

STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

Docket No. DE 23-044

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
2023 Energy Service Solicitation

DIRECT TESTIMONY

OF

TYLER CULBERTSON

AND

JAMES M. KING

May 30, 2023



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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q. Mr. Culbertson, please state your full name, business address, and position.**

3 A. My name is Tyler J Culbertson and my business address is 15 Buttrick Road,
4 Londonderry, New Hampshire. I am the Director of Rates and Regulatory Affairs for
5 Liberty Utilities Service Corp. (“LUSC”) and am responsible for providing rate-related
6 services for Liberty Utilities (EnergyNorth Natural Gas) Corp. and Liberty Utilities
7 (Granite State Electric) Corp. (“Liberty” or “the Company”).

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

9 A. I graduated from the University of Iowa in 2009 with a Bachelor of Science degree in
10 Accounting, and I have held an active Certified Public Accountant (“CPA”) license since
11 2012.

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

13 A. I joined LUSC in May 2023. Prior to my employment at LUSC, I was employed by DCP
14 Midstream as the Senior Manager of Regulatory Affairs from 2015 to 2023. My
15 responsibility at DCP Midstream was to ensure company-wide compliance with the
16 economic regulations of the Federal Energy Regulatory Commission and various state
17 regulatory agencies. From 2014 to 2015, I was a Senior Rate Analyst for Tallgrass
18 Energy, and from 2010 to 2014 I was a Rate Analyst for SourceGas (now Black Hills
19 Energy).

1 **Q. Have you previously testified before the New Hampshire Public Utilities**
2 **Commission (“Commission”)?**

3 A. No, this is my first time testifying before the Commission.

4 **Q. Mr. King, please state your full name and business address.**

5 A. My name is James M. King. My business address is 15 Buttrick Road, Londonderry,
6 New Hampshire.

7 **Q. Please state by whom you are employed.**

8 A. I am employed by Liberty Utilities Service Corp. (“LUSC”) as an Analyst II, Rates and
9 Regulatory Affairs. LUSC provides local utility management, shared services, and
10 support to Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty (“Liberty” or “the
11 Company”) and the other regulated water, wastewater, natural gas, and electric utilities
12 commonly owned and operated by Liberty Utilities as affiliates of the Company. In my
13 position I am responsible for providing rate-related services to the Company.

14 **Q. Please describe your professional and educational background.**

15 A. I joined Liberty in September 2022. Prior to joining Liberty, I was employed by the
16 Massachusetts Department of Public Utilities from 2014 through 2022. I held positions
17 as an Economist III and Economist II in the Rates and Revenue Requirements Division
18 where I was responsible for the review and analysis of base distribution rate cases, as
19 well as other rate reconciliation mechanisms presented to the Department from
20 Massachusetts’ gas, electric, and water companies. I graduated from Franklin and
21 Marshall College with a Bachelor of Social Science in Government and Economics.

1 **Q. Have you previously testified in regulatory proceedings before the Commission?**

2 A. Yes, I have testified on multiple occasions before this Commission.

3 **II. OVERVIEW**

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

5 A. The purpose of our testimony is to present Liberty’s proposed Energy Service
6 reconciliation for the period of August 1, 2022, to July 31, 2023. Our testimony includes
7 the results of: (i) the reconciliation of Energy Service power supply expense and
8 applicable revenue (“Energy Service Reconciliation”), including Renewable Portfolio
9 Standard obligations and the applicable revenue; and (ii) the reconciliation of
10 administrative costs and revenues associated with providing Energy Service (“Energy
11 Service Cost Reclassification Adjustment Factor –ESCRAF- Reconciliation”).

12 **Q. Is Liberty proposing new Energy Service rates at this time?**

13 A. No, Liberty is not proposing new Energy Service rates at this time. The Company will
14 propose new rates when it submits its rate filing on June 23, 2023. This filing only
15 addresses the reconciliation portion of the rate calculation.

16 **Q. Please provide the list of schedules attached to your testimony.**

17 A. The table below lists the schedules provided as attachments to our testimony.

Schedule	Description
TJC/JMK-3	Reconciliation and Calculation of Proposed Energy Service Adjustment Factor
TJC/JMK-4	Reconciliation and Calculation of Proposed Energy Service Cost Reclassification Adjustment Factor

18

1 Schedules TJC/JMK-1 and TJC/JMK-2 (not attached) will provide rate calculations based
2 on the winning bids. These schedules will be filed with the full Energy Service filing on
3 June 23, 2023.

4 **Q. What are energy service rates?**

5 A. The rates that the Company charges customers who do not elect to take service from a
6 competitive supplier for the energy that it procures on their behalf. Energy service is
7 often referred to as default service.

8 **Q. How many separate energy service rates are there?**

9 A. Two, the Large Customer Group (“LCG”) rate and the Small Customer Group (“SCG”)
10 rate.

11 **Q. Which customers comprise the Large Customer Group?**

12 A. The LCG includes Liberty’s customers who receive service under rate classes G-1
13 (General Service Time-Of-Use), G-2 (General Long-Hour Service), EV-L (Commercial
14 Plug In Electric Vehicle Charging Station), and EV-M (Commercial Plug In Electric
15 Vehicle Charging Station). Additional detail regarding the class definitions is available
16 in the Company’s retail service tariff.¹

17 **Q. Which customers comprise the Small Customer Group?**

18 A. The SCG includes Liberty’s customers who receive service under rate classes D
19 (Domestic Service), D-10 (Domestic Service with Optional Peak Load Pricing), M

¹ [<https://new-hampshire.libertyutilities.com/uploads/2023-04-05%20NHPUC%20No.%2021.pdf>]

1 (Outdoor Lighting), T (Limited Total Electrical Living Rate), V (Limited Commercial
2 Space Heating), and G-3 (General Service), and the time-of-use rates D-11 (Battery
3 Storage Pilot) and D-12 (Residential EV Charging). Additional detail regarding the class
4 definitions is available in the Company's retail service tariff.²

5 **Q. Are there other rate classes that are not included in this filing?**

6 A. No.

7 **Q. Does your testimony also provide analyses of bill impacts for typical customers?**

8 A. Not at this time. The Company will provide bill impacts for residential customers using
9 650 kWh per month taking energy service in the upcoming June 23, 2023, filing.

10 **III. BACKGROUND**

11 **Q. When did it become necessary for electric utilities in New Hampshire to purchase
12 energy on behalf of their customers in the manner they do now?**

13 A. It began in 1996, when the New Hampshire legislature passed RSA 374-F, which started
14 the process of deregulation, or restructuring, and required utilities in the state to divest
15 their ownership of generation assets. Prior to 1996, the utilities generated most or all of
16 the power their customers consumed and passed the costs of doing so on to their
17 customers through regulated rates.

² *Id.*

1 **Q. Who provides energy to New Hampshire customers now?**

2 A. Deregulation created competition in the energy market throughout the state, meaning that
3 customers could either choose a third-party supplier to provide the commodity portion of
4 their service or receive the commodity portion of their service from their electric utility,
5 as was the practice before deregulation. For customers who do not choose a third-party
6 supplier, those customers are served by the electric distribution utility under energy
7 service.

8 **Q. How have the procurement practices of the New Hampshire utilities changed since**
9 **deregulation was implemented?**

10 A. Several dockets and their resulting settlement agreements and orders have established and
11 then refined how utilities make energy service solicitations, how they evaluate bids, and
12 how best to conduct the entire procurement process. Those proceedings include the
13 Settlement Agreement in Docket No. DE 05-126, dated November 18, 2005, which was
14 approved by the Commission in Order No. 24,577 (Jan. 13, 2006), amended by Order No.
15 24,922 (Dec. 19, 2008) in Docket No. DE 08-011, amended by Order No. 25,601 (Nov.
16 27, 2013) in Docket No. DE 13-018, and further amended by Order No. 25,806 (Sept. 2,
17 2015) in Docket No. DE 15-010. Liberty followed those approved processes in
18 conducting the energy service solicitation that gives rise to the rates being proposed in
19 this docket.

1 **Q. Has the Company calculated the Energy Service Reconciliation Factors in the same**
2 **manner as previous reconciliations?**

3 A. No. Because the Company served the LCG through a self-supply option and there was a
4 significant over-collection related to that specific group, Liberty is proposing a separate
5 reconciliation for the LCG and SCG. The Company had discussed this possibility at the
6 February 28, 2023, hearing and at that time did not have a definite plan to address the
7 reconciliation but agreed to work with the New Hampshire Department of Energy
8 (“DOE”) on a process to reconcile by group. After reviewing the results of the over-
9 collection for the LCG, the Company is proposing separate reconciliations by group and
10 has presented separate schedules to split the over- or under-collection by group.

