

1998 NEPOOL Annual Report

AllEnergy Marketing Co., L.L.C. • Alternate Power Source, Inc. • Aquila Power Corporation • Ashburnham Municipal Light Plant • Bangor Hydro-Electric Company • Belmont Municipal Light Department • Berkshire Power Development, Inc. • Boston dison Company • Boylston Municipal Light Department • Braintree Electric Light artment • Central Maine Power Company • Chicopee Municipal Lighting Plant • Cinergy Capital & Trading • Cinergy Services, Inc. Companies • The ectric Company, Inc. • PSI Energy, Inc. • Citizens Lehman Power gy Power Marketing Corp. • COM/Energy Marketing, Inc. • y System Companies • Cambridge Electric Light Company • Canal • Commonwealth Electric Company • Concord Municipal Light Plant • Solutions • Consolidated Edison Co. of NY, Inc. • Connecticut Municipal • Constellation Power Source, Inc. • Coral Power, L.L.C. • Dighton Power Associates 2011/1/16c. • Danvers Electric Department • Dighton Power Associates rship • Duke Energy Power Services, Inc. • Duke Energy Trading & L.C. • Duke/Louis Dreyfus LLC • Eastern Utilities Associates Companies • Valley Electric Company • Eastern Edison Company • Montaup Electric ny • Newport Electric Corporation • Electric Clearing House, Inc. • nergyEXPRESS, Inc. • EnergyVision LLC • Energy Atlantic, LLC • Energy New England LLC • Engage Energy US, L.P. • ENRON Power Marketing, Inc. • Enserch Energy Services, Inc. • e prime, inc. • Fitchburg Gas and Electric Light Company • FPL Energy, Inc. • Georgetown Municipal Light Department • Great Bay Power Corporation • Griffin Energy Marketing, L.L.C. • Groton Electric Light Department • Hingham Municipal Lighting Plant Holden Municipal Light Department
 Holyoke Gas and Electric
 Department
 H.Q. Energy Services (U.S.) Inc. • Hudson Light and Power Department • Hull Municipal Lighting Plant • Indeck Maine Energy, L.L.C. • Indeck-Pepperell Power Associates, Inc. • Ipswich Municipal Light Department • KOCH Power Services, Inc. • LG&E Power Marketing Inc. • Littleton Electric Light and Water Department • Mansfield Municipal Electric Department • Marblehead Municipal Light Department • Mass. Municipal Wholesale Electric Company • Middleborough Gas and Electric Department • Middleton Municipal Electric Department • Milford Power Limited Partnership • Morgan Stanley Capital Group, Inc. • Narragansett Electric Company, The • New Energy Ventures L.L.C. • New England Electric System Operating Companies • Granite State Electric Company • Massachusetts Electric Company • New England Power Company • New Hampshire Electric Cooperative, Inc. • Niagara Mohawk Energy Inc. Companies • Niagara Mohawk Energy, Inc. • Niagara Mohawk Energy Marketing, Inc. • NorAm Energy Services, Inc. • North American Energy Conservation, Inc. • North Attleborough Electric Department • Northeast Energy Services, Inc. . Northeast Utilities System Companies . The Connecticut Light and Power Company · Holyoke Power and Electric Company · Holyoke Water Power Company • Public Service Company of New Hampshire • Western Massachusetts Electric Company • Norwood Municipal Light Department • NP Energy Inc. • Pascoag Fire District - Electric Department • Paxton Municipal Light Department • Peabody Municipal Light Plant • PEC Energy Marketing • PECO Energy Company • Pennsylvania Power & Light Co. • PG&E Energy Services • PG&E Energy Trading Power, L.P. Companies • PG&E Energy Trading, L.P. • USGen New England, Inc. • PSEG Energy Technologies Inc. • Public Service Electric and Gas Co. • Reading Municipal Light Department • Rowley Municipal Lighting Plant • Select Energy Inc. • Sempra Energy Trading Corp. • Shrewsbury Electric Light Plant • Sithe New England Holdings LLC • Sonat Power Marketing L.P. · South Hadley Electric Light Department · Southern Company Energy Marketing, L.P. • Statoil Energy Trading, Inc. • Sterling Municipal Electric Light Department • Strategic Energy, Limited Partnership • Taunton Municipal Lighting Plant • Templeton Municipal Lighting Plant • Tractebel Energy Marketing, Inc. • TransCanada Companies • TransCanada Energy Ltd. • TransCanada Power Marketing Ltd. • The United Illuminating Company • UNITIL Services Corporation Participant Companies • Concord Electric Company • Exeter & Hampton Electric Company • UNITIL Power Corp. • UNITIL Resources, Inc. • Vermont Electric Power Company, Inc. • Barton Village, Inc. • City of Burlington Electric Department • Central Vermont Public Service Corporation • Citizens Utilities Company • Village of Enosburg Falls Water & Light Department • Green Mountain Power Corporation • Village of Hardwick Electric Department • Village of Hyde Park, Inc. • Village of Jacksonville • Village of Johnson Electric Light Department • Village of Ludlow Electric Light Department • Village of Lyndonville Electric Department • Village of Morrisville Water & Light Department • Village of Northfield Electric Department • Village of Orleans Electric Department • Village of Readsboro Electric Light Department • Rochester Electric Light & Power Company • Village of Stowe Water & Light Department • Village of Swanton • Vermont Electric Cooperative, Inc. • Vermont Marble Company • Vermont Public Power Supply Authority • Washington Electric Cooperative, Inc.• Vitol Gas & Electric Power Company • Wakefield Municipal Light Department • West Boylston Municipal Lighting Plant • Westfield Gas & Electric Light Department • Williams Energy Services Co. • XENERGY,

Table of Contents

LETTER TO THE EXECUTIVE COMMITTED	1
OVERVIEW	2
ACCOMPLISHMENTS	4
SYSTEM OPERATIONS	6
Operations Reliability Planning	6 12
SETTLEMENT	16
Independent Audit for 1998 Preparation for Market Operations	21 22
NEPOOL COMMITTEES	
NEPOOL Management Committee NEPOOL Executive Committee Regional Market Operations Committee Regional Transmission Operations Committee Market Reliability Planning Committee Regional Transmission Planning Committee	23 23 23 24 24 24
LIST OF PARTICIPANTS	Inside Back Cover

Letter to the Executive Committee



In 1998, the New England Power Pool (NEPOOL) continued intense efforts to restructure the competitive wholesale market place in New

England. Through the hard work of ISO New England, the independent system operator, these restructuring efforts were accomplished while maintaining proper standards of reliability for the bulk power generation and transmission systems in the region.

The NEPOOL members this year continued to refine the NEPOOL Open Access Transmission Tariff which was conditionally approved by the Federal Energy Regulatory Commission (FERC) in April 1998. The Tariff, which is administered by ISO New England, provides regionwide access to the regional transmission system on a comparable, non-discriminatory basis for all transmission users. The charges for service under the NEPOOL Tariff are currently being reviewed in administrative proceedings before the FERC, with the potential outcome of those proceedings being applied back to March 1997, when the NEPOOL Tariff was first activated.

NEPOOL is moving to implement market-based rates in a wholesale regional power exchange for New England, which ISO New England also administers. In April 1998, market-based rates were initiated for installed capability (ICAP) sold through the regional power exchange. Under the NEPOOL Agreement, each Participant is allocated a portion of the region's installed capacity requirements. With the activation of the ICAP market, to meet its ICAP obligation, each Participant is provided the option to buy and sell available ICAP at market rates that are established based on prices the Participants submit to sell such ICAP through the power exchange.

In December 1998, the FERC conditionally accepted market-based rates and supporting rules and procedures for the remaining product markets proposed for the power exchange. Those markets include energy, operable capability, automatic generation control, and three operating reserve markets. The remaining rules and procedures to implement these restructured markets have been submitted to the FERC. ISO New England expects to have the necessary tools in place and tested in time to activate these remaining markets this spring.

NEPOOL had also established as a priority effort for 1998 and 1999 the coordination of the activities of the Participants in preparation for Year 2000. A joint ISO New England/NEPOOL Y2K committee has been established for this purpose. Efforts to verify the Participants' preparedness for Year 2000 are nearing completion and NEPOOL and ISO New England are working together to establish a

coordinated, region-wide contingency plan to address uncertainties. Through the remainder of 1999, NEPOOL Participants will continue to pursue Year 2000 readiness activities individually and collectively with ISO New England to avoid adverse impacts on reliability by Year 2000 issues.

NEPOOL remains a vibrant organization and its membership continues to grow and diversify. It currently has over 110 members which serve six New England states. Those members include investor-owned utility systems, municipal and consumerowned systems, independent power producers, power marketers, brokers, and load aggregators. As industry restructuring continues, the interest of the various Participants are becoming increasingly diverse, presenting new organizational challenges to the Pool.

As NEPOOL proceeds through this exciting time of restructuring in 1999, through the leadership of the Management and Executive Committees, NEPOOL will continue to refine, clarify and improve the NEPOOL arrangements to enhance competition in the wholesale market-place in New England and meet the challenges facing the region.

Respectfully submitted,

Doll Chapm

Richard M. Chapman

Chair, NEPOOL Executive Committee

OVERVIEW

The New England Power Pool (NEPOOL) is a voluntary association of entities that are engaged in the electric power business in the six New England states. It has been in existence since the early 1970s and currently has more than 110 members. The NEPOOL members, also referred to as Participants, include:

- investor-owned utility systems,
- municipal and consumer-owned systems,
- · joint marketing agencies,
- power marketers,
- · load aggregators,
- · independent power producers,
- generation owners, and
- transmission and distribution companies.

End users of electricity are also eligible to join the Pool, although none have to date.

The Participants in New England are extremely diverse. Some entities engage purely in wholesale power marketing with little or no load in New England; some entities have less than one Megawatt (MW) of load in New England and only serve residents in their very limited service territory; some are principally wires companies (transmission and distribution); and some are large verticallyintegrated entities with over 6,000 MW of load in New England. Some NEPOOL members serve primarily metropolitan areas such as Boston, while others serve some of the most rural areas of the country, which are located in the northern reaches of Vermont, New Hampshire and Maine.

