

**STATE OF NEW HAMPSHIRE**  
**BEFORE THE**  
**PUBLIC UTILITIES COMMISSION**

**Docket No. DE 14-238**

**2015 PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
RESTRUCTURING AND RATE STABILIZATION AGREEMENT**

**SUPPLEMENTAL PREFILED DIRECT TESTIMONY OF**

**RICHARD A. NORMAN  
ON BEHALF OF  
GRANITE STATE HYDROPOWER ASSOCIATION**

**November 12, 2015**

1 **Q. Please state your name, position and business address.**

2 A. My name is Richard A. Norman. I am President of Granite State Hydropower  
3 Association (“GSHA”). The business address of GSHA is Two Commercial Street,  
4 Boscawen, New Hampshire 03303.

5 **Q. Have you previously submitted prefiled testimony in this docket?**

6 A. Yes. I submitted prefiled direct testimony on September 18, 2015 on behalf of GSHA  
7 addressing issues arising from the manner in which the 2015 Public Service Company of  
8 New Hampshire Restructuring and Rate Stabilization Agreement (“2015 RRSA” or  
9 “2015 Settlement Agreement”) proposes to treat PSNH’s power purchases from  
10 qualifying facilities (“QFs”) or Independent Power Producers (“IPPs”).

11 **Q. Why are you submitting Supplemental Prefiled Direct testimony?**

12 A. On October 22, 2015, the Commission issued Order No. 25,829 which directed Public  
13 Service Company of New Hampshire d/b/a Eversource Energy (“PSNH” or  
14 “Eversource”) to answer certain data requests propounded by GSHA. That Order also  
15 granted leave to GSHA to file supplemental testimony regarding matters addressed in the  
16 data requests within 14 calendar days of Eversources’s production of the responses to  
17 GSHA’s data requests. Eversource produced the requested data on October 29, 2015.  
18 This supplemental prefiled testimony addresses matters contained in Eversource’s  
19 responses to GSHA’s data requests. In addition, after my prefiled direct testimony was  
20 submitted in this docket, the Commission issued an order in another docket (DRM 15-  
21 340) denying Eversource’s request for a generic rulemaking docket to establish  
22 requirements and avoided costs for purchase of energy and capacity from QFs under the

1 Public Utilities Regulatory Policies Act of 1978 (“PURPA”). *See Eversource Energy,*  
2 DRM 15-340, Order No. 25,814 (September 18, 2015). A portion of this supplemental  
3 prefiled testimony addresses that order.

4 **Q. Please briefly describe the information that PSNH provided on October 29, 2015 in**  
5 **response to GSHA’s data requests.**

6 A. In responses to GSHA data requests, PSNH provided information that describes PSNH’s  
7 system operations for the period January 1, 2015 to June 30, 2015 (“the Operating  
8 Period”). This information includes the amount of energy purchased by PSNH from QFs  
9 during the Operating Period pursuant to the existing PSNH 1999 Settlement Agreement.  
10 The information also describes, on an hourly basis, the generating units operated by  
11 PSNH during this period, their hourly output, purchases by PSNH from the ISO-NE New  
12 Hampshire Locational Marginal Price (“LMP”) Day Ahead (“DA”) and Real Time  
13 (“RT”) markets (MWh/Hr and cents/kWh) and sales by PSNH to the ISO-NE NHLMP  
14 DA and RT markets (MWh/Hr and cents/kWh).

15 **Q. What does the data indicate?**

16 A. Among other things, the data from the Operating Period shows that QF purchases  
17 represent but a very small component of the generating resources used by PSNH to serve  
18 its electric customers. The data shows that during the Operating Period, PSNH’s  
19 hydropower facilities provided 8% of energy used to meet default service obligations.  
20 During that same period, coal provided 37%, biomass provided 7%, contract purchases  
21 provided 21%, and QF/IPP purchases provided only 2% of the power to meet PSNH’s  
22 default service load. PSNH’s use of its generating assets and its need to purchase energy

1 from ISO-NE or ability to sell energy to the ISO-NE system varies depending upon  
2 seasonal conditions and other operational changes in both its own system and in the ISO-  
3 NE system. At varying times during the Operating Period PSNH purchased energy from  
4 ISO-NE and at other times PSNH sold energy to ISO-NE. In response to a data request  
5 from GSHA, PSNH witness Frederick White indicated that PSNH uses the DA market  
6 for 90% of its purchases and uses the RT market for 10% of its purchases. PSNH  
7 operating data actually shows that the percentage of use of the DA market and the RT  
8 market may vary on an hourly basis depending upon operating conditions.

