

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

Docket No. DE 21-087

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty

2021 Default Service Solicitations

SUPPLEMENTAL DIRECT TESTIMONY

OF

JOHN D. WARSHAW

January 31, 2022



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1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is John D. Warshaw, and my business address is 15 Buttrick Road,
4 Londonderry, New Hampshire.

5 **Q. Please state your position and your role.**

6 A. I am the Manager of Electric Supply for Liberty Utilities Service Corp. (“LUSC”), which
7 provides services to Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
8 (“Granite State,” “Liberty,” or “the Company”). I oversee the procurement of power for
9 Energy Service for Granite State as well as the procurement of Renewable Energy
10 Certificates (“RECs”).

11 **Q. Please describe your educational background and training.**

12 A. Please see my June 17, 2021, testimony, Exhibit 2.

13 **Q. What is the purpose of your testimony?**

14 A. Following Liberty’s most recent hearing in this docket, the Company was directed to
15 provide the Commission with additional information regarding its purchases of renewable
16 energy certificates (“RECs”) and the status of its compliance with the Renewable Portfolio
17 Standards (“RPS”) statute, RSA 362-F. Order No. 26,559 at 5 (Dec. 27, 2021). My
18 testimony meets that requirement.

1 **Q. How is the rest of your testimony organized?**

2 A. In the following section of my testimony, I provide an overview of Liberty's REC
3 obligations and explain the purchases it made to meet its 2020 obligations. In Section III,
4 I discuss a change to Liberty's Class III REC obligation for 2020 that resulted in Liberty
5 owning more RECs than were required to meet its obligation. In Section IV, I explain in
6 detail the purchases Liberty made to meet its Class III REC obligations, discuss how those
7 purchases were complicated by changes to the Class III Alternative Compliance Payment
8 ("ACP"), and explain the steps Liberty has taken to ensure that its customers will not be
9 required to bear excess costs because of those complications. Finally, in Section IV, I
10 discuss Liberty's plans to meet its 2021 and 2022 obligations and the potential impacts that
11 could arise from another change to the Class III obligation.

12 **Q. Can you please summarize your key conclusions?**

13 A. My testimony supports two key conclusions. *First*, based on the data and analyses
14 described in my testimony, I conclude that that the amount that Liberty has and will seek
15 to recover from its customers for REC purchases is reasonable. The circumstances that I
16 describe herein that resulted in Liberty currently holding an excess of Class III RECs could
17 not have been foreseen and the purchases it made were consistent with the obligations in
18 place at the time those transactions were executed. *Second*, I conclude that some purchases
19 of RECs were inadvertently transacted at a price above the ACP; however, because Liberty
20 will not seek recovery of costs that were greater than would be incurred if it had paid the
21 ACP instead of purchasing the RECs, no harm has been caused to its customers.

1 **II. 2020 REC PROCUREMENT**

2 **Q. Please describe the REC classes.**

3 A. The sources (generators) of renewable electricity are divided into five separate classes,
4 differentiated by either the technology used to generate energy or the date the resource
5 went into commercial operation and, for so doing, are issued RECs by the New England
6 Power Pool Generation Information System (“NEPOOL GIS”). Class I RECs are issued
7 for most types of renewable generation that began operation after January 1, 2006. Within
8 that class is a subset, Class I Thermal RECs, that includes geothermal, solar-thermal, and
9 other technologies that utilize renewable thermal energy. Class II RECs are issued for
10 output from solar generators. Class III RECs are from biomass and methane technologies
11 that began operation before January 1, 2006. Class IV RECs are from small hydroelectric
12 facilities that began operation before January 1, 2006. *See* RSA 362-F:4, “Electric
13 Renewable Energy Classes.” Detailed descriptions of the classes are available at the
14 Commission’s website.¹

15 **Q. How much of each type of REC was the Company required to buy for 2020?**

16 A. The RPS law defines how many RECs by type Liberty must procure each year, expressed
17 as a percentage of its annual retail sales. *See* RSA 362-F:3. For 2020, the Company was
18 required to purchase RECs equivalent to 14.7% of its retail sales. The composition by class
19 is shown below:²

¹ https://www.puc.nh.gov/sustainable%20energy/renewable_portfolio_standard_program.htm; *see* RSA 362-F:3.

