

DE 03-013

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
GRANITE STATE ELECTRIC COMPANY
UNITIL ENERGY SYSTEMS, INC. AND
NEW HAMPSHIRE ELECTRIC COOPERATIVE, INC.

Investigation into Advanced Customer Metering and
Demand Response by Electric Distribution Companies

Order Approving Settlement Agreement

O R D E R N O. 24,263

January 9, 2004

APPEARANCES: Gerald M. Eaton, Esq. for Public Service Company of New Hampshire; Devine, Millimet and Branch by Mark Dean Esq. for the New Hampshire Electric Cooperative, Inc.; Laura S. Olton, Esq. for Granite State Electric Company; LeBoeuf, Lamb, Green and MacRae by Scott Mueller, Esq. for Unitil; Paul Gromer, Esq. for Constellation NewEnergy; Matthew T. Morais, Esq. for Strategic Energy LLC; Dan Delurey for Demand Response and Advanced Metering Coalition; H. Ward Camp for Distribution Control Systems, Inc.; Chris King for eMeter; Jackson Brandenburg and David Wechsler for Lanthorn Technologies; Ennett Kelly, Jr. for Itron; Pentti J. Aalto for PJA Energy Systems Design; Sierra Curtis-MacLane for New Hampshire Public Interest Research Group; Michael W. Holmes, Esq. for the Office of Consumer Affairs on behalf of Residential Ratepayers; and Suzanne Amidon Esq. for the Staff of the New Hampshire Public Utilities Commission.

I. PROCEDURAL HISTORY

On January 31, 2003, the Public Utilities Commission (Commission) issued an Order of Notice initiating this proceeding to investigate the feasibility, benefits and costs of the installation of advanced customer metering equipment by electric distribution companies, including the effect on demand response due to the use of advanced metering technology. The Commission issued the order pursuant to its authority under NH RSA 374:7 and

RSA 374-F:4,VIII(a). Pursuant to the Order of Notice, the Commission held a Prehearing Conference on March 12, 2003. On May 12, the Commission entered a Prehearing Conference Order (Order No. 24,170) which granted motions to intervene, stated positions of the Parties, established a procedural schedule, and described the scope of the proceeding. In addition, the Commission ordered Public Service Company of New Hampshire (PSNH), Unitil Energy Systems, Inc. (UES), Granite State Electric Company (GSEC), and the New Hampshire Electric Cooperative, Inc. (NHEC) (collectively the Companies) to submit to the Commission by June 30, 2003, an advanced metering proposal for Commercial and Industrial (C&I) customers. In its Order, the Commission directed the Companies to address the following: the benefits and detriments of mandatory Real Time Pricing; whether to apply mandatory RTP to specific C&I customers; the actions necessary to expand installation of interval meters; identification of cost shifts to non-C&I ratepayers if mandatory interval meters and demand response programs were implemented; a description of alternative rate design options; and identification of what measures would be necessary to assure uniformity in reporting and comparability of data among the companies.

The Commission encouraged the Companies to collaborate in the development of their proposals with the goal of filing a single plan that could be implemented uniformly across all

service territories. The Commission also requested that the Companies evaluate the benefits and costs of metering and address whether such meters should include an RTP mechanism.

On June 30, 2003, each Company filed an Individual Response to Order No. 24,170. In its Individual Response, NHEC requested that the Commission grant it limited intervention and asserted that the Commission had no jurisdiction over NHEC with respect to advanced metering.

Also on June 30, 2003, PSNH, GSEC and UES filed a Common Response. On July 7 2003, the New Hampshire Business and Industry Association (BIA) filed a motion to intervene in the docket. On July 10, 2003, Staff filed a request to cancel the Technical Session scheduled for July 15, 2003. On July 11, 2003, a Secretarial Letter issued from the Commission granted Staff's request.

