

Filed on: 09/13/2011
Public Service Company of New Hampshire
Docket No. 11-094

Technical Session TECH-01
Dated: 09/06/2011
Q-TECH-002
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Witness: Frederick White
Request from: New Hampshire Public Utilities Commission Staff

Question:

Please provide the PSNH write up of PSNH's approach to supplemental energy purchases and sales noted in these responses.

Response:

DE 11-094 Staff-1, Questions 5, 6, 7, & 9 requested that write-ups be made available addressing settlement agreement recommendations from DE 10-121. Redacted write-ups and "Guidance for PSNH ES Rate Supplemental Energy Needs" are in the attached documents.

** The material in the attachments to this response is commercially sensitive , proprietary and confidential. The attachments are being filed in redacted version. Unredacted versions are being filed under a Motion for Protective Order dated September 13, 2011.

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August 19, 2011

Preamble: This guidance document addresses settlement agreement recommendations reached in Docket DE 10-121, dated January 11, 2011, page 3, Section III.B.1, regarding supplemental purchases and sales; and per discussions with NH PUC Staff's consultant on July 28, 2011 augments write-ups prepared in response to DE 11-094, Staff-1, Questions 5, 6, 7, & 9.

Guidance for PSNH ES Rate Supplemental Energy Needs

Beginning with commencement of the development of the ES rate and thru September of the ES rate year - PSNH to perform on a quarterly basis an analysis of loads based on the latest actual load data available and the current PSNH load forecast.

PSNH to review quarterly in order to determine if there is a need for supplemental energy purchases or sales. This review will take into account the economic utilization of owned generation, existing bilaterals, and IPPs in determining the ES energy portfolio net position (the Supplemental Needs). Purchases and/or sales recommendations will be developed based on the following:

As part of PSNH ES Rate Hedge Plan (Prior to Rate Setting):

Summer / Winter supplemental purchases should be made to meet **BEGIN CONFIDENTIAL [] END CONFIDENTIAL** of Supplemental Needs. However, if supplemental needs are **BEGIN CONFIDENTIAL [] END CONFIDENTIAL** or less this minimal exposure may remain unhedged. If it is forecast that existing purchases and economic generation will meet **BEGIN CONFIDENTIAL [] END CONFIDENTIAL** of needs, PSNH will attempt to sell any excess to reduce supply to **BEGIN CONFIDENTIAL [] END CONFIDENTIAL** coverage of load. If the excess is within **[BEGIN CONFIDENTIAL [] END CONFIDENTIAL]** of needs this minimal exposure may remain. However, PSNH will not **BEGIN CONFIDENTIAL [] END CONFIDENTIAL**.

Spring / Fall supplemental purchases should be made to meet **BEGIN CONFIDENTIAL [] END CONFIDENTIAL** of Supplemental Needs. However, if supplemental needs are **BEGIN CONFIDENTIAL [] END CONFIDENTIAL** or less this minimal exposure may remain unhedged. If it is forecast that existing purchases and economic generation will meet **BEGIN CONFIDENTIAL [] END CONFIDENTIAL** of needs, PSNH will attempt to sell any excess to reduce supply to **[Redacted]** coverage of load. If the excess is within **BEGIN CONFIDENTIAL [] END CONFIDENTIAL** of needs this minimal exposure may remain. However, PSNH will not **BEGIN CONFIDENTIAL [] END CONFIDENTIAL**.

During ES Rate Year (Quarterly Review):

If it is forecast that existing purchases and economic generation will meet **BEGIN CONFIDENTIAL [] END CONFIDENTIAL** of needs, PSNH will attempt to sell any excess so as to maintain **BEGIN CONFIDENTIAL [] END CONFIDENTIAL** coverage of load. If the excess is within **BEGIN CONFIDENTIAL [] END CONFIDENTIAL** of needs this minimal

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exposure may remain. However, PSNH will not **BEGIN CONFIDENTIAL [] END CONFIDENTIAL**].