11 **IV. RECONCILIATION OF ENERGY SERVICE ADJUSTMENT FACTOR (ESAF)**

12 **Q. Please summarize the Company’s ESAF and ESCRAF reconciliations.**

13 A. The Company calculates the differences between revenues and costs for the following
14 items for this reconciliation filing:

15 ○ Energy Service Adjustment Factor (“ESAF”) reconciliation – any over- or
16 under-collection of the prior period’s ESAF, including:

- 17 ■ Base Energy Service (Over)/Under Collection
- 18 ■ Renewable Portfolio Standard (Over)/Under Collection
- 19 ■ Energy Service Adjustment Factor (Over)/Under Collection
- 20 ■ Interest applicable to the monthly (Over)/Under Collection
- 21 balances

- 1 ○ Energy Service Cost Reclassification Adjustment Factor (“ESCRAF”)
- 2 reconciliation – any (over)/under collection of the prior period’s ESCRAF,
- 3 including applicable interest

4 **V. ENERGY SERVICE ADJUSTMENT FACTOR RECONCILIATION**

5 **Q. Please explain Schedule TJC/JMK-3.**

6 A. Schedule TJC/JMK-3 includes the summary and details supporting the calculation of the
7 Energy Service Adjustment Factor (“ESAF”) charged to customers. The ESAF includes
8 the (over)/under collection balances of Energy Service, the Energy Service Adjustment
9 Factor, RPS, and applicable interest.

10 **Q. Is the Company presenting a reconciliation of Energy Service power supply costs**
11 **and revenues in this filing?**

12 A. Yes. The Energy Service Adjustment Factor Reconciliation for the period August 1,
13 2022, through July 31, 2023, (“Reconciliation Period”) is presented in Schedule
14 TJC/JMK-3, pages 2, 2-1, and 2-2.

15 **Q. Please explain the Energy Service Adjustment Factor Reconciliation.**

16 A. On a monthly basis, the company calculates its (over)/under collection of costs and
17 revenues associated with providing Energy Service. An under-collection, for instance,
18 occurs when costs exceed revenues. The (over)/under collection balance from the prior
19 month is then netted with the current month’s activity and interest at the prime rate is
20 applied. Schedule TJC/JMK-3, page 2, presents the reconciliation of revenues and
21 expenses by month for the Reconciliation Period. Schedule TJC/JMK-3, pages 2-1 and

1 2-2, present the Energy Service Reconciliation by large and small customer groups,
2 respectively. Additional details behind each month's Energy Service revenue are
3 included on page 3-1 (Large) and 3-2 (Small) of Schedule TJC/JMK-3. Page 4 of
4 Schedule TJC/JMK-3 provides support for the allocation of total RPS expense by month,
5 which was based on the total usage of each customer group during the Reconciliation
6 Period.

7 **Q. What is the result of the Company's Energy Service Adjustment Factor**
8 **Reconciliation for the period ending July 31, 2023?**

9 A. As shown on Schedule TJC/JMK-3, page 1, the Company has estimated an overcollection
10 of Energy Service power supply costs of \$5,974,913 for the Large Customer Group and
11 an under collection of \$1,444,452 for the Small Customer Group. When these
12 (over)/under collections are divided by the estimated Energy Service forecasted kilowatt-
13 hour sales, it results in an estimated ESAF of (\$0.05662) for the Large Customer Group
14 and \$0.00402 for the Small Customer Group to be included in Energy Service rates
15 effective August 1, 2023. The primary driver of the LCG over collection balance is the
16 self-supply option which caused revenues to exceed forecasted expenses.

17 **Q. Is the Company presenting a separate reconciliation of the cost of complying with**
18 **the Renewable Portfolio Standard obligation in this filing?**

19 A. No. Consistent with the previously approved methodology, the Company has included
20 RPS revenues and expenses in the Energy Service Adjustment Factor reconciliation.

1 **VI. ENERGY SERVICE COST RECLASSIFICATION ADJUSTMENT FACTOR**
2 **(ESCRAF) RECONCILIATION**

3 **Q. Please describe the reconciliation of the administrative costs of providing Energy**
4 **Service.**

5 A. The Company must reconcile its administrative costs of providing Energy Service with
6 its Energy Service revenue associated with the collection of administrative costs, and the
7 excess or deficiency resulting from that reconciliation, including interest at the prime
8 rate, must be reflected in the subsequent year's ESCRAF.

9 **Q. Is the Company presenting a reconciliation of administrative costs of providing**
10 **Energy Service with its Energy Service revenue associated with the collection of**
11 **administrative costs in this filing?**

12 A. Yes. The ESCRAF Reconciliation for the period August 1, 2022, through July 31, 2023,
13 is presented in Schedule TJC/JMK-4.

14 **Q. Please explain the ESCRAF reconciliation.**

15 A. On a monthly basis, the company calculates its (over)/under collection of administrative
16 costs and ESCRAF revenues. An under-collection, for instance, occurs when costs
17 exceed revenues. The (over)/under collection balance from the prior month is then netted
18 with the current month's activity and interest at the prime rate is applied. Schedule
19 TJC/JMK-4, page 2, presents the reconciliation of revenues and expenses by month for
20 the Reconciliation Period. Pages 2-1 and 2-2 provide reconciliations for the Large and
21 Small customer groups, respectively. The detail and allocations supporting each month's

1 ESCRAF administrative expense are shown on pages 4, 4-1, and 4-2 of Schedule
2 TJC/JMK-4.

3 **Q. Has the Company calculated the proposed ESCRAF for the period beginning**
4 **August 1, 2023?**

5 A. Yes. Schedule TJC/JMK-4, page 1, calculates the estimated ESCRAF of \$(0.00033) per
6 kWh for the Large Customer Group and \$0.00048 per kWh for the Small Customer
7 Group for the period of August 1, 2023, through July 31, 2024. The proposed ESCRAF
8 would be combined with the Energy Service rates for billing.

9 **Q. Has the Company calculated the ESCRAF in the same manner as in the prior year's**
10 **filing?**

11 A. No. The Company has calculated the ESCRAF in the same manner as in the prior year's
12 filing and in accordance with the methodologies and allocations approved in the
13 Settlement Agreement in Docket No. DR 95-169, Granite State Electric Company Rate
14 Increase. However, because the Company served the LCG through a self-supply option
15 and there was a significant over-collection related to that specific group, Liberty is
16 proposing a separate reconciliation for the LCG and SCG. The Company discussed this
17 possibility at the February 28, 2023, hearing³ and at that time did not have a definite plan
18 to address the reconciliation but agreed to work with the DOE on a process to reconcile

³ February 28, 2023, Hearing Transcript at 38. https://www.puc.nh.gov/Regulatory/Docketbk/2022/22-024/TRANSCRIPTS-OFFICIAL%20EXHIBITS-CLERKS%20REPORT/22-024_2023-03-17_TRANSCRIPT_02-28-23.PDF

1 by group. The Company is proposing separate reconciliations by group and has
2 presented separate schedules to split out the over- or under-collection by group.

3 **VII. PROPOSED ENERGY SERVICE RATES**

4 **Q. Please describe the Company's most recent solicitation.**

5 A. At this time, the final results of the RFP are not available, therefore, the full proposed
6 energy service rate is not known at this time. The Company will propose both the base
7 energy service rate and RPS factor in its upcoming filing on June 23, 2023.

8 **VIII. HIGH ENERGY PRICES - COMMUNICATION AND OUTREACH**

9 **Q. Per Order No. 26,643 (June 20, 2022) and Order No. 26,752 (December 22, 2022),**
10 **provide an update on communication efforts over the past year related to the high**
11 **energy service prices.**

12 A. Beginning in the summer of 2022, when market energy prices began to increase and
13 realizing the impact the increased cost of energy would have on our customers, Liberty
14 launched a comprehensive communications campaign to educate customers on the drivers
15 for the increased cost as well as ways they could work to offset the costs through energy
16 efficiency and financial assistance programs. Efforts included:

- 17 • Education for customer-facing employees via internal memos and guidance on
18 how to answer customer questions
- 19 • Webpage designed to explain the increased costs and point customers to helpful
20 resources and savings opportunities

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- 1 • Pocket card for field crews that allow customers to send in their contact
2 information and have a customer service representative call them with assistance
3 opportunities
- 4 • Pocket card for field crews that could be left with customers with a high-level
5 explanation and QR code directing customers to the website
- 6 • Monthly customer email outreach (May – December), reviewed by both the DOE
7 and the Office of the Consumer Advocate
- 8 • Social media advertisements promoting energy efficiency programs and financial
9 assistance programs to support customers in need
- 10 • A bill message in July and August driving customers to the website
- 11 • Single subject email to customers in June; this email had a 41% open rate and 618
12 link clicks
- 13 • A mailed letter to all electric customers in late July
- 14 • Sponsorship of a local radio energy savings series
- 15 • Targeted outreach to key accounts (commercial and industry) to provide guidance
16 and programs to support them
- 17 • Personal conversations with members of the Business Industry Association, local
18 Chambers of Commerce, and legislators