Also on July 11, 2003, the Commission granted the BIA's petition for late intervention. Pursuant to Order No. 24,170, a Technical Session was held on July 16, 2003. At the Technical Session, a representative from the Independent System Operator of New England (ISO-NE) made a presentation on the ISO-NE's Demand Response Program, whereby enrolled customers agree to curtail electric use on demand in return for certain financial benefits.

Following the Technical Session, Staff filed a request to cancel Technical Sessions scheduled for August 12 and 13, 2003 and

requested that the Hearing scheduled for September 3 and 4, 2003 be canceled and replaced with a Settlement Conference on September 3, 2003.

On August 1, 2003, the Commission issued a Secretarial Letter suspending the Procedural Schedule. On August 21, 2003, the Commission issued a Secretarial Letter granting Staff's request to amend the Procedural Schedule. On September 17, 2003, Staff filed a letter informing the Commission that, with the exception of NHEC, the Parties and Staff had reached a Settlement Agreement and requested that the Commission hold a Settlement Hearing on November 12, 2003. On October 31, 2003, the Commission agreed to schedule the Hearing as requested on November 12, 2003. The signed Settlement Agreement was filed on November 4, 2003, and the Settlement Hearing was held on November 12, 2003, as scheduled.

II. POSITIONS OF THE PARTIES

A. New Hampshire Electric Cooperative, Inc. (NHEC)

NHEC stated in its response to Order No. 24,170 that prior to the commencement of this docket it had initiated an advanced metering implementation strategy which includes providing advanced metering to all customers. NHEC stated that it had issued a Request for Proposal (RFP) on April 23, 2003, for the purchase and deployment of an automated metering system for all of NHEC's approximately 75,000 members. NHEC indicated that

the deployment of the metering system envisioned in its Advanced Metering RFP would provide a metering technology platform capable of accommodating and facilitating a broad range of energy products and pricing options for NHEC members. NHEC stated that whether made available by competitive electric suppliers, NHEC, ISO-NE, or all three, a variety of energy products and pricing options capable of more accurately reflecting both market conditions and member-specific needs would add value to the services provided by NHEC to its members. NHEC states that it is committed to creating the technological platform for these options for its members.

NHEC stated that it was voluntarily responding to Commission Order No. 24,170 and asserted that the Commission did not have jurisdiction over NHEC with respect to advanced metering. NHEC argues that the Commission must claim authority under a specific statute and not RSA 374-F over all. Furthermore, NHEC states that the Commission could not apply any real time pricing requirements to NHEC because the Commission has no authority to set NHEC's energy rates. Finally, NHEC asserts that the Commission, in Order No. 23,713, stated that while it has jurisdiction to implement the relevant public policy principles in RSA 374-F, the Legislature had concluded that with respect to rural electric cooperatives, the customers themselves are the stewards of electric restructuring. *New Hampshire*

Electric Cooperative, Inc., 86 NH PUC 351, 354

(2001). Consequently, NHEC requested limited intervention in DE 03-013.

B. Unitil Energy Systems, Inc. (UES)

In its individual response to Order No. 24,170, UES stated that it has already made advanced metering available to all of its customers either through a standard metering package for large (G1) customers or through tariff provisions which allow for advanced metering for non-G1 customers.

UES also stated it has installed advanced meters with all of its Large General Service G1 customers. These customers are the largest C&I customers whose usage generally exceeds 200 kilowatts (kW) per month. UES indicated that its tariff states that G1 delivery is available to any C&I customer with its average use consistently equal to or in excess of 200 kilo-volt amperes (kVa) of demand and generally greater than or equal to 100,000 kilowatt-hours (kWh) per month. UES stated that, as of the date of its response, there are 152 customers on G1. UES attested that the cost of these meters is recovered from customers through distribution rates for that rate class.