During ES Rate Year (Short Term – One Month or Less):

If during the PSNH weekly assessment of ES load needs and generation resources it is determined that a condition of oversupply **[BEGIN CONFIDENTIAL [] END CONFIDENTIAL** will occur due to owned generation and supplemental energy purchases and such condition is reasonably expected to be of a **BEGIN CONFIDENTIAL [] END CONFIDENTIAL** duration, PSNH will evaluate market opportunities to 1) reduce generation output (if economically viable) and /or 2) sell supplemental energy. In this event of a sale into the bilateral energy market, such sale opportunity will consider risks associated with customer load (weather driven demand) as well as any potential for an unplanned generation resource loss.

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Reference DE 11-094 Staff1, Q-005

DE 10-121 Settlement Agreement III.B.1

While market prices are depressed due to the factors enumerated on pages 5 and 6 of its testimony, Accion recommends that PSNH should focus more on shorter term arrangements and spot market prices during the two non-peak quarters.

Write-Up:

Fundamentally, the starting point for determining how much supplemental energy was needed to meet Energy Service (ES) requirements was to compare the expected economic operation of resources owned or contracted to PSNH, including IPP purchases, to its forecasted ES needs. In 2010 PSNH was not bound to any particular type of purchase arrangement(s) and recognized a need to maintain flexibility in this regard.

The general energy market paradigm that existed in non-peak quarters of 2010 was one of low gas and energy prices. Under these market conditions PSNH's purchase strategy envisioned looking at energy needs under a plausible high migration level and generating unit availability when considering supplemental energy purchases prior to the start of a delivery period, and managing any remaining energy purchase needs through bilateral and ISO-New England administered energy markets during the delivery period. In fact, for 2010 PSNH did not make any energy purchases more than **BEGIN CONFIDENTIAL [] END CONFIDENTIAL**, other than three 2010 annual purchases transacted in 2008 (614 GWh), and the Bethlehem and Tamworth unit contingent contracts (290 GWh). Excluding those legacy transactions, only four energy purchase transactions (during October and November) were for **[BEGIN CONFIDENTIAL [] END CONFIDENTIAL]**. Additionally, PSNH utilized ISO-NE spot markets to procure 440 GWh of supplemental energy needs, 61% of total 2010 energy purchases excluding the legacy deals. So ultimately in 2010, PSNH's purchase strategy resulted in near term purchases made for short durations.

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Reference DE 11-094 Staff1, Q-006

10-121 Settlement Agreement III.B.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.

Write-Up:

Fundamentally, the starting point for determining how much supplemental energy is needed (peak or off-peak) to meet Energy Service (ES) requirements is to compare the expected economic operation of resources owned or contracted to PSNH, including IPP purchases, to its forecasted ES needs. PSNH utilizes load forecasts jointly developed by its Performance Analysis and Facilities, and NUSCO's Economic and Load Forecasting departments; as adjusted based on a current analysis of migration to 3rd party suppliers. As contemplated in the subject recommendation, PSNH has established in its Wholesale Marketing Policy - PSNH Load Asset Management, approved by the President – PSNH, a directive that no more than **BEGIN** **CONFIDENTIAL [] END CONFIDENTIAL** of the positive difference between the adjusted load forecast and available energy resources, by volume per day during peak hours, shall be purchased through ISO-NE spot energy markets. i.e. - Supplemental energy purchases must be arranged to prevent an over-reliance on potentially fluctuating spot energy markets (e.g. - when PSNH generation is in an outage). This policy is in affect during all months of the year, not only during peak period quarters as recommended in the settlement agreement.

Reference DE 11-094 Staff1, Q-007

DE 10-121 Settlement Agreement III.B.3

PSNH should have a clearly defined basis for making short-term purchases or sales that fall outside projected needs.

Write-Up:

Fundamentally, the starting point for determining how much supplemental energy is needed to meet Energy Service (ES) requirements is to compare the expected economic operation of resources owned or contracted to PSNH, including IPP purchases, to its forecasted ES needs.

