

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

Docket No. DE 21-xxx

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

Annual Retail Rate

DIRECT TESTIMONY

OF

JOHN D. WARSHAW

March 24, 2021



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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q. Please state your full 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. By whom are you employed and in what capacity?**

6 A. I am the Manager, Electric Supply for Liberty Utilities Service Corp., which provides
7 services to Liberty Utilities (Granite State Electric) Corp., d/b/a Liberty (“Liberty” or
8 “the Company”). I oversee the procurement of power for Energy Service for Liberty as
9 well as the procurement of renewable energy certificates (“RECs”). I am also responsible
10 for monitoring costs and activities relative to transmission service provided to the
11 Company.

12 **Q. Please describe your educational background.**

13 A. I graduated from the State University of New York Maritime College in 1977 with a
14 Bachelor of Science in Nuclear Science. I received a Master’s in Business
15 Administration from Northeastern University in 1986. In 1992, I earned a Master of Arts
16 in Energy and Environmental Management from Boston University.

17 **Q. What is your professional background?**

18 A. In November 2011, I joined the Company as Manager, Electric Supply. Prior to my
19 employment at Liberty Utilities Service Corp., I was employed by National Grid USA
20 Service Company (“National Grid”) as a Principal Analyst in Energy Supply – New
21 England from 2000 to 2010. In that position I conducted a number of solicitations for

1 wholesale power to meet the needs of National Grid's New England distribution
2 companies. I also administered both short-term and long-term power purchase
3 agreements for National Grid's New England distribution companies. Prior to my
4 employment at National Grid, I was employed at COM/Energy (now NSTAR) from 1992
5 to 2000. From 1992 to 1997, I was a Rate Analyst in Regulatory Affairs at COM/Energy
6 responsible for supporting state and federal rate filings. In 1997, I transferred to
7 COM/Electric to work in Power Supply Administration.

8 **Q. Have you previously testified before the New Hampshire Public Utilities**
9 **Commission ("Commission")?**

10 A. Yes. I most recently provided written and oral testimony before the Commission in
11 Docket No. DE 20-053 on December 11, 2020.

12 **Q. Have you testified before any other state regulatory agencies?**

13 A. Yes. I have testified before both the Massachusetts Department of Public Utilities and
14 the Rhode Island Public Utilities Commission regarding electric supply and renewable
15 portfolio procurement activities.

16 **II. PURPOSE OF TESTIMONY**

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

18 A. My testimony addresses the estimated 2021 transmission expenses for Liberty. First, I
19 will summarize the various transmission services provided to Liberty and describe how
20 Liberty pays for such services. Second, I will provide testimony supporting the forecast
21 of transmission expenses that Liberty expects to incur in 2021. As described more fully

1 in Section IV of my testimony, the Company forecasts an increase of \$3,659,490 in
2 prospective transmission expenses for calendar year 2021 as compared to the forecast
3 provided for calendar year 2020 in Docket No. DE 20-040.

4 **III. SUMMARY OF TRANSMISSION SERVICES PROVIDED TO LIBERTY**

5 **Q. Please summarize what transmission services Liberty receives from ISO New**
6 **England Inc. (the “ISO” or “ISO-NE”) under rate schedules approved by the**
7 **Federal Energy Regulatory Commission (“FERC”).**

8 A. Liberty receives transmission services under the ISO New England Inc. Transmission,
9 Markets and Services Tariff (“ISO Tariff”) as follows:

- 10 1. Section II (Schedules 1, 2, 9 and 16) of the ISO Tariff provides for Regional
11 Network Service (“RNS”);
- 12 2. Section IV.A – ISO Funding Mechanisms provides for the recovery of ISO’s
13 Administrative Services; and
- 14 3. Section II, Schedule 21 of the ISO Tariff provides for Local Network Service
15 (“LNS”) from the New England Power Company (“NEP”).