UES stated that it currently offers advanced meters to non-G1 customers, for whom the cost is not included in distribution rates, through its tariff for Enhanced Metering Service, Service Option 1: Remote Access. (Unitil Energy

Systems, Inc., NHPUC No. 1 Electricity Delivery Tariff, pages 49-51) This option provides advanced metering for a cost-based fee, either on a monthly basis or for a lump sum amount. Additionally, UES stated that Service Option 2: Pulse Output Service is provided, for a fee, to both G1 and non-G1 customers. UES indicated that Service Option 2 provides a pulse interface device through which the customer can access real-time meter data for whatever purpose the customer desires.

UES attested that its tariff allows eligible customers to participate in any ISO-NE's Demand Response Program approved by the Federal Energy Regulatory Commission, as amended from time to time. UES indicated that interested customers may enroll with UES or any other NEPOOL Participant, subject to the Local Regional Price in effect at that time.

UES concluded that it believed the combination of advanced meters currently installed and available to its customers and the advanced metering service options in its tariff, provides the necessary tools for customers to participate in any demand response including the ISO-NE Demand Response Programs. UES also stated that these services would permit a customer to participate in RTP options for electric generation service provided to the customer by a competitive electric power supplier.

C. Granite State Electric Company (GSEC)

In its individual response to Order No. 24,170, GSEC averred that it had evaluated the benefits provided by advanced metering and planned to file with the Commission a tariff to offer its customers optional services such as advanced metering, real time customer meter data access, internet access to interval data, and billing and rates services. GSEC stated it would offer these services to customers pursuant to provisions approved by the Commission. GSEC stated that such optional services would facilitate transactions between customers and suppliers.

GSEC stated that it has long been its policy to install advanced meters at large C&I customer facilities and provide detailed usage data upon request. GSEC stated that its 108 large (G-1) commercial and industrial customers have interval data meters that read kW and kVA data. These meters contain mass memory for storing interval data. Like its affiliates, GSEC will have a series of advanced metering and data services available to both G1 and non-G1 customers. And in its filing, GSEC stated it would submit a filing offering optional services for advanced metering within the month. GSEC also indicated that it would file a tariff provision that would allow it to offer the ISO-NE's Demand Response Programs for 2003, and on an annual basis thereafter.

On August 15, 2003, GSEC filed a tariff for Optional Services (DE 03-157), to offer advanced meter services and interval data service to both general and residential customers. On August 18, 2003, GSEC filed a proposal on Load Response Programs (DE 03-158). For its load response program, GSEC proposed to utilize ISO-NE's Demand Response Programs (Real-Time Demand Response and Real-Time Price Response Programs) for its G1 and G2 customers. Both of GSEC's proposed programs become effective on September 17, 2003.

D. Public Service Company of New Hampshire (PSNH)

In its response to Order No. 24,170, PSNH stated that it had made the decision to move ahead with the installation of advanced metering for all of its large C&I customers to enable these customers and their competitive suppliers to take full advantage of load management options and energy pricing alternatives. PSNH stated that these services, which include interval metering, pulse metering and recorders, are contained in PSNH's Tariff NHPUC No. 2-Electric Delivery (part 2, pages 28-30). PSNH stated that 1,500 customers are eligible to receive both interval data access service or load pulse output service which provide them with the flexibility needed to actively manage load in real time and/or review archived load and usage data.

PSNH also stated that 50 of its large customers have advanced meters that they use for energy management. PSNH stated

that these meters, which provide near real time pulse outputs, allow both customers and their competitive energy suppliers to take advantage of hourly market conditions, including price and load, and helps suppliers develop a full range of pricing proposals tailored to suit a customer's specific needs.

PSNH indicated that customers that have an interest in load management can participate in PSNH's Voluntary Interruptible Program (Rate VIP). PSNH stated that, as of June 30, 2003, it had nearly 18 megawatts of load and 31 large customers participating in the Rate VIP program for 2003. PSNH explained that it requests voluntary load reduction by participating customers when the market price for energy is expected to exceed \$500 per MWh. PSNH stated that load curtailment under the program is voluntary, and customer response is measured by an after-the-fact review of each customer's load during the requested curtailment period. PSNH explained that participating customers receive a bill credit and PSNH applies at least fifty percent of the economic benefit of the load reductions to reduce Part 3 stranded costs.

