

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

**Public Service Company of New Hampshire
Reconciliation of Energy Service and Stranded Costs for
Calendar Year 2018**

**DIRECT TESTIMONY OF
WILLIAM H. SMAGULA**

1 **I. Introduction**

2 **Q. Please state your name, position, employer and address.**

3 A. My name is William H. Smagula. I am a consultant to Eversource Energy and the
4 former Vice President of Generation for Public Service Company of New
5 Hampshire, d/b/a Eversource Energy (“Eversource”). My business address is 780
6 North Commercial Street, Manchester, New Hampshire 03101.

7 **Q. Please provide a brief summary of your background.**

8 A. I received a Bachelor of Science in Mechanical Engineering from the University
9 of New Hampshire and Masters of Science in Mechanical Engineering from
10 Northeastern University. I began working for Public Service Company of New
11 Hampshire in 1978. My duties have included craft skills training, engineering
12 projects, station management, Director of fossil and hydro fleet management (in
13 NH and CT/MA). I became Vice President of New Hampshire Generation in
14 2012. From 2003 to 2013 I served on the New Hampshire Board of Professional
15 Engineers (including 2 years as Chairman) and I also served for 10 years on the
16 New Hampshire Air Resource Council from 2007 to 2017. I retired from
17 Eversource in August 2018, but have been hired by Eversource as a consultant to
18 assist on numerous transition issues related to the formerly owned New
19 Hampshire fossil and hydro generating assets.

1 **Q. Have you ever testified before this Commission?**

2 A. Yes. I have provided testimony in many previous Commission proceedings
3 including energy service and reconciliation dockets. I also testified before the
4 Commission during the Schiller Biomass Conversion proceeding and the
5 Merrimack Scrubber docket.

6 **Q. What is the purpose of your testimony in this proceeding?**

7 A. The purpose of my testimony is to provide information on all outages that took
8 place at Eversource's fossil-fired, hydroelectric and biomass units during 2018,
9 prior to the divestiture of these facilities. This information will be for the period
10 January 1 through January 9, 2018 for the six steam units (fossil and biomass) and
11 the five combustion turbines which transferred ownership to Granite Shore Power
12 on January 10, 2018. The hydro facilities transferred ownership to Hull Street
13 Energy on August 26, 2018; therefore I will also provide information on hydro
14 assets operations from January 1 through August 25, 2018. I shall also provide
15 information on unit equivalent availability achieved by Eversource's steam
16 generating units during our ownership period. With no Generation employees
17 since September 2018, Eversource has limited ability to produce and provide the
18 same scope of historical statistical data traditionally provided in Exhibit 3 of the
19 annual reconciliation filing. Furthermore, partial year data would not have any
20 comparative value versus prior, full year data. As a result, no such data is being
21 provided. Refer to Exhibit 3 of the Reconciliation of Energy Services and
22 Stranded Costs filing for 2017 (Docket No. DE 18-073) should historic data be
23 desired for review.

24 **II. Generating Unit Operation**

25 **Q. Please provide an overview of the performance of Eversource's generating
26 units in 2018.**

27 A. Eversource's fossil and biomass units were comprised of:

28 Merrimack Station, Unit No. 1 – coal

29 Merrimack Station, Unit No. 2 – coal

- 1 Newington Station, Unit No. 1 – oil, natural gas
- 2 Schiller Station, Unit No. 4 – coal, oil
- 3 Schiller Station, Unit No. 5 – biomass
- 4 Schiller Station, Unit No. 6 – coal, oil
- 5 Merrimack Station, Combustion Turbine CT-1 – light oil
- 6 Merrimack Station, Combustion Turbine CT-2 – light oil
- 7 Schiller Station, Combustion Turbine CT-1 – light oil
- 8 Lost Nation, Combustion Turbine – light oil
- 9 White Lake, Combustion Turbine – light oil

10 During the period January 1 through January 9, these units were all available with
 11 two exceptions. These two exceptions were:

Unit	Outage Start	Outage Stop	Duration	Cause
Schiller Unit 5	1/1/18 18:00	1/2/18 02:30	8.50 hrs	Frozen wood caused a bridge in the #2 silo reducing fuel flow until cleared by an operator
Schiller Unit 5	1/4/18 09:05	1/4/18 10:30	7.42 hrs	ID fan electrical breaker contacts opened and were reset

12 Both incidents are not unusual. Wet and frozen biomass fuel is an ongoing
 13 challenge with Schiller Unit No. 5 since the biomass fuel is stored outdoors.
 14 Numerous equipment modifications and procedural changes have been made to
 15 minimize fuel flow interruptions from occurring causing significant reductions in
 16 the frequency and duration of these types of events, however, they still occur on
 17 occasion.