16 **Q. Please describe further the types of transmission services that are billed to Liberty**
17 **under the ISO Tariff.**

18 A. New England’s transmission rates utilize a highway/local pricing structure. That is,
19 Liberty receives regional transmission service over “highway” transmission facilities
20 under Section II of the ISO Tariff (also known as RNS), and receives local transmission
21 service over local transmission facilities under Schedule 21 of the ISO Tariff (also known

1 as LNS). Additionally, a number of administrative services are provided by ISO-NE
2 under Section IV.A of the ISO Tariff.

3 **A. Explanation of ISO Tariff Services, Rates, and Charges**

4 **Q. Please explain the services provided to Liberty under the ISO Tariff.**

5 A. Section II of the ISO Tariff provides access over New England’s looped transmission
6 facilities, more commonly known as Pool Transmission Facilities (“PTF”) or bulk
7 transmission facilities. In addition, the ISO Tariff provides for Ancillary Services (Black
8 Start, Reactive Power, and Scheduling, System Control, and Dispatch Services) as
9 described more fully later in this testimony.

10 **Q. How are the costs for RNS recovered?**

11 A. The ISO Tariff RNS Rate (“RNS Rate”) (Section II - Schedule 9 of the ISO Tariff)
12 recovers the RNS costs, and is determined annually based on an aggregation of the
13 transmission revenue requirements of each of the Participating Transmission Owners
14 (“PTO”) in New England, calculated in accordance with a FERC-approved formula in a
15 single, “postage stamp” rate in New England. FERC opened Docket No. EL16-19 to
16 investigate the reasonableness of the formula rates and protocols used to develop both
17 RNS and LNS. A Settlement Agreement was reached and filed with FERC on June 15,
18 2020 (FERC Docket No. ER20-2054) resolving all issues regarding the RNS and LNS
19 formula rates. The filing requesting an order of approval by November 1, 2020. FERC
20 issued its order approving the settlement on December 28, 2020. A compliance filing
21 was made on January 27, 2021, setting the effective date of the formula rate revisions to
22 be January 1, 2022. Consistent with the Settlement Agreement is the establishment of a

1 more transparent transmission rate review protocols. These protocols will be in effect on
2 June 15, 2021, with an initial technical session to be scheduled by the end of August
3 giving interested parties sufficient time to review and challenge the rates to be effective
4 on January 1, 2022.

5 **Q. Please describe the ISO-NE System Restoration and Planning Service, Reactive**
6 **Supply and Voltage Control, and Scheduling, System Control, and Dispatch**
7 **Services that are included in the ISO Tariff.**

8 A. ISO-NE System Restoration and Planning Service (Section II - Schedule 16 of the ISO
9 Tariff), also known as Black Start Service, is necessary to ensure the continued reliable
10 operation of the New England transmission system. This service allows for the payment
11 to generators who have the capability of supplying load and the ability to re-start without
12 an outside electrical supply to re-energize the transmission system following a system-
13 wide blackout.

14 Reactive Supply and Voltage Control (Section II - Schedule 2 of the ISO Tariff), also
15 known as Reactive Power Service, is necessary to maintain transmission voltages within
16 acceptable limits on the ISO-NE transmission system and allows for the payment to
17 generators or other facilities that have the capability to produce or absorb reactive power.

18 Lastly, Scheduling, System Control, and Dispatch Service (“Scheduling & Dispatch
19 Service”) consists of the services required to schedule the movement of power through,
20 out of, within, or into the ISO-NE Control Area over the PTF and to maintain System

1 Control. Scheduling & Dispatch Service also provides for the recovery of certain charges
2 that reflect expenses incurred in the operation of satellite dispatch centers.

3 **Q. How are the ISO-NE charges for Black Start and Reactive Power assessed to**
4 **Liberty?**

5 A. ISO-NE assesses charges for Black Start and Reactive Power Services to Liberty each
6 month based on Liberty's proportionate share of its network load to ISO-NE's total
7 network load.

8 **Q. How are the charges for Scheduling & Dispatch Service assessed to Liberty?**

9 A. Charges for Scheduling & Dispatch Service are assessed to Liberty through three
10 separately charged tariffed services.

11 The first charge is for the expenses incurred by ISO-NE in providing these services and is
12 recovered under Schedule 1 of Section IV.A of the ISO Tariff. These costs are allocated
13 to Liberty each month based on an annually filed FERC-approved fixed rate times
14 Liberty's monthly Network Load.

