	1						
2001-60-17	SYLVAN	230	N LONGWD	230	1	1						
2001-60-17	IND RIV	230	STANTON	230	1	11						
2001-60-17	SILVR SP	230	SILV SPN	230	1	2						
2001-60-17	SILVR SP	230	SILV SPN	230	2	2						
2001-60-17	RIO PINR	230	CURRY FD	230	1	2						
2001-60-17	JUNEAU-W	138	GANNON	138	1	16						
2001-60-17	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-17	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-17	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-17	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-17	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-17	SN PLANT	115	TURNER	115	1	1						
2001-60-17	PASADENA	115	40ST-DUM	115	1	2						
2001-60-17	MICHIGAN	115	KALEY	115	1	11						
2001-60-17	MICHIGAN	115	GRANT	115	1	11						
2001-60-17	PERSHING	115	GRANT	115	1	11						
2001-60-17	AMERICA	115	KALEY	115	1	11						
2001-60-17	JASPER	115	WGHTCHPL	115	1	2						
2001-60-17	AZALEA	115	BENNETT	115	1	11						
2001-60-17	FLORALTP	69	INVERNTP	69	1	2						
2001-60-17	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-17	PASADENA	230	PASADENA	115	1	2						
2001-60-17	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-17	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-17	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-17	IND RIV	230	IND RIV	115	1	11						
2001-60-17	LARGO	230	LARGO A	69	1	2						
2001-60-17	SHELD	230	SHELD-NW	69	1	16						
2001-60-17	CLMT EST	230	CLMT EST	69	1	2						
2001-60-17	WINDERME	230	WINDERME	69	1	2						
2001-60-17	RIVER-S	230	RIVER-S	69	1	16						
2001-60-17	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-17	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-17	JASPER	115	JASPER	69	1	2						
2001-60-18	SN PLANT	230	SYLVAN	230	1	1						
2001-60-18	SYLVAN	230	N LONGWD	230	1	1						
2001-60-18	IND RIV	230	STANTON	230	1	11						
2001-60-18	SILVR SP	230	SILV SPN	230	1	2						
2001-60-18	SILVR SP	230	SILV SPN	230	2	2						
2001-60-18	RIO PINR	230	CURRY FD	230	1	2						
2001-60-18	JUNEAU-W	138	GANNON	138	1	16						
2001-60-18	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-18	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-18	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-18	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-18	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-18	SN PLANT	115	TURNER	115	1	1						
2001-60-18	PASADENA	115	40ST-DUM	115	1	2						
2001-60-18	MICHIGAN	115	KALEY	115	1	11						
2001-60-18	MICHIGAN	115	GRANT	115	1	11						
2001-60-18	PERSHING	115	GRANT	115	1	11						
2001-60-18	AMERICA	115	KALEY	115	1	11						
2001-60-18	JASPER	115	WGHTCHPL	115	1	2						
2001-60-18	AZALEA	115	BENNETT	115	1	11						
2001-60-18	FLORALTP	69	INVERNTP	69	1	2						
2001-60-18	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-18	PASADENA	230	PASADENA	115	1	2						
2001-60-18	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-18	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-18	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-18	IND RIV	230	IND RIV	115	1	11						
2001-60-18	LARGO	230	LARGO A	69	1	2						
2001-60-18	SHELD	230	SHELD-NW	69	1	16						
2001-60-18	CLMT EST	230	CLMT EST	69	1	2						
2001-60-18	WINDERME	230	WINDERME	69	1	2						
2001-60-18	RIVER-S	230	RIVER-S	69	1	16						
2001-60-18	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-18	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-18	JASPER	115	JASPER	69	1	2						

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-19	SN PLANT	230	SYLVAN	230	1	1						
2001-60-19	SYLVAN	230	N LONGWD	230	1	1						
2001-60-19	IND RIV	230	STANTON	230	1	11						
2001-60-19	SILVR SP	230	SILV SPN	230	1	2						
2001-60-19	SILVR SP	230	SILV SPN	230	2	2						
2001-60-19	RIO PINR	230	CURRY FD	230	1	2						
2001-60-19	JUNEAU-W	138	GANNON	138	1	16						
2001-60-19	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-19	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-19	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-19	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-19	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-19	SN PLANT	115	TURNER	115	1	1						
2001-60-19	PASADENA	115	40ST-DUM	115	1	2						
2001-60-19	MICHIGAN	115	KALEY	115	1	11						
2001-60-19	MICHIGAN	115	GRANT	115	1	11						
2001-60-19	PERSHING	115	GRANT	115	1	11						
2001-60-19	AMERICA	115	KALEY	115	1	11						
2001-60-19	JASPER	115	WGHTCHPL	115	1	2						
2001-60-19	AZALEA	115	BENNETT	115	1	11						
2001-60-19	FLORALTP	69	INVERNTP	69	1	2						
2001-60-19	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-19	PASADENA	230	PASADENA	115	1	2						
2001-60-19	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-19	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-19	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-19	IND RIV	230	IND RIV	115	1	11						
2001-60-19	LARGO	230	LARGO A	69	1	2						
2001-60-19	SHELD	230	SHELD-NW	69	1	16						
2001-60-19	CLMT EST	230	CLMT EST	69	1	2						
2001-60-19	WINDERME	230	WINDERME	69	1	2						
2001-60-19	RIVER-S	230	RIVER-S	69	1	16						
2001-60-19	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-19	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-19	JASPER	115	JASPER	69	1	2						
2001-60-20	SN PLANT	230	SYLVAN	230	1	1						
2001-60-20	SYLVAN	230	N LONGWD	230	1	1						
2001-60-20	IND RIV	230	STANTON	230	1	11						
2001-60-20	SILVR SP	230	SILV SPN	230	1	2						
2001-60-20	SILVR SP	230	SILV SPN	230	2	2						
2001-60-20	RIO PINR	230	CURRY FD	230	1	2						
2001-60-20	JUNEAU-W	138	GANNON	138	1	16						
2001-60-20	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-20	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-20	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-20	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-20	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-20	SN PLANT	115	TURNER	115	1	1						
2001-60-20	PASADENA	115	40ST-DUM	115	1	2						
2001-60-20	MICHIGAN	115	KALEY	115	1	11						
2001-60-20	MICHIGAN	115	GRANT	115	1	11						
2001-60-20	PERSHING	115	GRANT	115	1	11						
2001-60-20	AMERICA	115	KALEY	115	1	11						
2001-60-20	JASPER	115	WGHTCHPL	115	1	2						
2001-60-20	AZALEA	115	BENNETT	115	1	11						
2001-60-20	FLORALTP	69	INVERNTP	69	1	2						
2001-60-20	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-20	PASADENA	230	PASADENA	115	1	2						
2001-60-20	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-20	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-20	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-20	IND RIV	230	IND RIV	115	1	11						
2001-60-20	LARGO	230	LARGO A	69	1	2						
2001-60-20	SHELD	230	SHELD-NW	69	1	16						
2001-60-20	CLMT EST	230	CLMT EST	69	1	2						
2001-60-20	WINDERME	230	WINDERME	69	1	2						
2001-60-20	RIVER-S	230	RIVER-S	69	1	16						
2001-60-20	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-20	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-20	JASPER	115	JASPER	69	1	2						

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-21	SN PLANT	230	SYLVAN	230	1	1						
2001-60-21	SYLVAN	230	N LONGWD	230	1	1						
2001-60-21	IND RIV	230	STANTON	230	1	11						
2001-60-21	SILVR SP	230	SILV SPN	230	1	2						
2001-60-21	SILVR SP	230	SILV SPN	230	2	2						
2001-60-21	RIO PINR	230	CURRY FD	230	1	2						
2001-60-21	JUNEAU-W	138	GANNON	138	1	16						
2001-60-21	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-21	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-21	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-21	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-21	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-21	SN PLANT	115	TURNER	115	1	1						
2001-60-21	PASADENA	115	40ST-DUM	115	1	2						
2001-60-21	MICHIGAN	115	KALEY	115	1	11						
2001-60-21	MICHIGAN	115	GRANT	115	1	11						
2001-60-21	PERSHING	115	GRANT	115	1	11						
2001-60-21	AMERICA	115	KALEY	115	1	11						
2001-60-21	JASPER	115	WGHTCHPL	115	1	2						
2001-60-21	AZALEA	115	BENNETT	115	1	11						
2001-60-21	FLORALTP	69	INVERNTP	69	1	2						
2001-60-21	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-21	PASADENA	230	PASADENA	115	1	2						
2001-60-21	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-21	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-21	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-21	IND RIV	230	IND RIV	115	1	11						
2001-60-21	LARGO	230	LARGO A	69	1	2						
2001-60-21	SHELD	230	SHELD-NW	69	1	16						
2001-60-21	CLMT EST	230	CLMT EST	69	1	2						
2001-60-21	WINDERME	230	WINDERME	69	1	2						
2001-60-21	RIVER-S	230	RIVER-S	69	1	16						
2001-60-21	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-21	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-21	JASPER	115	JASPER	69	1	2						
2001-60-22	SN PLANT	230	SYLVAN	230	1	1						
2001-60-22	SYLVAN	230	N LONGWD	230	1	1						
2001-60-22	IND RIV	230	STANTON	230	1	11						
2001-60-22	SILVR SP	230	SILV SPN	230	1	2						
2001-60-22	SILVR SP	230	SILV SPN	230	2	2						
2001-60-22	RIO PINR	230	CURRY FD	230	1	2						
2001-60-22	JUNEAU-W	138	GANNON	138	1	16						
2001-60-22	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-22	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-22	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-22	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-22	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-22	SN PLANT	115	TURNER	115	1	1						
2001-60-22	PASADENA	115	40ST-DUM	115	1	2						
2001-60-22	MICHIGAN	115	KALEY	115	1	11						
2001-60-22	MICHIGAN	115	GRANT	115	1	11						
2001-60-22	PERSHING	115	GRANT	115	1	11						
2001-60-22	AMERICA	115	KALEY	115	1	11						
2001-60-22	JASPER	115	WGHTCHPL	115	1	2						
2001-60-22	AZALEA	115	BENNETT	115	1	11						
2001-60-22	FLORALTP	69	INVERNTP	69	1	2						
2001-60-22	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-22	PASADENA	230	PASADENA	115	1	2						
2001-60-22	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-22	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-22	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-22	IND RIV	230	IND RIV	115	1	11						
2001-60-22	LARGO	230	LARGO A	69	1	2						
2001-60-22	SHELD	230	SHELD-NW	69	1	16						
2001-60-22	CLMT EST	230	CLMT EST	69	1	2						
2001-60-22	WINDERME	230	WINDERME	69	1	2						
2001-60-22	RIVER-S	230	RIVER-S	69	1	16						
2001-60-22	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-22	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-22	JASPER	115	JASPER	69	1	2						

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-23	SN PLANT	230	SYLVAN	230	1	1						
2001-60-23	SYLVAN	230	N LONGWD	230	1	1						
2001-60-23	IND RIV	230	STANTON	230	1	11						
2001-60-23	SILVR SP	230	SILV SPN	230	1	2						
2001-60-23	SILVR SP	230	SILV SPN	230	2	2						
2001-60-23	RIO PINR	230	CURRY FD	230	1	2						
2001-60-23	JUNEAU-W	138	GANNON	138	1	16						
2001-60-23	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-23	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-23	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-23	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-23	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-23	SN PLANT	115	TURNER	115	1	1						
2001-60-23	PASADENA	115	40ST-DUM	115	1	2						
2001-60-23	MICHIGAN	115	KALEY	115	1	11						
2001-60-23	MICHIGAN	115	GRANT	115	1	11						
2001-60-23	PERSHING	115	GRANT	115	1	11						
2001-60-23	AMERICA	115	KALEY	115	1	11						
2001-60-23	JASPER	115	WGHTCHPL	115	1	2						
2001-60-23	AZALEA	115	BENNETT	115	1	11						
2001-60-23	FLORALTP	69	INVERNTP	69	1	2						
2001-60-23	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-23	PASADENA	230	PASADENA	115	1	2						
2001-60-23	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-23	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-23	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-23	IND RIV	230	IND RIV	115	1	11						
2001-60-23	LARGO	230	LARGO A	69	1	2						
2001-60-23	SHELD	230	SHELD-NW	69	1	16						
2001-60-23	CLMT EST	230	CLMT EST	69	1	2						
2001-60-23	WINDERME	230	WINDERME	69	1	2						
2001-60-23	RIVER-S	230	RIVER-S	69	1	16						
2001-60-23	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-23	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-23	JASPER	115	JASPER	69	1	2						
2001-60-24	SN PLANT	230	SYLVAN	230	1	1						
2001-60-24	SYLVAN	230	N LONGWD	230	1	1						
2001-60-24	IND RIV	230	STANTON	230	1	11						
2001-60-24	SILVR SP	230	SILV SPN	230	1	2						
2001-60-24	SILVR SP	230	SILV SPN	230	2	2						
2001-60-24	RIO PINR	230	CURRY FD	230	1	2						
2001-60-24	JUNEAU-W	138	GANNON	138	1	16						
2001-60-24	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-24	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-24	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-24	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-24	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-24	SN PLANT	115	TURNER	115	1	1						
2001-60-24	PASADENA	115	40ST-DUM	115	1	2						
2001-60-24	MICHIGAN	115	KALEY	115	1	11						
2001-60-24	MICHIGAN	115	GRANT	115	1	11						
2001-60-24	PERSHING	115	GRANT	115	1	11						
2001-60-24	AMERICA	115	KALEY	115	1	11						
2001-60-24	JASPER	115	WGHTCHPL	115	1	2						
2001-60-24	AZALEA	115	BENNETT	115	1	11						
2001-60-24	FLORALTP	69	INVERNTP	69	1	2						
2001-60-24	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-24	PASADENA	230	PASADENA	115	1	2						
2001-60-24	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-24	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-24	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-24	IND RIV	230	IND RIV	115	1	11						
2001-60-24	LARGO	230	LARGO A	69	1	2						
2001-60-24	SHELD	230	SHELD-NW	69	1	16						
2001-60-24	CLMT EST	230	CLMT EST	69	1	2						
2001-60-24	WINDERME	230	WINDERME	69	1	2						
2001-60-24	RIVER-S	230	RIVER-S	69	1	16						
2001-60-24	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-24	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-24	JASPER	115	JASPER	69	1	2						

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-25	SN PLANT	230	SYLVAN	230	1	1						
2001-60-25	SYLVAN	230	N LONGWD	230	1	1						
2001-60-25	IND RIV	230	STANTON	230	1	11						
2001-60-25	SILVR SP	230	SILV SPN	230	1	2						
2001-60-25	SILVR SP	230	SILV SPN	230	2	2						
2001-60-25	RIO PINR	230	CURRY FD	230	1	2						
2001-60-25	JUNEAU-W	138	GANNON	138	1	16						
2001-60-25	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-25	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-25	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-25	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-25	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-25	SN PLANT	115	TURNER	115	1	1						
2001-60-25	PASADENA	115	40ST-DUM	115	1	2						
2001-60-25	MICHIGAN	115	KALEY	115	1	11						
2001-60-25	MICHIGAN	115	GRANT	115	1	11						
2001-60-25	PERSHING	115	GRANT	115	1	11						
2001-60-25	AMERICA	115	KALEY	115	1	11						
2001-60-25	JASPER	115	WGHTCHPL	115	1	2						
2001-60-25	AZALEA	115	BENNETT	115	1	11						
2001-60-25	FLORALTP	69	INVERNTP	69	1	2						
2001-60-25	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-25	PASADENA	230	PASADENA	115	1	2						
2001-60-25	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-25	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-25	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-25	IND RIV	230	IND RIV	115	1	11						
2001-60-25	LARGO	230	LARGO A	69	1	2						
2001-60-25	SHELD	230	SHELD-NW	69	1	16						
2001-60-25	CLMT EST	230	CLMT EST	69	1	2						
2001-60-25	WINDERME	230	WINDERME	69	1	2						
2001-60-25	RIVER-S	230	RIVER-S	69	1	16						
2001-60-25	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-25	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-25	JASPER	115	JASPER	69	1	2						
2001-60-26	SN PLANT	230	SYLVAN	230	1	1						
2001-60-26	SYLVAN	230	N LONGWD	230	1	1						
2001-60-26	IND RIV	230	STANTON	230	1	11						
2001-60-26	SILVR SP	230	SILV SPN	230	1	2						
2001-60-26	SILVR SP	230	SILV SPN	230	2	2						
2001-60-26	RIO PINR	230	CURRY FD	230	1	2						
2001-60-26	JUNEAU-W	138	GANNON	138	1	16						
2001-60-26	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-26	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-26	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-26	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-26	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-26	SN PLANT	115	TURNER	115	1	1						
2001-60-26	PASADENA	115	40ST-DUM	115	1	2						
2001-60-26	MICHIGAN	115	KALEY	115	1	11						
2001-60-26	MICHIGAN	115	GRANT	115	1	11						
2001-60-26	PERSHING	115	GRANT	115	1	11						
2001-60-26	AMERICA	115	KALEY	115	1	11						
2001-60-26	JASPER	115	WGHTCHPL	115	1	2						
2001-60-26	AZALEA	115	BENNETT	115	1	11						
2001-60-26	FLORALTP	69	INVERNTP	69	1	2						
2001-60-26	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-26	PASADENA	230	PASADENA	115	1	2						
2001-60-26	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-26	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-26	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-26	IND RIV	230	IND RIV	115	1	11						
2001-60-26	LARGO	230	LARGO A	69	1	2						
2001-60-26	SHELD	230	SHELD-NW	69	1	16						
2001-60-26	CLMT EST	230	CLMT EST	69	1	2						
2001-60-26	WINDERME	230	WINDERME	69	1	2						
2001-60-26	RIVER-S	230	RIVER-S	69	1	16						
2001-60-26	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-26	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-26	JASPER	115	JASPER	69	1	2						

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-27	SN PLANT	230	SYLVAN	230	1	1						
2001-60-27	SYLVAN	230	N LONGWD	230	1	1						
2001-60-27	IND RIV	230	STANTON	230	1	11						
2001-60-27	SILVR SP	230	SILV SPN	230	1	2						
2001-60-27	SILVR SP	230	SILV SPN	230	2	2						
2001-60-27	RIO PINR	230	CURRY FD	230	1	2						
2001-60-27	JUNEAU-W	138	GANNON	138	1	16						
2001-60-27	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-27	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-27	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-27	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-27	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-27	SN PLANT	115	TURNER	115	1	1						
2001-60-27	PASADENA	115	40ST-DUM	115	1	2						
2001-60-27	MICHIGAN	115	KALEY	115	1	11						
2001-60-27	MICHIGAN	115	GRANT	115	1	11						
2001-60-27	PERSHING	115	GRANT	115	1	11						
2001-60-27	AMERICA	115	KALEY	115	1	11						
2001-60-27	JASPER	115	WGHTCHPL	115	1	2						
2001-60-27	AZALEA	115	BENNETT	115	1	11						
2001-60-27	FLORALTP	69	INVERNTP	69	1	2						
2001-60-27	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-27	PASADENA	230	PASADENA	115	1	2						
2001-60-27	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-27	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-27	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-27	IND RIV	230	IND RIV	115	1	11						
2001-60-27	LARGO	230	LARGO A	69	1	2						
2001-60-27	SHELD	230	SHELD-NW	69	1	16						
2001-60-27	CLMT EST	230	CLMT EST	69	1	2						
2001-60-27	WINDERME	230	WINDERME	69	1	2						
2001-60-27	RIVER-S	230	RIVER-S	69	1	16						
2001-60-27	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-27	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-27	JASPER	115	JASPER	69	1	2						
2001-60-28	SN PLANT	230	SYLVAN	230	1	1						
2001-60-28	SYLVAN	230	N LONGWD	230	1	1						
2001-60-28	IND RIV	230	STANTON	230	1	11						
2001-60-28	SILVR SP	230	SILV SPN	230	1	2						
2001-60-28	SILVR SP	230	SILV SPN	230	2	2						
2001-60-28	RIO PINR	230	CURRY FD	230	1	2						
2001-60-28	JUNEAU-W	138	GANNON	138	1	16						
2001-60-28	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-28	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-28	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-28	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-28	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-28	SN PLANT	115	TURNER	115	1	1						
2001-60-28	PASADENA	115	40ST-DUM	115	1	2						
2001-60-28	MICHIGAN	115	KALEY	115	1	11						
2001-60-28	MICHIGAN	115	GRANT	115	1	11						
2001-60-28	PERSHING	115	GRANT	115	1	11						
2001-60-28	AMERICA	115	KALEY	115	1	11						
2001-60-28	JASPER	115	WGHTCHPL	115	1	2						
2001-60-28	AZALEA	115	BENNETT	115	1	11						
2001-60-28	FLORALTP	69	INVERNTP	69	1	2						
2001-60-28	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-28	PASADENA	230	PASADENA	115	1	2						
2001-60-28	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-28	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-28	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-28	IND RIV	230	IND RIV	115	1	11						
2001-60-28	LARGO	230	LARGO A	69	1	2						
2001-60-28	SHELD	230	SHELD-NW	69	1	16						
2001-60-28	CLMT EST	230	CLMT EST	69	1	2						
2001-60-28	WINDERME	230	WINDERME	69	1	2						
2001-60-28	RIVER-S	230	RIVER-S	69	1	16						
2001-60-28	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-28	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-28	JASPER	115	JASPER	69	1	2						

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-29	SN PLANT	230	SYLVAN	230	1	1						
2001-60-29	SYLVAN	230	N LONGWD	230	1	1						
2001-60-29	IND RIV	230	STANTON	230	1	11						
2001-60-29	SILVR SP	230	SILV SPN	230	1	2						
2001-60-29	SILVR SP	230	SILV SPN	230	2	2						
2001-60-29	RIO PINR	230	CURRY FD	230	1	2						
2001-60-29	JUNEAU-W	138	GANNON	138	1	16						
2001-60-29	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-29	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-29	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-29	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-29	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-29	SN PLANT	115	TURNER	115	1	1						
2001-60-29	PASADENA	115	40ST-DUM	115	1	2						
2001-60-29	MICHIGAN	115	KALEY	115	1	11						
2001-60-29	MICHIGAN	115	GRANT	115	1	11						
2001-60-29	PERSHING	115	GRANT	115	1	11						
2001-60-29	AMERICA	115	KALEY	115	1	11						
2001-60-29	JASPER	115	WGHTCHPL	115	1	2						
2001-60-29	AZALEA	115	BENNETT	115	1	11						
2001-60-29	FLORALTP	69	INVERNTP	69	1	2						
2001-60-29	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-29	PASADENA	230	PASADENA	115	1	2						
2001-60-29	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-29	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-29	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-29	IND RIV	230	IND RIV	115	1	11						
2001-60-29	LARGO	230	LARGO A	69	1	2						
2001-60-29	SHELD	230	SHELD-NW	69	1	16						
2001-60-29	CLMT EST	230	CLMT EST	69	1	2						
2001-60-29	WINDERME	230	WINDERME	69	1	2						
2001-60-29	RIVER-S	230	RIVER-S	69	1	16						
2001-60-29	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-29	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-29	JASPER	115	JASPER	69	1	2						
2001-60-30	SN PLANT	230	SYLVAN	230	1	1						
2001-60-30	SYLVAN	230	N LONGWD	230	1	1						
2001-60-30	IND RIV	230	STANTON	230	1	11						
2001-60-30	SILVR SP	230	SILV SPN	230	1	2						
2001-60-30	SILVR SP	230	SILV SPN	230	2	2						
2001-60-30	RIO PINR	230	CURRY FD	230	1	2						
2001-60-30	JUNEAU-W	138	GANNON	138	1	16						
2001-60-30	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-30	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-30	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-30	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-30	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-30	SN PLANT	115	TURNER	115	1	1						
2001-60-30	PASADENA	115	40ST-DUM	115	1	2						
2001-60-30	MICHIGAN	115	KALEY	115	1	11						
2001-60-30	MICHIGAN	115	GRANT	115	1	11						
2001-60-30	PERSHING	115	GRANT	115	1	11						
2001-60-30	AMERICA	115	KALEY	115	1	11						
2001-60-30	JASPER	115	WGHTCHPL	115	1	2						
2001-60-30	AZALEA	115	BENNETT	115	1	11						
2001-60-30	FLORALTP	69	INVERNTP	69	1	2						
2001-60-30	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-30	PASADENA	230	PASADENA	115	1	2						
2001-60-30	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-30	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-30	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-30	IND RIV	230	IND RIV	115	1	11						
2001-60-30	LARGO	230	LARGO A	69	1	2						
2001-60-30	SHELD	230	SHELD-NW	69	1	16						
2001-60-30	CLMT EST	230	CLMT EST	69	1	2						
2001-60-30	WINDERME	230	WINDERME	69	1	2						
2001-60-30	RIVER-S	230	RIVER-S	69	1	16						
2001-60-30	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-30	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-30	JASPER	115	JASPER	69	1	2						

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-31	SN PLANT	230	SYLVAN	230	1	1						
2001-60-31	SYLVAN	230	N LONGWD	230	1	1						
2001-60-31	IND RIV	230	STANTON	230	1	11						
2001-60-31	SILVR SP	230	SILV SPN	230	1	2						
2001-60-31	SILVR SP	230	SILV SPN	230	2	2						
2001-60-31	RIO PINR	230	CURRY FD	230	1	2						
2001-60-31	JUNEAU-W	138	GANNON	138	1	16						
2001-60-31	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-31	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-31	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-31	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-31	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-31	SN PLANT	115	TURNER	115	1	1						
2001-60-31	PASADENA	115	40ST-DUM	115	1	2						
2001-60-31	MICHIGAN	115	KALEY	115	1	11						
2001-60-31	MICHIGAN	115	GRANT	115	1	11						
2001-60-31	PERSHING	115	GRANT	115	1	11						
2001-60-31	AMERICA	115	KALEY	115	1	11						
2001-60-31	JASPER	115	WGHTCHPL	115	1	2						
2001-60-31	AZALEA	115	BENNETT	115	1	11						
2001-60-31	FLORALTP	69	INVERNTP	69	1	2						
2001-60-31	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-31	PASADENA	230	PASADENA	115	1	2						
2001-60-31	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-31	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-31	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-31	IND RIV	230	IND RIV	115	1	11						
2001-60-31	LARGO	230	LARGO A	69	1	2						
2001-60-31	SHELD	230	SHELD-NW	69	1	16						
2001-60-31	CLMT EST	230	CLMT EST	69	1	2						
2001-60-31	WINDERME	230	WINDERME	69	1	2						
2001-60-31	RIVER-S	230	RIVER-S	69	1	16						
2001-60-31	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-31	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-31	JASPER	115	JASPER	69	1	2						
2001-60-32	SN PLANT	230	SYLVAN	230	1	1						
2001-60-32	SYLVAN	230	N LONGWD	230	1	1						
2001-60-32	IND RIV	230	STANTON	230	1	11						
2001-60-32	SILVR SP	230	SILV SPN	230	1	2						
2001-60-32	SILVR SP	230	SILV SPN	230	2	2						
2001-60-32	RIO PINR	230	CURRY FD	230	1	2						
2001-60-32	JUNEAU-W	138	GANNON	138	1	16						
2001-60-32	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-32	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-32	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-32	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-32	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-32	SN PLANT	115	TURNER	115	1	1						
2001-60-32	PASADENA	115	40ST-DUM	115	1	2						
2001-60-32	MICHIGAN	115	KALEY	115	1	11						
2001-60-32	MICHIGAN	115	GRANT	115	1	11						
2001-60-32	PERSHING	115	GRANT	115	1	11						
2001-60-32	AMERICA	115	KALEY	115	1	11						
2001-60-32	JASPER	115	WGHTCHPL	115	1	2						
2001-60-32	AZALEA	115	BENNETT	115	1	11						
2001-60-32	FLORALTP	69	INVERNTP	69	1	2						
2001-60-32	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-32	PASADENA	230	PASADENA	115	1	2						
2001-60-32	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-32	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-32	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-32	IND RIV	230	IND RIV	115	1	11						
2001-60-32	LARGO	230	LARGO A	69	1	2						
2001-60-32	SHELD	230	SHELD-NW	69	1	16						
2001-60-32	CLMT EST	230	CLMT EST	69	1	2						
2001-60-32	WINDERME	230	WINDERME	69	1	2						
2001-60-32	RIVER-S	230	RIVER-S	69	1	16						
2001-60-32	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-32	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-32	JASPER	115	JASPER	69	1	2						

Table VII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-33	SN PLANT	230	SYLVAN	230	1	1						
2001-60-33	SYLVAN	230	N LONGWD	230	1	1						
2001-60-33	IND RIV	230	STANTON	230	1	11						
2001-60-33	SILVR SP	230	SILV SPN	230	1	2						
2001-60-33	SILVR SP	230	SILV SPN	230	2	2						
2001-60-33	RIO PINR	230	CURRY FD	230	1	2						
2001-60-33	JUNEAU-W	138	GANNON	138	1	16						
2001-60-33	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-33	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-33	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-33	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-33	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-33	SN PLANT	115	TURNER	115	1	1						
2001-60-33	PASADENA	115	40ST-DUM	115	1	2						
2001-60-33	MICHIGAN	115	KALEY	115	1	11						
2001-60-33	MICHIGAN	115	GRANT	115	1	11						
2001-60-33	PERSHING	115	GRANT	115	1	11						
2001-60-33	AMERICA	115	KALEY	115	1	11						
2001-60-33	JASPER	115	WGHTCHPL	115	1	2						
2001-60-33	AZALEA	115	BENNETT	115	1	11						
2001-60-33	FLORALTP	69	INVERNTP	69	1	2						
2001-60-33	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-33	PASADENA	230	PASADENA	115	1	2						
2001-60-33	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-33	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-33	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-33	IND RIV	230	IND RIV	115	1	11						
2001-60-33	LARGO	230	LARGO A	69	1	2						
2001-60-33	SHELD	230	SHELD-NW	69	1	16						
2001-60-33	CLMT EST	230	CLMT EST	69	1	2						
2001-60-33	WINDERME	230	WINDERME	69	1	2						
2001-60-33	RIVER-S	230	RIVER-S	69	1	16						
2001-60-33	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-33	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-33	JASPER	115	JASPER	69	1	2						
2001-60-34	SN PLANT	230	SYLVAN	230	1	1						
2001-60-34	SYLVAN	230	N LONGWD	230	1	1						
2001-60-34	IND RIV	230	STANTON	230	1	11						
2001-60-34	SILVR SP	230	SILV SPN	230	1	2						
2001-60-34	SILVR SP	230	SILV SPN	230	2	2						
2001-60-34	RIO PINR	230	CURRY FD	230	1	2						
2001-60-34	JUNEAU-W	138	GANNON	138	1	16						
2001-60-34	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-34	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-34	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-34	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-34	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-34	SN PLANT	115	TURNER	115	1	1						
2001-60-34	PASADENA	115	40ST-DUM	115	1	2						
2001-60-34	MICHIGAN	115	KALEY	115	1	11						
2001-60-34	MICHIGAN	115	GRANT	115	1	11						
2001-60-34	PERSHING	115	GRANT	115	1	11						
2001-60-34	AMERICA	115	KALEY	115	1	11						
2001-60-34	JASPER	115	WGHTCHPL	115	1	2						
2001-60-34	AZALEA	115	BENNETT	115	1	11						
2001-60-34	FLORALTP	69	INVERNTP	69	1	2						
2001-60-34	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-34	PASADENA	230	PASADENA	115	1	2						
2001-60-34	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-34	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-34	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-34	IND RIV	230	IND RIV	115	1	11						
2001-60-34	LARGO	230	LARGO A	69	1	2						
2001-60-34	SHELD	230	SHELD-NW	69	1	16						
2001-60-34	CLMT EST	230	CLMT EST	69	1	2						
2001-60-34	WINDERME	230	WINDERME	69	1	2						
2001-60-34	RIVER-S	230	RIVER-S	69	1	16						
2001-60-34	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-34	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-34	JASPER	115	JASPER	69	1	2						

Table VII

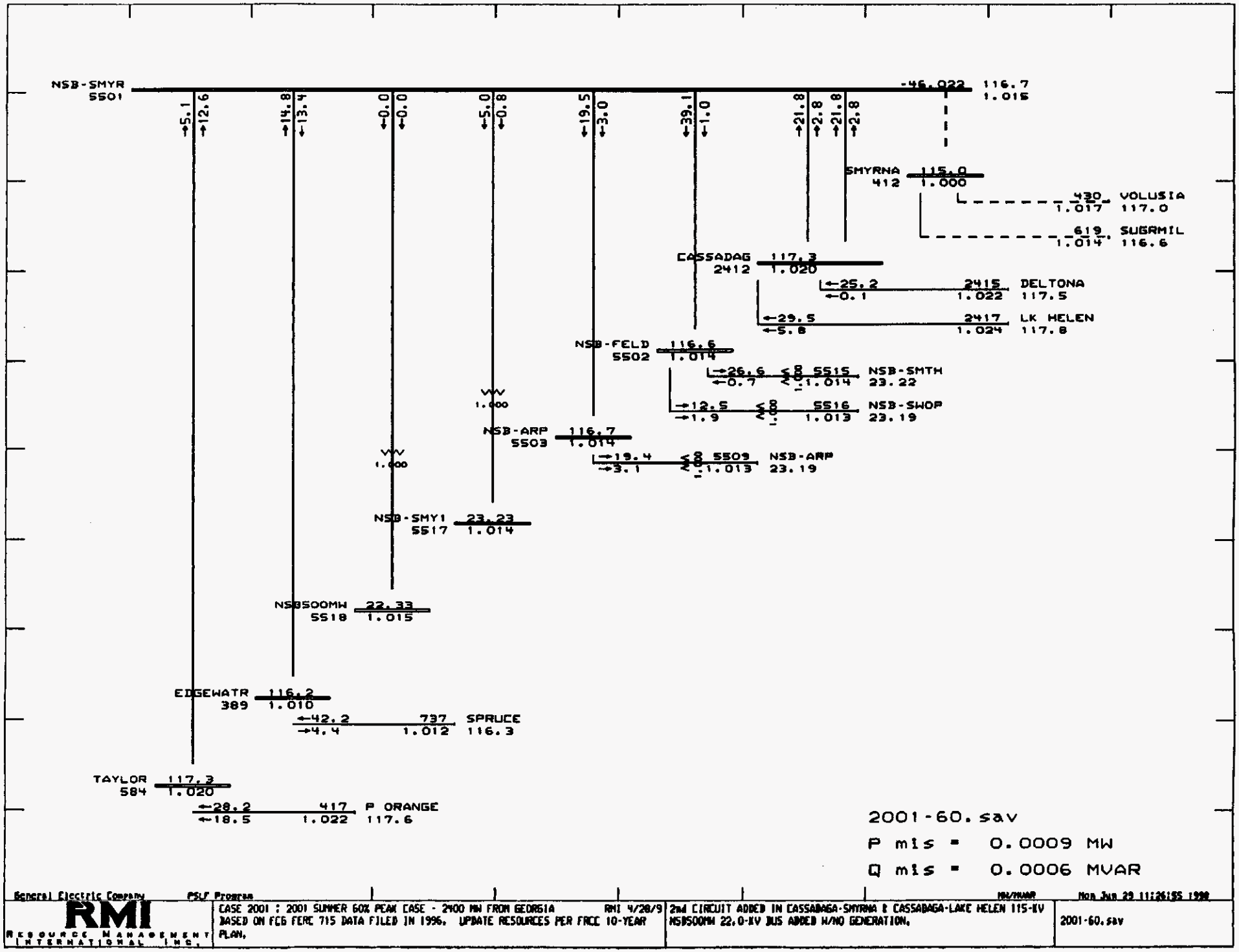
Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-60 Base No NSB Gen	Case 2001-60A Sell to FPL	Case 2001-60B Sell to FPC	Case 2001-60C Sell to TEC	Case 2001-60D Sell to JEA	Case 2001-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-60-35	SN PLANT	230	SYLVAN	230	1	1						
2001-60-35	SYLVAN	230	N LONGWD	230	1	1						
2001-60-35	IND RIV	230	STANTON	230	1	11						
2001-60-35	SILVR SP	230	SILV SPN	230	1	2						
2001-60-35	SILVR SP	230	SILV SPN	230	2	2						
2001-60-35	RIO PINR	230	CURRY FD	230	1	2						
2001-60-35	JUNEAU-W	138	GANNON	138	1	16						
2001-60-35	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-35	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-35	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-35	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-35	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-35	SN PLANT	115	TURNER	115	1	1						
2001-60-35	PASADENA	115	40ST-DUM	115	1	2						
2001-60-35	MICHIGAN	115	KALEY	115	1	11						
2001-60-35	MICHIGAN	115	GRANT	115	1	11						
2001-60-35	PERSHING	115	GRANT	115	1	11						
2001-60-35	AMERICA	115	KALEY	115	1	11						
2001-60-35	JASPER	115	WGHTCHPL	115	1	2						
2001-60-35	AZALEA	115	BENNETT	115	1	11						
2001-60-35	FLORALTP	69	INVERNTP	69	1	2						
2001-60-35	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-35	PASADENA	230	PASADENA	115	1	2						
2001-60-35	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-35	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-35	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-35	IND RIV	230	IND RIV	115	1	11						
2001-60-35	LARGO	230	LARGO A	69	1	2						
2001-60-35	SHELD	230	SHELD-NW	69	1	16						
2001-60-35	CLMT EST	230	CLMT EST	69	1	2						
2001-60-35	WINDERME	230	WINDERME	69	1	2						
2001-60-35	RIVER-S	230	RIVER-S	69	1	16						
2001-60-35	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-35	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-35	JASPER	115	JASPER	69	1	2						
2001-60-36	SN PLANT	230	SYLVAN	230	1	1						
2001-60-36	SYLVAN	230	N LONGWD	230	1	1						
2001-60-36	IND RIV	230	STANTON	230	1	11						
2001-60-36	SILVR SP	230	SILV SPN	230	1	2						
2001-60-36	SILVR SP	230	SILV SPN	230	2	2						
2001-60-36	RIO PINR	230	CURRY FD	230	1	2						
2001-60-36	JUNEAU-W	138	GANNON	138	1	16						
2001-60-36	NSB-SMYR	115	CASSADAG	115	1	2						
2001-60-36	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-60-36	NSB-SMYR	115	TAYLOR	115	1	1						
2001-60-36	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-60-36	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-60-36	SN PLANT	115	TURNER	115	1	1						
2001-60-36	PASADENA	115	40ST-DUM	115	1	2						
2001-60-36	MICHIGAN	115	KALEY	115	1	11						
2001-60-36	MICHIGAN	115	GRANT	115	1	11						
2001-60-36	PERSHING	115	GRANT	115	1	11						
2001-60-36	AMERICA	115	KALEY	115	1	11						
2001-60-36	JASPER	115	WGHTCHPL	115	1	2						
2001-60-36	AZALEA	115	BENNETT	115	1	11						
2001-60-36	FLORALTP	69	INVERNTP	69	1	2						
2001-60-36	ALACH TP	69	HIGH SPG	69	1	2						
2001-60-36	PASADENA	230	PASADENA	115	1	2						
2001-60-36	SUWANNEE	230	SUWANNEE	115	1	2						
2001-60-36	SUWANNEE	230	SUWANNEE	115	2	2						
2001-60-36	E CLRWTR	230	E CLRWTR	115	1	2						
2001-60-36	IND RIV	230	IND RIV	115	1	11						
2001-60-36	LARGO	230	LARGO A	69	1	2						
2001-60-36	SHELD	230	SHELD-NW	69	1	16						
2001-60-36	CLMT EST	230	CLMT EST	69	1	2						
2001-60-36	WINDERME	230	WINDERME	69	1	2						
2001-60-36	RIVER-S	230	RIVER-S	69	1	16						
2001-60-36	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-60-36	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-60-36	JASPER	115	JASPER	69	1	2						

APPENDIX III-A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430
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619
1.014
SUGRMIL
116.6
CASSADAG
2412
117.3
1.020
2415
DELTONA
117.5
2417
LK HELEN
117.8
NSB-FELD
5502
116.6
1.014
5515
NSB-SMTH
23.22
5516
NSB-SWDP
23.19
NSB-ARP
5503
116.7
1.014
5509
NSB-ARP
23.19
NSB-SMY1
5517
23.23
1.014
NSB500MW
5518
22.33
1.015
EDGEWATR
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1.010
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SPRUCE
116.3
TAYLOR
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117.3
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417
P ORANGE
117.6
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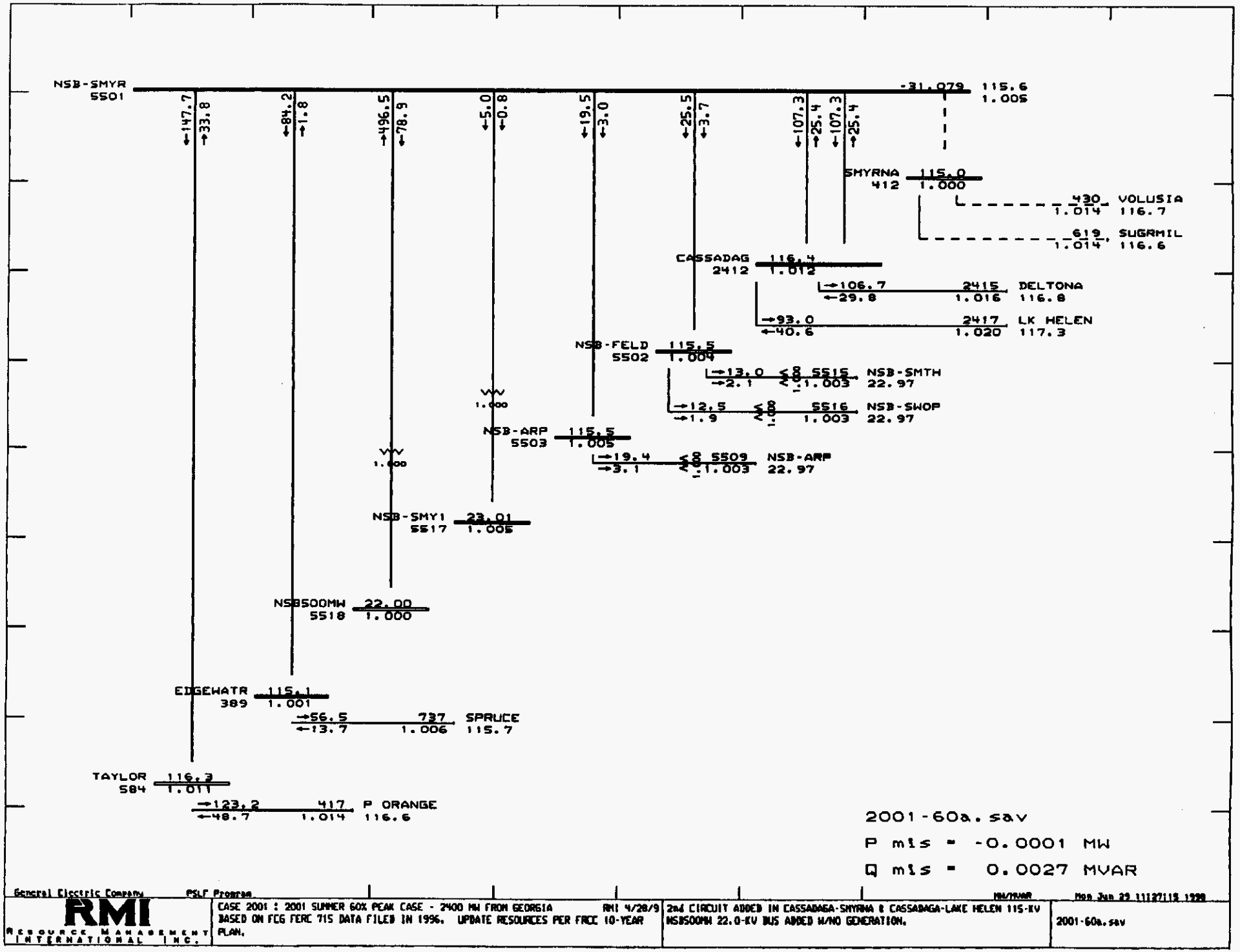
Q mis = 0.0006 MVAR
General Electric Company
PSLF Program
MW/MVAR
Mon Jun 29 11:26:55 1998
RMI
RESOURCE MANAGEMENT INTERNATIONAL, INC.
CASE 2001 : 2001 SUMMER 60% PEAK CASE - 2400 MW FROM GEORGIA
BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FRCC 10-YEAR PLAN.
RMI 4/28/9
2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LAKE HELEN 115-KV
NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.
2001-60.sav



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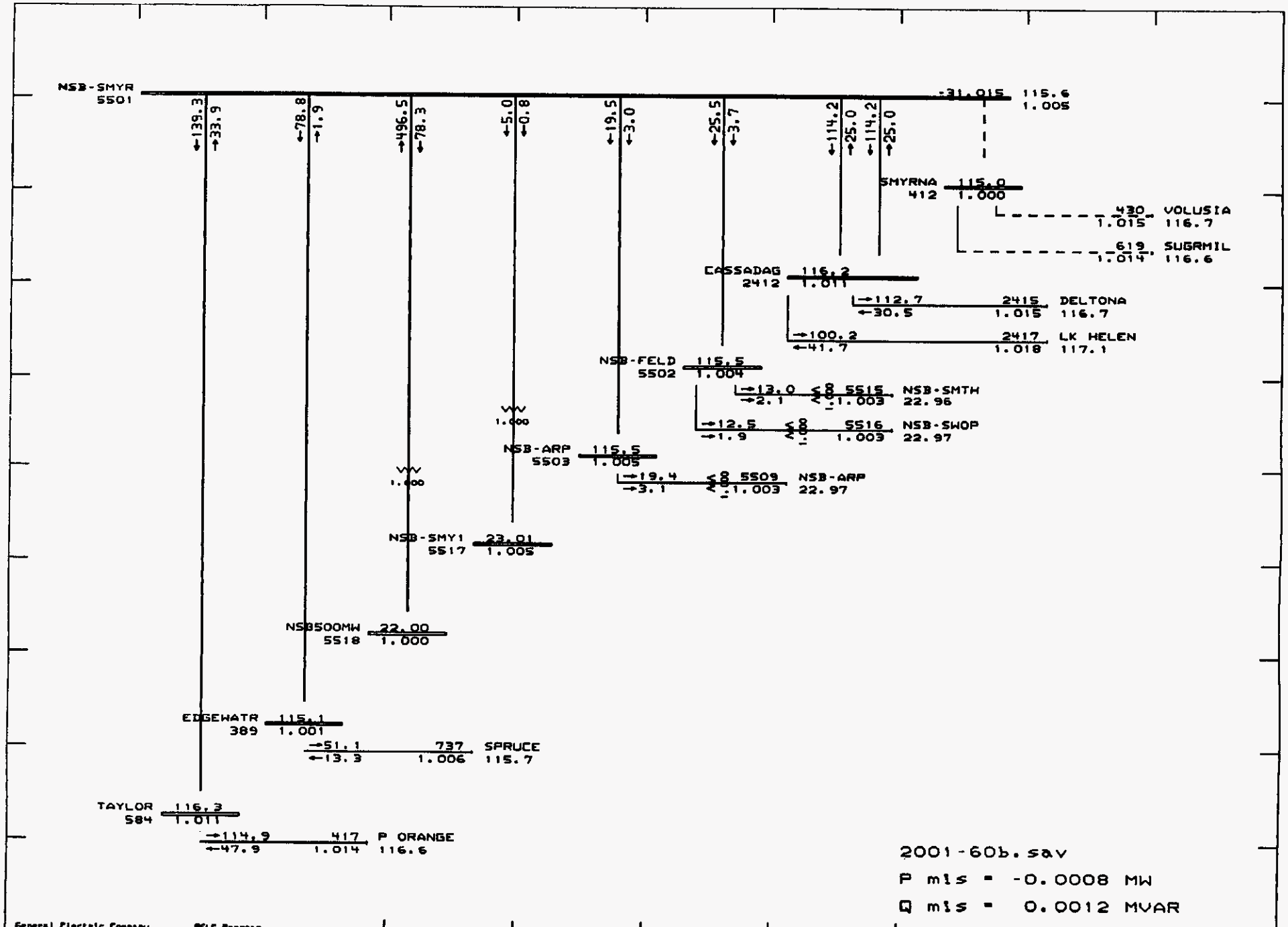
General Electric Company PSLF Program MW/MVAR Mon Jun 29 11:27:15 1998

RMI Resource Management International, Inc.

CASE 2001 : 2001 SUMMER 60% PEAK CASE - 2400 MW FROM GEORGIA BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FRCC 10-YEAR PLAN. RMI 4/28/9

2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LAKE HELEN 115-KV NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.

2001-60a.sav



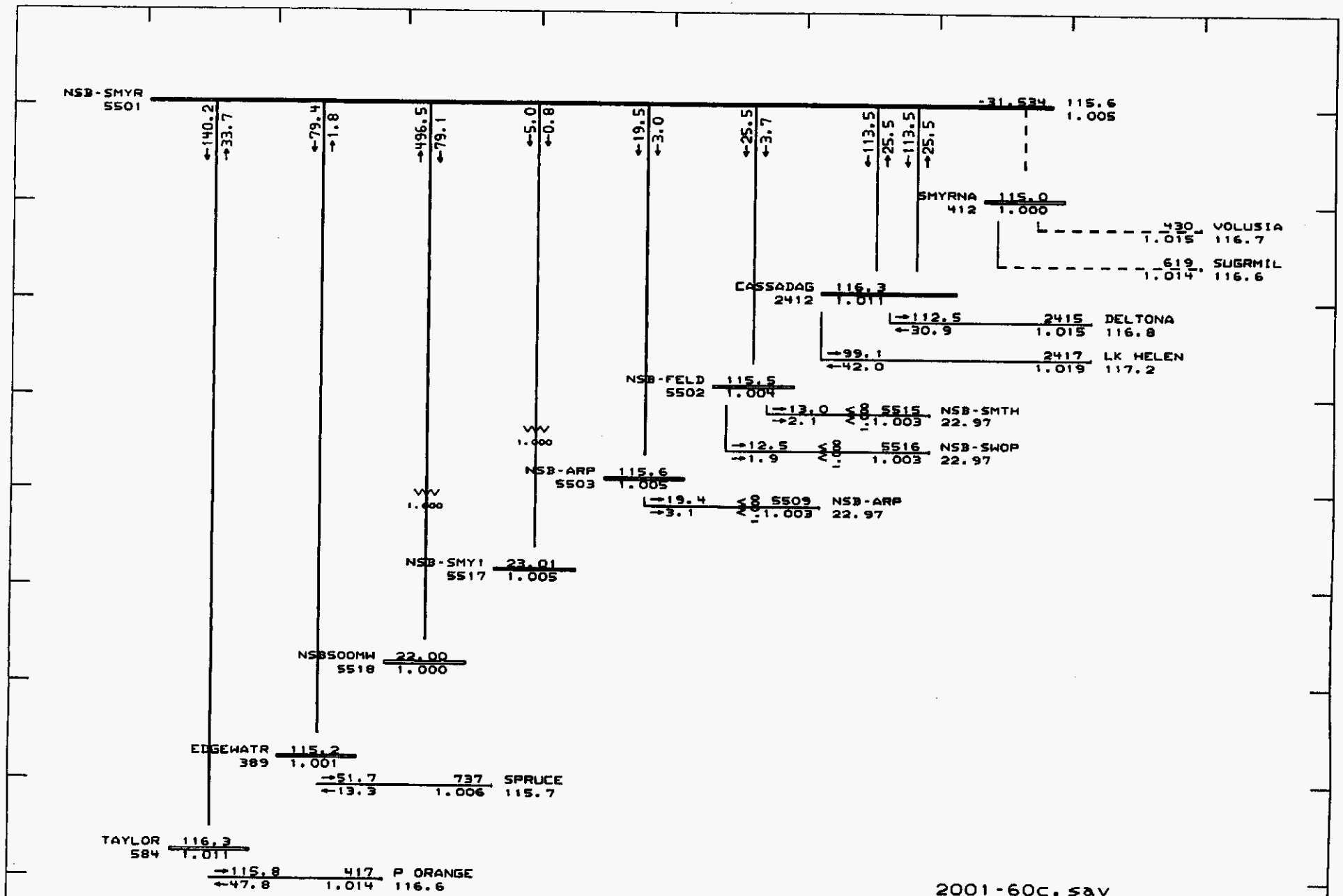
General Electric Company PSLF Program MW/MVAR Mon Jun 29 11:27:36 1998

RMI RESOURCE MANAGEMENT INTERNATIONAL INC.

CASE 2001 : 2001 SUMMER 60% PEAK CASE - 2400 MW FROM GEORGIA BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FRCC 10-YEAR PLAN. RMI 4/28/9

2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LAKE HELEN 115-KV NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.

2001-60b.sav



2001-60c.sav

P mis = -0.0013 MW

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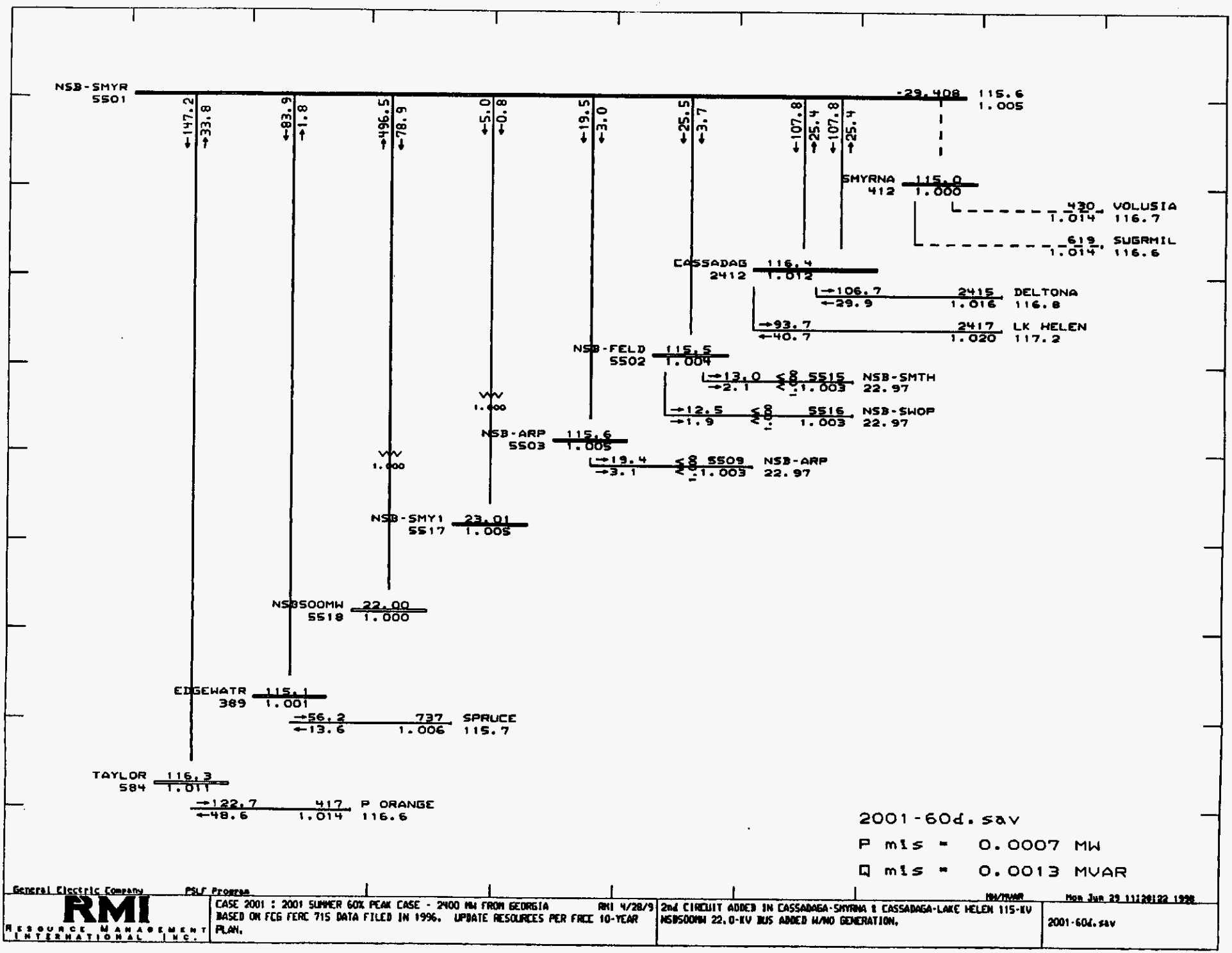
General Electric Company PSLF Program MW/MVAR Mon Jun 29 11:20:03 1998

RMI RESOURCE MANAGEMENT INTERNATIONAL INC.

CASE 2001 : 2001 SUMMER 60% PEAK CASE - 2400 MW FROM GEORGIA BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FRCC 10-YEAR PLAN. RMI 4/20/9

2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LAKE HELEN 115-KV NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.

2001-60c.sav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←19.5 →3.0
←25.5 →3.7
←107.8 →25.4
←107.8 →25.4
SMYRNA 115.0
412 1.000
430 VOLUSIA
1.014 116.7
619 SUGRMIL
1.014 116.6
CASSADAG 116.4
2412 1.012
→106.7 ←29.9 2415 DELTONA
1.016 116.8
→93.7 ←40.7 2417 LK HELEN
1.020 117.2
NSB-FELD 115.5
5502 1.004
→13.0 →2.1 5515 NSB-SMTH
1.003 22.97
→12.5 →1.9 5516 NSB-SWOP
1.003 22.97
1.000
NSB-ARP 115.6
5503 1.005
→19.4 →3.1 5509 NSB-ARP
1.003 22.97
1.000
NSB-SMY1 23.01
5517 1.005
NSB500MW 22.00
5518 1.000
EDGEWATR 115.1
389 1.001
→56.2 ←13.6 737 SPRUCE
1.006 115.7
TAYLOR 116.3
584 1.011
→122.7 ←48.6 417 P ORANGE
1.014 116.6
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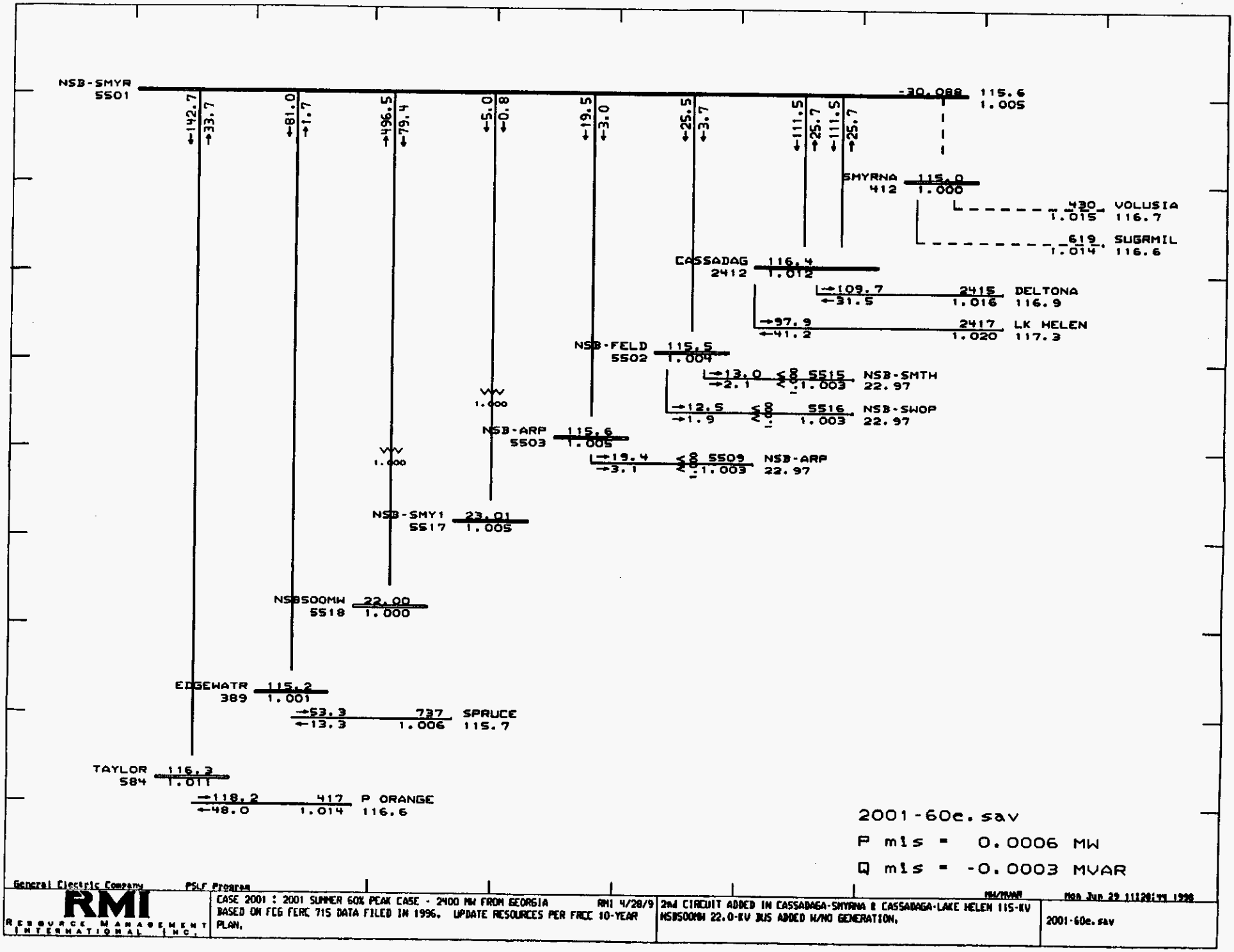
P mis = 0.0007 MW
Q mis = 0.0013 MVAR
General Electric Company PSLF Program
MW/MVAR Mon Jun 29 11:20:22 1998
RMI
RESOURCE MANAGEMENT INTERNATIONAL, INC.
CASE 2001 : 2001 SUMMER 60% PEAK CASE - 2400 MW FROM GEORGIA BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FRCC 10-YEAR PLAN.
RNI 4/28/9
2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LAKE HELEN 115-KV
NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.
2001-60d.sav



2001-60e.sav

P mis = 0.0006 MW

Q mis = -0.0003 MVAR

General Electric Company PSLF Program MW/MVAR Mon Jun 29 11:20:44 1998

RMI RESOURCE MANAGEMENT INTERNATIONAL, INC.