19 The total cost for the efforts outlined above is shown in the table below.

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Tactic	Cost
Letter to customers	\$31,688
Social Ads	\$597
Radio Campaign	\$2,000
Email	\$1,344
Palm Cards	\$50
Total	\$35,679

1

2 **IX. CONCLUSION**

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

4 **A. Yes, it does.**

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Calculation of Energy Service Adjustment Factor
 Effective August 1, 2023

LINE NO.	DESCRIPTION (a)	COMBINED (b)	LARGE (c)	SMALL (d)
1	Beginning Balance	\$ 1,715,630	\$ 398,026	\$ 1,317,604
2	Base Energy Service (Over)/Under Collection	[1] (2,325,299)	(5,316,572)	2,991,273
3	RPS (Over)/Under Collection	[2] (3,473,978)	(806,046)	(2,667,932)
4	Energy Service Adjustment Factor (Over)/Under Collection	[3] (447,410)	(103,809)	(343,601)
5	Interest	[4] 686	(146,512)	147,198
6	Total (Over)/Under Collection	[5] \$ (4,530,371)	\$ (5,974,913)	\$ 1,444,542
7	Estimated Energy Service kWh Deliveries	[6] 464,381,406	105,519,591	358,861,815
8	Energy Service Adjustment Factor per kWh	[7] \$ (0.00975)	\$ (0.05662)	\$ 0.00402

[1] Schedule TCJ/JMK-3 P2, Line 13 Columns (e and g)
 [2] Schedule TCJ/JMK-3 P2, Line 13 Columns (d and f)
 [3] Schedule TJC/JMK-3, P2 Line 13 Column C
 [4] Schedule TCJ/JMK-3 P2, Line 13 Columns (k)
 [5] Sum of Lines 1 - 5
 [6] Per Company forecast August 2022 - July 2023
 [7] Line (5) ÷ Line (6), truncated after 5 decimal places

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Reconciliation of Energy Service Adjustment Factor (OVER)/UNDER
 Balance Incurred August 2022 - July 2023

LINE NO.	MONTH	BEGINNING	ENERGY	RPS	BASE	RPS	BASE	ENDING	BALANCE	EFFECTIVE	INTEREST	CUMULATIVE
		(OVER)/UNDER	SERVICE		ENERGY SERVICE		ENERGY SERVICE (OVER)/UNDER	SUBJECT TO	INTEREST			
		BALANCE	ADJUSTMENT	REVENUE	REVENUE	EXPENSE	EXPENSE	BALANCE	INTEREST	RATE	INTEREST	INTEREST
		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
1	Aug-22	\$ 1,715,630	\$ 45,105	\$ 366,950	\$ 9,475,368	\$ 25,520	\$ 8,188,905	\$ 42,631	\$ 879,131	4.00%	\$ 2,930	\$ 2,930
2	Sep-22	45,562	39,290	319,643	5,765,912	-	5,078,966	(1,000,318)	(477,378)	4.00%	(1,591)	1,339
3	Oct-22	(1,001,909)	39,449	320,931	7,011,923	17,994	4,300,202	(4,056,016)	(2,528,963)	5.50%	(11,591)	(10,252)
4	Nov-22	(4,067,607)	28,186	229,306	6,291,806	27,082	5,636,948	(4,952,876)	(4,510,241)	5.50%	(20,672)	(30,924)
5	Dec-22	(4,973,547)	30,944	251,740	6,857,042	-	10,892,050	(1,221,224)	(3,097,385)	5.50%	(14,196)	(45,120)
6	Jan-23	(1,235,420)	41,255	335,624	9,923,867	2,600	13,122,883	1,589,317	176,949	7.00%	1,032	(44,088)
7	Feb-23	1,590,349	41,544	337,980	10,270,096	-	14,463,259	5,403,988	3,497,168	7.00%	20,400	(23,688)
8	Mar-23	5,424,388	36,831	299,639	7,336,698	-	6,420,261	4,171,480	4,797,934	7.00%	27,988	4,300
9	Apr-23	4,199,468	34,360	279,533	5,899,407	92,696	4,414,174	2,493,039	3,346,253	7.75%	21,611	25,911
10	* May-23	2,514,650	32,747	266,408	6,368,312	-	4,139,296	(13,521)	1,250,565	7.75%	8,077	33,988
11	* Jun-23	(5,444)	36,065	293,401	7,018,973	-	4,458,056	(2,895,827)	(1,450,636)	7.75%	(9,369)	24,619
12	* Jul-23	\$ (2,905,196)	41,634	338,713	8,324,768	-	7,103,874	\$ (4,506,438)	\$ (3,705,817)	7.75%	(23,933)	\$ 686
13	TOTALS		\$ 447,410	#####	\$ 90,544,173	\$ 165,891	\$ 88,218,875				\$ 686	
14	Total (Over)/Under Collection:							\$ (4,530,371)				

(b) Prior month Column (c) + Prior month Column (f)
 (c) Actual kWh sales multiplied by the approved Energy Service Adjustment Factor
 (d) Actual kWh sales multiplied by the approved RPS Factor
 (e) See TJC-JMK-3 P2-1,2
 (f) See TJC-JMK-3 P4-1
 (g) Actual expenses incurred
 (h) Column (b) - Columns (c:e) + Columns (f:g)
 (i) [Column (a) + Column (c)] ÷ 2
 (j) Interest rate on Customer Deposits
 (k) Column (i) x Column (j) / 12
 (l) Column (f) + Prior Month Column (g)
 *Projection

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Reconciliation of Energy Service Adjustment Factor (OVER)/UNDER
 Balance Incurred August 2022 - July 2023
 Large Customer Group

LINE NO.	MONTH	BEGINNING	ENERGY	RPS	BASE	RPS	BASE	ENDING	BALANCE	EFFECTIVE	INTEREST	CUMULATIVE
		(OVER)/UNDER	SERVICE		ENERGY SERVICE		ENERGY SERVICE	(OVER)/UNDER	SUBJECT TO	INTEREST		
		ADJUSTMENT	REVENUE	REVENUE	REVENUE	EXPENSE	EXPENSE	BALANCE	INTEREST	RATE	INTEREST	INTEREST
		REVENUE	REVENUE	REVENUE	REVENUE	EXPENSE	EXPENSE	BALANCE	INTEREST	RATE	INTEREST	INTEREST
		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
1	Aug-22	\$ 398,026	\$ 9,421	\$ 76,645	\$ 1,707,590	\$ 5,921	\$ 1,747,938	\$ 358,229	\$ 378,127	4.00%	\$ 1,260	\$ 1,260
2	Sep-22	359,489	8,895	72,361	1,283,637	-	1,373,605	368,201	363,845	4.00%	1,213	2,473
3	Oct-22	369,414	12,454	101,316	979,124	4,174	1,222,610	503,305	436,360	5.50%	2,000	4,473
4	Nov-22	505,305	6,149	50,025	1,148,379	6,283	1,455,702	762,737	634,021	5.50%	2,906	7,379
5	Dec-22	765,643	5,637	45,858	1,680,180	-	2,776,816	1,810,785	1,288,214	5.50%	5,904	13,283
6	Jan-23	1,816,690	8,651	70,379	3,000,375	603	3,394,534	2,132,422	1,974,556	7.00%	11,518	24,802
7	Feb-23	2,143,940	8,946	72,782	3,354,262	-	(2,027,948)	(3,319,998)	(588,029)	7.00%	(3,430)	21,372
8	Mar-23	(3,323,428)	8,796	71,562	1,771,952	-	629,792	(4,545,947)	(3,934,688)	7.00%	(22,952)	(1,581)
9	Apr-23	(4,568,899)	10,446	84,985	1,387,748	21,505	423,626	(5,606,947)	(5,087,923)	7.75%	(32,860)	(34,440)
10	* May-23	(5,639,807)	7,581	61,674	845,188	-	845,188	(5,709,061)	(5,674,434)	7.75%	(36,647)	(71,088)
11	* Jun-23	(5,745,709)	7,984	64,952	856,099	-	856,099	(5,818,644)	(5,782,177)	7.75%	(37,343)	(108,431)
12	* Jul-23	\$ (5,855,988)	8,850	71,995	1,129,519	-	1,129,519	\$ (5,936,832)	\$ (5,896,410)	7.75%	(38,081)	\$ (146,512)
13	TOTALS		\$ 103,809	\$ 844,533	\$ 19,144,052	\$ 38,487	\$ 13,827,480				\$ (146,512)	
14	Total (Over)/Under Collection:							\$ (5,974,913)				

