

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

\_\_\_\_\_  
LIBERTY UTILITIES (GRANITE STATE )  
ELECTRIC) CORP. D/B/A/ LIBERTY, )  
REQUEST FOR CHANGE IN DISTRIBUTION )  
RATES )  
\_\_\_\_\_

**Docket DE 23-039**

**Direct Testimony of  
Ben Havumaki**

**On Behalf of  
The Office of Consumer Advocate**

**December 13, 2023**

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Schedule BH-1:      Resume of Ben Havumaki

1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q Please state your name, title, and employer.**

3 **A Mr. Havumaki:** My name is Ben Havumaki. I am a Senior Associate at Synapse Energy  
4 Economics (Synapse), located at 485 Massachusetts Avenue #3, Cambridge, MA 02139.

5 **Q Please describe Synapse Energy Economics.**

6 **A** Synapse is a research and consulting firm specializing in electricity and gas industry  
7 regulation, planning, and analysis. Our work covers a range of issues, including economic  
8 and technical assessments of demand-side and supply-side energy resources; energy  
9 efficiency policies and programs; integrated resource planning; electricity market  
10 modeling and assessment; renewable resource technologies and policies; and climate  
11 change strategies. Synapse works for a wide range of clients, including attorneys general,  
12 offices of consumer advocates, public utility commissions, environmental advocates, the  
13 U.S. Environmental Protection Agency, the U.S. Department of Energy, the U.S.  
14 Department of Justice, the Federal Trade Commission, and the National Association of  
15 Regulatory Utility Commissioners. Synapse has over 40 professional staff with extensive  
16 experience in the energy industry.

17 **Q Please summarize your professional and educational experience.**

18 **A** Since arriving at Synapse in 2018, I have focused on electric and gas utility regulatory  
19 issues, usually in the context of litigated proceedings. I provide technical analysis,  
20 consulting, and expert witness support in general rate cases, where I focus on rate design  
21 and cost allocation. I also have expertise in performance-based regulation and grid  
22 modernization, and I focus on helping stakeholders navigate the many interactions

1 between these emerging paradigms on the one hand, and enduring utility regulatory  
2 principles and priorities on the other. I have provided testimony in Georgia, Illinois,  
3 Minnesota, Rhode Island, New Hampshire, New Brunswick, Pennsylvania, and West  
4 Virginia. I have also drafted comments and contributed to formal reports in numerous  
5 other jurisdictions in the United States and Canada. Prior to my work at Synapse, I was  
6 part of consulting team that developed a benefit-cost analysis primer for the World Bank  
7 entitled “World Bank Water Management, Sanitation, and Conservation Projects in  
8 Developing Countries: A Guide to Cost-Benefit Analysis.” I hold a Bachelor of Arts  
9 degree in History from McGill University and a Master of Arts degree in Applied  
10 Economics from the University of Massachusetts. My resume is attached as Schedule  
11 BH-1.

12 **Q Have you previously testified before the New Hampshire Public Utilities**  
13 **Commission?**

14 **A** Yes. I sponsored written testimony before the New Hampshire Public Utilities  
15 Commission (the Commission) in Docket DE 21-030, the general rate case of Util  
16 Energy Systems, Inc., and in Docket DG 21-104, the general rate case of Northern  
17 Utilities, Inc.

18 **Q On whose behalf are you testifying in this case?**

19 **A** I am presenting testimony on behalf of the Office of the Consumer Advocate (OCA).

20 **Q What is the purpose of your testimony?**

21 **A** The purpose of my testimony is to address certain aspects of the distribution rate  
22 application of Liberty Utilities (Liberty or the Company). Specifically, my testimony

1 addresses issues related to the Company's proposed time-of-use (TOU) rates for  
2 residential and small commercial customers. I do not address all aspects of these rate  
3 proposals nor other proposals related to TOU rates included in this filing; silence on any  
4 issue should not necessarily be taken as acceptance of the Company's proposals.

5 **Q What materials did you rely on to develop your testimony?**

6 **A** The sources for my testimony are Liberty's application and responses to discovery  
7 requests, public documents, and my professional knowledge and experience.

8 **Q Was your testimony prepared by you or under your direction?**

9 **A** Yes. My testimony was prepared by me or under our direct supervision and control.

10 **II. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS**

11 **Q Please summarize your primary conclusions.**

12 **A** My primary conclusions are as follows:

13 1. Liberty's proposed TOU rates, D-TOU and G-3-TOU, appear to be generally  
14 reasonable, with certain caveats that I explain below.