NEPOOL COMMITTEE STRUCTURE AND PARTICIPANT RELATIONSHIPS

NEPOOL's key objectives are to assure the reliability of the bulk power supply in the New England region while minimizing cost to the extent possible, and, to fairly allocate costs where necessary. It achieves these objectives primarily through coordinated planning and central dispatch of all of the bulk power facilities in the region.

NEPOOL functions through committees whose members are volunteers from a cross section of the NEPOOL members. Organizationally, the NEPOOL members are the final authority on all NEPOOL matters. They must execute any changes to the Restated NEPOOL Agreement by a super-majority vote, with voting interests weighted generally in accordance with business interests in New England.

Procedurally, the NEPOOL
Management Committee is the
ultimate body through which the
members act. The Management
Committee functions largely through
the NEPOOL Executive Committee
(NEC). The Executive Committee has
four lower committees comprised of
individual representatives of each of
the key Participant and group representatives for the Participants with
lesser business interests in New
England:

 Regional Market Operations Committee (RMOC), principally responsible for establishing rules relating to the operations of the market and power exchange;

- Regional Transmission Operations Committee (RTOC) addresses transmission operation and tariff issues;
- Market Reliability Planning Committee (MRPC) addresses issues concerning the capacity and demand-side management planning;
- Regional Transmission Planning Committee (RTPC), principally responsible for transmission planning activities associated with development of regional plans for the reliable and efficient interconnection of generation and expansion of the grid.

The relationship among the NEPOOL members is governed principally by an operating agreement called the Restated NEPOOL Agreement, which includes provisions for the governance of the organization. It also establishes the key understandings concerning the operation of wholesale power markets in New England, including the operation of a marketpriced, bid-based power exchange in which Participants can buy and sell electricity services. The Restated NEPOOL Agreement also includes, as an attachment, the NEPOOL Open Access Transmission Tariff (the NEPOOL Tariff). In accordance with the NEPOOL Tariff, all entities are eligible to receive transmission service over Pool Transmission Facilities (also called PTF), which are transmission facilities in New England rated 69 kV and above that are used to transfer power throughout the region.

NEPOOL is a tightly integrated power pool that has, since its inception, coordinated, monitored and directed

the operations of virtually all of the major generation and transmission bulk power supply facilities in New England. The New England bulk power supply system is operated as a single control area with limited interconnections with Canada to the north and New York to the west and south. NEPOOL has a total peak load of just over 21,400 MW, with resulting capacity requirements for the region of approximately 25,000 MW. Collectively, NEPOOL Participants own, operate or have entitlements in approximately 350 generators totaling about 23,500 MW of generating capacity as of December 1998. The Participants also own and operate over 1.800 miles of 345 kV transmission lines.

THE ESTABLISHMENT OF ISO NEW ENGLAND INC.

The Federal Energy Policy Act (EPAct) of 1992, and the ensuing 1996 FERC orders 888 and 889, sought to foster greater competition within the electricity industry. To support this legislation, the decision was made to restructure the New England Power Pool and to create an independent system operator for the region, to ensure fair and open access to the region's transmission system, and to serve as administrator for the proposed restructured wholesale electricity market. ISO New England Inc. was established by the NEPOOL members as a not-for-profit, private corporation on July 1, 1997, following its approval by the Federal **Energy Regulatory Commission** (FERC) in June, 1997. ISO New England, essentially a service organization for NEPOOL, receives all of its

revenues from NEPOOL Participants pursuant to a tariff that ISO New England has filed with the FERC. "ISO" stands for independent system operator, and the independence of the ISO is critical to its functioning.

By supporting the establishment of an ISO, the NEPOOL members created the new level of independence sought by the FERC to protect against the potential for any participant to unduly influence access to the region's transmission system, the dispatch order of generation resources, or the competitiveness of the emerging wholesale marketplace. ISO New England was formed by NEPOOL members with the expectation that it will meet its contractual obligations in ensuring that all the NEPOOL bulk power generation and transmission facilities are used fairly and on a non-discriminatory basis to achieve NEPOOL objectives.

On July 1, 1997, ISO New England assumed full responsibility of the day-to-day direction, operation and management of the bulk power transmission and generation facilities in New England, as well as the administration of the NEPOOL Open Access Transmission Tariff (NEPOOL Tariff). ISO New England operates the region's bulk power system in accordance with North American Electric Reliability Council (NERC) and Northeast Power Coordinating Council (NPCC) reliability standards, and in accordance with the NEPOOL Tariff and Restated NEPOOL Agreement. Detailed system implementation rules and procedures, consistent with such standards and agreements, have been established to guide ISO New England and NEPOOL Participants. ISO New

England's responsibilities to NEPOOL are defined in an ISO Agreement between the two organizations, which is available on file with and has been approved by the FERC.

Specifically, ISO New England is responsible for administering the NEPOOL Tariff and the New England bulk power markets, including the power exchange. This responsibility includes the authority to monitor NEPOOL Participants' compliance with rules and the competitiveness and efficiency of the markets. ISO New England further has the power to sanction Participants if they are not following the rules or are engaging in market conduct that interferes with competitive or efficient markets. In addition, ISO New England is billing agent for NEPOOL with responsibility for settling all of the hourly and monthly markets, and provides a key role in rulemaking and planning.

More direction to ISO New England in implementing its responsibilities is provided in the system rules and procedures, which are developed and adopted by NEPOOL committees. While rulemaking is done at the NEPOOL committee level, ISO New England is responsible for initially proposing the rules, and has the authority to unilaterally change the rules in certain instances if the outcome is unacceptable from the standpoint of efficiency or fairness, and to unilaterally impose new rules in certain instances.

ACCOMPLISHMENTS

During 1998, New England Power Pool (NEPOOL) continued its efforts to establish a regional competitive bulk electric power wholesale marketplace. In April, NEPOOL implemented the Installed Capability market after receiving approval from the FERC. In December, the FERC issued an Order conditionally accepting the proposed NEPOOL market rules and approving NEPOOL market-based rates. As a result of this Order, NEPOOL expects to implement the remainder of its wholesale electricity markets in Energy, Automatic Generation Control, Operable Capability, and three Operating Reserve markets in 1999.

Operating reliability standards for the NEPOOL Control Area continued to follow both national and regional reliability criteria. As a result, these operating reliability standards have provided a framework for six of the seven wholesale electricity products offered in the marketplace. The seventh is the energy - or spot market. With the exception of the Installed Capability Market, which is a monthly market, the other six are hourly markets where bids are submitted the day before. The seven market products, and their bid cycles, are listed in Table 1.

The NEPOOL Regional Market
Operations Committee (RMOC),
chaired by Mr. Larry G. Drees of the
Vermont Electric Power Company,
led the developmental efforts of the
NEPOOL Market Rules and Procedures
during 1998. These Market Rules
and Procedures provide guidelines

regarding the conduct and settlement of the NEPOOL Markets. In addition to developing the Market Rules and Procedures, the MOC also participated in making revisions to the NEPOOL Operating Procedures. These Operating Procedures were revised to reflect the new NEPOOL Markets' competitive environment while preserving the prescribed bulk power system reliability standards at the national, regional and NEPOOL levels.

The NEPOOL Regional Transmission Operations Committee (RTOC), chaired by Mr. Steve S. Garwood of the Central Maine Power Company, was instrumental in developing supplements to the NEPOOL Tariff. In addition, the RTOC contributed to revisions to the NEPOOL Operating Procedures to assure that the operational aspects of the New England transmission system were properly integrated with the Market Rules and Procedures, while adhering to the reliability standards and the FERC Transmission Open Access principles.

Changes resulting from supplemental filings of the NEPOOL Open Access Transmission Tariff were quickly implemented on the OASIS and in the supporting business practices. Also implemented were changes resulting from the FERC's conditional acceptance of the NEPOOL Tariff. These changes were wide-ranging and include establishing timetables for categories of transmission reservations, conducting initial allocations for service in high demand, instituting the request of releasing unused reservation capacity, and posting organizational charts.

In February, ISO New England, together with NEPOOL Satellite and Participant control centers, completed the final implementation of the SPORT project. The five-year SPORT Project changed how power is dispatched in New England by shifting direct generation to one control center at ISO New England. With full implementation of the SPORT project, ISO New England's system operators directly dispatch more than 330 generators within the New England region using voice data communications. The Satellite control centers now focus primarily on transmission activities including transmission security, power flow monitoring, transmission maintenance, and reactive power operations.

A state-of-the-art Dispatch Training Simulator (DTS) was developed, offering the most advanced power system dispatch training in the world. The DTS software package includes comprehensive modeling of all NEPOOL Control Area energy resources and pumped storage units, transmission facilities, interconnections with neighboring systems, busby-bus system loads, and frequency response rate characteristics. In a scaled-down version of the ISO New England control room, trainers and operators use the DTS to prepare for a range of electricity capacity events.

NEPOOL conducted an auction for NO_x Emission Reduction Credits (NO_x ERC) on February 25, 1998 to procure NO_x ERC under the mandate of the New

England State environmental regulators. This effort was the responsibility of the NEPOOL Environmental Planning Committee, chaired by Mr. Jacob J. Scheffer. This NEPOOL auction was the first of its kind for such a large region. Prior to the NEPOOL auction, trading of NO_x ERCs primarily occurred on an intrastate basis.

In order to establish and monitor the overall status of Year 2000 readiness of the New England bulk power supply and to identify and mitigate the resulting operational reliability risk during the transition into the Year 2000, the ISO New England/NEPOOL Year 2000 Joint Oversight Committee was organized. This Joint Committee formalizes coordination and cooperation in Year 2000 readiness activities that ISO New England and many New England Power Pool members had been pursuing individually for some time. ISO New England, as agent for NEPOOL, contracted with an outside vendor to jointly undertake

the role of Year 2000 Project Manager for the NEPOOL control area.

NEPOOL and ISO New England will use information gathered from New England Power Pool members by the Joint Oversight Committee to establish appropriate contingency plans as are necessary or advisable to minimize the adverse impact of potential Year 2000-related problems on the operational reliability of the New England bulk power systems.

NEPOOL realized that there was a dramatic need to prepare for the use of the Internet-based market trading system. Through ISO New England, numerous seminars and intensive hands-on market training were conducted. These training sessions covered such diverse topics as How to Become a NEPOOL Participant, Market Overview, OASIS and NERC Tagging, and Market Rules and Operating Procedures. More than 3,000 individuals from Participant

companies, prospective Participants, and regulators received information and training on the bid-based market environment.