15 The second charge is for the costs incurred by the individual transmission owners in
16 providing Scheduling & Dispatch Service over PTF facilities, including the costs of
17 operating local control centers, and are recovered under Section II, Schedule 1 of the ISO
18 Tariff. These costs are allocated to Liberty each month based on a formula rate that is
19 determined each year based on the prior year's costs incurred times Liberty's monthly
20 Network Load.

1 The final charge is for the cost of Scheduling & Dispatch Service for transmission service
2 over transmission facilities other than PTF that are charged under Schedule 21 of the ISO
3 Tariff. Thus, the three types of Scheduling & Dispatch costs are similar, but are charged
4 to Liberty through three different tariff mechanisms.

5 **Q. What additional administrative services and/or charges flow through to Liberty**
6 **under Section IV.A of the ISO Tariff?**

7 A. Liberty also incurs charges pursuant to Section IV.A, Schedule 5 of the ISO Tariff.
8 Schedule 5 provides for the collection of the New England States Committee on
9 Electricity's ("NESCOE") annual budget.

10 **Q. How are the ISO Tariff Administrative Services charges assessed?**

11 A. ISO-NE assesses the charges in Section IV.A based upon stated rates pursuant to the ISO
12 Tariff. These stated rates are adjusted annually when ISO-NE files a revised budget and
13 cost allocation proposal to become effective January 1 each year. Liberty is charged the
14 stated rate for these services as part of ISO-NE's monthly billing process, based on its
15 Network Load for Section IV.A Schedule 1 and Schedule 5 charges.

16 **B. Explanation of Schedule 21 NEP Tariff Services, Charges, and Credits**

17 **Q. What services are provided to Liberty under Schedule 21 of the ISO Tariff?**

18 A. Schedule 21 provides service over NEP's local, non-highway transmission facilities,
19 considered non-PTF facilities ("Non-PTF"). The service provided over the Non-PTF is
20 referred to as LNS. NEP also provides metering, transformation and certain ancillary

1 services to Liberty to the extent such services are required by Liberty and not otherwise
2 provided under the ISO Tariff.

3 **Q. Please explain the metering and transformation services provided by NEP.**

4 A. NEP separately surcharges the appropriate customers for these services. NEP provides
5 metering service when a customer uses NEP-owned meter equipment to measure the
6 delivery of transmission service. NEP provides transformation service when a customer
7 uses NEP-owned transformation facilities to step down voltages from 69 kV or greater to
8 a distribution voltage.

9 **Q. Are there any other transmission services for which NEP assesses charges to**
10 **Liberty?**

11 A. Yes. Liberty relies on the specific distribution facilities of NEP's affiliate, Massachusetts
12 Electric Company ("Mass Electric"), which provides for NEP's use of such facilities
13 pursuant to the Integrated Facilities provision of NEP's FERC Electric Tariff No. 1
14 service agreement with Mass Electric. NEP, in turn, uses these specific distribution
15 facilities to provide transmission service to Liberty. Therefore, Liberty is also subject to
16 a Specific Distribution Surcharge for its use of these facilities.

17 **Q. What is the credit in Schedule 21 charges that NEP provides to Liberty in its**
18 **monthly invoice?**

19 A. As a result of National Grid's sale of Liberty in 2012, NEP (a National Grid affiliate)
20 uses certain distribution facilities of Liberty to provide service to generation customers of
21 NEP. An Integrated Facilities Supplement to Schedule 21 of the ISO Tariff provides

1 Liberty with a credit in exchange for the continued use by NEP of Liberty's facilities to
2 serve NEP's generation customers.

3 **IV. ESTIMATE OF LIBERTY'S TRANSMISSION EXPENSES**

4 **Q. Was the forecast for Liberty's transmission and ISO expenses for 2021 prepared by**
5 **you or under your supervision?**

6 A. Yes. Liberty estimates the total transmission and ISO-NE expenses (including certain
7 ancillary services) for 2021 to be approximately \$26,891,183, as shown in Schedule
8 JDW-1, page 1 of 2. This equates to an increase of \$3,659,490 as compared to the
9 forecast for 2020 provided in Docket No. DE 20-040, as shown on Schedule JDW-1,
10 page 2 of 2.

