

**STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION**

DE 10-121

Public Service Company of New Hampshire

**Reconciliation of Energy Service and
Stranded Costs for Calendar Year 2009**

Order Approving Settlement Agreement

ORDER NO. 25,216

April 29, 2011

Appearances: Gerald M. Eaton, Esq., on behalf of Public Service Company of New Hampshire; Orr & Reno by Douglas L. Patch, Esq., of on behalf of TransCanada Power Marketing, Ltd. and TransCanada Hydro Northeast, Inc.; Arthur B. Cunningham, Esq., on behalf of New Hampshire Sierra Club; the Office of Consumer Advocate by Meredith A. Hatfield, Esq., on behalf of residential ratepayers; and Suzanne G. Amidon, Esq., on behalf of Commission Staff.

I. PROCEDURAL BACKGROUND

On April 30, 2010, Public Service Company of New Hampshire (PSNH or Company) filed testimony and schedules in support of a proposed reconciliation of revenues and costs associated with its stranded cost recovery charge (SCRC) and its energy service (ES) charge for calendar year 2009. The SCRC is the mechanism by which PSNH recovers certain restructuring-related stranded costs as allowed under the Agreement to Settle PSNH Restructuring (Restructuring Agreement) approved by the Commission in 2000.¹ PSNH recovers its costs of providing power from its generating units and supplemental power purchases through its ES charge.

In *Public Service Company of New Hampshire*, Order No. 24,125 (February 14, 2003) 88 NH PUC 65, the Commission approved a settlement agreement that implemented PSNH's initial

¹See, *PSNH Proposed Restructuring Settlement*, Order No. 23,443 (April 19, 2000) 85 NH PUC 154, Order No. 23,549 (September 8, 2000) 85 NH PUC 536, and Order No. 23,563 (September 29, 2000) 85 NH PUC 645.

SCRC reconciliation, which covered the period from May 1, 2001 (the date on which the PSNH service territory was opened to retail competition among energy suppliers under the Restructuring Agreement) through December 31, 2001. The Commission directed PSNH to submit, on or before May 1 of each year, its proposed reconciliation of the previous calendar year's SCRC and transition energy and default energy service revenues and costs.

Subsequent to Commission approval of the Restructuring Agreement, PSNH continued to recover costs related to the generation and delivery of electricity, but delivery costs were further segmented for ratemaking purposes. Thus, PSNH's customers now pay a distribution charge, a transmission charge and an SCRC. Additionally, customers purchasing their energy supply from PSNH have paid either a transition service or default service energy charge. As of May 1, 2006, transition service is no longer available to customers and all energy service supplied by PSNH is default service, referred to by PSNH and other electric utilities as simply "energy service."²

Previously, the difference between revenues and costs associated with providing transition energy service and energy service had been calculated and included as an adjustment to PSNH's Part 3 stranded costs. Pursuant to the Restructuring Agreement, Part 3 stranded costs were those stranded costs for which PSNH undertook some risk of non-recovery. As of June 30, 2006, PSNH had recovered all of its Part 3 stranded costs and the Commission approved a reduction to the Company's SCRC to reflect that development. *Public Service Co. of New*

² The Electric Utility Restructuring Act defines transition service as "electricity supply that is available to existing retail customers prior to each customer's first choice of a competitive energy supplier and to others, as deemed appropriate by the commission." RSA 374-F:2, V. The timetable that resulted in the termination of transition service as a customer option is set forth in RSA 374-F:3, V(b) (referring to "at least one but not more than 5 years after competition has been certified to exist in at least 70 percent of the state," an event that took place on May 1, 2001). Default service is "electricity supply that is available to retail customers who are otherwise without an electricity supplier." RSA 374-F:2, I-a. The Commission authorized electric utilities to refer to their default service simply as "energy service" in Order No. 24,614 (April 13, 2006). See, *Granite State Electric Company et al.*, 91 NH PUC 173 (2006).

Hampshire, Order No 24,641 (June 30, 2006) 91 NH PUC 295. In a prior order, the Commission had determined that once Part 3 stranded costs had been fully recovered, the difference between revenues collected and prudently incurred costs associated with transition service and energy service would be reconciled in the energy service rate. *Public Service Co. of New Hampshire*, Order No. 24,579 (January 20, 2006) 91 NH PUC 17. The costs at issue in the ES reconciliation are those of owning, operating, and maintaining PSNH's generating assets, certain costs related to purchases from independent power producers (IPPs), and the cost of purchases and receipts for sales of energy made in the wholesale market.

The Office of Consumer Advocate (OCA) filed a letter on May 5, 2010 stating that it would participate in this proceeding on behalf of residential ratepayers pursuant to RSA 363:28.

The Commission issued an Order of Notice on June 1, 2010 scheduling a prehearing conference for June 28, 2010. On June 23, 2010, the New Hampshire Sierra Club (NHSC), TransCanada Power Marketing Ltd. and TransCanada Hydro Northeast, Inc. (collectively, TransCanada), and the Conservation Law Foundation (CLF) each separately filed a petition to intervene in this matter. The petitions to intervene were granted at the prehearing conference on June 28, 2010. Also at the prehearing conference, the Commission stated that it would consider the scope of the docket and issue an order to that effect.