In November 1998, NEPOOL Participants, in conjunction with ISO New England staff, participated in an exercise entitled Mock Market. A one week, around-the-clock dress rehearsal, the Mock Market also served as a comprehensive test of the wholesale market system and integration of the hardware and software driving the Internet-based trading platform. The Mock Market gave Participants their first "real" chance to bid their units, enter contracts and receive reports from the new Internet-based market system. The Participants were able to retrieve "near real-time" generation data for their units. The exercise indicated areas that NEPOOL and the ISO needed to address in the Internet-based market trading system.

NEPOOL filed a Minimum Interconnection Standard in the 40th Amendment to the Restated NEPOOL Agreement to accommodate a procedural change regarding how interconnection for new generation with the bulk power grid are handled. Prior to an October 29th FERC ruling, owners of new generating units were responsible for building a transmission interconnection and necessary system upgrades to fully support its output incrementally to generation already installed or for which a study had been completed. The FERC ruled that new procedures must be established to allow for a transmission interconnection of a more reasonable standard.

Table 1

The Seven NEPOOL Market Products

Name	Type of Product	Bidding Cycle	Time Period
Energy (Spot)	Energy	Daily	Hourly
Installed Capability (ICAP)	Capability	Monthly	
Operable Capability (OPCAP)	Capability	Daily	Hourly
Ten Minute Spinning Reserve (TMSR)	Ancillary Service	Daily	Hourly
Ten Minute Non-Spinning Reserve (TMNSR)	Ancillary Service	Daily	Hourly
Thirty Minute Operating Reserve (TMOR)	Ancillary Service	Daily	Hourly
Automatic Generation Control (AGC)	Ancillary Service	Daily	Hourly

SYSTEM OPERATIONS

Operations

SYSTEM ENERGY, PEAK LOADS AND CAPACITY

The collective energy requirements of NEPOOL Participants increased by 1.1 percent in 1998, the seventh consecutive year of annual load growth for the New England Region. A total of 116,888,000 megawatthours (MWh) was required in 1998 compared to 115,582,000 MWh in 1997. A major factor contributing to this increase was the weather. The summer of 1998 was hotter than the summer of 1997, as measured by cooling degree-days. There were 308 cool-

ing degree-days for the summer 1998 compared with 207 degree-days in 1997. A normal summer is expected to have 264 cooling degree-days. The summer was punctuated by a new all time peak load of 21,406 MW, which was set on July 22. This new peak load was 837 MW higher than the previous year's NEPOOL all-time peak load of 20,569 MW, which occurred on July 14, 1997. This new peak load was 694 MW lower than the NEPOOL projected 1998 summer peak load of 22,100 MW.

The major focus of the year in operations was the NEPOOL operating capacity situation due, in part, to outages of the Milestone Units and other major generating units in New England. Numerous measures were taken by NEPOOL Participants to ensure adequate supply for the summer. ISO New England closely monitored the operable capability projections as the summer approached, and throughout the summer. Although NEPOOL Operating Procedure No. 4 -Actions During a Capacity Deficiency (OP 4) was invoked five times during the periods of heavy demand; no firm demand was interrupted.

Table 2

NEPOOL Sources of Energy, 1994-1998

	1994		1995		1996		1997		1998	
	1000 MWH	[%	1000 MWH	%	1000 MWH	%	1000 MWH	%	1000 MWH	%
Conv. Hydro	5,845	5.1	5,456	4.8	7,572	6.5	6,324	5.4	6,511	5.5
Pumped Storage	1,708	1.5	1,727	1.5	1,720	1.5	1,352	1.2	1,107	0.9
Light Oil	280	0.2	568	0.5	1,199	1.0	2,914	2.5	2,156	1.8
Nuclear	41,187	36.0	35,715	31.0	30,319	25.9	16,523	14.1	20,872	17.6
Coal	17,204	15.0	17,892	15.5	19,075	16.3	21,144	18.0	17,967	15.2
Gas	18,147	15.8	20,596	17.9	19,808	17.0	20,158	17.2	18,141	15.3
Residual Oil	14,213	12.4	11,426	9.9	12,935	11.0	22,262	19.0	26,360	22.3
Other*	5.990	5.2	5,917	5.1	6,151	5.2	6,377	5.4	6,031	5.1
Net Interchange	9,955	8.8	15,921	13.8	18,245	15.6	20,397	17.4	19,277	16.3
Total Generation Required	114,529	100.0	115,218	100.0	117,024	100.0	117,451	100.0	118,422	100.0
Pumping	-2,342		-2,374		-2,369		-1,869		-1,534	
Net Load	112,187		112,844		114,655		115,582		116,888	
Annual Peak Load	20,5191	īW	20,499м	w	19,507	MW	20,569	MW	21,406	MW
Annual Load Factor		62.4%		62.8%		66.9%		64.1%		62.3%

^{*} Includes small amounts of start-up oil

The energy mix for 1998 showed a continued energy reliance on bilateral transactions for energy from sources external to New England. Information about NEPOOL's energy mix is contained in Tables 2 and 3. The energy contribution of nuclear units rebounded in 1998 from its fourteen year low in 1997 with the return to service of Millstone 3 in July. The steady growth in bilateral trading activity in recent years, which had resulted from the extended nuclear outages and resulting in increased electricity imports in New England had slowed somewhat in 1998. In 1998, these imports were equal to 1997 levels. Net interchange, or the net of purchases and sales from outside New England, decreased to 16.3 percent of the

NEPOOL energy mix in 1998, compared to 17.4 percent for 1997.

In 1998, oil use increased, up to 22.4 percent while coal use decreased to 13.0 percent of the total energy mix. Natural gas as a fuel source for electrical energy declined to 12.3 percent in 1998. The category of "other" resources, principally made up of refuse and wood-fired generating units, dropped slightly in 1998 to 4.8 percent of the energy mix. Hydroelectric energy produced within the NEPOOL Control Area in 1998 accounted for about 5.5 percent of the total energy mix. Non-utility generation, from all fuel sources, provided approximately 17.3 percent of the electricity produced in New England in 1998.

Table 3

Utility and Non-Utility Energy Sources, 1998

	199	98
	1000 MWH	% of Total
Converted Hydro	5,309	4.5
NUG Hydro	1,202	1.0
Pumped Storage	1,107	0.9
Nuclear	20,872	17.6
Converted Coal	16,239	13.7
NUG Coal	1,728	1.5
ICU Oil	191	0.2
NUG ICU Oil	2	0.0
CC Oil	1,839	1.6
NUG CC Oil	124	0.1
Converted Oil	26,360	22.3
NUG St. Oil	0	0.0
ICU Gas	239	0.2
NUG ICU Gas	27	0.0
CC Gas	2,890	2.4
NUG CC Gas	11,703	9.9
Converted Gas	3,283	2.8
Wood	104	0.1
NUG Wood	1,873	1.6
Refuse* & Other	4,053	3.4
Net Interchange	19,277	16.3
Total	118,422	100.0
Pump	-1,534	
Net Load	116,888	

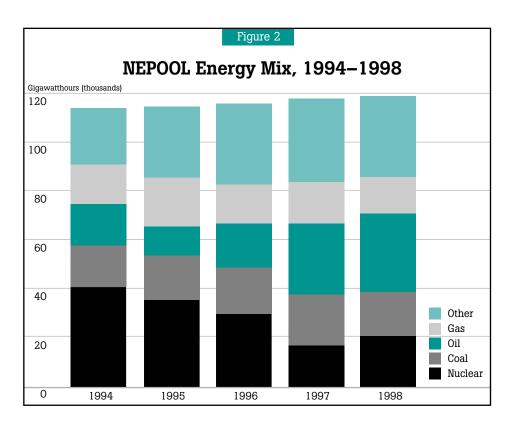
^{*} Includes small amounts of start-up oil

The summer of 1998 was highlighted by the return to service of Millstone 3 (1,160MW), which phased on to the grid on July 6. Millstone 3 reached 100% power on July 14. Other significant changes to NEPOOL's installed capability included the official announcement on July 17, 1998, by Northeast Utilities (NU) that efforts to restart the Millstone 1 (660 MW) nuclear generating unit would cease. NU indicated that it intended to start the preparations for the process to decommission the unit. In addition, Bridgeport Energy placed two 182 MW (each) gas turbines in service. These two units represent the first phase of a two-phase construction

process for a combine-cycle generating facility. The second phase of construction will be completed in mid-1999.

TARIFFS, SCHEDULES AND OASIS

The OASIS (Open Access Same-Time Information System) provides international access to a transmission reservation system that is instrumental for administering Open Access Transmission Tariffs (NEPOOL Tariff). In 1998, sixteen New England transmission providers conducted business and administered their tariffs on the NEPOOL OASIS, including ISO New England administering the NEPOOL Tariff on behalf of the NEPOOL transmission providers.



Fast-paced change was the hallmark of 1998. Changes resulting from supplemental filings of the NEPOOL Tariff were quickly implemented on the OASIS and in the supporting business practices. Also implemented were changes resulting from FERC's conditional acceptance of the NEPOOL Tariff.

Changes to the OASIS and its supporting business practices were wide-ranging. Timing tables for transmission reservation activities were established. Initial allocations were conducted for service in high demand. A practice of requesting the release of unused reservation capacity was instituted. Organizational charts were posted.

Meanwhile, NEPOOL and ISO New England were involved in efforts locally and nationally to bring about Phase 1A of OASIS operation. Phase 1A is designed to provide a more comprehensive business entity registration, standardize transmission path and product naming, and facilitate on-line negotiations. Changes to the OASIS software have been developed to accommodate these new aspects of the electric power business. Planned for March 1, 1999, Phase 1A provides an intermediate step on the way to incorporating the OASIS into a transaction management system (TMS) known as Phase 2. The Phase

2 TMS, a NERC initiative, is aimed at integrating transmission reservations and energy scheduling on a multi-regional basis and is still in development.

Concurrent with the developments described above, ISO New England worked during 1998 to integrate the use of the OASIS information into the new processes needed to support the electronic markets. NEPOOL Tariff provisions, transmission reservation and energy scheduling software and business procedures were developed to support the Market Rules and Procedures and the Operating Procedures that enable an electronic external contract submittal to become an actual energy flow.