E. Distribution Companies' Common Response

UES, GSEC and PSNH (Distribution Companies) also filed a Common Response to Commission Order No. 24,170 on June 30, 2003. In the Common Response, the Distribution Companies agreed that they should work together to provide a reasonable common

platform for demand response initiatives by installing advanced metering for their large (C&I) customers. The Distribution Companies stated that each of them had already installed, or would work to install, advanced metering for all large C&I customers.

In the Common Response, the Distribution Companies defined "advanced metering" to include the following: (1) be interval meters with mass memory capability, i.e., the meter retains data for at least one complete billing month; (2) a modem capable of providing data to the customers, the customer's competitive energy supplier and the distribution company; and, (3) meters capable of recording and transmitting pulses.

The Distribution Companies stated that installing advanced metering with these parameters for all large C&I customers in New Hampshire will provide a tool not only for the implementation of demand response programs, but also a common platform for C&I customers to enter into arrangements with competitive power suppliers, the Distribution Companies, and other third parties for additional services such as energy management services and real-time internet access to data.

The Distribution Companies said that each of them was at a different stage in offering advanced metering options and referred the Commission to their individual responses. They stated that the next step is the filing and approval of tariff

services where customers or competitive energy suppliers can use the information that is produced, stored and reported by the advanced meter. The Distribution Companies said they are willing to plan for joint customer and competitive supplier education to introduce these services to a wide population.

The Distribution Companies also responded to other issues raised in Order No. 24,170. With respect to the offering of real time pricing options, the Distribution Companies pointed out that real time pricing should not be a mandatory component because the principles of electric industry restructuring involved consumer choice. They also said that consistent with RSA 374-F:1,II, the Commission should be looking to the competitive energy suppliers to offer real time pricing. The Distribution Companies agreed that they should provide the technological platform to facilitate the offering of RTP by competitive energy suppliers.

The Distribution Companies stated that if the Commission makes any decisions regarding RTP, it would have to allow customer arrangements to be tailored to the customer's particular situation. The Distribution Companies said that the Commission should consider the situation of customers with highly inelastic loads, and those customers with on-site non-emergency generation, such as hospitals, that cannot alter their operations to take advantage of a real time pricing program.

The Distribution Companies indicated that they did not anticipate any shift of costs to non-C&I ratepayers, and favored the recovery of the costs of metering in a traditional manner. The Distribution Companies said that the costs have customarily been recovered through the customer charges applicable to the large C&I rate class. They said that other services, such as data retrieval, are recovered directly from the customers who request such services. The Distribution Companies also said that any additional equipment, phone lines or software that the customer requires to retrieve data directly from an advanced meter or the software necessary to interpret that data ought to be paid for by the customer.

With respect to the Commission's question regarding alternative rate design, the Distribution Companies said that it would be preferable to study other existing tariff-based load response programs. The Distribution Companies said that such programs should include their own programs or those in conjunction with NEPOOL and ISO New England. The Distribution Companies said that the financial reward for reduction in loads has been the incentives offered under those programs and, combined with advanced metering, could afford an opportunity to study the success of these initiatives in planning future load response initiatives. Finally, the Distribution Companies agreed to report data regarding the number of customers enrolled, total

megawatts of load subscribed, total megawatts interrupted when called, and total savings on a consistent basis to the Commission. The Distribution Companies emphasized that a Distribution Company should be able to participate in a demand response program that makes the most sense for its particular circumstances.