The Parties and Staff held a technical session following the prehearing conference. On June 30, 2010, Staff filed a report on the technical session with a proposed procedural schedule. On July 2, 2010, PSNH filed corrected testimony of David A. Errichetti. On July 20, 2010, the Commission issued Order No. 25,132 defining the scope of the proceeding. Discovery ensued and, on July 28, 2010, NHSC filed a motion to compel with respect to certain data requests.

PSNH filed its objection to NHSC's motion on August 3, 2010. NHSC filed a reply to PSNH's objection on August 5, 2010. The Commission issued Order No. 25,137 on August 12, 2010 denying the motion to compel.³

PSNH filed several motions for confidential treatment of its responses to various data requests. On September 3, 2010, TransCanada filed an objection to a PSNH motion for confidential treatment of certain supplemental power supply contracts. PSNH filed a response to TransCanada's objection on September 16, 2010. On September 22, 2010, TransCanada filed an answer to PSNH's response and, on October 12, 2010, a motion to suspend the procedural schedule. The Commission granted the motion to suspend the procedural schedule by secretarial letter dated October 19, 2010. On November 9, 2010, the Commission issued Order No. 25,167 disposing of all pending motions for confidential treatment and modifying the procedural schedule.⁴

Staff filed the testimony of its consultant, Michael D. Cannata, Jr. of The Accion Group (Accion), on November 23, 2010. Also on November 23, TransCanada filed the testimony of Michael E. Hachey. On December 28, 2010, the Commission issued a secretarial letter rescheduling the hearing. On January 11, 2011, PSNH and Staff filed a Stipulation and Settlement Agreement (Settlement Agreement). The hearing on the merits took place on January 18, 2011. CLF did not participate in the hearing.

II. POSITIONS OF THE PARTIES

A. Public Service of New Hampshire

³ See Order No. 25,132 (July 20, 2010) for details regarding this discovery dispute.

⁴ See Order No. 25,167 (November 9, 2010) for a complete description of the data responses for which PSNH sought protective treatment.

In prefiled testimony, PSNH witness Robert A. Baumann, Director of Revenue Regulation and Load Resources for Northeast Utilities Service Company (an affiliate of PSNH), provided an overview of the reconciliations between the revenues and expenses as reported in PSNH's ES and SCRC filings for the twelve-month period from January 1, 2009 through December 31, 2009. According to Mr. Baumann, during that period ES costs exceeded related revenues by \$45.9 million but ES revenue during 2009 was reduced in order to refund to customers a \$41.5 million over-recovery that accrued in 2008. Mr. Baumann attributed the resulting under-recovery of \$4.4 million to increased migration of ES customers to competitive supply options from the level assumed in the ES rate update effective August 1, 2009.

For the SCRC, Mr. Baumann testified that the net under-recovery in 2009 was \$3.9 million. Mr. Baumann explained that, during the reporting period, SCRC revenues exceeded the related costs by \$6.4 million, but the SCRC revenue had been increased to collect from customers a \$10.3 million under-recovery that accrued in 2008. Mr. Bauman attributed the net \$3.9 million under-recovery to higher above-market IPP costs. Hearing Exhibit (Exh.) 1, prefiled testimony of Robert A. Baumann, at 2.

Mr. Baumann said that the ES costs include the fuel costs associated with PSNH's generation as well as costs and revenues from energy and capacity purchases and sales, New Hampshire Renewable Portfolio Standard costs (RSA 362-F), Regional Greenhouse Gas Initiative costs (RSA 125-O:19-28), and IPP power valued at market prices. Mr. Baumann testified that ES costs also include the non-fuel costs of generation including non-fuel operation and maintenance, depreciation, property taxes, payroll taxes, uncollectible costs attributable to

ES sales, and a return on net generation investment. According to Mr. Baumann, all these costs are associated with PSNH's ownership of generation. *Id.* at 5.

Mr. Baumann testified that the SCRC recovers costs categorized as "stranded" by RSA 374-F and 369-B. Mr. Baumann explained that while PSNH's stranded costs initially consisted of three types of costs (Parts 1, 2 and 3), only Parts 1 and 2 remain. Part 1 costs are those that have been securitized through the issuance of rate reduction bonds (RRBs) and consist of the over-market portion of Seabrook regulatory assets, a portion of PSNH's share of Millstone 3, and certain financing costs that were incurred in the procurement of the RRB financing. PSNH expects Part 1 recovery to end in May 2013 when the RRBs are scheduled to be paid off. *Id.* at 6.

Part 2 stranded costs include "ongoing" costs consisting of the over-market value of energy purchased from IPPs, the up-front payments made for IPP buy-downs and buyouts previously approved by the Commission, PSNH's share of the present value of the savings associated with such buy-down and buy-out transactions, a negative return on the credit for deferred taxes related to the Part 1 securitized costs, and a return on the unpaid contract obligations to certain regional Yankee Atomic nuclear plants, net of deferred taxes. Mr. Baumann testified that the timing of Part 2 cost recovery depends on the type of costs, but that Part 2 costs have decreased and will continue to decrease as the rate orders and contracts for the various IPPs expire. *Id.* at 6-7.