Table 4

NEPOOL Monthly Peaks, 1994-1998

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1994	19,528	18,906	17,260	14,758	15,192	18,448	20,519	19,388	15,690	15,038	16,482	18,425
	8.0	0.3	2.2	-7.2	1.0	4.0	4.8	0.7	-13.7	-2.0	-1.2	-1.0
1995	18,790	19,204	16,841	16,243	15,294	19,720	20,499	20,486	16,920	15,591	17,613	19,247
	-3.8	1.6	-2.4	10.1	0.7	6.9	-0.1	5.7	7.8	3.7	6.9	4.5
1996	18,738	19,056	17,537	15,732	17,821	18,292	19,186	19,507	18,571	16,177	17,579	17,774
	-0.3	-0.8	4.1	-3.1	16.5	-7.2	-6.4	-4.8	9.8	3.8	-0.2	-7.7
1997	18,480	17,456	16,949	15,711	14,877	19,695	20,569	19,137	17,968	16,591	17,800	18,610
	-1.4	-8.4	-3.4	-0.1	-16.5	7.7	7.2	-1.9	-3.2	2.6	1.3	4.7
1998	18,238	17,817	18,161	15,954	17,593	20,059	21,406	20,684	17,991	16,422	17,388	18,780
	-1.3	2.1	7.2	1.5	18.3	1.8	4.1	8.1	0.1	-1.0	-2.3	0.9

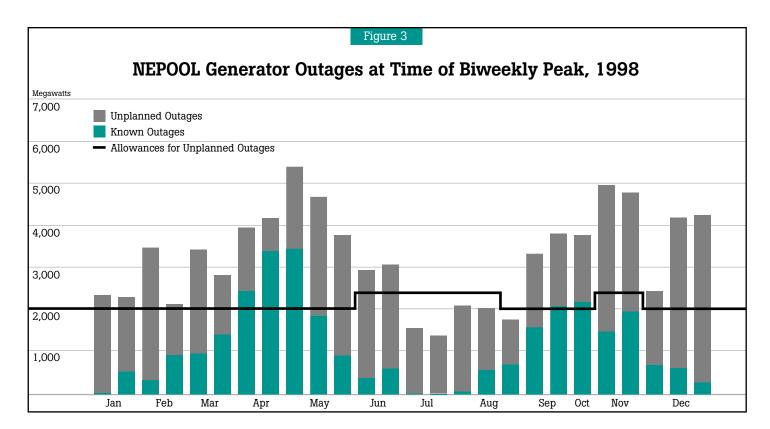
SPORT PROJECT

In February, the NEPOOL Satellite and Participant control centers together with ISO New England completed the final implementation of the SPORT project. The five-year SPORT Project changed how power is dispatched in New England by shifting direct generation responsibilities from Satellite control centers to one control center at ISO New England.

Components of the SPORT Project include:

- Implementation of a new Energy Management Systems (EMS),
- Completion of the new Inter-Control Center Communications Protocol (ICCP) network,
- Installation of a fully redundant back-up control center,
- Installation of a new voice communications system,
- Establishment of a new Generation Coordinator function, and
- Training of Forecasters, System Operators, Generation Station Operators and Engineering staff throughout New England.

Today, with full implementation of the SPORT project, ISO New England's System Operators directly dispatch more than 330 generators within the New England region using voice data communications. The Satellite Control Centers now focus on transmission activities including transmission security, power flow monitoring, transmission maintenance, and reactive power operations.



DISPATCH TRAINING SIMULATOR

The training curriculum for the system operators that control the NEPOOL bulk power system was enhanced this year with the development of a Dispatch Training Simulator (DTS). This state-of-theart simulator offers the most advanced dispatch training in the world. The DTS software package includes comprehensive modeling of all NEPOOL Control Area energy resources and pumped storage units, transmission facilities, interconnections with neighboring systems, busby-bus system loads, and frequency response rate characteristics. With the DTS, classroom instruction is augmented with hands-on training that strengthens the decision-making abilities of the control room operator by giving him or her the opportunity to enact scripted energy capacity and transmission contingency scenarios.

In a scaled-down version of the ISO New England control room, trainers and operators use the DTS to prepare for a range of electricity capacity situations on consoles equipped with computers and call down telephone systems. The operators practice scenarios, review decisions, and analyze findings in terms of system reliability. DTS training has been incorporated into each operator's regular schedule, with training every fifth week to sharpen and refine dispatch skills.

Table 5

Year-End Generating Capabilities (MCC), 1997-1998

	-10	0.17	1000		
	19	97	1	998	
Units	MW	% of Total	MW	% of Total	
Oil and Gas Fired*	11,091	43.5	10,988	40.5	
Coal, Refuse and Wood Fired*	3,907	15.3	3,887	14.3	
Wind	1.6	0.0	1.6	0.0	
Nuclear	2,359	9.3	3,499	12.9	
Hydro (conventional)	1,722	6.8	1,717	6.3	
Pumped Storage	1,705	6.7	1,709	6.3	
Internal Combustion	2,131	8.4	2,467	9.1	
Net Purchases/Sales	2,581	10.1	2,863	10.6	
Total	25,497	100.0	27,130	100.0	
*Breakdown of Participant and Non-Utility	Generator	Fossil Fuel	Capability:		
Oil Primary	7,338		7,244		
Gas Primary	771		761		
Combined Cycle (Gas Primary)	2,424		2,424**		
Combined Cycle (Oil Primary)	558		560*	*	
Refuse	517		505		
Peat	0		0		
Coal	2,981		2,981		
Wood	409		401		
Total	14,998		14,875		

^{**} An estimate, based on the typical fuel burned in winter; capability for gas assumes contract and/or spot market gas available for all units. Total 1998 summer CC capability (2540.47 MW) is less than winter (2983.23 MW). In summer all CC units would use gas as the primary fuel. Thus, for summer, Combined Cycle (Gas Primary) = 2540.47; and Combined Cycle (Oil Primary) = 0.00.

Reliability Planning

SYSTEM RELIABILITY PLANNING

NEPOOL system reliability planning is the responsibility of the NEPOOL Market Reliability Planning Committee (MRPC) and the NEPOOL Regional Transmission Planning Committee (RTPC). In 1998, these committees were chaired by Mr. John F. Malley of the New England Electric System Operating Companies and Mr. K. David Rogers of the Northeast Utilities Service Company, respectively.

The MRPC works through three functional planning committees, in conjunction with ISO New England, to oversee the planning requirements and policy considerations of the NEPOOL bulk power supply system. The three NEPOOL committees are the Load Forecasting Committee, chaired by Ms. Sara A. Brumbaugh of the Commonwealth Energy System Companies, the Environmental Planning Committee, chaired by Mr. Jacob J. Scheffer of the Boston Edison Company and the Power Supply Planning Committee, chaired by Mr. James E. Hyland of the Massachusetts Municipal Wholesale Electric Company.

The RTPC works through various task forces, in conjunction with ISO New England, to oversee the development of the regional transmission system in accordance with established reliability standards for the bulk power system of NEPOOL.

LOAD FORECASTING

A short-term (1998–1999) and long-term (through 2007) load and energy forecast for New England was finalized in early 1998 by the Load Forecasting Committee (LFC) with the assistance of the ISO New England staff. Economic and demographic factors in the region, such as population, number of households, income, employment, output, and energy prices are among the principal drivers in the forecast. The forecast also includes the projected impact of demand-side management programs (DSM) in New England.

The load forecast is an integral component of the NEPOOL Forecast Report of Capacity, Energy, Loads and Transmission 1998–2007 (CELT Report), which was issued in April 1998. This forecast report provides a source of assumptions for use in planning studies, and fulfills in part the filing requirements of federal and state agencies, and NERC. In addition to load forecast data, the CELT Report also contains estimates of NEPOOL capacity and transmission for the period 1998 through 2007.

The NEPOOL 1998-2007 long-range load forecast projects summer and winter peak annual growth at 1.9 and 1.7 percent, respectively. The forecast net energy for load is expected to increase at an annual rate of 1.9 percent. During 1998, hotter than normal summer weather conditions yielded a recorded peak load of 21,406 MW (which exceeded the 1997 all time peak of 20,569 MW). When normalized to expected peak weather conditions, the NEPOOL

summer peak was 22,010 MW. This compares with the forecasted peak load of 22,080 MW.

A characteristic of forecasts is the element of uncertainty. In the 1998 forecast, the results of quantifying the uncertainty component are presented by depicting high and low load growth scenarios in comparison to the reference forecast. A full description of the methodology and results are contained in the report NEPOOL Forecast of New England Electric Energy and Peak Loads, Executive Summary, 1998–2007, April 1998.

OBJECTIVE CAPABILITY

The MRPC is charged with determining Objective Capability, the minimum amount of resources required to meet NEPOOL's reliability criterion. Objective Capability is used as the basis for NEPOOL's monthly Installed Capability Market, which became operational on April 1, 1998.

On April 20, 1998 FERC issued an Order that required extensive changes to: the NEPOOL Tariff, the provisions proposed for the NEPOOL Installed Capability Market, and the NEPOOL treatment of transactions outside of the NEPOOL Control Area. The Order also imposed a price cap on the Installed Capability market.

On July 23, 1998, NEPOOL filed the 36th Amendment to the NEPOOL Agreement in compliance with the April 20th Order. This filing, which

was accepted by the FERC, included the NEPOOL Tie Line Reliability Adjustment (TLRA) Procedure, developed by the MRPC. The TLRA procedure makes appropriate adjustments to the NEPOOL Objective Capability values in order to properly account for tie reliability benefits as they change over time because of transactions across the interfaces with New York and New Brunswick.

The MRPC also recommended, and the NEC voted, to change the beginning of the twelve-month period for which Objective Capability is calculated from November 1 to June 1 for Power Years beginning June 1999. This change allows using the most current information in the development of the load forecast used for calculation of NEPOOL Objective Capability. On August 17, NEPOOL filed, and the FERC accepted, the 37th Amendment to the Restated NEPOOL Agreement, which amended the definition of the "Power Year" to be effective November 1, 1998.