(b) Prior month Column (c) + Prior month Column (f)
 (c) Actual kWh sales multiplied by the approved Energy Service Adjustment Factor
 (d) Actual kWh sales multiplied by the approved RPS Factor
 (e) See TJC-JMK-3 P3-1
 (f) See TJC-JMK-3 P4-1
 (g) Actual expenses incurred
 (h) Column (b) - Columns (c:e) + Columns (f:g)
 (i) [Column (a) + Column (c)] ÷ 2
 (j) Interest rate on Customer Deposits
 (k) Column (i) x Column (j) / 12
 (l) Column (f) + Prior Month Column (g)
 *Projection

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Reconciliation of Energy Service Adjustment Factor (OVER)/UNDER
 Balance Incurred August 2022 - July 2023
 Small Customer Group

LINE NO.	MONTH	BEGINNING	ENERGY	RPS	BASE	RPS	BASE	ENDING	BALANCE	EFFECTIVE	INTEREST	CUMULATIVE
		(OVER)/UNDER	SERVICE		ENERGY SERVICE		ENERGY SERVICE	(OVER)/UNDER	SUBJECT TO			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
1	Aug-22	\$ 1,317,604	\$ 35,684	\$ 290,305	\$ 7,767,778	\$ 19,599	\$ 6,440,967	\$ (315,597)	\$ 501,003	4.00%	\$ 1,670	\$ 1,670
2	Sep-22	(313,927)	30,396	247,282	4,482,275	-	3,705,361	(1,368,519)	(841,223)	4.00%	(2,804)	(1,134)
3	Oct-22	(1,371,323)	26,995	219,615	6,032,799	13,819	3,077,592	(4,559,321)	(2,965,322)	5.50%	(13,591)	(14,725)
4	Nov-22	(4,572,912)	22,037	179,281	5,143,427	20,799	4,181,246	(5,715,613)	(5,144,263)	5.50%	(23,578)	(38,303)
5	Dec-22	(5,739,191)	25,307	205,883	5,176,863	-	8,115,234	(3,032,009)	(4,385,600)	5.50%	(20,101)	(58,404)
6	Jan-23	(3,052,109)	32,604	265,246	6,923,493	1,997	9,728,350	(543,105)	(1,797,607)	7.00%	(10,486)	(68,890)
7	Feb-23	(553,591)	32,598	265,197	6,915,835	-	16,491,207	8,723,986	4,085,197	7.00%	23,830	(45,059)
8	Mar-23	8,747,816	28,035	228,078	5,564,746	-	5,790,469	8,717,426	8,732,621	7.00%	50,940	5,881
9	Apr-23	8,768,367	23,914	194,547	4,511,659	71,191	3,990,548	8,099,986	8,434,176	7.75%	54,471	60,352
10	* May-23	8,154,457	25,166	204,735	5,523,124	-	3,294,109	5,695,541	6,924,999	7.75%	44,724	105,076
11	* Jun-23	5,740,265	28,081	228,450	6,162,873	-	3,601,957	2,922,817	4,331,541	7.75%	27,975	133,050
12	* Jul-23	\$ 2,950,792	32,785	266,718	7,195,250	-	5,974,356	\$ 1,430,395	\$ 2,190,593	7.75%	14,148	\$ 147,198
13	TOTALS		<u>\$ 343,601</u>	<u>\$ 2,795,336</u>	<u>\$ 71,400,122</u>	<u>\$ 127,404</u>	<u>\$ 74,391,395</u>					<u>\$ 147,198</u>
14	Total (Over)/Under Collection:							\$ 1,444,542				

(b) Prior month Column (c) + Prior month Column (f)
 (c) Actual kWh sales multiplied by the approved Energy Service Adjustment Factor
 (d) Actual kWh sales multiplied by the approved RPS Factor
 (e) See TJC-JMK-3 P3-2
 (f) See TJC-JMK-3 P4-2
 (g) Actual expenses incurred
 (h) Column (b) - Columns (c:e) + Columns (f:g)
 (i) [Column (a) + Column (c)] ÷ 2
 (j) Interest rate on Customer Deposits
 (k) Column (i) x Column (j) / 12
 (l) Column (f) + Prior Month Column (g)
 *Projection

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Energy Service Revenue
 August 2022 - July 2023
 Large Customer Group

LINE NO.	MONTH	TOTAL ENERGY SERVICE		ENERGY SERVICE ADJUSTMENT REVENUE		RPS		ENERGY SERVICE COST RECLASS. ADJUSTMENT FACTOR		BASE ENERGY SERVICE
		REVENUE	LARGE ES (kWh)	RATE (\$/kWh)	REVENUE	RATE (\$/kWh)	REVENUE	RATE (\$/kWh)	REVENUE	REVENUE
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	Aug-22	\$ 1,818,190	9,813,658	\$ 0.00096	\$ 9,421	\$ 0.00781	\$ 76,645	\$ 0.00250	\$ 24,534	\$ 1,707,590
2	Sep-22	1,388,056	9,265,194	\$ 0.00096	8,895	\$ 0.00781	72,361	\$ 0.00250	23,163	1,283,637
3	Oct-22	1,125,325	12,972,595	\$ 0.00096	12,454	\$ 0.00781	101,316	\$ 0.00250	32,431	979,124
4	Nov-22	1,220,566	6,405,270	\$ 0.00096	6,149	\$ 0.00781	50,025	\$ 0.00250	16,013	1,148,379
5	Dec-22	1,746,353	5,871,658	\$ 0.00096	5,637	\$ 0.00781	45,858	\$ 0.00250	14,679	1,680,180
6	Jan-23	3,101,933	9,011,348	\$ 0.00096	8,651	\$ 0.00781	70,379	\$ 0.00250	22,528	3,000,375
7	Feb-23	3,459,288	9,319,105	\$ 0.00096	8,946	\$ 0.00781	72,782	\$ 0.00250	23,298	3,354,262
8	Mar-23	1,875,217	9,162,827	\$ 0.00096	8,796	\$ 0.00781	71,562	\$ 0.00250	22,907	1,771,952
9	Apr-23	1,510,384	10,881,623	\$ 0.00096	10,446	\$ 0.00781	84,985	\$ 0.00250	27,204	1,387,748
10	* May-23	934,184	7,896,737	\$ 0.00096	7,581	\$ 0.00781	61,674	\$ 0.00250	19,742	845,188
11	* Jun-23	949,826	8,316,490	\$ 0.00096	7,984	\$ 0.00781	64,952	\$ 0.00250	20,791	856,099
12	* Jul-23	1,233,409	9,218,304	\$ 0.00096	8,850	\$ 0.00781	71,995	\$ 0.00250	23,046	1,129,519
13	TOTALS	<u>\$ 20,362,731</u>	<u>108,134,809</u>		<u>\$ 103,809</u>		<u>\$844,533</u>		<u>\$ 270,337</u>	<u>\$ 19,144,052</u>

(e) kWh sales (Column (c)) multiplied by approved Energy Service Adjustment Factor (Column (d))
 (g) kWh sales (Column (c)) multiplied by approved RPS Adder (Column (f))
 (i) Actual kWh sales (Column (c)) multiplied by the Energy Service Cost Reclassification Adjustment Factor approved (Column (h))
 * Projection

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Energy Service Revenue
 August 2022 - July 2023
 Small Customer Group

LINE NO.	MONTH	TOTAL ENERGY SERVICE REVENUE	SMALL ES (kWh)	ENERGY SERVICE ADJUSTMENT REVENUE		RPS		ENERGY SERVICE COST RECLASS. ADJUSTMENT FACTOR		BASE ENERGY SERVICE REVENUE
				RATE (\$/kWh)	REVENUE	RATE (\$/kWh)	REVENUE	RATE (\$/kWh)	REVENUE	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	Aug-22	\$ 8,116,442	37,170,941	\$ 0.00096	\$ 35,684	\$ 0.00781	\$ 290,305	\$ 0.00061	\$ 22,674	\$ 7,767,778
2	Sep-22	4,779,267	31,662,228	\$ 0.00096	30,396	\$ 0.00781	247,282	\$ 0.00061	19,314	4,482,275
3	Oct-22	6,296,562	28,119,664	\$ 0.00096	26,995	\$ 0.00781	219,615	\$ 0.00061	17,153	6,032,799
4	Nov-22	5,358,748	22,955,345	\$ 0.00096	22,037	\$ 0.00781	179,281	\$ 0.00061	14,003	5,143,427
5	Dec-22	5,424,133	26,361,396	\$ 0.00096	25,307	\$ 0.00781	205,883	\$ 0.00061	16,080	5,176,863
6	Jan-23	7,242,059	33,962,336	\$ 0.00096	32,604	\$ 0.00781	265,246	\$ 0.00061	20,717	6,923,493
7	Feb-23	7,234,343	33,956,120	\$ 0.00096	32,598	\$ 0.00781	265,197	\$ 0.00061	20,713	6,915,835
8	Mar-23	5,838,673	29,203,266	\$ 0.00096	28,035	\$ 0.00781	228,078	\$ 0.00061	17,814	5,564,746
9	Apr-23	4,745,315	24,909,996	\$ 0.00096	23,914	\$ 0.00781	194,547	\$ 0.00061	15,195	4,511,659
10	* May-23	5,769,016	26,214,457	\$ 0.00096	25,166	\$ 0.00781	204,735	\$ 0.00061	15,991	5,523,124
11	* Jun-23	6,437,247	29,250,906	\$ 0.00096	28,081	\$ 0.00781	228,450	\$ 0.00061	17,843	6,162,873
12	* Jul-23	7,515,585	34,150,884	\$ 0.00096	32,785	\$ 0.00781	266,718	\$ 0.00061	20,832	7,195,250
13	TOTALS	<u>\$ 74,757,388</u>	<u>357,917,538</u>		<u>\$ 343,601</u>		<u>\$ 2,795,336</u>		<u>\$ 218,330</u>	<u>\$ 71,400,122</u>