PSNH witness David A. Errichetti, Manager of Northeast Utilities Service Company's⁵ wholesale power contracts department, described how PSNH's generation resources and

⁵ Northeast Utilities Service Company provides services to Northeast Utilities' affiliates, including PSNH.

supplemental purchases were used to meet PSNH's energy and capacity requirements over the period January 1, 2009 through December 31, 2009. Mr. Errichetti explained that, as a load-holding entity, PSNH is responsible for having sufficient energy to meet the hourly needs of its customers and is also required to have sufficient capacity available to satisfy its share of the Independent System Operator-New England (ISO-NE) capacity requirement. Mr. Errichetti testified that, on average, PSNH met 63% of on-peak period energy requirements and 73% of off-peak period energy requirements with its owned generation resources listed on Attachment DAE-1 to his testimony. Mr. Errichetti testified that PSNH's remaining energy needs were met through a combination of bilateral fixed-price monthly contracts, fixed price unit-contingent contracts with the Bethlehem and Tamworth generating plants, fixed price short-term (e.g. daily or weekly) arrangements, or spot market purchases through the ISO-NE. PSNH said that the combined expense for all supplemental energy purchases was \$183 million. Exh. 2, prefiled testimony of David A. Errichetti, at 2-4.

Regarding PSNH's capacity requirements for the period January 1 through December 31, 2009, Mr. Errichetti testified that approximately 69% of PSNH's capacity needs were met with generation resources, including PSNH-owned assets, non-utility IPPs, the Vermont Yankee purchased power agreement and the Hydro-Quebec interconnection capacity credits. Mr. Errichetti said that the remaining 31% was procured through ISO-NE at a total cost of \$28.7 million at an average cost of \$3.91 per kilowatt-month. *Id.* at 5.

PSNH testified that it participated in auctions for financial transmission rights (FTRs) as a method of hedging the congestion price differential between the major fossil stations (Merrimack, Schiller and Newington) and the New Hampshire load zone. Mr. Errichetti

explained that an FTR is a financial instrument available to ISO-NE participants seeking to manage congestion costs or those wishing to speculate on the difference in congestion between two locations. According to Mr. Errichetti, in 2009 PSNH procured at auction 3,451 gigawatt-hours (GWh) of FTRs at a net cost of \$9,590. The FTRs eliminated \$121,850 of congestion charges for the Company. Therefore, the net impact was a \$112,260 decrease in ES expense. *Id.* at 7-8.

William H. Smagula, Director of Generation for PSNH, provided testimony regarding the performance of PSNH's generating units during 2009 including information on all outages that took place at PSNH's fossil-fired, hydroelectric and biomass units, and those at NextEra Energy Resources, LLC's (formerly FPL Energy) Wyman Station Unit No. 4 in Maine, of which PSNH is a minority owner. He said that PSNH's generating units provided total generation in 2009 equal to 3,788,627 megawatt-hours (MWh), and that the fleet's availability was 97.4% during the 30 highest peak days when customers' exposure to high market prices was the greatest. In addition, Mr. Smagula testified that with the completion of the new, more efficient high pressure/intermediate pressure (HP/IP) turbine, Merrimack Station's Unit 2 had an increase of 12.0 MW on normal output from 320 MW to 332 MW and claimed capacity increase from 321.75 MW to 337.2 MW. Merrimack Station's Unit 1 had its third longest run ever, operating 125.65 days, and Schiller Unit 6 achieved a new record of run of 124 consecutive days. Exh. 3, prefiled testimony of William H. Smagula, at 2-3.

According to Mr. Smagula, Merrimack Station's Unit 2 and Schiller Station's Unit 6 each completed planned turbine overhauls. The related outages were completed safely, accident free and ahead of schedule. Mr. Smagula reported that the Schiller Station's Unit 5 planned outage

was also completed on time and within budget. Mr. Smagula testified that Schiller Station generated 807,298 MWh in 2009, with Schiller Unit 5, the biomass unit, contributing 318,944 MWh in renewable energy production. Mr. Smagula reported that, in 2009, PSNH generation continued to focus on plant operations and long-term planning to provide benefits to customers. *Id.* at 3.

Mr. Smagula provided a list of all unplanned outages that took place during the period January 1 through December 31, 2009. In addition, PSNH provided outage reports for all unscheduled outages in excess of two days at either Newington Station or at the two units at Merrimack Station, and in excess of four days at the three units at Schiller Station and Wyman. Finally, as is customary in the annual reconciliation dockets, PSNH provided the planned maintenance outage schedule for Staff's review. *Id.* at 4-15.

At the hearing, PSNH explained that in 2009 there were times, referred to as "reserve shutdowns" or "economic reserve outages," when base load plants did not run because they were uneconomic." A reserve shutdown means that the unit is not on a planned or forced outage and, though available, is not being dispatched for economic reasons. Hearing Transcript of January 18, 2011 (Tr.) at 20-21. PSNH explained that by operating at reserve shutdown, the Company can operate a unit at reduced load rather than taking it off-line and avoid the problems associated with turning the unit off and starting it back on the next day, thus maximizing benefits of the unit to customers as the down-time of the unit would be minimized. *Id.* at 36. In 2009, PSNH sold 1 GWh of on-peak energy and 90 GWh of off-peak energy from surplus generation from its own units at a loss of \$2.2 million. *Id.* at 35.