F. Commission Staff

Staff undertook investigated the options regarding advanced metering, load response programs, and real time pricing or other pricing mechanisms to encourage cost effective energy efficiency and management of electric use by large C&I customers. Based upon this investigation, Staff concluded that the current deployment of advanced meters by the Distribution Companies for large C&I customers was reasonable. Staff noted that with the exception of GSEC, all Distribution Companies had tariffs offering advanced metering services to those customers with advanced meters. Staff noted that GSEC made a filing offering advanced metering services and the ISO-NE Demand Response Program to large C&I customers during the course of this proceeding, thus providing a degree of uniformity to the offerings of GSEC, PSNH and UES.

Staff also found it reasonable for a Distribution Company to use either the ISO-NE Demand Response Programs or one of its own such programs. After investigation, Staff believes

that the Rate VIP program offered by PSNH is a comparable alternative to the ISO-New England Demand Response because it provides financial incentives to customers who curtail load. However, Staff concluded that it would be appropriate for PSNH to lower the target threshold for requesting interruption to \$200 per megawatt-hour from \$500 per megawatt-hour, as currently provided under PSNH's tariff, because New Hampshire's zonal wholesale market price did not reach \$500 per megawatt-hour in the 2003 summer peak periods.

Staff agreed with the definition of advanced metering used by the Distribution Companies in their Common Response. Staff proposed that the Distribution Companies make specific reports to the Commission regarding advanced metering services, interval data services, and demand response programs, including enrollment and participation information. Staff made these recommendations, which were included in the Settlement Agreement, to assure that the Commission would have information on an ongoing basis to evaluate the effectiveness of these programs and to make improvements as needed.

Staff also agreed with the Distribution Companies that it would not be practical to require real time pricing for large C&I in this docket. Staff, however, confined this observation to this docket alone. Staff observed that the data reported to the Commission pursuant to the provisions of the Settlement Agreement

is essentially a foundation for the Commission to use to create other energy management programs in the future, including real-time pricing options.

Staff agreed with the Distribution Companies that residential metering shall be considered in a separate docket. Staff noted that UES and GSEC offer advanced metering and interval data service to residential and small commercial customers who wish to enroll and pay the necessary fees to cover the associated costs. PSNH has stated that it will also offer such programs to residential customers that are interested. *Hearing Transcript of November 12, at 38 lines 18-24 and at 39 lines 1-19.*

III. SETTLEMENT AGREEMENT

The Settlement Agreement signed by Staff, OCA, GSEC, UES and PSNH requires the Distribution Companies to work to install Advanced Metering for all large C&I customers. The Settlement Agreement sets out a definition of "advanced metering" to which all signatories agree, and incorporates each Distribution Companies' tariff definition of "large C&I customers" for purposes of identifying those customers which would have Advanced Metering.

The Settlement Agreement requires the signatory Distribution Companies to offer Optional Services to their respective large C&I customers to permit remote access metering,

pulse output service and interval data service, as defined in each Distribution Companies' respective tariffs. The companies also agree to provide quarterly reports to the Commission regarding participation in each Optional Service.

The Distribution Companies also agree to include a Demand Response Program in their tariff offerings to large C&I customers. Acceptable programs include the ISO-NE Demand Response Program or PSNH's Rate VIP or its successor tariff offering. PSNH agrees that, beginning in 2004, the target threshold for requesting interruption under Rate VIP shall be set at \$200 per megawatt-hour. The Distribution Companies also agree to make certain quarterly reports to the Commission regarding participation and other data related to any curtailment event called by the ISO-NE or by PSNH.

The Settlement Agreement includes provisions stating that identifying account numbers and customers' names are confidential information, and further states that the Distribution Companies agree to update the Commission on the status of the implementation of metering technologies in New Hampshire as the Commission deems appropriate.

IV. COMMISSION ANALYSIS

A. NHEC Jurisdictional Issue

The Commission first addresses the assertion by NHEC that the Commission has no jurisdiction under RSA 374-F to

require NHEC to comply with any requirements regarding advanced metering availability for its customers because advanced metering does not relate directly to electric utility industry restructuring. We disagree. RSA 362:2,II, which defines the Commission's jurisdiction over electric cooperatives that file a Certificate of Deregulation with the Commission pursuant to RSA 301:57 states in relevant part that such cooperatives

shall not be considered public utilities, provided, however, that the provisions of . . . RSA 374-F. . . shall, unless otherwise provided herein, be applicable to rural electric cooperatives, without regard to whether a certificate of regulation or deregulation is on file with the public utilities commission.