15 2. Liberty has not sufficiently justified certain features of its proposed D-TOU and  
16 G-3-TOU rates, including the definition of the seasons and the duration of the  
17 peak and the mid-peak periods; these features in turn impact the accuracy of the  
18 TOU rate price signals and the overall efficiency of the rates.

19

1           3. Liberty has not provided sufficient detail about how it will evaluate the success of  
2           D-TOU and G-3-TOU.

3           4. Liberty's plan for metering for customers who opt in to D-TOU and G-3-TOU is  
4           likely to result in additional costs, which would be socialized to all customers in  
5           the affected classes.

6   **Q    Please summarize your primary recommendations regarding Liberty's proposed**  
7   **MYRP.**

8   **A    My primary recommendations regarding Liberty's proposed TOU rate are as follows:**

9           1. The Commission should not approve Liberty's proposed TOU rates, D-TOU and  
10          G-3-TOU until Liberty provides further information to justify aspects of its rate  
11          design proposal.

12          2. The Commission should direct Liberty to make a subsequent filing, to be filed in  
13          the instant docket by one year from the date of the Commission's order approving  
14          new permanent rates in this docket, to provide additional justification for the  
15          proposed rate designs for D-TOU and G-3-TOU ("TOU Analysis and Proposal  
16          Justification"). This filing should include the following information:

17                a. A clear methodology indicating how the Company has determined the  
18                following for these TOU rate proposals: the number of seasons, the  
19                duration of each season, the number of time periods, and the duration of  
20                each time period. This methodology should specifically reference any data  
21                that has been consulted in determining the above features, including LMP  
22                price data and probability-of-peak data, explaining how these data are  
23                used to establish these rate design features.

24

- 1                   b. Workpapers that demonstrate application of the methodology in (a) to  
2                   provide quantitative support for the seasons and time periods for the  
3                   proposed TOU rates.
- 4                   c. At least five alternative TOU rate designs, including the following:
- 5                             ▪ A rate design in which there are more than two seasons
- 6                             ▪ A rate design in which the winter peak period includes morning  
7                             hours.
- 8                             ▪ A rate design in which the peak period is shorter than five hours.
- 9                             ▪ Two other alternative rates differentiated from the Company’s  
10                            proposal by some combination of differences in the number of  
11                            seasons (i.e., greater than two), duration of seasons (i.e., not all six  
12                            months in length), number of rate periods (i.e., fewer or greater  
13                            than three periods for at least one season), and/or duration of rate  
14                            periods.
- 15                   d. A narrative statement explaining how the proposed specifications for D-  
16                   TOU and G-3-TOU comport with rate design best practices and are  
17                   superior to the alternatives presented in (c).
- 18                   3. Should the Commission deem the TOU Analysis and Proposal Justification to be  
19                   compliant with Commission requirements, the Commission should permit the  
20                   various parties to the instant proceeding to issue discovery questions and to file  
21                   responsive comments before making an ultimate determination on whether to  
22                   approve, approve with modifications, or not approve D-TOU and G-3-TOU.
- 23                   4. The Commission should direct Liberty to file an evaluation plan for D-TOU and  
24                   G-3-TOU that outlines how the Company will evaluate whether the proposed  
25                   TOU rates are achieving their objectives (“TOU Evaluation Plan”). This  
26                   evaluation plan should be provided with the TOU Analysis and Proposal  
27                   Justification. The evaluation plan should include the following:

- 1                   a. Details about what Liberty will measure and how.
- 2                   b. Specific quantitative targets for all goals, including load shifting.
- 3                   c. Specific reporting requirements.
- 4                   d. A process for modifying the TOU rates should Liberty or the Commission
- 5                         deem such modification to be necessary.
- 6           5. Should the Commission deem the TOU Evaluation Plan to be compliant with
- 7                   Commission requirements, the Commission should permit the various parties to
- 8                   the instant proceeding to issue discovery questions and to file responsive
- 9                   comments before making an ultimate determination on whether to approve,
- 10                  approve with modifications, or not approve D-TOU and G-3-TOU.
- 11           6. The Commission should direct Liberty to file a plan indicating how it will
- 12                   mitigate any incremental metering costs for customers enrolling in D-TOU and G-
- 13                   3-TOU (“Metering Cost Mitigation Plan”). This cost mitigation plan should be
- 14                   provided with the TOU Analysis and Proposal Justification, and it should include
- 15                   estimates of any additional capital and operations and maintenance costs
- 16                   associated with deploying AMR meters to customers in D-TOU and G-3-TOU
- 17                   relative to the costs associated with those customers instead receiving AMI
- 18                   meters. The Metering Cost Mitigation Plan should include a commitment to take
- 19                   specific actions to minimize costs –with the quantification of the expected cost
- 20                   minimization benefits– which might include:
- 21                   a. Limiting eligibility for D-TOU and G-3-TOU to customers with AMI.
- 22

1                   b. Removing any undepreciated AMR meter balance from its rate base  
2                   should the Company elect to replace AMR meter with AMI before the end  
3                   of the AMR meters' useful lives.