CASE 2001 : 2001 SUMMER 60% PEAK CASE - 2400 MW FROM GEORGIA BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FRCC 10-YEAR PLAN. RMI 4/28/9

2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LAKE HELEN 115-KV
NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.

2001-60e.sav

APPENDIX IV

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-1	SN PLANT	230	SYLVAN	230	1	1						
2001-40-1	SYLVAN	230	N LONGWD	230	1	1						
2001-40-1	IND RIV	230	STANTON	230	1	11						
2001-40-1	SILVR SP	230	SILV SPN	230	1	2						
2001-40-1	SILVR SP	230	SILV SPN	230	2	2						
2001-40-1	RIO PINR	230	CURRY FD	230	1	2						
2001-40-1	JUNEAU-W	138	GANNON	138	1	16						
2001-40-1	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-1	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-1	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-1	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-1	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-1	SN PLANT	115	TURNER	115	1	1						
2001-40-1	PASADENA	115	40ST-DUM	115	1	2						
2001-40-1	MICHIGAN	115	KALEY	115	1	11						
2001-40-1	MICHIGAN	115	GRANT	115	1	11						
2001-40-1	PERSHING	115	GRANT	115	1	11						
2001-40-1	AMERICA	115	KALEY	115	1	11						
2001-40-1	JASPER	115	WGHTCHPL	115	1	2						
2001-40-1	AZALEA	115	BENNETT	115	1	11						
2001-40-1	FLORALTP	69	INVERNTP	69	1	2						
2001-40-1	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-1	PASADENA	230	PASADENA	115	1	2						
2001-40-1	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-1	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-1	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-1	IND RIV	230	IND RIV	115	1	11						
2001-40-1	LARGO	230	LARGO A	69	1	2						
2001-40-1	SHELD	230	SHELD-NW	69	1	16						
2001-40-1	CLMT EST	230	CLMT EST	69	1	2						
2001-40-1	WINDERME	230	WINDERME	69	1	2						
2001-40-1	RIVER-S	230	RIVER-S	69	1	16						
2001-40-1	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-1	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-1	JASPER	115	JASPER	69	1	2						
2001-40-2	SN PLANT	230	SYLVAN	230	1	1						
2001-40-2	SYLVAN	230	N LONGWD	230	1	1						
2001-40-2	IND RIV	230	STANTON	230	1	11						
2001-40-2	SILVR SP	230	SILV SPN	230	1	2						
2001-40-2	SILVR SP	230	SILV SPN	230	2	2						
2001-40-2	RIO PINR	230	CURRY FD	230	1	2						
2001-40-2	JUNEAU-W	138	GANNON	138	1	16						
2001-40-2	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-2	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-2	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-2	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-2	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-2	SN PLANT	115	TURNER	115	1	1						
2001-40-2	PASADENA	115	40ST-DUM	115	1	2						
2001-40-2	MICHIGAN	115	KALEY	115	1	11						
2001-40-2	MICHIGAN	115	GRANT	115	1	11						
2001-40-2	PERSHING	115	GRANT	115	1	11						
2001-40-2	AMERICA	115	KALEY	115	1	11						
2001-40-2	JASPER	115	WGHTCHPL	115	1	2						
2001-40-2	AZALEA	115	BENNETT	115	1	11						
2001-40-2	FLORALTP	69	INVERNTP	69	1	2						
2001-40-2	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-2	PASADENA	230	PASADENA	115	1	2						
2001-40-2	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-2	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-2	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-2	IND RIV	230	IND RIV	115	1	11						
2001-40-2	LARGO	230	LARGO A	69	1	2						
2001-40-2	SHELD	230	SHELD-NW	69	1	16						
2001-40-2	CLMT EST	230	CLMT EST	69	1	2						
2001-40-2	WINDERME	230	WINDERME	69	1	2						
2001-40-2	RIVER-S	230	RIVER-S	69	1	16						
2001-40-2	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-2	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-2	JASPER	115	JASPER	69	1	2						

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-3	SN PLANT	230	SYLVAN	230	1	1						
2001-40-3	SYLVAN	230	N LONGWD	230	1	1						
2001-40-3	IND RIV	230	STANTON	230	1	11						
2001-40-3	SILVR SP	230	SILV SPN	230	1	2						
2001-40-3	SILVR SP	230	SILV SPN	230	2	2						
2001-40-3	RIO PINR	230	CURRY FD	230	1	2						
2001-40-3	JUNEAU-W	138	GANNON	138	1	16						
2001-40-3	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-3	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-3	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-3	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-3	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-3	SN PLANT	115	TURNER	115	1	1						
2001-40-3	PASADENA	115	40ST-DUM	115	1	2						
2001-40-3	MICHIGAN	115	KALEY	115	1	11						
2001-40-3	MICHIGAN	115	GRANT	115	1	11						
2001-40-3	PERSHING	115	GRANT	115	1	11						
2001-40-3	AMERICA	115	KALEY	115	1	11						
2001-40-3	JASPER	115	WGHTCHPL	115	1	2						
2001-40-3	AZALEA	115	BENNETT	115	1	11						
2001-40-3	FLORALTP	69	INVERNTP	69	1	2						
2001-40-3	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-3	PASADENA	230	PASADENA	115	1	2						
2001-40-3	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-3	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-3	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-3	IND RIV	230	IND RIV	115	1	11						
2001-40-3	LARGO	230	LARGO A	69	1	2						
2001-40-3	SHELD	230	SHELD-NW	69	1	16						
2001-40-3	CLMT EST	230	CLMT EST	69	1	2						
2001-40-3	WINDERME	230	WINDERME	69	1	2						
2001-40-3	RIVER-S	230	RIVER-S	69	1	16						
2001-40-3	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-3	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-3	JASPER	115	JASPER	69	1	2						
2001-40-4	SN PLANT	230	SYLVAN	230	1	1						
2001-40-4	SYLVAN	230	N LONGWD	230	1	1						
2001-40-4	IND RIV	230	STANTON	230	1	11						
2001-40-4	SILVR SP	230	SILV SPN	230	1	2						
2001-40-4	SILVR SP	230	SILV SPN	230	2	2						
2001-40-4	RIO PINR	230	CURRY FD	230	1	2						
2001-40-4	JUNEAU-W	138	GANNON	138	1	16						
2001-40-4	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-4	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-4	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-4	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-4	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-4	SN PLANT	115	TURNER	115	1	1						
2001-40-4	PASADENA	115	40ST-DUM	115	1	2						
2001-40-4	MICHIGAN	115	KALEY	115	1	11						
2001-40-4	MICHIGAN	115	GRANT	115	1	11						
2001-40-4	PERSHING	115	GRANT	115	1	11						
2001-40-4	AMERICA	115	KALEY	115	1	11						
2001-40-4	JASPER	115	WGHTCHPL	115	1	2						
2001-40-4	AZALEA	115	BENNETT	115	1	11						
2001-40-4	FLORALTP	69	INVERNTP	69	1	2						
2001-40-4	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-4	PASADENA	230	PASADENA	115	1	2						
2001-40-4	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-4	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-4	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-4	IND RIV	230	IND RIV	115	1	11						
2001-40-4	LARGO	230	LARGO A	69	1	2						
2001-40-4	SHELD	230	SHELD-NW	69	1	16						
2001-40-4	CLMT EST	230	CLMT EST	69	1	2						
2001-40-4	WINDERME	230	WINDERME	69	1	2						
2001-40-4	RIVER-S	230	RIVER-S	69	1	16						
2001-40-4	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-4	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-4	JASPER	115	JASPER	69	1	2						

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-5	SN PLANT	230	SYLVAN	230	1	1						
2001-40-5	SYLVAN	230	N LONGWD	230	1	1						
2001-40-5	IND RIV	230	STANTON	230	1	11						
2001-40-5	SILVR SP	230	SILV SPN	230	1	2						
2001-40-5	SILVR SP	230	SILV SPN	230	2	2						
2001-40-5	RIO PINR	230	CURRY FD	230	1	2						
2001-40-5	JUNEAU-W	138	GANNON	138	1	16						
2001-40-5	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-5	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-5	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-5	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-5	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-5	SN PLANT	115	TURNER	115	1	1						
2001-40-5	PASADENA	115	40ST-DUM	115	1	2						
2001-40-5	MICHIGAN	115	KALEY	115	1	11						
2001-40-5	MICHIGAN	115	GRANT	115	1	11						
2001-40-5	PERSHING	115	GRANT	115	1	11						
2001-40-5	AMERICA	115	KALEY	115	1	11						
2001-40-5	JASPER	115	WGHTCHPL	115	1	2						
2001-40-5	AZALEA	115	BENNETT	115	1	11						
2001-40-5	FLORALTP	69	INVERNTP	69	1	2						
2001-40-5	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-5	PASADENA	230	PASADENA	115	1	2						
2001-40-5	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-5	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-5	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-5	IND RIV	230	IND RIV	115	1	11						
2001-40-5	LARGO	230	LARGO A	69	1	2						
2001-40-5	SHELD	230	SHELD-NW	69	1	16						
2001-40-5	CLMT EST	230	CLMT EST	69	1	2						
2001-40-5	WINDERME	230	WINDERME	69	1	2						
2001-40-5	RIVER-S	230	RIVER-S	69	1	16						
2001-40-5	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-5	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-5	JASPER	115	JASPER	69	1	2						
2001-40-6	SN PLANT	230	SYLVAN	230	1	1						
2001-40-6	SYLVAN	230	N LONGWD	230	1	1						
2001-40-6	IND RIV	230	STANTON	230	1	11						
2001-40-6	SILVR SP	230	SILV SPN	230	1	2						
2001-40-6	SILVR SP	230	SILV SPN	230	2	2						
2001-40-6	RIO PINR	230	CURRY FD	230	1	2						
2001-40-6	JUNEAU-W	138	GANNON	138	1	16						
2001-40-6	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-6	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-6	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-6	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-6	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-6	SN PLANT	115	TURNER	115	1	1						
2001-40-6	PASADENA	115	40ST-DUM	115	1	2						
2001-40-6	MICHIGAN	115	KALEY	115	1	11						
2001-40-6	MICHIGAN	115	GRANT	115	1	11						
2001-40-6	PERSHING	115	GRANT	115	1	11						
2001-40-6	AMERICA	115	KALEY	115	1	11						
2001-40-6	JASPER	115	WGHTCHPL	115	1	2						
2001-40-6	AZALEA	115	BENNETT	115	1	11						
2001-40-6	FLORALTP	69	INVERNTP	69	1	2						
2001-40-6	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-6	PASADENA	230	PASADENA	115	1	2						
2001-40-6	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-6	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-6	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-6	IND RIV	230	IND RIV	115	1	11						
2001-40-6	LARGO	230	LARGO A	69	1	2						
2001-40-6	SHELD	230	SHELD-NW	69	1	16						
2001-40-6	CLMT EST	230	CLMT EST	69	1	2						
2001-40-6	WINDERME	230	WINDERME	69	1	2						
2001-40-6	RIVER-S	230	RIVER-S	69	1	16						
2001-40-6	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-6	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-6	JASPER	115	JASPER	69	1	2						

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-7	SN PLANT	230	SYLVAN	230	1	1						
2001-40-7	SYLVAN	230	N LONGWD	230	1	1						
2001-40-7	IND RIV	230	STANTON	230	1	11						
2001-40-7	SILVR SP	230	SILV SPN	230	1	2						
2001-40-7	SILVR SP	230	SILV SPN	230	2	2						
2001-40-7	RIO PINR	230	CURRY FD	230	1	2						
2001-40-7	JUNEAU-W	138	GANNON	138	1	16						
2001-40-7	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-7	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-7	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-7	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-7	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-7	SN PLANT	115	TURNER	115	1	1						
2001-40-7	PASADENA	115	40ST-DUM	115	1	2						
2001-40-7	MICHIGAN	115	KALEY	115	1	11						
2001-40-7	MICHIGAN	115	GRANT	115	1	11						
2001-40-7	PERSHING	115	GRANT	115	1	11						
2001-40-7	AMERICA	115	KALEY	115	1	11						
2001-40-7	JASPER	115	WGHTCHPL	115	1	2						
2001-40-7	AZALEA	115	BENNETT	115	1	11						
2001-40-7	FLORALTP	69	INVERNTP	69	1	2						
2001-40-7	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-7	PASADENA	230	PASADENA	115	1	2						
2001-40-7	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-7	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-7	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-7	IND RIV	230	IND RIV	115	1	11						
2001-40-7	LARGO	230	LARGO A	69	1	2						
2001-40-7	SHELD	230	SHELD-NW	69	1	16						
2001-40-7	CLMT EST	230	CLMT EST	69	1	2						
2001-40-7	WINDERME	230	WINDERME	69	1	2						
2001-40-7	RIVER-S	230	RIVER-S	69	1	16						
2001-40-7	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-7	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-7	JASPER	115	JASPER	69	1	2						
2001-40-8	SN PLANT	230	SYLVAN	230	1	1						
2001-40-8	SYLVAN	230	N LONGWD	230	1	1						
2001-40-8	IND RIV	230	STANTON	230	1	11						
2001-40-8	SILVR SP	230	SILV SPN	230	1	2						
2001-40-8	SILVR SP	230	SILV SPN	230	2	2						
2001-40-8	RIO PINR	230	CURRY FD	230	1	2						
2001-40-8	JUNEAU-W	138	GANNON	138	1	16						
2001-40-8	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-8	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-8	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-8	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-8	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-8	SN PLANT	115	TURNER	115	1	1						
2001-40-8	PASADENA	115	40ST-DUM	115	1	2						
2001-40-8	MICHIGAN	115	KALEY	115	1	11						
2001-40-8	MICHIGAN	115	GRANT	115	1	11						
2001-40-8	PERSHING	115	GRANT	115	1	11						
2001-40-8	AMERICA	115	KALEY	115	1	11						
2001-40-8	JASPER	115	WGHTCHPL	115	1	2						
2001-40-8	AZALEA	115	BENNETT	115	1	11						
2001-40-8	FLORALTP	69	INVERNTP	69	1	2						
2001-40-8	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-8	PASADENA	230	PASADENA	115	1	2						
2001-40-8	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-8	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-8	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-8	IND RIV	230	IND RIV	115	1	11						
2001-40-8	LARGO	230	LARGO A	69	1	2						
2001-40-8	SHELD	230	SHELD-NW	69	1	16						
2001-40-8	CLMT EST	230	CLMT EST	69	1	2						
2001-40-8	WINDERME	230	WINDERME	69	1	2						
2001-40-8	RIVER-S	230	RIVER-S	69	1	16						
2001-40-8	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-8	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-8	JASPER	115	JASPER	69	1	2						

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-9	SN PLANT	230	SYLVAN	230	1	1						
2001-40-9	SYLVAN	230	N LONGWD	230	1	1						
2001-40-9	IND RIV	230	STANTON	230	1	11						
2001-40-9	SILVR SP	230	SILV SPN	230	1	2						
2001-40-9	SILVR SP	230	SILV SPN	230	2	2						
2001-40-9	RIO PINR	230	CURRY FD	230	1	2						
2001-40-9	JUNEAU-W	138	GANNON	138	1	16						
2001-40-9	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-9	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-9	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-9	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-9	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-9	SN PLANT	115	TURNER	115	1	1						
2001-40-9	PASADENA	115	40ST-DUM	115	1	2						
2001-40-9	MICHIGAN	115	KALEY	115	1	11						
2001-40-9	MICHIGAN	115	GRANT	115	1	11						
2001-40-9	PERSHING	115	GRANT	115	1	11						
2001-40-9	AMERICA	115	KALEY	115	1	11						
2001-40-9	JASPER	115	WGHTCHPL	115	1	2						
2001-40-9	AZALEA	115	BENNETT	115	1	11						
2001-40-9	FLORALTP	69	INVERNTP	69	1	2						
2001-40-9	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-9	PASADENA	230	PASADENA	115	1	2						
2001-40-9	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-9	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-9	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-9	IND RIV	230	IND RIV	115	1	11						
2001-40-9	LARGO	230	LARGO A	69	1	2						
2001-40-9	SHELD	230	SHELD-NW	69	1	16						
2001-40-9	CLMT EST	230	CLMT EST	69	1	2						
2001-40-9	WINDERME	230	WINDERME	69	1	2						
2001-40-9	RIVER-S	230	RIVER-S	69	1	16						
2001-40-9	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-9	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-9	JASPER	115	JASPER	69	1	2						
2001-40-10	SN PLANT	230	SYLVAN	230	1	1						
2001-40-10	SYLVAN	230	N LONGWD	230	1	1						
2001-40-10	IND RIV	230	STANTON	230	1	11						
2001-40-10	SILVR SP	230	SILV SPN	230	1	2						
2001-40-10	SILVR SP	230	SILV SPN	230	2	2						
2001-40-10	RIO PINR	230	CURRY FD	230	1	2						
2001-40-10	JUNEAU-W	138	GANNON	138	1	16						
2001-40-10	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-10	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-10	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-10	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-10	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-10	SN PLANT	115	TURNER	115	1	1						
2001-40-10	PASADENA	115	40ST-DUM	115	1	2						
2001-40-10	MICHIGAN	115	KALEY	115	1	11						
2001-40-10	MICHIGAN	115	GRANT	115	1	11						
2001-40-10	PERSHING	115	GRANT	115	1	11						
2001-40-10	AMERICA	115	KALEY	115	1	11						
2001-40-10	JASPER	115	WGHTCHPL	115	1	2						
2001-40-10	AZALEA	115	BENNETT	115	1	11						
2001-40-10	FLORALTP	69	INVERNTP	69	1	2						
2001-40-10	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-10	PASADENA	230	PASADENA	115	1	2						
2001-40-10	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-10	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-10	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-10	IND RIV	230	IND RIV	115	1	11						
2001-40-10	LARGO	230	LARGO A	69	1	2						
2001-40-10	SHELD	230	SHELD-NW	69	1	16						
2001-40-10	CLMT EST	230	CLMT EST	69	1	2						
2001-40-10	WINDERME	230	WINDERME	69	1	2						
2001-40-10	RIVER-S	230	RIVER-S	69	1	16						
2001-40-10	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-10	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-10	JASPER	115	JASPER	69	1	2						

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-11	SN PLANT	230	SYLVAN	230	1	1						
2001-40-11	SYLVAN	230	N LONGWD	230	1	1						
2001-40-11	IND RIV	230	STANTON	230	1	11						
2001-40-11	SILVR SP	230	SILV SPN	230	1	2						
2001-40-11	SILVR SP	230	SILV SPN	230	2	2						
2001-40-11	RIO PINR	230	CURRY FD	230	1	2						
2001-40-11	JUNEAU-W	138	GANNON	138	1	16						
2001-40-11	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-11	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-11	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-11	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-11	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-11	SN PLANT	115	TURNER	115	1	1						
2001-40-11	PASADENA	115	40ST-DUM	115	1	2						
2001-40-11	MICHIGAN	115	KALEY	115	1	11						
2001-40-11	MICHIGAN	115	GRANT	115	1	11						
2001-40-11	PERSHING	115	GRANT	115	1	11						
2001-40-11	AMERICA	115	KALEY	115	1	11						
2001-40-11	JASPER	115	WGHTCHPL	115	1	2						
2001-40-11	AZALEA	115	BENNETT	115	1	11						
2001-40-11	FLORALTP	69	INVERNTP	69	1	2						
2001-40-11	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-11	PASADENA	230	PASADENA	115	1	2						
2001-40-11	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-11	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-11	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-11	IND RIV	230	IND RIV	115	1	11						
2001-40-11	LARGO	230	LARGO A	69	1	2						
2001-40-11	SHELD	230	SHELD-NW	69	1	16						
2001-40-11	CLMT EST	230	CLMT EST	69	1	2						
2001-40-11	WINDERME	230	WINDERME	69	1	2						
2001-40-11	RIVER-S	230	RIVER-S	69	1	16						
2001-40-11	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-11	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-11	JASPER	115	JASPER	69	1	2						
2001-40-12	SN PLANT	230	SYLVAN	230	1	1						
2001-40-12	SYLVAN	230	N LONGWD	230	1	1						
2001-40-12	IND RIV	230	STANTON	230	1	11						
2001-40-12	SILVR SP	230	SILV SPN	230	1	2						
2001-40-12	SILVR SP	230	SILV SPN	230	2	2						
2001-40-12	RIO PINR	230	CURRY FD	230	1	2						
2001-40-12	JUNEAU-W	138	GANNON	138	1	16						
2001-40-12	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-12	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-12	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-12	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-12	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-12	SN PLANT	115	TURNER	115	1	1						
2001-40-12	PASADENA	115	40ST-DUM	115	1	2						
2001-40-12	MICHIGAN	115	KALEY	115	1	11						
2001-40-12	MICHIGAN	115	GRANT	115	1	11						
2001-40-12	PERSHING	115	GRANT	115	1	11						
2001-40-12	AMERICA	115	KALEY	115	1	11						
2001-40-12	JASPER	115	WGHTCHPL	115	1	2						
2001-40-12	AZALEA	115	BENNETT	115	1	11						
2001-40-12	FLORALTP	69	INVERNTP	69	1	2						
2001-40-12	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-12	PASADENA	230	PASADENA	115	1	2						
2001-40-12	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-12	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-12	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-12	IND RIV	230	IND RIV	115	1	11						
2001-40-12	LARGO	230	LARGO A	69	1	2						
2001-40-12	SHELD	230	SHELD-NW	69	1	16						
2001-40-12	CLMT EST	230	CLMT EST	69	1	2						
2001-40-12	WINDERME	230	WINDERME	69	1	2						
2001-40-12	RIVER-S	230	RIVER-S	69	1	16						
2001-40-12	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-12	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-12	JASPER	115	JASPER	69	1	2						

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-13	SN PLANT	230	SYLVAN	230	1	1						
2001-40-13	SYLVAN	230	N LONGWD	230	1	1						
2001-40-13	IND RIV	230	STANTON	230	1	11						
2001-40-13	SILVR SP	230	SILV SPN	230	1	2						
2001-40-13	SILVR SP	230	SILV SPN	230	2	2						
2001-40-13	RIO PINR	230	CURRY FD	230	1	2						
2001-40-13	JUNEAU-W	138	GANNON	138	1	16						
2001-40-13	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-13	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-13	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-13	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-13	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-13	SN PLANT	115	TURNER	115	1	1						
2001-40-13	PASADENA	115	40ST-DUM	115	1	2						
2001-40-13	MICHIGAN	115	KALEY	115	1	11						
2001-40-13	MICHIGAN	115	GRANT	115	1	11						
2001-40-13	PERSHING	115	GRANT	115	1	11						
2001-40-13	AMERICA	115	KALEY	115	1	11						
2001-40-13	JASPER	115	WGHTCHPL	115	1	2						
2001-40-13	AZALEA	115	BENNETT	115	1	11						
2001-40-13	FLORALTP	69	INVERNTP	69	1	2						
2001-40-13	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-13	PASADENA	230	PASADENA	115	1	2						
2001-40-13	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-13	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-13	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-13	IND RIV	230	IND RIV	115	1	11						
2001-40-13	LARGO	230	LARGO A	69	1	2						
2001-40-13	SHELD	230	SHELD-NW	69	1	16						
2001-40-13	CLMT EST	230	CLMT EST	69	1	2						
2001-40-13	WINDERME	230	WINDERME	69	1	2						
2001-40-13	RIVER-S	230	RIVER-S	69	1	16						
2001-40-13	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-13	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-13	JASPER	115	JASPER	69	1	2						
2001-40-14	SN PLANT	230	SYLVAN	230	1	1						
2001-40-14	SYLVAN	230	N LONGWD	230	1	1						
2001-40-14	IND RIV	230	STANTON	230	1	11						
2001-40-14	SILVR SP	230	SILV SPN	230	1	2						
2001-40-14	SILVR SP	230	SILV SPN	230	2	2						
2001-40-14	RIO PINR	230	CURRY FD	230	1	2						
2001-40-14	JUNEAU-W	138	GANNON	138	1	16						
2001-40-14	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-14	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-14	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-14	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-14	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-14	SN PLANT	115	TURNER	115	1	1						
2001-40-14	PASADENA	115	40ST-DUM	115	1	2						
2001-40-14	MICHIGAN	115	KALEY	115	1	11						
2001-40-14	MICHIGAN	115	GRANT	115	1	11						
2001-40-14	PERSHING	115	GRANT	115	1	11						
2001-40-14	AMERICA	115	KALEY	115	1	11						
2001-40-14	JASPER	115	WGHTCHPL	115	1	2						
2001-40-14	AZALEA	115	BENNETT	115	1	11						
2001-40-14	FLORALTP	69	INVERNTP	69	1	2						
2001-40-14	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-14	PASADENA	230	PASADENA	115	1	2						
2001-40-14	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-14	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-14	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-14	IND RIV	230	IND RIV	115	1	11						
2001-40-14	LARGO	230	LARGO A	69	1	2						
2001-40-14	SHELD	230	SHELD-NW	69	1	16						
2001-40-14	CLMT EST	230	CLMT EST	69	1	2						
2001-40-14	WINDERME	230	WINDERME	69	1	2						
2001-40-14	RIVER-S	230	RIVER-S	69	1	16						
2001-40-14	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-14	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-14	JASPER	115	JASPER	69	1	2						

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-15	SN PLANT	230	SYLVAN	230	1	1						
2001-40-15	SYLVAN	230	N LONGWD	230	1	1						
2001-40-15	IND RIV	230	STANTON	230	1	11						
2001-40-15	SILVR SP	230	SILV SPN	230	1	2						
2001-40-15	SILVR SP	230	SILV SPN	230	2	2						
2001-40-15	RIO PINR	230	CURRY FD	230	1	2						
2001-40-15	JUNEAU-W	138	GANNON	138	1	16						
2001-40-15	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-15	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-15	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-15	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-15	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-15	SN PLANT	115	TURNER	115	1	1						
2001-40-15	PASADENA	115	40ST-DUM	115	1	2						
2001-40-15	MICHIGAN	115	KALEY	115	1	11						
2001-40-15	MICHIGAN	115	GRANT	115	1	11						
2001-40-15	PERSHING	115	GRANT	115	1	11						
2001-40-15	AMERICA	115	KALEY	115	1	11						
2001-40-15	JASPER	115	WGHTCHPL	115	1	2						
2001-40-15	AZALEA	115	BENNETT	115	1	11						
2001-40-15	FLORALTP	69	INVERNTP	69	1	2						
2001-40-15	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-15	PASADENA	230	PASADENA	115	1	2						
2001-40-15	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-15	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-15	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-15	IND RIV	230	IND RIV	115	1	11						
2001-40-15	LARGO	230	LARGO A	69	1	2						
2001-40-15	SHELD	230	SHELD-NW	69	1	16						
2001-40-15	CLMT EST	230	CLMT EST	69	1	2						
2001-40-15	WINDERME	230	WINDERME	69	1	2						
2001-40-15	RIVER-S	230	RIVER-S	69	1	16						
2001-40-15	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-15	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-15	JASPER	115	JASPER	69	1	2						
2001-40-16	SN PLANT	230	SYLVAN	230	1	1						
2001-40-16	SYLVAN	230	N LONGWD	230	1	1						
2001-40-16	IND RIV	230	STANTON	230	1	11						
2001-40-16	SILVR SP	230	SILV SPN	230	1	2						
2001-40-16	SILVR SP	230	SILV SPN	230	2	2						
2001-40-16	RIO PINR	230	CURRY FD	230	1	2						
2001-40-16	JUNEAU-W	138	GANNON	138	1	16						
2001-40-16	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-16	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-16	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-16	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-16	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-16	SN PLANT	115	TURNER	115	1	1						
2001-40-16	PASADENA	115	40ST-DUM	115	1	2						
2001-40-16	MICHIGAN	115	KALEY	115	1	11						
2001-40-16	MICHIGAN	115	GRANT	115	1	11						
2001-40-16	PERSHING	115	GRANT	115	1	11						
2001-40-16	AMERICA	115	KALEY	115	1	11						
2001-40-16	JASPER	115	WGHTCHPL	115	1	2						
2001-40-16	AZALEA	115	BENNETT	115	1	11						
2001-40-16	FLORALTP	69	INVERNTP	69	1	2						
2001-40-16	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-16	PASADENA	230	PASADENA	115	1	2						
2001-40-16	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-16	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-16	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-16	IND RIV	230	IND RIV	115	1	11						
2001-40-16	LARGO	230	LARGO A	69	1	2						
2001-40-16	SHELD	230	SHELD-NW	69	1	16						
2001-40-16	CLMT EST	230	CLMT EST	69	1	2						
2001-40-16	WINDERME	230	WINDERME	69	1	2						
2001-40-16	RIVER-S	230	RIVER-S	69	1	16						
2001-40-16	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-16	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-16	JASPER	115	JASPER	69	1	2						

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40 Sell to FPL	Case 2001-40 Sell to FPC	Case 2001-40 Sell to TEC	Case 2001-40 Sell to JEA	Case 2001-40 Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-17	SN PLANT	230	SYLVAN	230	1	1						
2001-40-17	SYLVAN	230	N LONGWD	230	1	1						
2001-40-17	IND RIV	230	STANTON	230	1	11						
2001-40-17	SILVR SP	230	SILV SPN	230	1	2						
2001-40-17	SILVR SP	230	SILV SPN	230	2	2						
2001-40-17	RIO PINR	230	CURRY FD	230	1	2						
2001-40-17	JUNEAU-W	138	GANNON	138	1	16						
2001-40-17	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-17	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-17	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-17	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-17	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-17	SN PLANT	115	TURNER	115	1	1						
2001-40-17	PASADENA	115	40ST-DUM	115	1	2						
2001-40-17	MICHIGAN	115	KALEY	115	1	11						
2001-40-17	MICHIGAN	115	GRANT	115	1	11						
2001-40-17	PERSHING	115	GRANT	115	1	11						
2001-40-17	AMERICA	115	KALEY	115	1	11						
2001-40-17	JASPER	115	WGHTCHPL	115	1	2						
2001-40-17	AZALEA	115	BENNETT	115	1	11						
2001-40-17	FLORALTP	69	INVERNTP	69	1	2						
2001-40-17	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-17	PASADENA	230	PASADENA	115	1	2						
2001-40-17	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-17	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-17	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-17	IND RIV	230	IND RIV	115	1	11						
2001-40-17	LARGO	230	LARGO A	69	1	2						
2001-40-17	SHELD	230	SHELD-NW	69	1	16						
2001-40-17	CLMT EST	230	CLMT EST	69	1	2						
2001-40-17	WINDERME	230	WINDERME	69	1	2						
2001-40-17	RIVER-S	230	RIVER-S	69	1	16						
2001-40-17	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-17	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-17	JASPER	115	JASPER	69	1	2						
2001-40-18	SN PLANT	230	SYLVAN	230	1	1						
2001-40-18	SYLVAN	230	N LONGWD	230	1	1						
2001-40-18	IND RIV	230	STANTON	230	1	11						
2001-40-18	SILVR SP	230	SILV SPN	230	1	2						
2001-40-18	SILVR SP	230	SILV SPN	230	2	2						
2001-40-18	RIO PINR	230	CURRY FD	230	1	2						
2001-40-18	JUNEAU-W	138	GANNON	138	1	16						
2001-40-18	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-18	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-18	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-18	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-18	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-18	SN PLANT	115	TURNER	115	1	1						
2001-40-18	PASADENA	115	40ST-DUM	115	1	2						
2001-40-18	MICHIGAN	115	KALEY	115	1	11						
2001-40-18	MICHIGAN	115	GRANT	115	1	11						
2001-40-18	PERSHING	115	GRANT	115	1	11						
2001-40-18	AMERICA	115	KALEY	115	1	11						
2001-40-18	JASPER	115	WGHTCHPL	115	1	2						
2001-40-18	AZALEA	115	BENNETT	115	1	11						
2001-40-18	FLORALTP	69	INVERNTP	69	1	2						
2001-40-18	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-18	PASADENA	230	PASADENA	115	1	2						
2001-40-18	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-18	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-18	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-18	IND RIV	230	IND RIV	115	1	11						
2001-40-18	LARGO	230	LARGO A	69	1	2						
2001-40-18	SHELD	230	SHELD-NW	69	1	16						
2001-40-18	CLMT EST	230	CLMT EST	69	1	2						
2001-40-18	WINDERME	230	WINDERME	69	1	2						
2001-40-18	RIVER-S	230	RIVER-S	69	1	16						
2001-40-18	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-18	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-18	JASPER	115	JASPER	69	1	2						

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-19	SN PLANT	230	SYLVAN	230	1	1						
2001-40-19	SYLVAN	230	N LONGWD	230	1	1						
2001-40-19	IND RIV	230	STANTON	230	1	11						
2001-40-19	SILVR SP	230	SILV SPN	230	1	2						
2001-40-19	SILVR SP	230	SILV SPN	230	2	2						
2001-40-19	RIO PINR	230	CURRY FD	230	1	2						
2001-40-19	JUNEAU-W	138	GANNON	138	1	16						
2001-40-19	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-19	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-19	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-19	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-19	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-19	SN PLANT	115	TURNER	115	1	1						
2001-40-19	PASADENA	115	40ST-DUM	115	1	2						
2001-40-19	MICHIGAN	115	KALEY	115	1	11						
2001-40-19	MICHIGAN	115	GRANT	115	1	11						
2001-40-19	PERSHING	115	GRANT	115	1	11						
2001-40-19	AMERICA	115	KALEY	115	1	11						
2001-40-19	JASPER	115	WGHTCHPL	115	1	2						
2001-40-19	AZALEA	115	BENNETT	115	1	11						
2001-40-19	FLORALTP	69	INVERNTP	69	1	2						
2001-40-19	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-19	PASADENA	230	PASADENA	115	1	2						
2001-40-19	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-19	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-19	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-19	IND RIV	230	IND RIV	115	1	11						
2001-40-19	LARGO	230	LARGO A	69	1	2						
2001-40-19	SHELD	230	SHELD-NW	69	1	16						
2001-40-19	CLMT EST	230	CLMT EST	69	1	2						
2001-40-19	WINDERME	230	WINDERME	69	1	2						
2001-40-19	RIVER-S	230	RIVER-S	69	1	16						
2001-40-19	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-19	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-19	JASPER	115	JASPER	69	1	2						
2001-40-20	SN PLANT	230	SYLVAN	230	1	1						
2001-40-20	SYLVAN	230	N LONGWD	230	1	1						
2001-40-20	IND RIV	230	STANTON	230	1	11						
2001-40-20	SILVR SP	230	SILV SPN	230	1	2						
2001-40-20	SILVR SP	230	SILV SPN	230	2	2						
2001-40-20	RIO PINR	230	CURRY FD	230	1	2						
2001-40-20	JUNEAU-W	138	GANNON	138	1	16						
2001-40-20	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-20	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-20	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-20	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-20	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-20	SN PLANT	115	TURNER	115	1	1						
2001-40-20	PASADENA	115	40ST-DUM	115	1	2						
2001-40-20	MICHIGAN	115	KALEY	115	1	11						
2001-40-20	MICHIGAN	115	GRANT	115	1	11						
2001-40-20	PERSHING	115	GRANT	115	1	11						
2001-40-20	AMERICA	115	KALEY	115	1	11						
2001-40-20	JASPER	115	WGHTCHPL	115	1	2						
2001-40-20	AZALEA	115	BENNETT	115	1	11						
2001-40-20	FLORALTP	69	INVERNTP	69	1	2						
2001-40-20	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-20	PASADENA	230	PASADENA	115	1	2						
2001-40-20	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-20	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-20	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-20	IND RIV	230	IND RIV	115	1	11						
2001-40-20	LARGO	230	LARGO A	69	1	2						
2001-40-20	SHELD	230	SHELD-NW	69	1	16						
2001-40-20	CLMT EST	230	CLMT EST	69	1	2						
2001-40-20	WINDERME	230	WINDERME	69	1	2						
2001-40-20	RIVER-S	230	RIVER-S	69	1	16						
2001-40-20	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-20	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-20	JASPER	115	JASPER	69	1	2						

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-21	SN PLANT	230	SYLVAN	230	1	1						
2001-40-21	SYLVAN	230	N LONGWD	230	1	1						
2001-40-21	IND RIV	230	STANTON	230	1	11						
2001-40-21	SILVR SP	230	SILV SPN	230	1	2						
2001-40-21	SILVR SP	230	SILV SPN	230	2	2						
2001-40-21	RIO PINR	230	CURRY FD	230	1	2						
2001-40-21	JUNEAU-W	138	GANNON	138	1	16						
2001-40-21	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-21	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-21	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-21	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-21	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-21	SN PLANT	115	TURNER	115	1	1						
2001-40-21	PASADENA	115	40ST-DUM	115	1	2						
2001-40-21	MICHIGAN	115	KALEY	115	1	11						
2001-40-21	MICHIGAN	115	GRANT	115	1	11						
2001-40-21	PERSHING	115	GRANT	115	1	11						
2001-40-21	AMERICA	115	KALEY	115	1	11						
2001-40-21	JASPER	115	WGHTCHPL	115	1	2						
2001-40-21	AZALEA	115	BENNETT	115	1	11						
2001-40-21	FLORALTP	69	INVERNTP	69	1	2						
2001-40-21	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-21	PASADENA	230	PASADENA	115	1	2						
2001-40-21	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-21	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-21	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-21	IND RIV	230	IND RIV	115	1	11						
2001-40-21	LARGO	230	LARGO A	69	1	2						
2001-40-21	SHELD	230	SHELD-NW	69	1	16						
2001-40-21	CLMT EST	230	CLMT EST	69	1	2						
2001-40-21	WINDERME	230	WINDERME	69	1	2						
2001-40-21	RIVER-S	230	RIVER-S	69	1	16						
2001-40-21	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-21	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-21	JASPER	115	JASPER	69	1	2						
2001-40-22	SN PLANT	230	SYLVAN	230	1	1						
2001-40-22	SYLVAN	230	N LONGWD	230	1	1						
2001-40-22	IND RIV	230	STANTON	230	1	11						
2001-40-22	SILVR SP	230	SILV SPN	230	1	2						
2001-40-22	SILVR SP	230	SILV SPN	230	2	2						
2001-40-22	RIO PINR	230	CURRY FD	230	1	2						
2001-40-22	JUNEAU-W	138	GANNON	138	1	16						
2001-40-22	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-22	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-22	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-22	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-22	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-22	SN PLANT	115	TURNER	115	1	1						
2001-40-22	PASADENA	115	40ST-DUM	115	1	2						
2001-40-22	MICHIGAN	115	KALEY	115	1	11						
2001-40-22	MICHIGAN	115	GRANT	115	1	11						
2001-40-22	PERSHING	115	GRANT	115	1	11						
2001-40-22	AMERICA	115	KALEY	115	1	11						
2001-40-22	JASPER	115	WGHTCHPL	115	1	2						
2001-40-22	AZALEA	115	BENNETT	115	1	11						
2001-40-22	FLORALTP	69	INVERNTP	69	1	2						
2001-40-22	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-22	PASADENA	230	PASADENA	115	1	2						
2001-40-22	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-22	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-22	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-22	IND RIV	230	IND RIV	115	1	11						
2001-40-22	LARGO	230	LARGO A	69	1	2						
2001-40-22	SHELD	230	SHELD-NW	69	1	16						
2001-40-22	CLMT EST	230	CLMT EST	69	1	2						
2001-40-22	WINDERME	230	WINDERME	69	1	2						
2001-40-22	RIVER-S	230	RIVER-S	69	1	16						
2001-40-22	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-22	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-22	JASPER	115	JASPER	69	1	2						

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-23	SN PLANT	230	SYLVAN	230	1	1						
2001-40-23	SYLVAN	230	N LONGWD	230	1	1						
2001-40-23	IND RIV	230	STANTON	230	1	11						
2001-40-23	SILVR SP	230	SILV SPN	230	1	2						
2001-40-23	SILVR SP	230	SILV SPN	230	2	2						
2001-40-23	RIO PINR	230	CURRY FD	230	1	2						
2001-40-23	JUNEAU-W	138	GANNON	138	1	16						
2001-40-23	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-23	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-23	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-23	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-23	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-23	SN PLANT	115	TURNER	115	1	1						
2001-40-23	PASADENA	115	40ST-DUM	115	1	2						
2001-40-23	MICHIGAN	115	KALEY	115	1	11						
2001-40-23	MICHIGAN	115	GRANT	115	1	11						
2001-40-23	PERSHING	115	GRANT	115	1	11						
2001-40-23	AMERICA	115	KALEY	115	1	11						
2001-40-23	JASPER	115	WGHTCHPL	115	1	2						
2001-40-23	AZALEA	115	BENNETT	115	1	11						
2001-40-23	FLORALTP	69	INVERNTP	69	1	2						
2001-40-23	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-23	PASADENA	230	PASADENA	115	1	2						
2001-40-23	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-23	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-23	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-23	IND RIV	230	IND RIV	115	1	11						
2001-40-23	LARGO	230	LARGO A	69	1	2						
2001-40-23	SHELD	230	SHELD-NW	69	1	16						
2001-40-23	CLMT EST	230	CLMT EST	69	1	2						
2001-40-23	WINDERME	230	WINDERME	69	1	2						
2001-40-23	RIVER-S	230	RIVER-S	69	1	16						
2001-40-23	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-23	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-23	JASPER	115	JASPER	69	1	2						
2001-40-24	SN PLANT	230	SYLVAN	230	1	1						
2001-40-24	SYLVAN	230	N LONGWD	230	1	1						
2001-40-24	IND RIV	230	STANTON	230	1	11						
2001-40-24	SILVR SP	230	SILV SPN	230	1	2						
2001-40-24	SILVR SP	230	SILV SPN	230	2	2						
2001-40-24	RIO PINR	230	CURRY FD	230	1	2						
2001-40-24	JUNEAU-W	138	GANNON	138	1	16						
2001-40-24	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-24	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-24	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-24	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-24	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-24	SN PLANT	115	TURNER	115	1	1						
2001-40-24	PASADENA	115	40ST-DUM	115	1	2						
2001-40-24	MICHIGAN	115	KALEY	115	1	11						
2001-40-24	MICHIGAN	115	GRANT	115	1	11						
2001-40-24	PERSHING	115	GRANT	115	1	11						
2001-40-24	AMERICA	115	KALEY	115	1	11						
2001-40-24	JASPER	115	WGHTCHPL	115	1	2						
2001-40-24	AZALEA	115	BENNETT	115	1	11						
2001-40-24	FLORALTP	69	INVERNTP	69	1	2						
2001-40-24	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-24	PASADENA	230	PASADENA	115	1	2						
2001-40-24	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-24	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-24	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-24	IND RIV	230	IND RIV	115	1	11						
2001-40-24	LARGO	230	LARGO A	69	1	2						
2001-40-24	SHELD	230	SHELD-NW	69	1	16						
2001-40-24	CLMT EST	230	CLMT EST	69	1	2						
2001-40-24	WINDERME	230	WINDERME	69	1	2						
2001-40-24	RIVER-S	230	RIVER-S	69	1	16						
2001-40-24	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-24	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-24	JASPER	115	JASPER	69	1	2						

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-25	SN PLANT	230	SYLVAN	230	1	1						
2001-40-25	SYLVAN	230	N LONGWD	230	1	1						
2001-40-25	IND RIV	230	STANTON	230	1	11						
2001-40-25	SILVR SP	230	SILV SPN	230	1	2						
2001-40-25	SILVR SP	230	SILV SPN	230	2	2						
2001-40-25	RIO PINR	230	CURRY FD	230	1	2						
2001-40-25	JUNEAU-W	138	GANNON	138	1	16						
2001-40-25	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-25	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-25	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-25	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-25	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-25	SN PLANT	115	TURNER	115	1	1						
2001-40-25	PASADENA	115	40ST-DUM	115	1	2						
2001-40-25	MICHIGAN	115	KALEY	115	1	11						
2001-40-25	MICHIGAN	115	GRANT	115	1	11						
2001-40-25	PERSHING	115	GRANT	115	1	11						
2001-40-25	AMERICA	115	KALEY	115	1	11						
2001-40-25	JASPER	115	WGHTCHPL	115	1	2						
2001-40-25	AZALEA	115	BENNETT	115	1	11						
2001-40-25	FLORALTP	69	INVERNTP	69	1	2						
2001-40-25	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-25	PASADENA	230	PASADENA	115	1	2						
2001-40-25	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-25	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-25	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-25	IND RIV	230	IND RIV	115	1	11						
2001-40-25	LARGO	230	LARGO A	69	1	2						
2001-40-25	SHELD	230	SHELD-NW	69	1	16						
2001-40-25	CLMT EST	230	CLMT EST	69	1	2						
2001-40-25	WINDERME	230	WINDERME	69	1	2						
2001-40-25	RIVER-S	230	RIVER-S	69	1	16						
2001-40-25	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-25	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-25	JASPER	115	JASPER	69	1	2						
2001-40-26	SN PLANT	230	SYLVAN	230	1	1						
2001-40-26	SYLVAN	230	N LONGWD	230	1	1						
2001-40-26	IND RIV	230	STANTON	230	1	11						
2001-40-26	SILVR SP	230	SILV SPN	230	1	2						
2001-40-26	SILVR SP	230	SILV SPN	230	2	2						
2001-40-26	RIO PINR	230	CURRY FD	230	1	2						
2001-40-26	JUNEAU-W	138	GANNON	138	1	16						
2001-40-26	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-26	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-26	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-26	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-26	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-26	SN PLANT	115	TURNER	115	1	1						
2001-40-26	PASADENA	115	40ST-DUM	115	1	2						
2001-40-26	MICHIGAN	115	KALEY	115	1	11						
2001-40-26	MICHIGAN	115	GRANT	115	1	11						
2001-40-26	PERSHING	115	GRANT	115	1	11						
2001-40-26	AMERICA	115	KALEY	115	1	11						
2001-40-26	JASPER	115	WGHTCHPL	115	1	2						
2001-40-26	AZALEA	115	BENNETT	115	1	11						
2001-40-26	FLORALTP	69	INVERNTP	69	1	2						
2001-40-26	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-26	PASADENA	230	PASADENA	115	1	2						
2001-40-26	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-26	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-26	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-26	IND RIV	230	IND RIV	115	1	11						
2001-40-26	LARGO	230	LARGO A	69	1	2						
2001-40-26	SHELD	230	SHELD-NW	69	1	16						
2001-40-26	CLMT EST	230	CLMT EST	69	1	2						
2001-40-26	WINDERME	230	WINDERME	69	1	2						
2001-40-26	RIVER-S	230	RIVER-S	69	1	16						
2001-40-26	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-26	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-26	JASPER	115	JASPER	69	1	2						

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-27	SN PLANT	230	SYLVAN	230	1	1						
2001-40-27	SYLVAN	230	N LONGWD	230	1	1						
2001-40-27	IND RIV	230	STANTON	230	1	11						
2001-40-27	SILVR SP	230	SILV SPN	230	1	2						
2001-40-27	SILVR SP	230	SILV SPN	230	2	2						
2001-40-27	RIO PINR	230	CURRY FD	230	1	2						
2001-40-27	JUNEAU-W	138	GANNON	138	1	16						
2001-40-27	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-27	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-27	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-27	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-27	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-27	SN PLANT	115	TURNER	115	1	1						
2001-40-27	PASADENA	115	40ST-DUM	115	1	2						
2001-40-27	MICHIGAN	115	KALEY	115	1	11						
2001-40-27	MICHIGAN	115	GRANT	115	1	11						
2001-40-27	PERSHING	115	GRANT	115	1	11						
2001-40-27	AMERICA	115	KALEY	115	1	11						
2001-40-27	JASPER	115	WGHTCHPL	115	1	2						
2001-40-27	AZALEA	115	BENNETT	115	1	11						
2001-40-27	FLORALTP	69	INVERNTP	69	1	2						
2001-40-27	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-27	PASADENA	230	PASADENA	115	1	2						
2001-40-27	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-27	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-27	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-27	IND RIV	230	IND RIV	115	1	11						
2001-40-27	LARGO	230	LARGO A	69	1	2						
2001-40-27	SHELD	230	SHELD-NW	69	1	16						
2001-40-27	CLMT EST	230	CLMT EST	69	1	2						
2001-40-27	WINDERME	230	WINDERME	69	1	2						
2001-40-27	RIVER-S	230	RIVER-S	69	1	16						
2001-40-27	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-27	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-27	JASPER	115	JASPER	69	1	2						
2001-40-28	SN PLANT	230	SYLVAN	230	1	1						
2001-40-28	SYLVAN	230	N LONGWD	230	1	1						
2001-40-28	IND RIV	230	STANTON	230	1	11						
2001-40-28	SILVR SP	230	SILV SPN	230	1	2						
2001-40-28	SILVR SP	230	SILV SPN	230	2	2						
2001-40-28	RIO PINR	230	CURRY FD	230	1	2						
2001-40-28	JUNEAU-W	138	GANNON	138	1	16						
2001-40-28	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-28	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-28	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-28	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-28	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-28	SN PLANT	115	TURNER	115	1	1						
2001-40-28	PASADENA	115	40ST-DUM	115	1	2						
2001-40-28	MICHIGAN	115	KALEY	115	1	11						
2001-40-28	MICHIGAN	115	GRANT	115	1	11						
2001-40-28	PERSHING	115	GRANT	115	1	11						
2001-40-28	AMERICA	115	KALEY	115	1	11						
2001-40-28	JASPER	115	WGHTCHPL	115	1	2						
2001-40-28	AZALEA	115	BENNETT	115	1	11						
2001-40-28	FLORALTP	69	INVERNTP	69	1	2						
2001-40-28	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-28	PASADENA	230	PASADENA	115	1	2						
2001-40-28	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-28	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-28	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-28	IND RIV	230	IND RIV	115	1	11						
2001-40-28	LARGO	230	LARGO A	69	1	2						
2001-40-28	SHELD	230	SHELD-NW	69	1	16						
2001-40-28	CLMT EST	230	CLMT EST	69	1	2						
2001-40-28	WINDERME	230	WINDERME	69	1	2						
2001-40-28	RIVER-S	230	RIVER-S	69	1	16						
2001-40-28	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-28	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-28	JASPER	115	JASPER	69	1	2						

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-29	SN PLANT	230	SYLVAN	230	1	1						
2001-40-29	SYLVAN	230	N LONGWD	230	1	1						
2001-40-29	IND RIV	230	STANTON	230	1	11						
2001-40-29	SILVR SP	230	SILV SPN	230	1	2						
2001-40-29	SILVR SP	230	SILV SPN	230	2	2						
2001-40-29	RIO PINR	230	CURRY FD	230	1	2						
2001-40-29	JUNEAU-W	138	GANNON	138	1	16						
2001-40-29	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-29	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-29	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-29	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-29	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-29	SN PLANT	115	TURNER	115	1	1						
2001-40-29	PASADENA	115	40ST-DUM	115	1	2						
2001-40-29	MICHIGAN	115	KALEY	115	1	11						
2001-40-29	MICHIGAN	115	GRANT	115	1	11						
2001-40-29	PERSHING	115	GRANT	115	1	11						
2001-40-29	AMERICA	115	KALEY	115	1	11						
2001-40-29	JASPER	115	WGHTCHPL	115	1	2						
2001-40-29	AZALEA	115	BENNETT	115	1	11						
2001-40-29	FLORALTP	69	INVERNTP	69	1	2						
2001-40-29	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-29	PASADENA	230	PASADENA	115	1	2						
2001-40-29	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-29	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-29	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-29	IND RIV	230	IND RIV	115	1	11						
2001-40-29	LARGO	230	LARGO A	69	1	2						
2001-40-29	SHELD	230	SHELD-NW	69	1	16						
2001-40-29	CLMT EST	230	CLMT EST	69	1	2						
2001-40-29	WINDERME	230	WINDERME	69	1	2						
2001-40-29	RIVER-S	230	RIVER-S	69	1	16						
2001-40-29	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-29	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-29	JASPER	115	JASPER	69	1	2						
2001-40-30	SN PLANT	230	SYLVAN	230	1	1						
2001-40-30	SYLVAN	230	N LONGWD	230	1	1						
2001-40-30	IND RIV	230	STANTON	230	1	11						
2001-40-30	SILVR SP	230	SILV SPN	230	1	2						
2001-40-30	SILVR SP	230	SILV SPN	230	2	2						
2001-40-30	RIO PINR	230	CURRY FD	230	1	2						
2001-40-30	JUNEAU-W	138	GANNON	138	1	16						
2001-40-30	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-30	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-30	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-30	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-30	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-30	SN PLANT	115	TURNER	115	1	1						
2001-40-30	PASADENA	115	40ST-DUM	115	1	2						
2001-40-30	MICHIGAN	115	KALEY	115	1	11						
2001-40-30	MICHIGAN	115	GRANT	115	1	11						
2001-40-30	PERSHING	115	GRANT	115	1	11						
2001-40-30	AMERICA	115	KALEY	115	1	11						
2001-40-30	JASPER	115	WGHTCHPL	115	1	2						
2001-40-30	AZALEA	115	BENNETT	115	1	11						
2001-40-30	FLORALTP	69	INVERNTP	69	1	2						
2001-40-30	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-30	PASADENA	230	PASADENA	115	1	2						
2001-40-30	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-30	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-30	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-30	IND RIV	230	IND RIV	115	1	11						
2001-40-30	LARGO	230	LARGO A	69	1	2						
2001-40-30	SHELD	230	SHELD-NW	69	1	16						
2001-40-30	CLMT EST	230	CLMT EST	69	1	2						
2001-40-30	WINDERME	230	WINDERME	69	1	2						
2001-40-30	RIVER-S	230	RIVER-S	69	1	16						
2001-40-30	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-30	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-30	JASPER	115	JASPER	69	1	2						

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-31	SN PLANT	230	SYLVAN	230	1	1						
2001-40-31	SYLVAN	230	N LONGWD	230	1	1						
2001-40-31	IND RIV	230	STANTON	230	1	11						
2001-40-31	SILVR SP	230	SILV SPN	230	1	2						
2001-40-31	SILVR SP	230	SILV SPN	230	2	2						
2001-40-31	RIO PINR	230	CURRY FD	230	1	2						
2001-40-31	JUNEAU-W	138	GANNON	138	1	16						
2001-40-31	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-31	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-31	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-31	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-31	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-31	SN PLANT	115	TURNER	115	1	1						
2001-40-31	PASADENA	115	40ST-DUM	115	1	2						
2001-40-31	MICHIGAN	115	KALEY	115	1	11						
2001-40-31	MICHIGAN	115	GRANT	115	1	11						
2001-40-31	PERSHING	115	GRANT	115	1	11						
2001-40-31	AMERICA	115	KALEY	115	1	11						
2001-40-31	JASPER	115	WGHTCHPL	115	1	2						
2001-40-31	AZALEA	115	BENNETT	115	1	11						
2001-40-31	FLORALTP	69	INVERNTP	69	1	2						
2001-40-31	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-31	PASADENA	230	PASADENA	115	1	2						
2001-40-31	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-31	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-31	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-31	IND RIV	230	IND RIV	115	1	11						
2001-40-31	LARGO	230	LARGO A	69	1	2						
2001-40-31	SHELD	230	SHELD-NW	69	1	16						
2001-40-31	CLMT EST	230	CLMT EST	69	1	2						
2001-40-31	WINDERME	230	WINDERME	69	1	2						
2001-40-31	RIVER-S	230	RIVER-S	69	1	16						
2001-40-31	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-31	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-31	JASPER	115	JASPER	69	1	2						
2001-40-32	SN PLANT	230	SYLVAN	230	1	1						
2001-40-32	SYLVAN	230	N LONGWD	230	1	1						
2001-40-32	IND RIV	230	STANTON	230	1	11						
2001-40-32	SILVR SP	230	SILV SPN	230	1	2						
2001-40-32	SILVR SP	230	SILV SPN	230	2	2						
2001-40-32	RIO PINR	230	CURRY FD	230	1	2						
2001-40-32	JUNEAU-W	138	GANNON	138	1	16						
2001-40-32	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-32	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-32	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-32	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-32	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-32	SN PLANT	115	TURNER	115	1	1						
2001-40-32	PASADENA	115	40ST-DUM	115	1	2						
2001-40-32	MICHIGAN	115	KALEY	115	1	11						
2001-40-32	MICHIGAN	115	GRANT	115	1	11						
2001-40-32	PERSHING	115	GRANT	115	1	11						
2001-40-32	AMERICA	115	KALEY	115	1	11						
2001-40-32	JASPER	115	WGHTCHPL	115	1	2						
2001-40-32	AZALEA	115	BENNETT	115	1	11						
2001-40-32	FLORALTP	69	INVERNTP	69	1	2						
2001-40-32	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-32	PASADENA	230	PASADENA	115	1	2						
2001-40-32	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-32	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-32	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-32	IND RIV	230	IND RIV	115	1	11						
2001-40-32	LARGO	230	LARGO A	69	1	2						
2001-40-32	SHELD	230	SHELD-NW	69	1	16						
2001-40-32	CLMT EST	230	CLMT EST	69	1	2						
2001-40-32	WINDERME	230	WINDERME	69	1	2						
2001-40-32	RIVER-S	230	RIVER-S	69	1	16						
2001-40-32	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-32	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-32	JASPER	115	JASPER	69	1	2						

Table VIII

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-33	SN PLANT	230	SYLVAN	230	1	1						
2001-40-33	SYLVAN	230	N LONGWD	230	1	1						
2001-40-33	IND RIV	230	STANTON	230	1	11						
2001-40-33	SILVR SP	230	SILV SPN	230	1	2						
2001-40-33	SILVR SP	230	SILV SPN	230	2	2						
2001-40-33	RIO PINR	230	CURRY FD	230	1	2						
2001-40-33	JUNEAU-W	138	GANNON	138	1	16						
2001-40-33	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-33	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-33	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-33	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-33	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-33	SN PLANT	115	TURNER	115	1	1						
2001-40-33	PASADENA	115	40ST-DUM	115	1	2						
2001-40-33	MICHIGAN	115	KALEY	115	1	11						
2001-40-33	MICHIGAN	115	GRANT	115	1	11						
2001-40-33	PERSHING	115	GRANT	115	1	11						
2001-40-33	AMERICA	115	KALEY	115	1	11						
2001-40-33	JASPER	115	WGHTCHPL	115	1	2						
2001-40-33	AZALEA	115	BENNETT	115	1	11						
2001-40-33	FLORALTP	69	INVERNTP	69	1	2						
2001-40-33	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-33	PASADENA	230	PASADENA	115	1	2						
2001-40-33	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-33	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-33	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-33	IND RIV	230	IND RIV	115	1	11						
2001-40-33	LARGO	230	LARGO A	69	1	2						
2001-40-33	SHELD	230	SHELD-NW	69	1	16						
2001-40-33	CLMT EST	230	CLMT EST	69	1	2						
2001-40-33	WINDERME	230	WINDERME	69	1	2						
2001-40-33	RIVER-S	230	RIVER-S	69	1	16						
2001-40-33	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-33	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-33	JASPER	115	JASPER	69	1	2						
2001-40-34	SN PLANT	230	SYLVAN	230	1	1						
2001-40-34	SYLVAN	230	N LONGWD	230	1	1						
2001-40-34	IND RIV	230	STANTON	230	1	11						
2001-40-34	SILVR SP	230	SILV SPN	230	1	2						
2001-40-34	SILVR SP	230	SILV SPN	230	2	2						
2001-40-34	RIO PINR	230	CURRY FD	230	1	2						
2001-40-34	JUNEAU-W	138	GANNON	138	1	16						
2001-40-34	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-34	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-34	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-34	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-34	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-34	SN PLANT	115	TURNER	115	1	1						
2001-40-34	PASADENA	115	40ST-DUM	115	1	2						
2001-40-34	MICHIGAN	115	KALEY	115	1	11						
2001-40-34	MICHIGAN	115	GRANT	115	1	11						
2001-40-34	PERSHING	115	GRANT	115	1	11						
2001-40-34	AMERICA	115	KALEY	115	1	11						
2001-40-34	JASPER	115	WGHTCHPL	115	1	2						
2001-40-34	AZALEA	115	BENNETT	115	1	11						
2001-40-34	FLORALTP	69	INVERNTP	69	1	2						
2001-40-34	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-34	PASADENA	230	PASADENA	115	1	2						
2001-40-34	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-34	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-34	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-34	IND RIV	230	IND RIV	115	1	11						
2001-40-34	LARGO	230	LARGO A	69	1	2						
2001-40-34	SHELD	230	SHELD-NW	69	1	16						
2001-40-34	CLMT EST	230	CLMT EST	69	1	2						
2001-40-34	WINDERME	230	WINDERME	69	1	2						
2001-40-34	RIVER-S	230	RIVER-S	69	1	16						
2001-40-34	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-34	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-34	JASPER	115	JASPER	69	1	2						