18 The electrical equipment breaker opening is an unusual circumstance that does
 19 occasionally occur even with the thorough preventative maintenance programs that
 20 are in place. A thorough inspection and troubleshooting effort was used resulting in
 21 nothing observed that was out of the ordinary, thus this event only required

1 inspectional reverification of proper contact surfaces condition and mechanical
2 mechanism operation, which was fully and successfully completed.

3 It should be noted that due to the operation of the “Delayed Closing Adjustment
4 Calculation” contained in the divestiture “Purchase and Sale Agreement” between
5 Eversource and Granite Shore Power LLC, Eversource’s customers were not
6 affected as a result of these two incidents. Reference should be made in particular
7 to the PSA’s Schedule 2.6(a)(iv), “Delayed Closing Adjustment Calculation”.

8 Eversource’s hydroelectric facilities consisted of 9 hydro facilities with a total of 20
9 units. These units have a total installed capacity of 70.6 MW. These units were
10 comprised of:

- 11 Amoskeag Station – Units 1,2,3
- 12 Ayers Island Station – Units 1,2,3
- 13 Canaan Station – Unit 1
- 14 Eastman Falls Station – Units 1,2
- 15 Garvins Falls Station – Units 1,2,3,4
- 16 Gorham Station – Units 1,2,3,4
- 17 Hooksett Station – Unit 1
- 18 Jackman Station – Unit 1
- 19 Smith Station – Unit 1

20 These units were owned by Eversource in 2018 from January 1 through
21 August 25.

22 During this period, the hydro fleet demonstrated reliable operations, consistent
23 with prior years.

24 **Q. Please provide an overview of the safety and environmental performance of**
25 **Eversource’s Generation employees in 2018.**

26 A. There were no safety incidents in 2018 in which New Hampshire Generation
27 employees lost workdays or had any restricted ability to perform their full duties.

1 With the ownership changes of Generation assets to occur in 2018, Generation
2 management stepped up dialogue and emphasis on safety in 2017 and 2018,
3 recognizing employee distractions would be increasing. Eversource's Generation
4 employees maintained a high focus on individual ownership of safety. Generation
5 employees had the ability to stop and/or modify jobs as necessary to maintain a
6 safe environment. A hazard assessment was completed before each job by the
7 crew doing the work and more detailed job hazard analyses were developed for
8 more complex tasks involving more personnel.

9 Environmental compliance received a similar high-priority focus. There were
10 well trained staff at each facility to maintain compliance and recognize potential
11 environmental risks. Local environmental staff were supported by highly
12 qualified subject matter experts. Key permits and approvals were in place to
13 operate the facilities, and regulatory requirements and deadlines were tracked and
14 had been appropriately satisfied. Importantly, during Eversource's ownership in
15 2018, the facilities continued their record of zero Notices of Violation.

16 **Q. Please provide a summary of how Eversource's generating units operated in**
17 **2018.**

18 A. Eversource's generating units operated very well, with high reliability and
19 availability. Continuing focus on safety and operational excellence, while
20 ongoing attrition of staffing grew during divestiture, was a priority for Generation
21 management.

22 Quality operations and maintenance ensured the generating equipment was
23 prepared to provide high reliability in an efficient and timely fashion to provide
24 value to customers and support obligations to the ISO-NE grid.

25 Eversource's Generation management team continued to focus on key items
26 important to long-term operational success: the day-in and day-out operation and
27 maintenance of the units; the corrective and preventative maintenance conducted

1 during forced outages; pre-planning and execution of scheduled and planned
2 maintenance outages; and the use of a long-term maintenance outage and capital
3 expenditure planning process. While plans to accomplish these goals had been
4 revised to accommodate the changing market due to availability of low priced
5 shale gas, the goals of safety and high reliability at the lowest possible cost still
6 remained.