The NEPOOL Executive Committee adopted the MRPC's Objective Capability recommendation for the November 1998 to May 1999 period. The assumptions and associated values are documented in the Review of NEPOOL Objective Capability for Power Year 1998/99 Under the Restated NEPOOL Agreement, September 1998.

Table 6

NEPOOL Load and Generation Requirements, 1998

Month	Load (GWH)	% Growth (over 97)	Pumping	Total Generation Required
January	10,287	-3.8	155	10,442
February	9,126	0.1	121	9,247
March	9,897	0.7	131	10,028
April	8,814	-0.2	121	8,935
May	9,145	4.7	152	9,297
June	9,557	0.1	157	9,714
July	10,819	3.7	155	10,974
August	10,861	7.8	165	11,026
September	9,527	3.8	108	9,635
October	9,270	-0.4	78	9,348
November	9,309	-1.4	95	9,404
December	10,276	-1.2	96	10,372
Total	116,888	1.1	1,534	118,422

NEPOOL RELIANCE ON NATURAL GAS

The MRPC participated in WEFA's multi-client study of the Northeast Natural Gas Markets – Opportunities and Risks. The November 1998 report reviews the ability of the proposed natural gas transportation and supply to provide the requirements of the Northeast under different environmental and market scenarios.

POWER SUPPLY PLANNING

In 1998, the Power Supply Planning Committee (PSPC) and ISO New England completed an evaluation of Objective Capability and associated values, which led to the decision by the NEPOOL Executive Committee to adopt the values for the November 1998 to May 1999 time period. The PSPC reviewed the treatment of NEPOOL Interruptible and Dispatchable Loads, unit availability, and Tie Line Benefits used for the calculation of Objective Capability.

The PSPC also reviewed the concept of calculating the TLRA on an ex-ante basis, but no conclusions were reached. The PSPC also worked with the NEPOOL Load Forecasting Committee and ISO New England in developing the forecast of weekly distributions of daily peak loads, and their statistics for use in setting NEPOOL Objective Capability.

TRANSMISSION RELIABILITY

The foremost development in transmission planning was the unprecedented interest in developing new sources of generation in the New England region. By year's end, over 50 projects totaling more than 30,000 MW had been proposed in New England, which, if all were built, would more than double the installed capacity for the region. The Regional Transmission Planning Committee (RTPC), jointly with ISO staff, have developed procedures for the study of generation and tie-line interconnections with the NEPOOL Control Area.

In order to build new generation in the NEPOOL Control Area, a System Impact Study (SIS) must be conducted. A SIS is a rigorous assessment designed to ensure that new generation added to the Control Area's transmission system would not adversely impact its reliability or operating characteristics.

The System Impact Study does three things:

- Determines the impact of the proposed generation on the local transmission provider's system, as well as on the regional system.
- Identifies specific required transmission system modifications
- Provides a cost estimate for transmission upgrades and additions to the system.

Changes to NEPOOL interconnection rules and procedures occurred throughout the year. Ultimately, a procedural change was made to how new generation will be interconnected with the bulk power grid. Prior to an October 29th FERC ruling, a new generating unit was responsible for the cost of building a transmission interconnection and system upgrades to support its full output incrementally to generation already installed or for which a study has been completed. The FERC ruled that new procedures must be established to allow for a transmission interconnection with a lower standard for quantifying potentially necessary transmission upgrades. In response, NEPOOL filed a Minimum Interconnection Standard in the 40th Amendment to the Restated NEPOOL Agreement.

To fulfill the forthcoming North American Electric Reliability Council's compliance on nation-wide reliability standards, the RTPC established a compliance review working group. In addition, ISO New England's Transmission Reliability department conducted a comprehensive review of the NEPOOL Control Area bulk power transmission system as planned into the future. This involved an assessment of line loadings, reactive supply and demand and voltage performance for both pre- and post-contingency conditions. An analysis of dynamic response, and a review of special

protection systems was also included. The results demonstrated conformance to the Northeast Power Coordinating Council's Basic Criteria for Design and Operation of Interconnected Power Systems.

ENVIRONMENTAL MATTERS

On February 25, 1998, NATSOURCE INC., a national leader in the brokering of energy-related products, conducted an auction for NO_x Emission Reduction Credits (NO_x ERCs) for NEPOOL. The auction was performed to procure NO_x ERCs under the mandate of the New England State environmental regulators.

ERCs are also known as discrete emission reductions (DERs) or verified emission reductions (VERs), and are created when an existing emissions source voluntarily reduces NO_{X} emissions below its permitted level. These reductions can result from fuel switching to a lower emitting fuel source, improving production efficiency or installing more stringent emission control technologies.

Prior to the NEPOOL auction, trading of NO_x ERCs primarily occurred on an intrastate basis. The NEPOOL auction was the first to encompass such a

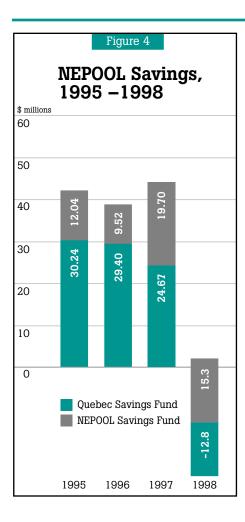
large geographic region. The NO_x trading system parallels the same system currently used for SO_2 emission trading, which was put in place by the federal government in 1990 to supplement the Clean Air Act Amendments.

The NEPOOL NO_X ERC auction was precedent setting because it laid the foundation for commerce, both state and federal regulation and the free market to merge policy towards successful environmental management.

The Environmental Planning Committee (EPC) continued to maintain its close working relationship with the New England Governors' Conference, Inc. (NEGC), Massachusetts Department of Environmental Protection, the New England Air Regulators, and ISO New England. The EPC provided comments on proposed Massachusetts Department of Telecommunications and Energy's rulemaking regarding proposed emission rates to support the Massachusetts Information Disclosure Label and the NEGC's Acid Rain and Mercury Action Plans. Spring and fall meetings were held jointly with the New England Air Regulators, to coordinate activities between the Environmental Protection Agency, NEPOOL, and ISO New England for the 1998 summer ozone season.

The EPC, working with ISO New England, also published the 1997 Marginal Emission Rate Analysis, providing estimates of the impact that Demand-Side Management (DSM) programs had upon NEPOOL's SO_2 , NO_x and CO_2 emissions during the 1997 calendar year, and the 1998 Generation Emissions Analysis, providing estimates of NEPOOL's SO_2 , NO_x and CO_2 emissions for the 1998 and 1999 ozone season and calendar year. Historical emissions were also provided for comparison reference.

SETTLEMENT



Twenty-four new participants joined NEPOOL in 1998. Of this number, 13 applicants signed an agreement with NEPOOL to be treated as Participants while the Federal Energy Regulatory Commission (FERC) was considering their membership applications. Retail wheeling, initiated in 1996, continued during 1998 with a slight increase of load transfers between Participants.

STATISTICAL ENERGY BILLING INFORMATION

The MWh total of NEPOOL internal and external transactions in 1998 decreased by 30 percent from 1997. Total savings for 1998 were \$2.5 million, 94 percent less than the savings achieved through NEPOOL in 1997, due to light loads, a decrease in oil prices and a substantial increase in bilateral contracts. The Hydro-Quebec (HQ) Savings Fund declined as well in 1998. Pool transactions with HQ were \$-12.8 million in 1998, a decrease of 152 percent compared to 1997 transactions. The NEPOOL Savings Fund decreased to \$15.3 million in 1998, compared to \$19.7 million in 1997. The NEPOOL and Quebec Savings Fund for the past four years are presented in Figure 4 and Table 7.

Pool internal transactions increased slightly over 1997. Economy transactions increased by 3 percent with Scheduled Outage Service decreasing by 16 percent and Unscheduled Outage Service increasing by 14 percent. The annual cost to supply Scheduled Outage Service was \$35.06 MWh, which was \$6.56 lower than in 1997. Summaries of Economy and Outage Services are shown in Table 9.

The decrease in the HQ Savings Fund was primarily due to the increase in the Firm Energy Contract (FEC) rate from \$21.92/MWh to \$23.52/MWh and the decrease in oil prices over the past year. Energy transactions with neighboring pools are illustrated for a four-year period in Table 8. As a result of a dispute between HQ and NEPOOL related to the FEC rate, the HQ Savings shown in Table 7 include \$10.7 million which is expected to be distributed to NEPOOL Participants as additional savings. These funds are currently deposited in an escrow account. Deliveries from HQ to NEPOOL in 1998 were 5,535,736 MWh, compared to a 1997 level of 5,652,860 MWh.

With the establishment of ISO New England on July 1, 1997 all economy transactions with other pools were discontinued. While there was a 2 percent decrease in transactions with HQ over 1997, there continued to be a decrease in transactions with New York, down 99 percent, and with New Brunswick, down by 91 percent.

1998 CAPABILITY RESPON-SIBILITY AND INSTALLED CAPABILITY MARKETS

During the five-month period from November 1997 through March 1998 a new method of determining Capability Responsibility was adopted. This method was a hybrid of the Capability Responsibility provisions contained within the Prior NEPOOL Agreement and the Restated NEPOOL Agreement. The "hybrid" method reduced the Capability Responsibility period from six months to one month and allowed NEPOOL Participants to

exchange hourly "generic Installed Capability only transactions" (or GCOT) for Installed Capability credit. A summary of the November 1997 through March 1998 billings associated with the "hybrid" method, along with a summary of Capability Responsibility billings from November 1994 through October 1997, are contained in Table 10.

The NEPOOL Installed Capability
Market was implemented on April 1,
1998. This implementation reflected
the FERC's conditional acceptance of
the Restated NEPOOL Agreement,
more specifically, the provisions contained within Section 12 - Installed
Capability and Operable Capability
Obligations and Payments. To comply with the FERC's conditional
acceptance, the NEPOOL resolved to:

- Retain the Outside Transaction
 Adjustment for the calculation of
 Capability Responsibility in April
 1998.
- Suspend the Outside Transaction Adjustment for the calculation of Capability Responsibility in May 1998, and
- Implement a NEPOOL Tie Line Reliability Adjustment Procedure to become effective in June 1998.