4                   c. Plans for minimizing any ongoing incremental meter reading costs  
5                   associated with the AMR meters deployed to customers in D-TOU and G-  
6                   3-TOU.

7                   7. Should the Commission deem the Metering Cost Mitigation Plan to be compliant  
8                   with Commission requirements, the Commission should permit the various parties  
9                   to the instant proceeding to issue discovery questions and to file responsive  
10                  comments before making an ultimate determination on whether to approve,  
11                  approve with modifications, or not approve D-TOU and G-3-TOU.

12                  **III. OVERVIEW OF LIBERTY'S PROPOSED TOU RATES**

13                  **Q     Please describe Liberty's TOU rate proposals.**

14                  **A**The Company proposes to open new "full requirements"<sup>1</sup> time-of-use (TOU) rates for its  
15                  residential and small commercial customers on a voluntary, opt-in basis. The proposed  
16                  residential rate, D-TOU, and the proposed small commercial rate, G-3-TOU, are  
17                  identically structured with all rate components specified on a time-varying basis, and  
18                  consistent seasonal and rate period definitions.<sup>2</sup>

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<sup>1</sup> D-TOU and G-3-TOU are denoted as "full requirements" rates because they are designed to cover a customer's entire electric load.

<sup>2</sup> Tillman Direct Testimony, pg. 17, lines 1-11, and pg. 25, Figure 5.

1 **Q How has the Company defined the seasons for D-TOU and G-3-TOU?**

2 **A** Liberty proposes a two-season scheme, with winter from November through April, and  
3 summer from May through October.

4 **Q How has the Company defined the rate periods for D-TOU and G-3-TOU?**

5 **A** The Company proposes a consistent three-period approach throughout the year: the peak  
6 period is set from 3 pm to 8 pm on weekdays, excluding holidays; the mid-peak period  
7 occurs from 8 am to 3 pm on non-holiday weekdays and from 8 am to 8 pm on weekends  
8 and holidays; and the off-peak period covers the remaining hours – i.e., the overnight  
9 hours on *all* days, from 8 pm to 8 am.

10 **Q Why has the Company brought forward these TOU rate proposals?**

11 **A** In his direct testimony, Company witness Greg Tillman relates that Liberty committed to  
12 “review and modernize its retail rates” as part of the Settlement Agreement in its last rate  
13 case. Mr. Tillman further explains that the Company hence developed the “Advanced  
14 Rate Design Road Map,” and that the instant TOU rate proposals are an initial step in the  
15 “phased approach” to rate design innovation reflected in this roadmap.<sup>3</sup>

16 **Q Has the Company identified any goals for its proposed TOU rates?**

17 **A** Mr. Tillman speaks generally about the goals for the proposed TOU rates:

18 The over-arching goal is to provide a tool for customers to have more  
19 control over their electricity bill. For example, if a customer shifts load  
20 from the higher-priced on-peak period to the lower-priced off-peak period,  
21 they will create a direct reduction to their electric bill. Additionally,  
22 another important goal is supported because they are using system

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<sup>3</sup> Tillman Direct Testimony, pg. 5, lines 3-9.

1 resources more efficiently and reducing the overall cost of providing  
2 service to all customers.<sup>4</sup>

3  
4 More concretely, the Company proposes an enrolment target of 0.5 percent of residential  
5 customers by the end of the third year of availability for D-TOU.<sup>5</sup>

6 **Q Does the Company currently offer any TOU rates?**

7 **A** The Company currently maintains several TOU rates. In addition to the legacy  
8 Residential rate D-10 (“Optional Peak Load Rate”) and legacy General Service TOU rate  
9 G-1, the Company also offers several newer TOU rates – Rate D-11, the battery storage  
10 pilot, Rate D-12, a Residential EV charging rate, and Rates EV-M and EV-L for high  
11 draw electric vehicle charging customers.<sup>6</sup>

12 **Q Are the proposed TOU rates similar to the Company’s legacy TOU rates?**

13 **A** The Company has defined the seasons and set the time periods for its proposed D-TOU  
14 and G-3-TOU to be identical to those in D-11, D-12, EV-L, and EV-M.<sup>7</sup> In support of  
15 this consistency in seasonality and time periods, Mr. Tillman cites several factors  
16 including the imperative to get price signals right, avoidance of the administrative burden  
17 and costs associated with managing multiple metering and billing “solutions,” and  
18 simplification of customer communications.<sup>8</sup>

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<sup>4</sup> *Id.*, pg. 7, lines 15-20.