7 While the goals of the preventive and predictive maintenance program, as well as
8 maintaining safety and high reliability at the lowest cost had not changed,
9 assessment methods for equipment and system conditions had changed as capacity
10 factors had decreased over recent years. More information and accurate
11 information allowed targeted expenditure of funds and only when needed.

12 With less wear and tear on equipment due to reduced operating hours, the need for
13 major overhaul work and preventive and predictive maintenance work had been
14 reassessed utilizing new and expanded techniques which allow maintenance and
15 operations professionals to make better-informed decisions. These expanded
16 efforts to assess equipment condition generally resulted in reduced maintenance
17 needs and lengthened overhaul and repair cycles, as appropriate. Condition-based
18 maintenance was used to more cost effectively determine needed routine work, as
19 well as outage timing, scope and budgets.

20 Long-term maintenance plans prioritize reliable plant operations and were
21 founded on operations, equipment history, on-going condition assessment, and
22 industry experience. The generating stations maintained a long-standing
23 preventative maintenance program to best execute needed maintenance and the
24 operation of the units. With fluctuations in market conditions due to economic
25 changes, as well as the continuing evolution of shale gas markets, Generation had
26 made changes to the management of its fleet with adjustments to expenses and
27 staffing consistent with reduced capacity factor operations. Generation had relied
28 on an experienced management team and a well-trained, skilled work force which

1 utilized sound practices derived from experience within our facilities, as well as
2 from working with suppliers, contractors, experts, and other generating plant peers
3 in the industry.

4 To summarize, Generation management continued to perform thorough execution
5 of the preventative maintenance programs at all fossil steam units through the
6 transfer of ownership. The key goals in making any adjustments were to avoid
7 any risks of reduced reliability while reducing customer costs. As an example, by
8 utilizing modified work practices, efforts had focused over recent years on
9 appropriately reducing inventory levels to be in line with reduced replacement
10 frequency of worn parts and materials.

11 Capital and O&M budgets were not formally developed for 2018 due to the
12 projected partial year of ownership and inability to define end dates of
13 responsibilities. Corporate Budgeting tracked actual expenditures on a monthly
14 basis to monitor costs. These expenditures were managed on a daily basis with
15 typical local management oversight and reviewed and approved on a monthly
16 basis by Generation leadership. No major overhauls or large planned projects
17 occurred in 2018. Repairs to the dam and station intake sluice-way at Gorham
18 Hydro were needed during the summer of 2018 due to damage which occurred
19 due to an excessively high water flow event on October 29 and 30, 2017. Sixty
20 five feet of the lower spillway wooden apron was damaged along with
21 undermining of the concrete foundation of the debris sluice-way at the station
22 intake.

23 Operating costs continued to emphasize a proper balance between spending what
24 was necessary in the most critical areas, while being sensitive to the overall cost
25 of production and pending ownership changes. Generation reviewed maintenance
26 needs to determine how they could be most effectively executed and how capital
27 investments could be best applied to achieve a proper level of plant performance
28 for both customers and the new owners.

1 Regarding Divestiture activities, Eversource efforts continued to support
2 Environmental Site Assessments and to remove any identified RECs or
3 “recognized environmental conditions” identified in those assessments. One REC
4 was identified at Eversource’s Upper Hydro School Street office in Berlin. A
5 potentially improper discharge of storm drainage was alleviated by modifying
6 drainage flow paths.

7 **III. Unit Outages and Availabilities**

8 **Q. Please provide a list of all unplanned outages that took place during the**
9 **period January 1, 2018 through December 31, 2018 for Eversource’s fossil,**
10 **hydro, and biomass units during the ownership period.**

11 A. Attachment WHS-1, in Exhibit 3 lists these outages. This listing is similar to the
12 information submitted in the past.

13 **Q. Is there additional reporting with respect to outages?**

14 A. Yes. Eversource provides outage reports for all forced and maintenance outages
15 in excess of two days at either Newington Station or at the two units at Merrimack
16 Station, and in excess of four days at the three units at Schiller Station. During
17 the nine day ownership period of the fossil assets there were no such forced
18 outages.

19 **Q. Were scheduled Planned Outages performed at any of Eversource’s fossil**
20 **units during the period January 1, 2018 through December 31, 2018?**

21 A. No.

22 **Q Does this conclude your testimony?**

23 A. Yes, it does.