Table VIII

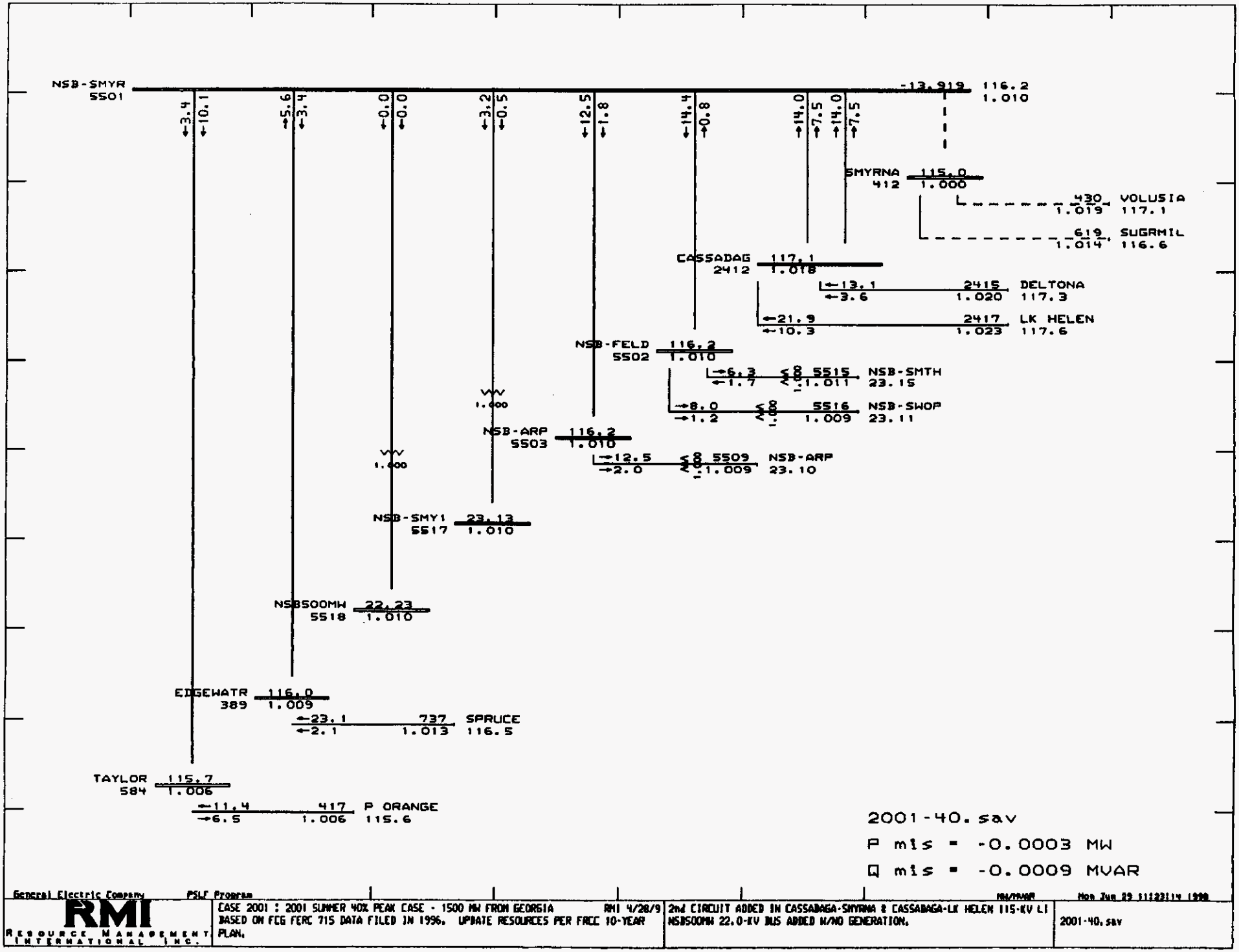
Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

40% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2001-40 Base No NSB Gen	Case 2001-40A Sell to FPL	Case 2001-40B Sell to FPC	Case 2001-40C Sell to TEC	Case 2001-40D Sell to JEA	Case 2001-40E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2001-40-35	SN PLANT	230	SYLVAN	230	1	1						
2001-40-35	SYLVAN	230	N LONGWD	230	1	1						
2001-40-35	IND RIV	230	STANTON	230	1	11						
2001-40-35	SILVR SP	230	SILV SPN	230	1	2						
2001-40-35	SILVR SP	230	SILV SPN	230	2	2						
2001-40-35	RIO PINR	230	CURRY FD	230	1	2						
2001-40-35	JUNEAU-W	138	GANNON	138	1	16						
2001-40-35	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-35	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-35	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-35	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-35	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-35	SN PLANT	115	TURNER	115	1	1						
2001-40-35	PASADENA	115	40ST-DUM	115	1	2						
2001-40-35	MICHIGAN	115	KALEY	115	1	11						
2001-40-35	MICHIGAN	115	GRANT	115	1	11						
2001-40-35	PERSHING	115	GRANT	115	1	11						
2001-40-35	AMERICA	115	KALEY	115	1	11						
2001-40-35	JASPER	115	WGHTCHPL	115	1	2						
2001-40-35	AZALEA	115	BENNETT	115	1	11						
2001-40-35	FLORALTP	69	INVERNTP	69	1	2						
2001-40-35	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-35	PASADENA	230	PASADENA	115	1	2						
2001-40-35	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-35	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-35	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-35	IND RIV	230	IND RIV	115	1	11						
2001-40-35	LARGO	230	LARGO A	69	1	2						
2001-40-35	SHELD	230	SHELD-NW	69	1	16						
2001-40-35	CLMT EST	230	CLMT EST	69	1	2						
2001-40-35	WINDERME	230	WINDERME	69	1	2						
2001-40-35	RIVER-S	230	RIVER-S	69	1	16						
2001-40-35	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-35	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-35	JASPER	115	JASPER	69	1	2						
2001-40-36	SN PLANT	230	SYLVAN	230	1	1						
2001-40-36	SYLVAN	230	N LONGWD	230	1	1						
2001-40-36	IND RIV	230	STANTON	230	1	11						
2001-40-36	SILVR SP	230	SILV SPN	230	1	2						
2001-40-36	SILVR SP	230	SILV SPN	230	2	2						
2001-40-36	RIO PINR	230	CURRY FD	230	1	2						
2001-40-36	JUNEAU-W	138	GANNON	138	1	16						
2001-40-36	NSB-SMYR	115	CASSADAG	115	1	2						
2001-40-36	NSB-SMYR	115	EDGEWATR	115	1	1						
2001-40-36	NSB-SMYR	115	TAYLOR	115	1	1						
2001-40-36	NSB-SMYR	115	NSB-ARP	115	1	10						
2001-40-36	NSB-SMYR	115	NSB-FELD	115	1	10						
2001-40-36	SN PLANT	115	TURNER	115	1	1						
2001-40-36	PASADENA	115	40ST-DUM	115	1	2						
2001-40-36	MICHIGAN	115	KALEY	115	1	11						
2001-40-36	MICHIGAN	115	GRANT	115	1	11						
2001-40-36	PERSHING	115	GRANT	115	1	11						
2001-40-36	AMERICA	115	KALEY	115	1	11						
2001-40-36	JASPER	115	WGHTCHPL	115	1	2						
2001-40-36	AZALEA	115	BENNETT	115	1	11						
2001-40-36	FLORALTP	69	INVERNTP	69	1	2						
2001-40-36	ALACH TP	69	HIGH SPG	69	1	2						
2001-40-36	PASADENA	230	PASADENA	115	1	2						
2001-40-36	SUWANNEE	230	SUWANNEE	115	1	2						
2001-40-36	SUWANNEE	230	SUWANNEE	115	2	2						
2001-40-36	E CLRWTR	230	E CLRWTR	115	1	2						
2001-40-36	IND RIV	230	IND RIV	115	1	11						
2001-40-36	LARGO	230	LARGO A	69	1	2						
2001-40-36	SHELD	230	SHELD-NW	69	1	16						
2001-40-36	CLMT EST	230	CLMT EST	69	1	2						
2001-40-36	WINDERME	230	WINDERME	69	1	2						
2001-40-36	RIVER-S	230	RIVER-S	69	1	16						
2001-40-36	ELEVEN W	230	ELEVEN-E	69	1	16						
2001-40-36	JUNEAU-E	138	JUNEAU-E	69	1	16						
2001-40-36	JASPER	115	JASPER	69	1	2						

APPENDIX IV-A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General Electric Company PSLF Program
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Resource Management International, Inc.
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RMI 4/28/9
2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LK HELEN 115-KV LI
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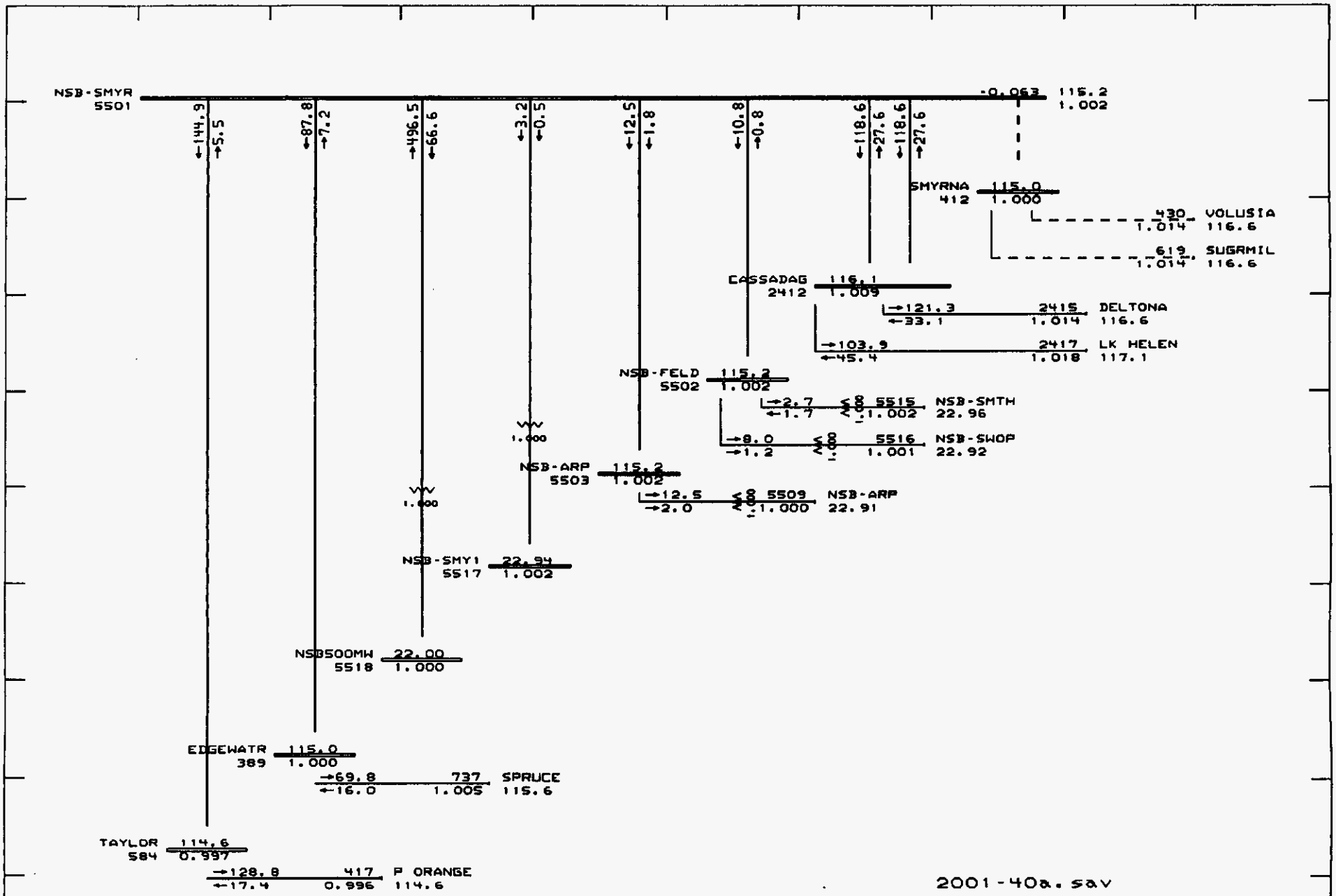

General Electric Company PSLF Program MW/MVAR Mon Jun 29 11:23:30 1998

RMI Resource Management International, Inc.

CASE 2001 : 2001 SUMMER 40% PEAK CASE - 1500 MW FROM GEORGIA BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FRCC 10-YEAR PLAN. RMI 4/28/9

2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LAKE HELEN 115-KV NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.

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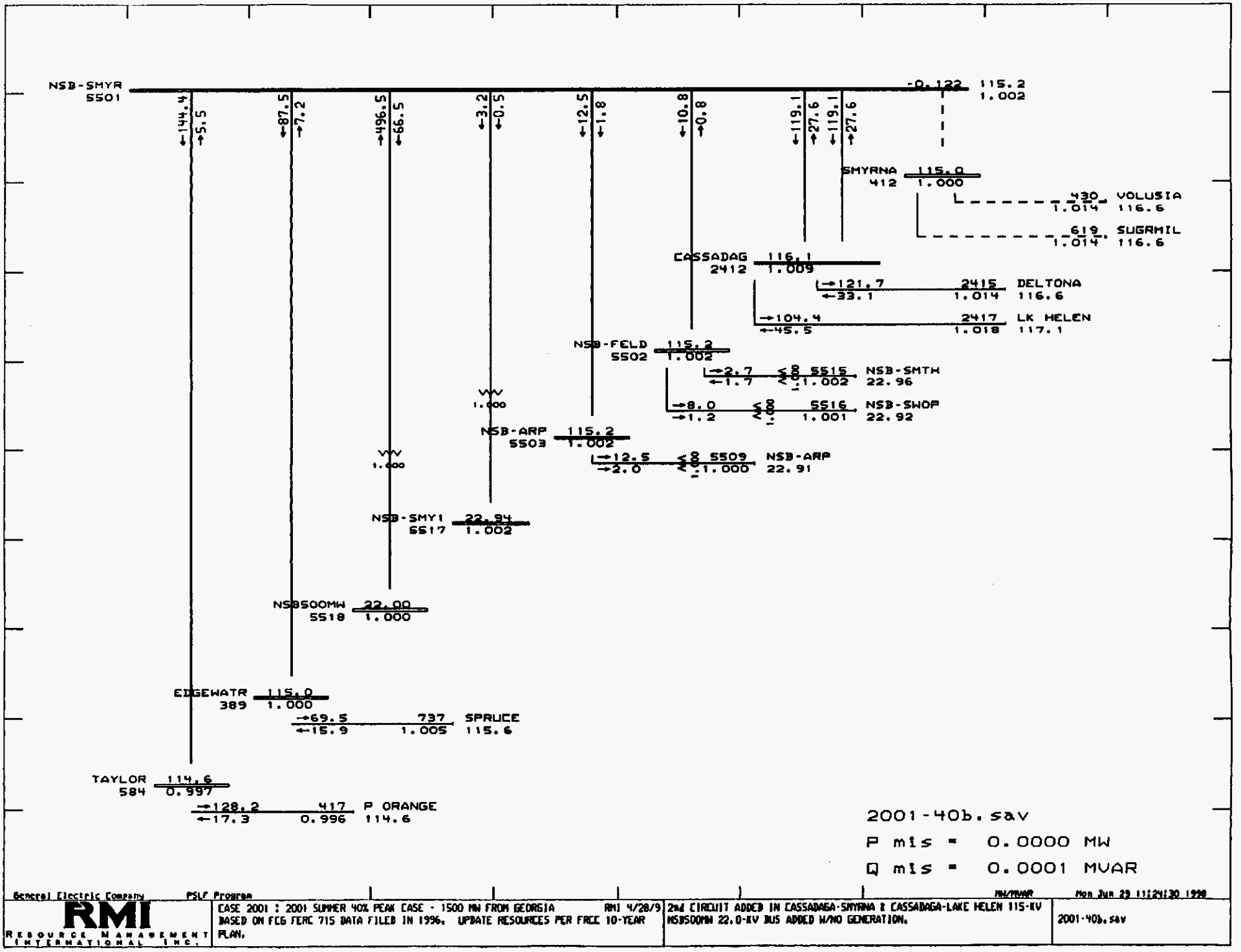


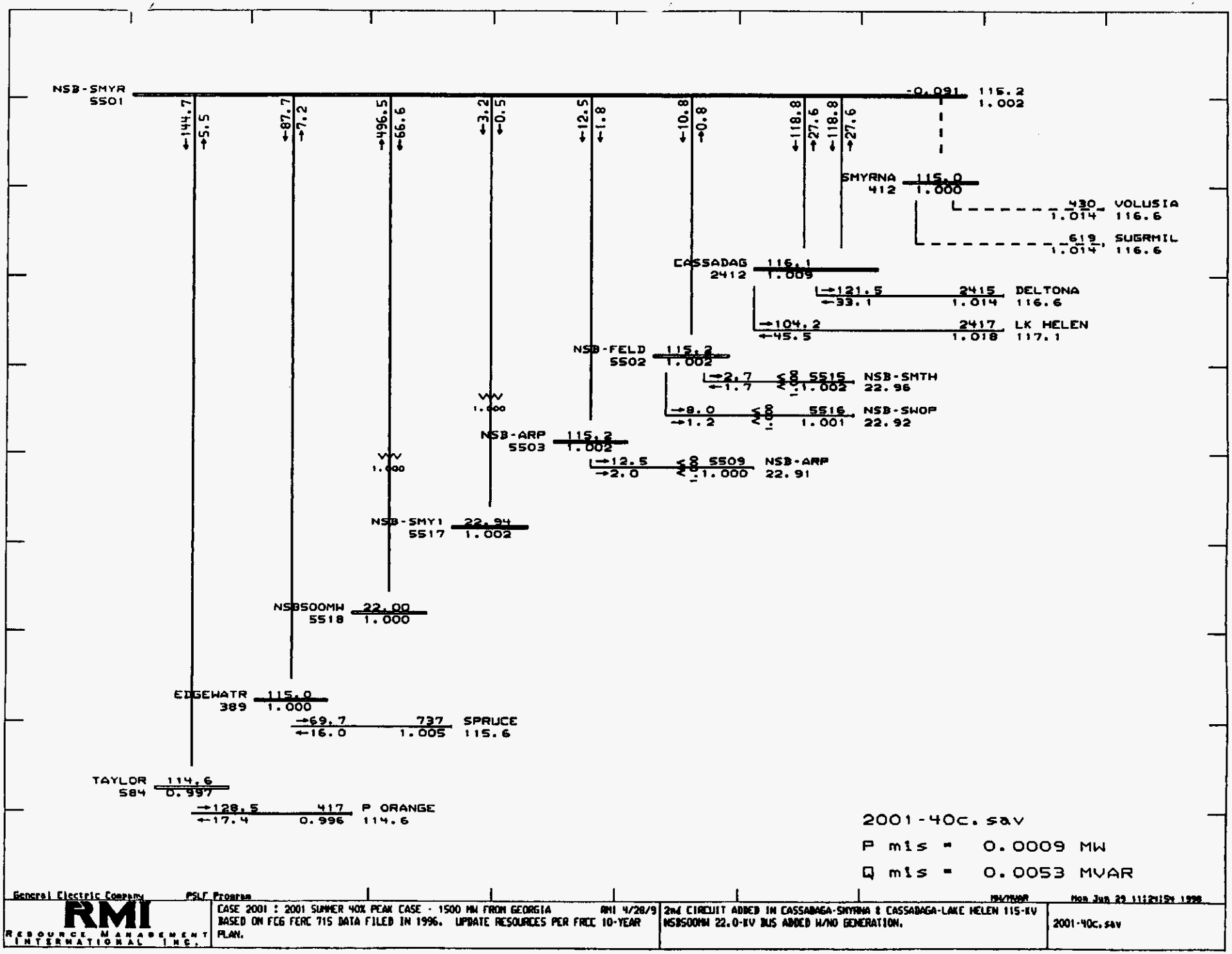
General Electric Company PSLF Program MW/MVAR Mon Jun 29 11:24:30 1998

RMI RESOURCE MANAGEMENT INTERNATIONAL INC.

CASE 2001 : 2001 SUMMER 40% PEAK CASE - 1500 MW FROM GEORGIA BASED ON FEB FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FRCC 10-YEAR PLAN. RMI 4/28/9

2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LAKE HELEN 115-KV NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.

2001-40b.sav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2417 LK HELEN 1.018 117.1
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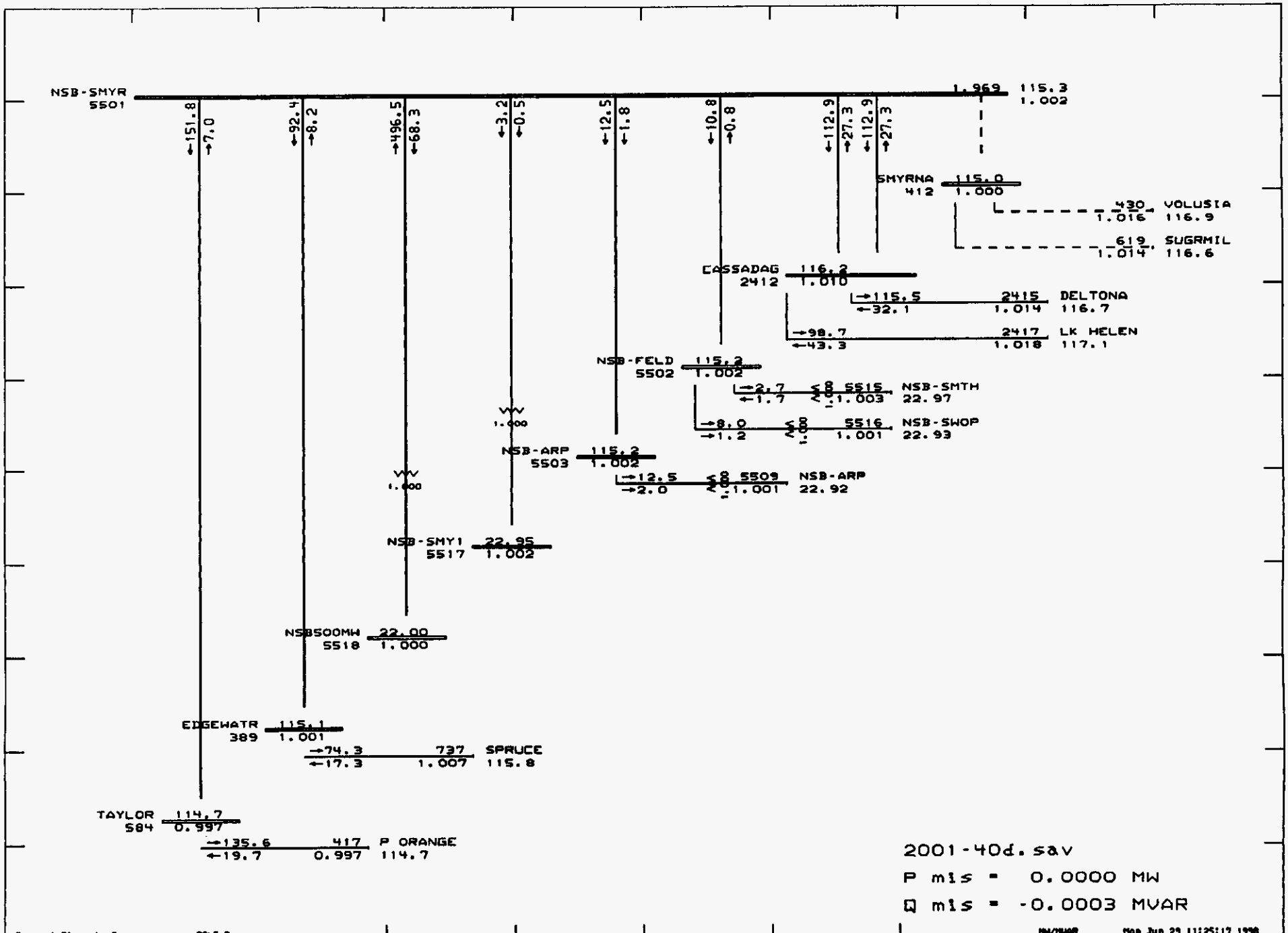
NSB-SMY1 22.94 5517 1.002
NSB500MW 22.00 5518 1.000
EDGEWATR 115.0 389 1.000
SPRUCE 115.6
TAYLOR 114.6 584 0.997
P ORANGE 114.6
2001-40c.sav
P mis = 0.0009 MW
Q mis = 0.0053 MVAR
General Electric Company PSLF Program
RMI RESOURCE MANAGEMENT INTERNATIONAL INC.
CASE 2001 : 2001 SUMMER 40% PEAK CASE - 1500 MW FROM GEORGIA BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FRCC 10-YEAR PLAN. RMI 4/28/9
2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LAKE HELEN 115-KV NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.
2001-40c.sav



2001-40d.sav

P mis = 0.0000 MW

Q mis = -0.0003 MVAR

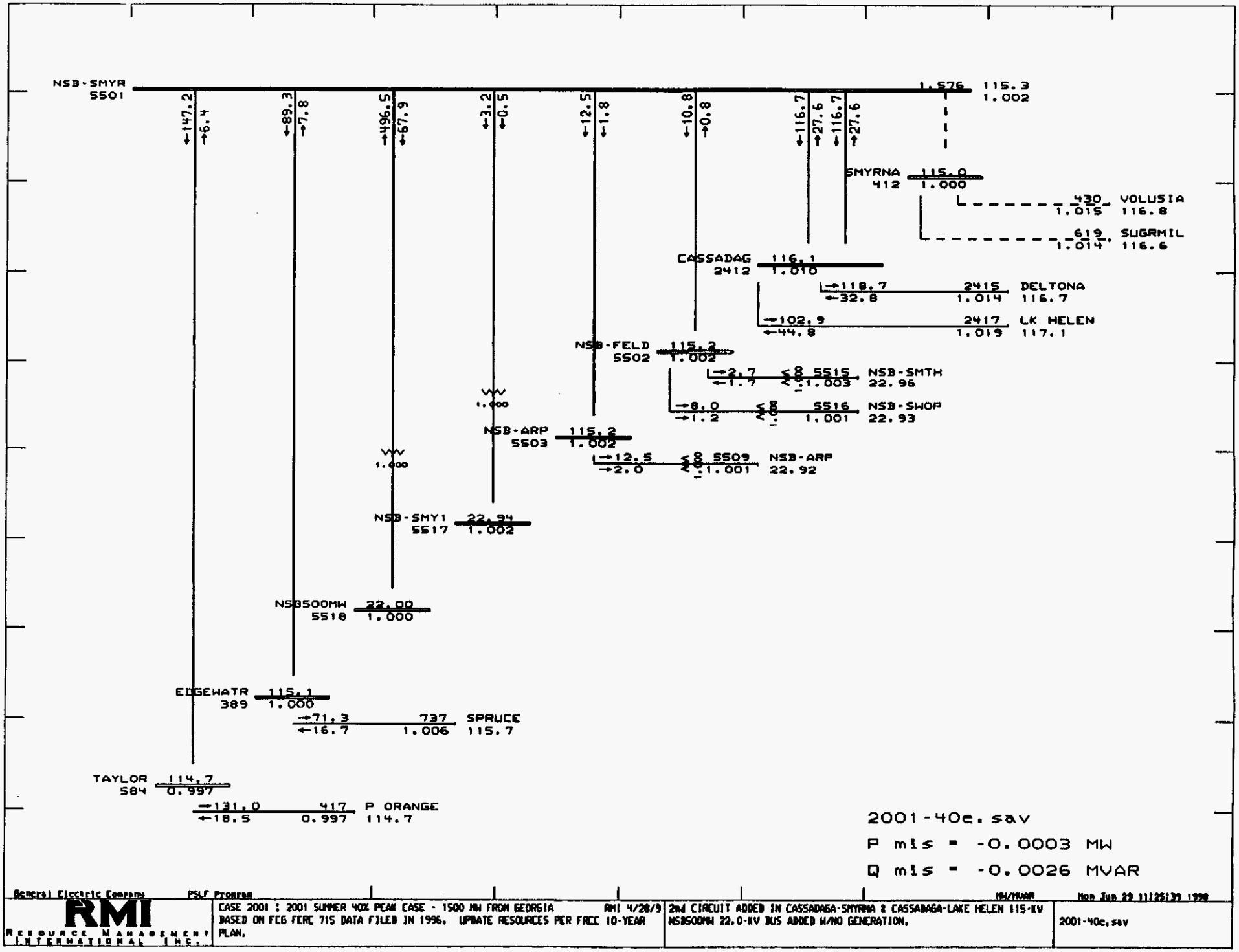
General Electric Company PSLF Program MW/MVAR Mon Jun 29 11:25:17 1998

RMI Resource Management International, Inc.

CASE 2001 : 2001 SUMMER 40% PEAK CASE - 1500 MW FROM GEORGIA BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FRCC 10-YEAR PLAN. RMI 4/28/9

2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LAKE HELEN 115-KV
NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.

2001-40d.sav



General Electric Company PSLF Program MW/MVAR Mon Jun 29 11:25:39 1998

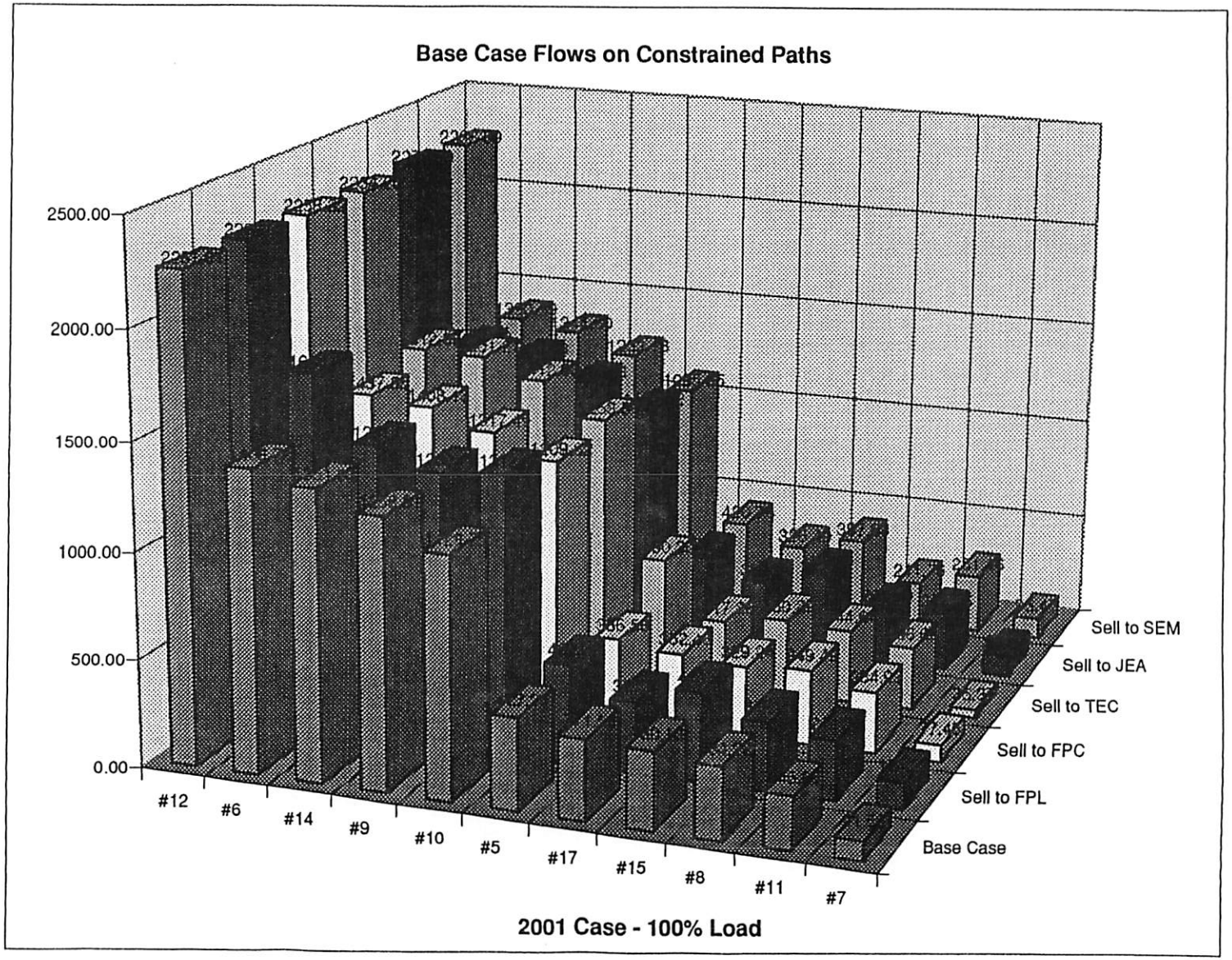
RMI Resource Management International, Inc.

CASE 2001 : 2001 SUMMER 40% PEAK CASE - 1500 MW FROM GEORGIA BASED ON FCG FERC 715 DATA FILED IN 1996. UPDATE RESOURCES PER FRCC 10-YEAR PLAN. RMI 4/28/9

2nd CIRCUIT ADDED IN CASSADAGA-SMYRNA & CASSADAGA-LAKE HELEN 115-KV NSB500MW 22.0-KV BUS ADDED W/NO GENERATION.

2001-40e.sav

APPENDIX V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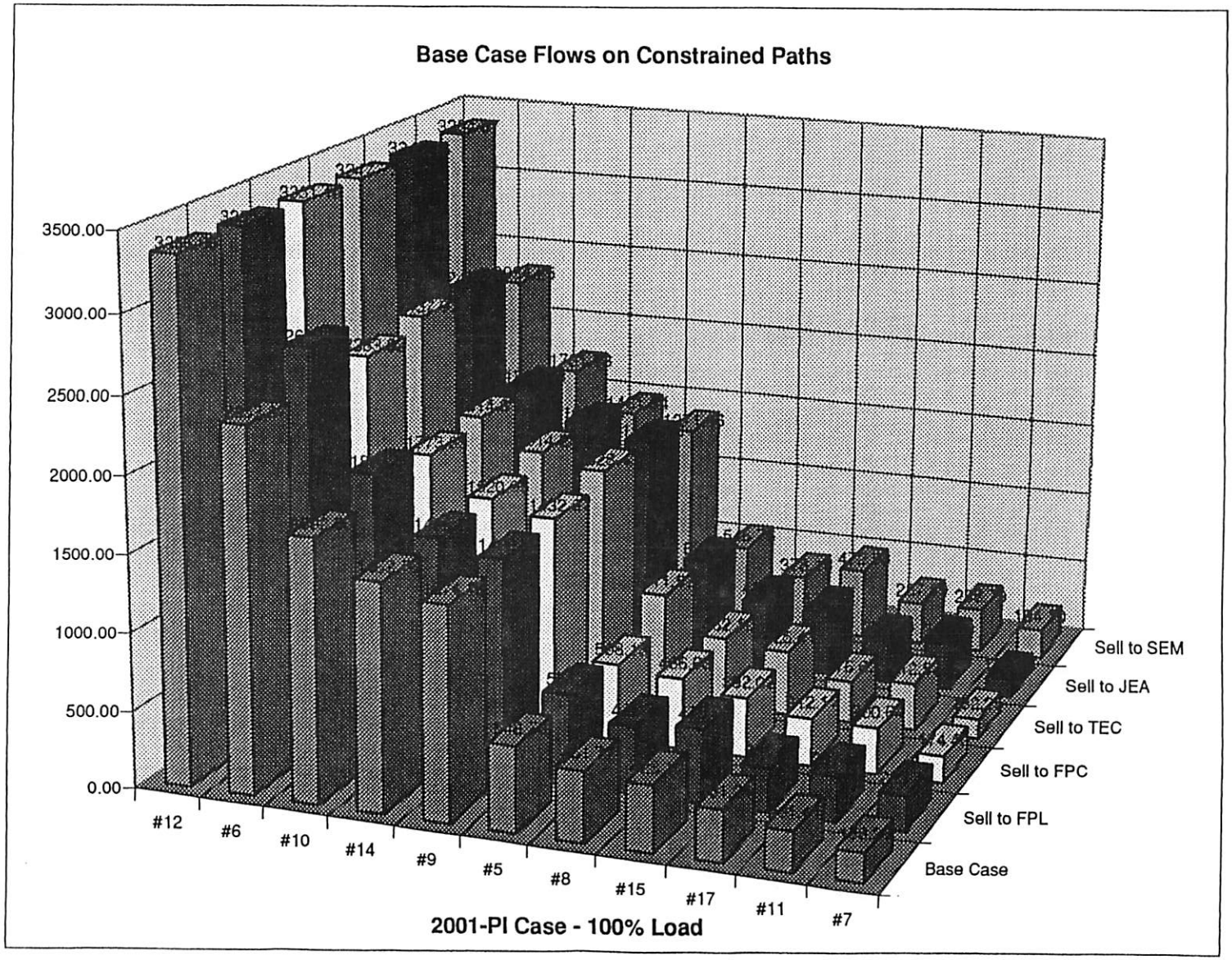
1500.00
1000.00
500.00
0.00
#12
#6
#14
#9
#10
#5
#17
#15
#8
#11
#7
Sell to SEM
Sell to JEA
Sell to TEC
Sell to FPC
Sell to FPL
Base Case
2001 Case - 100% Load


Base Case Flows on Constrained Paths
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3000.00
2500.00
2000.00
1500.00
1000.00
500.00
0.00
#12
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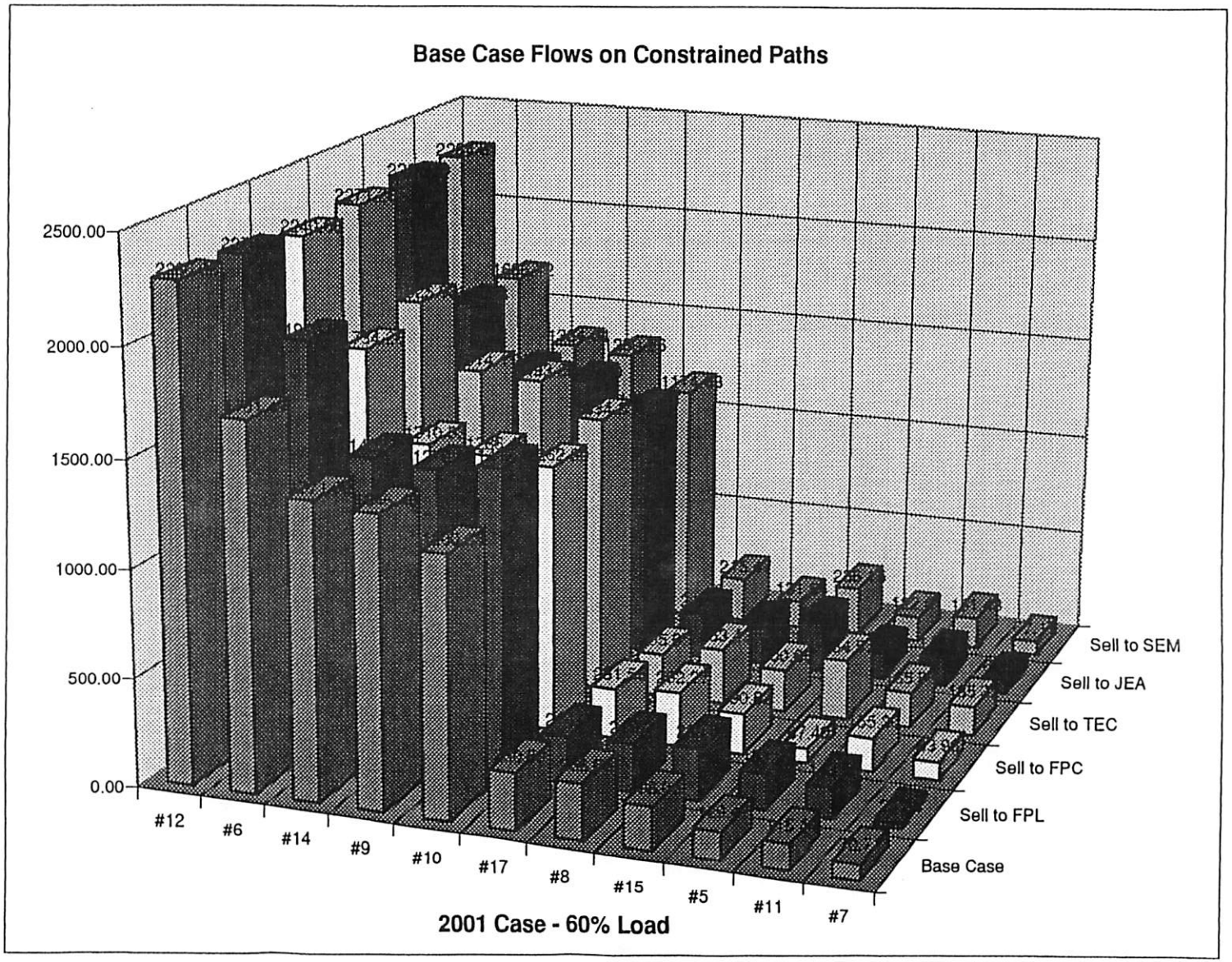
#10
#14
#9
#5
#8
#15
#17
#11
#7
Sell to SEM
Sell to JEA
Sell to TEC
Sell to FPC
Sell to FPL
Base Case
2001-PI Case - 100% Load


Base Case Flows on Constrained Paths
2500.00
2000.00
1500.00
1000.00
500.00
0.00
#12
#6
#14
#9
#10
#17
#8
#15
#5
#11
#7
Sell to SEM
Sell to JEA
Sell to TEC
Sell to FPC
Sell to FPL
Base Case
2001 Case - 60% Load

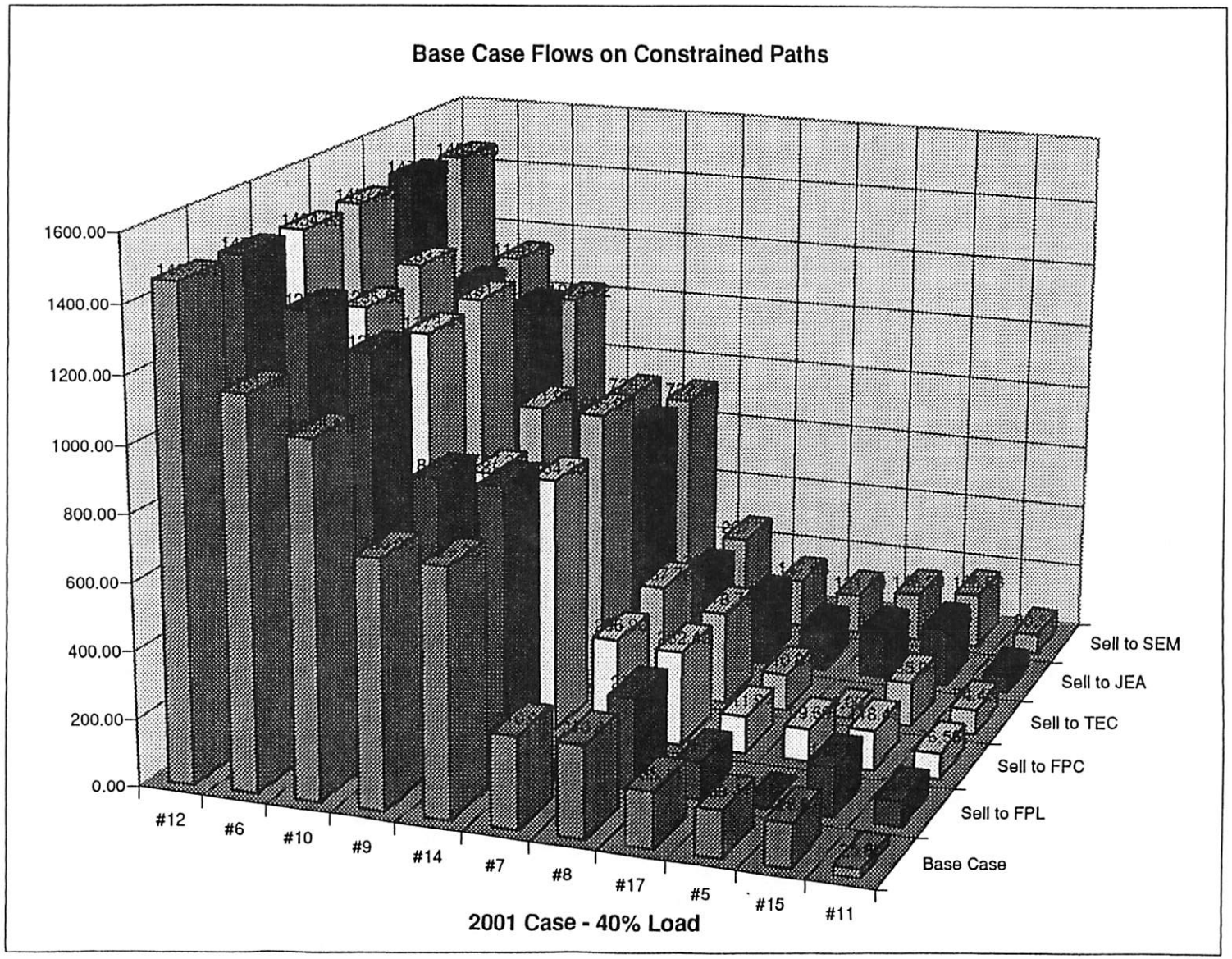

Base Case Flows on Constrained Paths
1600.00
1400.00
1200.00
1000.00
800.00
600.00
400.00
200.00
0.00
#12
#6
#10
#9
#14
#7
#8
#17
#5
#15
#11
Sell to SEM
Sell to JEA
Sell to TEC
Sell to FPC
Sell to FPL
Base Case
2001 Case - 40% Load

Table 1
Summary of Constrained Paths
in Base Case & NSB Alternatives

	Case 2001.sav	NSB Sell 500 MW to :				
		Case 2001a.sav	Case 2001b.sav	Case 2001c.sav	Case 2001d.sav	Case 2001e.sav
	Base Case	Sell to FPL	Sell to FPC	Sell to TEC	Sell to JEA	Sell to SEM
#12	2261.61	2264.97	2258.32	2254.20	2272.40	2266.89
#6	1406.78	1684.31	1437.55	1512.09	1384.70	1390.59
#14	1351.03	1381.06	1408.13	1501.27	1350.53	1344.80
#9	1258.61	1289.47	1317.49	1412.98	1258.16	1252.18
#10	1123.75	1312.64	1209.82	1253.36	1147.82	1095.85
#5	427.21	459.93	386.58	590.30	426.86	420.76
#17	371.55	327.01	352.46	317.26	327.18	326.49
#15	360.10	411.77	329.24	360.29	408.79	397.63
#8	334.22	317.49	349.49	344.64	262.20	211.76
#11	245.86	271.73	284.93	296.66	273.55	281.46
#7	91.52	124.23	77.46	35.37	98.11	95.45

Table 2
Summary of Constrained Paths
in Base Case & NSB Alternatives

		NSB Sell 500 MW to :				
	Case 2001-Pl.sav	Case 2001-Pla.sav	Case 2001-Plb.sav	Case 2001-Plc.sav	Case 2001-Pld.sav	Case 2001-Ple.sav
	Base Case	Sell to FPL	Sell to FPC	Sell to TEC	Sell to JEA	Sell to SEM
#12	3356.88	3355.02	3351.19	3347.77	3346.94	3364.87
#6	2353.87	2633.83	2383.92	2457.97	2473.40	2334.25
#10	1692.60	1866.58	1773.53	1814.81	1816.73	1731.33
#14	1463.76	1496.78	1520.95	1614.28	1600.65	1461.34
#9	1374.16	1408.09	1432.97	1528.43	1514.36	1371.96
#5	548.76	584.58	508.18	711.57	696.67	546.75
#8	451.77	436.39	466.63	462.10	458.71	378.18
#15	423.10	475.93	392.02	425.41	430.88	472.58
#17	331.24	286.48	312.17	276.62	275.39	287.59
#11	261.41	287.58	300.64	312.52	311.98	288.79
#7	188.36	223.74	174.40	132.25	120.26	194.10

Table 3
Summary of Constrained Paths
in Base Case & NSB Alternatives

		NSB Sell 500 MW to :				
	Case 2001-60.sav	Case 2001-60a.sav	Case 2001-60b.sav	Case 2001-60c.sav	Case 2001-60d.sav	Case 2001-60e.sav
	Base Case	Sell to FPL	Sell to FPC	Sell to TEC	Sell to JEA	Sell to SEM
#12	2286.96	2278.97	2240.06	2271.26	2289.00	2284.81
#6	1701.48	1910.25	1734.28	1825.93	1687.68	1686.12
#14	1371.09	1402.70	1310.83	1514.11	1370.51	1364.04
#9	1346.48	1379.01	1286.49	1493.26	1346.00	1339.26
#10	1200.65	1417.10	1262.50	1334.53	1231.01	1174.03
#17	260.60	214.69	231.55	205.65	216.82	215.47
#8	256.65	219.29	252.27	263.42	182.50	131.54
#15	198.05	239.66	190.82	200.65	243.57	236.15
#5	129.47	163.97	67.40	284.57	129.14	122.01
#11	115.44	143.55	155.30	165.86	143.26	151.43
#7	70.71	21.36	83.96	135.32	63.80	67.13

Table 4
Summary of Constrained Paths
in Base Case & NSB Alternatives

		NSB Sell 500 MW to :				
	Case 2001-40.sav	Case 2001-40a.sav	Case 2001-40b.sav	Case 2001-40c.sav	Case 2001-40d.sav	Case 2001-40e.sav
	Base Case	Sell to FPL	Sell to FPC	Sell to TEC	Sell to JEA	Sell to SEM
#12	1463.01	1459.69	1454.83	1457.97	1474.48	1464.80
#6	1161.84	1312.05	1235.66	1283.17	1140.62	1146.19
#10	1055.21	1203.98	1173.43	1191.11	1082.03	1024.22
#9	730.00	856.91	767.26	871.94	730.58	723.28
#14	729.25	851.45	764.30	865.97	729.84	722.84
#7	270.98	18.44	296.90	337.79	264.90	267.37
#8	270.81	274.26	282.43	278.75	199.52	147.68
#17	165.11	109.33	111.97	110.87	122.38	121.49
#5	139.41	4.15	99.69	0.00	138.65	146.38
#15	128.67	145.16	118.43	135.06	176.18	166.83
#11	25.60	73.12	76.56	74.48	51.89	60.31

FPSC Docket No. 981042-EM
UCNSB/Duke New Smyrna
Witness: Armand
Exhibit ____ (MPA-5)

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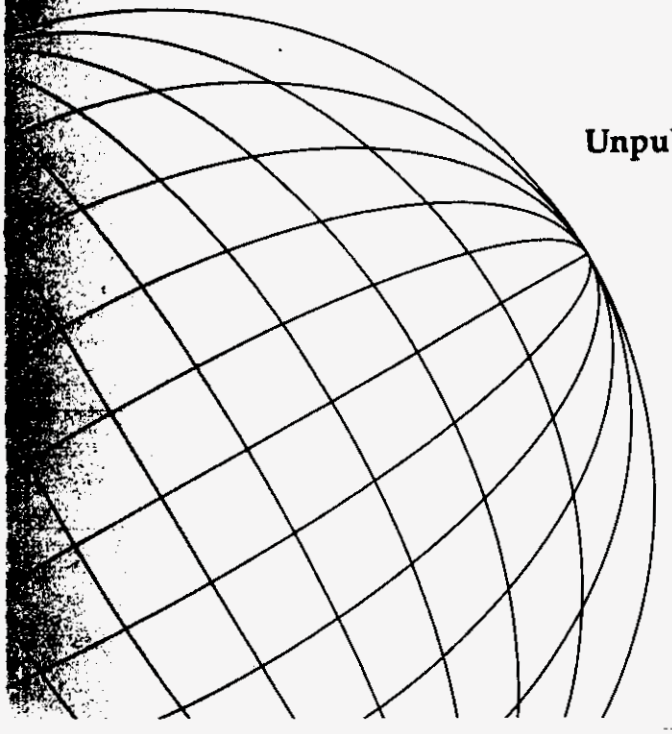
RESULTS OF POWER FLOW STUDIES 2004

Prepared for

DUKE ENERGY POWER SERVICES, INC.

July 28, 1998



RMI

RESOURCE MANAGEMENT INTERNATIONAL, INC.

RMI

RESOURCE MANAGEMENT
INTERNATIONAL, INC.

July 28, 1998

Mr. Larry Wall
Managing Director
Duke Energy Power Services, Inc.
5400 Westheimer Court
Houston, TX 77251

Subject: Transmission System Analysis in Support of
Duke Energy New Smyrna Beach Power Company

Dear Larry:

Enclosed are four copies of the subject report prepared in accordance with your instructions. We have obtained the year 2004 powerflow case from the FERC Bulletin Board. As expected, there was no representation of additional generation at Fort Myers Plant and at Sanford Plant, since the case was put together and posted by FERC on November 20, 1997 (see Appendix I). Obviously, the 1998 ten-year site plan was not yet finalized. However, FPL did show a Martin 5 combined cycle unit at 626 MW.

This powerflow case, after rigorous testing, was modified as follows:

1. Addition of the proposed 500 MW plant at New Smyrna and the associated transmission reinforcement around the plant;
2. Addition of the proposed 837 MW at Ft. Myers plant, and the associated transmission reinforcement;
3. Addition of the proposed 914 MW at Sanford plant, and the associated transmission reinforcement; and
4. Removal of the proposed 626 MW addition shown at Martin Plant. There was no associated transmission represented in the case.

The new powerflow case, after the above modifications, was renamed 2004. Two other cases were also developed: one simulating a 3600 MW import from Georgia at peak load (2004-pi.) and another simulating 60% of peak summer load and a 2400 import from Georgia (2004-60).

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P.O. BOX 15516 • SACRAMENTO, CA 95852-1516
(916) 852-1300 • FAX (916) 852-1073 • www.rmiinc.com

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Therefore, the powerflow studies discussed in the enclosed report evaluated:

- Pre- and post-project transmission system performance for the year 2004 when the Florida system experience peak loading conditions and imports 3600 MW of power from Georgia.
- Pre- and post-project transmission system performance for the year 2004 when the Florida system is at peak load and imports 2400 MW from Georgia.
- Pre- and post-project transmission system performance for the year 2004 when the Florida system is loaded to 60% of summer peak load and imports 2400 MW from Georgia. This load level is considered the average of the Florida system.

Base on the preliminary studies discussed in the enclosed report, it appears that:

1. The proposed 500 MW project at New Smyrna Beach can reliably deliver its output into the Florida Transmission System.
2. The addition of 837 MW of generation at Ft. Myers and 914 MW and Sanford has no impact on the ability of the plant to deliver its output into the Florida Transmission System.
3. A reduction in the forecasted load served by the two 115kV circuits between Volusia and Smyrna substations eliminates most of the overloads noted in the peak 2001 cases for loss of the New Smyrna-Edgewater line section.

We look forward to discussing the enclosed report with you and Kelly O'Brien on August 5, 1998, in Houston. In the interim, I can be reached at 916/852-1300 should you have any questions on the enclosed.

Sincerely,

Michel P. Armand

Michel P. Armand

Enclosure

DUKE ENERGY POWER SERVICES, INC.

PROPOSED 500 MW FLORIDA GENERATING FACILITY
RESULTS OF POWER FLOW STUDIES
MODIFIED TO REFLECT THE YEAR 2004 POWERFLOW CASE

Prepared for

DUKE ENERGY POWER
SERVICES, INC.

Prepared by

RMI
RESOURCE MANAGEMENT
INTERNATIONAL, INC.

DUKE ENERGY POWER SERVICES, INC.
Results of Power Flow Studies
for the Year 2004 Powerflow Case

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DUKE ENERGY NEW SMYRNA BEACH POWER COMPANY LTD., L.L.P.

PROPOSED 500 MW FLORIDA GENERATING FACILITY

RESULTS OF POWER FLOW STUDIES - 2004

EXECUTIVE SUMMARY

Duke Energy New Smyrna Beach Power Company Ltd., L.L.P. is proposing to build a 500 MW merchant plant in Florida in a joint venture with the Utilities Commission, City of New Smyrna Beach, Florida. The facility will be sited adjacent to the City's Smyrna Substation in Volusia County, Florida, and is scheduled to begin commercial operation by the summer of 2001. Duke Energy New Smyrna Beach Power Company Ltd., L.L.P retained Resource Management International, Inc. (RMI) to assist them in evaluating the interconnection of the proposed project with the Florida Transmission network.

In providing this support, RMI performed additional preliminary power flow studies evaluating:

- Summer 2004 transmission system performance at peak load, importing 3,600 MW from the Southern Company, with and without the project.
- Summer 2004 transmission system performance at peak load, importing 2,400 MW from the Southern Company, with and without the project.
- Summer 2004 transmission system performance at an average 60% of peak load, importing 2,400 MW from the Southern Company, with and without the project.

We obtained the year 2004 powerflow case from the FERC Bulletin Board. As expected, there was no representation of additional generation at Fort Myers and at Sanford since the case was put together and posted by FERC on November 20, 1997 (see Appendix I). Obviously, the 1998 ten-year site plan was not yet finalized. However, FPL did show a Martin 5 combined cycle unit at 626 MW.

This powerflow case, after rigorous testing, was modified as follows:

1. Add the New Smyrna 500 MW generator, associated bus, and transformer. Add the second Smyrna to Cassadaga 115kV transmission circuit.

Add a new Cassadaga to Lake Helen 115 kV transmission circuit.
Loop the Debary-Altomonte 230kV circuit into Sanford plant.

2. Add six (6) new Combustion Turbines (837 MW summer rating) at Ft. Myers with associated buses and transformers.
   Add a second Ft. Myers to Calusa 230kV transmission circuit.
   Add a third Ft. Myers to Orange River 230kV transmission circuit.

3. Add six (6) new Combustion Turbines (914 MW summer rating) at Sanford with associated buses and transformers in a new 230kV switchyard.
   Add two new 230kV transmission lines between the new switchyard and Poinsett 230kV substation.
   Reroute the Sanford-Volusia #2 230kV transmission line from the old Sanford to the new Sanford switchyard.

4. The Martin 5 combined cycle unit was removed since it is not scheduled until 2006.

The new powerflow case, after the above modifications, was renamed 2004. Two other cases were also developed: one simulating a 3600 MW import from Georgia at peak load (2004-pi) and another simulating 60% of peak summer load and a 2400 MW import from Georgia (2004-60). Each case was then modified to represent delivery of the proposed plant output alternatively to Florida Power and Light (FPL), Florida Power Corporation (FPC), Tampa Electric Company (TEC), Jacksonville Electric Authority (JEA), and Seminole Electric Cooperative (SEC). Each of these dispatch scenarios was modeled and tested with the three base cases as shown in Table ES-1.

TABLE ES-1
SUMMARY OF POWERFLOW BASE CASES EVALUATED

Year	Case	Georgia Imports (MW)	Duke Generation (MW)	Output Delivered to:
2004	2004.PI	3,600	- 0 -	N/A
	2004.PIa	3,600	500	Florida Power & Light
	2004.PIb	3,600	500	Florida Power Corporation
	2004.PIc	3,600	500	Tampa Electric Company
	2004.PId	3,600	500	Jacksonville Electric Authority
	2004.PIe	3,600	500	Seminole Electric Cooperative
2004	2004.	2,400	- 0 -	N/A
	2004.a	2,400	500	Florida Power & Light
	2004.b	2,400	500	Florida Power Corporation
	2004.c	2,400	500	Tampa Electric Company
	2004.d	2,400	500	Jacksonville Electric Authority
	2004.e	2,400	500	Seminole Electric Cooperative
2004	2004-60	2,400	- 0 -	N/A
	2004-60a	2,400	500	Florida Power & Light
	2004-60b	2,400	500	Florida Power Corporation
	2004-60c	2,400	500	Tampa Electric Company
	2004-60d	2,400	500	Jacksonville Electric Authority
	2004-60e	2,400	500	Seminole Electric Cooperative

Therefore, the powerflow studies discussed in the enclosed report evaluated:

- Pre- and post-project transmission system performance for the year 2004 when the Florida system experiences peak loading conditions and imports 3600 MW of power from Georgia.
- Pre- and post-project transmission system performance for the year 2004 when the Florida system is at peak load and imports 2400 MW from Georgia.
- Pre-and post-project transmission system performance for the year 2004 when the Florida system is loaded to 60% of summer peak load and imports 2400

MW from Georgia. This load level is considered the average for the Florida system.