<sup>5</sup> Menard Direct Testimony, pg. 20, lines 5-8.

<sup>6</sup> Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities. Electric Delivery Service Tariff – NHPUC No. 21 Superseding Electric Delivery Service Tariff – NHPUC No. 19 And in Lieu of NHPUC No. 20. July 1, 2020.

<sup>7</sup> Tillman Direct Testimony, pg. 17, lines 2-5, and Liberty Tariff.

<sup>8</sup> Liberty Response to OCA 1-54(c) and OCA 1-67.

1 **Q What is your overall reaction to the Company’s proposed TOU rates?**

2 **A** Overall, the design of the proposed rates appears reasonable and generally consistent with  
3 the foundational Bonbright principles cited by the Company.<sup>9</sup> However, the Company  
4 has not demonstrated that its proposed D-TOU and G-3-TOU reflect best practices in the  
5 design of TOU rates. To do so, the Company must undertake additional analyses and  
6 make the case, in both quantitative and narrative form, for its proposed rate designs.

7 **IV. LIBERTY’S TOU PROPOSAL AND RATE DESIGN BEST PRACTICES**

8 **Q What does the Company say about best practices in the design of TOU rates?**

9 **A** Mr. Tillman references a joint work of the Regulatory Assistance Project and the Brattle  
10 Group in support of four key characteristics of effective TOU rates: (1) “A short peak  
11 period,” (2) “A strong price signal and opportunity for significant bill savings,” (3)  
12 “Rates should reflect system costs,” and (4) “Simplicity.”<sup>10</sup>

13 **Q Does the Company address past Commission direction on TOU rate design?**

14 **A** Yes. Mr. Tillman discusses the Commission’s order in Docket No. IR 20-004, which was  
15 a proceeding focused on EV TOU rates. In this order, the Commission accepted many of  
16 Staff’s recommendations for the design of EV TOU rates, including that these rates  
17 should be based on cost causation, should recover energy, transmission, and distribution

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<sup>9</sup> Tillman Direct Testimony, pg. 6, lines 11-12.

<sup>10</sup> Tillman Direct Testimony pg. 8, lines 1-14, citing to Ahmad Faruqui, Ryan Hledik, Jennifer Palmer, Time-Varying and Dynamic Rate Design - Regulatory Assistance Project (raponline.org), July 23, 2012.

1 costs on a time-varying basis, and should include three time periods and seasonal  
2 differentiation.

3 Mr. Tillman further clarifies that the Commission made modifications to selected Staff  
4 recommendations, finding a five-hour peak to be preferable to a four-hour peak and  
5 determining that the overall average annual peak to off-peak ratio should be no less than  
6 3:1, but that this ratio was not required of the rates for each season.<sup>11</sup>

7 **Q Is the Commission’s order from Docket No. IR 20-004 binding on the instant**  
8 **proceeding?**

9 **A** Not as far as I can tell. However, the Company appears to have largely followed the  
10 Commission’s direction from that proceeding in designing D-TOU and G-3-TOU,  
11 including by defining these rates with three periods and a five-hour peak period. The  
12 Company also retained the seasonal definitions from the EV TOU rates developed in  
13 Docket No. IR 20-004.

14 **Q Should the Company simply import the design features of EV-L and EV-M for its**  
15 **newly proposed TOU rates?**

16 **A** Not necessarily. The Company has not demonstrated that the design features (season and  
17 rate period definitions, length of the peak period) of EV-L and EV-M are appropriate for  
18 the Company’s new TOU rates and reflect current costs on the system. This is especially  
19 true since the definition of these features appear to be based on data that is several years  
20 old, which may not reflect costs for 2024 and beyond.<sup>12</sup>

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<sup>11</sup> Tillman Direct Testimony, pg. 9, lines 1-8.

<sup>12</sup> Response to OCA 1-62.