9 **Q. Why is this information significant?**

10 A. I believe the operating data PSNH provided to GSHA shows that QFs are being  
11 incorrectly paid by PSNH. As I indicated in my prefiled direct testimony, the term  
12 “market price” is not defined in either the 1999 Settlement Agreement or the 2015  
13 RRSA. However, PSNH interprets “market price” to mean the ISO-NE hourly NHLMP  
14 RT energy price. Using that interpretation, PSNH currently pays for QF power purchases  
15 at the RT price pursuant to the 1999 Settlement Agreement and its Tariff (NH PUC No.  
16 8) section 33 “Rates for Purchases from Qualifying Facilities.” Although data from the  
17 Operating Period shows that PSNH always is in the RT market to settle daily variations  
18 between predicted and actual system/market conditions, the data also shows that 90% +/-  
19 of PSNH’s daily transactions are in the DA market, not the RT market. Thus, although  
20 PSNH is always in the RT market, that does not mean that RT market prices constitute  
21 PSNH’s avoided costs for purposes of PURPA purchases.

1 In my direct prefiled testimony, I described the purpose of and some of the  
2 differences between the DA and RT markets. Although these markets are interdependent,  
3 historically the DA price has been greater than the RT price. Thus, I do not believe that  
4 PSNH is properly compensating GSHA under the terms of Section V. G. of the 1999  
5 Settlement Agreement which requires the payment of “market price for sales into the  
6 ISO-New England power exchange, adjusted for line losses, wheeling costs, and  
7 administrative costs.”

8 **Q. How do you believe PSNH should be interpreting the term “market price” as used**  
9 **in the 1999 Settlement Agreement and at what rate should QFs be compensated by**  
10 **PSNH?**

11 A. I believe, at a minimum, that PSNH interpret the term “market price” under the 1999  
12 Settlement Agreement to mean the DA ISO-NE NHLMP rate. I believe that PSNH’s  
13 payments to QFs for their power should be based upon whatever percentage PSNH bids  
14 into the market for the purchase or sale of energy from the ISO-NE. For example, if  
15 PSNH bids to purchase power to meet its load deficiency from the DA market and the  
16 actual load deficiency necessitates purchasing 10% of the deficiency the RT market, the  
17 QF should be paid for 90% of its generation at the DA rate, and 10% at the RT rate.

18 **Q. Please describe your understanding of how PSNH is treating QF purchases in terms**  
19 **of meeting PSNH’s load responsibilities and in compensating QFs.**

20 A. I believe PSNH is improperly treating QF purchases and is treating them differently from  
21 PSNH’s other generation resources, even though all of those resources are used to serve  
22 default load. Pursuant to its PURPA obligation, PSNH purchases QF power and is

1 supposed to pay QFs based on PSNH's avoided costs (i.e. the costs to generate or  
2 purchase power). Subsequent to its purchase, the QF power becomes comingled with  
3 PSNH's own generation. Almost always, PSNH-owned hydro assets and biomass are  
4 also used to serve part of the PSNH default load. Then additional energy from PSNH  
5 contract obligations is added to meet PSNH default service load. If there are generating  
6 deficiencies, PSNH will make purchases from ISO-NE under low ISO-NE load  
7 conditions. During high ISO-NE load conditions PSNH will operate its coal-fired and  
8 Newington generating stations to meet its default service load and sell surplus power, if  
9 any to ISO-NE. As I have indicated above, QF purchases represent but a small part of  
10 the PSNH generation mix used to serve default service load. As an example, on January  
11 31, 2015 at 1700 hours, PSNH purchased 11.5 MWh of IPP energy and 79 MWh (by my  
12 calculation) from contract sources. It generated 99 MWh from its hydro and biomass  
13 assets and 411 MWh from its coal plants to meet its default service load of 707.7 MW.  
14 PSNH scheduled a purchase of 96.7 MWh in the DA market. During the operating day it  
15 then purchased an additional 10.2 MWh in the RT market to account for variations  
16 between its load and generating forecast. Yet even though QF generation represented  
17 only 1.9% of the total PSNH's total generating assets, 100% of the QF power (11.5  
18 MWh) was assigned to the PSNH RT purchases for that hour. That is akin to an "oil –  
19 water" treatment of QF power; all QF generation floats to the top of all of PSNH's  
20 generation during each hour and 100% of the QF generation is treated/paid as if it was  
21 sold in the RT market, even though PSNH transacts approximately 90% of its daily ISO-  
22 NE purchases in the DA market.

1 **Q. Are there inconsistencies between the way PSNH uses QF power and the way the**  
2 **1999 Settlement Agreement directs PSNH to treat IPP power?**

3 A. Yes, Section IX. B.2. of the 1999 Settlement Agreement states that “[f]or so long as  
4 PSNH is required to purchase the output from IPPs under short term avoided cost rates, it  
5 shall be deemed prudent for PSNH to sell or bid IPP power into the pool at the ISO New  
6 England market clearing price.” Yet, PSNH has indicated that PSNH uses QF power as a  
7 source of power to meet PSNH’s load requirements.

8 **Q. What conclusions, if any, have you reached based upon the operating data and**  
9 **related responses provided by PSNH?**

10 A. I’ve concluded the following:

11 1) PSNH operating data shows that QF power purchases by PSNH are an  
12 insignificant part of their default service obligation representing no more than 2%  
13 of their default service load during the first six months of 2015.

14 2) Depending upon seasonal variations in PSNH load and ISO-NE load  
15 conditions, PSNH regularly either purchases energy from ISO-NE at the hourly  
16 NHLMP rate or sells energy to ISO-NE at the hourly NHLMP rate.