Accordingly, RSA 374-F applies generally to NHEC. As noted by Staff and the other distribution companies, the installation of advanced metering with large C&I customers will make it easier for competitive energy suppliers to offer those customers bids based on load analysis, and permit such suppliers to connect with those customers' meters remote access capabilities. Thus, advanced metering requirements create a uniform platform among the distribution companies that will enhance the ability of competitive energy suppliers to offer a variety of electric service options to New Hampshire customers. Competition and customer choice are the key principles of RSA 374-F, see RSA 374-F:3, II and VII. NHEC, therefore, is subject to the Commission's jurisdiction and the rulings of the

Commission as they relate to the development of a competitive retail electric market.

Order No. 23,713 (DE 01-038) does not hold the broad finding asserted by NHEC. In that Order, the Commission interpreted the enactment of House Bill 489 (RSA 362-:2,II) as limiting the Commission's jurisdiction over NHEC's energy services to its members, specifically NHEC's transition service rates. The Order also denied a request by Freedom Energy Buyers Group, LLC that the Commission hold a full evidentiary hearing to assess the status of competition in the NHEC service territory. The Commission denied the request for a hearing, asserting that the members of NHEC were intended to steward and assess NHEC's progress in meeting the goals of restructuring. We do not agree that this assertion in the context of Order No. 23,713 constitutes a finding that we lack jurisdiction over NHEC with respect to actions to promote the policy principles of RSA 374-F.

We note that NHEC has issued an RFP for system-wide advanced metering capabilities for all its customers, and find this proposal to be comparable to what the other distribution companies are doing to implement advanced metering. For that reason, we do not find it necessary for NHEC to be a signatory to the Settlement Agreement for it to be in compliance with the Commission's requirements as enunciated in this order.

B. Settlement Agreement

We have reviewed the record and the Settlement Agreement. In the Settlement Agreement, Staff and the Distribution Companies have agreed to the development of an information base for the Commission to assess the performance of advanced metering and demand response programs for large C&I electric service customers. The Settlement Agreement does this by providing a uniform definition of "Advanced Metering", requiring Advanced Metering to be installed with each of the Distribution Companies' large C&I customers, establishing uniform reporting requirements with respect to the participation in Advanced Metering and Optional Services, and requiring each of the Distribution Companies to offer a demand response program to their large C&I customers. While these provisions do not encompass all of the issues subject to investigation in Order No. 24,170, we find that the Settlement Agreement provides an appropriate first step.

We agree that the data derived from the programs themselves will benefit competition in the electric industry. The Settlement Agreement establishes a set of uniform reporting requirements that will help competitive suppliers establish services in New Hampshire. We believe that competitive suppliers will receive standardized and accurate customer load data that they can use in the bidding process for energy services and for

designing programs, and that customers will benefit from receiving usage data that they can utilize when procuring energy services.

We conclude that the Settlement Agreement represents an important first step toward the development of an advanced metering and rate design policy to encourage the efficient use of electricity by the state's largest consumers. While we agree that it is appropriate to establish a separate docket for the investigation of Advanced Metering for residential consumers, we find that such a docket should be opened in advance of the end of Transition Service to further prepare the state for electric service competition. In addition, while this Settlement Agreement is silent with respect to alternative rate design, such as real time pricing, we will continue to evaluate the role of such rate designs to further the implementation of the principles of electric industry restructuring in RSA 374-F.

Finally, we appreciate the valuable information provided by the Distribution Companies and NHEC during the course of this docket. This investigation is the Commission's first comprehensive review of advanced metering and the benchmark information provided by the Distribution Companies will assist us in the development of energy management programs.