(e) kWh sales (Column (c)) multiplied by approved Energy Service Adjustment Factor (Column (d))

(g) kWh sales (Column (c)) multiplied by approved RPS Adder (Column (f))

(i) Actual kWh sales (Column (c)) multiplied by the Energy Service Cost Reclassification Adjustment Factor approved (Column (h))

* Projection

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Energy Service Expense
 August 2022 - July 2023
 Allocations

LINE NO.	MONTH	LARGE ES	SMALL ES	TOTAL ES	ALLOCATION FACTOR		RPS EXPENSE		
		(kWh)	(kWh)	(kWh)	LARGE	SMALL	TOTAL	LARGE	SMALL
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Aug-22	9,813,658	37,170,941	46,984,599			\$ 25,520	\$ 5,921	\$ 19,599
2	Sep-22	9,265,194	31,662,228	40,927,422			-	-	-
3	Oct-22	12,972,595	28,119,664	41,092,259			17,994	4,174	13,819
4	Nov-22	6,405,270	22,955,345	29,360,615			27,082	6,283	20,799
5	Dec-22	5,871,658	26,361,396	32,233,054			-	-	-
6	Jan-23	9,011,348	33,962,336	42,973,684			2,600	603	1,997
7	Feb-23	9,319,105	33,956,120	43,275,225			-	-	-
8	Mar-23	9,162,827	29,203,266	38,366,093			-	-	-
9	Apr-23	10,881,623	24,909,996	35,791,619			92,696	21,505	71,191
10	* May-23	7,896,737	26,214,457	34,111,194			0	-	-
11	* Jun-23	8,316,490	29,250,906	37,567,396			0	-	-
12	* Jul-23	9,218,304	34,150,884	43,369,188			0	-	-
13	TOTALS	<u>108,134,809</u>	<u>357,917,538</u>	<u>466,052,347</u>	23.20%	76.80%	<u>\$ 165,891</u>	<u>\$ 38,487</u>	<u>\$ 127,404</u>

(d) Column (b) + Column (c)
 (e) Column (b) / Column (d)
 (f) Column (c) / Column (d)
 (h) Column (g) x Row 13, Column (e)
 (i) Column (g) x Row 13, Column (f)
 * Projection

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Energy Service Cost Reclassification Adjustment Factor (ESCRAF)
 Effective August 1, 2023

LINE NO.	DESCRIPTION (a)	COMBINED (b)	LARGE (c)	SMALL (d)
1	Beginning (Over)/Under Balance	\$ 145,752	\$ 33,115	\$ 112,637
2	ESCRAF (Over)/Under Collection	[1] (18,492)	(68,302)	49,810
3	Interest	[2] 9,788	(45)	9,834
4	Total (Over)/Under Collection	[3] \$ 137,048	\$ (35,232)	\$ 172,280
5	Estimated Energy Service kWh Deliveries	[4] 464,381,406	105,519,591	358,861,815
6	Energy Service Adjustment Factor per kWh	[5] \$ 0.00029	\$ (0.00033)	\$ 0.00048

[1] Schedule TJC/JMK-3 P2, 2-1, and 2-2, Line 13 Columns (e and g)
 [2] Schedule TJC/JMK-3 P2, 2-1, and 2-2 Line 13
 [3] Sum of Lines 1 - 3
 [4] Per Company forecast August 2022 - July 2023 (See TJC/JMK-4 P9)
 [5] Line (3) ÷ Line (4), truncated after 5 decimal places

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Energy Service Cost Reclassification Adjustment Factor (ESCRAF) Reconciliation
 August 2022 - July 2023

LINE NO.	MONTH	BEGINNING (OVER)/UNDER BALANCE	REVENUE	EXPENSE	MONTHLY (OVER)/UNDER	ENDING (OVER)/UNDER BALANCE	BALANCE SUBJECT TO INTEREST	EFFECTIVE INTEREST RATE	INTEREST	CUMULATIVE INTEREST
	(a)	(b)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Aug-22	\$ 145,752	\$ 47,208	\$ 44,637	\$ (2,572)	\$ 143,180	\$ 144,466	4.00%	\$ 482	\$ 482
2	Sep-22	143,661	42,477	33,313	(9,164)	134,497	139,079	4.00%	464	945
3	Oct-22	134,961	49,584	28,843	(20,741)	114,220	124,590	5.50%	571	1,516
4	Nov-22	114,791	30,016	31,061	1,045	115,835	115,313	5.50%	529	2,045
5	Dec-22	116,364	30,760	81,677	50,917	167,281	141,822	5.50%	650	2,695
6	Jan-23	167,931	43,245	49,359	6,113	174,044	170,987	7.00%	997	3,692
7	Feb-23	175,041	44,011	47,897	3,886	178,928	176,985	7.00%	1,032	4,725
8	Mar-23	179,960	40,721	34,003	(6,718)	173,242	176,601	7.00%	1,030	5,755
9	Apr-23	174,272	42,399	29,847	(12,553)	161,720	167,996	7.75%	1,085	6,840
10	* May-23	162,805	35,733	29,847	(5,886)	156,918	159,861	7.75%	1,032	7,872
11	* Jun-23	157,951	38,634	29,847	(8,788)	149,163	153,557	7.75%	992	8,864
12	* Jul-23	\$ 150,155	43,878	29,847	\$ (14,031)	\$ 136,124	\$ 143,139	7.75%	924	\$ 9,788
13	TOTALS		<u>\$ 488,667</u>	<u>\$ 470,175</u>					<u>\$ 9,788</u>	
14	Total (Over)/Under Collection:					\$ 137,048				

- (b1) Estimated July 2022 ending balance in DE 22-024, Attachment HMT/AMH-6, page2, line 12, column e
- (b2 - b12) Prior Month Column (e) + Prior Month Column (h)
- (b) See TJC-JMK-4 P2-1 and 2-2
- (c) See TJC-JMK-4 P4
- (d) Column (c) - Column (b)
- (e) Column (b) + Column (d)
- (f) [Column (b) + Column (e)] ÷ 2
- (g) Interest Rate on Customer Deposits
- (h) Column (f) x Column (g) / 12
- (i) Column (h) + Prior Month Column (i)
- *Projection

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Energy Service Cost Reclassification Adjustment Factor (ESCRAF) Reconciliation
 August 2022 - July 2023
 Large Customer Group

LINE NO.	MONTH	BEGINNING (OVER)/UNDER BALANCE	REVENUE	EXPENSE	MONTHLY (OVER)/UNDER	ENDING (OVER)/UNDER BALANCE	BALANCE SUBJECT TO INTEREST	EFFECTIVE INTEREST RATE	INTEREST	CUMULATIVE INTEREST
	(a)	(b)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Aug-22	\$ 33,115	\$ 24,534	\$ 18,547	\$ (5,987)	\$ 27,127	\$ 30,121	4.00%	\$ 100	\$ 100
2	Sep-22	27,228	\$ 23,163	13,884	(9,279)	17,948	22,588	4.00%	75	176
3	Oct-22	18,024	\$ 32,431	11,985	(20,447)	(2,423)	7,800	5.50%	36	211
4	Nov-22	(2,387)	\$ 16,013	12,906	(3,107)	(5,495)	(3,941)	5.50%	(18)	193
5	Dec-22	(5,513)	\$ 14,679	34,729	20,049	14,537	4,512	5.50%	21	214
6	Jan-23	14,557	\$ 22,528	21,261	(1,267)	13,290	13,924	7.00%	81	295
7	Feb-23	13,371	\$ 23,298	20,666	(2,632)	10,739	12,055	7.00%	70	366
8	Mar-23	10,809	\$ 22,907	14,993	(7,914)	2,896	6,853	7.00%	40	406
9	Apr-23	2,936	\$ 27,204	13,266	(13,938)	(11,002)	(4,033)	7.75%	(26)	380
10 *	May-23	(11,028)	\$ 19,742	13,266	(6,475)	(17,503)	(14,266)	7.75%	(92)	287
11 *	Jun-23	(17,596)	\$ 20,791	13,266	(7,525)	(25,120)	(21,358)	7.75%	(138)	149
12 *	Jul-23	\$ (25,258)	\$ 23,046	13,266	(9,779)	(35,038)	(30,148)	7.75%	(195)	\$ (45)
13	TOTALS		<u>\$ 270,337</u>	<u>\$ 202,035</u>					<u>\$ (45)</u>	
14	Total (Over)/Under Collection:					\$ (35,232)				