² *Id.*

Table 1. 2020 RPS Obligations

Class I (non-thermal)	8.9%
Class I (thermal)	1.6%
Class II	0.7%
Class III	2.0%
Class IV	1.5%
Total RPS	14.7% ³

Given the Company's actual retail sales of 445,634 MWhs for 2020, its total 2020 REC obligation, inclusive of all classes, was 65,508 RECs.

Q. How much of each type of REC was the Company required to buy for 2021?

A. The Company's actual retail sales for 2021 was 455,347 MWh and thus, under current law, its total 2021 REC obligation is 21.60% and represents a requirement to obtain 98,354 RECs, broken down into the various classes as shown below:

Table 2. 2021 RPS Obligations

Class I (non-thermal)	9.60%
Class I (thermal)	1.80%
Class II	0.70%
Class III	8.00%
Class IV	1.50%
Total RPS	21.60% ⁴

³ These data were retrieved from the Commission website, which appears to include an arithmetic error that indicates, incorrectly, that the total obligation for 2020 is 20.7%. I believe that amount was the total obligation before the Commission ordered the adjustment to the Class III obligation that I discuss below.

⁴ https://www.puc.nh.gov/Sustainable%20Energy/Renewable_Portfolio_Standard_Program.htm

1 **Q. Does Liberty have to buy the required RECs in the year in which each are used?**

2 A. Not necessarily. The Company can achieve compliance by buying RECs, by using excess
3 RECs banked for future compliance, or by paying the ACP.⁵ Attached to my testimony is
4 a copy of Liberty's 2020 Annual RPS Compliance Filing, which shows how the Company
5 utilized each of those methods for that year.⁶

6 **III. CHANGE IN 2020 CLASS III OBLIGATION**

7 **Q. Is there anything unusual about Liberty's obligations for 2020?**

8 A. Yes, the 2020 Class III obligation of 2.0% shown above reflects an adjustment ordered by
9 the Commission in April 2021 (Order No. 26,472), which reduced that obligation from
10 8.0% to 2.0%. Notably, the change occurred near the end of the period in which the
11 Company could purchase RECs for 2020.⁷ I discuss this change and its impact beginning
12 in the next section of my testimony.

13 **Q. Had the Company already made the purchases required to meet its 2020 obligations**
14 **when this change to the Class III obligation became effective?**

15 A. Mostly. All of the RECs that Liberty used to meet its 2020 obligations were contracted for
16 between January 2020 and June 2021. The Company issued requests for proposals

⁵ "In lieu of meeting the portfolio requirements ... for a given year if, and to the extent sufficient certificates are not otherwise available at a price below the amounts specified in this paragraph, an electricity provider may ... make payment to the department of energy at the following rates for each megawatt-hour not met for a given class obligation through the acquisition of certificates." RSA 362-F:10, II.

⁶ See Attachment 1.

⁷ RECs for any given compliance year may be obtained through June 16 of the following year. Thus, the Company had to purchase all 2020 RECs by June 16, 2021, when the NEPOOL GIS 2020-Q4 trading period ended.

1 (“RFPs”) in November 2019, May 2020, November 2020, and May 2021⁸ for delivery of
2 2020 RECs and selected those contracts that best satisfied Liberty’s understanding of its
3 requirements at the least cost at the time it entered into the contracts. Many of the contracts
4 that the Company subsequently executed call for delivery of the applicable RECs at a later
5 date. Details regarding the portfolio of contracts the Company used to meet its 2020
6 obligations are provided in Confidential Attachment 2.

7 **Q. Is this approach consistent with the Company’s procurement practices from previous**
8 **years?**

9 A. Yes. In each of its Energy Service filings, the Company includes a summary of the results
10 of its solicitations for RPS compliant RECs.

11 **Q. Does the Company intend to follow the same approach for 2021 compliance?**

12 A. Yes, with some modifications related to banked RECs as discussed below.

13 **IV. PURCHASES OF 2020 CLASS III RECs**

14 **Q. What was the one exception you mention above?**

15 A. As shown in Attachment 1, for 2020 compliance, the Company used 2,367 2019 RECs that
16 were not needed to meet the Company’s 2019 RPS obligation, as is allowed under the RPS
17 law.⁹

⁸ The Company made no Class III REC purchases as a result of the May 2021 RFP. All 2020 Class III RECs were purchased prior to April 2021.