At hearing, PSNH discussed its purchases of supplemental power for the Company's default service needs for 2009. According to PSNH, when the Company was developing a supplemental purchase procurement plan in 2007 and 2008, the forward market indicators predicted that its coal-fired generation units would be dispatched continuously, except for forced outages and maintenance, and it made bilateral purchases on that basis. *Id.* According to the Company, because some of the units were subject to economic reserve shutdown in 2009, it ended up with unneeded bilateral and spot energy that it sold on the spot market, resulting in a loss on the sale of on-peak energy of \$23.1 million and a loss on the sale of off-peak energy of \$14.6 million, for a total net loss of \$37.7 million.

PSNH noted that both Mr. Hachey for TransCanada and Mr. Cannata for Staff agreed that the prices paid for the 2008 power purchases made by the Company were not outside of the market at the time. *Id.* at 75. PSNH argued that it should not be disallowed recovery of the losses incurred in connection with those sales. PSNH noted that Mr. Cannata had testified that, because of the market conditions at the time the power was sold back into the market, a bilateral purchaser may have not paid much more than what the short-term or daily price would have been. *Id.* at 76. In conclusion, PSNH stated that the Settlement Agreement results in just and reasonable rates and recommended that the Commission accept it. *Id.* at 75.

B. TransCanada

TransCanada said its primary interest in this proceeding concerned the market purchases used to supplement PSNH's generation resources. TransCanada opined that it was important for the Commission to hear the perspective of a competitive supplier that operates in the New

Hampshire market and other markets in New England on this issue. Exh. 8, prefiled testimony of Michael E. Hachey, at 2.

TransCanada said it is was interested in what PSNH referred to as upward pressure on ES rates caused by customer migration and PSNH's proposed solution, which is to create a non-bypassable charge to be paid by all customers, including those customers who take energy from competitive suppliers. TransCanada reiterated its position, expressed in other dockets, that the Commission should take steps to assure that the risk associated with purchasing power for default service customers be on the provider of such power and not on PSNH customers so as to avoid the need for a non-bypassable charge. *Id.* at 3.

TransCanada praised the Commission for requiring the public disclosure of information related to PSNH's power supply purchases made in 2008 to provide power to its customers for 2009. *Id.* TransCanada said that, based upon its review of the pricing information, there was nothing to indicate that those particular purchases were out of line with market pricing at the time the purchases were made and that there was nothing to suggest that the purchases were imprudent. TransCanada maintained that the process PSNH uses for purchasing power is out of step with the processes used by other New Hampshire and New England distribution utilities, and noted that the Commission could address this issue in Docket No. DE 10-160, a docket opened to investigate the effects of PSNH customer migration. *Id.* at 4. TransCanada took no position on the Settlement Agreement. 1/18/2011 Tr. at 72.

C. New Hampshire Sierra Club

NHSC took no position on the Settlement Agreement. *Id.* at 72.

D. Office of Consumer Advocate

The OCA said that it did not support the Settlement Agreement. *Id.* at 73. The OCA opined that further analysis was needed in several areas to support some of the testimony relating to PSNH's prudence in this case. For example, the OCA said that the company's capital expenditures on their plants could be further explored as well as the loss of \$37.7 million in energy PSNH resold from purchases they had made from the market. *Id.*

The OCA argued that PSNH should have done more to mitigate the risk of losses recovered through customer rates. While PSNH must act consistently with its integrated resource plan, the OCA said the Company also states that it needs to be flexible in order to respond to the market. The OCA expressed particular concern about the \$37.7 million loss and noted that it did not know what actions the Company could have taken to mitigate that loss. The OCA concluded that it did not seem fair for the full amount of that loss to be recovered from customers. *Id.* at 74.

E. Commission Staff

Mr. Cannata testified that Accion was requested to review the following aspects of the filing: (1) the market-based capacity and energy transactions conducted by PSNH to augment its own generation to supply energy service to its customers in 2009; (2) the outages that occurred at all PSNH generating units during 2009; and (3) PSNH's efforts to address the twelve additional recommendations contained in the Settlement Agreement approved by the Commission in Docket No. DE 09-091, PSNH's reconciliation filing for calendar year 2008. Mr. Cannata also presented his views regarding the adequacy of PSNH's computerized information system database used to track generation outage and cause data, the availability and capacity factors of the generating units, heat rates of PSNH generating units, and the adequacy of future capital and

operation and maintenance expenditures for reliable and efficient plant operations. Exh. 4, prefiled testimony of Michael D. Cannata, Jr., at 3-4.

With regard to capacity and energy transactions, Mr. Cannata concluded that PSNH's filing is an accurate representation of the capacity and energy purchasing process that took place in 2009, and that PSNH made sound and prudent management decisions with regard to its capacity and energy purchases in its market environment consistent with its least cost plan. Mr. Cannata concluded that the capacity factor projections for PSNH units used in connection with 2009 market purchases were reasonable. Mr. Cannata opined that PSNH could make improvements in the supplemental energy and capacity purchase process. According to Mr. Cannata, PSNH made little or no sales of excess energy and capacity except into the spot market. Mr. Cannata stated his belief that selling surplus energy is the same type of process and would be subject to the same prudence review as purchasing energy. He recommended that PSNH analyze its purchases and make sales of surplus energy and capacity into markets other than the spot market as it deems appropriate. PSNH would then be subject to a prudence review of its sales and/or its decisions not to enter into such sales. *Id.* at 4-5.