(b1) LCG portion of estimated July 2022 ending balance in DE 22-024, Attachment HMT/AMH-6, page2, line 12, column (e)

(b2 - b12) Prior Month Column (e) + Prior Month Column (h)

(b) See TJC-JMK-4 P3-1

(c) See TJC-JMK-4 P4-1

(d) Column (c) - Column (b)

(e) Column (b) + Column (d)

(f) [Column (b) + Column (e)] ÷ 2

(g) Interest Rate on Customer Deposits

(h) Column (f) x Column (g) / 12

(i) Column (h) + Prior Month Column (i)

*Projection

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Energy Service Cost Reclassification Adjustment Factor (ESCRAF) Reconciliation
 August 2022 - July 2023
 Small Customer Group

LINE NO.	MONTH	BEGINNING (OVER)/UNDER			MONTHLY (OVER)/UNDER	ENDING (OVER)/UNDER		BALANCE SUBJECT TO INTEREST	EFFECTIVE INTEREST RATE	INTEREST	CUMULATIVE INTEREST
		BALANCE	REVENUE	EXPENSE		BALANCE	BALANCE				
	(a)	(b)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	
1	Aug-22	\$ 112,637	\$ 22,674	\$ 26,090	\$ 3,415	\$ 116,052	\$ 114,345	4.00%	\$ 381	\$ 381	
2	Sep-22	116,434	\$ 19,314	19,429	115	116,549	116,491	4.00%	388	769	
3	Oct-22	116,937	\$ 17,153	16,859	(294)	116,643	116,790	5.50%	535	1,305	
4	Nov-22	117,178	\$ 14,003	18,155	4,152	121,330	119,254	5.50%	547	1,851	
5	Dec-22	121,877	\$ 16,080	46,948	30,868	152,744	137,310	5.50%	629	2,481	
6	Jan-23	153,373	\$ 20,717	28,098	7,381	160,754	157,064	7.00%	916	3,397	
7	Feb-23	161,670	\$ 20,713	27,232	6,519	168,189	164,930	7.00%	962	4,359	
8	Mar-23	169,151	\$ 17,814	19,009	1,195	170,346	169,749	7.00%	990	5,349	
9	Apr-23	171,337	\$ 15,195	16,580	1,385	172,722	172,029	7.75%	1,111	6,460	
10 *	May-23	173,833	\$ 15,991	16,580	589	174,422	174,127	7.75%	1,125	7,585	
11 *	Jun-23	175,546	\$ 17,843	16,580	(1,263)	174,284	174,915	7.75%	1,130	8,714	
12 *	Jul-23	\$ 175,413	\$ 20,832	16,580	\$ (4,252)	\$ 171,161	\$ 173,287	7.75%	1,119	\$ 9,834	
13	TOTALS		\$ 218,330	\$ 268,140					\$ 9,834		
14	Total (Over)/Under Collection:					\$ 172,280					

(b1) SCG portion of estimated July 2022 ending balance in DE 22-024, Attachment HMT/AMH-6, page2, line 12, column (e)
 (b2 - b12) Prior Month Column (e) + Prior Month Column (h)
 (b) See TJC-JMK-4 P3-1
 (c) See TJC-JMK-4 P4-1
 (d) Column (c) - Column (b)
 (e) Column (b) + Column (d)
 (f) [Column (b) + Column (e)] ÷ 2
 (g) Interest Rate on Customer Deposits
 (h) Column (f) x Column (g) / 12
 (i) Column (h) + Prior Month Column (i)
 *Projection

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Energy Service Cost Reclassification Adjustment Factor Expenses
 August 2022 - July 2023

LINE NO.	MONTH (a)	PAYROLL AND OTHER ADMIN	BAD DEBT	CASH WORKING	NHPUC	TOTAL
		EXPENSES (b)	EXPENSE (c)	CAPITAL EXPENSE (d)	ASSESSMENT (e)	EXPENSE (f)
1	Aug-22	\$ -	\$ 29,222	\$ 15,415	\$ -	\$ 44,637
2	Sep-22	495	17,404	15,415	-	33,313
3	Oct-22	-	13,429	15,415	-	28,843
4	Nov-22	-	15,646	15,415	-	31,061
5	Dec-22	31,652	24,610	15,415	10,000	81,677
6	Jan-23	8,902	25,042	15,415	-	49,359
7	Feb-23	9,040	23,443	15,415	-	47,897
8	Mar-23	10,237	8,351	15,415	-	34,003
9	Apr-23	10,237	4,195	15,415	-	29,847
10	* May-23	10,237	4,195	15,415	-	29,847
12	* Jun-23	10,237	4,195	15,415	-	29,847
13	* Jul-23	10,237	4,195	15,415	-	29,847
14	TOTALS	\$ 101,273	\$ 173,927	\$ 184,975	\$ 10,000	\$ 470,175

(b) per general ledger

(c) per general ledger

(d) \$184,975 approved in DE 22-024

(e) Annual Assessment

(f) SUM Columns (b:e)

*Projection based on previous period's costs

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Energy Service Cost Reclassification Adjustment Factor Expenses
 August 2022 - July 2023
 Large Customer Group

LINE NO.	MONTH (a)	PAYROLL AND OTHER ADMIN	BAD DEBT	CASH WORKING	NHPUC	TOTAL
		EXPENSES (b)	EXPENSE (c)	CAPITAL EXPENSE (d)	ASSESSMENT (e)	EXPENSE (f)
	Allocation:	50.00%	41.55%	41.55%	22.72%	
1	Aug-22	\$ -	\$ 12,142	\$ 6,405	\$ -	\$ 18,547
2	Sep-22	247	7,231	6,405	-	13,884
3	Oct-22	-	5,580	6,405	-	11,985
4	Nov-22	-	6,501	6,405	-	12,906
5	Dec-22	15,826	10,226	6,405	2,272	34,729
6	Jan-23	4,451	10,405	6,405	-	21,261
7	Feb-23	4,520	9,741	6,405	-	20,666
8	Mar-23	5,118	3,470	6,405	-	14,993
9	Apr-23	5,118	1,743	6,405	-	13,266
10	* May-23	5,118	1,743	6,405	-	13,266
12	* Jun-23	5,118	1,743	6,405	-	13,266
13	* Jul-23	5,118	1,743	6,405	-	13,266
14	TOTALS	\$ 50,636	\$ 72,268	\$ 76,859	\$ 2,272	\$ 202,035

(b) Allocated equally between Large and Small Customer Classes

(c) Allocated based on methodology in DR 95-169

(d) Allocated based on methodology in DR 95-169

(e) Allocated based on forecasted usage (See TJC-JMK-4 P9)

(f) SUM Columns (b:e)

*Projection based on previous period's costs

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Energy Service Cost Reclassification Adjustment Factor Expenses
 August 2022 - July 2023
 Small Customer Group

LINE NO.	MONTH	PAYROLL AND	BAD DEBT	CASH WORKING		TOTAL
		OTHER ADMIN EXPENSES		EXPENSE	CAPITAL EXPENSE	
	(a)	(b)	(c)	(d)	(e)	(f)
	Allocation:	50%	58.45%	58.45%	77.28%	
1	Aug-22	\$ -	\$ 17,080	\$ 9,010	\$ -	\$ 26,090
2	Sep-22	247	10,172	9,010	-	19,429
3	Oct-22	-	7,849	9,010	-	16,859
4	Nov-22	-	9,145	9,010	-	18,155
5	Dec-22	15,826	14,384	9,010	7,728	46,948
6	Jan-23	4,451	14,637	9,010	-	28,098
7	Feb-23	4,520	13,702	9,010	-	27,232
8	Mar-23	5,118	4,881	9,010	-	19,009
9	Apr-23	5,118	2,452	9,010	-	16,580
10	* May-23	5,118	2,452	9,010	-	16,580
12	* Jun-23	5,118	2,452	9,010	-	16,580
13	* Jul-23	5,118	2,452	9,010	-	16,580
14	TOTALS	\$ 50,636	\$ 101,659	\$ 108,116	\$ 7,728	\$ 268,140