Based on the preliminary studies discussed the enclosed report, it appears that:

1. The proposed 500 MW project at New Smyrna Beach can reliably deliver its output into the Florida Transmission System.
2. The addition of 837 MW of generation at Ft. Myers and 914 MW at Sanford has no impact on the ability of the plant to deliver its output.
3. A reduction in the forecasted load served by the two 115kV circuits between Volusia and Smyrna substations eliminated most of the overloads noted in the peak 2001 cases for loss of the New Smyrna-Edgewater line section.
4. At loading levels of sixty percent modeled for the year 2006, no overload is noticed for all the contingencies simulated and for all dispatch scenarios. Since sixty percent load level is a good representation of average loading on the Florida Transmission System, there is little doubt that the plant output can be dispatched in a dispersed fashion without much difficulty.

SECTION 1 POWERFLOW BASE CASE DEVELOPMENT

As noted in the Executive Summary, the powerflow base cases used in these studies were based on the 2004 summer peak case filed with FERC by the Florida Reliability Coordinating Council (FRCC) in the spring of 1997. This powerflow case represented the system in peninsular Florida as consisting of nineteen control areas with a combined load of slightly over 39,500 MW and with approximately 38,000 MW of generation (both utility and non-utility) as being on-line. Imports into Florida from Georgia were approximately 2,400 MW and Florida system losses were approximately 860 MW. The nineteen control areas and the load and generation represented in each, are summarized in Table 1-1.

TABLE 1-1
FLORIDA CONTROL AREA LOADS AND GENERATION IN FRCC 2004 PEAK CASE

Control Area	Load (MW)	Generation (MW)
FP&L	19,633	16,576
FPC	9,832	8,434
Ft. Pierce	129	81
Gainsville	441	434
Homestead	59	32
Jacksonville	2,636	2,908
Key West	129	63
Kissimmee	258	353
Lake Worth	85	56
New Smyrna Beach	80	18
Orlando	1,129	1,346
Seminole	253	200
Lakeland	557	1,010
Starke	15	0
Talahassee	547	543
Tampa	3,416	3,895
FMP	143	43
NUG	0	250
Reedy Creek	182	0

The new 2004 base case obtained from the FERC Bulletin Board was modified, after extensive testing, to reflect the following generation and transmission additions:

1. Add the New Smyrna 500 MW generator, associated bus, and transformer.
   Add the second Smyrna to Cassadaga 115kV transmission circuit.
   Add a new Cassadaga to Lake Helen 115kV transmission circuit.
   Loop the Debary-Altamonte 230kV circuit into Sanford plant.

2. Add six (6) new Combustion Turbines (837 NW summer rating) at Fort Myers with associated buses and transformers.
   Add a second Ft. Myers to Calusa 230kV transmission circuit.
   Add a third Ft. Myers to Orange River 230kV transmission circuit.

3. Add six (6) new Combustion Turbines (914 MW summer rating) at Sanford with associated buses and transformers in a new 230kV switchyard.
   Add two new 230kV transmission lines between the new switchyard and Poinsett 230kV substation.
   Re-route the Sanford-Volusia #2 230kV transmission line from the old Sanford to the new Sanford switchyard.

4. The Martin 5 combined cycle unit was removed since, according to the latest FPL Ten Year Site Plan, this unit is not scheduled until 2006.

2004. CASES

The modified base case obtained from FERC was then further modified to represent five new base cases:

2004-a. represents 500 MW delivered to FPL;
2004-b. represents 500 MW delivered to FPC;
2004-c. represents 500 MW delivered to TEC;
2004-d. represents 500 MW delivered to JEA; and
2004-e. represents 500 MW delivered to SEC.

2004-60 CASES

The peak case was modified to represent a sixty percent load level. The load in each control area in Florida was scaled down to approximately 60% of its peak value. The generation dispatched in each area was manually and individually adjusted to reflect the most economic dispatch. A number of gas turbines in South Florida were turned off because they did not make the priority order of economic dispatch in FPL's control

area. With the proposed addition of new, more efficient units in FPC's control area, most of their older combustion turbines did not make the economic dispatch. Similarly, Tampa's older steam units were not run to accommodate their proposed units at Polk County (148 MW in 2003 and 148 MW additional in 2004). The resultant case was named 2004-60. and further modified to represent five new base cases:

2004-60a. represents 500 MW delivered to FPL;
2004-60b. represents 500 MW delivered to FPC;
2004-60c. represents 500 MW delivered to TEC;
2004-60d. represents 500 MW delivered to JEA; and
2004-60e. represents 500 MW delivered to SEC.

2004-PI. CASES

The modified base case 2004. was used to simulate a 3600 MW import from Georgia with all of the increase going to South Florida. Generation was decresed at Turkey Point and Port Everglades and increased in Georgia. Similar dispatches were obtained to deliver the output alternatively to FPL, FPC, TEC, JEA and SEC.

Those eighteen base cases were then used to simulate single contingency outages around the Florida Transmission System and resultant flows were observed on several monitored lines.

SECTION 2 RESULTS OF POWERFLOW STUDIES

As discussed in Section 1, eighteen powerflow base cases (Summarized in Table 2-1) were developed in order to evaluate the effects of the proposed 500 MW plant on the performance of the Florida system. Each of the cases summarized in Table 2-1 were used as a starting point in evaluating system performance under normal conditions by comparing pre- and post-project powerflows over key lines in the proximity of the plant and over certain lines monitored in past FCG transmission assessment studies.

In addition, a number of single line or generator outages (N-1) were simulated on all of the base cases to assess performance under other than normal conditions. RMI also checked flows over twelve of the thirteen constrained transmission paths discussed in the FRCC 1997 Final Transmission System Constraint Maps. Table 2-2 is a list of the single outages simulated on each of the eighteen base cases. Table 2-3 is tabulation of the FRCC constrained paths and the transmission circuits affected. Constrained paths #15 and #16 are the Stanton-Rio Pinar 230-kV line. Because the studies performed represent summer season peak load conditions and, therefore, power transfers from Georgia to Florida, Constraint #13 (which deals with flows from Florida to Georgia) was not checked. Appendix V is a summary of total constrained path flows in graph form, representing the pre- and post-project performance for the eighteen bases cases.

The contingencies listed in Table 2-2 represent a broad array of outages throughout the Florida system designed to test any negative impact this new plant may have. Those outages are similar to those selected for FRCC transmission assessment studies. Some were not expected to be impacted by the new plant. Others could potentially be influenced by whether the output was scheduled to the different receiving parties. In all cases, the most pessimistic conditions were modeled.

The circuits monitored as shown in Table 2-4 represent transmission lines that showed a tendency to experience loading problems in an earlier 1989 FCG study of the "1999 Long-Range Bulk Transmission Study." Those overloaded lines were localized phenomenons which seem to have since been corrected as we will see later in the discussion.

TABLE 2-1
SUMMARY OF POWERFLOW BASE CASES EVALUATED

Year	Case	Georgia Imports (MW)	Duke Generation (MW)	Output Delivered to:
2004	2004.PI	3,600	- 0 -	N/A
	2004.PIa	3,600	500	Florida Power & Light
	2004.PIb	3,600	500	Florida Power Corporation
	2004.PIc	3,600	500	Tampa Electric Company
	2004.PId	3,600	500	Jacksonville Electric Authority
	2004.PIe	3,600	500	Seminole Electric Cooperative
2004	2004.	2,400	- 0 -	N/A
	2004.a	2,400	500	Florida Power & Light
	2004.b	2,400	500	Florida Power Corporation
	2004.c	2,400	500	Tampa Electric Company
	2004.d	2,400	500	Jacksonville Electric Authority
	2004.e	2,400	500	Seminole Electric Cooperative
2004	2004-60	2,400	- 0 -	N/A
	2004-60a	2,400	500	Florida Power & Light
	2004-60b	2,400	500	Florida Power Corporation
	2004-60c	2,400	500	Tampa Electric Company
	2004-60d	2,400	500	Jacksonville Electric Authority
	2004-60e	2,400	500	Seminole Electric Cooperative

TABLE 2-2
INDEX TO OUTAGE CONTINGENCIES

Outage #	Bus 1	kV	Bus 2	kV	CKT
1	NSB-SMYR	115	CASSADAG	115	1
2	NSB-SMYR	115	EDGEWATR	115	1
3	NSB-SMYR	115	TAYLOR	115	1
4	NSB-SMYR	115	NSB-ARP	115	1
5	NSB-SMYR	115	NSB-FELD	115	1
6	CAMP LK	230	CENT FLA	230	1
7	SUWANNEE	230	SUWANNEE	115	1
8	SHELD	230	SHELD-NW	69	1
9	SHELD	230	SHELD-SE	69	1
10	OHIO	138	TMPBAY T	138	1
11	AZALEA	115	BENNETT	115	1
12	PERSHING	115	MICHIGAN	115	1
13	DUVAL	500	POINSETT	500	1
14	SILVR SP	230	SILVSPN	230	1
15	DUVAL	500	HATCH	500	1
16	ARCHER	230	HAILE	230	1
17	FT WHT N	230	SUWANNEE	230	1
18	OHIO-N	230	ELEVEN W	230	1
19	WOODSMER	230	PINEHILL	230	1
20	SO WOOD	230	SO WOOD	115	1
21	IND RIV	230	STANTON	230	1
22	CURRY FD	230	STANTON	230	1
23	BRKRIDGE	500	CRYST RV	500	1
24	KATHLEEN	500	CENT FLA	500	1
25	SUWANNEE	230	STERLING	230	1
26	KATH-DUM	500	KATHLEEN	230	1
27	NLONGWD	230	WTR SPGS	230	1
28	SKY LAKE	230	SO WOOD	230	1
29	WINDERME	230	SO WOOD	230	1
30	SO GIB	230	B BEND	230	1
31	SANFORD4	24	390 MW Gen		1
32	TP.4	22	693 MW Gen		1
33	STLUCIE1	22	839 MW Gen		1
34	MANATEE1	22	819 MW Gen		1
35	CR RV G3	22	812 MW Gen		1

TABLE 2-3
LIST OF CONSTRAINED PATHS IN FLORIDA

Const. Number	Constrained Path Name	Transmission Lines Involved
5	Lake Tarpon - Sheldon	Three Lake Tarpon-Sheldon: 230-kV lines.
6	Central-South East	Poinsett-Martin & Poinsett-Midway: 500-kV Lines Malabar-Midway & Malabar-Emerson: 230-kV Lines Malabar-West: 138-kV Line
7	Central-South	Ruskin-Manatee: 230-kV Line Big Bend-Manatee: 230-kV Line Big Bend-Ruskin: 230-kV Line
8	Northwest-Central	2 Silver Spring North-Silver Springs: 230-kv Line
9	Brookridge-South	Brookridge-Lake Tarpon: 500-kV Line Brookridge-Brooksville West: 230-kV Line Brookridge-Hudson: 230-kV Line
10	Northeast-Central	Duval-Poinsett & Rice-Poinsett: 500-kV Lines Putnam-Volusia & Burnel-Volusia: 230-kV Lines
11	Sylvan-North Longwood	Sylvan-North Longwood: 230-kV Line
12	Georgia-Florida	Hatch-Duval & Thalman-Duval: 500-kV Line Pine Grove-Sunannee & Kingsland-Yulee: 230-kV Line South Bainbridge-Tallahassee (sub 20): 230-kV Line Callaway-Port St. Joe: 230-kV Line Pine Grove-Jasper, Tarver-Jasper: 115-kV Line Scholtz-Woodruff: 115-kV Line Twin Lake-Suwannee Pl: 115-kV Line
13	Florida-Georgia	Same as 12 (flows reversed)
14	Crystal River-South	Crystal River-Brookridge: 500-kV Line CR Plant-Brookridge: 230-kV Line CR Plant-Cryst RE: 230-kV Line
15	Cape Canaveral-Indian River	Cape Canaveral-Indian River: 230-kV Line
16	Indian River-Cape Canaveral	Indian River-Cape Canaveral: 230-kV Line
17	Stanton-Central Florida	Stanton-Rio Pinar: 230-kV Line

TABLE 2-4
MONITORED BRANCHES

Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area
2004-Pl-1	SN PLANT	230	SYLVAN	230	1	1
2004-Pl-1	SYLVAN	230	N LONGWD	230	1	1
2004-Pl-1	IND RIV	230	STANTON	230	1	11
2004-Pl-1	SILVR SP	230	SILV SPN	230	1	2
2004-Pl-1	SILVR SP	230	SILV SPN	230	2	2
2004-Pl-1	RIO PINR	230	CURRY FD	230	1	2
2004-Pl-1	JUNEAU-W	138	GANNON	138	1	16
2004-Pl-1	NSB-SMYR	115	CASSADAG	115	1	2
2004-Pl-1	NSB-SMYR	115	EDGEWATR	115	1	1
2004-Pl-1	NSB-SMYR	115	TAYLOR	115	1	1
2004-Pl-1	NSB-SMYR	115	NSB-ARP	115	1	10
2004-Pl-1	NSB-SMYR	115	NSB-FELD	115	1	10
2004-Pl-1	SN PLANT	115	TURNER	115	1	1
2004-Pl-1	PASADENA	115	40ST-DUM	115	1	2
2004-Pl-1	MICHIGAN	115	KALEY	115	1	11
2004-Pl-1	MICHIGAN	115	GRANT	115	1	11
2004-Pl-1	PERSHING	115	GRANT	115	1	11
2004-Pl-1	AMERICAN	115	KALEY	115	1	11
2004-Pl-1	JASPER	115	WGHTCHPL	115	1	2
2004-Pl-1	AZALEA	115	BENNETT	115	1	11
2004-Pl-1	FLORALTP	69	INVERNTP	69	1	2
2004-Pl-1	ALACH TP	69	HIGH SPG	69	1	2
2004-Pl-1	PASADENA	230	PASADENA	115	1	2
2004-Pl-1	SUWANNEE	230	SUWANNEE	115	1	2
2004-Pl-1	SUWANNEE	230	SUWANNEE	115	2	2
2004-Pl-1	E CLRWTR	230	E CLRWTR	115	1	2
2004-Pl-1	IND RIV	230	IND RIV	115	1	11
2004-Pl-1	LARGO	230	LARGO A	69	1	2
2004-Pl-1	SHELD	230	SHELD-NW	69	1	16
2004-Pl-1	CLMT EST	230	CLMT EST	69	1	2
2004-Pl-1	WINDERME	230	WINDERME	69	1	2
2004-Pl-1	RIVER-S	230	RIVER-S	69	1	16
2004-Pl-1	ELEVEN W	230	ELEVEN-E	69	1	16
2004-Pl-1	JUNEAU-E	138	JUNEAU-E	69	1	16
2004-Pl-1	JASPER	115	JASPER	69	1	2

2000 - PI CASES

The result of these cases, representing summer peak loading in Florida and peak import of 3600 MW from Georgia, are summarized in Appendix II, which presents information about the lines monitored, the specific outage, and the five dispatch scenarios: the plant output respectively delivered to FPL, FPC, TEC, JEA, and SEC.

The analysis reveals that for the simulated outage of the Smyrna to Edgewater section of the Smyrna to Volusia No. 2 115-kV circuit, the Smyrna to Taylor Section of the Smyrna to Volusia No. 1 115-kV circuit is loaded to 100% when selling to JEA. The configuration between Volusia Substation and Smyrna Substation is described in Figure 2-1, which presents the various line sections, their impedance values, and their MVA ratings. The loading of the substations supplied by each circuit is shown in Table 2-5 for the year 2001 and in Table 2-6 for the year 2004.

Such change in load forcast is not uncommon. Revised economic forecast for a region might dramatically increase or decrease the forecasted load. Table 2-5 shows that for the year 2001, the total load served by the 115kV system between Volusia and New Smyrna substation is approximately 240 MW. The projected load in 2004 is approximately 210 MW, for the year 2004. Most of the reduction is accounted for by reduced loading at Willow, Port Orange and Taylor on the Volusia to Smyrna 115kV circuit no. 1, while loading at Spruce and Edgewater shows a moderate increase.

The distribution of flows over the various lines emanating from Smyrna Substation for the various dispatch scenarios are shown in Appendix II-A.

2001. CASES

The result of these cases representing summer peak loading in Florida and an import of 2,400 MW from Georgia are summarized in Appendix III, which presents information about the lines monitored, the specific outage, and the five dispatch scenarios: the plant output respectively delivered to FPL, FPC, TEC, JEA, and SEC.

For the simulated outage of the Smyrna to Edgewater section of the Smyrna to Volusia No. 2 115-kV circuit, the Smyrna to Taylor section of the Smyrna to Volusia No. 1, 115-kV circuit is loaded above 100% of its rating when the plant output is delivered to JEA or Seminole. No other overload was noted for the other outages under all dispatch scenarios.

Appendix III-A shows the distribution of flows over the various lines emanating from Smyrna Substation for the various dispatch scenarios.

2001-60 CASES

The result of these cases representing 60% of summer peak loading condition in Florida, and an import of 2,400 MW from Georgia are summarized in Appendix IV, which present information about the lines monitored, the specific outage and the five dispatch scenarios: the plant ouput respectively delivered to FPL, FPC, TEC, JEA, and SEC.

Review of the distribution of line flows around the plant, Appendix IV-A, reveals a more even distribution of plant output between the lines going to FPL and FPC. The Smyrna to Volusia circuits carry approximately 43% of plant output, while the Smyrna to Cassadaga circuits carry about 57% of plant output. The decreased loading of the Smyrna to Volusia circuit No. 1 makes it less prone to overload under simulated outages. The difference resides in the dispatch of generation around the proposed plant.

At peak load, cases 2001. and 2001-PI, all the generators in Central East Florida were on line at Sanford, Cape Canaveral, Debary, Turner, Indian River, and Stanton. Most units were at their peak rating. The result was a tendency of the proposed plant output to flow toward Volusia and the FPL 230-kV system. At 60% load level, with less generation on line in the Central East Area, more of the plant output is going over the Smyrna to Cassadaga circuits and less over the Smyrna to Volusia circuits.

The analysis reveals that for all the scenarios and all contingencies, no monitored line reached its maximum rating. Since 60% load level is representative of average loading of the Florida system, it appears the proposed plant can be dispatched most of the time.

TABLE 2-5
SUBSTATION LOADS BY CIRCUIT (2001 CASE)

	Substation	P Load	Q Load
Circuit No. 1			
	Willow	46.70	16.40
	Port Orange	83.00	29.30
	Taylor	38.50	10.90
	Total	168.20	56.60
Circuit No. 2			
	Edgewater	45.50	15.70
	Spruce	24.10	8.10
	Total	69.60	23.80

TABLE 2-6
SUBSTATION LOADS BY CIRCUIT (2004 CASE)

	Substation	P Load	Q Load
Circuit No. 1			
	Willow	35.60	12.60
	Port Orange	63.40	22.40
	Taylor	30.30	8.60
	Total	129.30	43.60
Circuit No. 2			
	Edgewater	50.50	14.30
	Spruce	28.10	7.20
	Total	78.60	21.50

APPENDIX I

Federal Energy Regulatory Commission

1997 Form 715 Regional Power Flow Cases And Transmission Planning Reports

ASCC | ECAR | ERCOT | FRCC | MAAC | MAIN | MAPP | NPCC | SERC | SPP | WSCC

Form 715 transmission planning reports (Form parts 1, 4, 5 and 6) for each respondent are stored in separate subdirectories in a single compressed self-expanding ".exe" files by NERC Region.To maintain the subdirectory structure, use " -d" switch after the file name when running the executable file to restore the compressed information (e.g., ECAR98R.exe -d). The following is a list of files available for downloaded.

ASCC - Anchorage & Chugach

- 1998 Power Flow Cases
- 1998 Transmission Planning Reports (use -d when exploding)

ECAR - East Central Area Reliability Coordination Agreement

- ECAR Members' 1998 Transmission Planning Report (use -d when exploding)
- 2002 Summer Peak Case (Input,Output & Data Dictionary)
- 2002/2003 Winter Peak (Input,Output & Data Dictionary)
- 2007 Summer Peak (Input,Output & Data Dictionary)
- 1997/1998 Winter Peak ECAR Assessment Study Case (Input,Output & Data Dictionary)
- 1998 Spring Peak Case (Input,Output & Data Dictionary)
- 1998 Summer Peak (Input,Output & Data Dictionary)
- 1998 Summer Peak ECAR Assessment Study Case (Input,Output & Data Dictionary)
- 1998 Fall Peak (Input,Output & Data Dictionary)
- 1998/1999 Winter Peak (Input,Output & Data Dictionary)
- 1998 Light Load Case (Input,Output & Data Dictionary)
- 1999 Summer Peak (Input,Output & Data Dictionary)
- 1999 Summer Peak ECAR Assessment Study Case (Input,Output & Data Dictionary)
- 1999/2000 Winter Peak (Input,Output & Data Dictionary)
- 1998 Wolverine Power Supply Coop, Inc. (Input,Output & Data Dictionary)

ERCOT - Electric Reliability Council of Texas

- ERCOT Members' 1998 Transmission Planning Reports (use -d when exploding)
- ERCOT 1998 Bus Identification (Data Dictionary)
- 1999 Summer Peak Case (Input & Output)
- 2000 Summer Peak Case (Input & Output)
- 2001 Summer Peak Case (Input & Output)
- 2002 Summer Peak Case (Input & Output)
- 2003 Summer Peak Case (Input & Output)
- 2008 Summer Peak Case (Input & Output)
- 2001 Minimum Case (Input & Output)
- 2001 Winter Peak Case (Input & Output)

FRCC - Florida Reliability Coordinating Council

- FRCC's Members 1998 Transmission Planning Report (use -d when exploding)
- 2000 Summer Peak Case (Input & Output)
- 2000 Winter Peak Case (Input & Output)
- 2001 Summer Peak Case (Input & Output)
- 2001 Winter Peak Case (Input & Output)
- 2002 Summer Peak Case (Input & Output)
- 2002 Winter Peak Case (Input & Output)
- 2003 Summer Peak Case (Input & Output)
- 2003 Winter Peak Case (Input)
- 2004 Summer Peak Case (Input & Output)
- 2005 Summer Peak Case (Input & Output)
- 2006 Summer Peak Case (Input & Output)
- 2007 Summer Peak Case (Input & Output)
- 1997 Summer Peak Case (Input)
- 1997 Winter Peak Case (Input & Output)
- 1998 Summer Peak Case (Input & Output)
- 1998 Winter Peak Case (Input & Output)
- 1999 Summer Peak Case (Input & Output)
- 1999 Winter Peak Case (Input & Output)

MAAC - Mid-Atlantic Area Council

- 1998 MAAC Data Dictionary (Excel)
- 2002 Summer Peak (Input & Output)
- 2002/2003 Winter Peak (Input & Output)
- 2007 Summer Peak (Input & Output)
- 1998 Summer Peak (Input & Output)
- 1998 Fall Peak (Input & Output)
- 1998/1999 Winter Peak (Input & Output)
- 1998 Light Load (Input & Output)
- 1998 Spring Peak (Input & Output)
- 1999 Summer Peak (Input & Output)
- 1999/2000 Winter Peak (Input & Output)

MAIN - Mid-America Interconnected Network

- MAIN Members' 1998 Transmission Planning Reports (use -d when exploding)
- 2002 Summer Peak Case (Output & Data Dictionary)
- 2002 Winter Peak Case (Output & Data Dictionary)
- 2007 Summer Peak Case (Output & Data Dictionary)
- 1997 Summer Peak Case Scenario 1 (Output & Data Dictionary)
- 1997 Summer Peak Case Scenario 2 (Output & Data Dictionary)
- 1997 Summer Peak Case Scenario 3 (Output & Data Dictionary)
- 1997 Winter Peak Case Scenario 1 (Output & Data Dictionary)
- 1997 Winter Peak Case Scenario 2 (Output & Data Dictionary)

- 1998 Spring Peak Case (Output & Data Dictionary)
- 1998 Fall Peak Case (Output & Data Dictionary)
- 1998 Light Load Case (Output & Data Dictionary)
- 1998 Summer Peak Case (Output & Data Dictionary)
- 1998 Winter Peak Case (Output & Data Dictionary)
- 1999 Summer Peak (Output & Data Dictionary)
- 1999 Winter Peak (Output & Data Dictionary)
- 2002 Summer Peak Case (Input)
- 2002 Winter Peak Case (Input)
- 2007 Summer Peak Case (Input)
- 1997 Summer Peak Case Scenario 1 (Input)
- 1997 Summer Peak Case Scenario 2 (Input)
- 1997 Summer Peak Case Scenario 3 (Input)
- 1997 Winter Peak Case Scenario 1 (Input)
- 1997 Winter Peak Case Scenario 2 (Input)
- 1998 Spring Peak Case (Input)
- 1998 Fall Peak Case (Input)
- 1998 Light Load Case (Input)
- 1998 Summer Peak Case (Input)
- 1998 Winter Peak Case (Input)
- 1999 Summer Peak (Input)
- 1999 Winter Peak (Input)

MAPP - Mid-Continent Area Power Pool

- MAPP Members' 1998 Transmission Planning Reports (use -d when exploding)
- 2002 Summer Off-Peak (Input & Output)
- 2002 Summer Peak (Input & Output)
- 2002 Winter Peak (Input & Output)
- 2007 Summer Peak (Input & Output)
- 2007 Winter Peak (Input & Output)
- 1998 Summer Off-Peak (Input & Output)
- 1998 Summer Peak (Input & Output)
- 1998 Winter Off-Peak (Input & Output)
- 1998 Winter Peak (Input & Output)

NPCC - Northeast Power Coordinating Council (NEPOOL, NYPP)

NEPOOL - New England Power Pool

- NEPOOL Members' 1998 Transmission Planning Reports (use -d when exploding)
- 2003 Spring Light Load (Input, Output & Solution Parameters)
- 2003 Summer Peak (Input, Output & Solution Parameters)
- 2003/2004 Winter Peak (Input, Output & Solution Parameters)
- 2008 Summer Peak (Input, Output & Solution Parameters)
- 1998 Summer Peak (Input, Output & Solution Parameters)
- 1998/1999 Winter Peak (Input, Output & Solution Parameters)

NYPP - New York Power Pool

- NYPP Members' 1998 Transmission Planning Report (use -d when exploding)
- 2003 Summer Peak Case (Input & Output)
- 2003 Spring Light Load Peak Case (Input & Output)
- 2003/2004 Winter Peak Case (Input & Output)
- 2008 Summer Peak (Input & Output)
- 2008/2009 Winter Peak (Input & Output)
- 1998 Summer Peak (Input & Output)
- 1998/1999 Winter Peak (Input & Output)

SERC - Southeastern Electric Reliability Council

- SERC Members' 1998 Transmission Planning Reports (use -d when exploding)
- 2002 Summer Peak Case (Input, Output & Data Dictionary)
- 2002/2003 Winter Peak Case (Input, Output & Data Dictionary)
- 2007 Summer Peak Case (Input, Output & Data Dictionary)
- 1998 Fall Peak Case (Input, Output & Data Dictionary)
- 1998 Light Load Case (Input, Output & Data Dictionary)
- 1998 Summer Peak Case (Input, Output & Data Dictionary)
- 1998 Spring Peak Case (Input, Output & Data Dictionary)
- 1998/1999 Winter Peak Case (Input, Output & Data Dictionary)
- 1999 Summer (Input, Output & Data Dictionary)
- 1999/2000 Winter (Input, Output & Data Dictionary)

SPP - Southwest Power Pool

- SPP Members' 1998 Transmission Planning Reports (use -d when exploding)
- 1998 SPP Expanded Bus & Terminal Names List (Data Dictionary)
- 2004 Summer Peak Case (Input Data)
- 2004 Winter Peak Case (Input Data)
- 2009 Summer Peak Case (Input Data)
- 1998 Fall Off-Peak Case (Input Data)
- 1998 Fall On-Peak Case (Input Data)
- 1998 Fall Peak Case (Input Data)
- 1998 Spring Off-Peak Case (Input Data)
- 1998 Spring On-Peak Case (Input Data)
- 1998 Summer Off-Peak Case (Input Data)
- 1998 Shoulder Off-Peak Case (Input Data)
- 1998 Summer Peak Case (Input Data)
- 1998 Spring Peak Peak Case (Input Data)
- 1998 Winter Off-Peak Case (Input Data)
- 1998 Winter On-Peak Case (Input Data)
- 1998 Winter Peak Case (Input Data)
- 1999 April Minimum Peak Case (Input Data)
- 1999 Fall Peak Case (Input Data)
- 1999 Spring Off-Peak Case (Input Data)

- 1999 Spring On-Peak Case (Input Data)
- 1999 Shoulder Off-Peak Case (Input Data)
- 1999 Summer Peak Case (Input Data)
- 1999 Spring Peak Case (Input Data)
- 1999 Winter Peak Case (Input Data)
- 2004 Summer Peak Case (Output Data)
- 2004 Winter Peak Case (Output Data)
- 2009 Summer Peak Case (Output Data)
- 1998 Fall Off-Peak Case (Output Data)
- 1998 Fall On-Peak Case (Output Data)
- 1998 Fall Peak Case (Output Data)
- 1998 Spring Off-Peak Case (Output Data)
- 1998 Spring On-Peak Case (Output Data)
- 1998 Summer Off-Peak Case (Output Data)
- 1998 Shoulder Off-Peak Case (Output Data)
- 1998 Summer Peak Case (Output Data)
- 1998 Spring Peak Peak Case (Output Data)
- 1998 Winter Off-Peak Case (Output Data)
- 1998 Winter On-Peak Case (Output Data)
- 1998 Winter Peak Case (Output Data)
- 1999 April Minimum Peak Case (Output Data)
- 1999 Fall Peak Case (Output Data)
- 1999 Spring Off-Peak Case (Output Data)
- 1999 Spring On-Peak Case (Output Data)
- 1999 Shoulder Off-Peak Case (Output Data)
- 1999 Summer Peak Case (Output Data)
- 1999 Spring Peak Case (Output Data)
- 1999 Winter Peak Case (Output Data)

WSCC - Western Systems Coordinating Council

- WSCC Region 1998 Transmission Planning Reports (use -d when exploding)
- WSCC Member Regional 1998 Transmission Planning Reports (use -d when exploding)
- WSCC Member's Separate 1998 Trans. Planning Reports (use -d when exploding)
- 2001 Heavy Autumn Demand (Input & Output), WSCC Format
- 2002 Heavy Summer Demand (Input & Output), WSCC Format
- 2002 Light Spring Demand (Input & Output), WSCC Format
- 2001/2002 Light Winter Demand (Input & Output), WSCC Format
- 1998 Heavy Summer Demand (Input & Output), WSCC Format
- 1997/1998 Heavy Winter Demand (Input & Output), WSCC Format
- 1998 Light Autumn Demand (Input), WSCC Format
- 1998 Light Summer Demand (Input & Output), WSCC Format
- 1997/1998 Light Winter Demand (Input & Output), WSCC Format
- 2001 Heavy Autumn Demand (Input & Output), PTI Format
- 2002 Heavy Summer Demand (Input & Output), PTI Format
- 2002 Light Spring Demand (Input & Output), PTI Format
- 2001/2002 Light Winter Demand (Input & Output), PTI Format
- 1998 Heavy Summer Demand (Input & Output), PTI Format

- 1997/1998 Heavy Winter Demand (Input & Output), PTI Format
- 1998 Light Autumn Demand (Input), PTI Format
- 1998 Light Summer Demand (Input & Output), PTI Format
- 1997/1998 Light Winter Demand (Input & Output), PTI Format
- EWEB 2003 Heavy Summer Demand (Input & Output), WSCC Format
- EWEB 2003/2004 Heavy Winter Demand (Input & Output), WSCC Format
- EWEB 2009 Heavy Summer Demand (Input & Output), WSCC Format
- EWEB 2008/2009 Heavy Winter Demand (Input & Output), WSCC Format
- EWEB 1998 Heavy Summer Demand (Input & Output), WSCC Format
- EWEB 1998/1999 Heavy Winter Demand (Input & Output), WSCC Format
- PSE 1998 Peak Case Demand, PTI Format
- STCL 1997 Peak Case Demand (Input & Output)

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APPENDIX II

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-1	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-1	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-1	IND RIV	230	STANTON	230	1	11						
2004-PI-1	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-1	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-1	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-1	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-1	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-1	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-1	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-1	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-1	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-1	SN PLANT	115	TURNER	115	1	1						
2004-PI-1	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-1	MICHIGAN	115	KALEY	115	1	11						
2004-PI-1	MICHIGAN	115	GRANT	115	1	11						
2004-PI-1	PERSHING	115	GRANT	115	1	11						
2004-PI-1	AMERICA	115	KALEY	115	1	11						
2004-PI-1	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-1	AZALEA	115	BENNETT	115	1	11						
2004-PI-1	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-1	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-1	PASADENA	230	PASADENA	115	1	2						
2004-PI-1	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-1	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-1	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-1	IND RIV	230	IND RIV	115	1	11						
2004-PI-1	LARGO	230	LARGO A	69	1	2						
2004-PI-1	SHELD	230	SHELD-NW	69	1	16						
2004-PI-1	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-1	WINDERME	230	WINDERME	69	1	2						
2004-PI-1	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-1	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-1	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-1	JASPER	115	JASPER	69	1	2						
2004-PI-2	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-2	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-2	IND RIV	230	STANTON	230	1	11						
2004-PI-2	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-2	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-2	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-2	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-2	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-2	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-2	NSB-SMYR	115	TAYLOR	115	1	1					100.6	
2004-PI-2	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-2	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-2	SN PLANT	115	TURNER	115	1	1						
2004-PI-2	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-2	MICHIGAN	115	KALEY	115	1	11						
2004-PI-2	MICHIGAN	115	GRANT	115	1	11						
2004-PI-2	PERSHING	115	GRANT	115	1	11						
2004-PI-2	AMERICA	115	KALEY	115	1	11						
2004-PI-2	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-2	AZALEA	115	BENNETT	115	1	11						
2004-PI-2	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-2	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-2	PASADENA	230	PASADENA	115	1	2						
2004-PI-2	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-2	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-2	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-2	IND RIV	230	IND RIV	115	1	11						
2004-PI-2	LARGO	230	LARGO A	69	1	2						
2004-PI-2	SHELD	230	SHELD-NW	69	1	16						
2004-PI-2	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-2	WINDERME	230	WINDERME	69	1	2						
2004-PI-2	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-2	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-2	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-2	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-3	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-3	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-3	IND RIV	230	STANTON	230	1	11						
2004-PI-3	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-3	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-3	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-3	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-3	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-3	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-3	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-3	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-3	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-3	SN PLANT	115	TURNER	115	1	1						
2004-PI-3	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-3	MICHIGAN	115	KALEY	115	1	11						
2004-PI-3	MICHIGAN	115	GRANT	115	1	11						
2004-PI-3	PERSHING	115	GRANT	115	1	11						
2004-PI-3	AMERICA	115	KALEY	115	1	11						
2004-PI-3	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-3	AZALEA	115	BENNETT	115	1	11						
2004-PI-3	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-3	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-3	PASADENA	230	PASADENA	115	1	2						
2004-PI-3	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-3	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-3	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-3	IND RIV	230	IND RIV	115	1	11						
2004-PI-3	LARGO	230	LARGO A	69	1	2						
2004-PI-3	SHELD	230	SHELD-NW	69	1	16						
2004-PI-3	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-3	WINDERME	230	WINDERME	69	1	2						
2004-PI-3	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-3	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-3	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-3	JASPER	115	JASPER	69	1	2						
2004-PI-4	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-4	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-4	IND RIV	230	STANTON	230	1	11						
2004-PI-4	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-4	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-4	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-4	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-4	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-4	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-4	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-4	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-4	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-4	SN PLANT	115	TURNER	115	1	1						
2004-PI-4	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-4	MICHIGAN	115	KALEY	115	1	11						
2004-PI-4	MICHIGAN	115	GRANT	115	1	11						
2004-PI-4	PERSHING	115	GRANT	115	1	11						
2004-PI-4	AMERICA	115	KALEY	115	1	11						
2004-PI-4	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-4	AZALEA	115	BENNETT	115	1	11						
2004-PI-4	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-4	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-4	PASADENA	230	PASADENA	115	1	2						
2004-PI-4	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-4	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-4	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-4	IND RIV	230	IND RIV	115	1	11						
2004-PI-4	LARGO	230	LARGO A	69	1	2						
2004-PI-4	SHELD	230	SHELD-NW	69	1	16						
2004-PI-4	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-4	WINDERME	230	WINDERME	69	1	2						
2004-PI-4	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-4	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-4	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-4	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-5	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-5	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-5	IND RIV	230	STANTON	230	1	11						
2004-PI-5	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-5	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-5	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-5	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-5	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-5	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-5	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-5	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-5	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-5	SN PLANT	115	TURNER	115	1	1						
2004-PI-5	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-5	MICHIGAN	115	KALEY	115	1	11						
2004-PI-5	MICHIGAN	115	GRANT	115	1	11						
2004-PI-5	PERSHING	115	GRANT	115	1	11						
2004-PI-5	AMERICA	115	KALEY	115	1	11						
2004-PI-5	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-5	AZALEA	115	BENNETT	115	1	11						
2004-PI-5	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-5	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-5	PASADENA	230	PASADENA	115	1	2						
2004-PI-5	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-5	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-5	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-5	IND RIV	230	IND RIV	115	1	11						
2004-PI-5	LARGO	230	LARGO A	69	1	2						
2004-PI-5	SHELD	230	SHELD-NW	69	1	16						
2004-PI-5	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-5	WINDERME	230	WINDERME	69	1	2						
2004-PI-5	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-5	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-5	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-5	JASPER	115	JASPER	69	1	2						
2004-PI-6	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-6	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-6	IND RIV	230	STANTON	230	1	11						
2004-PI-6	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-6	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-6	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-6	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-6	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-6	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-6	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-6	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-6	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-6	SN PLANT	115	TURNER	115	1	1						
2004-PI-6	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-6	MICHIGAN	115	KALEY	115	1	11						
2004-PI-6	MICHIGAN	115	GRANT	115	1	11						
2004-PI-6	PERSHING	115	GRANT	115	1	11						
2004-PI-6	AMERICA	115	KALEY	115	1	11						
2004-PI-6	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-6	AZALEA	115	BENNETT	115	1	11						
2004-PI-6	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-6	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-6	PASADENA	230	PASADENA	115	1	2						
2004-PI-6	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-6	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-6	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-6	IND RIV	230	IND RIV	115	1	11						
2004-PI-6	LARGO	230	LARGO A	69	1	2						
2004-PI-6	SHELD	230	SHELD-NW	69	1	16						
2004-PI-6	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-6	WINDERME	230	WINDERME	69	1	2						
2004-PI-6	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-6	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-6	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-6	JASPER	115	JASPER	69	1	2						

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Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-7	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-7	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-7	IND RIV	230	STANTON	230	1	11						
2004-PI-7	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-7	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-7	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-7	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-7	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-7	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-7	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-7	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-7	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-7	SN PLANT	115	TURNER	115	1	1						
2004-PI-7	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-7	MICHIGAN	115	KALEY	115	1	11						
2004-PI-7	MICHIGAN	115	GRANT	115	1	11						
2004-PI-7	PERSHING	115	GRANT	115	1	11						
2004-PI-7	AMERICA	115	KALEY	115	1	11						
2004-PI-7	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-7	AZALEA	115	BENNETT	115	1	11						
2004-PI-7	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-7	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-7	PASADENA	230	PASADENA	115	1	2						
2004-PI-7	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-7	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-7	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-7	IND RIV	230	IND RIV	115	1	11						
2004-PI-7	LARGO	230	LARGO A	69	1	2						
2004-PI-7	SHELD	230	SHELD-NW	69	1	16						
2004-PI-7	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-7	WINDERME	230	WINDERME	69	1	2						
2004-PI-7	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-7	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-7	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-7	JASPER	115	JASPER	69	1	2						
2004-PI-8	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-8	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-8	IND RIV	230	STANTON	230	1	11						
2004-PI-8	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-8	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-8	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-8	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-8	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-8	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-8	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-8	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-8	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-8	SN PLANT	115	TURNER	115	1	1						
2004-PI-8	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-8	MICHIGAN	115	KALEY	115	1	11						
2004-PI-8	MICHIGAN	115	GRANT	115	1	11						
2004-PI-8	PERSHING	115	GRANT	115	1	11						
2004-PI-8	AMERICA	115	KALEY	115	1	11						
2004-PI-8	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-8	AZALEA	115	BENNETT	115	1	11						
2004-PI-8	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-8	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-8	PASADENA	230	PASADENA	115	1	2						
2004-PI-8	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-8	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-8	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-8	IND RIV	230	IND RIV	115	1	11						
2004-PI-8	LARGO	230	LARGO A	69	1	2						
2004-PI-8	SHELD	230	SHELD-NW	69	1	16						
2004-PI-8	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-8	WINDERME	230	WINDERME	69	1	2						
2004-PI-8	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-8	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-8	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-8	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-9	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-9	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-9	IND RIV	230	STANTON	230	1	11						
2004-PI-9	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-9	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-9	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-9	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-9	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-9	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-9	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-9	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-9	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-9	SN PLANT	115	TURNER	115	1	1						
2004-PI-9	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-9	MICHIGAN	115	KALEY	115	1	11						
2004-PI-9	MICHIGAN	115	GRANT	115	1	11						
2004-PI-9	PERSHING	115	GRANT	115	1	11						
2004-PI-9	AMERICA	115	KALEY	115	1	11						
2004-PI-9	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-9	AZALEA	115	BENNETT	115	1	11						
2004-PI-9	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-9	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-9	PASADENA	230	PASADENA	115	1	2						
2004-PI-9	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-9	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-9	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-9	IND RIV	230	IND RIV	115	1	11						
2004-PI-9	LARGO	230	LARGO A	69	1	2						
2004-PI-9	SHELD	230	SHELD-NW	69	1	16						
2004-PI-9	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-9	WINDERME	230	WINDERME	69	1	2						
2004-PI-9	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-9	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-9	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-9	JASPER	115	JASPER	69	1	2						
2004-PI-10	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-10	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-10	IND RIV	230	STANTON	230	1	11						
2004-PI-10	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-10	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-10	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-10	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-10	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-10	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-10	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-10	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-10	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-10	SN PLANT	115	TURNER	115	1	1						
2004-PI-10	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-10	MICHIGAN	115	KALEY	115	1	11						
2004-PI-10	MICHIGAN	115	GRANT	115	1	11						
2004-PI-10	PERSHING	115	GRANT	115	1	11						
2004-PI-10	AMERICA	115	KALEY	115	1	11						
2004-PI-10	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-10	AZALEA	115	BENNETT	115	1	11						
2004-PI-10	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-10	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-10	PASADENA	230	PASADENA	115	1	2						
2004-PI-10	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-10	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-10	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-10	IND RIV	230	IND RIV	115	1	11						
2004-PI-10	LARGO	230	LARGO A	69	1	2						
2004-PI-10	SHELD	230	SHELD-NW	69	1	16						
2004-PI-10	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-10	WINDERME	230	WINDERME	69	1	2						
2004-PI-10	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-10	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-10	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-10	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-11	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-11	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-11	IND RIV	230	STANTON	230	1	11						
2004-PI-11	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-11	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-11	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-11	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-11	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-11	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-11	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-11	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-11	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-11	SN PLANT	115	TURNER	115	1	1						
2004-PI-11	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-11	MICHIGAN	115	KALEY	115	1	11						
2004-PI-11	MICHIGAN	115	GRANT	115	1	11						
2004-PI-11	PERSHING	115	GRANT	115	1	11						
2004-PI-11	AMERICA	115	KALEY	115	1	11						
2004-PI-11	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-11	AZALEA	115	BENNETT	115	1	11						
2004-PI-11	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-11	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-11	PASADENA	230	PASADENA	115	1	2						
2004-PI-11	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-11	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-11	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-11	IND RIV	230	IND RIV	115	1	11						
2004-PI-11	LARGO	230	LARGO A	69	1	2						
2004-PI-11	SHELD	230	SHELD-NW	69	1	16						
2004-PI-11	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-11	WINDERME	230	WINDERME	69	1	2						
2004-PI-11	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-11	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-11	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-11	JASPER	115	JASPER	69	1	2						
2004-PI-12	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-12	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-12	IND RIV	230	STANTON	230	1	11						
2004-PI-12	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-12	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-12	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-12	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-12	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-12	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-12	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-12	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-12	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-12	SN PLANT	115	TURNER	115	1	1						
2004-PI-12	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-12	MICHIGAN	115	KALEY	115	1	11						
2004-PI-12	MICHIGAN	115	GRANT	115	1	11						
2004-PI-12	PERSHING	115	GRANT	115	1	11						
2004-PI-12	AMERICA	115	KALEY	115	1	11						
2004-PI-12	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-12	AZALEA	115	BENNETT	115	1	11						
2004-PI-12	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-12	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-12	PASADENA	230	PASADENA	115	1	2						
2004-PI-12	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-12	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-12	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-12	IND RIV	230	IND RIV	115	1	11						
2004-PI-12	LARGO	230	LARGO A	69	1	2						
2004-PI-12	SHELD	230	SHELD-NW	69	1	16						
2004-PI-12	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-12	WINDERME	230	WINDERME	69	1	2						
2004-PI-12	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-12	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-12	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-12	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-13	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-13	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-13	IND RIV	230	STANTON	230	1	11						
2004-PI-13	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-13	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-13	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-13	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-13	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-13	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-13	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-13	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-13	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-13	SN PLANT	115	TURNER	115	1	1						
2004-PI-13	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-13	MICHIGAN	115	KALEY	115	1	11						
2004-PI-13	MICHIGAN	115	GRANT	115	1	11						
2004-PI-13	PERSHING	115	GRANT	115	1	11						
2004-PI-13	AMERICA	115	KALEY	115	1	11						
2004-PI-13	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-13	AZALEA	115	BENNETT	115	1	11						
2004-PI-13	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-13	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-13	PASADENA	230	PASADENA	115	1	2						
2004-PI-13	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-13	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-13	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-13	IND RIV	230	IND RIV	115	1	11						
2004-PI-13	LARGO	230	LARGO A	69	1	2						
2004-PI-13	SHELD	230	SHELD-NW	69	1	16						
2004-PI-13	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-13	WINDERME	230	WINDERME	69	1	2						
2004-PI-13	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-13	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-13	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-13	JASPER	115	JASPER	69	1	2						
2004-PI-14	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-14	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-14	IND RIV	230	STANTON	230	1	11						
2004-PI-14	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-14	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-14	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-14	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-14	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-14	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-14	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-14	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-14	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-14	SN PLANT	115	TURNER	115	1	1						
2004-PI-14	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-14	MICHIGAN	115	KALEY	115	1	11						
2004-PI-14	MICHIGAN	115	GRANT	115	1	11						
2004-PI-14	PERSHING	115	GRANT	115	1	11						
2004-PI-14	AMERICA	115	KALEY	115	1	11						
2004-PI-14	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-14	AZALEA	115	BENNETT	115	1	11						
2004-PI-14	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-14	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-14	PASADENA	230	PASADENA	115	1	2						
2004-PI-14	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-14	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-14	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-14	IND RIV	230	IND RIV	115	1	11						
2004-PI-14	LARGO	230	LARGO A	69	1	2						
2004-PI-14	SHELD	230	SHELD-NW	69	1	16						
2004-PI-14	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-14	WINDERME	230	WINDERME	69	1	2						
2004-PI-14	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-14	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-14	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-14	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-15	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-15	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-15	IND RIV	230	STANTON	230	1	11						
2004-PI-15	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-15	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-15	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-15	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-15	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-15	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-15	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-15	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-15	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-15	SN PLANT	115	TURNER	115	1	1						
2004-PI-15	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-15	MICHIGAN	115	KALEY	115	1	11						
2004-PI-15	MICHIGAN	115	GRANT	115	1	11						
2004-PI-15	PERSHING	115	GRANT	115	1	11						
2004-PI-15	AMERICA	115	KALEY	115	1	11						
2004-PI-15	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-15	AZALEA	115	BENNETT	115	1	11						
2004-PI-15	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-15	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-15	PASADENA	230	PASADENA	115	1	2						
2004-PI-15	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-15	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-15	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-15	IND RIV	230	IND RIV	115	1	11						
2004-PI-15	LARGO	230	LARGO A	69	1	2						
2004-PI-15	SHELD	230	SHELD-NW	69	1	16						
2004-PI-15	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-15	WINDERME	230	WINDERME	69	1	2						
2004-PI-15	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-15	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-15	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-15	JASPER	115	JASPER	69	1	2						
2004-PI-16	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-16	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-16	IND RIV	230	STANTON	230	1	11						
2004-PI-16	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-16	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-16	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-16	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-16	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-16	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-16	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-16	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-16	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-16	SN PLANT	115	TURNER	115	1	1						
2004-PI-16	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-16	MICHIGAN	115	KALEY	115	1	11						
2004-PI-16	MICHIGAN	115	GRANT	115	1	11						
2004-PI-16	PERSHING	115	GRANT	115	1	11						
2004-PI-16	AMERICA	115	KALEY	115	1	11						
2004-PI-16	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-16	AZALEA	115	BENNETT	115	1	11						
2004-PI-16	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-16	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-16	PASADENA	230	PASADENA	115	1	2						
2004-PI-16	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-16	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-16	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-16	IND RIV	230	IND RIV	115	1	11						
2004-PI-16	LARGO	230	LARGO A	69	1	2						
2004-PI-16	SHELD	230	SHELD-NW	69	1	16						
2004-PI-16	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-16	WINDERME	230	WINDERME	69	1	2						
2004-PI-16	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-16	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-16	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-16	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-17	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-17	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-17	IND RIV	230	STANTON	230	1	11						
2004-PI-17	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-17	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-17	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-17	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-17	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-17	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-17	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-17	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-17	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-17	SN PLANT	115	TURNER	115	1	1						
2004-PI-17	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-17	MICHIGAN	115	KALEY	115	1	11						
2004-PI-17	MICHIGAN	115	GRANT	115	1	11						
2004-PI-17	PERSHING	115	GRANT	115	1	11						
2004-PI-17	AMERICA	115	KALEY	115	1	11						
2004-PI-17	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-17	AZALEA	115	BENNETT	115	1	11						
2004-PI-17	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-17	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-17	PASADENA	230	PASADENA	115	1	2						
2004-PI-17	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-17	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-17	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-17	IND RIV	230	IND RIV	115	1	11						
2004-PI-17	LARGO	230	LARGO A	69	1	2						
2004-PI-17	SHELD	230	SHELD-NW	69	1	16						
2004-PI-17	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-17	WINDERME	230	WINDERME	69	1	2						
2004-PI-17	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-17	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-17	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-17	JASPER	115	JASPER	69	1	2						
2004-PI-18	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-18	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-18	IND RIV	230	STANTON	230	1	11						
2004-PI-18	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-18	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-18	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-18	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-18	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-18	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-18	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-18	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-18	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-18	SN PLANT	115	TURNER	115	1	1						
2004-PI-18	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-18	MICHIGAN	115	KALEY	115	1	11						
2004-PI-18	MICHIGAN	115	GRANT	115	1	11						
2004-PI-18	PERSHING	115	GRANT	115	1	11						
2004-PI-18	AMERICA	115	KALEY	115	1	11						
2004-PI-18	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-18	AZALEA	115	BENNETT	115	1	11						
2004-PI-18	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-18	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-18	PASADENA	230	PASADENA	115	1	2						
2004-PI-18	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-18	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-18	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-18	IND RIV	230	IND RIV	115	1	11						
2004-PI-18	LARGO	230	LARGO A	69	1	2						
2004-PI-18	SHELD	230	SHELD-NW	69	1	16						
2004-PI-18	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-18	WINDERME	230	WINDERME	69	1	2						
2004-PI-18	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-18	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-18	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-18	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-19	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-19	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-19	IND RIV	230	STANTON	230	1	11						
2004-PI-19	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-19	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-19	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-19	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-19	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-19	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-19	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-19	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-19	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-19	SN PLANT	115	TURNER	115	1	1						
2004-PI-19	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-19	MICHIGAN	115	KALEY	115	1	11						
2004-PI-19	MICHIGAN	115	GRANT	115	1	11						
2004-PI-19	PERSHING	115	GRANT	115	1	11						
2004-PI-19	AMERICA	115	KALEY	115	1	11						
2004-PI-19	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-19	AZALEA	115	BENNETT	115	1	11						
2004-PI-19	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-19	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-19	PASADENA	230	PASADENA	115	1	2						
2004-PI-19	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-19	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-19	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-19	IND RIV	230	IND RIV	115	1	11						
2004-PI-19	LARGO	230	LARGO A	69	1	2						
2004-PI-19	SHELD	230	SHELD-NW	69	1	16						
2004-PI-19	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-19	WINDERME	230	WINDERME	69	1	2						
2004-PI-19	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-19	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-19	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-19	JASPER	115	JASPER	69	1	2						
2004-PI-20	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-20	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-20	IND RIV	230	STANTON	230	1	11						
2004-PI-20	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-20	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-20	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-20	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-20	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-20	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-20	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-20	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-20	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-20	SN PLANT	115	TURNER	115	1	1						
2004-PI-20	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-20	MICHIGAN	115	KALEY	115	1	11						
2004-PI-20	MICHIGAN	115	GRANT	115	1	11						
2004-PI-20	PERSHING	115	GRANT	115	1	11						
2004-PI-20	AMERICA	115	KALEY	115	1	11						
2004-PI-20	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-20	AZALEA	115	BENNETT	115	1	11						
2004-PI-20	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-20	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-20	PASADENA	230	PASADENA	115	1	2						
2004-PI-20	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-20	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-20	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-20	IND RIV	230	IND RIV	115	1	11						
2004-PI-20	LARGO	230	LARGO A	69	1	2						
2004-PI-20	SHELD	230	SHELD-NW	69	1	16						
2004-PI-20	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-20	WINDERME	230	WINDERME	69	1	2						
2004-PI-20	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-20	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-20	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-20	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-21	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-21	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-21	IND RIV	230	STANTON	230	1	11						
2004-PI-21	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-21	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-21	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-21	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-21	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-21	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-21	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-21	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-21	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-21	SN PLANT	115	TURNER	115	1	1						
2004-PI-21	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-21	MICHIGAN	115	KALEY	115	1	11						
2004-PI-21	MICHIGAN	115	GRANT	115	1	11						
2004-PI-21	PERSHING	115	GRANT	115	1	11						
2004-PI-21	AMERICA	115	KALEY	115	1	11						
2004-PI-21	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-21	AZALEA	115	BENNETT	115	1	11						
2004-PI-21	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-21	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-21	PASADENA	230	PASADENA	115	1	2						
2004-PI-21	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-21	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-21	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-21	IND RIV	230	IND RIV	115	1	11						
2004-PI-21	LARGO	230	LARGO A	69	1	2						
2004-PI-21	SHELD	230	SHELD-NW	69	1	16						
2004-PI-21	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-21	WINDERME	230	WINDERME	69	1	2						
2004-PI-21	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-21	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-21	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-21	JASPER	115	JASPER	69	1	2						
2004-PI-22	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-22	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-22	IND RIV	230	STANTON	230	1	11						
2004-PI-22	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-22	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-22	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-22	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-22	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-22	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-22	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-22	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-22	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-22	SN PLANT	115	TURNER	115	1	1						
2004-PI-22	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-22	MICHIGAN	115	KALEY	115	1	11						
2004-PI-22	MICHIGAN	115	GRANT	115	1	11						
2004-PI-22	PERSHING	115	GRANT	115	1	11						
2004-PI-22	AMERICA	115	KALEY	115	1	11						
2004-PI-22	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-22	AZALEA	115	BENNETT	115	1	11						
2004-PI-22	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-22	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-22	PASADENA	230	PASADENA	115	1	2						
2004-PI-22	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-22	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-22	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-22	IND RIV	230	IND RIV	115	1	11						
2004-PI-22	LARGO	230	LARGO A	69	1	2						
2004-PI-22	SHELD	230	SHELD-NW	69	1	16						
2004-PI-22	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-22	WINDERME	230	WINDERME	69	1	2						
2004-PI-22	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-22	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-22	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-22	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-23	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-23	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-23	IND RIV	230	STANTON	230	1	11						
2004-PI-23	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-23	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-23	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-23	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-23	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-23	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-23	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-23	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-23	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-23	SN PLANT	115	TURNER	115	1	1						
2004-PI-23	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-23	MICHIGAN	115	KALEY	115	1	11						
2004-PI-23	MICHIGAN	115	GRANT	115	1	11						
2004-PI-23	PERSHING	115	GRANT	115	1	11						
2004-PI-23	AMERICA	115	KALEY	115	1	11						
2004-PI-23	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-23	AZALEA	115	BENNETT	115	1	11						
2004-PI-23	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-23	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-23	PASADENA	230	PASADENA	115	1	2						
2004-PI-23	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-23	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-23	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-23	IND RIV	230	IND RIV	115	1	11						
2004-PI-23	LARGO	230	LARGO A	69	1	2						
2004-PI-23	SHELD	230	SHELD-NW	69	1	16						
2004-PI-23	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-23	WINDERME	230	WINDERME	69	1	2						
2004-PI-23	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-23	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-23	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-23	JASPER	115	JASPER	69	1	2						
2004-PI-24	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-24	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-24	IND RIV	230	STANTON	230	1	11						
2004-PI-24	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-24	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-24	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-24	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-24	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-24	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-24	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-24	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-24	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-24	SN PLANT	115	TURNER	115	1	1						
2004-PI-24	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-24	MICHIGAN	115	KALEY	115	1	11						
2004-PI-24	MICHIGAN	115	GRANT	115	1	11						
2004-PI-24	PERSHING	115	GRANT	115	1	11						
2004-PI-24	AMERICA	115	KALEY	115	1	11						
2004-PI-24	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-24	AZALEA	115	BENNETT	115	1	11						
2004-PI-24	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-24	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-24	PASADENA	230	PASADENA	115	1	2						
2004-PI-24	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-24	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-24	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-24	IND RIV	230	IND RIV	115	1	11						
2004-PI-24	LARGO	230	LARGO A	69	1	2						
2004-PI-24	SHELD	230	SHELD-NW	69	1	16						
2004-PI-24	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-24	WINDERME	230	WINDERME	69	1	2						
2004-PI-24	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-24	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-24	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-24	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-25	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-25	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-25	IND RIV	230	STANTON	230	1	11						
2004-PI-25	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-25	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-25	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-25	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-25	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-25	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-25	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-25	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-25	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-25	SN PLANT	115	TURNER	115	1	1						
2004-PI-25	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-25	MICHIGAN	115	KALEY	115	1	11						
2004-PI-25	MICHIGAN	115	GRANT	115	1	11						
2004-PI-25	PERSHING	115	GRANT	115	1	11						
2004-PI-25	AMERICA	115	KALEY	115	1	11						
2004-PI-25	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-25	AZALEA	115	BENNETT	115	1	11						
2004-PI-25	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-25	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-25	PASADENA	230	PASADENA	115	1	2						
2004-PI-25	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-25	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-25	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-25	IND RIV	230	IND RIV	115	1	11						
2004-PI-25	LARGO	230	LARGO A	69	1	2						
2004-PI-25	SHELD	230	SHELD-NW	69	1	16						
2004-PI-25	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-25	WINDERME	230	WINDERME	69	1	2						
2004-PI-25	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-25	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-25	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-25	JASPER	115	JASPER	69	1	2						
2004-PI-26	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-26	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-26	IND RIV	230	STANTON	230	1	11						
2004-PI-26	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-26	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-26	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-26	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-26	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-26	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-26	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-26	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-26	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-26	SN PLANT	115	TURNER	115	1	1						
2004-PI-26	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-26	MICHIGAN	115	KALEY	115	1	11						
2004-PI-26	MICHIGAN	115	GRANT	115	1	11						
2004-PI-26	PERSHING	115	GRANT	115	1	11						
2004-PI-26	AMERICA	115	KALEY	115	1	11						
2004-PI-26	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-26	AZALEA	115	BENNETT	115	1	11						
2004-PI-26	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-26	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-26	PASADENA	230	PASADENA	115	1	2						
2004-PI-26	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-26	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-26	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-26	IND RIV	230	IND RIV	115	1	11						
2004-PI-26	LARGO	230	LARGO A	69	1	2						
2004-PI-26	SHELD	230	SHELD-NW	69	1	16						
2004-PI-26	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-26	WINDERME	230	WINDERME	69	1	2						
2004-PI-26	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-26	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-26	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-26	JASPER	115	JASPER	69	1	2						

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Comparison of Line & Transformer Flows
Following N-1 Disturbances
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100% Load Base Case