Mr. Cannata also observed that PSNH used a longer forward-looking supplemental energy purchase philosophy for 2009 when it saw forward-looking energy prices rising for 2009, and purchased much of its energy and capacity needs by July 2008. He testified that, in the fall of 2008, market energy prices fell and remained relatively low, resulting in "extensive migration" of load from the PSNH system. As a result, the longer term 2008 purchases resulted in substantial costs to customers. *Id.* at 5-6.

Mr. Cannata recommended that PSNH focus more on shorter-term arrangements and spot market prices during the two non-peak quarters. To provide a hedge against market fluctuations during the two peak period quarters, and to reduce the chance of purchasing large quantities of excess power, he proposed that PSNH establish a percentage of its on-peak monthly needs to be procured from supplemental sources with an established point of measurement, such as an approved load forecast. Finally, Mr. Cannata recommended that PSNH, in its quarterly review, formally factor the lagging impact of the econometric input on the load forecast into its supplemental energy purchase decision process. Mr. Cannata also recommended that PSNH formally factor reserve shutdowns into its projection of operation of its units in determining supplemental energy needs. *Id.* at 6-7.

Mr. Cannata testified that, with respect to planned and forced outages, the base load units on the PSNH system generally ran as well or better than forecasted in 2009. He said that production was notable because the operation of generation has become more complicated over time, or unit output has been reduced, by factors such as: (1) increased safety requirements dealing with confined spaces; (2) the addition of spray modules in the outlet canal at Merrimack; (3) the self-imposed reduction of the operating level of Unit 2 at Merrimack to reduce the likelihood of full load trips to maintain the unit's reliability; (4) the installation of supplemental electrostatic precipitators on both units at Merrimack; and (5) the use of low sulfur coal to comply with state and federal environmental regulations. *Id.* at 7-8.

Mr. Cannata also reviewed outage information, conducted on-site interviews, and submitted follow-up requests for information as necessary. *Id.* at 8. He concluded that PSNH conducted proper planning and management oversight regarding those planned and forced unit

outages. In addition, he found all outages to be reasonable or necessary, with the exception of the following: Jackman Outage 1-A on 3/27/2009; Jackman Outage 1-C on 12/1/2009 (9.29 days); Ayers Island Outages 1-C, 2-b and 3-C on 6/19/2009; Gorham Outage 3-F on 10/14/2009; and Wyman Outages 4-B, 4-D and 4-I (1/24/2009, 2/6/2009 and 8/11/2009 respectively). *Id.* at 9-11. Mr. Cannata recommended that PSNH not be allowed to recover from customers the replacement power costs associated with the listed outages. He said that PSNH should use the same method it has consistently used to quantify replacement power costs associated with those outages. *Id.* at 12.

In addition, Mr. Cannata made recommendations that he believed would support PSNH's efforts in achieving improvement in the operation of its generating units. The first recommendation related to his review of the outage required for repair of the Merrimack 2 HP/IP turbine. Mr. Cannata said that the repair was required as result of the problems with the work of Siemens, the manufacturer and installer of the turbine. Mr. Cannata recommended that PSNH file a report with the Commission within one month after the issuance of a final order in this docket describing the efforts taken, and the results achieved, in addressing Siemens' workmanship issues. *Id.* at 12-13.

The next recommendation stemmed from the outages he designated as 4-D, 5-D and 6-F at Schiller Station. According to Mr. Cannata, when market prices are low, PSNH manages overtime and tries to perform all work on a straight-time basis to reduce costs. He said that the process is complicated because some units that have traditionally operated as base load units are now, at times, operating in a reserve shutdown status. He recommended that PSNH review its policies and practices regarding overtime expenditures versus reserve shutdown on a unit-by-unit

basis and between units at all of its major stations to ensure that all units are in an operational state that maximizes customer benefits. *Id.* at 13-14.

Outage 6-H at Schiller Station suggested another opportunity for performance improvement. In this outage, a tube leak tripped the unit ten days prior to its 18-month scheduled overhaul. PSNH made an abbreviated repair because it was not ready to begin the overhaul that far in advance of the scheduled outage. While Mr. Cannata believed that PSNH acted correctly in this case, he opined that there are many considerations that should be evaluated in determining whether to start a planned outage ahead of schedule. He recommended that PSNH review its existing practices and policies concerning PSNH's ability to start planned outages ahead of schedule, on a unit-by-unit basis, to ensure that it economically maximizes the ability to take an outage early while minimizing potential increases in outage duration. *Id.* at 14-15.

Mr. Cannata next referred to Merrimack Combustion Turbine Outage CT 1-B. According to Mr. Cannata, lightning strikes and blown fuses are common occurrences at this location and have been noted in prior reconciliation dockets. He recommended that fuse coordination, protection device placement and lightning protection at this and surrounding locations be checked to ensure optimum, equipment protection is in place. *Id.* at 15.

The last recommendation arose in connection with the outage at Merrimack Combustion Turbine Outage CT 2-D. This outage resulted from a valve position irregularity where a valve was repositioned but not tagged. Mr. Cannata recommended that PSNH establish a procedure that expands its review process for safety related incidents to include non-safety related incidents. *Id.* at 15-16.