⁹ “Certificates shall only be used by providers of electricity for compliance ... in the year in which the generation represented by the certificate was produced, except that unused certificates of the proper class

1 **Q. Please summarize the purchases the Company made for each class for 2020.**

2 A. Liberty’s REC purchases for the 2020 compliance year are summarized in Table 3, using
 3 information from Attachment 1, and include the banked 2019 RECs discussed above. In
 4 total, the Company purchased slightly less than 83,000 RECs at a cost of roughly \$3.5
 5 million.

6 **Table 3. 2020 REC Purchases**

	Quantity	Cost
Class I (non-thermal)	36,694	\$1,550,409
Class I (thermal)	1,788	\$44,047
Class II	2,071	\$97,053
Class III	35,991	\$1,662,356
Class IV	6,112	\$158,967
Total	82,656	\$3,510,831

7

8 **Q. Was this amount enough to meet Liberty’s 2020 obligation?**

9 A. No. The Company was unable to purchase sufficient RECs to meet its 2020 RPS
 10 obligations and thus met part of its Class I, Class I Thermal, and Class IV obligations by
 11 making ACPs. In total, the Company made ACPs to fully comply with its 2020 RPS
 12 obligations at a cost of about \$326,000, as detailed in Table 4.

13 **Table 4. 2020 ACP Payments**

	Quantity	Cost
Class I (non-thermal)	2,940	\$169,373.40
Class I (thermal)	5,342	\$139,853.56
Class IV	573	\$16,651.38
Total	8,855	\$325,878.34

issued for production during the prior 2 years may be used to meet up to 30 percent of a provider's requirements for a given class obligation in the current year of compliance.” RSA 362-F:7.

1 **Q. What was the Company’s total spend for 2020 RPS compliance, including ACPs?**

2 A. About \$3.8 million. Table 5 shows the cost for each class, including the ACPs, using data
3 from Attachment 1. For purposes of this section of my testimony, I have treated ACPs as
4 a virtual “supply” of RECs insofar as they are included in both the cost and quantity totals
5 below.

6 **Table 5. 2020 Total REC Costs and Quantities**

	Quantity	Cost
Class I (non-thermal)	39,634	1,719,783
Class I (thermal)	7,130	183,900
Class II	2,071	97,053
Class III	35,991	1,662,356
Class IV	6,685	173,618
Total	91,511	\$ 3,836,710

7

8 **Q. Is this the amount that Liberty sought to recover from its customers for 2020?**

9 A. No. Subsequent to making all its purchases, the Company determined that it had
10 inadvertently purchased its Class III RECs at a rate higher than the ACP. Because Liberty
11 did not believe it to be appropriate for its customers to bear those extra costs, a downward
12 adjustment was made to reduce the amount to be recovered through rates, as I explain in
13 greater detail below. The Commission accepted and approved this reduction in Order No.
14 26,489 at 9 (June 21, 2021).

1 **Q. What was the 2020 Class III ACP at the time Liberty made its purchases of Class III**
2 **RECs?**

3 A. \$34.54/MWh.

4 **Q. What prices did the Company ultimately pay for its 2020 Class III RECs?**

5 A. Liberty entered two contracts for 2020 Class III RECs for a total of [REDACTED] RECs, both of
6 which were signed and became effective in July 2020. One was for [REDACTED] RECs at a cost
7 of \$[REDACTED]/MWh. The other was for [REDACTED] RECs at a cost of \$[REDACTED]/MWh. Additional
8 details are provided in Confidential Attachment 2.

9 **Q. Why did Liberty buy RECs at a price higher than the ACP?**

10 A. Around the time Liberty executed the agreements, the New Hampshire legislature passed
11 a bill to increase the Class III ACP to \$55.00/MWh, which is where it had been for 2017,
12 2018, and 2019.¹⁰ As it appeared the change would soon become effective, Liberty updated
13 the metrics it used to evaluate purchasing opportunities. The market for Class III RECs
14 also reflected this expectation. However, the bill was subsequently vetoed by the Governor
15 on July 28, 2020, so the ACP never actually increased.¹¹ By that time the Company had
16 already contracted for those RECs at the prices described above.

17 **Q. Are you aware of any other New Hampshire utility that experienced similar issues?**

18 A. Yes. Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource)
19 also purchased 2020 Class III RECs at a price above the ACP. This is more fully explained

¹⁰ See RSA 362-F:10, III.