11 **Q. How have the ISO Tariff charges for RNS shown on line 3 of Schedule JDW-1 been**
12 **forecasted?**

13 A. The Company has applied an estimated rate increase to the total RNS rate currently in
14 effect to reflect the forecast of PTF plant additions across New England, as estimated by
15 the New England transmission owners, to be included in the annual formula rate effective
16 June 1, 2021. The estimated rate increase was provided in the PTO Rates Working
17 Group presentation during the 2020 NEPOOL Reliability and Transmission Committees'
18 Summer Meeting. The estimated increase of approximately \$8.74 per kW-year in 2021
19 to the RNS rate is added to the current \$129.26 per kW-year RNS rate to get an estimated
20 rate of \$138 per kW-year effective June 1, 2021. The current rate of \$129.26 per kW-
21 year that was effective beginning June 1, 2020, is higher than the \$120.00 per kW-year
22 estimated in Docket No. DE 20-040 and provided by the PTO Rates Working Group in

1 the summer of 2019. When setting the RNS rates effective June 1, 2020, the Participant
2 Transmission Owners included true-up adjustments from previous periods and other
3 adjustments required to provide the transmission owners with the approved revenue
4 requirements. The combination of current rates with the forecasted increase effective
5 June 1, 2021, results in an estimated increase of \$2,849,094 as shown in column 3, line 3
6 of Schedule JDW-1, page 2 of 2. One of the reasons for the estimated increase in costs
7 for 2021 as compared to what was filed in 2020 is that the actual RNS rates effective
8 June 1, 2020, were higher than the forecasted rates available at the time of filing and the
9 transmission owners in New England continue to replace aging equipment and address
10 reliability issues regarding the delivery of supply from both conventional and renewable
11 resources.

12 **Q. Schedule JDW-1 also includes estimated ISO-NE charges for Black Start, Reactive**
13 **Power, and Scheduling and Dispatch. How were these costs forecasted?**

14 A. In estimating the expected costs of the ISO-NE charges, the company used the same
15 approach it has used in previous filings. The Black Start costs shown on line 5 of
16 Schedule JDW-1 were derived in two steps. First, as shown in Section II of Schedule
17 JDW-3, the Company estimated the cost for Black Start Service by, as a starting point,
18 summing Liberty's actual monthly ISO-NE Black Start expenses for 2020 (line 5). This
19 estimate was divided by Liberty's 2020 Peak Load to calculate an estimated annual rate,
20 as shown on line 7. Liberty then calculated a monthly rate (annual rate divided by 12), as
21 shown on line 8. To obtain the estimate of Black Start costs that would be charged to
22 Liberty, as shown in column 4 of Schedule JDW-2, page 1, the Company multiplied the

1 monthly rate by Liberty's monthly network load, as shown for each month in column 1 of
2 Schedule JDW-2, page 1. Using this methodology, the Company estimated an allocation
3 of \$182,049 for 2021.

4 **Q. How have you estimated Reactive Power costs for Liberty?**

5 A. The estimated Reactive Power costs for Liberty were calculated by using actual Liberty
6 costs for 2020 as shown in Section I of Schedule JDW-3. The annual rate was
7 determined by dividing the total Reactive Power costs charged to Liberty (line 1) by
8 Liberty's peak 2020 Network Load. The monthly rate (annual rate divided by 12) was
9 then multiplied by Liberty's monthly network load, as shown in column 1 of Schedule
10 JDW-2, page 1, to determine the estimated charges for Reactive Power Service shown in
11 column 5 of that same schedule. Using this methodology, the Company estimated an
12 allocation of \$128,922 for 2021.

13 **Q. How did you forecast the Scheduling and Dispatch costs shown on line 4 of Schedule**
14 **JDW-1, page 1?**

15 A. My estimate is shown in column 3 of Schedule JDW-2, page 1. This amount was derived
16 by using the currently effective OATT Schedule 1 rate of \$1.74530 per kW-year, divided
17 by 12, and further multiplied by Liberty's monthly network loads for 2020 as shown in
18 column 1 of Schedule JDW-2, page 1.