17 3) Whether PSNH sells energy to ISO-NE or purchases energy from ISO-NE it  
18 always participates in the DA market. PSNH states it uses the DA market for 90%  
19 of its purchases and the RT market for 10% of its purchases.

20 4) PSNH is inconsistent in its treatment of QF power. PSNH has indicated that it  
21 uses QF power to meet its default service load. However, in interpreting the 1999

1 Settlement Agreement, PSNH treats QF power as purely incremental to PSNH's  
2 load and assigns 100% QF power purchases the RT market price.

3 5) The DA and RT markets are interdependent, one cannot exist without the other.

4 Thus, at a minimum, QF purchases should receive the ISO-NE DA NHLMP rate  
5 for at least that percentage of PSNH purchases and sales made in the DA market.

6 **Q. Please explain how Order No. 25, 814 issued September 18, 2015 in DRM 15-340**  
7 **affects your prefiled direct testimony.**

8 A. That order denied Eversource's request for generic rulemaking proceeding on the issue  
9 of avoided costs for mandatory purchases under PURPA and LEEPA. In my prefiled  
10 direct testimony I described the reasons why GSHA objected to that rulemaking request.  
11 The order recognized that the PURPA avoided cost payments is a term of the 2015  
12 Settlement Agreement and, therefore, the issue must be litigated in the instant docket- not  
13 a generic docket- because Eversource is not situated similarly to other New Hampshire  
14 electric utilities. The Commission went on to say that "the determination of PURPA  
15 obligations and avoided rates are important issues that may need to be revisited",...  
16 "there are more parties interested in these issues than those participating in the Asset  
17 Proceeding"... and "[t]herefore, if there remains an interest in revisiting PURPA  
18 obligations following completion of the Asset Proceeding we will open a generic avoided  
19 cost docket." *Eversource Energy*, DRM 15-340, Order no. 25, 814 (Sept. 18, 2015).

20 I interpret the order to mean that the instant docket will address QF purchase  
21 obligations for the period I refer to as the "hybrid period," i.e. the period when PSNH  
22 will continue to own and operate generating assets. The period I refer to as the "generic

1 period,” i.e., the period following PSNH’s asset divestiture, will be the subject of a  
2 separate, generic avoided cost docket. Thus, it appears that the sections of my direct  
3 prefiled testimony concerning issues associated with the generic period may not be within  
4 the scope of this proceeding. The order also affects my position on how the 2015  
5 Settlement Agreement should be modified to address GSHA’s avoided cost issue.

6 **Q. In light of the information presented in this supplemental prefiled testimony, as well**  
7 **as the Commission’s Order No. 25, 814, what is your recommendation as to how the**  
8 **2015 Settlement Agreement avoided cost language should be amended?**

9 A. I believe that Section III. C. of the proposed 2015 Settlement Agreement should be  
10 amended to read as follows:

11 “Unless otherwise found by the Commission or other appropriate authority, PSNH’s  
12 responsibilities and avoided cost rates for purchases of IPP power pursuant to PURPA and  
13 LEEPA shall be equal to the *Day Ahead ISO-NE New Hampshire Locational Marginal*  
14 *Price for those purchases occurring from the effective date of this Agreement until*  
15 *PSNH fully divests its generating assets and begins to purchase default service pursuant*  
16 *to NH PUC Docket No. IR 14-338. Once PSNH begins to procure default service in*  
17 *accordance with NHPUC Docket IR 14-338, PSNH’s responsibilities and avoided cost*  
18 *for purchases of IPP power pursuant to PURPA shall be equal to the Day Ahead ISO-NE*  
19 *NH Locational Marginal Price for QF purchases occurring from the date PSNH fully*  
20 *divests its generating assets until rates are established in a generic avoided cost docket.*

21 This Agreement is not intended to impair existing rate orders or contracts. Nothing in this  
22 Agreement shall be construed as limiting the Commission’s authority with respect to

1 calculating avoided costs. The Settling parties agree not to oppose the opening of a generic  
2 docket or rulemaking upon petition by any Settling Party, *or any other party*, to consider  
3 the proper calculation of Avoided Costs under PURPA and LEEPA for all electric  
4 distribution companies in New Hampshire.”

5 **Q. Why do you recommend including proposed language in the 2015 Settlement**  
6 **Agreement that addresses the post-divestiture period?**

7 A. If approved, the 2015 Settlement Agreement will supersede the 1999 Settlement  
8 Agreement and govern PSNH’s QF purchases until such time as the avoided cost issue is  
9 addressed in a generic docket. Thus, it is necessary to include language in the 2015  
10 Settlement Agreement that covers the “hybrid period” as well as the post-divestiture  
11 period through the time that the generic avoided cost docket is resolved. GSHA also  
12 requests that the Commission order that PSNH’s tariff provisions relating to rates paid to  
13 QFs be changed to conform to GSHA’s requested language for the 2015 Settlement  
14 Agreement.

15 **Q. Does this conclude your testimony?**

16 A. Yes.

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