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Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-27	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-27	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-27	IND RIV	230	STANTON	230	1	11						
2004-PI-27	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-27	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-27	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-27	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-27	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-27	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-27	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-27	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-27	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-27	SN PLANT	115	TURNER	115	1	1						
2004-PI-27	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-27	MICHIGAN	115	KALEY	115	1	11						
2004-PI-27	MICHIGAN	115	GRANT	115	1	11						
2004-PI-27	PERSHING	115	GRANT	115	1	11						
2004-PI-27	AMERICA	115	KALEY	115	1	11						
2004-PI-27	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-27	AZALEA	115	BENNETT	115	1	11						
2004-PI-27	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-27	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-27	PASADENA	230	PASADENA	115	1	2						
2004-PI-27	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-27	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-27	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-27	IND RIV	230	IND RIV	115	1	11						
2004-PI-27	LARGO	230	LARGO A	69	1	2						
2004-PI-27	SHELD	230	SHELD-NW	69	1	16						
2004-PI-27	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-27	WINDERME	230	WINDERME	69	1	2						
2004-PI-27	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-27	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-27	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-27	JASPER	115	JASPER	69	1	2						
2004-PI-28	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-28	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-28	IND RIV	230	STANTON	230	1	11						
2004-PI-28	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-28	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-28	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-28	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-28	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-28	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-28	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-28	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-28	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-28	SN PLANT	115	TURNER	115	1	1						
2004-PI-28	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-28	MICHIGAN	115	KALEY	115	1	11						
2004-PI-28	MICHIGAN	115	GRANT	115	1	11						
2004-PI-28	PERSHING	115	GRANT	115	1	11						
2004-PI-28	AMERICA	115	KALEY	115	1	11						
2004-PI-28	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-28	AZALEA	115	BENNETT	115	1	11						
2004-PI-28	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-28	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-28	PASADENA	230	PASADENA	115	1	2						
2004-PI-28	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-28	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-28	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-28	IND RIV	230	IND RIV	115	1	11						
2004-PI-28	LARGO	230	LARGO A	69	1	2						
2004-PI-28	SHELD	230	SHELD-NW	69	1	16						
2004-PI-28	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-28	WINDERME	230	WINDERME	69	1	2						
2004-PI-28	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-28	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-28	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-28	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-29	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-29	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-29	IND RIV	230	STANTON	230	1	11						
2004-PI-29	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-29	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-29	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-29	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-29	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-29	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-29	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-29	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-29	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-29	SN PLANT	115	TURNER	115	1	1						
2004-PI-29	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-29	MICHIGAN	115	KALEY	115	1	11						
2004-PI-29	MICHIGAN	115	GRANT	115	1	11						
2004-PI-29	PERSHING	115	GRANT	115	1	11						
2004-PI-29	AMERICA	115	KALEY	115	1	11						
2004-PI-29	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-29	AZALEA	115	BENNETT	115	1	11						
2004-PI-29	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-29	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-29	PASADENA	230	PASADENA	115	1	2						
2004-PI-29	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-29	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-29	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-29	IND RIV	230	IND RIV	115	1	11						
2004-PI-29	LARGO	230	LARGO A	69	1	2						
2004-PI-29	SHELD	230	SHELD-NW	69	1	16						
2004-PI-29	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-29	WINDERME	230	WINDERME	69	1	2						
2004-PI-29	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-29	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-29	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-29	JASPER	115	JASPER	69	1	2						
2004-PI-30	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-30	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-30	IND RIV	230	STANTON	230	1	11						
2004-PI-30	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-30	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-30	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-30	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-30	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-30	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-30	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-30	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-30	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-30	SN PLANT	115	TURNER	115	1	1						
2004-PI-30	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-30	MICHIGAN	115	KALEY	115	1	11						
2004-PI-30	MICHIGAN	115	GRANT	115	1	11						
2004-PI-30	PERSHING	115	GRANT	115	1	11						
2004-PI-30	AMERICA	115	KALEY	115	1	11						
2004-PI-30	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-30	AZALEA	115	BENNETT	115	1	11						
2004-PI-30	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-30	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-30	PASADENA	230	PASADENA	115	1	2						
2004-PI-30	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-30	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-30	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-30	IND RIV	230	IND RIV	115	1	11						
2004-PI-30	LARGO	230	LARGO A	69	1	2						
2004-PI-30	SHELD	230	SHELD-NW	69	1	16						
2004-PI-30	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-30	WINDERME	230	WINDERME	69	1	2						
2004-PI-30	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-30	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-30	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-30	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-31	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-31	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-31	IND RIV	230	STANTON	230	1	11						
2004-PI-31	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-31	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-31	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-31	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-31	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-31	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-31	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-31	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-31	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-31	SN PLANT	115	TURNER	115	1	1						
2004-PI-31	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-31	MICHIGAN	115	KALEY	115	1	11						
2004-PI-31	MICHIGAN	115	GRANT	115	1	11						
2004-PI-31	PERSHING	115	GRANT	115	1	11						
2004-PI-31	AMERICA	115	KALEY	115	1	11						
2004-PI-31	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-31	AZALEA	115	BENNETT	115	1	11						
2004-PI-31	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-31	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-31	PASADENA	230	PASADENA	115	1	2						
2004-PI-31	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-31	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-31	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-31	IND RIV	230	IND RIV	115	1	11						
2004-PI-31	LARGO	230	LARGO A	69	1	2						
2004-PI-31	SHELD	230	SHELD-NW	69	1	16						
2004-PI-31	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-31	WINDERME	230	WINDERME	69	1	2						
2004-PI-31	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-31	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-31	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-31	JASPER	115	JASPER	69	1	2						
2004-PI-32	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-32	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-32	IND RIV	230	STANTON	230	1	11						
2004-PI-32	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-32	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-32	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-32	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-32	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-32	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-32	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-32	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-32	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-32	SN PLANT	115	TURNER	115	1	1						
2004-PI-32	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-32	MICHIGAN	115	KALEY	115	1	11						
2004-PI-32	MICHIGAN	115	GRANT	115	1	11						
2004-PI-32	PERSHING	115	GRANT	115	1	11						
2004-PI-32	AMERICA	115	KALEY	115	1	11						
2004-PI-32	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-32	AZALEA	115	BENNETT	115	1	11						
2004-PI-32	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-32	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-32	PASADENA	230	PASADENA	115	1	2						
2004-PI-32	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-32	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-32	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-32	IND RIV	230	IND RIV	115	1	11						
2004-PI-32	LARGO	230	LARGO A	69	1	2						
2004-PI-32	SHELD	230	SHELD-NW	69	1	16						
2004-PI-32	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-32	WINDERME	230	WINDERME	69	1	2						
2004-PI-32	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-32	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-32	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-32	JASPER	115	JASPER	69	1	2						

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Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-33	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-33	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-33	IND RIV	230	STANTON	230	1	11						
2004-PI-33	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-33	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-33	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-33	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-33	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-33	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-33	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-33	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-33	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-33	SN PLANT	115	TURNER	115	1	1						
2004-PI-33	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-33	MICHIGAN	115	KALEY	115	1	11						
2004-PI-33	MICHIGAN	115	GRANT	115	1	11						
2004-PI-33	PERSHING	115	GRANT	115	1	11						
2004-PI-33	AMERICA	115	KALEY	115	1	11						
2004-PI-33	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-33	AZALEA	115	BENNETT	115	1	11						
2004-PI-33	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-33	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-33	PASADENA	230	PASADENA	115	1	2						
2004-PI-33	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-33	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-33	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-33	IND RIV	230	IND RIV	115	1	11						
2004-PI-33	LARGO	230	LARGO A	69	1	2						
2004-PI-33	SHELD	230	SHELD-NW	69	1	16						
2004-PI-33	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-33	WINDERME	230	WINDERME	69	1	2						
2004-PI-33	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-33	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-33	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-33	JASPER	115	JASPER	69	1	2						
2004-PI-34	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-34	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-34	IND RIV	230	STANTON	230	1	11						
2004-PI-34	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-34	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-34	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-34	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-34	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-34	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-34	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-34	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-34	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-34	SN PLANT	115	TURNER	115	1	1						
2004-PI-34	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-34	MICHIGAN	115	KALEY	115	1	11						
2004-PI-34	MICHIGAN	115	GRANT	115	1	11						
2004-PI-34	PERSHING	115	GRANT	115	1	11						
2004-PI-34	AMERICA	115	KALEY	115	1	11						
2004-PI-34	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-34	AZALEA	115	BENNETT	115	1	11						
2004-PI-34	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-34	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-34	PASADENA	230	PASADENA	115	1	2						
2004-PI-34	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-34	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-34	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-34	IND RIV	230	IND RIV	115	1	11						
2004-PI-34	LARGO	230	LARGO A	69	1	2						
2004-PI-34	SHELD	230	SHELD-NW	69	1	16						
2004-PI-34	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-34	WINDERME	230	WINDERME	69	1	2						
2004-PI-34	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-34	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-34	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-34	JASPER	115	JASPER	69	1	2						

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Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-PI Base No NSB Gen	Case 2004-PIA Sell to FPL	Case 2004-PIB Sell to FPC	Case 2004-PIC Sell to TEC	Case 2004-PID Sell to JEA	Case 2004-PIE Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-PI-35	SN PLANT	230	SYLVAN	230	1	1						
2004-PI-35	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-35	IND RIV	230	STANTON	230	1	11						
2004-PI-35	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-35	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-35	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-35	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-35	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-35	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-35	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-35	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-35	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-35	SN PLANT	115	TURNER	115	1	1						
2004-PI-35	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-35	MICHIGAN	115	KALEY	115	1	11						
2004-PI-35	MICHIGAN	115	GRANT	115	1	11						
2004-PI-35	PERSHING	115	GRANT	115	1	11						
2004-PI-35	AMERICA	115	KALEY	115	1	11						
2004-PI-35	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-35	AZALEA	115	BENNETT	115	1	11						
2004-PI-35	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-35	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-35	PASADENA	230	PASADENA	115	1	2						
2004-PI-35	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-35	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-35	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-35	IND RIV	230	IND RIV	115	1	11						
2004-PI-35	LARGO	230	LARGO A	69	1	2						
2004-PI-35	SHELD	230	SHELD-NW	69	1	16						
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2004-PI-35	WINDERME	230	WINDERME	69	1	2						
2004-PI-35	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-35	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-35	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-35	JASPER	115	JASPER	69	1	2						
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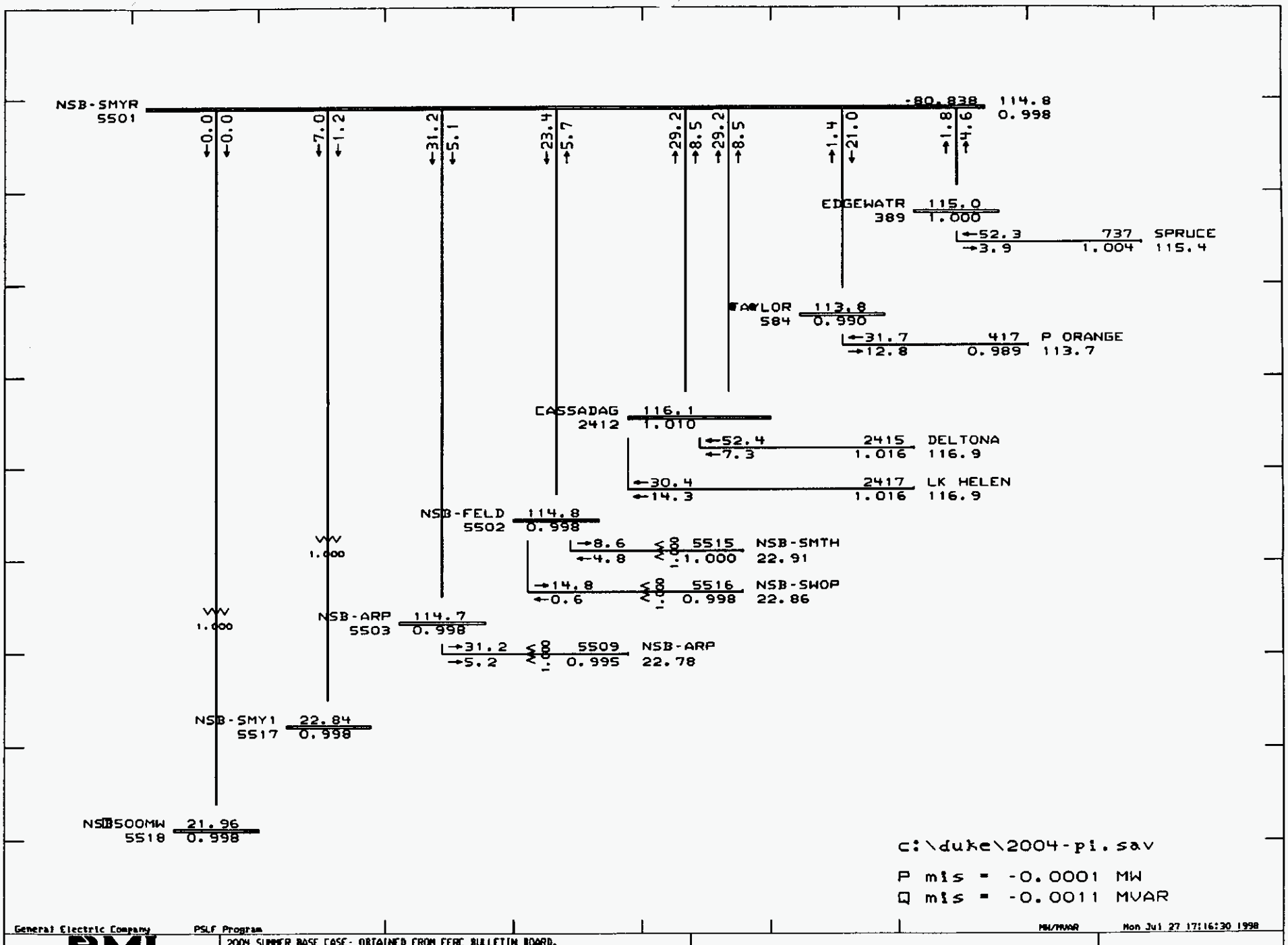
2004-PI-36	SYLVAN	230	N LONGWD	230	1	1						
2004-PI-36	IND RIV	230	STANTON	230	1	11						
2004-PI-36	SILVR SP	230	SILV SPN	230	1	2						
2004-PI-36	SILVR SP	230	SILV SPN	230	2	2						
2004-PI-36	RIO PINR	230	CURRY FD	230	1	2						
2004-PI-36	JUNEAU-W	138	GANNON	138	1	16						
2004-PI-36	NSB-SMYR	115	CASSADAG	115	1	2						
2004-PI-36	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-PI-36	NSB-SMYR	115	TAYLOR	115	1	1						
2004-PI-36	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-PI-36	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-PI-36	SN PLANT	115	TURNER	115	1	1						
2004-PI-36	PASADENA	115	40ST-DUM	115	1	2						
2004-PI-36	MICHIGAN	115	KALEY	115	1	11						
2004-PI-36	MICHIGAN	115	GRANT	115	1	11						
2004-PI-36	PERSHING	115	GRANT	115	1	11						
2004-PI-36	AMERICA	115	KALEY	115	1	11						
2004-PI-36	JASPER	115	WGHTCHPL	115	1	2						
2004-PI-36	AZALEA	115	BENNETT	115	1	11						
2004-PI-36	FLORALTP	69	INVERNTP	69	1	2						
2004-PI-36	ALACH TP	69	HIGH SPG	69	1	2						
2004-PI-36	PASADENA	230	PASADENA	115	1	2						
2004-PI-36	SUWANNEE	230	SUWANNEE	115	1	2						
2004-PI-36	SUWANNEE	230	SUWANNEE	115	2	2						
2004-PI-36	E CLRWTR	230	E CLRWTR	115	1	2						
2004-PI-36	IND RIV	230	IND RIV	115	1	11						
2004-PI-36	LARGO	230	LARGO A	69	1	2						
2004-PI-36	SHELD	230	SHELD-NW	69	1	16						
2004-PI-36	CLMT EST	230	CLMT EST	69	1	2						
2004-PI-36	WINDERME	230	WINDERME	69	1	2						
2004-PI-36	RIVER-S	230	RIVER-S	69	1	16						
2004-PI-36	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-PI-36	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-PI-36	JASPER	115	JASPER	69	1	2						

APPENDIX II-A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CASSADAG 116.1
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7.3 1.016 116.9
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14.3 1.016 116.9
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4.8 1.000 22.91
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General Electric Company
PSLF Program
MW/MVAR
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RESOURCE MANAGEMENT INTERNATIONAL INC.
2004 SUMMER BASE CASE- OBTAINED FROM FERC BULLETIN BOARD.
ADDED GENERATION @ FTMYERS & SANFORD. NSB500MW PLANT IN SERVICE IN 2001!
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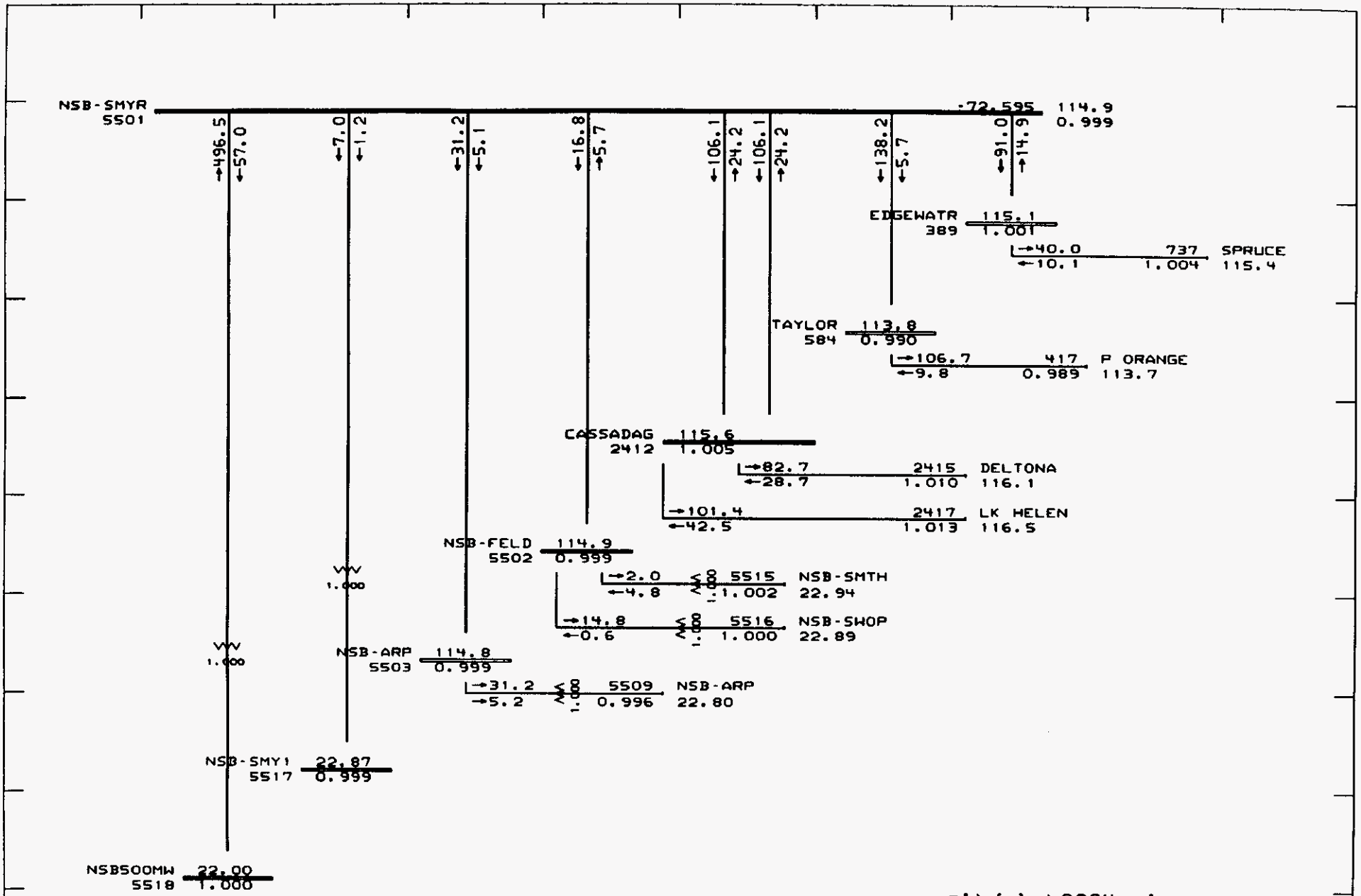
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24.2
106.1
24.2
138.2
5.7
91.0
14.9
EDGEWATR
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115.1
1.001
40.0
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737
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SPRUCE
115.4
TAYLOR
584
113.8
0.990
106.7
9.8
417
0.989
P ORANGE
113.7
CASSADAG
2412
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1.005
82.7
28.7
2415
1.010
DELTONA
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1.013
LK HELEN
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2.0
4.8
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1.002
NSB-SMTH
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0.6
5516
1.000
NSB-SWOP
22.89
1.000
1.000
NSB-ARP
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5.2
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General Electric Company
PSLF Program
MW/MVAR
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2004 SUMMER BASE CASE - FY9697 - FINAL REV.
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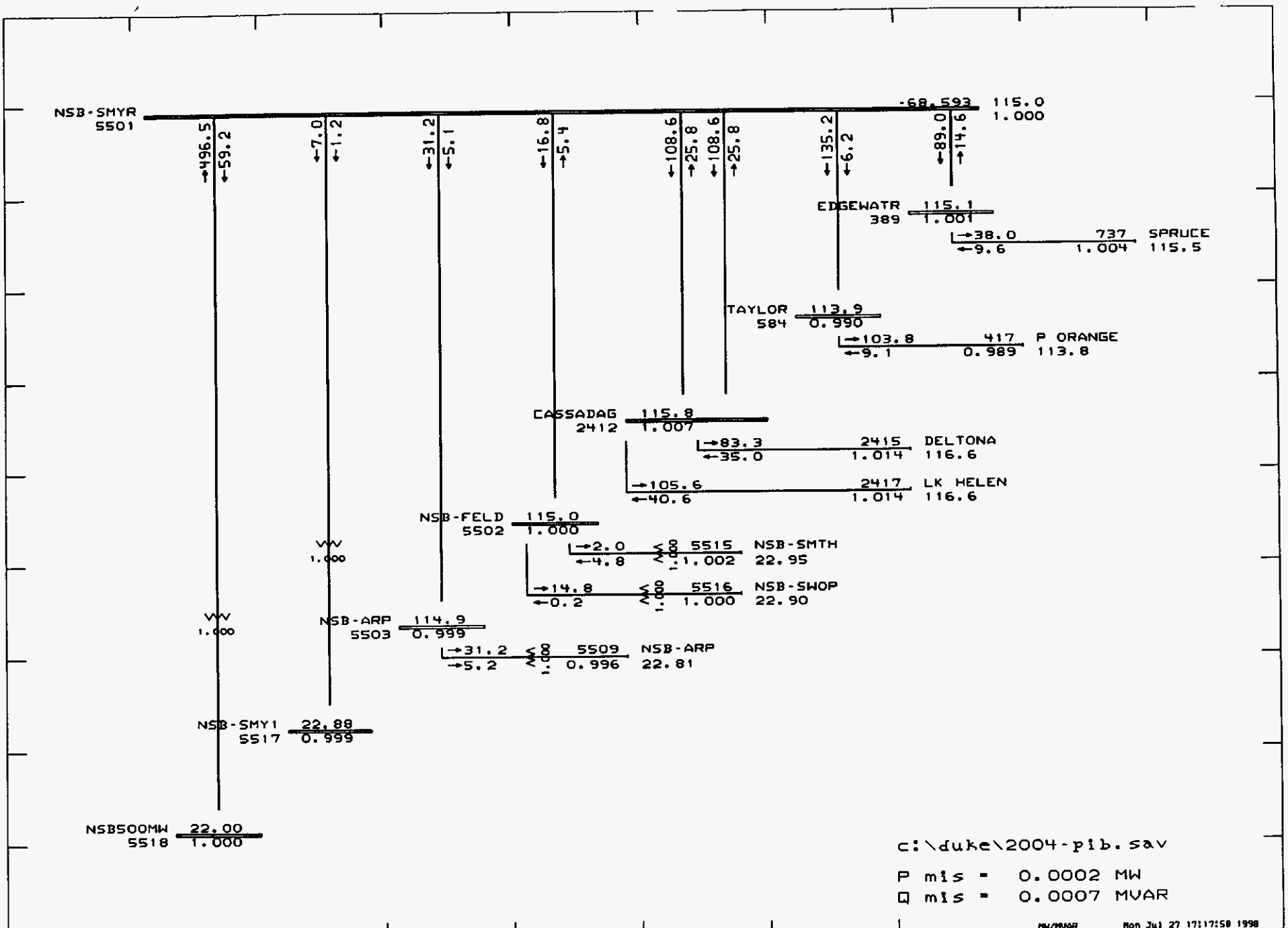
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25.8
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9.6
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1.004
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9.1
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1.014
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2.0
4.8
1.000
5515
1.002
NSB-SMTH
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14.8
0.2
1.000
5516
1.000
NSB-SWOP
22.90
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5.2
1.000
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PSLF Program
MW/MVAR
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RMI
RESOURCE MANAGEMENT INTERNATIONAL, INC.
2004 SUMMER BASE CASE - FY9697 - FINAL REV.
CASE OBTAINED FROM FERC BULLETIN BOARD. MODIFIED TO REFLECT ADDITION OF
GENERATION AT FTMYERS (2002) & AT SANFORD (2004) AND ASSOCIATED
TRANSMISSIONS. NSB 500MW PLANT ASSUMED IN SERVICE IN FY 2001!
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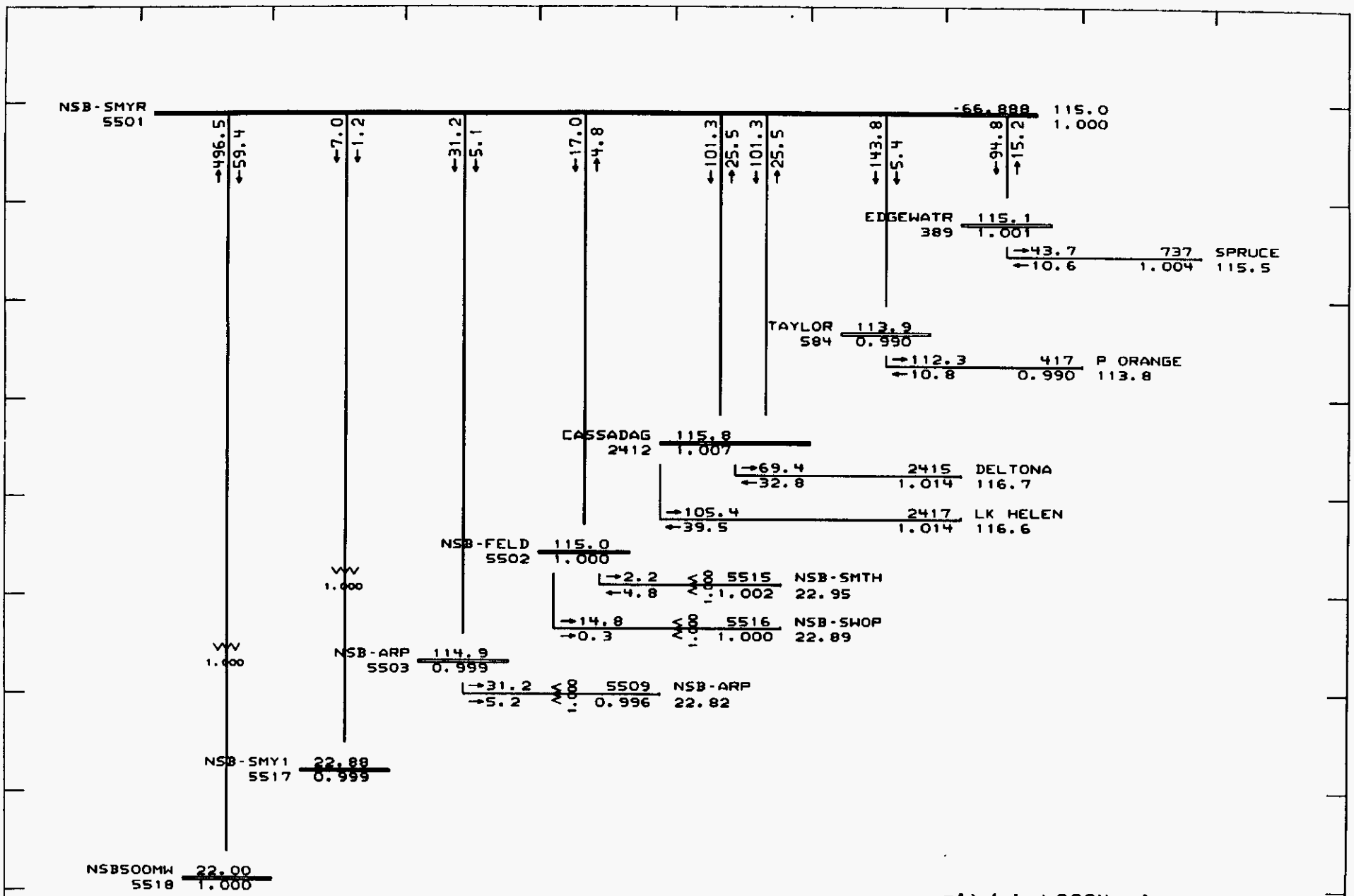

General Electric Company PSLF Program MW/MVAR Mon Jul 27 17:18:30 1998

RMI Resource Management International, Inc.

2004 SUMMER BASE CASE - FY9697 - FINAL REV.
CASE OBTAINED FROM FERC BULLETIN BOARD. MODIFIED TO REFLECT ADDITION OF GENERATION AT FTMYERS (2002) & AT SANFORD (2004) AND ASSOCIATED TRANSMISSIONS. NSB 500MW PLANT ASSUMED IN SERVICE IN FY 2011

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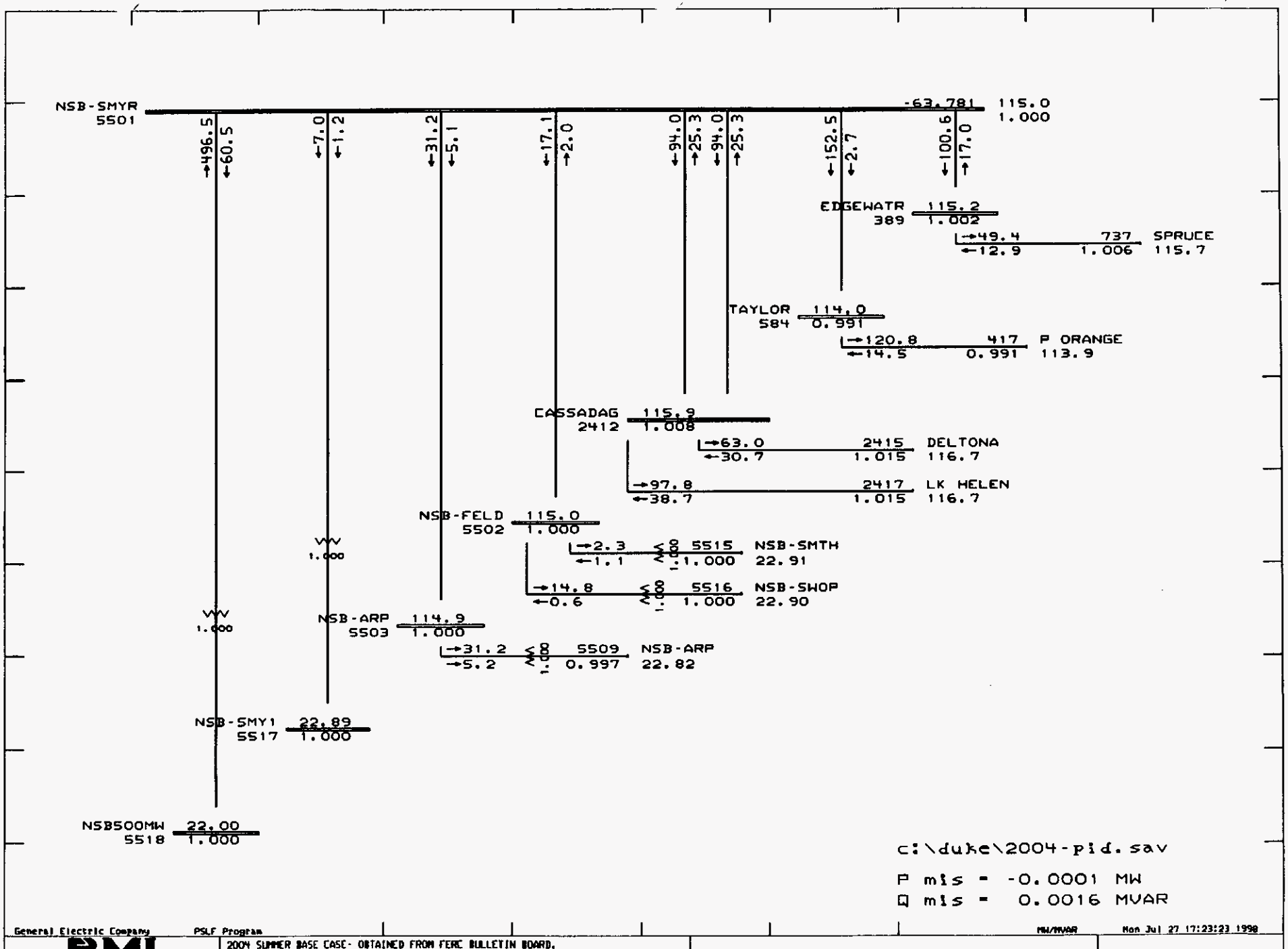
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←25.3
→94.0
←25.3
→152.5
←2.7
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737
1.006
SPRUCE
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P ORANGE
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DELTONA
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NSB-FELD 115.0
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←1.1
5515
1.000
NSB-SMTH
22.91
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NSB-SWOP
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1.000
NSB-ARP 114.9
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NSB500MW 22.00
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PSLF Program
MW/MVAR
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RMI
RESOURCE MANAGEMENT INTERNATIONAL INC.
2004 SUMMER BASE CASE- OBTAINED FROM FERC BULLETIN BOARD.
ADDED GENERATION @ FTMYERS & SANFORD. NSB500MW PLANT IN SERVICE IN 2001!
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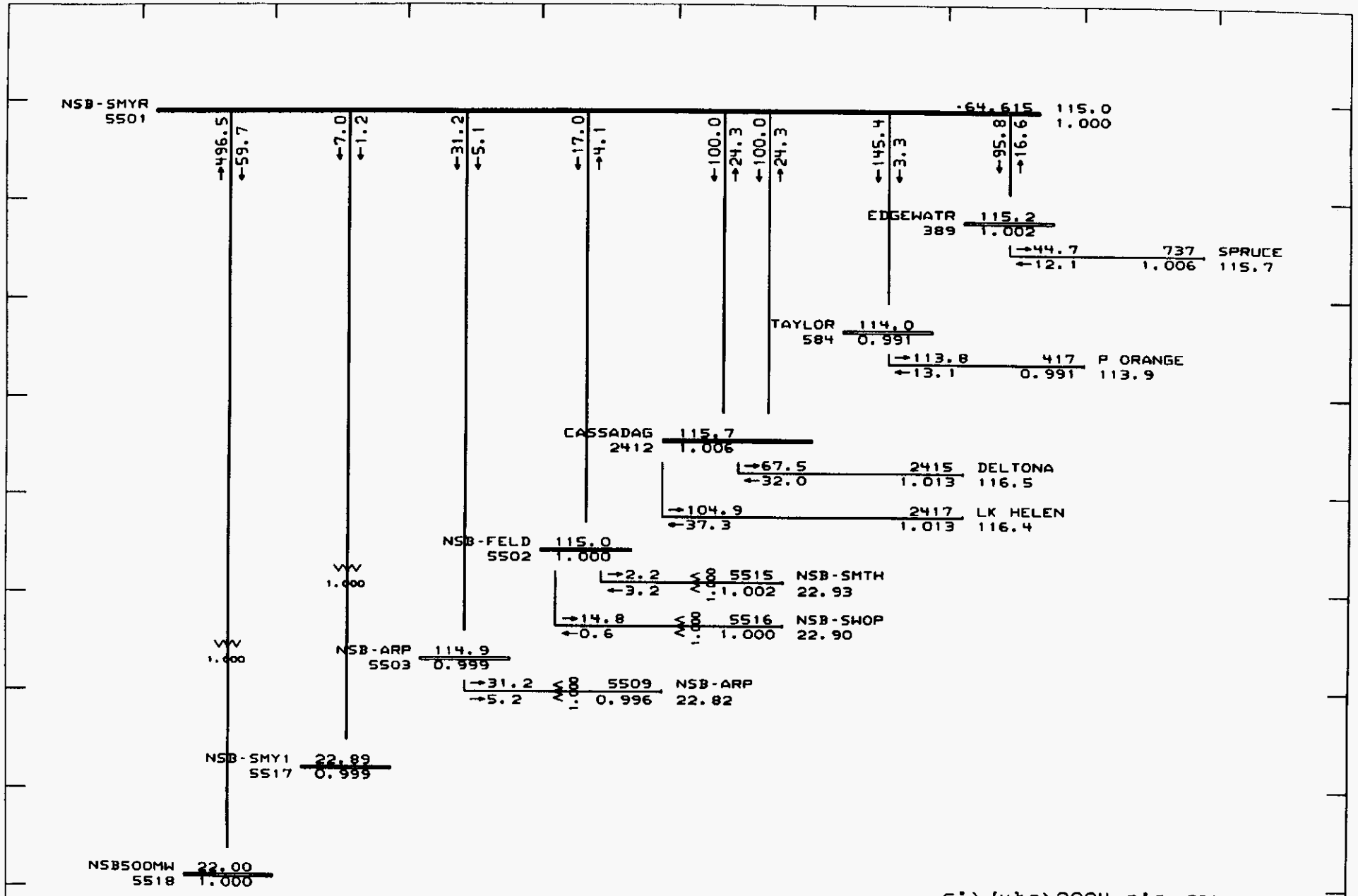
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←100.0 →24.3
←145.4 →3.3
←95.8 →16.6
EDGEWATR 115.2
389 1.002
→44.7 ←12.1
737 1.006
SPRUCE 115.7
TAYLOR 114.0
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→113.8 ←13.1
417 0.991
P ORANGE 113.9
CASSADAG 115.7
2412 1.006
→67.5 ←32.0
2415 1.013
DELTONA 116.5
→104.9 ←37.3
2417 1.013
LK HELEN 116.4
NSB-FELD 115.0
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NSB-SMTH 22.93
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1.000
1.000
NSB-ARP 114.9
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→31.2 →5.2
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NSB-SMY1 22.89
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NSB500MW 22.00
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PSLF Program
MW/MVAR
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RMI
RESOURCE MANAGEMENT INTERNATIONAL, INC.
2004 SUMMER BASE CASE- OBTAINED FROM FERC BULLETIN BOARD.
ADDED GENERATION @ FTMYERS & SANFORD. NSB500MW PLANT IN SERVICE IN 2001
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APPENDIX III

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-1	SN PLANT	230	SYLVAN	230	1	1						
2004-1	SYLVAN	230	N LONGWD	230	1	1						
2004-1	IND RIV	230	STANTON	230	1	11						
2004-1	SILVR SP	230	SILV SPN	230	1	2						
2004-1	SILVR SP	230	SILV SPN	230	2	2						
2004-1	RIO PINR	230	CURRY FD	230	1	2						
2004-1	JUNEAU-W	138	GANNON	138	1	16						
2004-1	NSB-SMYR	115	CASSADAG	115	1	2						
2004-1	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-1	NSB-SMYR	115	TAYLOR	115	1	1						
2004-1	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-1	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-1	SN PLANT	115	TURNER	115	1	1						
2004-1	PASADENA	115	40ST-DUM	115	1	2						
2004-1	MICHIGAN	115	KALEY	115	1	11						
2004-1	MICHIGAN	115	GRANT	115	1	11						
2004-1	PERSHING	115	GRANT	115	1	11						
2004-1	AMERICA	115	KALEY	115	1	11						
2004-1	JASPER	115	WGHTCHPL	115	1	2						
2004-1	AZALEA	115	BENNETT	115	1	11						
2004-1	FLORALTP	69	INVERNTP	69	1	2						
2004-1	ALACH TP	69	HIGH SPG	69	1	2						
2004-1	PASADENA	230	PASADENA	115	1	2						
2004-1	SUWANNEE	230	SUWANNEE	115	1	2						
2004-1	SUWANNEE	230	SUWANNEE	115	2	2						
2004-1	E CLRWTR	230	E CLRWTR	115	1	2						
2004-1	IND RIV	230	IND RIV	115	1	11						
2004-1	LARGO	230	LARGO A	69	1	2						
2004-1	SHELD	230	SHELD-NW	69	1	16						
2004-1	CLMT EST	230	CLMT EST	69	1	2						
2004-1	WINDERME	230	WINDERME	69	1	2						
2004-1	RIVER-S	230	RIVER-S	69	1	16						
2004-1	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-1	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-1	JASPER	115	JASPER	69	1	2						
2004-2	SN PLANT	230	SYLVAN	230	1	1						
2004-2	SYLVAN	230	N LONGWD	230	1	1						
2004-2	IND RIV	230	STANTON	230	1	11						
2004-2	SILVR SP	230	SILV SPN	230	1	2						
2004-2	SILVR SP	230	SILV SPN	230	2	2						
2004-2	RIO PINR	230	CURRY FD	230	1	2						
2004-2	JUNEAU-W	138	GANNON	138	1	16						
2004-2	NSB-SMYR	115	CASSADAG	115	1	2						
2004-2	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-2	NSB-SMYR	115	TAYLOR	115	1	1					104.6	101.5
2004-2	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-2	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-2	SN PLANT	115	TURNER	115	1	1						
2004-2	PASADENA	115	40ST-DUM	115	1	2						
2004-2	MICHIGAN	115	KALEY	115	1	11						
2004-2	MICHIGAN	115	GRANT	115	1	11						
2004-2	PERSHING	115	GRANT	115	1	11						
2004-2	AMERICA	115	KALEY	115	1	11						
2004-2	JASPER	115	WGHTCHPL	115	1	2						
2004-2	AZALEA	115	BENNETT	115	1	11						
2004-2	FLORALTP	69	INVERNTP	69	1	2						
2004-2	ALACH TP	69	HIGH SPG	69	1	2						
2004-2	PASADENA	230	PASADENA	115	1	2						
2004-2	SUWANNEE	230	SUWANNEE	115	1	2						
2004-2	SUWANNEE	230	SUWANNEE	115	2	2						
2004-2	E CLRWTR	230	E CLRWTR	115	1	2						
2004-2	IND RIV	230	IND RIV	115	1	11						
2004-2	LARGO	230	LARGO A	69	1	2						
2004-2	SHELD	230	SHELD-NW	69	1	16						
2004-2	CLMT EST	230	CLMT EST	69	1	2						
2004-2	WINDERME	230	WINDERME	69	1	2						
2004-2	RIVER-S	230	RIVER-S	69	1	16						
2004-2	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-2	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-2	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-3	SN PLANT	230	SYLVAN	230	1	1						
2004-3	SYLVAN	230	N LONGWD	230	1	1						
2004-3	IND RIV	230	STANTON	230	1	11						
2004-3	SILVR SP	230	SILV SPN	230	1	2						
2004-3	SILVR SP	230	SILV SPN	230	2	2						
2004-3	RIO PINR	230	CURRY FD	230	1	2						
2004-3	JUNEAU-W	138	GANNON	138	1	16						
2004-3	NSB-SMYR	115	CASSADAG	115	1	2						
2004-3	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-3	NSB-SMYR	115	TAYLOR	115	1	1						
2004-3	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-3	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-3	SN PLANT	115	TURNER	115	1	1						
2004-3	PASADENA	115	40ST-DUM	115	1	2						
2004-3	MICHIGAN	115	KALEY	115	1	11						
2004-3	MICHIGAN	115	GRANT	115	1	11						
2004-3	PERSHING	115	GRANT	115	1	11						
2004-3	AMERICA	115	KALEY	115	1	11						
2004-3	JASPER	115	WGHTCHPL	115	1	2						
2004-3	AZALEA	115	BENNETT	115	1	11						
2004-3	FLORALTP	69	INVERNTP	69	1	2						
2004-3	ALACH TP	69	HIGH SPG	69	1	2						
2004-3	PASADENA	230	PASADENA	115	1	2						
2004-3	SUWANNEE	230	SUWANNEE	115	1	2						
2004-3	SUWANNEE	230	SUWANNEE	115	2	2						
2004-3	E CLRWTR	230	E CLRWTR	115	1	2						
2004-3	IND RIV	230	IND RIV	115	1	11						
2004-3	LARGO	230	LARGO A	69	1	2						
2004-3	SHELD	230	SHELD-NW	69	1	16						
2004-3	CLMT EST	230	CLMT EST	69	1	2						
2004-3	WINDERME	230	WINDERME	69	1	2						
2004-3	RIVER-S	230	RIVER-S	69	1	16						
2004-3	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-3	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-3	JASPER	115	JASPER	69	1	2						
2004-4	SN PLANT	230	SYLVAN	230	1	1						
2004-4	SYLVAN	230	N LONGWD	230	1	1						
2004-4	IND RIV	230	STANTON	230	1	11						
2004-4	SILVR SP	230	SILV SPN	230	1	2						
2004-4	SILVR SP	230	SILV SPN	230	2	2						
2004-4	RIO PINR	230	CURRY FD	230	1	2						
2004-4	JUNEAU-W	138	GANNON	138	1	16						
2004-4	NSB-SMYR	115	CASSADAG	115	1	2						
2004-4	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-4	NSB-SMYR	115	TAYLOR	115	1	1						
2004-4	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-4	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-4	SN PLANT	115	TURNER	115	1	1						
2004-4	PASADENA	115	40ST-DUM	115	1	2						
2004-4	MICHIGAN	115	KALEY	115	1	11						
2004-4	MICHIGAN	115	GRANT	115	1	11						
2004-4	PERSHING	115	GRANT	115	1	11						
2004-4	AMERICA	115	KALEY	115	1	11						
2004-4	JASPER	115	WGHTCHPL	115	1	2						
2004-4	AZALEA	115	BENNETT	115	1	11						
2004-4	FLORALTP	69	INVERNTP	69	1	2						
2004-4	ALACH TP	69	HIGH SPG	69	1	2						
2004-4	PASADENA	230	PASADENA	115	1	2						
2004-4	SUWANNEE	230	SUWANNEE	115	1	2						
2004-4	SUWANNEE	230	SUWANNEE	115	2	2						
2004-4	E CLRWTR	230	E CLRWTR	115	1	2						
2004-4	IND RIV	230	IND RIV	115	1	11						
2004-4	LARGO	230	LARGO A	69	1	2						
2004-4	SHELD	230	SHELD-NW	69	1	16						
2004-4	CLMT EST	230	CLMT EST	69	1	2						
2004-4	WINDERME	230	WINDERME	69	1	2						
2004-4	RIVER-S	230	RIVER-S	69	1	16						
2004-4	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-4	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-4	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-5	SN PLANT	230	SYLVAN	230	1	1						
2004-5	SYLVAN	230	N LONGWD	230	1	1						
2004-5	IND RIV	230	STANTON	230	1	11						
2004-5	SILVR SP	230	SILV SPN	230	1	2						
2004-5	SILVR SP	230	SILV SPN	230	2	2						
2004-5	RIO PINR	230	CURRY FD	230	1	2						
2004-5	JUNEAU-W	138	GANNON	138	1	16						
2004-5	NSB-SMYR	115	CASSADAG	115	1	2						
2004-5	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-5	NSB-SMYR	115	TAYLOR	115	1	1						
2004-5	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-5	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-5	SN PLANT	115	TURNER	115	1	1						
2004-5	PASADENA	115	40ST-DUM	115	1	2						
2004-5	MICHIGAN	115	KALEY	115	1	11						
2004-5	MICHIGAN	115	GRANT	115	1	11						
2004-5	PERSHING	115	GRANT	115	1	11						
2004-5	AMERICA	115	KALEY	115	1	11						
2004-5	JASPER	115	WGHTCHPL	115	1	2						
2004-5	AZALEA	115	BENNETT	115	1	11						
2004-5	FLORALTP	69	INVERNTP	69	1	2						
2004-5	ALACH TP	69	HIGH SPG	69	1	2						
2004-5	PASADENA	230	PASADENA	115	1	2						
2004-5	SUWANNEE	230	SUWANNEE	115	1	2						
2004-5	SUWANNEE	230	SUWANNEE	115	2	2						
2004-5	E CLRWTR	230	E CLRWTR	115	1	2						
2004-5	IND RIV	230	IND RIV	115	1	11						
2004-5	LARGO	230	LARGO A	69	1	2						
2004-5	SHELD	230	SHELD-NW	69	1	16						
2004-5	CLMT EST	230	CLMT EST	69	1	2						
2004-5	WINDERME	230	WINDERME	69	1	2						
2004-5	RIVER-S	230	RIVER-S	69	1	16						
2004-5	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-5	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-5	JASPER	115	JASPER	69	1	2						
2004-6	SN PLANT	230	SYLVAN	230	1	1						
2004-6	SYLVAN	230	N LONGWD	230	1	1						
2004-6	IND RIV	230	STANTON	230	1	11						
2004-6	SILVR SP	230	SILV SPN	230	1	2						
2004-6	SILVR SP	230	SILV SPN	230	2	2						
2004-6	RIO PINR	230	CURRY FD	230	1	2						
2004-6	JUNEAU-W	138	GANNON	138	1	16						
2004-6	NSB-SMYR	115	CASSADAG	115	1	2						
2004-6	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-6	NSB-SMYR	115	TAYLOR	115	1	1						
2004-6	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-6	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-6	SN PLANT	115	TURNER	115	1	1						
2004-6	PASADENA	115	40ST-DUM	115	1	2						
2004-6	MICHIGAN	115	KALEY	115	1	11						
2004-6	MICHIGAN	115	GRANT	115	1	11						
2004-6	PERSHING	115	GRANT	115	1	11						
2004-6	AMERICA	115	KALEY	115	1	11						
2004-6	JASPER	115	WGHTCHPL	115	1	2						
2004-6	AZALEA	115	BENNETT	115	1	11						
2004-6	FLORALTP	69	INVERNTP	69	1	2						
2004-6	ALACH TP	69	HIGH SPG	69	1	2						
2004-6	PASADENA	230	PASADENA	115	1	2						
2004-6	SUWANNEE	230	SUWANNEE	115	1	2						
2004-6	SUWANNEE	230	SUWANNEE	115	2	2						
2004-6	E CLRWTR	230	E CLRWTR	115	1	2						
2004-6	IND RIV	230	IND RIV	115	1	11						
2004-6	LARGO	230	LARGO A	69	1	2						
2004-6	SHELD	230	SHELD-NW	69	1	16						
2004-6	CLMT EST	230	CLMT EST	69	1	2						
2004-6	WINDERME	230	WINDERME	69	1	2						
2004-6	RIVER-S	230	RIVER-S	69	1	16						
2004-6	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-6	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-6	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004 *Base* No NSB Gen	Case 2004A *Sell to* FPL	Case 2004B *Sell to* FPC	Case 2004C *Sell to* TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-7	SN PLANT	230	SYLVAN	230	1	1						
2004-7	SYLVAN	230	N LONGWD	230	1	1						
2004-7	IND RIV	230	STANTON	230	1	11						
2004-7	SILVR SP	230	SILV SPN	230	1	2						
2004-7	SILVR SP	230	SILV SPN	230	2	2						
2004-7	RIO PINR	230	CURRY FD	230	1	2						
2004-7	JUNEAU-W	138	GANNON	138	1	16						
2004-7	NSB-SMYR	115	CASSADAG	115	1	2						
2004-7	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-7	NSB-SMYR	115	TAYLOR	115	1	1						
2004-7	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-7	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-7	SN PLANT	115	TURNER	115	1	1						
2004-7	PASADENA	115	40ST-DUM	115	1	2						
2004-7	MICHIGAN	115	KALEY	115	1	11						
2004-7	MICHIGAN	115	GRANT	115	1	11						
2004-7	PERSHING	115	GRANT	115	1	11						
2004-7	AMERICA	115	KALEY	115	1	11						
2004-7	JASPER	115	WGHTCHPL	115	1	2						
2004-7	AZALEA	115	BENNETT	115	1	11						
2004-7	FLORALTP	69	INVERNTP	69	1	2						
2004-7	ALACH TP	69	HIGH SPG	69	1	2						
2004-7	PASADENA	230	PASADENA	115	1	2						
2004-7	SUWANNEE	230	SUWANNEE	115	1	2						
2004-7	SUWANNEE	230	SUWANNEE	115	2	2						
2004-7	E CLRWTR	230	E CLRWTR	115	1	2						
2004-7	IND RIV	230	IND RIV	115	1	11						
2004-7	LARGO	230	LARGO A	69	1	2						
2004-7	SHELD	230	SHELD-NW	69	1	16						
2004-7	CLMT EST	230	CLMT EST	69	1	2						
2004-7	WINDERME	230	WINDERME	69	1	2						
2004-7	RIVER-S	230	RIVER-S	69	1	16						
2004-7	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-7	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-7	JASPER	115	JASPER	69	1	2						
2004-8	SN PLANT	230	SYLVAN	230	1	1						
2004-8	SYLVAN	230	N LONGWD	230	1	1						
2004-8	IND RIV	230	STANTON	230	1	11						
2004-8	SILVR SP	230	SILV SPN	230	1	2						
2004-8	SILVR SP	230	SILV SPN	230	2	2						
2004-8	RIO PINR	230	CURRY FD	230	1	2						
2004-8	JUNEAU-W	138	GANNON	138	1	16						
2004-8	NSB-SMYR	115	CASSADAG	115	1	2						
2004-8	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-8	NSB-SMYR	115	TAYLOR	115	1	1						
2004-8	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-8	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-8	SN PLANT	115	TURNER	115	1	1						
2004-8	PASADENA	115	40ST-DUM	115	1	2						
2004-8	MICHIGAN	115	KALEY	115	1	11						
2004-8	MICHIGAN	115	GRANT	115	1	11						
2004-8	PERSHING	115	GRANT	115	1	11						
2004-8	AMERICA	115	KALEY	115	1	11						
2004-8	JASPER	115	WGHTCHPL	115	1	2						
2004-8	AZALEA	115	BENNETT	115	1	11						
2004-8	FLORALTP	69	INVERNTP	69	1	2						
2004-8	ALACH TP	69	HIGH SPG	69	1	2						
2004-8	PASADENA	230	PASADENA	115	1	2						
2004-8	SUWANNEE	230	SUWANNEE	115	1	2						
2004-8	SUWANNEE	230	SUWANNEE	115	2	2						
2004-8	E CLRWTR	230	E CLRWTR	115	1	2						
2004-8	IND RIV	230	IND RIV	115	1	11						
2004-8	LARGO	230	LARGO A	69	1	2						
2004-8	SHELD	230	SHELD-NW	69	1	16						
2004-8	CLMT EST	230	CLMT EST	69	1	2						
2004-8	WINDERME	230	WINDERME	69	1	2						
2004-8	RIVER-S	230	RIVER-S	69	1	16						
2004-8	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-8	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-8	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows Following N-1 Disturbances for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-9	SN PLANT	230	SYLVAN	230	1	1						
2004-9	SYLVAN	230	N LONGWD	230	1	1						
2004-9	IND RIV	230	STANTON	230	1	11						
2004-9	SILVR SP	230	SILV SPN	230	1	2						
2004-9	SILVR SP	230	SILV SPN	230	2	2						
2004-9	RIO PINR	230	CURRY FD	230	1	2						
2004-9	JUNEAU-W	138	GANNON	138	1	16						
2004-9	NSB-SMYR	115	CASSADAG	115	1	2						
2004-9	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-9	NSB-SMYR	115	TAYLOR	115	1	1						
2004-9	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-9	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-9	SN PLANT	115	TURNER	115	1	1						
2004-9	PASADENA	115	40ST-DUM	115	1	2						
2004-9	MICHIGAN	115	KALEY	115	1	11						
2004-9	MICHIGAN	115	GRANT	115	1	11						
2004-9	PERSHING	115	GRANT	115	1	11						
2004-9	AMERICA	115	KALEY	115	1	11						
2004-9	JASPER	115	WGHTCHPL	115	1	2						
2004-9	AZALEA	115	BENNETT	115	1	11						
2004-9	FLORALTP	69	INVERNTP	69	1	2						
2004-9	ALACH TP	69	HIGH SPG	69	1	2						
2004-9	PASADENA	230	PASADENA	115	1	2						
2004-9	SUWANNEE	230	SUWANNEE	115	1	2						
2004-9	SUWANNEE	230	SUWANNEE	115	2	2						
2004-9	E CLRWTR	230	E CLRWTR	115	1	2						
2004-9	IND RIV	230	IND RIV	115	1	11						
2004-9	LARGO	230	LARGO A	69	1	2						
2004-9	SHELD	230	SHELD-NW	69	1	16						
2004-9	CLMT EST	230	CLMT EST	69	1	2						
2004-9	WINDERME	230	WINDERME	69	1	2						
2004-9	RIVER-S	230	RIVER-S	69	1	16						
2004-9	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-9	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-9	JASPER	115	JASPER	69	1	2						
2004-10	SN PLANT	230	SYLVAN	230	1	1						
2004-10	SYLVAN	230	N LONGWD	230	1	1						
2004-10	IND RIV	230	STANTON	230	1	11						
2004-10	SILVR SP	230	SILV SPN	230	1	2						
2004-10	SILVR SP	230	SILV SPN	230	2	2						
2004-10	RIO PINR	230	CURRY FD	230	1	2						
2004-10	JUNEAU-W	138	GANNON	138	1	16						
2004-10	NSB-SMYR	115	CASSADAG	115	1	2						
2004-10	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-10	NSB-SMYR	115	TAYLOR	115	1	1						
2004-10	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-10	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-10	SN PLANT	115	TURNER	115	1	1						
2004-10	PASADENA	115	40ST-DUM	115	1	2						
2004-10	MICHIGAN	115	KALEY	115	1	11						
2004-10	MICHIGAN	115	GRANT	115	1	11						
2004-10	PERSHING	115	GRANT	115	1	11						
2004-10	AMERICA	115	KALEY	115	1	11						
2004-10	JASPER	115	WGHTCHPL	115	1	2						
2004-10	AZALEA	115	BENNETT	115	1	11						
2004-10	FLORALTP	69	INVERNTP	69	1	2						
2004-10	ALACH TP	69	HIGH SPG	69	1	2						
2004-10	PASADENA	230	PASADENA	115	1	2						
2004-10	SUWANNEE	230	SUWANNEE	115	1	2						
2004-10	SUWANNEE	230	SUWANNEE	115	2	2						
2004-10	E CLRWTR	230	E CLRWTR	115	1	2						
2004-10	IND RIV	230	IND RIV	115	1	11						
2004-10	LARGO	230	LARGO A	69	1	2						
2004-10	SHELD	230	SHELD-NW	69	1	16						
2004-10	CLMT EST	230	CLMT EST	69	1	2						
2004-10	WINDERME	230	WINDERME	69	1	2						
2004-10	RIVER-S	230	RIVER-S	69	1	16						
2004-10	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-10	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-10	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-11	SN PLANT	230	SYLVAN	230	1	1						
2004-11	SYLVAN	230	N LONGWD	230	1	1						
2004-11	IND RIV	230	STANTON	230	1	11						
2004-11	SILVR SP	230	SILV SPN	230	1	2						
2004-11	SILVR SP	230	SILV SPN	230	2	2						
2004-11	RIO PINR	230	CURRY FD	230	1	2						
2004-11	JUNEAU-W	138	GANNON	138	1	16						
2004-11	NSB-SMYR	115	CASSADAG	115	1	2						
2004-11	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-11	NSB-SMYR	115	TAYLOR	115	1	1						
2004-11	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-11	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-11	SN PLANT	115	TURNER	115	1	1						
2004-11	PASADENA	115	40ST-DUM	115	1	2						
2004-11	MICHIGAN	115	KALEY	115	1	11						
2004-11	MICHIGAN	115	GRANT	115	1	11						
2004-11	PERSHING	115	GRANT	115	1	11						
2004-11	AMERICA	115	KALEY	115	1	11						
2004-11	JASPER	115	WGHTCHPL	115	1	2						
2004-11	AZALEA	115	BENNETT	115	1	11						
2004-11	FLORALTP	69	INVERNTP	69	1	2						
2004-11	ALACH TP	69	HIGH SPG	69	1	2						
2004-11	PASADENA	230	PASADENA	115	1	2						
2004-11	SUWANNEE	230	SUWANNEE	115	1	2						
2004-11	SUWANNEE	230	SUWANNEE	115	2	2						
2004-11	E CLRWTR	230	E CLRWTR	115	1	2						
2004-11	IND RIV	230	IND RIV	115	1	11						
2004-11	LARGO	230	LARGO A	69	1	2						
2004-11	SHELD	230	SHELD-NW	69	1	16						
2004-11	CLMT EST	230	CLMT EST	69	1	2						
2004-11	WINDERME	230	WINDERME	69	1	2						
2004-11	RIVER-S	230	RIVER-S	69	1	16						
2004-11	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-11	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-11	JASPER	115	JASPER	69	1	2						
2004-12	SN PLANT	230	SYLVAN	230	1	1						
2004-12	SYLVAN	230	N LONGWD	230	1	1						
2004-12	IND RIV	230	STANTON	230	1	11						
2004-12	SILVR SP	230	SILV SPN	230	1	2						
2004-12	SILVR SP	230	SILV SPN	230	2	2						
2004-12	RIO PINR	230	CURRY FD	230	1	2						
2004-12	JUNEAU-W	138	GANNON	138	1	16						
2004-12	NSB-SMYR	115	CASSADAG	115	1	2						
2004-12	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-12	NSB-SMYR	115	TAYLOR	115	1	1						
2004-12	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-12	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-12	SN PLANT	115	TURNER	115	1	1						
2004-12	PASADENA	115	40ST-DUM	115	1	2						
2004-12	MICHIGAN	115	KALEY	115	1	11						
2004-12	MICHIGAN	115	GRANT	115	1	11						
2004-12	PERSHING	115	GRANT	115	1	11						
2004-12	AMERICA	115	KALEY	115	1	11						
2004-12	JASPER	115	WGHTCHPL	115	1	2						
2004-12	AZALEA	115	BENNETT	115	1	11						
2004-12	FLORALTP	69	INVERNTP	69	1	2						
2004-12	ALACH TP	69	HIGH SPG	69	1	2						
2004-12	PASADENA	230	PASADENA	115	1	2						
2004-12	SUWANNEE	230	SUWANNEE	115	1	2						
2004-12	SUWANNEE	230	SUWANNEE	115	2	2						
2004-12	E CLRWTR	230	E CLRWTR	115	1	2						
2004-12	IND RIV	230	IND RIV	115	1	11						
2004-12	LARGO	230	LARGO A	69	1	2						
2004-12	SHELD	230	SHELD-NW	69	1	16						
2004-12	CLMT EST	230	CLMT EST	69	1	2						
2004-12	WINDERME	230	WINDERME	69	1	2						
2004-12	RIVER-S	230	RIVER-S	69	1	16						
2004-12	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-12	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-12	JASPER	115	JASPER	69	1	2						