A summary of the April 1998 through December 1998 billings associated with the Installed Capability Market are contained in Table 13. Table 7

NEPOOL Savings Fund, 1995-1998

Year	NEPOOL Savings Fund \$	Quebec Savings Fund \$	Total Savings		otal NEPOOL Savings \$/MWH Delivered
1995	12,043,785	30,237,174	42,28,959	14,888,853	2.84
1996	9,516,362	29,397,807	38,914,169	14,627,625	2.66
1997	19,698,446	24,667,450	44,365,896	16,391,039	2.71
1998	15,301,653	-12,825,678	2,475,975	17,074,565	-15.00

Table 8

NEPOOL Interpool Transactions (MWH), 1995-1998*

Year	To NYPP from NEPOOL	To NB from NEPOOL	To HQ from NEPOOL	From NYPP to NEPOOL	From NB to NEPOOL	From HQ to NEPOOL
1995	148,661	550	33,620	19,557	123,947	5,693,251
1996	244,514	-	6,366	4,775	123,038	5,305,319
1997	19,065	125	185	1,800	45,918	5,652,860
1998	65	-	11,331	2,950	4,052	5,535,736

^{*} Not including firm contracts between utilities.

Table 9

Summary of NEPOOL Internal and External Energy Transactions, 1998

	MWH	Dollars	\$/MWH
Delivered to NEPOOL*	17,074,565	327,640,545	19.19
Received from NEPOOL			
Economy (includes External)	15,977,737	297,888,807	18.64
Scheduled Outage Service (SOS)	457,819	17,146,567	37.45
Unscheduled Outage Service (UOS)	208,201	12,165,313	58.43
Deficiency	15,541	1,912,938	123.09
External Transactions (other than Econ.)	11,396	1,002,895	88.00
Total Received from NEPOOL	16,670,694	330,116,520	19.80
NEPOOL Savings (Received - Delivered)		2,475,975	

Annual Average Cost-to-Supply Scheduled Outage Service for 1/1/98-12/31/98=\$35.06. *Dollars include corrections made during the year as a result of retroactive adjustments.

AUTOMATIC GENERATION CONTROL, DISPATCHABLE LOADS, AND POOL TRANS-MISSION FACILITIES (PTF)

Automatic Generation Control (AGC) billing was in effect for the eighth year in 1998. During the year, approximately \$2.7 million of AGC hourly operating costs were distributed to compensate those Participants whose generating units provided AGC service. The reduction in costs can be attributed primarily to a decrease in the number of units that were available to provide AGC while the direct dispatch and control functions for major NEPOOL generators were transitioning to the ISO New England facility under the SPORT project.

NEPOOL Dispatchable Loads for which NEPOOL Participants are compensated (i.e., Type 5 - Pool Controlled - Special Interruptible Loads) were called upon during two days in 1998. The total average relief provided by these resources was 29.60 MW and 35.78 MW for June 26, 1998 and August 24, 1998, respectively. The compensation related to the curtailment of these NEPOOL Dispatchable Loads during the two days totaled \$130,798.48.

Extra-High Voltage Pool Transmission Facilities (EHV-PTF) and Lower-Voltage Pool Transmission Facilities (LV-PTF) billings over the past four years are shown in Table 12. As of March 1997, the NEPOOL Open

Access Transmission Tariff (NEPOOL TARIFF) fixed the EHV-PTF and LV-PTF rates at those in effect during 1996 and applied them to Entitlements held on November 1, 1996. This application will continue through February 2002, after which EHV-PTF and LV-PTF billings will cease. Also effective March 1, 1997, the NEPOOL TARIFF rescinded the payment of Reliability Charges associated with EHV-PTF billing.

NEPOOL OPEN ACCESS TRANSMISSION TARIFF (NEPOOL TARIFF)

The NEPOOL Open Access
Transmission Tariff (NEPOOL Tariff)
provides a regional arrangement that
covers, on a comparable, non-discriminatory basis, all regional uses
of the NEPOOL Transmission System
(including service within, through
and/or out of NEPOOL). In addition,
the NEPOOL Tariff encourages and
promotes competition in the electrical
market to the benefit of the ultimate
users of electrical energy.

The NEPOOL Executive Committee (at their May 1, 1998 meeting) resolved to suspend charges for Transition Payments and Tie Benefit Service pursuant to the FERC order conditionally accepting the NEPOOL Open Access Transmission Tariff and Restated NEPOOL Agreement issued April 20, 1998. Following the FERC Order, all Transition Payments and Tie Benefit Service payments (totaling \$8,648,314 and \$8,651,667, respectively) for 1997 and 1998 were distributed back to the Tariff Transmission Customers who had paid for those services. Effective

Table 10

NEPOOL Summary of Capability Responsibility Billings, 1994/5-1997/8

Year	Capability Period	Adjustment Charge Rate \$/KW/Year	Adjustment Charge \$	Deficiency Charge Rate S/KW/Year	Deficiency Charge \$	Power Year Total \$
1994/95	Nov-Apr	72	42,780	33	10,395	
1995	May-Oct	72	41,640	33	4,235	99,050
1995/96	Nov-Apr	72	360	33	0	
1996	May-Oct	72	354,840	33	64,185	419,385
1996/97	Nov-Apr	72	39,300	33	440	
1997	May-Oct	72	127,500	33	46,558	213,798
1997	Nov*	72	906,780	33	413,875	1,320,655
1997	Dec*	72	1,705,440	33	761,008	2,466,448
1998	Jan*	72	1,192,200	33	546,040	1,738,240
1998	Feb*	72	621,000	33	280,280	901,280
1998	Mar*	72	431,820	33	187,000	618,820

 $[\]ast$ Effective November 1, 1997, Capability Responsibility billing was modified from a six month period to a one month period.

Table 11

Summary of NEPOOL Open Access Transmission Tariff (OATT) Payments for Services, 1998

Year	Transition Payments \$	Tie-Benefit Payments \$	Through or Out Service Payments \$	Regional Network Service Payments \$	Ancillary Services (Schedule 1) Payments \$	Adjustment to Payments \$	Total OATT Payments \$
Jan	720,693	495,833	56,323	1,526,815	1,597,595	173	4,397,432
Feb	720,693	454,167	62,045	1,492,225	1,559,255	0	4,288,384
Mar*	N/A	N/A	105,312	6,042,116	1,583,876	0	7,731,304
Apr	N/A	N/A	80,050	5,301,141	1,387,089	0	6,768,280
May	N/A	N/A	31,647	5,856,799	1,526,748	-\$40,073	7,375,121
Jun	N/A	N/A	25,547	7,619,020	2,075,942	-\$2,054	9,718,455
Jul	N/A	N/A	96,164	8,152,820	2,224,354	0	10,473,338
Aug	N/A	N/A	182,417	7,916,871	2,167,997	0	10,267,284
Sep	N/A	N/A	167,100	6,926,633	1,897,773	0	8,991,506
Oct	N/A	N/A	37,357	6,314,096	1,721,364	-\$1,042	8,071,775
Nov	N/A	N/A	0.00	6,588,924	1,794,910	0	8,383,834
Dec**	N/A	N/A	4,536	7,153,748	1,950,422	0	9,108,706
Totals	1,441,386	950,000	848,497	70,891,209	21,487,325	-42,997	95,575,420

^{*}The NEPOOL Executive Committee (at their May 1, 1998 meeting) resolved to suspend charges for Transition Payments and Tie Benefit Service pursuant to the Federal Energy Regulatory Commission (FERC) Order Conditionally Accepting Open Access Transmission Tariff and Power Pool Agreement issued April 20, 1998. Following the FERC Order, all Transition Payments and Tie Benefit Service payments for 1997 and 1998 were distributed back to the Transmission Customers who had paid for those

Table 12

NEPOOL Summary of EHV-PTF and LV-PTF Billings, 1995-1998

Year	EHV-PTF Wheeling Rate Winter \$/KW-Yr	EHV-PTF Wheeling Rate Summer \$/KW-Yr	Reliability Charges \$ (Paid into Transmission Fund)	Pool Planned Unit Wheeling Charges \$	Total EHV-PTF Billings \$	Total LV-PTF Wheeling Charges \$
1995	2.88	2.99	152,737	7,871,250	8,023,987	1,970,617
1996	2.88	2.99	143,266	8,740,615	8,883,882	1,913,506
1997	*	**	32,847	7,895,024	7,927,871	1,989,599
1998	**	**	ţ	7,182,799	7,182,799	1,757,887

^{**}First month Internal Point-to-Point Service payments possible. (Effective date for election of new service was October 1, 1998 with an initial 60 day advance reservation requirement. Internal Point-to-Point Service Payments for December were \$0.00.)

^{*} EHV Wheeling Rates applied in Jan.-Feb. 1997 equal \$2.84/KW/Yr (Winter)/\$2.95/KW/Yr (Summer). ** EHV Wheeling Rates applied in Mar. 1997-Dec. 1998 equal \$2.88/KW/Yr (Winter)/\$2.99/KW/Yr (Summer).

[†] Effective March 1, 1997, the NEPOOL Open Access Transmission Tariff recinded the payment of Reliability charges associated with EHV-PTF billing.

October 1, 1998, Tariff Transmission Customers could elect Internal Point-to-Point Service as an option for regional use of the NEPOOL Transmission System (no Tariff transmission customers elected Internal Point-to-Point Service during 1998).

A summary of the billing for the various Tariff components can be found in Table 11. The billings were subject to adjustments following the outcome of a proceeding before the FERC regarding the NEPOOL Tariff.

YEAR 2000 READINESS EFFORTS

In early 1998, representatives of certain New England Power Pool members and ISO New England Inc. began meeting regularly to increase and formalize coordination and

cooperation in Year 2000 readiness activities that ISO New England and many New England Power Pool members had been pursuing individually for some time. In June, the NEC and ISO New England Board of Directors formally designated this group of representatives as the Year 2000 Joint Oversight Committee. In addition, ISO New England, as agent for NEPOOL, contracted with an outside vendor to jointly undertake the role of Year 2000 Project Manager for the New England bulk power systems.