Based upon the foregoing, it is hereby

ORDERED, that the Settlement Agreement in DE 03-013,
Investigation into Advanced Metering is approved; and it is

FURTHER ORDERED, that the Settlement Agreement shall be
attached to this Order; and it is

FURTHER ORDERED, that any tariffs required to comply
with the terms of the Settlement Agreement be filed within 30
days of the date hereof.

By order of the Public Utilities Commission of New
Hampshire this ninth day of January, 2004.

Thomas B. Getz
Chairman

Susan S. Geiger
Commissioner

Graham J. Morrison
Commissioner

Attested by:

Debra A. Howland
Executive Director & Secretary

THE STATE OF NEW HAMPSHIRE

BEFORE THE

PUBLIC UTILITIES COMMISSION

Docket No. DE 03-013

Granite State Electric Company; Public Service Company of New Hampshire; and Unitil Energy Systems, Inc.

Investigation into Advanced Metering

STIPULATION AND SETTLEMENT AGREEMENT

1. This Stipulation and Settlement Agreement is entered into pursuant to N.H. Code Admin. Rule Puc 203.09 by Granite State Electric Company (GSEC), Public Service Company of New Hampshire (PSNH), Unitil Energy Systems, Inc. (Unitil), the Office of Consumer Advocate (OCA) and the Staff of the New Hampshire Public Utilities Commission (Staff) as of the date that appears at the conclusion of this document. The signatories are referred to collectively herein as "the Parties and Staff."
2. The purpose of this docket, which was opened on January 31, 2003, is to investigate the use of advanced metering to assess the benefits and costs of providing customers the ability to obtain electric service under pricing options tied to market prices, and to assess the effectiveness of advanced metering and demand response programs in which customers are asked to curtail electric use during periods of peak price or use.
3. The intent of this Stipulation and Settlement Agreement is to memorialize certain agreements reached by the Parties and Staff at a Settlement Conference on September 3, 2003, and further modified with the agreement of the Parties and Staff.
4. This Stipulation and Settlement Agreement resolves all issues in the docket to the satisfaction of the signatories hereto.
5. The Parties and Staff have agreed that the Parties shall work to install Advanced Metering for all large Commercial and Industrial customers. For purposes of this Stipulation and

Settlement Agreement, the Parties and Staff have defined Advanced Metering to:

- a. Be interval data meters with mass memory capability; i.e., the meter retains data for at least one complete billing month;
- b. Include a modem capable of providing data to the customer, the customer's competitive energy supplier, and the distribution company; and
- c. Be capable of recording and transmitting pulses.

For purposes of this definition, "pulse" means a contact closure produced by a watthour meter or other measuring device that represents a finite quantity measured by the meter. This quantity is typically energy (watt-hours), but could be reactive energy (var-hours or q-hours), or other quantities such as volts-squared-hours. Metering pulses can be used for recording metering quantities over an interval of time or for other uses such as telemetering, load management or local indication.

6. For purposes of this Stipulation and Settlement Agreement, "Optional Services" means each Party's enhanced metering services available to the commercial and industrial customers with Advanced Metering technology pursuant to ¶ 5 above, including remote access metering, pulse output service and interval data service (as defined in each Party's respective tariffs). For each Optional Service offered, the Parties shall report to the Commission on a quarterly basis, beginning with data collected in the first quarter of 2004, the number of accounts participating in Optional Services and the percentage of enrollment by relevant rate class.

Such reports shall be submitted on the last day of the subsequent calendar quarter.

7. The Parties and Staff agree that tariffs regarding Optional Services are currently on file or will be filed with the Commission and meet the following requirements:

- a. Specify the Optional Service and state the charges associated with such Services;

- b. For Optional Services other than Interval Data Services, specify the fees associated with such Services and indicate whether fees are initial fees or recurring fees;

c. For Interval Data Services, specify the fees associated with such Services and indicate whether such fees are a one-time fee and whether the subscription is on an annual or other periodic basis; and

d. If fees vary based upon the number of accounts or meters, clearly state this information in the tariff.