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Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-13	SN PLANT	230	SYLVAN	230	1	1						
2004-13	SYLVAN	230	N LONGWD	230	1	1						
2004-13	IND RIV	230	STANTON	230	1	11						
2004-13	SILVR SP	230	SILV SPN	230	1	2						
2004-13	SILVR SP	230	SILV SPN	230	2	2						
2004-13	RIO PINR	230	CURRY FD	230	1	2						
2004-13	JUNEAU-W	138	GANNON	138	1	16						
2004-13	NSB-SMYR	115	CASSADAG	115	1	2						
2004-13	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-13	NSB-SMYR	115	TAYLOR	115	1	1						
2004-13	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-13	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-13	SN PLANT	115	TURNER	115	1	1						
2004-13	PASADENA	115	40ST-DUM	115	1	2						
2004-13	MICHIGAN	115	KALEY	115	1	11						
2004-13	MICHIGAN	115	GRANT	115	1	11						
2004-13	PERSHING	115	GRANT	115	1	11						
2004-13	AMERICA	115	KALEY	115	1	11						
2004-13	JASPER	115	WGHTCHPL	115	1	2						
2004-13	AZALEA	115	BENNETT	115	1	11						
2004-13	FLORALTP	69	INVERNTP	69	1	2						
2004-13	ALACH TP	69	HIGH SPG	69	1	2						
2004-13	PASADENA	230	PASADENA	115	1	2						
2004-13	SUWANNEE	230	SUWANNEE	115	1	2						
2004-13	SUWANNEE	230	SUWANNEE	115	2	2						
2004-13	E CLRWTR	230	E CLRWTR	115	1	2						
2004-13	IND RIV	230	IND RIV	115	1	11						
2004-13	LARGO	230	LARGO A	69	1	2						
2004-13	SHELD	230	SHELD-NW	69	1	16						
2004-13	CLMT EST	230	CLMT EST	69	1	2						
2004-13	WINDERME	230	WINDERME	69	1	2						
2004-13	RIVER-S	230	RIVER-S	69	1	16						
2004-13	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-13	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-13	JASPER	115	JASPER	69	1	2						
2004-14	SN PLANT	230	SYLVAN	230	1	1						
2004-14	SYLVAN	230	N LONGWD	230	1	1						
2004-14	IND RIV	230	STANTON	230	1	11						
2004-14	SILVR SP	230	SILV SPN	230	1	2						
2004-14	SILVR SP	230	SILV SPN	230	2	2						
2004-14	RIO PINR	230	CURRY FD	230	1	2						
2004-14	JUNEAU-W	138	GANNON	138	1	16						
2004-14	NSB-SMYR	115	CASSADAG	115	1	2						
2004-14	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-14	NSB-SMYR	115	TAYLOR	115	1	1						
2004-14	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-14	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-14	SN PLANT	115	TURNER	115	1	1						
2004-14	PASADENA	115	40ST-DUM	115	1	2						
2004-14	MICHIGAN	115	KALEY	115	1	11						
2004-14	MICHIGAN	115	GRANT	115	1	11						
2004-14	PERSHING	115	GRANT	115	1	11						
2004-14	AMERICA	115	KALEY	115	1	11						
2004-14	JASPER	115	WGHTCHPL	115	1	2						
2004-14	AZALEA	115	BENNETT	115	1	11						
2004-14	FLORALTP	69	INVERNTP	69	1	2						
2004-14	ALACH TP	69	HIGH SPG	69	1	2						
2004-14	PASADENA	230	PASADENA	115	1	2						
2004-14	SUWANNEE	230	SUWANNEE	115	1	2						
2004-14	SUWANNEE	230	SUWANNEE	115	2	2						
2004-14	E CLRWTR	230	E CLRWTR	115	1	2						
2004-14	IND RIV	230	IND RIV	115	1	11						
2004-14	LARGO	230	LARGO A	69	1	2						
2004-14	SHELD	230	SHELD-NW	69	1	16						
2004-14	CLMT EST	230	CLMT EST	69	1	2						
2004-14	WINDERME	230	WINDERME	69	1	2						
2004-14	RIVER-S	230	RIVER-S	69	1	16						
2004-14	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-14	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-14	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-15	SN PLANT	230	SYLVAN	230	1	1						
2004-15	SYLVAN	230	N LONGWD	230	1	1						
2004-15	IND RIV	230	STANTON	230	1	11						
2004-15	SILVR SP	230	SILV SPN	230	1	2						
2004-15	SILVR SP	230	SILV SPN	230	2	2						
2004-15	RIO PINR	230	CURRY FD	230	1	2						
2004-15	JUNEAU-W	138	GANNON	138	1	16						
2004-15	NSB-SMYR	115	CASSADAG	115	1	2						
2004-15	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-15	NSB-SMYR	115	TAYLOR	115	1	1						
2004-15	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-15	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-15	SN PLANT	115	TURNER	115	1	1						
2004-15	PASADENA	115	40ST-DUM	115	1	2						
2004-15	MICHIGAN	115	KALEY	115	1	11						
2004-15	MICHIGAN	115	GRANT	115	1	11						
2004-15	PERSHING	115	GRANT	115	1	11						
2004-15	AMERICA	115	KALEY	115	1	11						
2004-15	JASPER	115	WGHTCHPL	115	1	2						
2004-15	AZALEA	115	BENNETT	115	1	11						
2004-15	FLORALTP	69	INVERNTP	69	1	2						
2004-15	ALACH TP	69	HIGH SPG	69	1	2						
2004-15	PASADENA	230	PASADENA	115	1	2						
2004-15	SUWANNEE	230	SUWANNEE	115	1	2						
2004-15	SUWANNEE	230	SUWANNEE	115	2	2						
2004-15	E CLRWTR	230	E CLRWTR	115	1	2						
2004-15	IND RIV	230	IND RIV	115	1	11						
2004-15	LARGO	230	LARGO A	69	1	2						
2004-15	SHELD	230	SHELD-NW	69	1	16						
2004-15	CLMT EST	230	CLMT EST	69	1	2						
2004-15	WINDERME	230	WINDERME	69	1	2						
2004-15	RIVER-S	230	RIVER-S	69	1	16						
2004-15	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-15	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-15	JASPER	115	JASPER	69	1	2						
2004-16	SN PLANT	230	SYLVAN	230	1	1						
2004-16	SYLVAN	230	N LONGWD	230	1	1						
2004-16	IND RIV	230	STANTON	230	1	11						
2004-16	SILVR SP	230	SILV SPN	230	1	2						
2004-16	SILVR SP	230	SILV SPN	230	2	2						
2004-16	RIO PINR	230	CURRY FD	230	1	2						
2004-16	JUNEAU-W	138	GANNON	138	1	16						
2004-16	NSB-SMYR	115	CASSADAG	115	1	2						
2004-16	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-16	NSB-SMYR	115	TAYLOR	115	1	1						
2004-16	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-16	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-16	SN PLANT	115	TURNER	115	1	1						
2004-16	PASADENA	115	40ST-DUM	115	1	2						
2004-16	MICHIGAN	115	KALEY	115	1	11						
2004-16	MICHIGAN	115	GRANT	115	1	11						
2004-16	PERSHING	115	GRANT	115	1	11						
2004-16	AMERICA	115	KALEY	115	1	11						
2004-16	JASPER	115	WGHTCHPL	115	1	2						
2004-16	AZALEA	115	BENNETT	115	1	11						
2004-16	FLORALTP	69	INVERNTP	69	1	2						
2004-16	ALACH TP	69	HIGH SPG	69	1	2						
2004-16	PASADENA	230	PASADENA	115	1	2						
2004-16	SUWANNEE	230	SUWANNEE	115	1	2						
2004-16	SUWANNEE	230	SUWANNEE	115	2	2						
2004-16	E CLRWTR	230	E CLRWTR	115	1	2						
2004-16	IND RIV	230	IND RIV	115	1	11						
2004-16	LARGO	230	LARGO A	69	1	2						
2004-16	SHELD	230	SHELD-NW	69	1	16						
2004-16	CLMT EST	230	CLMT EST	69	1	2						
2004-16	WINDERME	230	WINDERME	69	1	2						
2004-16	RIVER-S	230	RIVER-S	69	1	16						
2004-16	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-16	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-16	JASPER	115	JASPER	69	1	2						

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Comparison of Line & Transformer Flows
Following N-1 Disturbances
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100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-17	SN PLANT	230	SYLVAN	230	1	1						
2004-17	SYLVAN	230	N LONGWD	230	1	1						
2004-17	IND RIV	230	STANTON	230	1	11						
2004-17	SILVR SP	230	SILV SPN	230	1	2						
2004-17	SILVR SP	230	SILV SPN	230	2	2						
2004-17	RIO PINR	230	CURRY FD	230	1	2						
2004-17	JUNEAU-W	138	GANNON	138	1	16						
2004-17	NSB-SMYR	115	CASSADAG	115	1	2						
2004-17	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-17	NSB-SMYR	115	TAYLOR	115	1	1						
2004-17	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-17	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-17	SN PLANT	115	TURNER	115	1	1						
2004-17	PASADENA	115	40ST-DUM	115	1	2						
2004-17	MICHIGAN	115	KALEY	115	1	11						
2004-17	MICHIGAN	115	GRANT	115	1	11						
2004-17	PERSHING	115	GRANT	115	1	11						
2004-17	AMERICA	115	KALEY	115	1	11						
2004-17	JASPER	115	WGHTCHPL	115	1	2						
2004-17	AZALEA	115	BENNETT	115	1	11						
2004-17	FLORALTP	69	INVERNTP	69	1	2						
2004-17	ALACH TP	69	HIGH SPG	69	1	2						
2004-17	PASADENA	230	PASADENA	115	1	2						
2004-17	SUWANNEE	230	SUWANNEE	115	1	2						
2004-17	SUWANNEE	230	SUWANNEE	115	2	2						
2004-17	E CLRWTR	230	E CLRWTR	115	1	2						
2004-17	IND RIV	230	IND RIV	115	1	11						
2004-17	LARGO	230	LARGO A	69	1	2						
2004-17	SHELD	230	SHELD-NW	69	1	16						
2004-17	CLMT EST	230	CLMT EST	69	1	2						
2004-17	WINDERME	230	WINDERME	69	1	2						
2004-17	RIVER-S	230	RIVER-S	69	1	16						
2004-17	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-17	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-17	JASPER	115	JASPER	69	1	2						
2004-18	SN PLANT	230	SYLVAN	230	1	1						
2004-18	SYLVAN	230	N LONGWD	230	1	1						
2004-18	IND RIV	230	STANTON	230	1	11						
2004-18	SILVR SP	230	SILV SPN	230	1	2						
2004-18	SILVR SP	230	SILV SPN	230	2	2						
2004-18	RIO PINR	230	CURRY FD	230	1	2						
2004-18	JUNEAU-W	138	GANNON	138	1	16						
2004-18	NSB-SMYR	115	CASSADAG	115	1	2						
2004-18	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-18	NSB-SMYR	115	TAYLOR	115	1	1						
2004-18	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-18	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-18	SN PLANT	115	TURNER	115	1	1						
2004-18	PASADENA	115	40ST-DUM	115	1	2						
2004-18	MICHIGAN	115	KALEY	115	1	11						
2004-18	MICHIGAN	115	GRANT	115	1	11						
2004-18	PERSHING	115	GRANT	115	1	11						
2004-18	AMERICA	115	KALEY	115	1	11						
2004-18	JASPER	115	WGHTCHPL	115	1	2						
2004-18	AZALEA	115	BENNETT	115	1	11						
2004-18	FLORALTP	69	INVERNTP	69	1	2						
2004-18	ALACH TP	69	HIGH SPG	69	1	2						
2004-18	PASADENA	230	PASADENA	115	1	2						
2004-18	SUWANNEE	230	SUWANNEE	115	1	2						
2004-18	SUWANNEE	230	SUWANNEE	115	2	2						
2004-18	E CLRWTR	230	E CLRWTR	115	1	2						
2004-18	IND RIV	230	IND RIV	115	1	11						
2004-18	LARGO	230	LARGO A	69	1	2						
2004-18	SHELD	230	SHELD-NW	69	1	16						
2004-18	CLMT EST	230	CLMT EST	69	1	2						
2004-18	WINDERME	230	WINDERME	69	1	2						
2004-18	RIVER-S	230	RIVER-S	69	1	16						
2004-18	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-18	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-18	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
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100% Load Base Case

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Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-19	SN PLANT	230	SYLVAN	230	1	1						
2004-19	SYLVAN	230	N LONGWD	230	1	1						
2004-19	IND RIV	230	STANTON	230	1	11						
2004-19	SILVR SP	230	SILV SPN	230	1	2						
2004-19	SILVR SP	230	SILV SPN	230	2	2						
2004-19	RIO PINR	230	CURRY FD	230	1	2						
2004-19	JUNEAU-W	138	GANNON	138	1	16						
2004-19	NSB-SMYR	115	CASSADAG	115	1	2						
2004-19	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-19	NSB-SMYR	115	TAYLOR	115	1	1						
2004-19	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-19	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-19	SN PLANT	115	TURNER	115	1	1						
2004-19	PASADENA	115	40ST-DUM	115	1	2						
2004-19	MICHIGAN	115	KALEY	115	1	11						
2004-19	MICHIGAN	115	GRANT	115	1	11						
2004-19	PERSHING	115	GRANT	115	1	11						
2004-19	AMERICA	115	KALEY	115	1	11						
2004-19	JASPER	115	WGHTCHPL	115	1	2						
2004-19	AZALEA	115	BENNETT	115	1	11						
2004-19	FLORALTP	69	INVERNTP	69	1	2						
2004-19	ALACH TP	69	HIGH SPG	69	1	2						
2004-19	PASADENA	230	PASADENA	115	1	2						
2004-19	SUWANNEE	230	SUWANNEE	115	1	2						
2004-19	SUWANNEE	230	SUWANNEE	115	2	2						
2004-19	E CLRWTR	230	E CLRWTR	115	1	2						
2004-19	IND RIV	230	IND RIV	115	1	11						
2004-19	LARGO	230	LARGO A	69	1	2						
2004-19	SHELD	230	SHELD-NW	69	1	16						
2004-19	CLMT EST	230	CLMT EST	69	1	2						
2004-19	WINDERME	230	WINDERME	69	1	2						
2004-19	RIVER-S	230	RIVER-S	69	1	16						
2004-19	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-19	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-19	JASPER	115	JASPER	69	1	2						
2004-20	SN PLANT	230	SYLVAN	230	1	1						
2004-20	SYLVAN	230	N LONGWD	230	1	1						
2004-20	IND RIV	230	STANTON	230	1	11						
2004-20	SILVR SP	230	SILV SPN	230	1	2						
2004-20	SILVR SP	230	SILV SPN	230	2	2						
2004-20	RIO PINR	230	CURRY FD	230	1	2						
2004-20	JUNEAU-W	138	GANNON	138	1	16						
2004-20	NSB-SMYR	115	CASSADAG	115	1	2						
2004-20	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-20	NSB-SMYR	115	TAYLOR	115	1	1						
2004-20	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-20	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-20	SN PLANT	115	TURNER	115	1	1						
2004-20	PASADENA	115	40ST-DUM	115	1	2						
2004-20	MICHIGAN	115	KALEY	115	1	11						
2004-20	MICHIGAN	115	GRANT	115	1	11						
2004-20	PERSHING	115	GRANT	115	1	11						
2004-20	AMERICA	115	KALEY	115	1	11						
2004-20	JASPER	115	WGHTCHPL	115	1	2						
2004-20	AZALEA	115	BENNETT	115	1	11						
2004-20	FLORALTP	69	INVERNTP	69	1	2						
2004-20	ALACH TP	69	HIGH SPG	69	1	2						
2004-20	PASADENA	230	PASADENA	115	1	2						
2004-20	SUWANNEE	230	SUWANNEE	115	1	2						
2004-20	SUWANNEE	230	SUWANNEE	115	2	2						
2004-20	E CLRWTR	230	E CLRWTR	115	1	2						
2004-20	IND RIV	230	IND RIV	115	1	11						
2004-20	LARGO	230	LARGO A	69	1	2						
2004-20	SHELD	230	SHELD-NW	69	1	16						
2004-20	CLMT EST	230	CLMT EST	69	1	2						
2004-20	WINDERME	230	WINDERME	69	1	2						
2004-20	RIVER-S	230	RIVER-S	69	1	16						
2004-20	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-20	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-20	JASPER	115	JASPER	69	1	2						

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100% Load Base Case

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Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-21	SN PLANT	230	SYLVAN	230	1	1						
2004-21	SYLVAN	230	N LONGWD	230	1	1						
2004-21	IND RIV	230	STANTON	230	1	11						
2004-21	SILVR SP	230	SILV SPN	230	1	2						
2004-21	SILVR SP	230	SILV SPN	230	2	2						
2004-21	RIO PINR	230	CURRY FD	230	1	2						
2004-21	JUNEAU-W	138	GANNON	138	1	16						
2004-21	NSB-SMYR	115	CASSADAG	115	1	2						
2004-21	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-21	NSB-SMYR	115	TAYLOR	115	1	1						
2004-21	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-21	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-21	SN PLANT	115	TURNER	115	1	1						
2004-21	PASADENA	115	40ST-DUM	115	1	2						
2004-21	MICHIGAN	115	KALEY	115	1	11						
2004-21	MICHIGAN	115	GRANT	115	1	11						
2004-21	PERSHING	115	GRANT	115	1	11						
2004-21	AMERICA	115	KALEY	115	1	11						
2004-21	JASPER	115	WGHTCHPL	115	1	2						
2004-21	AZALEA	115	BENNETT	115	1	11						
2004-21	FLORALTP	69	INVERNTP	69	1	2						
2004-21	ALACH TP	69	HIGH SPG	69	1	2						
2004-21	PASADENA	230	PASADENA	115	1	2						
2004-21	SUWANNEE	230	SUWANNEE	115	1	2						
2004-21	SUWANNEE	230	SUWANNEE	115	2	2						
2004-21	E CLRWTR	230	E CLRWTR	115	1	2						
2004-21	IND RIV	230	IND RIV	115	1	11						
2004-21	LARGO	230	LARGO A	69	1	2						
2004-21	SHELD	230	SHELD-NW	69	1	16						
2004-21	CLMT EST	230	CLMT EST	69	1	2						
2004-21	WINDERME	230	WINDERME	69	1	2						
2004-21	RIVER-S	230	RIVER-S	69	1	16						
2004-21	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-21	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-21	JASPER	115	JASPER	69	1	2						
2004-22	SN PLANT	230	SYLVAN	230	1	1						
2004-22	SYLVAN	230	N LONGWD	230	1	1						
2004-22	IND RIV	230	STANTON	230	1	11						
2004-22	SILVR SP	230	SILV SPN	230	1	2						
2004-22	SILVR SP	230	SILV SPN	230	2	2						
2004-22	RIO PINR	230	CURRY FD	230	1	2						
2004-22	JUNEAU-W	138	GANNON	138	1	16						
2004-22	NSB-SMYR	115	CASSADAG	115	1	2						
2004-22	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-22	NSB-SMYR	115	TAYLOR	115	1	1						
2004-22	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-22	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-22	SN PLANT	115	TURNER	115	1	1						
2004-22	PASADENA	115	40ST-DUM	115	1	2						
2004-22	MICHIGAN	115	KALEY	115	1	11						
2004-22	MICHIGAN	115	GRANT	115	1	11						
2004-22	PERSHING	115	GRANT	115	1	11						
2004-22	AMERICA	115	KALEY	115	1	11						
2004-22	JASPER	115	WGHTCHPL	115	1	2						
2004-22	AZALEA	115	BENNETT	115	1	11						
2004-22	FLORALTP	69	INVERNTP	69	1	2						
2004-22	ALACH TP	69	HIGH SPG	69	1	2						
2004-22	PASADENA	230	PASADENA	115	1	2						
2004-22	SUWANNEE	230	SUWANNEE	115	1	2						
2004-22	SUWANNEE	230	SUWANNEE	115	2	2						
2004-22	E CLRWTR	230	E CLRWTR	115	1	2						
2004-22	IND RIV	230	IND RIV	115	1	11						
2004-22	LARGO	230	LARGO A	69	1	2						
2004-22	SHELD	230	SHELD-NW	69	1	16						
2004-22	CLMT EST	230	CLMT EST	69	1	2						
2004-22	WINDERME	230	WINDERME	69	1	2						
2004-22	RIVER-S	230	RIVER-S	69	1	16						
2004-22	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-22	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-22	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-23	SN PLANT	230	SYLVAN	230	1	1						
2004-23	SYLVAN	230	N LONGWD	230	1	1						
2004-23	IND RIV	230	STANTON	230	1	11						
2004-23	SILVR SP	230	SILV SPN	230	1	2						
2004-23	SILVR SP	230	SILV SPN	230	2	2						
2004-23	RIO PINR	230	CURRY FD	230	1	2						
2004-23	JUNEAU-W	138	GANNON	138	1	16						
2004-23	NSB-SMYR	115	CASSADAG	115	1	2						
2004-23	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-23	NSB-SMYR	115	TAYLOR	115	1	1						
2004-23	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-23	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-23	SN PLANT	115	TURNER	115	1	1						
2004-23	PASADENA	115	40ST-DUM	115	1	2						
2004-23	MICHIGAN	115	KALEY	115	1	11						
2004-23	MICHIGAN	115	GRANT	115	1	11						
2004-23	PERSHING	115	GRANT	115	1	11						
2004-23	AMERICA	115	KALEY	115	1	11						
2004-23	JASPER	115	WGHTCHPL	115	1	2						
2004-23	AZALEA	115	BENNETT	115	1	11						
2004-23	FLORALTP	69	INVERNTP	69	1	2						
2004-23	ALACH TP	69	HIGH SPG	69	1	2						
2004-23	PASADENA	230	PASADENA	115	1	2						
2004-23	SUWANNEE	230	SUWANNEE	115	1	2						
2004-23	SUWANNEE	230	SUWANNEE	115	2	2						
2004-23	E CLRWTR	230	E CLRWTR	115	1	2						
2004-23	IND RIV	230	IND RIV	115	1	11						
2004-23	LARGO	230	LARGO A	69	1	2						
2004-23	SHELD	230	SHELD-NW	69	1	16						
2004-23	CLMT EST	230	CLMT EST	69	1	2						
2004-23	WINDERME	230	WINDERME	69	1	2						
2004-23	RIVER-S	230	RIVER-S	69	1	16						
2004-23	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-23	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-23	JASPER	115	JASPER	69	1	2						
2004-24	SN PLANT	230	SYLVAN	230	1	1						
2004-24	SYLVAN	230	N LONGWD	230	1	1						
2004-24	IND RIV	230	STANTON	230	1	11						
2004-24	SILVR SP	230	SILV SPN	230	1	2						
2004-24	SILVR SP	230	SILV SPN	230	2	2						
2004-24	RIO PINR	230	CURRY FD	230	1	2						
2004-24	JUNEAU-W	138	GANNON	138	1	16						
2004-24	NSB-SMYR	115	CASSADAG	115	1	2						
2004-24	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-24	NSB-SMYR	115	TAYLOR	115	1	1						
2004-24	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-24	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-24	SN PLANT	115	TURNER	115	1	1						
2004-24	PASADENA	115	40ST-DUM	115	1	2						
2004-24	MICHIGAN	115	KALEY	115	1	11						
2004-24	MICHIGAN	115	GRANT	115	1	11						
2004-24	PERSHING	115	GRANT	115	1	11						
2004-24	AMERICA	115	KALEY	115	1	11						
2004-24	JASPER	115	WGHTCHPL	115	1	2						
2004-24	AZALEA	115	BENNETT	115	1	11						
2004-24	FLORALTP	69	INVERNTP	69	1	2						
2004-24	ALACH TP	69	HIGH SPG	69	1	2						
2004-24	PASADENA	230	PASADENA	115	1	2						
2004-24	SUWANNEE	230	SUWANNEE	115	1	2						
2004-24	SUWANNEE	230	SUWANNEE	115	2	2						
2004-24	E CLRWTR	230	E CLRWTR	115	1	2						
2004-24	IND RIV	230	IND RIV	115	1	11						
2004-24	LARGO	230	LARGO A	69	1	2						
2004-24	SHELD	230	SHELD-NW	69	1	16						
2004-24	CLMT EST	230	CLMT EST	69	1	2						
2004-24	WINDERME	230	WINDERME	69	1	2						
2004-24	RIVER-S	230	RIVER-S	69	1	16						
2004-24	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-24	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-24	JASPER	115	JASPER	69	1	2						

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Comparison of Line & Transformer Flows
Following N-1 Disturbances
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100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-25	SN PLANT	230	SYLVAN	230	1	1						
2004-25	SYLVAN	230	N LONGWD	230	1	1						
2004-25	IND RIV	230	STANTON	230	1	11						
2004-25	SILVR SP	230	SILV SPN	230	1	2						
2004-25	SILVR SP	230	SILV SPN	230	2	2						
2004-25	RIO PINR	230	CURRY FD	230	1	2						
2004-25	JUNEAU-W	138	GANNON	138	1	16						
2004-25	NSB-SMYR	115	CASSADAG	115	1	2						
2004-25	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-25	NSB-SMYR	115	TAYLOR	115	1	1						
2004-25	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-25	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-25	SN PLANT	115	TURNER	115	1	1						
2004-25	PASADENA	115	40ST-DUM	115	1	2						
2004-25	MICHIGAN	115	KALEY	115	1	11						
2004-25	MICHIGAN	115	GRANT	115	1	11						
2004-25	PERSHING	115	GRANT	115	1	11						
2004-25	AMERICA	115	KALEY	115	1	11						
2004-25	JASPER	115	WGHTCHPL	115	1	2						
2004-25	AZALEA	115	BENNETT	115	1	11						
2004-25	FLORALTP	69	INVERNTP	69	1	2						
2004-25	ALACH TP	69	HIGH SPG	69	1	2						
2004-25	PASADENA	230	PASADENA	115	1	2						
2004-25	SUWANNEE	230	SUWANNEE	115	1	2						
2004-25	SUWANNEE	230	SUWANNEE	115	2	2						
2004-25	E CLRWTR	230	E CLRWTR	115	1	2						
2004-25	IND RIV	230	IND RIV	115	1	11						
2004-25	LARGO	230	LARGO A	69	1	2						
2004-25	SHELD	230	SHELD-NW	69	1	16						
2004-25	CLMT EST	230	CLMT EST	69	1	2						
2004-25	WINDERME	230	WINDERME	69	1	2						
2004-25	RIVER-S	230	RIVER-S	69	1	16						
2004-25	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-25	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-25	JASPER	115	JASPER	69	1	2						
2004-26	SN PLANT	230	SYLVAN	230	1	1						
2004-26	SYLVAN	230	N LONGWD	230	1	1						
2004-26	IND RIV	230	STANTON	230	1	11						
2004-26	SILVR SP	230	SILV SPN	230	1	2						
2004-26	SILVR SP	230	SILV SPN	230	2	2						
2004-26	RIO PINR	230	CURRY FD	230	1	2						
2004-26	JUNEAU-W	138	GANNON	138	1	16						
2004-26	NSB-SMYR	115	CASSADAG	115	1	2						
2004-26	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-26	NSB-SMYR	115	TAYLOR	115	1	1						
2004-26	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-26	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-26	SN PLANT	115	TURNER	115	1	1						
2004-26	PASADENA	115	40ST-DUM	115	1	2						
2004-26	MICHIGAN	115	KALEY	115	1	11						
2004-26	MICHIGAN	115	GRANT	115	1	11						
2004-26	PERSHING	115	GRANT	115	1	11						
2004-26	AMERICA	115	KALEY	115	1	11						
2004-26	JASPER	115	WGHTCHPL	115	1	2						
2004-26	AZALEA	115	BENNETT	115	1	11						
2004-26	FLORALTP	69	INVERNTP	69	1	2						
2004-26	ALACH TP	69	HIGH SPG	69	1	2						
2004-26	PASADENA	230	PASADENA	115	1	2						
2004-26	SUWANNEE	230	SUWANNEE	115	1	2						
2004-26	SUWANNEE	230	SUWANNEE	115	2	2						
2004-26	E CLRWTR	230	E CLRWTR	115	1	2						
2004-26	IND RIV	230	IND RIV	115	1	11						
2004-26	LARGO	230	LARGO A	69	1	2						
2004-26	SHELD	230	SHELD-NW	69	1	16						
2004-26	CLMT EST	230	CLMT EST	69	1	2						
2004-26	WINDERME	230	WINDERME	69	1	2						
2004-26	RIVER-S	230	RIVER-S	69	1	16						
2004-26	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-26	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-26	JASPER	115	JASPER	69	1	2						

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Comparison of Line & Transformer Flows
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100% Load Base Case

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Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-27	SN PLANT	230	SYLVAN	230	1	1						
2004-27	SYLVAN	230	N LONGWD	230	1	1						
2004-27	IND RIV	230	STANTON	230	1	11						
2004-27	SILVR SP	230	SILV SPN	230	1	2						
2004-27	SILVR SP	230	SILV SPN	230	2	2						
2004-27	RIO PINR	230	CURRY FD	230	1	2						
2004-27	JUNEAU-W	138	GANNON	138	1	16						
2004-27	NSB-SMYR	115	CASSADAG	115	1	2						
2004-27	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-27	NSB-SMYR	115	TAYLOR	115	1	1						
2004-27	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-27	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-27	SN PLANT	115	TURNER	115	1	1						
2004-27	PASADENA	115	40ST-DUM	115	1	2						
2004-27	MICHIGAN	115	KALEY	115	1	11						
2004-27	MICHIGAN	115	GRANT	115	1	11						
2004-27	PERSHING	115	GRANT	115	1	11						
2004-27	AMERICA	115	KALEY	115	1	11						
2004-27	JASPER	115	WGHTCHPL	115	1	2						
2004-27	AZALEA	115	BENNETT	115	1	11						
2004-27	FLORALTP	69	INVERNTP	69	1	2						
2004-27	ALACH TP	69	HIGH SPG	69	1	2						
2004-27	PASADENA	230	PASADENA	115	1	2						
2004-27	SUWANNEE	230	SUWANNEE	115	1	2						
2004-27	SUWANNEE	230	SUWANNEE	115	2	2						
2004-27	E CLRWTR	230	E CLRWTR	115	1	2						
2004-27	IND RIV	230	IND RIV	115	1	11						
2004-27	LARGO	230	LARGO A	69	1	2						
2004-27	SHELD	230	SHELD-NW	69	1	16						
2004-27	CLMT EST	230	CLMT EST	69	1	2						
2004-27	WINDERME	230	WINDERME	69	1	2						
2004-27	RIVER-S	230	RIVER-S	69	1	16						
2004-27	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-27	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-27	JASPER	115	JASPER	69	1	2						
2004-28	SN PLANT	230	SYLVAN	230	1	1						
2004-28	SYLVAN	230	N LONGWD	230	1	1						
2004-28	IND RIV	230	STANTON	230	1	11						
2004-28	SILVR SP	230	SILV SPN	230	1	2						
2004-28	SILVR SP	230	SILV SPN	230	2	2						
2004-28	RIO PINR	230	CURRY FD	230	1	2						
2004-28	JUNEAU-W	138	GANNON	138	1	16						
2004-28	NSB-SMYR	115	CASSADAG	115	1	2						
2004-28	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-28	NSB-SMYR	115	TAYLOR	115	1	1						
2004-28	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-28	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-28	SN PLANT	115	TURNER	115	1	1						
2004-28	PASADENA	115	40ST-DUM	115	1	2						
2004-28	MICHIGAN	115	KALEY	115	1	11						
2004-28	MICHIGAN	115	GRANT	115	1	11						
2004-28	PERSHING	115	GRANT	115	1	11						
2004-28	AMERICA	115	KALEY	115	1	11						
2004-28	JASPER	115	WGHTCHPL	115	1	2						
2004-28	AZALEA	115	BENNETT	115	1	11						
2004-28	FLORALTP	69	INVERNTP	69	1	2						
2004-28	ALACH TP	69	HIGH SPG	69	1	2						
2004-28	PASADENA	230	PASADENA	115	1	2						
2004-28	SUWANNEE	230	SUWANNEE	115	1	2						
2004-28	SUWANNEE	230	SUWANNEE	115	2	2						
2004-28	E CLRWTR	230	E CLRWTR	115	1	2						
2004-28	IND RIV	230	IND RIV	115	1	11						
2004-28	LARGO	230	LARGO A	69	1	2						
2004-28	SHELD	230	SHELD-NW	69	1	16						
2004-28	CLMT EST	230	CLMT EST	69	1	2						
2004-28	WINDERME	230	WINDERME	69	1	2						
2004-28	RIVER-S	230	RIVER-S	69	1	16						
2004-28	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-28	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-28	JASPER	115	JASPER	69	1	2						

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100% Load Base Case

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Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-29	SN PLANT	230	SYLVAN	230	1	1						
2004-29	SYLVAN	230	N LONGWD	230	1	1						
2004-29	IND RIV	230	STANTON	230	1	11						
2004-29	SILVR SP	230	SILV SPN	230	1	2						
2004-29	SILVR SP	230	SILV SPN	230	2	2						
2004-29	RIO PINR	230	CURRY FD	230	1	2						
2004-29	JUNEAU-W	138	GANNON	138	1	16						
2004-29	NSB-SMYR	115	CASSADAG	115	1	2						
2004-29	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-29	NSB-SMYR	115	TAYLOR	115	1	1						
2004-29	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-29	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-29	SN PLANT	115	TURNER	115	1	1						
2004-29	PASADENA	115	40ST-DUM	115	1	2						
2004-29	MICHIGAN	115	KALEY	115	1	11						
2004-29	MICHIGAN	115	GRANT	115	1	11						
2004-29	PERSHING	115	GRANT	115	1	11						
2004-29	AMERICA	115	KALEY	115	1	11						
2004-29	JASPER	115	WGHTCHPL	115	1	2						
2004-29	AZALEA	115	BENNETT	115	1	11						
2004-29	FLORALTP	69	INVERNTP	69	1	2						
2004-29	ALACH TP	69	HIGH SPG	69	1	2						
2004-29	PASADENA	230	PASADENA	115	1	2						
2004-29	SUWANNEE	230	SUWANNEE	115	1	2						
2004-29	SUWANNEE	230	SUWANNEE	115	2	2						
2004-29	E CLRWTR	230	E CLRWTR	115	1	2						
2004-29	IND RIV	230	IND RIV	115	1	11						
2004-29	LARGO	230	LARGO A	69	1	2						
2004-29	SHELD	230	SHELD-NW	69	1	16						
2004-29	CLMT EST	230	CLMT EST	69	1	2						
2004-29	WINDERME	230	WINDERME	69	1	2						
2004-29	RIVER-S	230	RIVER-S	69	1	16						
2004-29	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-29	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-29	JASPER	115	JASPER	69	1	2						
2004-30	SN PLANT	230	SYLVAN	230	1	1						
2004-30	SYLVAN	230	N LONGWD	230	1	1						
2004-30	IND RIV	230	STANTON	230	1	11						
2004-30	SILVR SP	230	SILV SPN	230	1	2						
2004-30	SILVR SP	230	SILV SPN	230	2	2						
2004-30	RIO PINR	230	CURRY FD	230	1	2						
2004-30	JUNEAU-W	138	GANNON	138	1	16						
2004-30	NSB-SMYR	115	CASSADAG	115	1	2						
2004-30	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-30	NSB-SMYR	115	TAYLOR	115	1	1						
2004-30	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-30	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-30	SN PLANT	115	TURNER	115	1	1						
2004-30	PASADENA	115	40ST-DUM	115	1	2						
2004-30	MICHIGAN	115	KALEY	115	1	11						
2004-30	MICHIGAN	115	GRANT	115	1	11						
2004-30	PERSHING	115	GRANT	115	1	11						
2004-30	AMERICA	115	KALEY	115	1	11						
2004-30	JASPER	115	WGHTCHPL	115	1	2						
2004-30	AZALEA	115	BENNETT	115	1	11						
2004-30	FLORALTP	69	INVERNTP	69	1	2						
2004-30	ALACH TP	69	HIGH SPG	69	1	2						
2004-30	PASADENA	230	PASADENA	115	1	2						
2004-30	SUWANNEE	230	SUWANNEE	115	1	2						
2004-30	SUWANNEE	230	SUWANNEE	115	2	2						
2004-30	E CLRWTR	230	E CLRWTR	115	1	2						
2004-30	IND RIV	230	IND RIV	115	1	11						
2004-30	LARGO	230	LARGO A	69	1	2						
2004-30	SHELD	230	SHELD-NW	69	1	16						
2004-30	CLMT EST	230	CLMT EST	69	1	2						
2004-30	WINDERME	230	WINDERME	69	1	2						
2004-30	RIVER-S	230	RIVER-S	69	1	16						
2004-30	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-30	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-30	JASPER	115	JASPER	69	1	2						

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Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-31	SN PLANT	230	SYLVAN	230	1	1						
2004-31	SYLVAN	230	N LONGWD	230	1	1						
2004-31	IND RIV	230	STANTON	230	1	11						
2004-31	SILVR SP	230	SILV SPN	230	1	2						
2004-31	SILVR SP	230	SILV SPN	230	2	2						
2004-31	RIO PINR	230	CURRY FD	230	1	2						
2004-31	JUNEAU-W	138	GANNON	138	1	16						
2004-31	NSB-SMYR	115	CASSADAG	115	1	2						
2004-31	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-31	NSB-SMYR	115	TAYLOR	115	1	1						
2004-31	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-31	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-31	SN PLANT	115	TURNER	115	1	1						
2004-31	PASADENA	115	40ST-DUM	115	1	2						
2004-31	MICHIGAN	115	KALEY	115	1	11						
2004-31	MICHIGAN	115	GRANT	115	1	11						
2004-31	PERSHING	115	GRANT	115	1	11						
2004-31	AMERICA	115	KALEY	115	1	11						
2004-31	JASPER	115	WGHTCHPL	115	1	2						
2004-31	AZALEA	115	BENNETT	115	1	11						
2004-31	FLORALTP	69	INVERNTP	69	1	2						
2004-31	ALACH TP	69	HIGH SPG	69	1	2						
2004-31	PASADENA	230	PASADENA	115	1	2						
2004-31	SUWANNEE	230	SUWANNEE	115	1	2						
2004-31	SUWANNEE	230	SUWANNEE	115	2	2						
2004-31	E CLRWTR	230	E CLRWTR	115	1	2						
2004-31	IND RIV	230	IND RIV	115	1	11						
2004-31	LARGO	230	LARGO A	69	1	2						
2004-31	SHELD	230	SHELD-NW	69	1	16						
2004-31	CLMT EST	230	CLMT EST	69	1	2						
2004-31	WINDERME	230	WINDERME	69	1	2						
2004-31	RIVER-S	230	RIVER-S	69	1	16						
2004-31	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-31	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-31	JASPER	115	JASPER	69	1	2						
2004-32	SN PLANT	230	SYLVAN	230	1	1						
2004-32	SYLVAN	230	N LONGWD	230	1	1						
2004-32	IND RIV	230	STANTON	230	1	11						
2004-32	SILVR SP	230	SILV SPN	230	1	2						
2004-32	SILVR SP	230	SILV SPN	230	2	2						
2004-32	RIO PINR	230	CURRY FD	230	1	2						
2004-32	JUNEAU-W	138	GANNON	138	1	16						
2004-32	NSB-SMYR	115	CASSADAG	115	1	2						
2004-32	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-32	NSB-SMYR	115	TAYLOR	115	1	1						
2004-32	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-32	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-32	SN PLANT	115	TURNER	115	1	1						
2004-32	PASADENA	115	40ST-DUM	115	1	2						
2004-32	MICHIGAN	115	KALEY	115	1	11						
2004-32	MICHIGAN	115	GRANT	115	1	11						
2004-32	PERSHING	115	GRANT	115	1	11						
2004-32	AMERICA	115	KALEY	115	1	11						
2004-32	JASPER	115	WGHTCHPL	115	1	2						
2004-32	AZALEA	115	BENNETT	115	1	11						
2004-32	FLORALTP	69	INVERNTP	69	1	2						
2004-32	ALACH TP	69	HIGH SPG	69	1	2						
2004-32	PASADENA	230	PASADENA	115	1	2						
2004-32	SUWANNEE	230	SUWANNEE	115	1	2						
2004-32	SUWANNEE	230	SUWANNEE	115	2	2						
2004-32	E CLRWTR	230	E CLRWTR	115	1	2						
2004-32	IND RIV	230	IND RIV	115	1	11						
2004-32	LARGO	230	LARGO A	69	1	2						
2004-32	SHELD	230	SHELD-NW	69	1	16						
2004-32	CLMT EST	230	CLMT EST	69	1	2						
2004-32	WINDERME	230	WINDERME	69	1	2						
2004-32	RIVER-S	230	RIVER-S	69	1	16						
2004-32	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-32	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-32	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows Following N-1 Disturbances for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-33	SN PLANT	230	SYLVAN	230	1	1						
2004-33	SYLVAN	230	N LONGWD	230	1	1						
2004-33	IND RIV	230	STANTON	230	1	11						
2004-33	SILVR SP	230	SILV SPN	230	1	2						
2004-33	SILVR SP	230	SILV SPN	230	2	2						
2004-33	RIO PINR	230	CURRY FD	230	1	2						
2004-33	JUNEAU-W	138	GANNON	138	1	16						
2004-33	NSB-SMYR	115	CASSADAG	115	1	2						
2004-33	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-33	NSB-SMYR	115	TAYLOR	115	1	1						
2004-33	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-33	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-33	SN PLANT	115	TURNER	115	1	1						
2004-33	PASADENA	115	40ST-DUM	115	1	2						
2004-33	MICHIGAN	115	KALEY	115	1	11						
2004-33	MICHIGAN	115	GRANT	115	1	11						
2004-33	PERSHING	115	GRANT	115	1	11						
2004-33	AMERICA	115	KALEY	115	1	11						
2004-33	JASPER	115	WGHTCHPL	115	1	2						
2004-33	AZALEA	115	BENNETT	115	1	11						
2004-33	FLORALTP	69	INVERNTP	69	1	2						
2004-33	ALACH TP	69	HIGH SPG	69	1	2						
2004-33	PASADENA	230	PASADENA	115	1	2						
2004-33	SUWANNEE	230	SUWANNEE	115	1	2						
2004-33	SUWANNEE	230	SUWANNEE	115	2	2						
2004-33	E CLRWTR	230	E CLRWTR	115	1	2						
2004-33	IND RIV	230	IND RIV	115	1	11						
2004-33	LARGO	230	LARGO A	69	1	2						
2004-33	SHELD	230	SHELD-NW	69	1	16						
2004-33	CLMT EST	230	CLMT EST	69	1	2						
2004-33	WINDERME	230	WINDERME	69	1	2						
2004-33	RIVER-S	230	RIVER-S	69	1	16						
2004-33	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-33	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-33	JASPER	115	JASPER	69	1	2						
2004-34	SN PLANT	230	SYLVAN	230	1	1						
2004-34	SYLVAN	230	N LONGWD	230	1	1						
2004-34	IND RIV	230	STANTON	230	1	11						
2004-34	SILVR SP	230	SILV SPN	230	1	2						
2004-34	SILVR SP	230	SILV SPN	230	2	2						
2004-34	RIO PINR	230	CURRY FD	230	1	2						
2004-34	JUNEAU-W	138	GANNON	138	1	16						
2004-34	NSB-SMYR	115	CASSADAG	115	1	2						
2004-34	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-34	NSB-SMYR	115	TAYLOR	115	1	1						
2004-34	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-34	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-34	SN PLANT	115	TURNER	115	1	1						
2004-34	PASADENA	115	40ST-DUM	115	1	2						
2004-34	MICHIGAN	115	KALEY	115	1	11						
2004-34	MICHIGAN	115	GRANT	115	1	11						
2004-34	PERSHING	115	GRANT	115	1	11						
2004-34	AMERICA	115	KALEY	115	1	11						
2004-34	JASPER	115	WGHTCHPL	115	1	2						
2004-34	AZALEA	115	BENNETT	115	1	11						
2004-34	FLORALTP	69	INVERNTP	69	1	2						
2004-34	ALACH TP	69	HIGH SPG	69	1	2						
2004-34	PASADENA	230	PASADENA	115	1	2						
2004-34	SUWANNEE	230	SUWANNEE	115	1	2						
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2004-34	IND RIV	230	IND RIV	115	1	11						
2004-34	LARGO	230	LARGO A	69	1	2						
2004-34	SHELD	230	SHELD-NW	69	1	16						
2004-34	CLMT EST	230	CLMT EST	69	1	2						
2004-34	WINDERME	230	WINDERME	69	1	2						
2004-34	RIVER-S	230	RIVER-S	69	1	16						
2004-34	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-34	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-34	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

100% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004 Base No NSB Gen	Case 2004A Sell to FPL	Case 2004B Sell to FPC	Case 2004C Sell to TEC	Case 2004D Sell to JEA	Case 2004E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-35	SN PLANT	230	SYLVAN	230	1	1						
2004-35	SYLVAN	230	N LONGWD	230	1	1						
2004-35	IND RIV	230	STANTON	230	1	11						
2004-35	SILVR SP	230	SILV SPN	230	1	2						
2004-35	SILVR SP	230	SILV SPN	230	2	2						
2004-35	RIO PINR	230	CURRY FD	230	1	2						
2004-35	JUNEAU-W	138	GANNON	138	1	16						
2004-35	NSB-SMYR	115	CASSADAG	115	1	2						
2004-35	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-35	NSB-SMYR	115	TAYLOR	115	1	1						
2004-35	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-35	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-35	SN PLANT	115	TURNER	115	1	1						
2004-35	PASADENA	115	40ST-DUM	115	1	2						
2004-35	MICHIGAN	115	KALEY	115	1	11						
2004-35	MICHIGAN	115	GRANT	115	1	11						
2004-35	PERSHING	115	GRANT	115	1	11						
2004-35	AMERICA	115	KALEY	115	1	11						
2004-35	JASPER	115	WGHTCHPL	115	1	2						
2004-35	AZALEA	115	BENNETT	115	1	11						
2004-35	FLORALTP	69	INVERNTP	69	1	2						
2004-35	ALACH TP	69	HIGH SPG	69	1	2						
2004-35	PASADENA	230	PASADENA	115	1	2						
2004-35	SUWANNEE	230	SUWANNEE	115	1	2						
2004-35	SUWANNEE	230	SUWANNEE	115	2	2						
2004-35	E CLRWTR	230	E CLRWTR	115	1	2						
2004-35	IND RIV	230	IND RIV	115	1	11						
2004-35	LARGO	230	LARGO A	69	1	2						
2004-35	SHELD	230	SHELD-NW	69	1	16						
2004-35	CLMT EST	230	CLMT EST	69	1	2						
2004-35	WINDERME	230	WINDERME	69	1	2						
2004-35	RIVER-S	230	RIVER-S	69	1	16						
2004-35	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-35	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-35	JASPER	115	JASPER	69	1	2						
2004-36	SN PLANT	230	SYLVAN	230	1	1						
2004-36	SYLVAN	230	N LONGWD	230	1	1						
2004-36	IND RIV	230	STANTON	230	1	11						
2004-36	SILVR SP	230	SILV SPN	230	1	2						
2004-36	SILVR SP	230	SILV SPN	230	2	2						
2004-36	RIO PINR	230	CURRY FD	230	1	2						
2004-36	JUNEAU-W	138	GANNON	138	1	16						
2004-36	NSB-SMYR	115	CASSADAG	115	1	2						
2004-36	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-36	NSB-SMYR	115	TAYLOR	115	1	1						
2004-36	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-36	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-36	SN PLANT	115	TURNER	115	1	1						
2004-36	PASADENA	115	40ST-DUM	115	1	2						
2004-36	MICHIGAN	115	KALEY	115	1	11						
2004-36	MICHIGAN	115	GRANT	115	1	11						
2004-36	PERSHING	115	GRANT	115	1	11						
2004-36	AMERICA	115	KALEY	115	1	11						
2004-36	JASPER	115	WGHTCHPL	115	1	2						
2004-36	AZALEA	115	BENNETT	115	1	11						
2004-36	FLORALTP	69	INVERNTP	69	1	2						
2004-36	ALACH TP	69	HIGH SPG	69	1	2						
2004-36	PASADENA	230	PASADENA	115	1	2						
2004-36	SUWANNEE	230	SUWANNEE	115	1	2						
2004-36	SUWANNEE	230	SUWANNEE	115	2	2						
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2004-36	IND RIV	230	IND RIV	115	1	11						
2004-36	LARGO	230	LARGO A	69	1	2						
2004-36	SHELD	230	SHELD-NW	69	1	16						
2004-36	CLMT EST	230	CLMT EST	69	1	2						
2004-36	WINDERME	230	WINDERME	69	1	2						
2004-36	RIVER-S	230	RIVER-S	69	1	16						
2004-36	ELEVEN W	230	ELEVEN-E	69	1	16						
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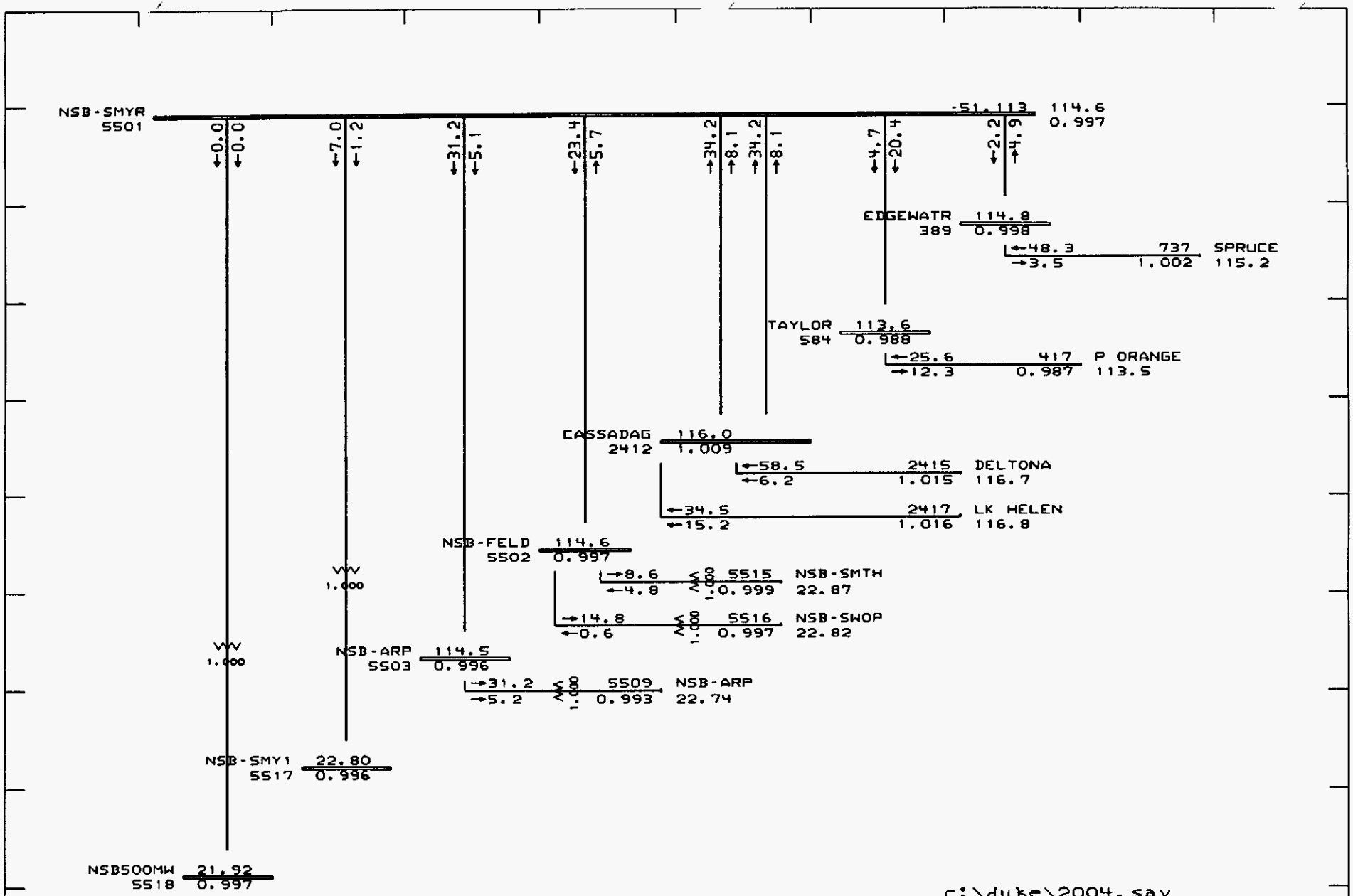
APPENDIX III-A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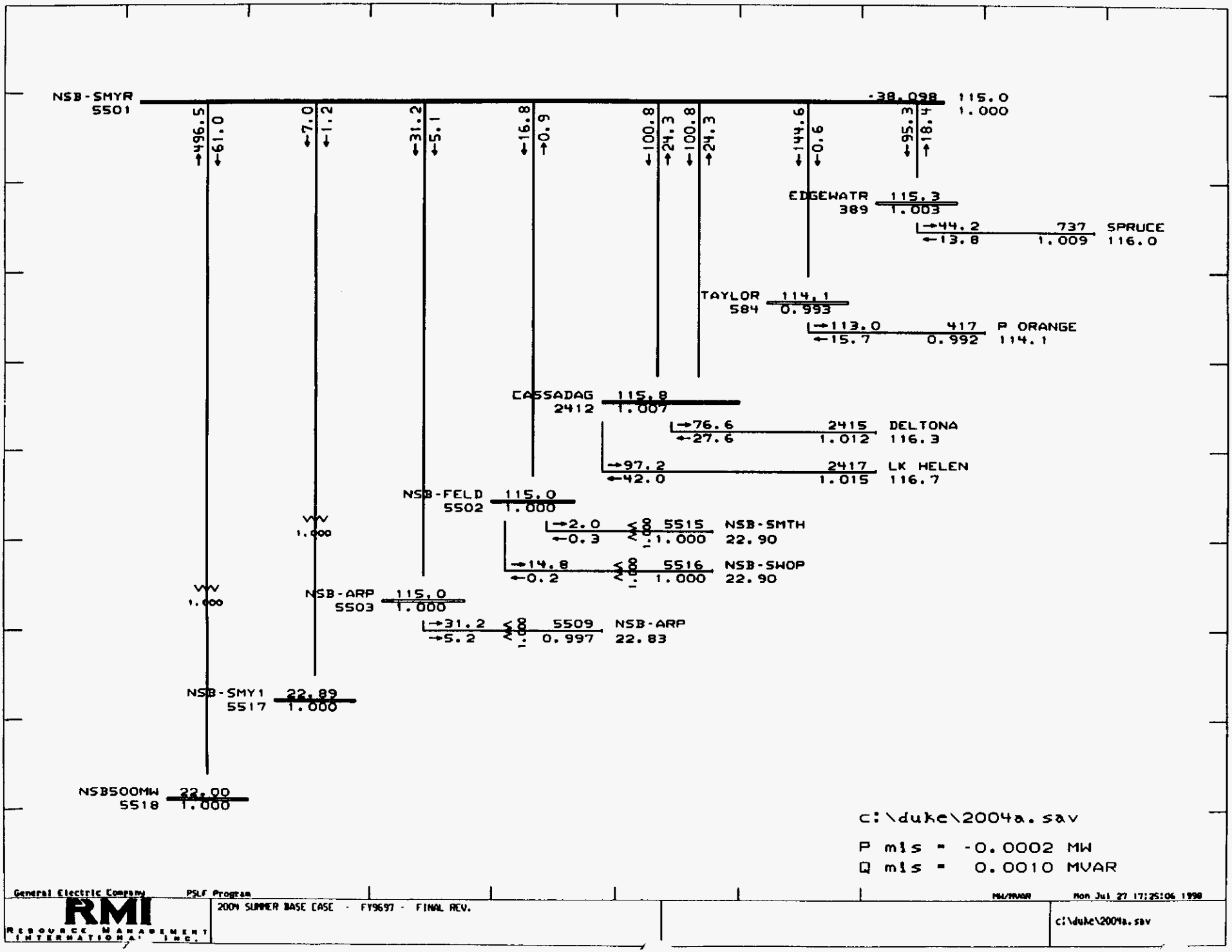
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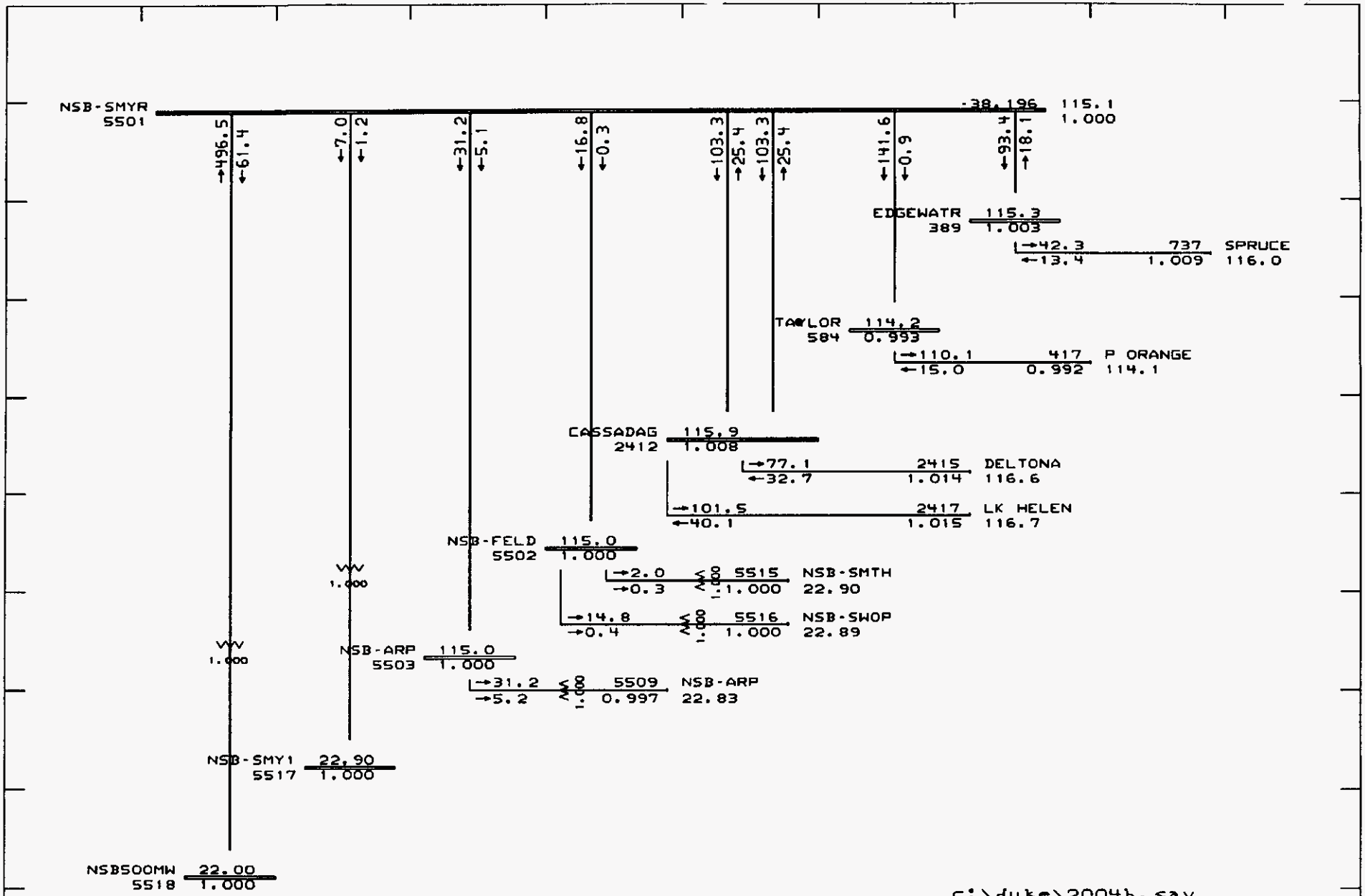
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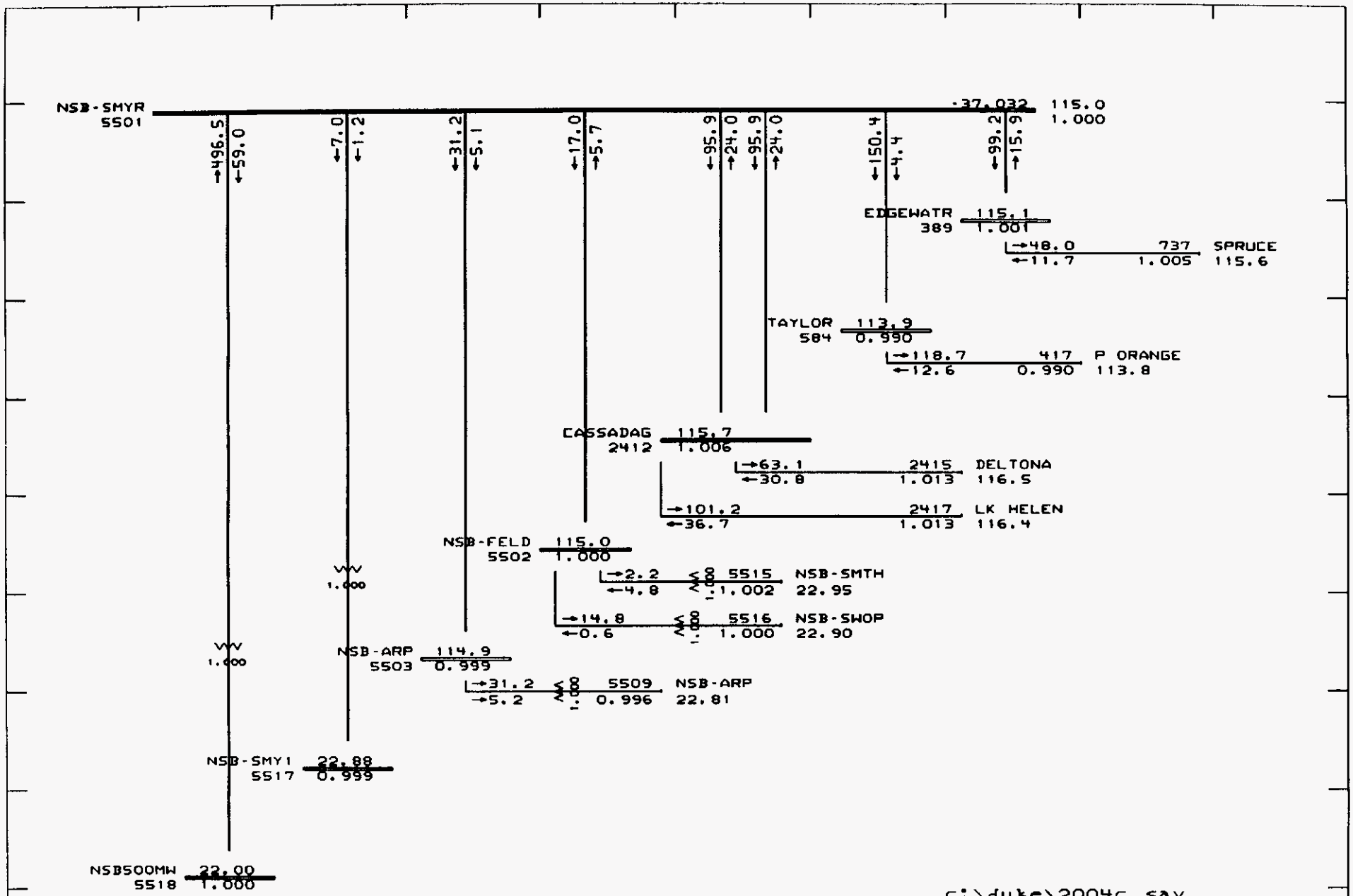

General Electric Company PSLF Program MW/MVAR Mon Jul 27 17:25:47 1998

RMI Resource Management International, Inc.