1 **Q. Have you included any Reliability Must Run (“RMR”) contract charges to Liberty**
2 **for 2020?**

3 A. No. Reliability Must Run Agreements guarantee payments to generators that are needed
4 to ensure reliability. To obtain an agreement, a generator must receive verification from
5 ISO-NE that it is needed for reliability and must demonstrate that it is unable to cover its
6 operating costs with revenue from other sources. Liberty has not incurred any RMR
7 contract charges as there have been no RMR contracts for the New Hampshire reliability
8 region over the past year. Therefore, the Company has not forecasted any RMR contract
9 costs for 2020.

10 **Q. Can you please explain the forecast of the ISO-NE Administrative Charges shown**
11 **on lines 7 and 8 of Schedule JDW-1 page 1?**

12 A. Yes. Lines 7 and 8 include ISO-NE Administrative charges for Scheduling & Dispatch
13 and NESCOE, respectively, and are derived on Schedule JDW-2 page 2. Line 7 on
14 Schedule JDW-1 page 1 shows the 2021 forecast of charges to Liberty under Schedule 1,
15 Scheduling and Load Dispatch Administrative schedules through Section IV.A of the ISO
16 Tariff. The estimate is based on the ISO Schedule 1 rate of \$0.19383 per kW-month
17 effective January 1, 2021, and multiplied by Liberty’s forecasted monthly network load
18 as shown in column 1 of Schedule JDW-2, page 2.

19 Line 8 on page 1 of Schedule JDW-1 shows the estimated 2021 NESCOE charges under
20 Schedule 5 of Section IV.A of the ISO Tariff. This amount was derived by using the ISO
21 Schedule 5 rate of \$0.00626 per kW-month effective January 1, 2021, and multiplied by

1 Liberty's forecasted monthly network load as shown in column 1 of Schedule JDW-2,
2 page 2.

3 **Q. What is the sub-total of transmission expenses attributable to charges from the ISO-**
4 **NE?**

5 A. The sub-total of ISO-NE charges is \$20,807,038, which is the sum of lines 3 through 8 on
6 Schedule JDW-1, page 1.

7 **Q. Have you estimated the charges to Liberty under Schedule 21 of the ISO Tariff?**

8 A. Yes. Lines 1 and 2 of Schedule JDW-1 show the amount of forecasted charges from
9 NEP pursuant to the LNS tariff. The total amount of estimated expenses is \$6,084,144,
10 which represents an increase of \$698,056 in the total NEP estimated expenses to be
11 incurred by Liberty in 2021 (see Schedule JDW-1, page 2, lines 1 and 2) as compared to
12 2020. Liberty estimated the PTF and non-PTF Demand expenses based on the average of
13 NEP's actual PTF and non-PTF Demand charges in 2020 with no adjustment. Metering,
14 transformation, specific distribution, and ancillary service charges are based on current
15 rates and are assessed to Liberty based on a per meter and peak load basis, respectively.
16 A maintenance service credit, as discussed previously, was also included in the estimate.

1 **V. EXPLANATION OF PRIMARY CHANGE FROM LAST YEAR'S FORECASTED**
2 **EXPENSES**

3 **Q. What is the primary cause of the estimated increase in Liberty's 2021 transmission**
4 **expenses?**

5 A. The estimated 2021 Liberty transmission and ISO-NE expenses of \$26,891,183 represent
6 an increase of \$3,659,490 from the 2020 forecast of transmission expenses for Liberty.

7 The increase is mainly attributed to the increased cost of OATT Schedule 9 RNS Service
8 costs. These cost increases represent continued investment by transmission owners in
9 projects required to maintain the reliability and deliverability of energy in New England.

10 In 2020 the transmission owners in New England invested over \$1billion in transmission
11 projects reviewed and approved in the ISO transmission investment process. The
12 transmission owners are also forecasting an investment of over \$5billion over the next 5
13 years.

14 **VI. CONCLUSION**

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

16 A. Yes.