(b) Allocated equally between Large and Small Customer Classes

(c) Allocated based on methodology in DR 95-169

(d) Allocated based on methodology in DR 95-169

(e) Allocated based on forecasted usage (See TJC-JMK-4 P9)

(f) SUM Columns (b:e)

*Projection based on previous period's coats

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Energy Service Cost Reclassification Adjustment Factor Expenses
 Working Capital Summary

LINE NO.		DAYS OF COST (a)	ANNUAL PERCENT (b)	CUSTOMER PAYMENT		EXPENSE (e)	WORKING CAPITAL REQUIREMENT (f)
				LAG % (c)	CWC % (d)		
[1]	2022 Purchase Power Costs	(34.045)	-9.33%	13.77%	4.44%	\$ 62,295,973	\$ 2,765,941
[2]	Renewable Portfolio Standard	(220.365)	-60.37%	13.77%	-46.60%	\$ 3,639,869	\$ (1,696,179)
[3]	Working Capital Requirement						\$ 1,069,762
[4]	Capital Structure Post-tax						7.60%
[5]	Working Capital Impact						\$ 81,302
[6]	Capital Structure Pre-tax						9.36%
[7]	Working Capital Impact						\$ 100,130

Columns:

- [1](a) Schedule TJC/JMK-4 Page 6
- (b) Column (a) ÷ 365
- (c) Schedule TJC/JMK-4 Page 8
- (d) Column (b) + Column (c)
- (e) Schedule TJC/JMK-4 Page 6
- [2](a) Schedule TJC/JMK-4 Page 7
- (b) Column (a) ÷ 365
- (c) Schedule TJC/JMK-4 Page 8
- (d) Column (b) + Column (c)
- (e) Schedule TJC/JMK-4 Page 7
- (f) Column (d) x Column (e)

Lines:

- [3] Line 1(f) + Line 2(f)
- [4] Settlement Agreement Docket No. DE 19-064
- [5] Line (3) x Line (4)
- [6] Settlement Agreement Docket No. DE 19-064
- [7] Line (3) x Line (6)

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
Energy Service Cost Reclassification Adjustment Factor Expenses

Invoice Month (a)	Expense Description (b)	Invoice Amount (c)	Mid-Point Service Period (d)	Invoice Date (e)	Due Date (f)	Payment Date (g)	Elapsed Days (h)	% of Total (i)	Weighted Days (j)
January 2022	Current Charge for January 2022	\$ 1,068,178.10	1/16/2022	2/10/2022	2/20/2022	2/22/2022	37	1.71%	0.63
January 2022	Current Charge for January 2022	\$ 4,154,998.79	1/16/2022	2/10/2022	2/22/2022	2/22/2022	37	6.67%	2.47
January 2022	Supplier Reallocation for September 2021	\$ (12,387.88)	1/16/2022	2/10/2022	2/20/2022	2/22/2022	37	-0.02%	(0.01)
January 2022	Supplier Reallocation for September 2021	\$ 73,633.79	1/16/2022	2/10/2022	2/22/2022	2/22/2022	37	0.12%	0.04
February 2022	Current Charge for February 2022	\$ 5,704,436.64	2/14/2022	3/8/2022	3/21/2022	3/21/2022	35	9.16%	3.20
February 2022	Current Charge for February 2022	\$ 1,618,013.06	2/14/2022	3/10/2022	3/21/2022	3/21/2022	35	2.60%	0.91
February 2022	Supplier Reallocation for October 2021	\$ (11,852.11)	2/14/2022	3/10/2022	3/21/2022	3/21/2022	35	-0.02%	(0.01)
February 2022	Supplier Reallocation for October 2021	\$ 82,851.35	2/14/2022	3/11/2022	3/22/2022	3/21/2022	35	0.13%	0.05
March 2022	Current Charge for March 2022	\$ 3,426,659.44	3/16/2022	4/6/2022	4/20/2022	4/20/2022	35	5.50%	1.93
March 2022	Current Charge for March 2022	\$ 1,107,757.12	3/16/2022	4/11/2022	4/20/2022	4/21/2022	36	1.78%	0.64
March 2022	Supplier Reallocation for November 2021	\$ 23,700.15	3/16/2022	4/11/2022	4/20/2022	4/20/2022	35	0.04%	0.01
March 2022	Supplier Reallocation for November 2021	\$ 15,326.76	3/16/2022	4/11/2022	4/21/2022	4/21/2022	36	0.02%	0.01
April 2022	Current Charge for April 2022	\$ 1,900,377.57	4/15/2022	5/9/2022	5/20/2022	5/23/2022	38	0.09%	0.03
April 2022	Current Charge for April 2022	\$ 624,105.30	4/15/2022	5/11/2022	5/23/2022	5/23/2022	38	1.00%	0.38
April 2022	Supplier Reallocation for December 2021	\$ 53,791.68	4/15/2022	5/12/2022	5/20/2022	5/19/2022	34	0.09%	0.03
April 2022	Supplier Reallocation for December 2021	\$ 5,102.16	4/15/2022	5/11/2022	5/23/2022	5/23/2022	38	0.01%	0.00
May 2022	Current Charge for May 2022	\$ 1,838,353.09	5/16/2022	6/7/2022	6/21/2022	6/23/2022	38	2.95%	1.12
May 2022	Current Charge for May 2022	\$ 551,941.44	5/16/2022	6/10/2022	6/20/2022	6/22/2022	37	0.89%	0.33
May 2022	Supplier Reallocation for January 2022	\$ 22,302.07	5/16/2022	6/10/2022	6/20/2022	6/22/2022	37	0.04%	0.01
May 2022	Supplier Reallocation for January 2022	\$ 71,736.86	5/16/2022	6/10/2022	6/21/2022	6/23/2022	38	0.12%	0.04
June 2022	Current Charge for June 2022	\$ 621,002.52	6/15/2022	7/13/2022	7/25/2022	7/21/2022	36	1.00%	0.36
June 2022	Current Charge for June 2022	\$ 1,907,854.16	6/15/2022	7/13/2022	7/20/2022	7/21/2022	36	3.06%	1.10
June 2022	Supplier Reallocation for February 2022	\$ (2,317.49)	6/15/2022	7/13/2022	7/25/2022	7/21/2022	36	0.00%	(0.00)
June 2022	Supplier Reallocation for February 2022	\$ (10,190.75)	6/15/2022	7/13/2022	7/20/2022	7/21/2022	36	-0.02%	(0.01)
July 2022	Current Charge for July 2022	\$ 779,030.23	7/16/2022	8/12/2022	8/22/2022	8/19/2022	34	1.25%	0.43
July 2022	Current Charge for July 2022	\$ 2,992,361.08	7/16/2022	8/8/2022	8/22/2022	8/19/2022	34	4.80%	1.63
July 2022	Supplier Reallocation for March 2022	\$ (36,550.00)	7/16/2022	8/12/2022	8/22/2022	8/19/2022	34	-0.06%	(0.02)
July 2022	Supplier Reallocation for March 2022	\$ 96,994.58	7/16/2022	8/8/2022	8/22/2022	8/19/2022	34	0.16%	0.05
August 2022	Current Charge for August 2022	\$ 1,769,541.45	8/16/2022	9/7/2022	9/20/2022	9/21/2022	36	2.84%	1.02
August 2022	Current Charge for August 2022	\$ 6,287,191.60	8/16/2022	9/7/2022	9/20/2022	9/21/2022	36	10.09%	3.63
August 2022	Supplier Reallocation for April 2022	\$ (6,020.55)	8/16/2022	9/7/2022	9/20/2022	9/21/2022	36	-0.01%	(0.00)
August 2022	Supplier Reallocation for April 2022	\$ 237.40	8/16/2022	9/12/2022	9/22/2022	9/21/2022	36	0.00%	0.00
September 2022	Current Charge for September 2022	\$ 1,334,080.87	9/15/2022	10/7/2022	10/20/2022	10/26/2022	41	2.14%	0.88
September 2022	Current Charge for September 2022	\$ 3,577,044.71	9/15/2022	10/7/2022	10/20/2022	10/26/2022	41	5.74%	2.35
September 2022	Supplier Reallocation for May 2022	\$ (45,056.86)	9/15/2022	10/7/2022	10/20/2022	10/26/2022	41	-0.07%	(0.03)
September 2022	Supplier Reallocation for May 2022	\$ 5,799.40	9/15/2022	10/12/2022	10/24/2022	10/26/2022	41	0.01%	0.00
October 2022	Current Charge for October 2022	\$ 1,216,779.06	10/16/2022	11/4/2022	11/21/2022	11/29/2022	44	1.95%	0.86
October 2022	Current Charge for October 2022	\$ 3,122,305.75	10/16/2022	11/4/2022	11/21/2022	11/29/2022	44	5.01%	2.21
October 2022	Supplier Reallocation for June 2022	\$ 75,719.12	10/16/2022	11/4/2022	11/21/2022	11/29/2022	44	0.12%	0.05
October 2022	Supplier Reallocation for June 2022	\$ 13,682.64	10/16/2022	11/11/2022	11/21/2022	11/29/2022	44	0.02%	0.01
November 2022	Current Charge for November 2022	\$ 1,441,942.62	11/15/2022	12/6/2022	12/20/2022	12/19/2022	34	2.31%	0.79
November 2022	Current Charge for November 2022	\$ 4,105,249.31	11/15/2022	12/6/2022	12/20/2022	12/19/2022	34	6.59%	2.24
November 2022	Supplier Reallocation for July 2022	\$ 2,755.56	11/15/2022	12/6/2022	12/20/2022	12/19/2022	34	0.00%	0.00
November 2022	Supplier Reallocation for July 2022	\$ 28,545.46	11/15/2022	12/13/2022	12/23/2022	12/16/2022	31	0.05%	0.01
December 2022	Current Charge for December 2022	\$ 2,748,237.10	12/16/2022	1/10/2023	1/20/2023	1/12/2023	27	4.41%	1.19
December 2022	Current Charge for December 2022	\$ 8,112,314.62	12/16/2022	1/10/2023	1/20/2023	1/12/2023	27	13.02%	3.52
December 2022	Supplier Reallocation for August 2022	\$ 39,723.05	12/16/2022	1/10/2023	1/20/2023	1/12/2023	27	0.06%	0.02
December 2022	Supplier Reallocation for August 2022	\$ (201,309.33)	12/16/2022	1/10/2023	1/20/2023	1/12/2023	27	-0.32%	(0.09)