2004 SUMMER BASE CASE - FY9697 - FINAL REV.
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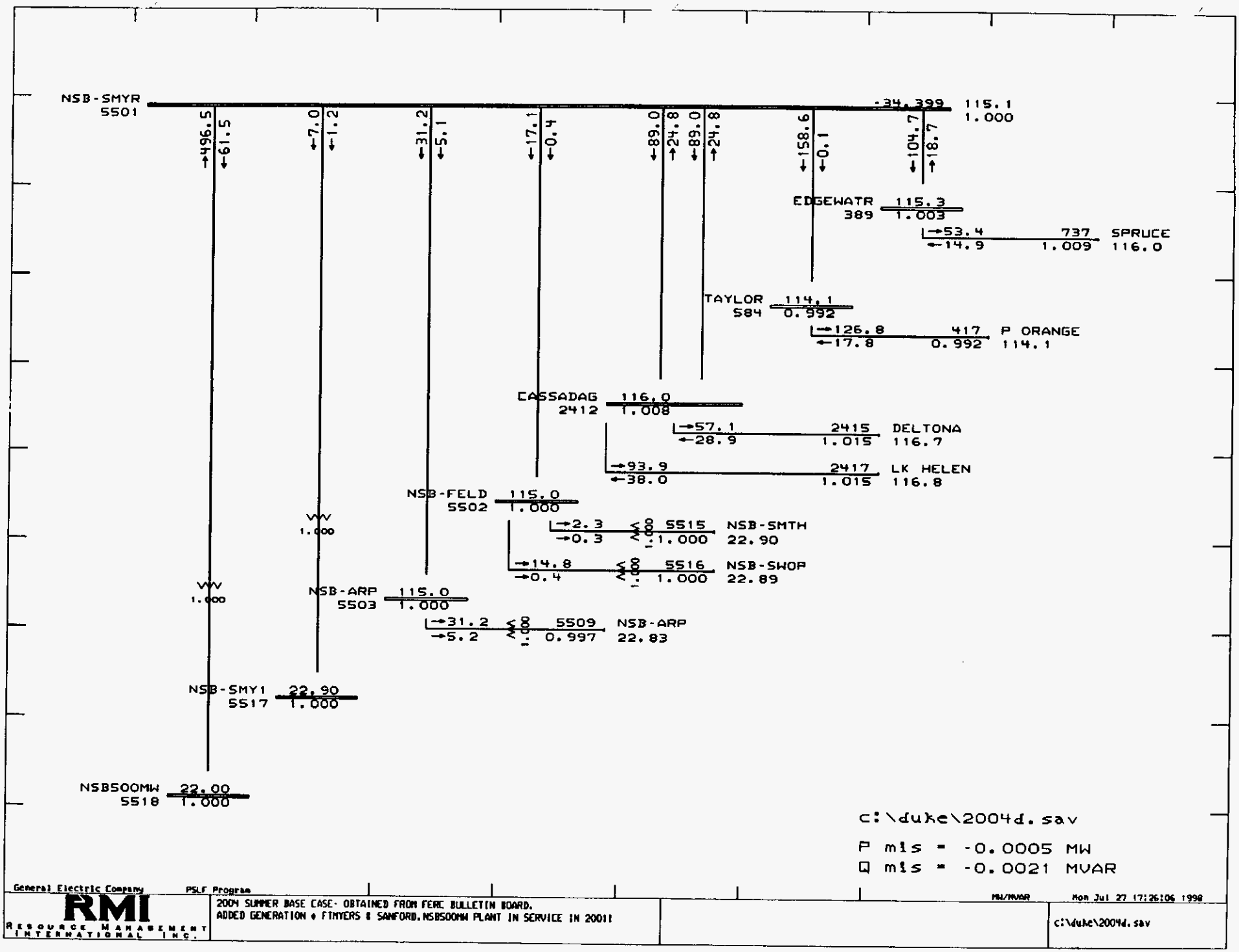
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104.7
18.7
EDGEWATR 115.3
389 1.003
53.4
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737
1.009
SPRUCE
116.0
TAYLOR 114.1
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P ORANGE
114.1
CASSADAG 116.0
2412 1.008
57.1
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2415
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DELTONA
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ADDED GENERATION @ FTMYERS & SANFORD. NSB500MW PLANT IN SERVICE IN 2001!
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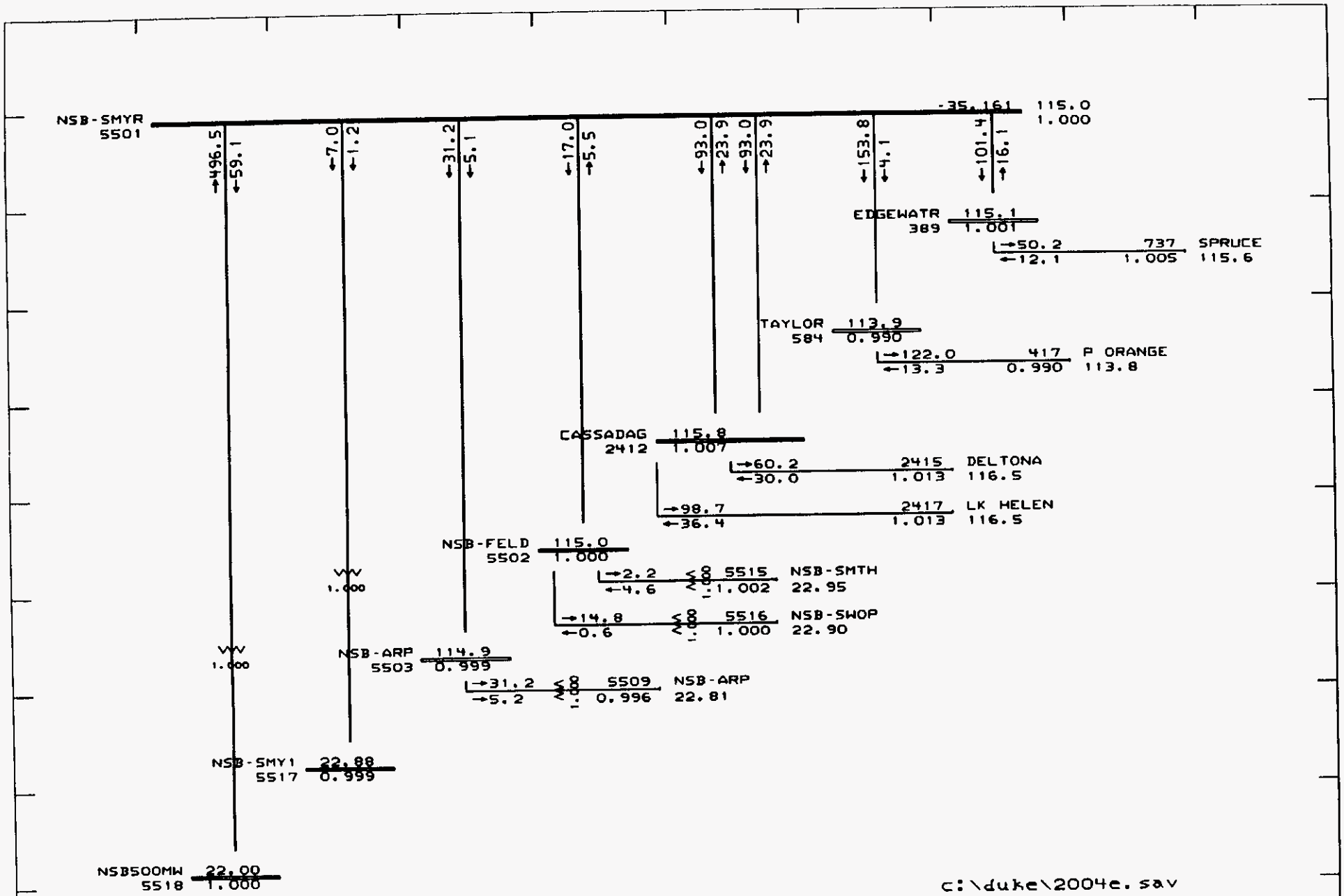
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1.000
→496.5
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→4.1
←101.4
→16.1
EDGEWATR 115.1
389 1.001
→50.2
←12.1
737
1.005
SPRUCE
115.6
TAYLOR 113.9
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→122.0
←13.3
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0.990
P ORANGE
113.8
CASSADAG 115.8
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→60.2
←30.0
2415
1.013
DELTONA
116.5
→98.7
←36.4
2417
1.013
LK HELEN
116.5
NSB-FELD 115.0
5502 1.000
→2.2
←4.6
5515
1.002
NSB-SMTH
22.95
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NSB-SWOP
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1.000
1.000
NSB-ARP 114.9
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→31.2
→5.2
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NSB-ARP
22.81
NSB-SMY1 22.88
5517 0.999
NSB500MW 22.00
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Q mis = -0.0015 MVAR
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General Electric Company
PSLF Program
RMI
RESOURCE MANAGEMENT INTERNATIONAL, INC.
2004 SUMMER BASE CASE- OBTAINED FROM FERC BULLETIN BOARD.
ADDED GENERATION @ FTMYERS & SANFORD. NSB500MW PLANT IN SERVICE IN 2001!
c:\duke\2004e.sav

APPENDIX IV

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-1	SN PLANT	230	SYLVAN	230	1	1						
2004-60-1	SYLVAN	230	N LONGWD	230	1	1						
2004-60-1	IND RIV	230	STANTON	230	1	11						
2004-60-1	SILVR SP	230	SILV SPN	230	1	2						
2004-60-1	SILVR SP	230	SILV SPN	230	2	2						
2004-60-1	RIO PINR	230	CURRY FD	230	1	2						
2004-60-1	JUNEAU-W	138	GANNON	138	1	16						
2004-60-1	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-1	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-1	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-1	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-1	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-1	SN PLANT	115	TURNER	115	1	1						
2004-60-1	PASADENA	115	40ST-DUM	115	1	2						
2004-60-1	MICHIGAN	115	KALEY	115	1	11						
2004-60-1	MICHIGAN	115	GRANT	115	1	11						
2004-60-1	PERSHING	115	GRANT	115	1	11						
2004-60-1	AMERICA	115	KALEY	115	1	11						
2004-60-1	JASPER	115	WGHTCHPL	115	1	2						
2004-60-1	AZALEA	115	BENNETT	115	1	11						
2004-60-1	FLORALTP	69	INVERNTP	69	1	2						
2004-60-1	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-1	PASADENA	230	PASADENA	115	1	2						
2004-60-1	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-1	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-1	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-1	IND RIV	230	IND RIV	115	1	11						
2004-60-1	LARGO	230	LARGO A	69	1	2						
2004-60-1	SHELD	230	SHELD-NW	69	1	16						
2004-60-1	CLMT EST	230	CLMT EST	69	1	2						
2004-60-1	WINDERME	230	WINDERME	69	1	2						
2004-60-1	RIVER-S	230	RIVER-S	69	1	16						
2004-60-1	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-1	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-1	JASPER	115	JASPER	69	1	2						
2004-60-2	SN PLANT	230	SYLVAN	230	1	1						
2004-60-2	SYLVAN	230	N LONGWD	230	1	1						
2004-60-2	IND RIV	230	STANTON	230	1	11						
2004-60-2	SILVR SP	230	SILV SPN	230	1	2						
2004-60-2	SILVR SP	230	SILV SPN	230	2	2						
2004-60-2	RIO PINR	230	CURRY FD	230	1	2						
2004-60-2	JUNEAU-W	138	GANNON	138	1	16						
2004-60-2	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-2	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-2	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-2	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-2	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-2	SN PLANT	115	TURNER	115	1	1						
2004-60-2	PASADENA	115	40ST-DUM	115	1	2						
2004-60-2	MICHIGAN	115	KALEY	115	1	11						
2004-60-2	MICHIGAN	115	GRANT	115	1	11						
2004-60-2	PERSHING	115	GRANT	115	1	11						
2004-60-2	AMERICA	115	KALEY	115	1	11						
2004-60-2	JASPER	115	WGHTCHPL	115	1	2						
2004-60-2	AZALEA	115	BENNETT	115	1	11						
2004-60-2	FLORALTP	69	INVERNTP	69	1	2						
2004-60-2	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-2	PASADENA	230	PASADENA	115	1	2						
2004-60-2	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-2	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-2	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-2	IND RIV	230	IND RIV	115	1	11						
2004-60-2	LARGO	230	LARGO A	69	1	2						
2004-60-2	SHELD	230	SHELD-NW	69	1	16						
2004-60-2	CLMT EST	230	CLMT EST	69	1	2						
2004-60-2	WINDERME	230	WINDERME	69	1	2						
2004-60-2	RIVER-S	230	RIVER-S	69	1	16						
2004-60-2	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-2	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-2	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-3	SN PLANT	230	SYLVAN	230	1	1						
2004-60-3	SYLVAN	230	N LONGWD	230	1	1						
2004-60-3	IND RIV	230	STANTON	230	1	11						
2004-60-3	SILVR SP	230	SILV SPN	230	1	2						
2004-60-3	SILVR SP	230	SILV SPN	230	2	2						
2004-60-3	RIO PINR	230	CURRY FD	230	1	2						
2004-60-3	JUNEAU-W	138	GANNON	138	1	16						
2004-60-3	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-3	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-3	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-3	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-3	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-3	SN PLANT	115	TURNER	115	1	1						
2004-60-3	PASADENA	115	40ST-DUM	115	1	2						
2004-60-3	MICHIGAN	115	KALEY	115	1	11						
2004-60-3	MICHIGAN	115	GRANT	115	1	11						
2004-60-3	PERSHING	115	GRANT	115	1	11						
2004-60-3	AMERICA	115	KALEY	115	1	11						
2004-60-3	JASPER	115	WGHTCHPL	115	1	2						
2004-60-3	AZALEA	115	BENNETT	115	1	11						
2004-60-3	FLORALTP	69	INVERNTP	69	1	2						
2004-60-3	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-3	PASADENA	230	PASADENA	115	1	2						
2004-60-3	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-3	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-3	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-3	IND RIV	230	IND RIV	115	1	11						
2004-60-3	LARGO	230	LARGO A	69	1	2						
2004-60-3	SHELD	230	SHELD-NW	69	1	16						
2004-60-3	CLMT EST	230	CLMT EST	69	1	2						
2004-60-3	WINDERME	230	WINDERME	69	1	2						
2004-60-3	RIVER-S	230	RIVER-S	69	1	16						
2004-60-3	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-3	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-3	JASPER	115	JASPER	69	1	2						
2004-60-4	SN PLANT	230	SYLVAN	230	1	1						
2004-60-4	SYLVAN	230	N LONGWD	230	1	1						
2004-60-4	IND RIV	230	STANTON	230	1	11						
2004-60-4	SILVR SP	230	SILV SPN	230	1	2						
2004-60-4	SILVR SP	230	SILV SPN	230	2	2						
2004-60-4	RIO PINR	230	CURRY FD	230	1	2						
2004-60-4	JUNEAU-W	138	GANNON	138	1	16						
2004-60-4	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-4	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-4	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-4	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-4	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-4	SN PLANT	115	TURNER	115	1	1						
2004-60-4	PASADENA	115	40ST-DUM	115	1	2						
2004-60-4	MICHIGAN	115	KALEY	115	1	11						
2004-60-4	MICHIGAN	115	GRANT	115	1	11						
2004-60-4	PERSHING	115	GRANT	115	1	11						
2004-60-4	AMERICA	115	KALEY	115	1	11						
2004-60-4	JASPER	115	WGHTCHPL	115	1	2						
2004-60-4	AZALEA	115	BENNETT	115	1	11						
2004-60-4	FLORALTP	69	INVERNTP	69	1	2						
2004-60-4	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-4	PASADENA	230	PASADENA	115	1	2						
2004-60-4	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-4	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-4	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-4	IND RIV	230	IND RIV	115	1	11						
2004-60-4	LARGO	230	LARGO A	69	1	2						
2004-60-4	SHELD	230	SHELD-NW	69	1	16						
2004-60-4	CLMT EST	230	CLMT EST	69	1	2						
2004-60-4	WINDERME	230	WINDERME	69	1	2						
2004-60-4	RIVER-S	230	RIVER-S	69	1	16						
2004-60-4	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-4	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-4	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-5	SN PLANT	230	SYLVAN	230	1	1						
2004-60-5	SYLVAN	230	N LONGWD	230	1	1						
2004-60-5	IND RIV	230	STANTON	230	1	11						
2004-60-5	SILVR SP	230	SILV SPN	230	1	2						
2004-60-5	SILVR SP	230	SILV SPN	230	2	2						
2004-60-5	RIO PINR	230	CURRY FD	230	1	2						
2004-60-5	JUNEAU-W	138	GANNON	138	1	16						
2004-60-5	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-5	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-5	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-5	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-5	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-5	SN PLANT	115	TURNER	115	1	1						
2004-60-5	PASADENA	115	40ST-DUM	115	1	2						
2004-60-5	MICHIGAN	115	KALEY	115	1	11						
2004-60-5	MICHIGAN	115	GRANT	115	1	11						
2004-60-5	PERSHING	115	GRANT	115	1	11						
2004-60-5	AMERICA	115	KALEY	115	1	11						
2004-60-5	JASPER	115	WGHTCHPL	115	1	2						
2004-60-5	AZALEA	115	BENNETT	115	1	11						
2004-60-5	FLORALTP	69	INVERNTP	69	1	2						
2004-60-5	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-5	PASADENA	230	PASADENA	115	1	2						
2004-60-5	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-5	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-5	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-5	IND RIV	230	IND RIV	115	1	11						
2004-60-5	LARGO	230	LARGO A	69	1	2						
2004-60-5	SHELD	230	SHELD-NW	69	1	16						
2004-60-5	CLMT EST	230	CLMT EST	69	1	2						
2004-60-5	WINDERME	230	WINDERME	69	1	2						
2004-60-5	RIVER-S	230	RIVER-S	69	1	16						
2004-60-5	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-5	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-5	JASPER	115	JASPER	69	1	2						
2004-60-6	SN PLANT	230	SYLVAN	230	1	1						
2004-60-6	SYLVAN	230	N LONGWD	230	1	1						
2004-60-6	IND RIV	230	STANTON	230	1	11						
2004-60-6	SILVR SP	230	SILV SPN	230	1	2						
2004-60-6	SILVR SP	230	SILV SPN	230	2	2						
2004-60-6	RIO PINR	230	CURRY FD	230	1	2						
2004-60-6	JUNEAU-W	138	GANNON	138	1	16						
2004-60-6	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-6	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-6	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-6	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-6	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-6	SN PLANT	115	TURNER	115	1	1						
2004-60-6	PASADENA	115	40ST-DUM	115	1	2						
2004-60-6	MICHIGAN	115	KALEY	115	1	11						
2004-60-6	MICHIGAN	115	GRANT	115	1	11						
2004-60-6	PERSHING	115	GRANT	115	1	11						
2004-60-6	AMERICA	115	KALEY	115	1	11						
2004-60-6	JASPER	115	WGHTCHPL	115	1	2						
2004-60-6	AZALEA	115	BENNETT	115	1	11						
2004-60-6	FLORALTP	69	INVERNTP	69	1	2						
2004-60-6	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-6	PASADENA	230	PASADENA	115	1	2						
2004-60-6	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-6	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-6	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-6	IND RIV	230	IND RIV	115	1	11						
2004-60-6	LARGO	230	LARGO A	69	1	2						
2004-60-6	SHELD	230	SHELD-NW	69	1	16						
2004-60-6	CLMT EST	230	CLMT EST	69	1	2						
2004-60-6	WINDERME	230	WINDERME	69	1	2						
2004-60-6	RIVER-S	230	RIVER-S	69	1	16						
2004-60-6	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-6	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-6	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-7	SN PLANT	230	SYLVAN	230	1	1						
2004-60-7	SYLVAN	230	N LONGWD	230	1	1						
2004-60-7	IND RIV	230	STANTON	230	1	11						
2004-60-7	SILVR SP	230	SILV SPN	230	1	2						
2004-60-7	SILVR SP	230	SILV SPN	230	2	2						
2004-60-7	RIO PINR	230	CURRY FD	230	1	2						
2004-60-7	JUNEAU-W	138	GANNON	138	1	16						
2004-60-7	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-7	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-7	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-7	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-7	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-7	SN PLANT	115	TURNER	115	1	1						
2004-60-7	PASADENA	115	40ST-DUM	115	1	2						
2004-60-7	MICHIGAN	115	KALEY	115	1	11						
2004-60-7	MICHIGAN	115	GRANT	115	1	11						
2004-60-7	PERSHING	115	GRANT	115	1	11						
2004-60-7	AMERICA	115	KALEY	115	1	11						
2004-60-7	JASPER	115	WGHTCHPL	115	1	2						
2004-60-7	AZALEA	115	BENNETT	115	1	11						
2004-60-7	FLORALTP	69	INVERNTP	69	1	2						
2004-60-7	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-7	PASADENA	230	PASADENA	115	1	2						
2004-60-7	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-7	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-7	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-7	IND RIV	230	IND RIV	115	1	11						
2004-60-7	LARGO	230	LARGO A	69	1	2						
2004-60-7	SHELD	230	SHELD-NW	69	1	16						
2004-60-7	CLMT EST	230	CLMT EST	69	1	2						
2004-60-7	WINDERME	230	WINDERME	69	1	2						
2004-60-7	RIVER-S	230	RIVER-S	69	1	16						
2004-60-7	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-7	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-7	JASPER	115	JASPER	69	1	2						
2004-60-8	SN PLANT	230	SYLVAN	230	1	1						
2004-60-8	SYLVAN	230	N LONGWD	230	1	1						
2004-60-8	IND RIV	230	STANTON	230	1	11						
2004-60-8	SILVR SP	230	SILV SPN	230	1	2						
2004-60-8	SILVR SP	230	SILV SPN	230	2	2						
2004-60-8	RIO PINR	230	CURRY FD	230	1	2						
2004-60-8	JUNEAU-W	138	GANNON	138	1	16						
2004-60-8	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-8	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-8	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-8	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-8	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-8	SN PLANT	115	TURNER	115	1	1						
2004-60-8	PASADENA	115	40ST-DUM	115	1	2						
2004-60-8	MICHIGAN	115	KALEY	115	1	11						
2004-60-8	MICHIGAN	115	GRANT	115	1	11						
2004-60-8	PERSHING	115	GRANT	115	1	11						
2004-60-8	AMERICA	115	KALEY	115	1	11						
2004-60-8	JASPER	115	WGHTCHPL	115	1	2						
2004-60-8	AZALEA	115	BENNETT	115	1	11						
2004-60-8	FLORALTP	69	INVERNTP	69	1	2						
2004-60-8	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-8	PASADENA	230	PASADENA	115	1	2						
2004-60-8	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-8	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-8	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-8	IND RIV	230	IND RIV	115	1	11						
2004-60-8	LARGO	230	LARGO A	69	1	2						
2004-60-8	SHELD	230	SHELD-NW	69	1	16						
2004-60-8	CLMT EST	230	CLMT EST	69	1	2						
2004-60-8	WINDERME	230	WINDERME	69	1	2						
2004-60-8	RIVER-S	230	RIVER-S	69	1	16						
2004-60-8	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-8	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-8	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-9	SN PLANT	230	SYLVAN	230	1	1						
2004-60-9	SYLVAN	230	N LONGWD	230	1	1						
2004-60-9	IND RIV	230	STANTON	230	1	11						
2004-60-9	SILVR SP	230	SILV SPN	230	1	2						
2004-60-9	SILVR SP	230	SILV SPN	230	2	2						
2004-60-9	RIO PINR	230	CURRY FD	230	1	2						
2004-60-9	JUNEAU-W	138	GANNON	138	1	16						
2004-60-9	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-9	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-9	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-9	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-9	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-9	SN PLANT	115	TURNER	115	1	1						
2004-60-9	PASADENA	115	40ST-DUM	115	1	2						
2004-60-9	MICHIGAN	115	KALEY	115	1	11						
2004-60-9	MICHIGAN	115	GRANT	115	1	11						
2004-60-9	PERSHING	115	GRANT	115	1	11						
2004-60-9	AMERICA	115	KALEY	115	1	11						
2004-60-9	JASPER	115	WGHTCHPL	115	1	2						
2004-60-9	AZALEA	115	BENNETT	115	1	11						
2004-60-9	FLORALTP	69	INVERNTP	69	1	2						
2004-60-9	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-9	PASADENA	230	PASADENA	115	1	2						
2004-60-9	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-9	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-9	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-9	IND RIV	230	IND RIV	115	1	11						
2004-60-9	LARGO	230	LARGO A	69	1	2						
2004-60-9	SHELD	230	SHELD-NW	69	1	16						
2004-60-9	CLMT EST	230	CLMT EST	69	1	2						
2004-60-9	WINDERME	230	WINDERME	69	1	2						
2004-60-9	RIVER-S	230	RIVER-S	69	1	16						
2004-60-9	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-9	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-9	JASPER	115	JASPER	69	1	2						
2004-60-10	SN PLANT	230	SYLVAN	230	1	1						
2004-60-10	SYLVAN	230	N LONGWD	230	1	1						
2004-60-10	IND RIV	230	STANTON	230	1	11						
2004-60-10	SILVR SP	230	SILV SPN	230	1	2						
2004-60-10	SILVR SP	230	SILV SPN	230	2	2						
2004-60-10	RIO PINR	230	CURRY FD	230	1	2						
2004-60-10	JUNEAU-W	138	GANNON	138	1	16						
2004-60-10	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-10	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-10	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-10	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-10	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-10	SN PLANT	115	TURNER	115	1	1						
2004-60-10	PASADENA	115	40ST-DUM	115	1	2						
2004-60-10	MICHIGAN	115	KALEY	115	1	11						
2004-60-10	MICHIGAN	115	GRANT	115	1	11						
2004-60-10	PERSHING	115	GRANT	115	1	11						
2004-60-10	AMERICA	115	KALEY	115	1	11						
2004-60-10	JASPER	115	WGHTCHPL	115	1	2						
2004-60-10	AZALEA	115	BENNETT	115	1	11						
2004-60-10	FLORALTP	69	INVERNTP	69	1	2						
2004-60-10	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-10	PASADENA	230	PASADENA	115	1	2						
2004-60-10	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-10	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-10	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-10	IND RIV	230	IND RIV	115	1	11						
2004-60-10	LARGO	230	LARGO A	69	1	2						
2004-60-10	SHELD	230	SHELD-NW	69	1	16						
2004-60-10	CLMT EST	230	CLMT EST	69	1	2						
2004-60-10	WINDERME	230	WINDERME	69	1	2						
2004-60-10	RIVER-S	230	RIVER-S	69	1	16						
2004-60-10	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-10	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-10	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-11	SN PLANT	230	SYLVAN	230	1	1						
2004-60-11	SYLVAN	230	N LONGWD	230	1	1						
2004-60-11	IND RIV	230	STANTON	230	1	11						
2004-60-11	SILVR SP	230	SILV SPN	230	1	2						
2004-60-11	SILVR SP	230	SILV SPN	230	2	2						
2004-60-11	RIO PINR	230	CURRY FD	230	1	2						
2004-60-11	JUNEAU-W	138	GANNON	138	1	16						
2004-60-11	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-11	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-11	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-11	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-11	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-11	SN PLANT	115	TURNER	115	1	1						
2004-60-11	PASADENA	115	40ST-DUM	115	1	2						
2004-60-11	MICHIGAN	115	KALEY	115	1	11						
2004-60-11	MICHIGAN	115	GRANT	115	1	11						
2004-60-11	PERSHING	115	GRANT	115	1	11						
2004-60-11	AMERICA	115	KALEY	115	1	11						
2004-60-11	JASPER	115	WGHTCHPL	115	1	2						
2004-60-11	AZALEA	115	BENNETT	115	1	11						
2004-60-11	FLORALTP	69	INVERNTP	69	1	2						
2004-60-11	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-11	PASADENA	230	PASADENA	115	1	2						
2004-60-11	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-11	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-11	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-11	IND RIV	230	IND RIV	115	1	11						
2004-60-11	LARGO	230	LARGO A	69	1	2						
2004-60-11	SHELD	230	SHELD-NW	69	1	16						
2004-60-11	CLMT EST	230	CLMT EST	69	1	2						
2004-60-11	WINDERME	230	WINDERME	69	1	2						
2004-60-11	RIVER-S	230	RIVER-S	69	1	16						
2004-60-11	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-11	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-11	JASPER	115	JASPER	69	1	2						
2004-60-12	SN PLANT	230	SYLVAN	230	1	1						
2004-60-12	SYLVAN	230	N LONGWD	230	1	1						
2004-60-12	IND RIV	230	STANTON	230	1	11						
2004-60-12	SILVR SP	230	SILV SPN	230	1	2						
2004-60-12	SILVR SP	230	SILV SPN	230	2	2						
2004-60-12	RIO PINR	230	CURRY FD	230	1	2						
2004-60-12	JUNEAU-W	138	GANNON	138	1	16						
2004-60-12	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-12	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-12	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-12	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-12	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-12	SN PLANT	115	TURNER	115	1	1						
2004-60-12	PASADENA	115	40ST-DUM	115	1	2						
2004-60-12	MICHIGAN	115	KALEY	115	1	11						
2004-60-12	MICHIGAN	115	GRANT	115	1	11						
2004-60-12	PERSHING	115	GRANT	115	1	11						
2004-60-12	AMERICA	115	KALEY	115	1	11						
2004-60-12	JASPER	115	WGHTCHPL	115	1	2						
2004-60-12	AZALEA	115	BENNETT	115	1	11						
2004-60-12	FLORALTP	69	INVERNTP	69	1	2						
2004-60-12	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-12	PASADENA	230	PASADENA	115	1	2						
2004-60-12	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-12	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-12	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-12	IND RIV	230	IND RIV	115	1	11						
2004-60-12	LARGO	230	LARGO A	69	1	2						
2004-60-12	SHELD	230	SHELD-NW	69	1	16						
2004-60-12	CLMT EST	230	CLMT EST	69	1	2						
2004-60-12	WINDERME	230	WINDERME	69	1	2						
2004-60-12	RIVER-S	230	RIVER-S	69	1	16						
2004-60-12	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-12	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-12	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-13	SN PLANT	230	SYLVAN	230	1	1						
2004-60-13	SYLVAN	230	N LONGWD	230	1	1						
2004-60-13	IND RIV	230	STANTON	230	1	11						
2004-60-13	SILVR SP	230	SILV SPN	230	1	2						
2004-60-13	SILVR SP	230	SILV SPN	230	2	2						
2004-60-13	RIO PINR	230	CURRY FD	230	1	2						
2004-60-13	JUNEAU-W	138	GANNON	138	1	16						
2004-60-13	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-13	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-13	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-13	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-13	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-13	SN PLANT	115	TURNER	115	1	1						
2004-60-13	PASADENA	115	40ST-DUM	115	1	2						
2004-60-13	MICHIGAN	115	KALEY	115	1	11						
2004-60-13	MICHIGAN	115	GRANT	115	1	11						
2004-60-13	PERSHING	115	GRANT	115	1	11						
2004-60-13	AMERICA	115	KALEY	115	1	11						
2004-60-13	JASPER	115	WGHTCHPL	115	1	2						
2004-60-13	AZALEA	115	BENNETT	115	1	11						
2004-60-13	FLORALTP	69	INVERNTP	69	1	2						
2004-60-13	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-13	PASADENA	230	PASADENA	115	1	2						
2004-60-13	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-13	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-13	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-13	IND RIV	230	IND RIV	115	1	11						
2004-60-13	LARGO	230	LARGO A	69	1	2						
2004-60-13	SHELD	230	SHELD-NW	69	1	16						
2004-60-13	CLMT EST	230	CLMT EST	69	1	2						
2004-60-13	WINDERME	230	WINDERME	69	1	2						
2004-60-13	RIVER-S	230	RIVER-S	69	1	16						
2004-60-13	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-13	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-13	JASPER	115	JASPER	69	1	2						
2004-60-14	SN PLANT	230	SYLVAN	230	1	1						
2004-60-14	SYLVAN	230	N LONGWD	230	1	1						
2004-60-14	IND RIV	230	STANTON	230	1	11						
2004-60-14	SILVR SP	230	SILV SPN	230	1	2						
2004-60-14	SILVR SP	230	SILV SPN	230	2	2						
2004-60-14	RIO PINR	230	CURRY FD	230	1	2						
2004-60-14	JUNEAU-W	138	GANNON	138	1	16						
2004-60-14	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-14	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-14	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-14	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-14	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-14	SN PLANT	115	TURNER	115	1	1						
2004-60-14	PASADENA	115	40ST-DUM	115	1	2						
2004-60-14	MICHIGAN	115	KALEY	115	1	11						
2004-60-14	MICHIGAN	115	GRANT	115	1	11						
2004-60-14	PERSHING	115	GRANT	115	1	11						
2004-60-14	AMERICA	115	KALEY	115	1	11						
2004-60-14	JASPER	115	WGHTCHPL	115	1	2						
2004-60-14	AZALEA	115	BENNETT	115	1	11						
2004-60-14	FLORALTP	69	INVERNTP	69	1	2						
2004-60-14	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-14	PASADENA	230	PASADENA	115	1	2						
2004-60-14	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-14	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-14	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-14	IND RIV	230	IND RIV	115	1	11						
2004-60-14	LARGO	230	LARGO A	69	1	2						
2004-60-14	SHELD	230	SHELD-NW	69	1	16						
2004-60-14	CLMT EST	230	CLMT EST	69	1	2						
2004-60-14	WINDERME	230	WINDERME	69	1	2						
2004-60-14	RIVER-S	230	RIVER-S	69	1	16						
2004-60-14	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-14	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-14	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-15	SN PLANT	230	SYLVAN	230	1	1						
2004-60-15	SYLVAN	230	N LONGWD	230	1	1						
2004-60-15	IND RIV	230	STANTON	230	1	11						
2004-60-15	SILVR SP	230	SILV SPN	230	1	2						
2004-60-15	SILVR SP	230	SILV SPN	230	2	2						
2004-60-15	RIO PINR	230	CURRY FD	230	1	2						
2004-60-15	JUNEAU-W	138	GANNON	138	1	16						
2004-60-15	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-15	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-15	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-15	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-15	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-15	SN PLANT	115	TURNER	115	1	1						
2004-60-15	PASADENA	115	40ST-DUM	115	1	2						
2004-60-15	MICHIGAN	115	KALEY	115	1	11						
2004-60-15	MICHIGAN	115	GRANT	115	1	11						
2004-60-15	PERSHING	115	GRANT	115	1	11						
2004-60-15	AMERICA	115	KALEY	115	1	11						
2004-60-15	JASPER	115	WGHTCHPL	115	1	2						
2004-60-15	AZALEA	115	BENNETT	115	1	11						
2004-60-15	FLORALTP	69	INVERNTP	69	1	2						
2004-60-15	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-15	PASADENA	230	PASADENA	115	1	2						
2004-60-15	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-15	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-15	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-15	IND RIV	230	IND RIV	115	1	11						
2004-60-15	LARGO	230	LARGO A	69	1	2						
2004-60-15	SHELD	230	SHELD-NW	69	1	16						
2004-60-15	CLMT EST	230	CLMT EST	69	1	2						
2004-60-15	WINDERME	230	WINDERME	69	1	2						
2004-60-15	RIVER-S	230	RIVER-S	69	1	16						
2004-60-15	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-15	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-15	JASPER	115	JASPER	69	1	2						
2004-60-16	SN PLANT	230	SYLVAN	230	1	1						
2004-60-16	SYLVAN	230	N LONGWD	230	1	1						
2004-60-16	IND RIV	230	STANTON	230	1	11						
2004-60-16	SILVR SP	230	SILV SPN	230	1	2						
2004-60-16	SILVR SP	230	SILV SPN	230	2	2						
2004-60-16	RIO PINR	230	CURRY FD	230	1	2						
2004-60-16	JUNEAU-W	138	GANNON	138	1	16						
2004-60-16	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-16	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-16	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-16	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-16	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-16	SN PLANT	115	TURNER	115	1	1						
2004-60-16	PASADENA	115	40ST-DUM	115	1	2						
2004-60-16	MICHIGAN	115	KALEY	115	1	11						
2004-60-16	MICHIGAN	115	GRANT	115	1	11						
2004-60-16	PERSHING	115	GRANT	115	1	11						
2004-60-16	AMERICA	115	KALEY	115	1	11						
2004-60-16	JASPER	115	WGHTCHPL	115	1	2						
2004-60-16	AZALEA	115	BENNETT	115	1	11						
2004-60-16	FLORALTP	69	INVERNTP	69	1	2						
2004-60-16	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-16	PASADENA	230	PASADENA	115	1	2						
2004-60-16	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-16	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-16	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-16	IND RIV	230	IND RIV	115	1	11						
2004-60-16	LARGO	230	LARGO A	69	1	2						
2004-60-16	SHELD	230	SHELD-NW	69	1	16						
2004-60-16	CLMT EST	230	CLMT EST	69	1	2						
2004-60-16	WINDERME	230	WINDERME	69	1	2						
2004-60-16	RIVER-S	230	RIVER-S	69	1	16						
2004-60-16	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-16	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-16	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-17	SN PLANT	230	SYLVAN	230	1	1						
2004-60-17	SYLVAN	230	N LONGWD	230	1	1						
2004-60-17	IND RIV	230	STANTON	230	1	11						
2004-60-17	SILVR SP	230	SILV SPN	230	1	2						
2004-60-17	SILVR SP	230	SILV SPN	230	2	2						
2004-60-17	RIO PINR	230	CURRY FD	230	1	2						
2004-60-17	JUNEAU-W	138	GANNON	138	1	16						
2004-60-17	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-17	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-17	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-17	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-17	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-17	SN PLANT	115	TURNER	115	1	1						
2004-60-17	PASADENA	115	40ST-DUM	115	1	2						
2004-60-17	MICHIGAN	115	KALEY	115	1	11						
2004-60-17	MICHIGAN	115	GRANT	115	1	11						
2004-60-17	PERSHING	115	GRANT	115	1	11						
2004-60-17	AMERICA	115	KALEY	115	1	11						
2004-60-17	JASPER	115	WGHTCHPL	115	1	2						
2004-60-17	AZALEA	115	BENNETT	115	1	11						
2004-60-17	FLORALTP	69	INVERNTP	69	1	2						
2004-60-17	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-17	PASADENA	230	PASADENA	115	1	2						
2004-60-17	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-17	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-17	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-17	IND RIV	230	IND RIV	115	1	11						
2004-60-17	LARGO	230	LARGO A	69	1	2						
2004-60-17	SHELD	230	SHELD-NW	69	1	16						
2004-60-17	CLMT EST	230	CLMT EST	69	1	2						
2004-60-17	WINDERME	230	WINDERME	69	1	2						
2004-60-17	RIVER-S	230	RIVER-S	69	1	16						
2004-60-17	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-17	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-17	JASPER	115	JASPER	69	1	2						
2004-60-18	SN PLANT	230	SYLVAN	230	1	1						
2004-60-18	SYLVAN	230	N LONGWD	230	1	1						
2004-60-18	IND RIV	230	STANTON	230	1	11						
2004-60-18	SILVR SP	230	SILV SPN	230	1	2						
2004-60-18	SILVR SP	230	SILV SPN	230	2	2						
2004-60-18	RIO PINR	230	CURRY FD	230	1	2						
2004-60-18	JUNEAU-W	138	GANNON	138	1	16						
2004-60-18	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-18	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-18	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-18	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-18	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-18	SN PLANT	115	TURNER	115	1	1						
2004-60-18	PASADENA	115	40ST-DUM	115	1	2						
2004-60-18	MICHIGAN	115	KALEY	115	1	11						
2004-60-18	MICHIGAN	115	GRANT	115	1	11						
2004-60-18	PERSHING	115	GRANT	115	1	11						
2004-60-18	AMERICA	115	KALEY	115	1	11						
2004-60-18	JASPER	115	WGHTCHPL	115	1	2						
2004-60-18	AZALEA	115	BENNETT	115	1	11						
2004-60-18	FLORALTP	69	INVERNTP	69	1	2						
2004-60-18	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-18	PASADENA	230	PASADENA	115	1	2						
2004-60-18	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-18	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-18	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-18	IND RIV	230	IND RIV	115	1	11						
2004-60-18	LARGO	230	LARGO A	69	1	2						
2004-60-18	SHELD	230	SHELD-NW	69	1	16						
2004-60-18	CLMT EST	230	CLMT EST	69	1	2						
2004-60-18	WINDERME	230	WINDERME	69	1	2						
2004-60-18	RIVER-S	230	RIVER-S	69	1	16						
2004-60-18	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-18	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-18	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-19	SN PLANT	230	SYLVAN	230	1	1						
2004-60-19	SYLVAN	230	N LONGWD	230	1	1						
2004-60-19	IND RIV	230	STANTON	230	1	11						
2004-60-19	SILVR SP	230	SILV SPN	230	1	2						
2004-60-19	SILVR SP	230	SILV SPN	230	2	2						
2004-60-19	RIO PINR	230	CURRY FD	230	1	2						
2004-60-19	JUNEAU-W	138	GANNON	138	1	16						
2004-60-19	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-19	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-19	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-19	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-19	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-19	SN PLANT	115	TURNER	115	1	1						
2004-60-19	PASADENA	115	40ST-DUM	115	1	2						
2004-60-19	MICHIGAN	115	KALEY	115	1	11						
2004-60-19	MICHIGAN	115	GRANT	115	1	11						
2004-60-19	PERSHING	115	GRANT	115	1	11						
2004-60-19	AMERICA	115	KALEY	115	1	11						
2004-60-19	JASPER	115	WGHTCHPL	115	1	2						
2004-60-19	AZALEA	115	BENNETT	115	1	11						
2004-60-19	FLORALTP	69	INVERNTP	69	1	2						
2004-60-19	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-19	PASADENA	230	PASADENA	115	1	2						
2004-60-19	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-19	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-19	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-19	IND RIV	230	IND RIV	115	1	11						
2004-60-19	LARGO	230	LARGO A	69	1	2						
2004-60-19	SHELD	230	SHELD-NW	69	1	16						
2004-60-19	CLMT EST	230	CLMT EST	69	1	2						
2004-60-19	WINDERME	230	WINDERME	69	1	2						
2004-60-19	RIVER-S	230	RIVER-S	69	1	16						
2004-60-19	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-19	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-19	JASPER	115	JASPER	69	1	2						
2004-60-20	SN PLANT	230	SYLVAN	230	1	1						
2004-60-20	SYLVAN	230	N LONGWD	230	1	1						
2004-60-20	IND RIV	230	STANTON	230	1	11						
2004-60-20	SILVR SP	230	SILV SPN	230	1	2						
2004-60-20	SILVR SP	230	SILV SPN	230	2	2						
2004-60-20	RIO PINR	230	CURRY FD	230	1	2						
2004-60-20	JUNEAU-W	138	GANNON	138	1	16						
2004-60-20	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-20	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-20	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-20	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-20	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-20	SN PLANT	115	TURNER	115	1	1						
2004-60-20	PASADENA	115	40ST-DUM	115	1	2						
2004-60-20	MICHIGAN	115	KALEY	115	1	11						
2004-60-20	MICHIGAN	115	GRANT	115	1	11						
2004-60-20	PERSHING	115	GRANT	115	1	11						
2004-60-20	AMERICA	115	KALEY	115	1	11						
2004-60-20	JASPER	115	WGHTCHPL	115	1	2						
2004-60-20	AZALEA	115	BENNETT	115	1	11						
2004-60-20	FLORALTP	69	INVERNTP	69	1	2						
2004-60-20	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-20	PASADENA	230	PASADENA	115	1	2						
2004-60-20	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-20	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-20	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-20	IND RIV	230	IND RIV	115	1	11						
2004-60-20	LARGO	230	LARGO A	69	1	2						
2004-60-20	SHELD	230	SHELD-NW	69	1	16						
2004-60-20	CLMT EST	230	CLMT EST	69	1	2						
2004-60-20	WINDERME	230	WINDERME	69	1	2						
2004-60-20	RIVER-S	230	RIVER-S	69	1	16						
2004-60-20	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-20	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-20	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-21	SN PLANT	230	SYLVAN	230	1	1						
2004-60-21	SYLVAN	230	N LONGWD	230	1	1						
2004-60-21	IND RIV	230	STANTON	230	1	11						
2004-60-21	SILVR SP	230	SILV SPN	230	1	2						
2004-60-21	SILVR SP	230	SILV SPN	230	2	2						
2004-60-21	RIO PINR	230	CURRY FD	230	1	2						
2004-60-21	JUNEAU-W	138	GANNON	138	1	16						
2004-60-21	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-21	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-21	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-21	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-21	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-21	SN PLANT	115	TURNER	115	1	1						
2004-60-21	PASADENA	115	40ST-DUM	115	1	2						
2004-60-21	MICHIGAN	115	KALEY	115	1	11						
2004-60-21	MICHIGAN	115	GRANT	115	1	11						
2004-60-21	PERSHING	115	GRANT	115	1	11						
2004-60-21	AMERICA	115	KALEY	115	1	11						
2004-60-21	JASPER	115	WGHTCHPL	115	1	2						
2004-60-21	AZALEA	115	BENNETT	115	1	11						
2004-60-21	FLORALTP	69	INVERNTP	69	1	2						
2004-60-21	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-21	PASADENA	230	PASADENA	115	1	2						
2004-60-21	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-21	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-21	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-21	IND RIV	230	IND RIV	115	1	11						
2004-60-21	LARGO	230	LARGO A	69	1	2						
2004-60-21	SHELD	230	SHELD-NW	69	1	16						
2004-60-21	CLMT EST	230	CLMT EST	69	1	2						
2004-60-21	WINDERME	230	WINDERME	69	1	2						
2004-60-21	RIVER-S	230	RIVER-S	69	1	16						
2004-60-21	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-21	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-21	JASPER	115	JASPER	69	1	2						
2004-60-22	SN PLANT	230	SYLVAN	230	1	1						
2004-60-22	SYLVAN	230	N LONGWD	230	1	1						
2004-60-22	IND RIV	230	STANTON	230	1	11						
2004-60-22	SILVR SP	230	SILV SPN	230	1	2						
2004-60-22	SILVR SP	230	SILV SPN	230	2	2						
2004-60-22	RIO PINR	230	CURRY FD	230	1	2						
2004-60-22	JUNEAU-W	138	GANNON	138	1	16						
2004-60-22	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-22	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-22	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-22	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-22	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-22	SN PLANT	115	TURNER	115	1	1						
2004-60-22	PASADENA	115	40ST-DUM	115	1	2						
2004-60-22	MICHIGAN	115	KALEY	115	1	11						
2004-60-22	MICHIGAN	115	GRANT	115	1	11						
2004-60-22	PERSHING	115	GRANT	115	1	11						
2004-60-22	AMERICA	115	KALEY	115	1	11						
2004-60-22	JASPER	115	WGHTCHPL	115	1	2						
2004-60-22	AZALEA	115	BENNETT	115	1	11						
2004-60-22	FLORALTP	69	INVERNTP	69	1	2						
2004-60-22	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-22	PASADENA	230	PASADENA	115	1	2						
2004-60-22	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-22	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-22	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-22	IND RIV	230	IND RIV	115	1	11						
2004-60-22	LARGO	230	LARGO A	69	1	2						
2004-60-22	SHELD	230	SHELD-NW	69	1	16						
2004-60-22	CLMT EST	230	CLMT EST	69	1	2						
2004-60-22	WINDERME	230	WINDERME	69	1	2						
2004-60-22	RIVER-S	230	RIVER-S	69	1	16						
2004-60-22	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-22	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-22	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-23	SN PLANT	230	SYLVAN	230	1	1						
2004-60-23	SYLVAN	230	N LONGWD	230	1	1						
2004-60-23	IND RIV	230	STANTON	230	1	11						
2004-60-23	SILVR SP	230	SILV SPN	230	1	2						
2004-60-23	SILVR SP	230	SILV SPN	230	2	2						
2004-60-23	RIO PINR	230	CURRY FD	230	1	2						
2004-60-23	JUNEAU-W	138	GANNON	138	1	16						
2004-60-23	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-23	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-23	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-23	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-23	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-23	SN PLANT	115	TURNER	115	1	1						
2004-60-23	PASADENA	115	40ST-DUM	115	1	2						
2004-60-23	MICHIGAN	115	KALEY	115	1	11						
2004-60-23	MICHIGAN	115	GRANT	115	1	11						
2004-60-23	PERSHING	115	GRANT	115	1	11						
2004-60-23	AMERICA	115	KALEY	115	1	11						
2004-60-23	JASPER	115	WGHTCHPL	115	1	2						
2004-60-23	AZALEA	115	BENNETT	115	1	11						
2004-60-23	FLORALTP	69	INVERNTP	69	1	2						
2004-60-23	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-23	PASADENA	230	PASADENA	115	1	2						
2004-60-23	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-23	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-23	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-23	IND RIV	230	IND RIV	115	1	11						
2004-60-23	LARGO	230	LARGO A	69	1	2						
2004-60-23	SHELD	230	SHELD-NW	69	1	16						
2004-60-23	CLMT EST	230	CLMT EST	69	1	2						
2004-60-23	WINDERME	230	WINDERME	69	1	2						
2004-60-23	RIVER-S	230	RIVER-S	69	1	16						
2004-60-23	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-23	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-23	JASPER	115	JASPER	69	1	2						
2004-60-24	SN PLANT	230	SYLVAN	230	1	1						
2004-60-24	SYLVAN	230	N LONGWD	230	1	1						
2004-60-24	IND RIV	230	STANTON	230	1	11						
2004-60-24	SILVR SP	230	SILV SPN	230	1	2						
2004-60-24	SILVR SP	230	SILV SPN	230	2	2						
2004-60-24	RIO PINR	230	CURRY FD	230	1	2						
2004-60-24	JUNEAU-W	138	GANNON	138	1	16						
2004-60-24	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-24	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-24	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-24	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-24	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-24	SN PLANT	115	TURNER	115	1	1						
2004-60-24	PASADENA	115	40ST-DUM	115	1	2						
2004-60-24	MICHIGAN	115	KALEY	115	1	11						
2004-60-24	MICHIGAN	115	GRANT	115	1	11						
2004-60-24	PERSHING	115	GRANT	115	1	11						
2004-60-24	AMERICA	115	KALEY	115	1	11						
2004-60-24	JASPER	115	WGHTCHPL	115	1	2						
2004-60-24	AZALEA	115	BENNETT	115	1	11						
2004-60-24	FLORALTP	69	INVERNTP	69	1	2						
2004-60-24	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-24	PASADENA	230	PASADENA	115	1	2						
2004-60-24	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-24	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-24	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-24	IND RIV	230	IND RIV	115	1	11						
2004-60-24	LARGO	230	LARGO A	69	1	2						
2004-60-24	SHELD	230	SHELD-NW	69	1	16						
2004-60-24	CLMT EST	230	CLMT EST	69	1	2						
2004-60-24	WINDERME	230	WINDERME	69	1	2						
2004-60-24	RIVER-S	230	RIVER-S	69	1	16						
2004-60-24	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-24	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-24	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-25	SN PLANT	230	SYLVAN	230	1	1						
2004-60-25	SYLVAN	230	N LONGWD	230	1	1						
2004-60-25	IND RIV	230	STANTON	230	1	11						
2004-60-25	SILVR SP	230	SILV SPN	230	1	2						
2004-60-25	SILVR SP	230	SILV SPN	230	2	2						
2004-60-25	RIO PINR	230	CURRY FD	230	1	2						
2004-60-25	JUNEAU-W	138	GANNON	138	1	16						
2004-60-25	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-25	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-25	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-25	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-25	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-25	SN PLANT	115	TURNER	115	1	1						
2004-60-25	PASADENA	115	40ST-DUM	115	1	2						
2004-60-25	MICHIGAN	115	KALEY	115	1	11						
2004-60-25	MICHIGAN	115	GRANT	115	1	11						
2004-60-25	PERSHING	115	GRANT	115	1	11						
2004-60-25	AMERICA	115	KALEY	115	1	11						
2004-60-25	JASPER	115	WGHTCHPL	115	1	2						
2004-60-25	AZALEA	115	BENNETT	115	1	11						
2004-60-25	FLORALTP	69	INVERNTP	69	1	2						
2004-60-25	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-25	PASADENA	230	PASADENA	115	1	2						
2004-60-25	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-25	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-25	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-25	IND RIV	230	IND RIV	115	1	11						
2004-60-25	LARGO	230	LARGO A	69	1	2						
2004-60-25	SHELD	230	SHELD-NW	69	1	16						
2004-60-25	CLMT EST	230	CLMT EST	69	1	2						
2004-60-25	WINDERME	230	WINDERME	69	1	2						
2004-60-25	RIVER-S	230	RIVER-S	69	1	16						
2004-60-25	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-25	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-25	JASPER	115	JASPER	69	1	2						
2004-60-26	SN PLANT	230	SYLVAN	230	1	1						
2004-60-26	SYLVAN	230	N LONGWD	230	1	1						
2004-60-26	IND RIV	230	STANTON	230	1	11						
2004-60-26	SILVR SP	230	SILV SPN	230	1	2						
2004-60-26	SILVR SP	230	SILV SPN	230	2	2						
2004-60-26	RIO PINR	230	CURRY FD	230	1	2						
2004-60-26	JUNEAU-W	138	GANNON	138	1	16						
2004-60-26	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-26	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-26	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-26	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-26	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-26	SN PLANT	115	TURNER	115	1	1						
2004-60-26	PASADENA	115	40ST-DUM	115	1	2						
2004-60-26	MICHIGAN	115	KALEY	115	1	11						
2004-60-26	MICHIGAN	115	GRANT	115	1	11						
2004-60-26	PERSHING	115	GRANT	115	1	11						
2004-60-26	AMERICA	115	KALEY	115	1	11						
2004-60-26	JASPER	115	WGHTCHPL	115	1	2						
2004-60-26	AZALEA	115	BENNETT	115	1	11						
2004-60-26	FLORALTP	69	INVERNTP	69	1	2						
2004-60-26	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-26	PASADENA	230	PASADENA	115	1	2						
2004-60-26	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-26	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-26	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-26	IND RIV	230	IND RIV	115	1	11						
2004-60-26	LARGO	230	LARGO A	69	1	2						
2004-60-26	SHELD	230	SHELD-NW	69	1	16						
2004-60-26	CLMT EST	230	CLMT EST	69	1	2						
2004-60-26	WINDERME	230	WINDERME	69	1	2						
2004-60-26	RIVER-S	230	RIVER-S	69	1	16						
2004-60-26	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-26	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-26	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-27	SN PLANT	230	SYLVAN	230	1	1						
2004-60-27	SYLVAN	230	N LONGWD	230	1	1						
2004-60-27	IND RIV	230	STANTON	230	1	11						
2004-60-27	SILVR SP	230	SILV SPN	230	1	2						
2004-60-27	SILVR SP	230	SILV SPN	230	2	2						
2004-60-27	RIO PINR	230	CURRY FD	230	1	2						
2004-60-27	JUNEAU-W	138	GANNON	138	1	16						
2004-60-27	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-27	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-27	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-27	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-27	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-27	SN PLANT	115	TURNER	115	1	1						
2004-60-27	PASADENA	115	40ST-DUM	115	1	2						
2004-60-27	MICHIGAN	115	KALEY	115	1	11						
2004-60-27	MICHIGAN	115	GRANT	115	1	11						
2004-60-27	PERSHING	115	GRANT	115	1	11						
2004-60-27	AMERICA	115	KALEY	115	1	11						
2004-60-27	JASPER	115	WGHTCHPL	115	1	2						
2004-60-27	AZALEA	115	BENNETT	115	1	11						
2004-60-27	FLORALTP	69	INVERNTP	69	1	2						
2004-60-27	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-27	PASADENA	230	PASADENA	115	1	2						
2004-60-27	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-27	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-27	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-27	IND RIV	230	IND RIV	115	1	11						
2004-60-27	LARGO	230	LARGO A	69	1	2						
2004-60-27	SHELD	230	SHELD-NW	69	1	16						
2004-60-27	CLMT EST	230	CLMT EST	69	1	2						
2004-60-27	WINDERME	230	WINDERME	69	1	2						
2004-60-27	RIVER-S	230	RIVER-S	69	1	16						
2004-60-27	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-27	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-27	JASPER	115	JASPER	69	1	2						
2004-60-28	SN PLANT	230	SYLVAN	230	1	1						
2004-60-28	SYLVAN	230	N LONGWD	230	1	1						
2004-60-28	IND RIV	230	STANTON	230	1	11						
2004-60-28	SILVR SP	230	SILV SPN	230	1	2						
2004-60-28	SILVR SP	230	SILV SPN	230	2	2						
2004-60-28	RIO PINR	230	CURRY FD	230	1	2						
2004-60-28	JUNEAU-W	138	GANNON	138	1	16						
2004-60-28	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-28	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-28	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-28	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-28	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-28	SN PLANT	115	TURNER	115	1	1						
2004-60-28	PASADENA	115	40ST-DUM	115	1	2						
2004-60-28	MICHIGAN	115	KALEY	115	1	11						
2004-60-28	MICHIGAN	115	GRANT	115	1	11						
2004-60-28	PERSHING	115	GRANT	115	1	11						
2004-60-28	AMERICA	115	KALEY	115	1	11						
2004-60-28	JASPER	115	WGHTCHPL	115	1	2						
2004-60-28	AZALEA	115	BENNETT	115	1	11						
2004-60-28	FLORALTP	69	INVERNTP	69	1	2						
2004-60-28	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-28	PASADENA	230	PASADENA	115	1	2						
2004-60-28	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-28	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-28	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-28	IND RIV	230	IND RIV	115	1	11						
2004-60-28	LARGO	230	LARGO A	69	1	2						
2004-60-28	SHELD	230	SHELD-NW	69	1	16						
2004-60-28	CLMT EST	230	CLMT EST	69	1	2						
2004-60-28	WINDERME	230	WINDERME	69	1	2						
2004-60-28	RIVER-S	230	RIVER-S	69	1	16						
2004-60-28	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-28	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-28	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-29	SN PLANT	230	SYLVAN	230	1	1						
2004-60-29	SYLVAN	230	N LONGWD	230	1	1						
2004-60-29	IND RIV	230	STANTON	230	1	11						
2004-60-29	SILVR SP	230	SILV SPN	230	1	2						
2004-60-29	SILVR SP	230	SILV SPN	230	2	2						
2004-60-29	RIO PINR	230	CURRY FD	230	1	2						
2004-60-29	JUNEAU-W	138	GANNON	138	1	16						
2004-60-29	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-29	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-29	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-29	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-29	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-29	SN PLANT	115	TURNER	115	1	1						
2004-60-29	PASADENA	115	40ST-DUM	115	1	2						
2004-60-29	MICHIGAN	115	KALEY	115	1	11						
2004-60-29	MICHIGAN	115	GRANT	115	1	11						
2004-60-29	PERSHING	115	GRANT	115	1	11						
2004-60-29	AMERICA	115	KALEY	115	1	11						
2004-60-29	JASPER	115	WGHTCHPL	115	1	2						
2004-60-29	AZALEA	115	BENNETT	115	1	11						
2004-60-29	FLORALTP	69	INVERNTP	69	1	2						
2004-60-29	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-29	PASADENA	230	PASADENA	115	1	2						
2004-60-29	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-29	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-29	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-29	IND RIV	230	IND RIV	115	1	11						
2004-60-29	LARGO	230	LARGO A	69	1	2						
2004-60-29	SHELD	230	SHELD-NW	69	1	16						
2004-60-29	CLMT EST	230	CLMT EST	69	1	2						
2004-60-29	WINDERME	230	WINDERME	69	1	2						
2004-60-29	RIVER-S	230	RIVER-S	69	1	16						
2004-60-29	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-29	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-29	JASPER	115	JASPER	69	1	2						
2004-60-30	SN PLANT	230	SYLVAN	230	1	1						
2004-60-30	SYLVAN	230	N LONGWD	230	1	1						
2004-60-30	IND RIV	230	STANTON	230	1	11						
2004-60-30	SILVR SP	230	SILV SPN	230	1	2						
2004-60-30	SILVR SP	230	SILV SPN	230	2	2						
2004-60-30	RIO PINR	230	CURRY FD	230	1	2						
2004-60-30	JUNEAU-W	138	GANNON	138	1	16						
2004-60-30	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-30	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-30	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-30	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-30	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-30	SN PLANT	115	TURNER	115	1	1						
2004-60-30	PASADENA	115	40ST-DUM	115	1	2						
2004-60-30	MICHIGAN	115	KALEY	115	1	11						
2004-60-30	MICHIGAN	115	GRANT	115	1	11						
2004-60-30	PERSHING	115	GRANT	115	1	11						
2004-60-30	AMERICA	115	KALEY	115	1	11						
2004-60-30	JASPER	115	WGHTCHPL	115	1	2						
2004-60-30	AZALEA	115	BENNETT	115	1	11						
2004-60-30	FLORALTP	69	INVERNTP	69	1	2						
2004-60-30	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-30	PASADENA	230	PASADENA	115	1	2						
2004-60-30	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-30	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-30	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-30	IND RIV	230	IND RIV	115	1	11						
2004-60-30	LARGO	230	LARGO A	69	1	2						
2004-60-30	SHELD	230	SHELD-NW	69	1	16						
2004-60-30	CLMT EST	230	CLMT EST	69	1	2						
2004-60-30	WINDERME	230	WINDERME	69	1	2						
2004-60-30	RIVER-S	230	RIVER-S	69	1	16						
2004-60-30	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-30	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-30	JASPER	115	JASPER	69	1	2						