¹¹ <https://www.governor.nh.gov/news-and-media/governor-chris-sununu-vetoes-hb-1234>

1 in the Motion and Testimony filed by Eversource on October 8, 2021, in Docket No. DE
2 21-077, and was the subject of a January 13, 2022, hearing in that docket.

3 **Q. Of the RECs that Liberty purchased at a rate above the ACP, how many were used**
4 **to meet Liberty's 2020 Class III obligation?**

5 A. [REDACTED] RECs.

6 **Q. Why is this amount so much lower than the [REDACTED] RECs that Liberty purchased for**
7 **the 2020 compliance year?**

8 A. Liberty bought [REDACTED] Class III RECs in July 2020 to meet its estimated Class III
9 requirement for 2020, which at that time was 8% of consumption. It was many months
10 later, in April 2021, when the Commission exercised its authority to reduce the Class III
11 obligation to 2%. *See* Order No. 26,472 (Apr. 20, 2021). Indeed, Liberty had already made
12 all the purchases it would need to meet the 8% Class III obligation before the Commission
13 even opened the docket that resulted in the reduction for 2020 Class III RECS to 2%. *See*
14 March 5, 2021, Order of Notice opening Docket No. DE 21-037.

15 **Q. Was the Commission made aware that this was the case at the time it issued Order**
16 **No. 26,472?**

17 A. Yes. I appeared at the Commission's public hearing held in March 2021 to consider the
18 change in the Class III obligation. I explained to the Commission that Liberty had already

1 made its required purchases and that a change in the obligation would result in Liberty
 2 having a large number of Class III RECs on hand that it may not be able to use.¹²

3 **Q. What did Liberty pay for the RECs that used to meet its 2020 obligation?**

4 A. Liberty used some of the Class III RECs it purchased under one of the contracts described
 5 above at a rate of \$ [REDACTED]/REC, for a total cost of \$ [REDACTED].

6 **Q. How much did Liberty seek to recover from customers for its purchases of Class III**
 7 **RECs?**

8 A. Liberty sought to recover \$ [REDACTED], which is what the RECs needed to meet the Class III
 9 obligation for 2020 would have cost had Liberty paid the ACP instead of buying from the
 10 generator. The difference of \$ [REDACTED], calculated in Table 6 below, represented the extra
 11 costs that were incurred as a result of the confusion regarding the ACP described above.

12 **Table 6. 2020 Class III Actual Cost and Approved Recovery**

RECs consumed	[REDACTED]	<i>a</i>
Rate paid	[REDACTED]	<i>b</i>
Cost	[REDACTED]	<i>c=a*b</i>
ACP	[REDACTED]	<i>d</i>
Cost @ ACP rate	[REDACTED]	<i>e=a*d</i>
Difference	[REDACTED]	<i>f=c-e</i>

¹² Transcript of the March 29, 2021, public comment hearing in Docket No. DE 21-037 at 35–36; *see* Order No. 26,472 at 7 (“Liberty commented at the hearing, stating that it had successfully solicited and purchased a sufficient quantity of RECs to meet its entire Class III RPS obligation for CY 2020 at the statutory 8 percent requirement. Liberty expressed concern that the Class III RECs it had purchased for 2020 compliance could become a stranded cost if the Class III requirement were significantly reduced for CY 2020 and any future compliance years”).

1 **Q. Will Liberty seek recovery of the \$ [REDACTED] at some later time?**

2 A. No.

3 **Q. Is that to say that Liberty's customers have been held harmless from extra costs for**
4 **2020 compliance arising from confusion about the ACP?**

5 A. Yes. If Liberty had rejected both contracts for Class III RECs, it would have had to pay
6 the ACP to meet its 2020 Class III obligation. The cost to do so would have been the same
7 amount that the Company sought to recover and the same amount that the Commission
8 approved in this proceeding.

9 **Q. What were the total REC costs approved for recovery?**

10 A. The Commission approved recovery of \$2,747,708, which was the Company's total spend
11 on 2020 RECs reduced by both the excess 2020 compliance costs that were created by
12 contracting for Class III RECs at a price higher than the Class III ACP and the reduction
13 of the Class III obligation from 8% to 2%.