As requested by Staff, Mr. Cannata reviewed PSNH's efforts to comply with the recommendations that were incorporated into the settlement agreement in Docket No. DE 09-091, PSNH's 2008 reconciliation docket. Mr. Cannata commented on each recommendation as follows:

1. Mitigation of customer costs regarding Merrimack (MK-2-E) and Newington (NEW-C and 1-D) Outages. Mr. Cannata said PSNH bundled all the issues in the Merrimack and Newington outages because they believed that would have more leverage with Siemens, the manufacturer. Mr. Cannata said that PSNH used correct judgment in this regard. He noted that PSNH secured new performance guarantees and other significant concessions from Siemens for the damaged turbine. He stated that the economic transactions related to the Merrimack HP/IP turbine repair outage are not complete, and recommended that PSNH file a report that captures the final monetary resolution. *Id.* at 16-17.

2. Schiller Warranty Items. Pursuant to the settlement agreement approved in Docket No. DE 09-091, PSNH agreed to submit a report regarding the issue of Alstom's warranty. PSNH filed its report as required. Mr. Cannata said that PSNH had done all it could with respect to the warranty issues outside of negotiations with Alstom. He recommended that PSNH file a report on two remaining issues still under negotiation prior to the Company filing its reconciliation for 2010. *Id.* at 18-19.

3. Review of isophase bus duct at Merrimack and Schiller Stations. PSNH had agreed to evaluate the need for isophase bus duct heaters at the two stations and hired Eaton Electric to perform the evaluation. According to Mr. Cannata, PSNH had satisfied its obligations and this item can be closed. *Id.* at 19.

4. Review of Low Oil Alarm Procedures. PSNH had agreed to review its procedures when it receives a low oil alarm for hydro unit bearings. PSNH conducted the review, and Mr. Cannata agreed with PSNH's conclusion and timetable for upgrades. Accordingly, he recommended that this item be closed. *Id.* at 20.

5. Interconnection of PSNH generating units to the PSNH distribution system. PSNH agreed to conduct an interconnection analysis of all units connected to its lower voltage distribution system in an effort to prevent improper tripping of units for unrelated system disturbances. PSNH filed a report on its progress on May 7, 2010 where it indicated that the review is being conducted in phases. Mr. Cannata said that PSNH is making good progress in both understanding and addressing the issues caused by poor distribution coordination but the review is incomplete. He recommended that this item be kept open and that PSNH file a report on this issue prior to making its 2010 reconciliation filing. *Id.* at 20-22.

6. Establish a relay test program. PSNH committed to establishing a formal relay test program for all its units connected to the lower voltage distribution system. PSNH filed a progress report on this item on May 7, 2010. Mr. Cannata said that PSNH's efforts address the issue and recommended that this item be closed. *Id.* at 22.

7. Evaluate procurement of critical spare generator and turbine components, physically or contractually. PSNH had agreed to evaluate the procurement of spare critical generator and turbine components to reduce the risk of catastrophic component failures. According to Mr. Cannata, PSNH determined that such spare parts should be procured on a case-by-case basis. Mr. Cannata agreed with PSNH's assessment and recommended that this item be closed. *Id.* at 23.

8. Hold manufacturers responsible for unreasonable delays of shipments of major components and have shipment plans in place. PSNH had agreed to ensure that contracts will hold the manufacturer responsible for unreasonable shipping delays of major components. PSNH discussed shipping issues with Siemens and developed a transportation schedule that could be adjusted for changes in ship dates throughout an outage. No contractual agreements were included in the review except the usual guaranteed ship date with the manufacturers. Mr. Cannata opined that the process, which was used during the Merrimack 2 HP/IP turbine outage repair, worked well but that further review is required. He recommended that PSNH be required to evaluate whether additional tools such as GPS, speed and shock recorders, or other devices and methods should be employed to further augment its "carry safely" and "arrive timely" goals. Mr. Cannata said that if PSNH agreed with this recommendation, the item could be closed. *Id.* at 23-25.

9. Perform review of maintenance outage cycle extension. PSNH had agreed to perform its own analysis of outage maintenance cycle extension instead of exclusively relying on manufacturers' recommendations. PSNH conducted the analysis and committed to factor into its maintenance cycle determination many of the issues that manufacturer's general recommendations only address on a fleet basis. Mr. Cannata accepted PSNH's approach and recommended that this item be closed. *Id.* at 25.

10. Protocol for transmission and distribution personnel working in substations containing PSNH generating units. PSNH had agreed to establish a protocol for transmission and distribution workers performing activities in substations containing PSNH generating units. Consistent with its commitment, PSNH developed a protocol which prohibits non-employees from having unescorted access to PSNH generating facilities, and limits employee access to those areas within their skill level. Mr. Cannata accepted the protocol and recommended that this item be closed.⁶ *Id.* at 25-26.

⁶ Mr. Cannata noted that other items in the stipulation concerning the National Electrical Safety Code and the removal of danger trees were resolved in PSNH's distribution rate case (Docket No. DE 09-035).

In connection with his review of the 2009 plant outages, Mr. Cannata reviewed PSNH's generation information system (GenIS) report for 2009. He said that additional refinement to the system regarding outage causes could benefit PSNH in the operation of its units. He made no specific suggestions but recommended that PSNH determine what additional information it may need in its GenIS system to perform market-based equipment evaluations, review the GenIS system capabilities and determine if any changes, including the adoption of a different system, would be appropriate. *Id.* at 27.

Finally, Mr. Cannata concluded that the five-year capital and O&M budgets are sufficient for adequate maintenance to assure continued operation of PSNH's units consistent with good utility practice and with recognition of unit age and operational duty cycle. *Id.* at 32-33.