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Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-31	SN PLANT	230	SYLVAN	230	1	1						
2004-60-31	SYLVAN	230	N LONGWD	230	1	1						
2004-60-31	IND RIV	230	STANTON	230	1	11						
2004-60-31	SILVR SP	230	SILV SPN	230	1	2						
2004-60-31	SILVR SP	230	SILV SPN	230	2	2						
2004-60-31	RIO PINR	230	CURRY FD	230	1	2						
2004-60-31	JUNEAU-W	138	GANNON	138	1	16						
2004-60-31	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-31	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-31	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-31	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-31	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-31	SN PLANT	115	TURNER	115	1	1						
2004-60-31	PASADENA	115	40ST-DUM	115	1	2						
2004-60-31	MICHIGAN	115	KALEY	115	1	11						
2004-60-31	MICHIGAN	115	GRANT	115	1	11						
2004-60-31	PERSHING	115	GRANT	115	1	11						
2004-60-31	AMERICA	115	KALEY	115	1	11						
2004-60-31	JASPER	115	WGHTCHPL	115	1	2						
2004-60-31	AZALEA	115	BENNETT	115	1	11						
2004-60-31	FLORALTP	69	INVERNTP	69	1	2						
2004-60-31	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-31	PASADENA	230	PASADENA	115	1	2						
2004-60-31	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-31	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-31	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-31	IND RIV	230	IND RIV	115	1	11						
2004-60-31	LARGO	230	LARGO A	69	1	2						
2004-60-31	SHELD	230	SHELD-NW	69	1	16						
2004-60-31	CLMT EST	230	CLMT EST	69	1	2						
2004-60-31	WINDERME	230	WINDERME	69	1	2						
2004-60-31	RIVER-S	230	RIVER-S	69	1	16						
2004-60-31	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-31	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-31	JASPER	115	JASPER	69	1	2						
2004-60-32	SN PLANT	230	SYLVAN	230	1	1						
2004-60-32	SYLVAN	230	N LONGWD	230	1	1						
2004-60-32	IND RIV	230	STANTON	230	1	11						
2004-60-32	SILVR SP	230	SILV SPN	230	1	2						
2004-60-32	SILVR SP	230	SILV SPN	230	2	2						
2004-60-32	RIO PINR	230	CURRY FD	230	1	2						
2004-60-32	JUNEAU-W	138	GANNON	138	1	16						
2004-60-32	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-32	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-32	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-32	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-32	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-32	SN PLANT	115	TURNER	115	1	1						
2004-60-32	PASADENA	115	40ST-DUM	115	1	2						
2004-60-32	MICHIGAN	115	KALEY	115	1	11						
2004-60-32	MICHIGAN	115	GRANT	115	1	11						
2004-60-32	PERSHING	115	GRANT	115	1	11						
2004-60-32	AMERICA	115	KALEY	115	1	11						
2004-60-32	JASPER	115	WGHTCHPL	115	1	2						
2004-60-32	AZALEA	115	BENNETT	115	1	11						
2004-60-32	FLORALTP	69	INVERNTP	69	1	2						
2004-60-32	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-32	PASADENA	230	PASADENA	115	1	2						
2004-60-32	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-32	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-32	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-32	IND RIV	230	IND RIV	115	1	11						
2004-60-32	LARGO	230	LARGO A	69	1	2						
2004-60-32	SHELD	230	SHELD-NW	69	1	16						
2004-60-32	CLMT EST	230	CLMT EST	69	1	2						
2004-60-32	WINDERME	230	WINDERME	69	1	2						
2004-60-32	RIVER-S	230	RIVER-S	69	1	16						
2004-60-32	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-32	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-32	JASPER	115	JASPER	69	1	2						

Table I

Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-33	SN PLANT	230	SYLVAN	230	1	1						
2004-60-33	SYLVAN	230	N LONGWD	230	1	1						
2004-60-33	IND RIV	230	STANTON	230	1	11						
2004-60-33	SILVR SP	230	SILV SPN	230	1	2						
2004-60-33	SILVR SP	230	SILV SPN	230	2	2						
2004-60-33	RIO PINR	230	CURRY FD	230	1	2						
2004-60-33	JUNEAU-W	138	GANNON	138	1	16						
2004-60-33	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-33	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-33	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-33	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-33	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-33	SN PLANT	115	TURNER	115	1	1						
2004-60-33	PASADENA	115	40ST-DUM	115	1	2						
2004-60-33	MICHIGAN	115	KALEY	115	1	11						
2004-60-33	MICHIGAN	115	GRANT	115	1	11						
2004-60-33	PERSHING	115	GRANT	115	1	11						
2004-60-33	AMERICA	115	KALEY	115	1	11						
2004-60-33	JASPER	115	WGHTCHPL	115	1	2						
2004-60-33	AZALEA	115	BENNETT	115	1	11						
2004-60-33	FLORALTP	69	INVERNTP	69	1	2						
2004-60-33	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-33	PASADENA	230	PASADENA	115	1	2						
2004-60-33	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-33	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-33	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-33	IND RIV	230	IND RIV	115	1	11						
2004-60-33	LARGO	230	LARGO A	69	1	2						
2004-60-33	SHELD	230	SHELD-NW	69	1	16						
2004-60-33	CLMT EST	230	CLMT EST	69	1	2						
2004-60-33	WINDERME	230	WINDERME	69	1	2						
2004-60-33	RIVER-S	230	RIVER-S	69	1	16						
2004-60-33	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-33	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-33	JASPER	115	JASPER	69	1	2						
2004-60-34	SN PLANT	230	SYLVAN	230	1	1						
2004-60-34	SYLVAN	230	N LONGWD	230	1	1						
2004-60-34	IND RIV	230	STANTON	230	1	11						
2004-60-34	SILVR SP	230	SILV SPN	230	1	2						
2004-60-34	SILVR SP	230	SILV SPN	230	2	2						
2004-60-34	RIO PINR	230	CURRY FD	230	1	2						
2004-60-34	JUNEAU-W	138	GANNON	138	1	16						
2004-60-34	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-34	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-34	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-34	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-34	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-34	SN PLANT	115	TURNER	115	1	1						
2004-60-34	PASADENA	115	40ST-DUM	115	1	2						
2004-60-34	MICHIGAN	115	KALEY	115	1	11						
2004-60-34	MICHIGAN	115	GRANT	115	1	11						
2004-60-34	PERSHING	115	GRANT	115	1	11						
2004-60-34	AMERICA	115	KALEY	115	1	11						
2004-60-34	JASPER	115	WGHTCHPL	115	1	2						
2004-60-34	AZALEA	115	BENNETT	115	1	11						
2004-60-34	FLORALTP	69	INVERNTP	69	1	2						
2004-60-34	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-34	PASADENA	230	PASADENA	115	1	2						
2004-60-34	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-34	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-34	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-34	IND RIV	230	IND RIV	115	1	11						
2004-60-34	LARGO	230	LARGO A	69	1	2						
2004-60-34	SHELD	230	SHELD-NW	69	1	16						
2004-60-34	CLMT EST	230	CLMT EST	69	1	2						
2004-60-34	WINDERME	230	WINDERME	69	1	2						
2004-60-34	RIVER-S	230	RIVER-S	69	1	16						
2004-60-34	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-34	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-34	JASPER	115	JASPER	69	1	2						

Table I

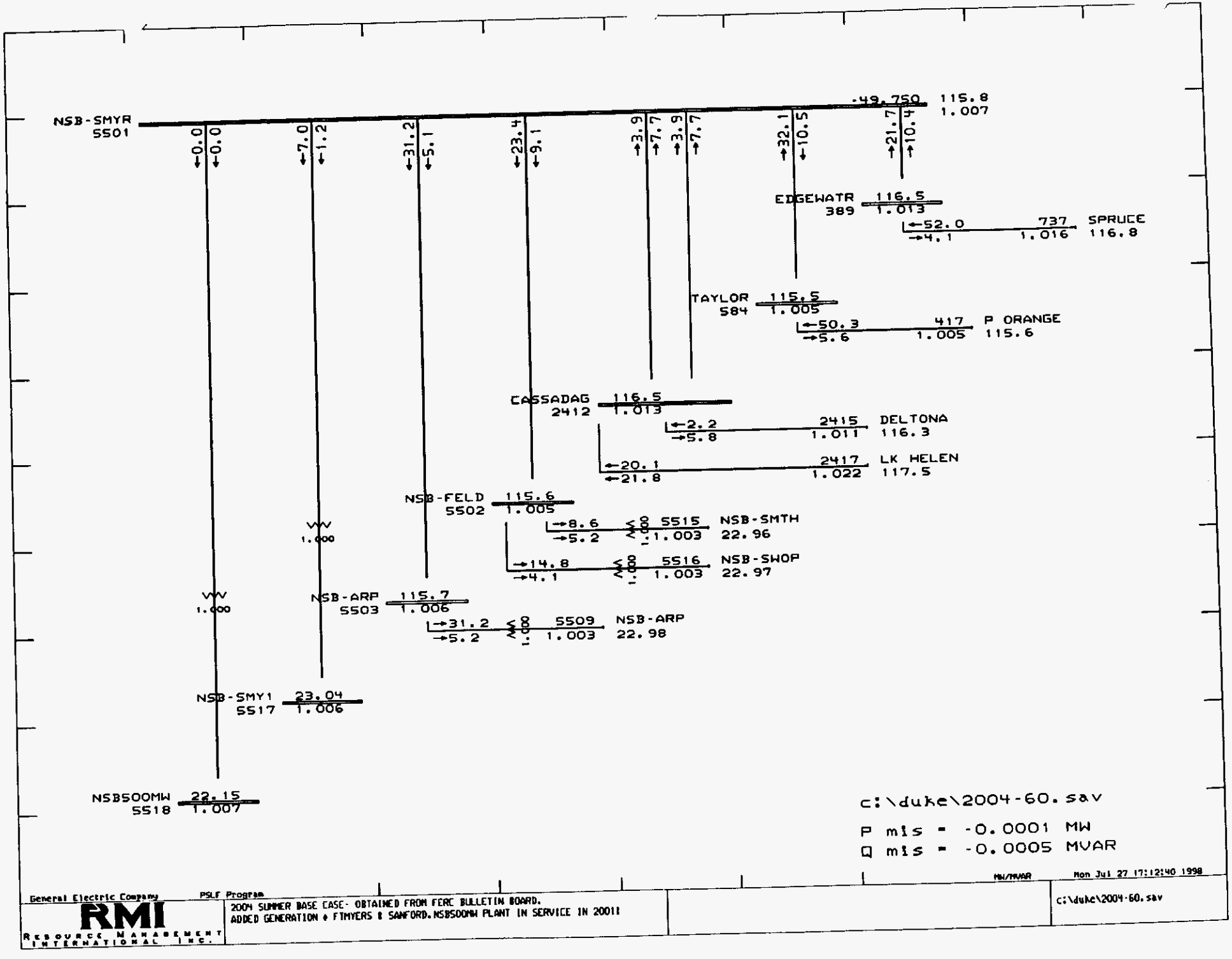
Comparison of Line & Transformer Flows
Following N-1 Disturbances
for Various NSB 500 MW Generation Alternatives

60% Load Base Case

All Flows above 100% of Emergency rating are Shown

Monitored Branches							Case 2004-60 Base No NSB Gen	Case 2004-60A Sell to FPL	Case 2004-60B Sell to FPC	Case 2004-60C Sell to TEC	Case 2004-60D Sell to JEA	Case 2004-60E Sell to SEM
Case	Bus 1	kV 1	Bus 2	kV 2	ckt	Area	Percent	Percent	Percent	Percent	Percent	Percent
2004-60-35	SN PLANT	230	SYLVAN	230	1	1						
2004-60-35	SYLVAN	230	N LONGWD	230	1	1						
2004-60-35	IND RIV	230	STANTON	230	1	11						
2004-60-35	SILVR SP	230	SILV SPN	230	1	2						
2004-60-35	SILVR SP	230	SILV SPN	230	2	2						
2004-60-35	RIO PINR	230	CURRY FD	230	1	2						
2004-60-35	JUNEAU-W	138	GANNON	138	1	16						
2004-60-35	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-35	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-35	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-35	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-35	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-35	SN PLANT	115	TURNER	115	1	1						
2004-60-35	PASADENA	115	40ST-DUM	115	1	2						
2004-60-35	MICHIGAN	115	KALEY	115	1	11						
2004-60-35	MICHIGAN	115	GRANT	115	1	11						
2004-60-35	PERSHING	115	GRANT	115	1	11						
2004-60-35	AMERICA	115	KALEY	115	1	11						
2004-60-35	JASPER	115	WGHTCHPL	115	1	2						
2004-60-35	AZALEA	115	BENNETT	115	1	11						
2004-60-35	FLORALTP	69	INVERNTP	69	1	2						
2004-60-35	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-35	PASADENA	230	PASADENA	115	1	2						
2004-60-35	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-35	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-35	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-35	IND RIV	230	IND RIV	115	1	11						
2004-60-35	LARGO	230	LARGO A	69	1	2						
2004-60-35	SHELD	230	SHELD-NW	69	1	16						
2004-60-35	CLMT EST	230	CLMT EST	69	1	2						
2004-60-35	WINDERME	230	WINDERME	69	1	2						
2004-60-35	RIVER-S	230	RIVER-S	69	1	16						
2004-60-35	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-35	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-35	JASPER	115	JASPER	69	1	2						
2004-60-36	SN PLANT	230	SYLVAN	230	1	1						
2004-60-36	SYLVAN	230	N LONGWD	230	1	1						
2004-60-36	IND RIV	230	STANTON	230	1	11						
2004-60-36	SILVR SP	230	SILV SPN	230	1	2						
2004-60-36	SILVR SP	230	SILV SPN	230	2	2						
2004-60-36	RIO PINR	230	CURRY FD	230	1	2						
2004-60-36	JUNEAU-W	138	GANNON	138	1	16						
2004-60-36	NSB-SMYR	115	CASSADAG	115	1	2						
2004-60-36	NSB-SMYR	115	EDGEWATR	115	1	1						
2004-60-36	NSB-SMYR	115	TAYLOR	115	1	1						
2004-60-36	NSB-SMYR	115	NSB-ARP	115	1	10						
2004-60-36	NSB-SMYR	115	NSB-FELD	115	1	10						
2004-60-36	SN PLANT	115	TURNER	115	1	1						
2004-60-36	PASADENA	115	40ST-DUM	115	1	2						
2004-60-36	MICHIGAN	115	KALEY	115	1	11						
2004-60-36	MICHIGAN	115	GRANT	115	1	11						
2004-60-36	PERSHING	115	GRANT	115	1	11						
2004-60-36	AMERICA	115	KALEY	115	1	11						
2004-60-36	JASPER	115	WGHTCHPL	115	1	2						
2004-60-36	AZALEA	115	BENNETT	115	1	11						
2004-60-36	FLORALTP	69	INVERNTP	69	1	2						
2004-60-36	ALACH TP	69	HIGH SPG	69	1	2						
2004-60-36	PASADENA	230	PASADENA	115	1	2						
2004-60-36	SUWANNEE	230	SUWANNEE	115	1	2						
2004-60-36	SUWANNEE	230	SUWANNEE	115	2	2						
2004-60-36	E CLRWTR	230	E CLRWTR	115	1	2						
2004-60-36	IND RIV	230	IND RIV	115	1	11						
2004-60-36	LARGO	230	LARGO A	69	1	2						
2004-60-36	SHELD	230	SHELD-NW	69	1	16						
2004-60-36	CLMT EST	230	CLMT EST	69	1	2						
2004-60-36	WINDERME	230	WINDERME	69	1	2						
2004-60-36	RIVER-S	230	RIVER-S	69	1	16						
2004-60-36	ELEVEN W	230	ELEVEN-E	69	1	16						
2004-60-36	JUNEAU-E	138	JUNEAU-E	69	1	16						
2004-60-36	JASPER	115	JASPER	69	1	2						

APPENDIX IV-A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4.1
737
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SPRUCE
116.8
TAYLOR
584
115.5
1.005
50.3
5.6
417
1.005
P ORANGE
115.6
CASSADAG
2412
116.5
1.013
2.2
5.8
2415
1.011
DELTONA
116.3
20.1
21.8
2417
1.022
LK HELEN
117.5
NSB-FELD
5502
115.6
1.005
8.6
5.2
5515
1.003
NSB-SMTH
22.96
14.8
4.1
5516
1.003
NSB-SWOP
22.97
NSB-ARP
5503
115.7
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31.2
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5509
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NSB-ARP
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NSB-SMY1
5517
23.04
1.006
NSB500MW
5518
22.15
1.007
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7.0
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5.1
23.4
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3.9
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General Electric Company
PSLF Program
RMI
Resource Management International, Inc.
2004 SUMMER BASE CASE- OBTAINED FROM FERC BULLETIN BOARD.
ADDED GENERATION @ FTMYERS & SANFORD. NSB500MW PLANT IN SERVICE IN 2001!
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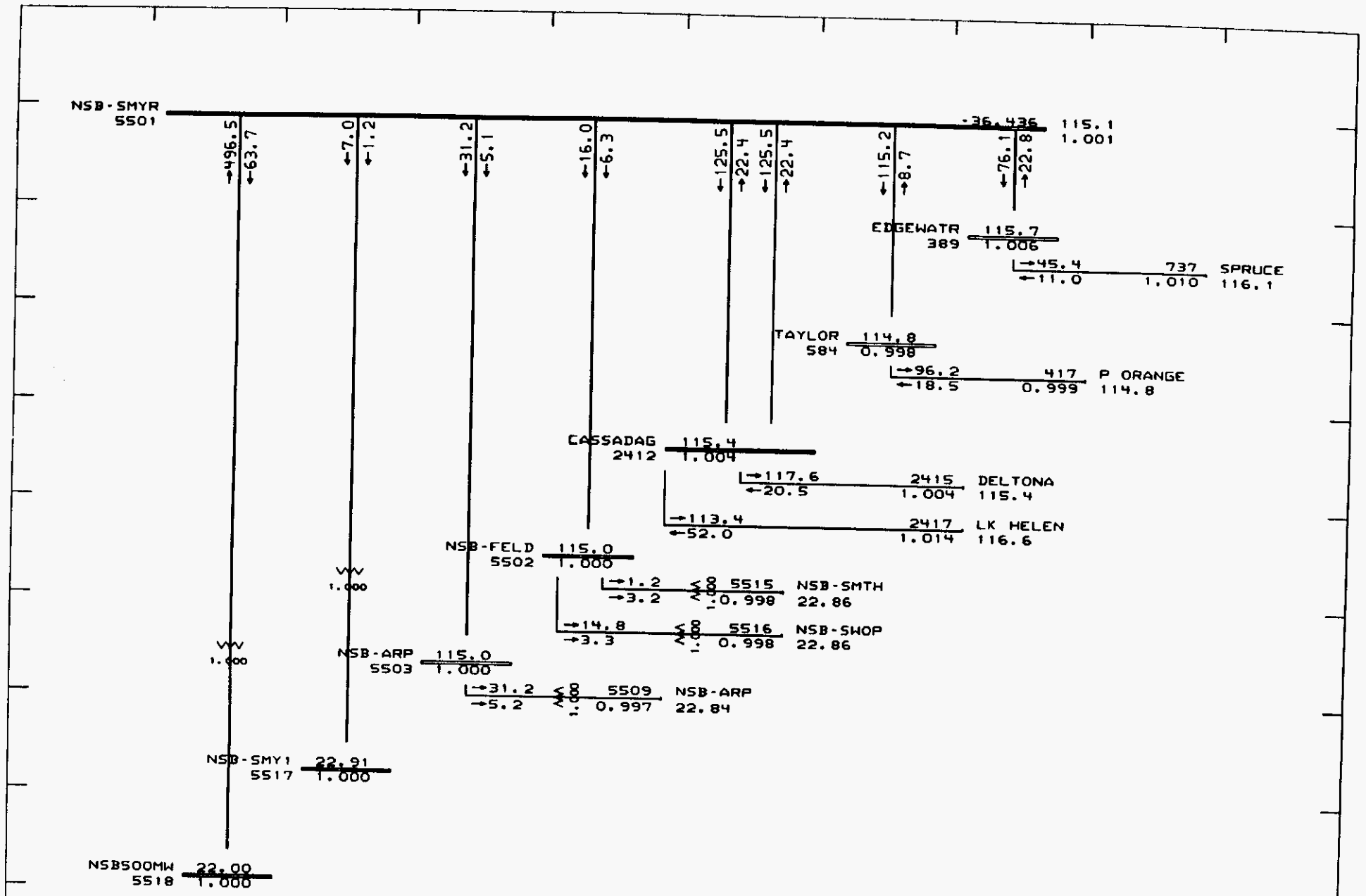
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125.5
22.4
115.2
8.7
76.1
22.8
EDGEWATR
389
115.7
1.006
45.4
11.0
737
1.010
SPRUCE
116.1
TAYLOR
584
114.8
0.998
96.2
18.5
417
0.999
P ORANGE
114.8
CASSADAG
2412
115.4
1.004
117.6
20.5
2415
1.004
DELTONA
115.4
113.4
52.0
2417
1.014
LK HELEN
116.6
NSB-FELD
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115.0
1.000
1.000
1.2
3.2
5515
1.000
0.998
NSB-SMTH
22.86
14.8
3.3
5516
1.000
0.998
NSB-SWOP
22.86
1.000
NSB-ARP
5503
115.0
1.000
31.2
5.2
5509
1.000
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NSB-SMY1
5517
22.91
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NSB500MW
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General Electric Company
PSLF Program
RMI
RESOURCE MANAGEMENT INTERNATIONAL, INC.
2004 SUMMER BASE CASE- OBTAINED FROM FERC BULLETIN BOARD.
ADDED GENERATION @ FTMYERS & SANFORD. NSB500MW PLANT IN SERVICE IN 2001
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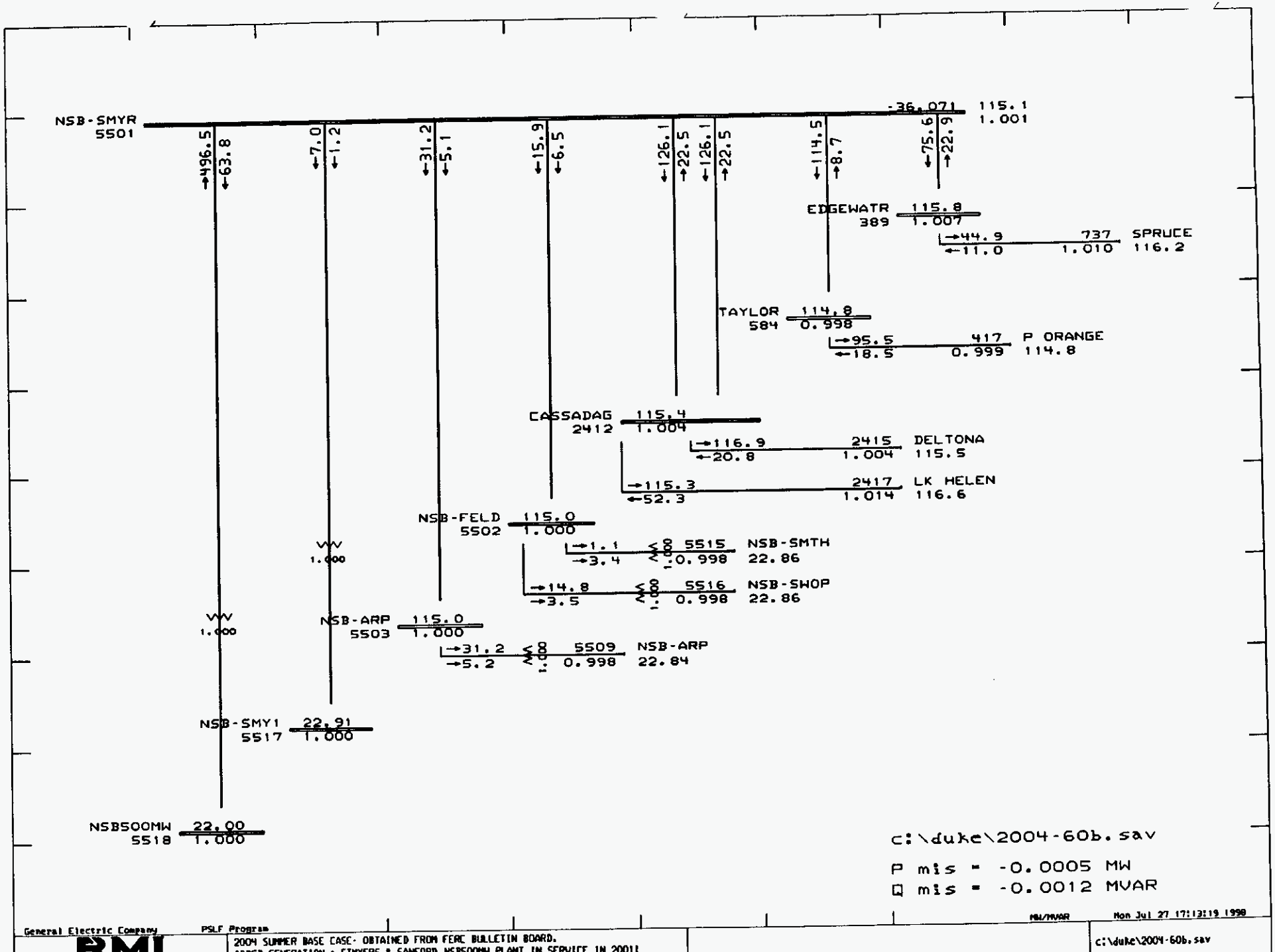
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22.5
114.5
8.7
75.6
22.9
EDGEWATR 115.8
389 1.007
44.9
11.0
737
1.010
SPRUCE
116.2
TAYLOR 114.8
584 0.998
95.5
18.5
417
0.999
P ORANGE
114.8
CASSADAG 115.4
2412 1.004
116.9
20.8
2415
1.004
DELTONA
115.5
115.3
52.3
2417
1.014
LK HELEN
116.6
NSB-FELD 115.0
5502 1.000
1.1
3.4
5515
0.998
NSB-SMTH
22.86
14.8
3.5
5516
0.998
NSB-SWOP
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1.000
NSB-ARP 115.0
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31.2
5.2
5509
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NSB-ARP
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NSB-SMY1 22.91
5517 1.000
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PSLF Program
RMI
RESOURCE MANAGEMENT INTERNATIONAL INC.
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ADDED GENERATION @ FTMYERS & SANFORD. NSB500MW PLANT IN SERVICE IN 2001!
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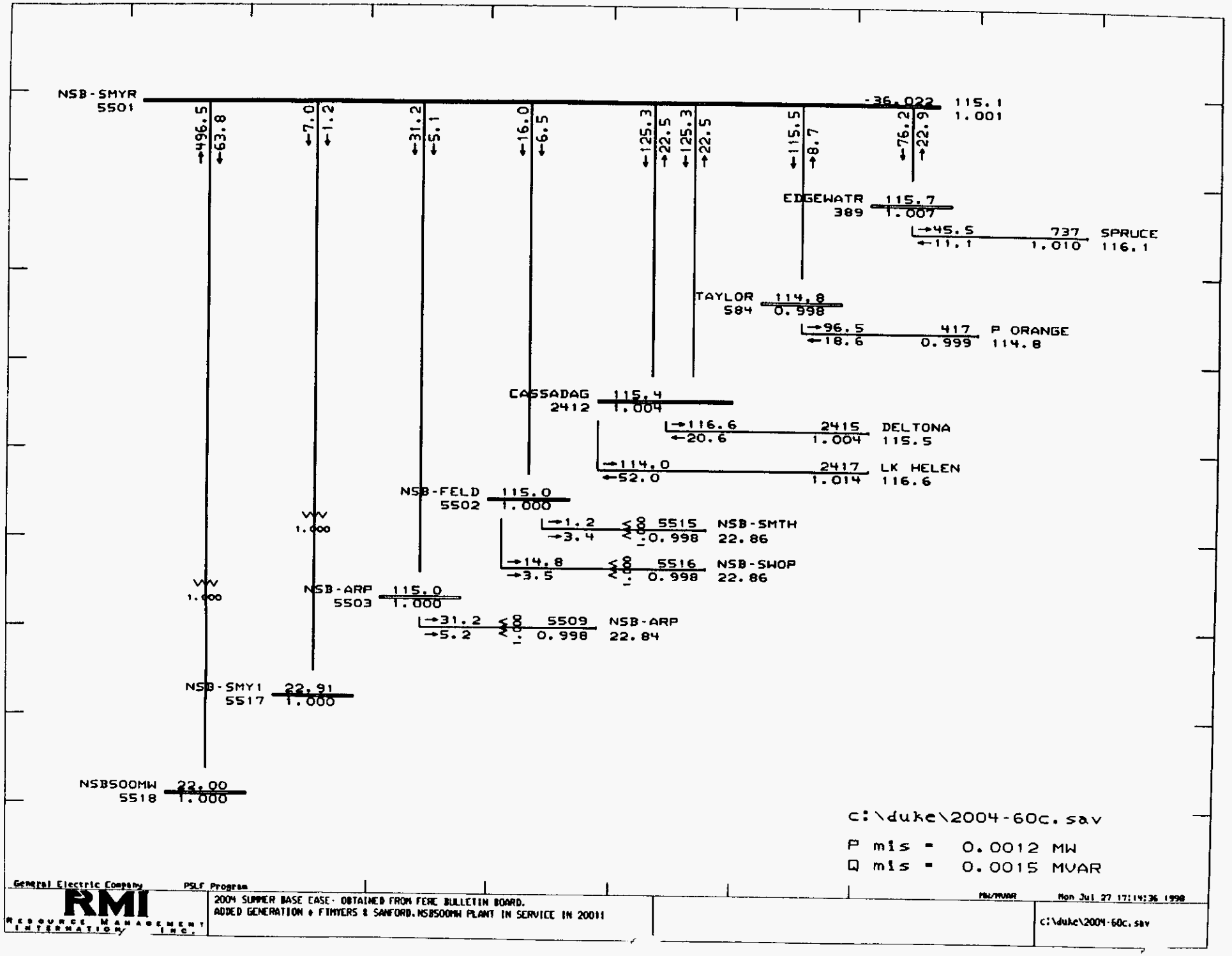
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5.1
16.0
6.5
125.3
22.5
125.3
22.5
115.5
8.7
76.2
22.9
EDGEWATR 115.7
389 1.007
45.5
11.1
737
1.010
SPRUCE
116.1
TAYLOR 114.8
584 0.998
96.5
18.6
417
0.999
P ORANGE
114.8
CASSADAG 115.4
2412 1.004
116.6
20.6
2415
1.004
DELTONA
115.5
114.0
52.0
2417
1.014
LK HELEN
116.6
NSB-FELD 115.0
5502 1.000
1.2
3.4
5515
0.998
NSB-SMTH
22.86
14.8
3.5
5516
0.998
NSB-SHOP
22.86
1.000
1.000
1.000
NSB-ARP 115.0
5503 1.000
31.2
5.2
5509
0.998
NSB-ARP
22.84
NSB-SMY1 22.91
5517 1.000
NSB500MW 22.00
5518 1.000
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General Electric Company
PSLF Program
RMI
RESOURCE MANAGEMENT INTERNATIONAL, INC.
2004 SUMMER BASE CASE- OBTAINED FROM FERC BULLETIN BOARD.
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MW/MVAR
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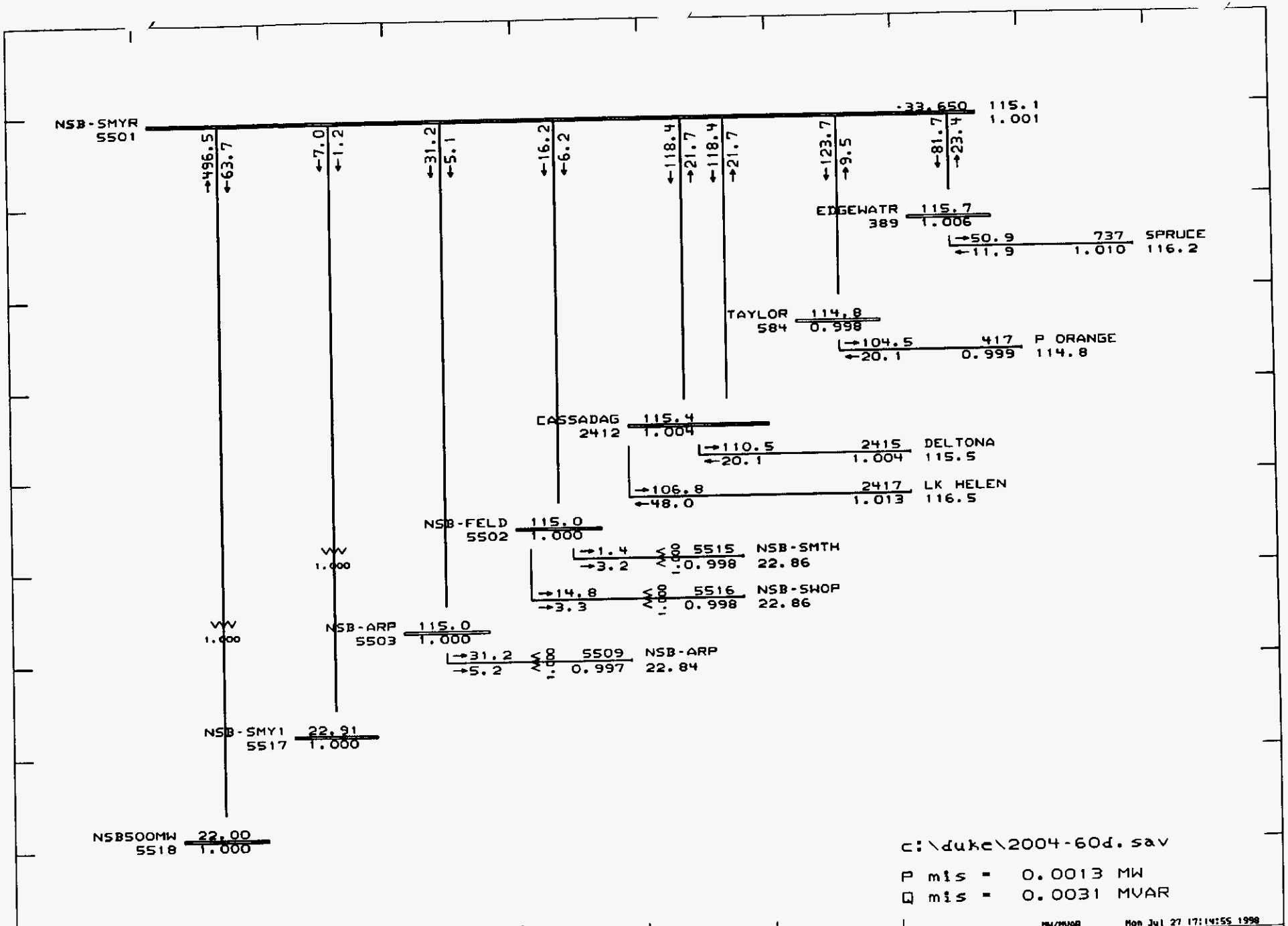
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SPRUCE 737 1.010 116.2
TAYLOR 584 114.8 0.998
P ORANGE 417 0.999 114.8
CASSADAG 2412 115.4 1.004
DELTONA 2415 1.004 115.5
LK HELEN 2417 1.013 116.5
NSB-FELD 5502 115.0 1.000
NSB-SMTH 5515 0.998 22.86
NSB-SWOP 5516 0.998 22.86
NSB-ARP 5503 115.0 1.000
NSB-ARP 5509 0.997 22.84
NSB-SMY1 5517 22.91 1.000
NSB500MW 5518 22.00 1.000
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General Electric Company
PSLF Program
RMI
RESOURCE MANAGEMENT INTERNATIONAL INC.
2004 SUMMER BASE CASE- OBTAINED FROM FERC BULLETIN BOARD.
ADDED GENERATION @ FTMYERS & SANFORD. NSB500MW PLANT IN SERVICE IN 2001!
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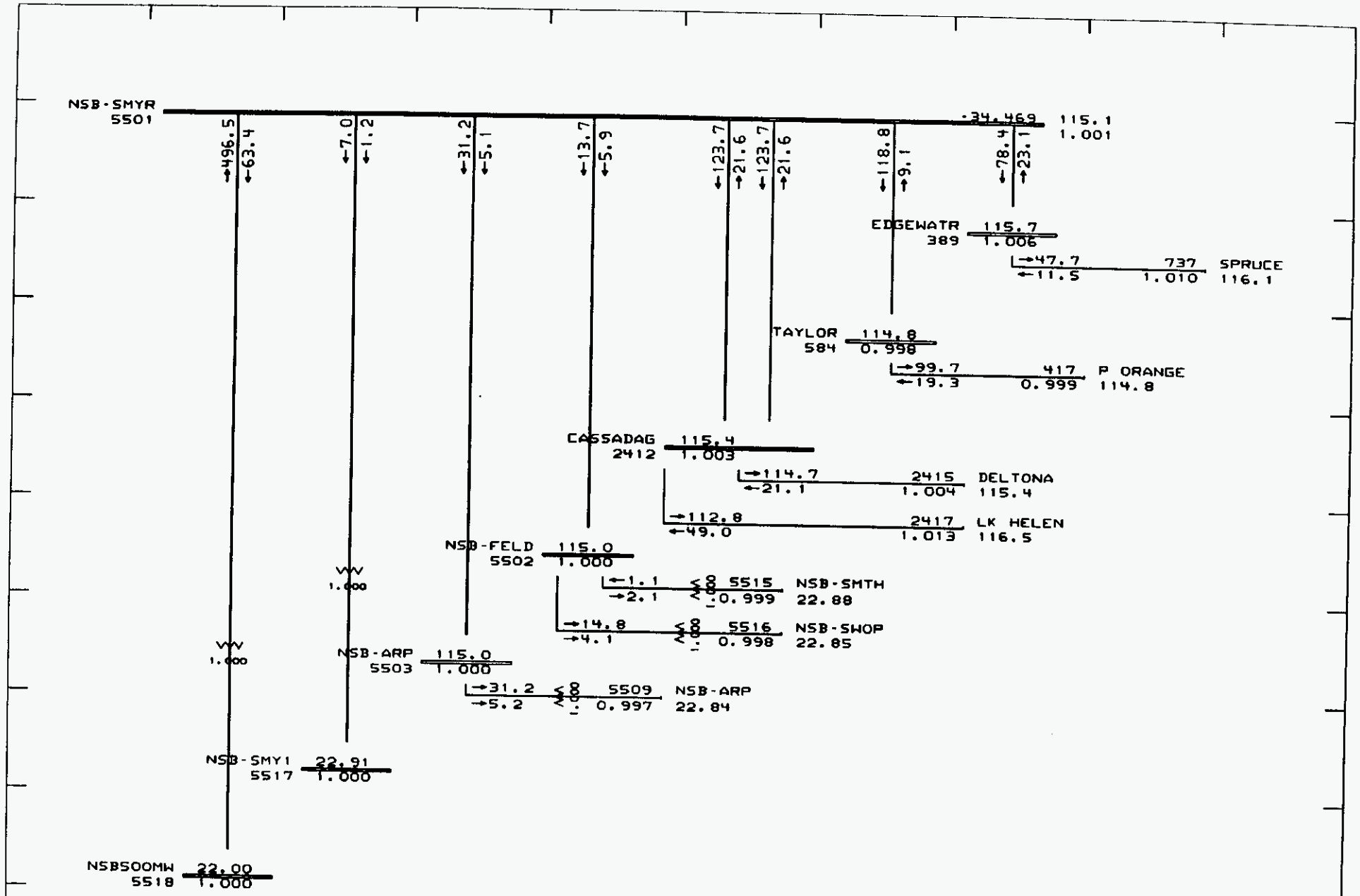
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EDGEWATR
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SPRUCE
737
1.010
116.1
TAYLOR
584
114.8
0.998
P ORANGE
417
0.999
114.8
CASSADAG
2412
115.4
1.003
DELTONA
2415
1.004
115.4
LK HELEN
2417
1.013
116.5
NSB-FELD
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NSB-SWOP
5516
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22.85
NSB-ARP
5503
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1.000
NSB-ARP
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NSBSOOMW
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General Electric Company
PSLF Program
RMI
RESOURCE MANAGEMENT INTERNATIONAL, INC.
2004 SUMMER BASE CASE- OBTAINED FROM FERC BULLETIN BOARD.
ADDED GENERATION @ FTMYERS & SANFORD. NSBSOOMW PLANT IN SERVICE IN 2001!
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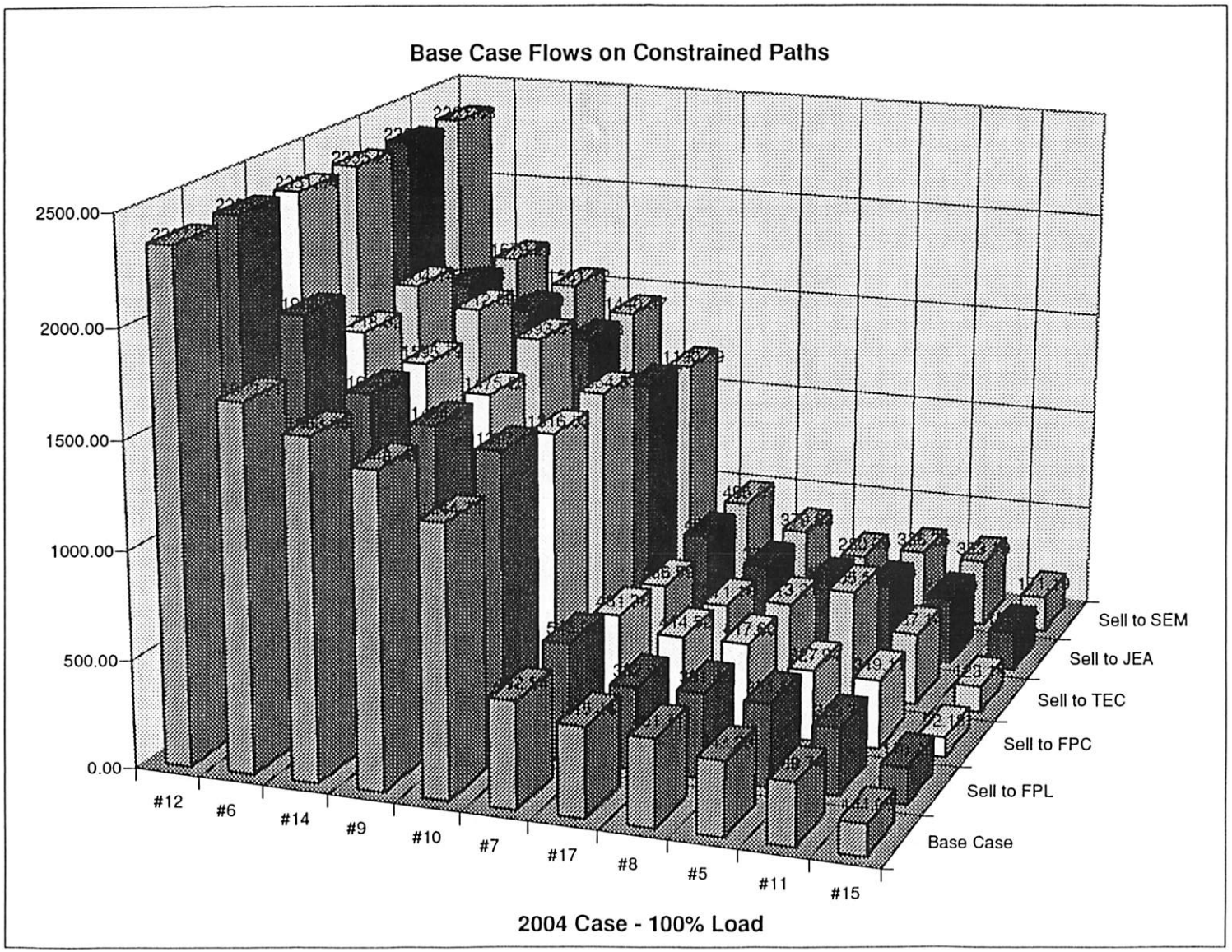
APPENDIX V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#6
#14
#9
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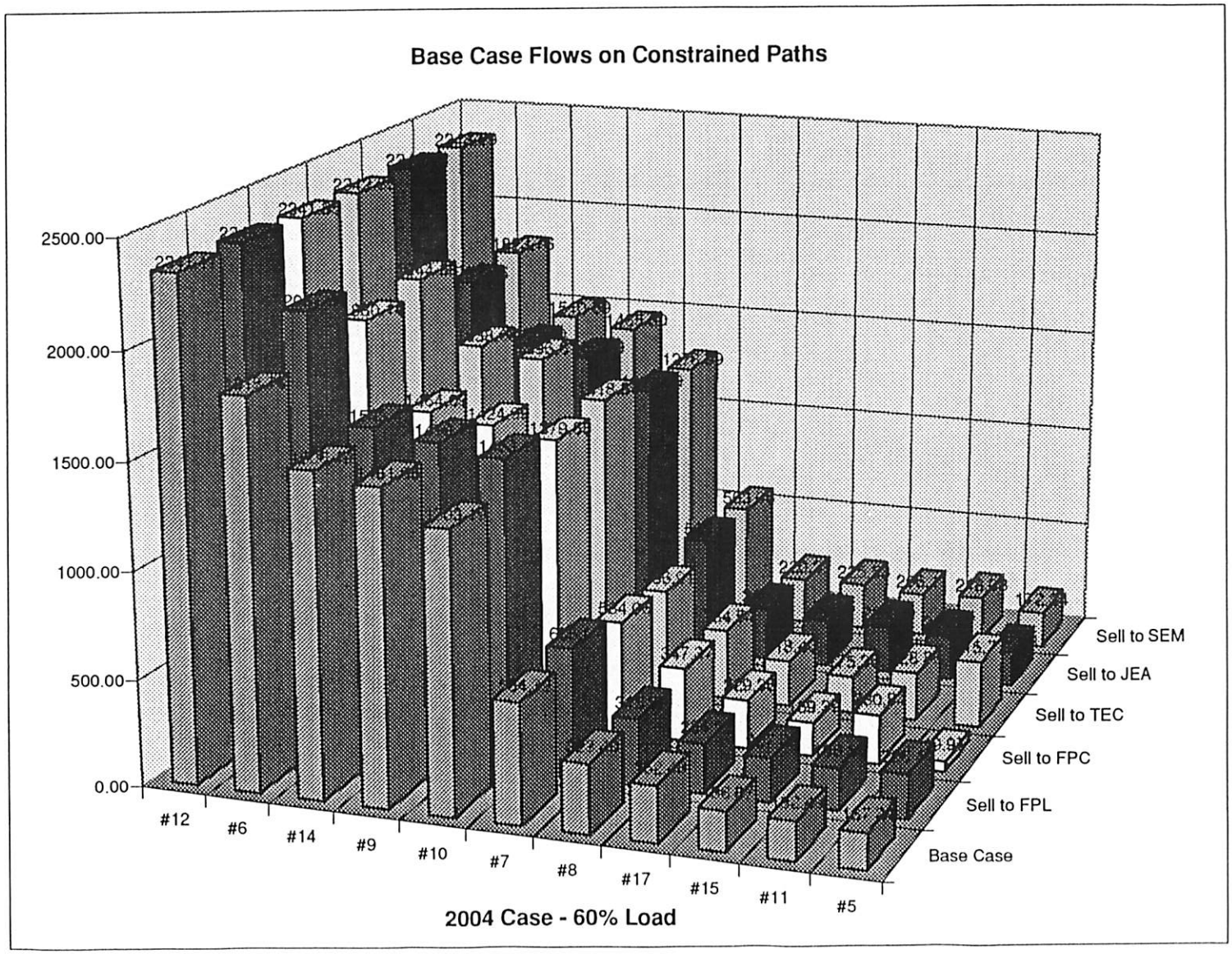
#7
#17
#8
#5
#11
#15
Sell to SEM
Sell to JEA
Sell to TEC
Sell to FPC
Sell to FPL
Base Case
2004 Case - 100% Load


Base Case Flows on Constrained Paths
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1500.00
1000.00
500.00
0.00
#12
#6
#14
#9
#10
#7
#8
#17
#15
#11
#5
Sell to SEM
Sell to JEA
Sell to TEC
Sell to FPC
Sell to FPL
Base Case
2004 Case - 60% Load

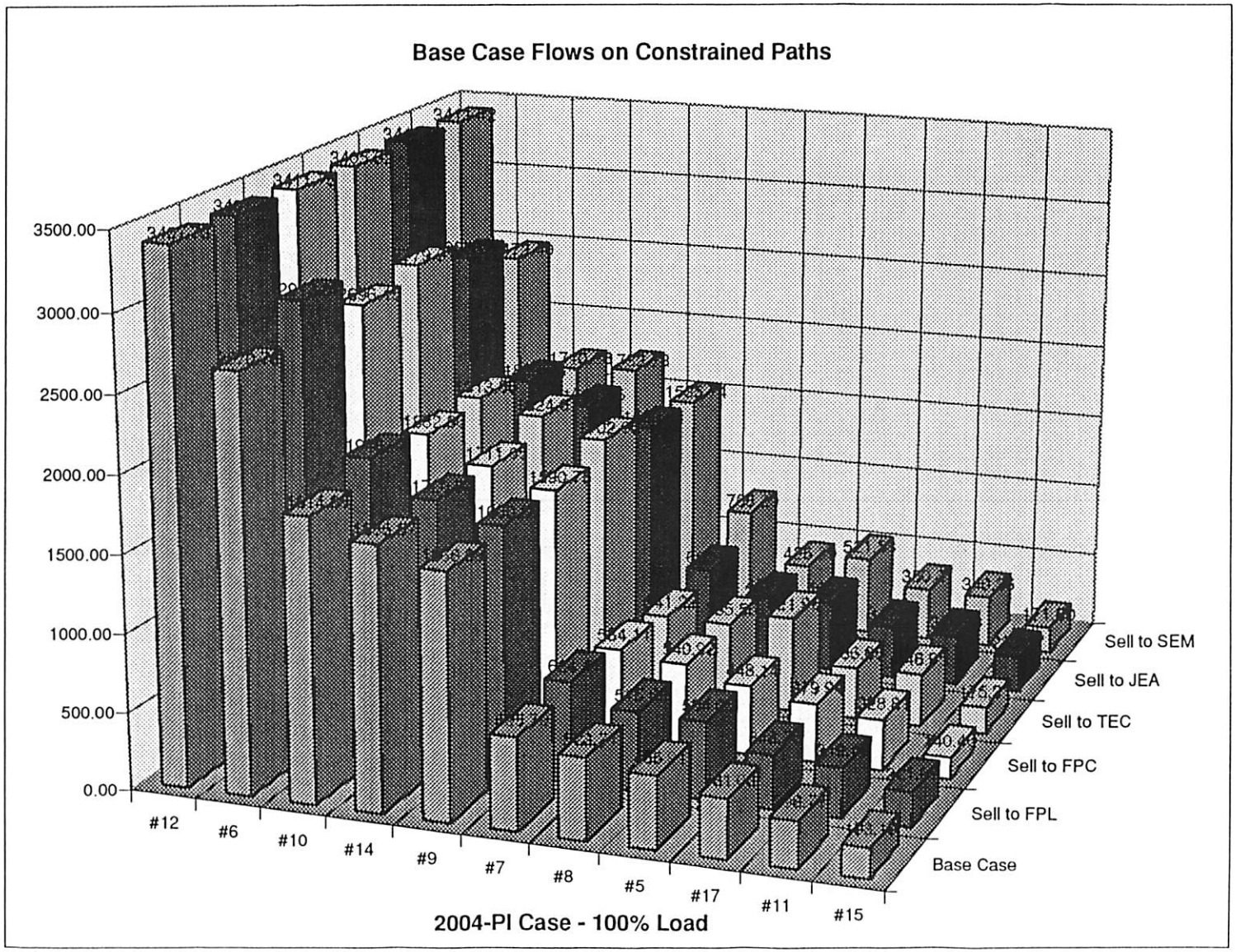
Base Case Flows on Constrained Paths
3500.00
3000.00
2500.00
2000.00
1500.00
1000.00
500.00
0.00
#12
#6
#10
#14
#9
#7
#8
#5
#17
#11
#15
Sell to SEM
Sell to JEA
Sell to TEC
Sell to FPC
Sell to FPL
Base Case
2004-PI Case - 100% Load

Table 1
Summary of Constrained Paths
in Base Case & NSB Alternatives

		NSB Sell 500 MW to :				
	Case 2004.sav	Case 2004a.sav	Case 2004b.sav	Case 2004c.sav	Case 2004d.sav	Case 2004e.sav
	Base Case	Sell to FPL	Sell to FPC	Sell to TEC	Sell to JEA	Sell to SEM
#12	2357.95	2365.45	2351.94	2355.24	2358.13	2361.68
#6	1692.71	1938.58	1718.62	1804.14	1672.08	1679.21
#14	1568.95	1603.30	1595.79	1712.09	1567.29	1561.12
#9	1448.08	1484.64	1475.25	1593.63	1446.78	1440.57
#10	1244.71	1397.11	1316.53	1354.38	1243.27	1190.59
#7	492.54	545.92	481.38	436.59	498.60	495.37
#17	415.44	382.90	414.52	371.16	377.10	379.63
#8	401.31	391.85	417.60	413.21	329.07	280.69
#5	343.28	381.69	327.94	505.51	342.79	336.26
#11	289.74	309.79	319.11	337.14	317.60	323.19
#15	144.98	170.38	92.18	123.18	185.97	171.19

Table 2
Summary of Constrained Paths
in Base Case & NSB Alternatives

		NSB Sell 500 MW to :				
	Case 2004-Pl.sav	Case 2004-Pla.sav	Case 2004-Plb.sav	Case 2004-Plc.sav	Case 2004-Pld.sav	Case 2004-Ple.sav
	Base Case	Sell to FPL	Sell to FPC	Sell to TEC	Sell to JEA	Sell to SEM
#12	3407.73	3407.40	3411.75	3405.62	3414.82	3411.42
#6	2670.76	2913.37	2696.15	2779.91	2653.58	2472.40
#10	1814.68	1946.34	1882.36	1913.66	1823.48	1710.86
#14	1685.57	1720.94	1711.05	1824.07	1681.65	1732.73
#9	1566.98	1600.86	1590.75	1702.90	1563.21	1535.74
#7	595.79	654.41	584.11	541.22	600.58	768.29
#8	523.71	515.69	540.92	535.55	450.62	425.39
#5	465.91	504.05	448.14	621.96	463.32	521.58
#17	381.03	348.75	379.94	336.68	342.47	350.31
#11	298.73	319.48	328.81	346.95	326.98	340.36
#15	193.19	221.69	140.46	175.31	233.17	171.60

Table 3
Summary of Constrained Paths
in Base Case & NSB Alternatives

		NSB Sell 500 MW to :				
	Case 2004-60.sav	Case 2004-60a.sav	Case 2004-60b.sav	Case 2004-60c.sav	Case 2004-60d.sav	Case 2004-60e.sav
	Base Case	Sell to FPL	Sell to FPC	Sell to TEC	Sell to JEA	Sell to SEM
#12	2341.17	2348.36	2341.35	2342.85	2349.93	2348.29
#6	1818.74	2057.54	1880.14	1944.58	1799.35	1823.76
#14	1506.49	1543.42	1464.09	1638.08	1504.90	1510.69
#9	1461.95	1499.74	1424.99	1596.67	1460.59	1465.80
#10	1303.19	1453.13	1379.68	1418.84	1311.49	1278.99
#7	564.32	606.07	534.06	496.91	569.79	563.06
#8	323.40	315.99	347.37	334.54	250.51	220.31
#17	262.48	234.55	229.36	218.40	225.06	225.53
#15	186.87	207.28	159.39	175.36	226.20	206.11
#11	182.49	196.55	230.84	228.86	209.97	218.08
#5	167.24	208.44	49.97	315.77	166.65	172.34