The NEC and ISO New England Board of Directors have directed the Year 2000 Joint Oversight Committee to:

 Develop and issue a formal plan identifying the information and procedures relating to Year 2000 readiness that are required to

- assure operational reliability of the New England bulk power generation and transmission systems,
- Assess existing Year 2000-related reliability risks in the New England bulk power systems,
- Develop and issue Year 2000 readiness guidelines for New England Power Pool members,
- Develop and disseminate appropriate testing and remediation methodologies and contingency plans for the New England Power Pool control area, and
- Coordinate activities under the NEPOOL Year 2000 Plan with various third parties, including the North American Electric Reliability Council.

The thrust of the Year 2000 Joint Oversight Committee's efforts is to

Table 13

NEPOOL Summary of the Installed Capability Market April-December 1998*

Year	Capability Month	Total Excess ICAP (MW)	Excess ICAP Sold to the Market (MW)	ICAP Market Clearing Price (\$)	Total Monthly Charges (\$)
1998	April	1144	235	0	0
1998	May	1971	48	0	0
1998	June	1159	182	0	0
1998	July	805	158	0	0
1998	August	1303	22	0	0
1998	September	1309	28	0	0
1998	October	1625	60	0	0
1998	November	1282	404	0	0
1998	December	2066	168	0	0
	Average	1407	145	0	0

^{*} The ICAP Market was implemented on April 1, 1998.

Independent Audit for 1998

establish and monitor the overall status of Y2K readiness of the New England bulk power supply and to identify and mitigate the resulting operational reliability risk during the transition to the year 2000. To do this, the status of the New England Power Pool members' individual Year 2000 inventory, assessment, and remediation and testing activities are being evaluated.

Most of the New England Power Pool members have provided status information, and the Joint Oversight Committee has completed its preliminary evaluation. NEPOOL and ISO New England are using the information gathered from New England Power Pool members to establish appropriate contingency plans as are necessary or advisable to minimize the adverse impact of potential Year 2000-related problems on the operational reliability of the New England bulk power systems. Ultimately, however, each individual New England Power Pool member that owns generation, transmission or distribution assets has sole responsibility for remediation, testing and contingency planning to assure reliability of such assets.

The North American Electric
Reliability Council (NERC) has also
established guidelines for electric
companies across the U.S. and
Canada, including New England
Power Pool members. NERC requires
that its members have comprehensive Year 2000 readiness programs
in place and further requires each
member company to provide periodic
reporting. The NERC program has a
target date of June 30, 1999, by
which time its members are scheduled to complete their Year 2000
readiness efforts.

The firm of KPMG Peat Marwick LLP (KPMG) completed its annual audit of the NEPOOL Combined Billings Statement for the Interchange of Energy. The primary objective of the audit was to determine that the Combined Billings Statement for the Interchange of Energy for the Power Year ended October 31, 1998, presents fairly, in all material respects. the dollars associated with the energy deliveries and receipts among NEPOOL Participants and Non-Participants and the allocation of savings and expenses associated with these energy deliveries and receipts.

This annual independent audit of the ISO New England Combined Billings Statement has been carried out under the direction of the ISO Audit and Finance Committee of the Board of Directors and the NEPOOL Budget and Finance Committee. Messrs. Vin O'Reilly and Arthur Adelberg served as Chairmen of these Committees respectively. The auditors presented

the results of their 1998 audit to the Chairman of the ISO Audit and Finance Committee and the NEPOOL Billing and Finance Committee at their March 5, 1999 meeting.

The KPMG audit also included examinations of input data and procedures used by seven Participants in their preparation of relevant billing information. Of the seven Participants, two received a full audit, three received a limited scope audit and two were selected for review.

The ISO New England Audit and Finance Committee and the NEPOOL Budget and Finance Committee agreed at their January 1999 meeting to move forward with an "Agreed Upon Procedures" audit for the remaining period of the existing NEPOOL Automated Billing System (NABS). KPMG Peat Marwick has been retained to perform this last audit, which is scheduled for the first quarter of 1999.

Market Preparations

Prior to the completion of the new Energy Management System, control room procedures and EMS software were already undergoing major design changes to accommodate proposed NEPOOL Agreement changes and new ISO New England responsibilities under a restructured NEPOOL. The requirements of the new system were being determined by a set of evolving NEPOOL Market Rules and Procedures. Control room shift supervisors played a major role in preparing Operations for markets implementation, including revising and preparing new operating procedures that reflect the NEPOOL market rules, overseeing the installation of new hardware and software development, and supporting training programs.

The Energy Market System (EMS), and its new markets-driven software platform, were designed, in part, to accommodate changes made to settlement procedures for the new wholesale market system. In the past, NEPOOL settlement procedures functioned with little direct linkage to the real-time computer. In the world of markets, the EMS will become a foundation for financial Settlement data as the EMS will determine the market cost of energy and ancillary services.

ISO New England staffing increased and overall training intensified primarily to handle new responsibilities attributed to the implementation of the wholesale markets. In addition to the six-month basic training provided to newly hired operators on system operations and reliability, market training was implemented for all control room operators, forecasters and Satellite center personnel.

Beginning with an introduction to the NEPOOL markets rules and dispatch training on an EMS software package specifically designed for the wholesale markets, control room operators moved on to scripted scenarios of realistic market conditions. Training staff acted as station operators for every generating station in the control area as well as the operations staff at the New York Power Pool, Hydro Quebec, and New Brunswick.

A unit commitment software tool was purchased and adapted by ISO New England to be able to receive and process resource bids submitted by NEPOOL Participants under the new Markets environment. Results of the market-based Unit Commitment are forwarded into the new EMS and posted for appropriate security access by the Participants. Results will also be sent to the Satellite Control Centers for use in transmission security and transmission application studies.

The Mock Market in early November honed the skills of the ISO New England staff with real-time practice in administering the wholesale market. During the Mock Market, ISO New England staff worked around the clock to support this nine-day, 24-hour-a-day exercise. The NEPOOL generating unit bids were committed according to the principles stated in NEPOOL Market Rules. Scheduling updates were made several times a day. With DTS acting as a model of the bulk power system, ISO control room operators dispatched the committed bid-based resources and contracts. As a result of the Mock Market, modifications to future Markets system control room dispatch procedures were developed.

In anticipation of the changeover to the markets system, Operating Procedures and Criteria Rules and Standards were revised and reclassified as either new Operating Procedures or sections of Market Rules and Procedures to reflect the new market environment. These new documents were reviewed and approved by the appropriate NEPOOL committees.

NEPOOL COMMITTEES

NEPOOL Management Committee

NEPOOL Executive Committee

Regional Market Operations Committee

OFFICERS

Kevin A. Kirby, *Chairman*Eastern Utilities Associates Companies

Stephen F. Goldschmidt, *Vice Chairman*The United Illuminating Company

David T. Doot, Secretary Day, Berry & Howard LLP

Paul N. Belval, Assistant Secretary Day, Berry & Howard LLP

OFFICERS

Richard M. Chapman, *Chairman*Vermont Electric Power Company, Inc.

Thomas N. Wies, *Alternate*Vermont Electric Power Company, Inc.

Daniel W. Allegretti, *Vice Chairman* ENRON CORPORATION

Marjorie R. Philips, Esq., *Alternate* PECO ENERGY COMPANY

Robert E. Charpentier, *Representative* ISO New England Inc.

David LaPlante, *Alternate* ISO New England Inc.

David T. Doot, Secretary Day, Berry & Howard LLP

Paul N. Belval, Assistant Secretary Day, Berry & Howard LLP

OFFICERS

Larry G. Drees, *Chairman*Vermont Electric Power Company, Inc.

Robert E. Howland, *Alternate*Central Vermont Public Service
Corporation

Fernando P. DaSilva, *Vice Chairman*Eastern Utilities Associates Companies

Robert P. Clarke, *Alternate*Eastern Utilities Associates Companies

E. Kenneth Nielsen, Secretary ISO New England Inc.

Paul B. Shortley, *Alternate* ISO New England Inc.

Regional Transmission Operations Committee

Market Reliability Planning Committee

Regional Transmission Planning Committee

OFFICERS

Steven S. Garwood, *Chairman* Central Maine Power Company

John G. Hinkley, *Alternate*CENTRAL MAINE POWER COMPANY

Michael A. Cannella, *Vice Chairman* The United Illuminating Company

Guy A. Cattaruzza, *Alternate*The United Illuminating Company

Paul B. Shortley, *Secretary* ISO New England Inc.

E. Kenneth Nielsen, *Alternate and Assistant Secretary*ISO New England Inc.

OFFICERS

John F. Malley, *Chairman*New England Electric System Operating
Companies

Jonathan B. Lowell, *Alternate*New England Electric System Operating
Companies

Joseph J. Staszowski, *Vice Chairman*Northeast Utilities Service Company

David A. Errichetti, *Alternate*Northeast Utilities Service Company

Philip A. Fedora, *Secretary* ISO New England Inc.

Kevin E. Mankouski, *Alternate* ISO New England Inc.

OFFICERS

K. David Rogers, *Chairman*Northeast Utilities Service Company

Allen W. Scarfone, *Alternate*Northeast Utilities Service Company

Charles P. Salamone, *Vice Chairman*Commonwealth Energy System Companies

Shashi Parekh, *Alternate*Commonwealth Energy System Companies

Douglas A. James, Secretary ISO New England Inc.

Richard V. Kowalski, *Alternate and Assistant Secretary*ISO New England Inc.