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This analysis would also indicate any energy resources surplus to ES requirements and therefore any ability to enter into energy sales arrangements. PSNH has established in its Wholesale Marketing Policy - PSNH Load Asset Management, approved by the President – PSNH, a directive that no more than **BEGIN CONFIDENTIAL [] END CONFIDENTIAL** of the positive difference between the adjusted load forecast (i.e. - the ES energy requirement taking into account migration) and available energy resources, by volume per day during peak hours, shall be purchased through ISO-NE spot energy markets. PSNH is in the process of updating its policies on energy transactions in part to formalize its criteria regarding sales of surplus energy. Forward sales of forecasted surplus energy will not be made if a reasonable possibility exists that the resources would be needed to serve ES load; given possible economic shutdowns, outages, or changes to load. It should be noted that Wholesale Marketing Policies strictly prohibit speculative transactions.

For 2010 PSNH did not make any energy purchases or energy sales more than **BEGIN CONFIDENTIAL [] END CONFIDENTIAL**, other than three 2010 annual energy purchases transacted in 2008 (614 GWh), and the Bethlehem and Tamworth unit contingent contracts (290 GWh). Excluding those legacy transactions, only four energy purchase transactions (during October and November), and one energy sale transaction (during November), were for a **BEGIN CONFIDENTIAL [] END CONFIDENTIAL**. Three of the four energy purchase transactions were for the month of November, 2010 (144 GWh) to replace Merrimack 2 which was forecast to be on economic reserve shutdown. Subsequently, based on an increase in energy market prices and the dispatch of Merrimack 2, an energy sale for November 10th thru the end of the month was arranged (the one energy sale transaction, 50 GWh). PSNH utilized ISO-NE spot energy markets to procure 440 GWh of supplemental energy needs, 61% of total 2010 energy purchases excluding the legacy deals; and utilized ISO-NE spot energy markets to sell 530 GWh of surplus energy, 91% of total 2010 energy sales.

Reference DE 11-094 Staff1, Q-009

DE 10-121 Settlement Agreement III.B.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.

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Write-Up:

Fundamentally, the starting point for determining how much supplemental energy is needed to meet Energy Service (ES) requirements is to compare the expected economic operation of resources owned or contracted to PSNH, including IPP purchases, to its forecasted ES needs. This analysis would also indicate any energy resources surplus to ES requirements and therefore any ability to enter into energy sales arrangements. PSNH has established in its Wholesale Marketing Policy - PSNH Load Asset Management, approved by the President – PSNH, a directive that no more than **BEGIN CONFIDENTIAL [] END CONFIDENTIAL** of the positive difference between the adjusted load forecast (i.e. - the ES energy requirement taking into account migration) and available energy resources, by volume per day during peak hours, shall be purchased through ISO-NE spot energy markets. PSNH is in the process of updating its policies on energy transactions in part to formalize its criteria regarding sales of surplus energy. Forward sales of forecasted surplus energy will not be made if a reasonable possibility exists that the resources would be needed to serve ES load; given possible economic shutdowns, outages, or changes to load. It should be noted that Wholesale Marketing Policies strictly prohibit speculative transactions.

For 2010 PSNH did not make any energy purchases or energy sales more than **BEGIN CONFIDENTIAL [] END CONFIDENTIAL**, other than three 2010 annual energy purchases transacted in 2008 (614 GWh), and the Bethlehem and Tamworth unit contingent contracts (290 GWh). Excluding those legacy transactions, only four energy purchase transactions (during October and November), and one energy sale transaction (during November), were for a **BEGIN CONFIDENTIAL [] END CONFIDENTIAL**. Three of the four energy purchase transactions were for the month of November, 2010 (144 GWh) to replace Merrimack 2 which was forecast to be on economic reserve shutdown. Subsequently, based on an increase in energy market prices and the dispatch of Merrimack 2, an energy sale for November 10th thru the end of the month was arranged (the one energy sale transaction, 50 GWh). PSNH utilized ISO-NE spot energy markets to procure 440 GWh of supplemental energy needs, 61% of total 2010 energy purchases excluding the legacy deals; and utilized ISO-NE spot energy markets to sell 530 GWh of surplus energy, 91% of total 2010 energy sales.