At the hearing, Mr. Cannata stated that he reviewed the decision-making process used by PSNH to determine if a unit should be placed in reserve shutdown status and found it to be both reasonable and prudent. Mr. Cannata emphasized that he reviewed the decision making process and not each decision in detail. 1/18/2011 Tr. at 40. Regarding the \$2.2 million loss associated with the reserve shutdowns, Mr. Cannata said that PSNH used good utility practice in implementing the reserve shutdowns, but, although it resulted in a loss, if PSNH had acted differently the loss would have been greater. *Id.* at 50-51.

With respect to the \$37.7 million loss associated with the sale of pre-purchased bilateral energy, Mr. Cannata said there were two factors at play – the financial crisis and the customer load migrating to competitive supply. He said PSNH had no control over the first factor and, made power purchases for the long term consistent with direction received in prior dockets. *Id.* at 51. He further stated that PSNH's management of its energy portfolio was “consistent with

the PSNH Least Cost Plan approved by the Commission.” *Id.* at 50. He did not recommend disallowance of the losses associated with the reserve shut-downs or sales of excess energy. *Id.* at 37. In closing, Staff stated its support for the Settlement Agreement and recommended Commission approval. *Id.* at 75.

III. SETTLEMENT AGREEMENT

A panel consisting of PSNH witnesses and Mr. Cannata presented the Settlement Agreement at hearing. Section A of the Settlement Agreement concerns power supply and procurement. In that section, PSNH and Staff agreed that PSNH made sound management decisions with regard to such purchases and that capacity factor projections used for the 2009 market purchases were reasonable.

Section B of the Settlement Agreement contained several suggestions made by Mr. Cannata regarding capacity and energy transactions with which PSNH agreed. Those recommendations are as follows:

- 1) While market prices are depressed due to the factors enumerated on pages 5 and 6 of Mr. Cannata’s testimony, PSNH should focus more on shorter term arrangements and spot market prices during the two non-peak quarters.
- 2) PSNH should establish a percentage of its on-peak monthly needs that will be procured from supplemental sources with an established point of measurement, such as an approved load forecast, to provide some hedge against market fluctuations during the two peak period quarters and to reduce the possibly of large quantities of excess power.
- 3) PSNH should have a clearly defined basis for making short-term purchases or sales that fall outside projected needs.
- 4) PSNH should review its supplemental needs each quarter as the new load forecast is produced. In its quarterly review, PSNH should formally factor the lagging impact of the econometric input on the load forecast into its supplemental energy purchase decision making process.

- 5) PSNH should explicitly and formally factor reserve shut-downs in its projection of operation of its units in determining supplemental energy needs, or confirm that it explicitly and formally does so. If reserve shut-downs are projected for its base load units, the between planned outage capacity factor should be adjusted to reflect those reductions, similar to the manner done for short reliability outages.
- 6) PSNH should establish formal criteria governing the sale of purchased surplus supplemental energy into the spot market and should analyze its purchases and make sales of surplus energy and capacity into markets other than the spot market as it deems appropriate.

Section C of the Settlement Agreement covered unit outages. Based on Mr. Cannata's recommendations, PSNH agreed to not seek recovery of the replacement power costs associated with Ayers Island and Wyman 4 outages (\$244). PSNH applied as a credit to customers its energy service replacement power costs of \$38,101 with the 2009 Jackman 1-C outage as well as the \$61,541 of insurance proceeds received for constrained operation during 2009 as a result of the 2009 Jackman 1-C outage. Although it agreed to forego recovery of those costs, PSNH's agreement was not an admission of imprudence and was done in an effort to reach settlement of the issues.

Section D contained Mr. Cannata's recommendations regarding potential improvements in unit operation and maintenance. PSNH agreed with following recommendations:

- 1) Merrimack 2 start-up boiler feed pump and Siemens workmanship issues - PSNH will include in its May 1, 2011 ES/SCRC reconciliation filing a report describing the efforts taken in addressing these issues related to Siemens' workmanship issues, so similar issues can be avoided going forward.
- 2) PSNH will review its policy and practices regarding overtime expenditures versus reserve shutdown, on a unit-by-unit basis and between units at all of its major stations, to ensure that units are in an operational state that maximizes customer benefits.
- 3) PSNH will review its existing practices and policies concerning its ability to start planned outages early, on a unit-by-unit basis, to ensure that it

economically maximizes the ability to take an outage early while minimizing potential increases in outage duration.

- 4) Merrimack combustion turbines - Fuse coordination, protection device placement and lightning protection at these and surrounding locations will be checked to ensure optimum equipment protection in place, allowing the most reliable operation of these units.
- 5) Valve position irregularity - PSNH will establish a procedure that expands its review process to include non-safety related incidents. The intent of the procedure should be to investigate and document events which result in abnormal switching, valving, or operation. This recommendation applies to all PSNH generation facilities.