8. Parties and Staff agree that the cost of telephone lines or other communications equipment connected to the Advanced Meter for purposes of facilitating Optional Services should be the responsibility of the customer purchasing such service. Parties and Staff acknowledge that the tariffs filed with the Commission state that the costs of such phone lines or other communication equipment is the responsibility of the customer or its authorized representative.

9. Parties and Staff agree that the Parties shall include a Load Response Program in their tariff offerings to large Commercial and Industrial Customers. For purposes of this Stipulation and Settlement, "Load Response Program" means the Independent System Operator of New England (ISO-NE) Load Response Programs, including the demand response programs and the price response programs, or a combination of both, or PSNH's Rate VIP or its successor rate.

10. For purposes of this Stipulation and Settlement Agreement, "large Commercial and Industrial Customers" shall be defined by the Parties' existing rate classes contained in their tariffs on file with the Commission. For PSNH, large Commercial and Industrial Customers are those customers with billing demands in excess of 100kW per month on rate class GV or LG. For Unitil and GSEC, large Commercial and Industrial Customers are those customers with demand readings in excess of 200 kW per month on rate class G-1.

11. PSNH individually agrees that beginning in 2004, the target threshold for requesting interruption under Rate VIP will be set at \$200 per MWH.

12. The Parties shall make quarterly reports regarding each Load Response Program offered to the Commission, beginning with data collected in the first quarter of 2004. The reports shall contain the following information:

a. Participation by rate class in the Program by number of accounts, amount of load committed to the program in kW or kVa,

as applicable, and the total load committed as a percent of monthly non-coincident class peak.

b. The curtailment events and their duration by number of hours.

c. For each curtailment event, the total load interrupted and the number of hours interrupted.

d. For each curtailment event, the Hourly New Hampshire Locational Marginal Price and the value of the per MWh credit by account (if different from the Locational Marginal Price).

e. For each curtailment event, the total dollar values of credits given during each interruption, by account.

f. The number of accounts with back-up power that participate in load interruption programs.

13. Such reports shall be submitted on the last day of the subsequent calendar quarter.

It is understood that PSNH's tariff for Rate VIP provides that the calculation of the payment is made for bills rendered in the second calendar month following the load interruption; therefore, an interruption call in June may not be reported to the Commission until the fourth quarter of the year.

14. The Parties and Staff agree that identifying account numbers and customer names are confidential information. Quarterly Reports provided pursuant to this Stipulation and Settlement Agreement shall not include identifying account numbers and/or customer names. In the event the Commission seeks further information regarding specific accounts, the Party from whom that information is requested may condition the release on a confidentiality agreement or other mechanism designed to prevent public disclosure of such confidential information.

15. The Parties and Staff agree that the Commission may periodically inquire about the status of the implementation of metering technologies used in New Hampshire, and the Parties agree to participate in briefing the Commission upon request and as appropriate.

16. This Stipulation and Settlement Agreement contains the entire agreement among the Parties and Staff respecting the subject matters herein and supercedes all prior agreements and understandings among them. The agreements contained herein shall

not be binding upon, or deemed to represent the positions of, the signatories if they are not approved in full and without modification or condition by the Commission.

Signed this _____ day of October, 2003

GRANITE STATE ELECTRIC COMPANY, by OFFICE OF CONSUMER ADVOCATE, by

Laura S. Olton, Associate Counsel Anne Ross, Esq.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, by

Gerald M. Eaton, Senior Counsel

UNITIL ENERGY SYSTEMS, INC., by NEW HAMPSHIRE PUBLIC UTILITIES
OMMISSION STAFF, by

Scott J. Mueller, Esq.

Suzanne Amidon, Esq., Staff