14 **Q. What options exist for the remaining 2020 Class III RECs?**

15 A. Liberty banked the remaining 27,078 Class III RECs. The RPS law allows the Company
16 to "bank" RECs to satisfy up to 30% of its Class III obligation for the next two compliance
17 years. Liberty can thus use the banked Class III RECs to satisfy up to 30% of its obligations
18 for 2021 and 2022.¹³

¹³ "Certificates shall only be used by providers of electricity for compliance ... in the year in which the generation represented by the certificate was produced, except that unused certificates of the proper class

1 **V. PLANS TO MEET 2021 AND 2022 OBLIGATIONS**

2 **Q. Have you estimated how many of these banked RECs will be used to meet the**
3 **Company's future obligations?**

4 A. Yes. Assuming no changes to the 2021 and 2022 Class III requirement of 8% and assuming
5 a similar level of sales in 2021 and 2022, the Company will be able to use approximately
6 11,000 of the banked Class III RECs for each of 2021 and 2022. As shown in Attachment
7 3, this would leave approximately 5,000 of the 2020 RECs in the bank and unable to be
8 used for any future obligations.

9 **Q. Will the Company seek to recover the cost of the unused RECs?**

10 A. Subject to an adjustment for the purchases made over the ACP. That is to say that the
11 quantity of RECs that the Company purchased comported with the RPS requirements that
12 were in effect at the time the purchases were made, so the Company should be entitled to
13 recover prudently incurred costs of all of those RECs. To the extent that some were
14 purchased above the ACP, the Company will make an adjustment to ensure that the excess
15 cost is not passed on to its customers. Liberty will include the detail of those calculations
16 and supporting documentation when it requests approval for any unused RECs that were
17 originally purchased for 2020 compliance.

issued for production during the prior 2 years may be used to meet up to 30 percent of a provider's requirements for a given class obligation in the current year of compliance.” RSA 362-F:7.

1 **Q. Other than using the banked Class III RECs as described above, how does Liberty**
 2 **intend to satisfy the balance of its 2021 requirement for Class III RECs and for the**
 3 **other classes of RECs?**

4 A. Attachment 3 provides an estimate of the Company's RPS obligations and costs for the
 5 2021 and 2022 obligation years. Table 7 and Table 8, below, show the purchases the
 6 Company has made to date to for each obligation year.

7 **Table 7. 2021 REC Purchases**

	Quantity	Cost
Class I (non-thermal)		
Class I (thermal)		
Class II		
Class III		
Class IV		
Total		

8

9 **Table 8. 2022 REC Purchases**

	Quantity	Cost
Class I (non-thermal)		
Class I (thermal)		
Class II		
Class III		
Class IV		
Total		

10

11 Additional detail is provided in Confidential Attachment 4.

1 **Q. Are there any indications that the Class III obligation for 2021 could change in a**
2 **manner similar to that by which the 2020 obligations you discussed earlier in your**
3 **testimony were made?**

4 A. Yes. The authority to modify the obligation for Class III and Class IV RECs now rests
5 with the Department of Energy (“DOE”). RSE 362 F:4, VI. On January 21, 2022, DOE
6 issued an Order of Notice of Public Comment Hearing regarding a potential reduction in
7 the Class III requirement for 2021.

8 **Q. How could that impact the Company’s portfolio?**

9 A. As I explained earlier in my testimony, the number of banked RECs that can be used for
10 compliance in a subsequent year is determined, in part, by the total obligation for that
11 subsequent year. If the Class III obligation for 2021 were reduced, fewer of the RECs that
12 Liberty banked from 2020 would be eligible. The result would be that more of the Class
13 III RECs that the Company currently has banked from 2020 would be unusable. The
14 Company may also have to make additional purchases from the market, depending on how
15 the obligation ultimately changes, and other factors.

16 **Q. Is this uncertainty one of the reasons why the Company has not yet procured any**
17 **Class III RECs to meet its 2021 obligation?**

18 A. Yes.

1 **Q. Is the Company taking any action regarding the potential change in the Class III**
2 **obligation at this time?**

3 A. No. Liberty will participate in discussions at the DOE regarding the potential change and
4 continue to monitor the REC market and its portfolio. If the Class III obligation changes
5 in a way that would affect our ability to utilize the RECs currently banked, or that would
6 create other substantive changes to the REC purchases we make on behalf of our customers,
7 Liberty will update the Commission via an additional filing in this proceeding.

8 **Q. Does that conclude your testimony?**

9 A. Yes.