Section E of the Settlement Agreement described the status of recommendations made by the Liberty Group in Docket No. DE 09-091, PSNH's reconciliation docket for calendar year 2008. Section E provided that all items are closed except for the following:

- 1) Mitigation of customer costs regarding certain 2008 generation unit outages - The issue regarding mitigation of customer costs regarding the turbine replacement outage at Merrimack 2 will remain open, with PSNH to file a report on the final monetary resolution of that issue as part of its May 1, 2011 ES/SCRC reconciliation filing.
- 2) Schiller warranty items - PSNH will file a report on the status of the negotiations for the Forced Draft and Induced Draft Fan Capabilities under Soft Start Conditions issue and the Air Heater Design issue in its May 1, 2011 reconciliation filing.
- 3) Interconnection of PSNH generating units to the PSNH distribution system - PSNH will file an additional report including progress on its analysis of the Schiller CT and unit over speed relays as part of its May 1, 2011 reconciliation filing.
- 4) Holding manufacturers responsible for unreasonable delays of shipments of major components and have shipment plans in place – PSNH is required to evaluate if additional tools such as GPS, speed and shock recorders, or other devices should be employed to further augment its “carry safely” and “arrive timely” goals. This item should be closed on a contingent basis pending PSNH's acceptance of further review of the items directly above.

The final substantive section of the Settlement Agreement, Section F, dealt with potential refinements to PSNH's GenIS data system. Pursuant to that section, PSNH committed to determine what additional information it may need in its GenIS system to perform market based equipment evaluations in the wide variety of plants it operates, take an objective look at its GenIS system capabilities, perform a review of its entire GenIS system, and make appropriate changes that might include a different information system. Exh. 5, Stipulation and Settlement Agreement.

IV. COMMISSION ANALYSIS

Based upon the Restructuring Agreement with PSNH, which resulted *inter alia* in the Commission issuing a financing order that securitized certain of PSNH's recoverable stranded costs, PSNH is obligated to use its generation fleet for the provision of its energy service and may recover its "actual, prudent and reasonable costs" in connection with such use of these facilities. *See* RSA 369-B:3, IV(b)(1)(A) (noting that this obligation remains effective until PSNH divests its generation fleet); *see also* RSA 369-B:3-a ("subsequent to April 30, 2006, PSNH may divest its generation assets if the commission finds that it is in the economic interest of retail customers of PSNH to do so, and provides for the cost recovery of such divestiture"). To the extent that PSNH must procure retail energy from other sources, we review those costs for their prudence as well. *See* RSA 369-B:3, IV(b)(1)(A).

Pursuant to Puc 203.20, the Commission may approve a settlement agreement if it finds that the result is just and reasonable and in the public interest. N.H. Code of Admin. Rules Puc 203.20 (b). Regarding the terms of the Settlement Agreement before us, we find that the public interest is served by PSNH's and Staff's ability to resolve the issues that arose in this proceeding

and with PSNH's willingness to accept numerous additional recommendations to improve its processes and procedures for operating its generation fleet and managing its energy and capacity purchases and sales. Accordingly, in light of the record, we approve the Settlement Agreement as a just and reasonable resolution of the issues before us and in the public interest. In addition, we approve PSNH's 2009 ES and SCRC reconciliations, resulting in a \$4.4 million under-recovery for ES and a \$3.9 million under-recovery for SCRC, as modified by the Settlement Agreement. The results of annual reconciliations are brought forward and included in the determination of the succeeding year's ES and SCRC rates. Any adjustments to the annual reconciliations are reflected in the succeeding year's annual reconciliation of costs and revenues.

In addition, we find that the review by Staff's expert supports a finding that PSNH's market purchases of energy and capacity are reasonable and conform with PSNH's most recent least cost integrated resource plan, which was accepted by the Commission in Docket No. DE 07-108. *See, Public Service Co. of New Hampshire* Order No. 24,945 (February 27, 2009) (Order accepting 2007 least cost integrated resource plan) and Order No 24,966 (May 1, 2009) (Order Denying Motions for Rehearing).

In approving the Settlement Agreement, we are mindful of the OCA's concern about the losses associated with reserve shutdowns and the sale of excess power that occurred in 2009. There is no evidence in the record that either loss resulted from imprudence on the part of PSNH. The Settlement Agreement addresses both issues. First, PSNH has agreed to modify its practices in managing its generation outages to specifically take into account reserve shutdowns, to the extent such shutdowns are not already formally taken into account. This action should help mitigate any losses associated with reserve shutdowns. Second, PSNH has agreed to focus on

shorter-term arrangements and spot purchases for supplemental energy and has agreed to examine its alternatives in the sale of excess power to maximize customer benefits.

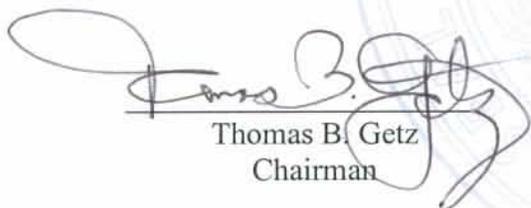
Prospectively, these actions should help minimize losses to customers and are in the public interest.

Based upon the foregoing, it is hereby

ORDERED, that the Settlement Agreement signed by Public Service Company of New Hampshire and Commission Staff is hereby APPROVED; and it is

FURTHER ORDERED, that PSNH's reconciliation of its 2009 energy service and stranded cost recovery charge costs and revenues, as modified by the Settlement Agreement, is hereby APPROVED.

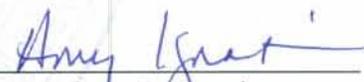
By order of the Public Utilities Commission of New Hampshire this twenty-ninth day of April, 2011.



Thomas B. Getz
Chairman



Clifton C. Below
Commissioner



Amy L. Ignatius
Commissioner

Attested by:



Lori A. Davis
Assistant Secretary