NEPOOL Participants*

AllEnergy Marketing Co., L.L.C. Alternate Power Source, Inc. Aguila Power Corporation Ashburnham Municipal Light Plant Bangor Hydro-Electric Company Belmont Municipal Light Department Berkshire Power Development, Inc. Boston Edison Company Boylston Municipal Light Department Braintree Electric Light Department Central Maine Power Company Chicopee Municipal Lighting Plant CinCap IV, LLC Cinergy Capital & Trading Cinergy Services, Inc. Companies The Cincinnati Gas & Electric Company, PSI Energy, Inc. Citizens Lehman Power Sales Columbia Energy Power Marketing Corp. COM/Energy Marketing, Inc. Commonwealth Energy System Companies Cambridge Electric Light Company Canal Electric Company Commonwealth Electric Company Concord Municipal Light Plant Con Edison Solutions Consolidated Edison Co. of NY, Inc. Connecticut Municipal Electric Energy Cooperative Constellation Power Source, Inc. Coral Power, L.L.C. CSW Energy Services, Inc. Danvers Electric Department Dighton Power Associates Limited Partnership Duke Energy Power Services, Inc. Duke Energy Trading & Marketing, L.L.C. Duke/Louis Dreyfus LLC Eastern Utilities Associates Companies Blackstone Valley Electric Company Eastern Edison Company Montaup Electric Company Newport Electric Corporation Electric Clearing House, Inc. EnergyEXPRESS, Inc. EnergyVision LLC Energy Atlantic, LLC Energy New England LLC Engage Energy US, L.P. ENRON Power Marketing, Inc. Enserch Energy Services, Inc. e prime, inc. Fitchburg Gas and Electric Light Company FPL Energy, Inc. Georgetown Municipal Light Department Great Bay Power Corporation Griffin Energy Marketing, L.L.C. Groton Electric Light Department

Hingham Municipal Lighting Plant Holden Municipal Light Department Holyoke Gas and Electric Department H.Q. Energy Services (U.S.) Inc. Hudson Light and Power Department Hull Municipal Lighting Plant Indeck Maine Energy, L.L.C. Indeck-Pepperell Power Associates, Inc. Ipswich Municipal Light Department KOCH Power Services, Inc. LG&E Power Marketing Inc. Littleton Electric Light and Water Department Mansfield Municipal Electric Department Marblehead Municipal Light Department Mass. Municipal Wholesale Electric Middleborough Gas and Electric Department Middleton Municipal Electric Department Milford Power Limited Partnership Morgan Stanley Capital Group, Inc. Narragansett Electric Company, The New Energy Ventures L.L.C. New England Electric System Operating Companies Granite State Electric Company Massachusetts Electric Company New England Power Company New Hampshire Electric Cooperative, Inc. Niagara Mohawk Energy Inc. Companies Niagara Mohawk Energy, Inc. Niagara Mohawk Energy Marketing, Inc. NorAm Energy Services, Inc. North American Energy Conservation, Inc. North Attleborough Electric Department Northeast Energy Services, Inc. Northeast Utilities System Companies The Connecticut Light and Power Company Holyoke Power and Electric Company Holyoke Water Power Company Public Service Company of New Hampshire Western Massachusetts Electric Company Norwood Municipal Light Department NP Energy Inc. Pascoag Fire District - Electric Department Paxton Municipal Light Department Peabody Municipal Light Plant PEC Energy Marketing PECO Energy Company Pennsylvania Power & Light Co. **PG&E Energy Services** PG&E Energy Trading Power, L.P. Companies PG&E Energy Trading, L.P. USGen New England, Inc. PSEG Energy Technologies Inc. Public Service Electric and Gas Co.

Reading Municipal Light Department Rowley Municipal Lighting Plant Select Energy Inc. Sempra Energy Trading Corp. Shrewsbury Electric Light Plant Sithe New England Holdings LLC Sonat Power Marketing L.P. South Hadley Electric Light Department Southern Company Energy Marketing, L.P. Statoil Energy Trading, Inc. Sterling Municipal Electric Light Department Strategic Energy, Limited Partnership Taunton Municipal Lighting Plant Templeton Municipal Lighting Plant Tractebel Energy Marketing, Inc. TransCanada Companies TransCanada Energy Ltd. TransCanada Power Marketing Ltd. The United Illuminating Company **UNITIL Services Corporation Participant** Companies Concord Electric Company Exeter & Hampton Electric Company UNITIL Power Corp. UNITIL Resources. Inc. Vermont Electric Power Company, Inc. Barton Village, Inc. City of Burlington Electric Department Central Vermont Public Service Corporation Citizens Utilities Company Village of Enosburg Falls Water & Light Department Green Mountain Power Corporation Village of Hardwick Electric Department Village of Hyde Park, Inc. Village of Jacksonville Village of Johnson Electric Light Department Village of Ludlow Electric Light Department Village of Lyndonville Electric Department Village of Morrisville Water & Light Department Village of Northfield Electric Department Village of Orleans Electric Department Village of Readsboro Electric Light Department Rochester Electric Light & Power Company Village of Stowe Water & Light Department Village of Swanton Vermont Electric Cooperative, Inc. Vermont Marble Company Vermont Public Power Supply Authority Washington Electric Cooperative, Inc. Vitol Gas & Electric Power Company Wakefield Municipal Light Department

XENERGY, Inc.

Williams Energy Services Co.

West Boylston Municipal Lighting Plant

Westfield Gas & Electric Light Department

^{*} As of December 31, 1998

AllEnergy Marketing Co., L.L.C. • Alternate Power Source, Inc. • Aquila Power Corporation • Ashburnham Municipal Light Plant • Bangor Hydro-Electric Company • Belmont Municipal Light Department • Berkshire Power Development, Inc. • Boston Edison Company • Boylston Municipal Light Department • Braintree Electric Light Department • Central Maine Power Company • Chicopee Municipal Lighting Plant CinCap IV, LLC • Cinergy Capital & Trading • Cinergy Services, Inc. Companies • The Cincinnati Gas & Electric Company, Inc. • PSI Energy, Inc. • Citizens Lehman Power Sales • Columbia Energy Power Marketing Corp. • COM/Energy Marketing, Inc. • Commonwealth Energy System Companies • Cambridge Electric Light Company • Canal Electric Company • Commonwealth Electric Company • Concord Municipal Light Plant • Con Edison Solutions • Consolidated Edison Co. of NY, Inc. • Connecticut Municipal Electric Energy Cooperative • Constellation Power Source, Inc. • Coral Power, L.L.C. • CSW Energy Services, Inc. • Danvers Electric Department • Dighton Power Associates Limited Partnership • Duke Energy Power Services, Inc. • Duke Energy Trading & Marketing, L.L.C. • Duke/Louis Dreyfus LLC • Eastern Utilities Associates Companies • Blackstone Valley Electric Company • Eastern Edison Company • Montaup Electric Company · Newport Electric Corporation · Electric Clearing House, Inc. · EnergyEXPRESS, Inc. • EnergyVision LLC • Energy Atlantic, LLC • Energy New England LLC • Engage Energy US, L.P. • ENRON Power Marketing, Inc. • Enserch Energy Services, Inc. • e prime, inc. • Fitchburg Gas and Electric Light Company • FPL Energy, Inc. • Georgetown Municipal Light Department • Great Bay Power Corporation • Griffin Energy Marketing, L.L.C. • Groton Electric Light Department • Hingham Municipal Lighting Plant Holden Municipal Light Department
 Holyoke Gas and Electric
 Department
 H.Q Energy Services (U.S.) Inc. • Hudson Light and Power Department • Hull Municipal Lighting Plant • Indeck Maine Energy, L.L.C. • Indeck-Pepperell Power Associates, Inc. • Ipswich Municipal Light Department • KOCH Power Services, Inc. • LG&E Power Marketing Inc. • Littleton Electric Light and Water Department • Mansfield Municipal Electric Department • Marblehead Municipal Light Department • Mass. Municipal Wholesale Electric Company • Middleborough Gas and Electric Department • Middleton Municipal Electric Department • Milford Power Limited Partnership • Morgan Stanley Capital Group, Inc. • Narragansett Electric Company, The • New Energy Ventures L.L.C. • New England Electric System Operating Companies • Granite State Electric Company • Massachusetts Electric Company • New England Power Company • New Hampshire Electric Cooperative, Inc. • Niagara Mohawk Energy Inc. Companies • Niagara Mohawk Energy, Inc. • Niagara Mohawk Energy Marketing, Inc. • NorAm Energy Services, Inc. • North American Energy Conservation, Inc. • North Attleborough Electric Department • Northeast Energy Services, Inc. • Northeast Utilities System Companies • The Connecticut Light and Power Company • Holyoke Power and Electric Company • Holyoke Water Power Company • Public Service Company of New Hampshire • Western Massachusetts Electric Company • Norwood Municipal Light Department • NP Energy Inc. • Pascoag Fire District - Electric Department • Paxton Municipal Light Department • Peabody Municipal Light Plant • PEC Energy Marketing • PECO Energy Company • Pennsylvania Power & Light Co. • PG&E Energy Services • PG&E Energy Trading Power, L.P. Companies • PG&E Energy Trading, L.P. • USGen New England, Inc. • PSEG Energy Technologies Inc. • Public Service Electric and Gas Co. • Reading Municipal Light Department • Rowley Municipal Lighting Plant • Select Energy Inc. • Sempra Energy Trading Corp. • Shrewsbury Electric Light Plant • Sithe New England Holdings LLC • Sonat Power Marketing L.P. • South Hadley Electric Light Department • Southern Company Energy Marketing, L.P. . Statoil Energy Trading, Inc. . Sterling Municipal Electric Light Department • Strategic Energy, Limited Partnership • Taunton Municipal Lighting Plant • Templeton Municipal Lighting Plant • Tractebel Energy Marketing, Inc. • TransCanada Companies • TransCanada Energy Ltd. • TransCanada Power Marketing Ltd. • The United Illuminating Company • UNITIL Services Corporation Participant Companies • Concord Electric Company • Exeter & Hampton Electric Company • UNITIL Power Corp. • UNITIL Resources, Inc. • Vermont Electric Power Company, Inc. • Barton Village, Inc. • City of Burlington Electric Department • Central Vermont Public Service Corporation • Citizens Utilities Company • Village of Enosburg Falls Water & Light Department • Green Mountain Power Corporation • Village of Hardwick Electric Department • Village of Hyde Park, Inc. • Village of Jacksonville • Village of Johnson Electric Light Department • Village of Ludlow Electric Light Department • Village of Lyndonville Electric Department • Village of Morrisville Water & Light Department • Village of Northfield Electric Department • Village of Orleans Electric Department • Village of Readsboro Electric Light Department • Rochester Electric Light & Power Company • Village of Stowe Water & Light Department • Village of Swanton • Vermont Electric Cooperative, Inc. • Vermont Marble Company • Vermont Public Power Supply Authority • Washington Electric Cooperative, Inc. • Vitol Gas & Electric Power Company • Wakefield Municipal Light Department • West Boylston Municipal Lighting Plant Westfield Gas & Electric Light Department • Williams Energy Services Co. • XENERGY



The New England Power Pool c/o David T. Doot, Secretary c/o Day, Berry & Howard LLP CityPlace I Hartford, Connecticut 06103-3499