[1] Total \$ 62,295,972.69 Days 34.04

Columns:

- (a) Month in which obligation for payment occurred
- (b) Per invoices
- (c) Per invoices
- (d) Midpoint of applicable service period
- (e) Per invoices
- (f) Per agreements
- (g) Date paid
- (h) Number of days between Column (d) and Column (g)
- (i) Column (c) ÷ Line (1)
- (j) Column (h) x Column (i)

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 RPS Obligation Program Year 2022

LINE NO.	INVOICE MONTH (a)	OBLIGATION AMOUNT (b)	MID-POINT OF SERVICE		ELAPSED (DAYS) (e)	% OF TOTAL (f)	WEIGHTED DAYS (g)
			PERIOD (c)	DUE DATE (d)			
1	Aug-22	\$ 366,950	8/16/2022	3/31/2023	227	10.08%	22.88
2	Sep-22	319,643	9/15/2022	3/31/2023	197	8.78%	17.30
3	Oct-22	320,931	10/16/2022	6/30/2023	257	8.82%	22.66
4	Nov-22	229,306	11/15/2022	6/30/2023	227	6.30%	14.30
5	Dec-22	251,740	12/16/2022	6/30/2023	196	6.92%	13.56
6	Jan-23	335,624	1/16/2023	9/30/2023	257	9.22%	23.70
7	Feb-23	337,980	2/14/2023	9/30/2023	228	9.29%	21.17
8	Mar-23	299,639	3/16/2023	9/30/2023	198	8.23%	16.30
9	Apr-23	279,533	4/15/2023	12/31/2023	260	7.68%	19.97
10	May-23	266,408	5/16/2023	12/31/2023	229	7.32%	16.76
11	Jun-23	293,401	6/15/2023	12/31/2023	199	8.06%	16.04
12	Jul-23	338,713	7/15/2023	12/31/2023	169	9.31%	15.73
13	[1] Total	<u>\$ 3,639,869</u>				[2] Days	<u>220.36</u>

Columns:

- (a) Month in which obligation occurred
- (b) Obligation based on kWh sales multiplied by the approved RPS rates for period
- (c) Midpoint of Service Period
- (d) Date of Obligation for Payment
- (e.) Number of days between Column (c) and Column (d)
- (f) Column (b) / Line 13, Column (b)
- (g) Column (e) x Column (f)

Lines:

- (1) Sum of Column (b)
- (2) Sum of Column (g)

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Revenue Lead/Lag Applied to Energy Service

LINE NO.	SERVICE PERIOD		MONTHLY	MONTHLY	DAYS	AVERAGE
			CUSTOMER ACCTS. RECEIVABLE (a)	SALES (b)	IN MONTH (c)	DAILY REVENUES (d)
1	1/1/2022	1/31/2022	\$ 13,874,291	\$ 13,001,968	31	\$ 419,418
2	2/1/2022	2/28/2022	14,240,765	13,349,266	28	476,760
3	3/1/2021	3/31/2022	15,366,642	16,113,380	31	519,786
4	4/1/2022	4/30/2022	13,878,360	14,326,913	30	477,564
5	5/1/2022	5/31/2022	11,852,065	12,553,965	31	404,967
6	6/1/2022	6/30/2022	13,129,736	12,431,389	30	414,380
7	7/1/2022	7/31/2022	14,958,961	14,192,916	31	457,836
8	8/1/2022	8/31/2022	18,829,611	16,571,543	31	534,566
9	9/1/2022	9/30/2022	19,590,327	16,797,495	30	559,917
10	10/1/2022	10/31/2022	13,763,794	13,298,088	31	428,971
11	11/1/2022	11/30/2022	12,565,580	11,530,395	30	384,347
12	12/1/2022	12/31/2022	16,050,611	12,606,165	31	406,650
13	Average		<u>\$ 14,841,729</u>			<u>\$ 457,097</u>
14	Service Lag					15.21
15	Collection Lag					32.47
16	Billing Lag					<u>2.59</u>
17	Total Average Days Lag					50.27
18	Customer Payment Lag-annual percent					13.77%

Columns:

- (a) Accounts Receivable per general ledger at end of month - Docket No. DE 23-037, Att. HMT-3, Pg. 7
- (b) Per Company billing data - Docket No. DE 23-037, Att. HMT-3, Pg. 7
- (c) Number of days in applicable service period
- (d) Column (b) ÷ Column (c.)

Lines:

- [14] Settlement Agreement Docket No. DE 19-064
- [15] Line 13, Column (a) / Column (d)
- [16] Settlement Agreement Docket No. DE 19-064
- [17] Sum of Lines 14-16
- [15] Line (17) ÷ 365

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Forecast for the Upcoming Period

LINE NO.	MONTH (a)	LCG (b)	LCG Energy Service (c)	SCG (d)	SCG Energy Service (e)
1	Aug-23	50,196,496	10,142,083	37,110,658	32,860,799
2	Sep-23	45,323,553	9,157,517	30,681,309	27,167,730
3	Oct-23	43,256,907	8,739,956	29,708,893	26,306,673
4	Nov-23	39,856,579	8,052,928	31,740,716	28,105,814
5	Dec-23	40,952,203	8,274,296	37,577,819	33,274,461
6	Jan-24	41,071,651	8,298,430	39,167,459	34,682,058
7	Feb-24	38,064,100	7,690,761	34,596,653	30,634,694
8	Mar-24	41,406,680	8,366,122	34,036,049	30,138,289
9	Apr-24	40,150,171	8,112,247	29,247,035	25,897,707
10	May-24	43,857,300	8,861,264	29,682,341	26,283,161
11	Jun-24	46,429,199	9,380,910	33,107,446	29,316,029
12	Jul-24	51,686,212	10,443,077	38,616,734	34,194,401
13	TOTALS	522,251,051	105,519,591	405,273,112	358,861,815

Energy Service Allocation 22.72% 77.28%

14 20.20% 88.55%

LINE NO.	LCG	LCG Forecast	SCG	SCG Forecast	
15	20.20%			88.55%	
16					
17	Aug-23	50,196,496	10,142,083	37,110,658	32,860,799
18	Sep-23	45,323,553	9,157,517	30,681,309	27,167,730
19	Oct-23	43,256,907	8,739,956	29,708,893	26,306,673
20	Nov-23	39,856,579	8,052,928	31,740,716	28,105,814
21	Dec-23	40,952,203	8,274,296	37,577,819	33,274,461
22	Jan-24	41,071,651	8,298,430	39,167,459	34,682,058
23	Feb-24	38,064,100	7,690,761	34,596,653	30,634,694
24	Mar-24	41,406,680	8,366,122	34,036,049	30,138,289
25	Apr-24	40,150,171	8,112,247	29,247,035	25,897,707
26	May-24	43,857,300	8,861,264	29,682,341	26,283,161
27	Jun-24	46,429,199	9,380,910	33,107,446	29,316,029
28	Jul-24	51,686,212	10,443,077	38,616,734	34,194,401
29	TOTALS	522,251,051	105,519,591	405,273,112	358,861,815