1 **Q Has the Company demonstrated that its proposed seasons and rate periods for D-**  
2 **TOU and G-3-TOU are cost reflective?**

3 **A** No. The Company mainly justifies its proposed seasons and time periods by indicating  
4 that they are consistent with seasons and time periods for the established battery and EV  
5 TOU rates.<sup>13</sup> While the Company points to LMP pricing and transmission pricing data to  
6 support its proposed time periods for D-TOU and G-3-TOU, it does not demonstrate how  
7 these data justify the Company's proposals.<sup>14</sup>

8 **Q Why are the definition of seasons and rate periods important?**

9 **A** The number and length of seasons and the number and length of rate periods impact  
10 whether the rate sends a strong price signal, which in turn largely determines whether the  
11 rates will induce favorable customer behavioral changes and ultimately result in system  
12 cost savings. As mentioned before, the Company refers to the importance of a short peak  
13 period and strong price signals – objectives that are usually correlated. I agree with these  
14 goals, but I note that without justification based on current system cost data, it is difficult  
15 to determine the quality of the price signals provided by the proposed rates.

16 **Q Do you have any specific concerns about the definitions of seasons and time periods**  
17 **in D-TOU and G-3-TOU?**

18 **A** It is not clear from reviewing the LMP price and system peak data furnished by the  
19 Company whether the two-season approach is optimal.<sup>15</sup> Separately, I am concerned that  
20 a five-hour evening peak window year-round may be needlessly long.

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<sup>13</sup> Liberty Response to OCA 1-62.

<sup>14</sup> Liberty Response to OCA 1-63(c) and OCA 1-63(d).

<sup>15</sup> *Ibid.*

1 **Q What do you recommend?**

2 **A** I recommend that the Commission require Liberty to conduct additional analysis and  
3 produce additional support for its proposed TOU rate designs. Through this additional  
4 analysis, the Company can better demonstrate that its rate proposals conform to best  
5 practices or modify its proposal to be more cost reflective. I expand upon this  
6 recommendation below.

7 **V. THE COMMISSION SHOULD DIRECT LIBERTY TO CONDUCT**  
8 **ADDITIONAL ANALYSES TO SUPPORT ITS TOU RATE DESIGNS**

9 **Q Please describe in detail the additional analysis that you recommend Liberty be**  
10 **required to undertake.**

11 **A** The Commission should direct Liberty to make a subsequent filing, to be filed in the  
12 instant docket by one year from the date of the Commission's order approving new  
13 permanent rates in this docket, to provide additional justification for the proposed rate  
14 designs for D-TOU and G-3-TOU ("TOU Analysis and Proposal Justification"). This  
15 filing should include the following information:

- 16 a. A clear methodology indicating how the Company has determined the  
17 following for these TOU rate proposals: the number of seasons; the  
18 duration of each season; the number of time periods; the duration of each  
19 time period. This methodology should specifically reference any data that  
20 has been consulted in determining the above features, including LMP  
21 price data and probability-of-peak data, explaining how these data are  
22 used to establish these rate design features.
- 23 b. Workpapers that demonstrate application of the methodology in (a) to  
24 provide quantitative support for the seasons and time periods for the  
25 proposed TOU rates.

26

1 c. At least five alternative TOU rate designs, including the following:

- 2 • A rate design in which there are more than two seasons
- 3 • A rate design in which the winter peak period includes morning
- 4 hours.
- 5 • A rate design in which the peak period is shorter than five hours.
- 6 • Two other alternative rates differentiated from the Company's
- 7 proposal by some combination of differences in the number of
- 8 seasons (i.e., greater than two), duration of seasons (i.e., not all six
- 9 months in length), number of rate periods (i.e., fewer or greater
- 10 than three periods for at least one season), and/or duration of rate
- 11 periods.

12 d. A narrative statement explaining how the Company's proposed design for

13 D-TOU and G-3-TOU comports with rate design best practices and is

14 superior to the alternatives presented in (c).

15 **Q Why do you specifically recommend that the Company evaluate rate designs with**

16 **more than two seasons and with a winter peak that includes morning hours.**

17 **A** These alternatives were suggested by Mr. Tillman in response to discovery.<sup>16</sup> On

18 including more than two seasons in the TOU rate design, Mr. Tillman relates that this

19 would “result in a peak period that is more focused on higher cost periods and will result

20 in price signals with a higher peak to off-peak price ratio.”<sup>17</sup> Similarly, concerning the

21 inclusion of morning hours in the winter peak period, Mr. Tillman suggests that this “will

22 lead to more distinct price signals with a higher peak-to-off-peak price ratio.”<sup>18</sup> However,

23 while Mr. Tillman acknowledges the potential benefits of alternative rate designs for D-

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<sup>16</sup> Response to OCA 1-68.

<sup>17</sup> Response to OCA 4-25(a).

<sup>18</sup> Response to OCA 4-25(c).

1 TOU and G-3-TOU, he concedes that the Company did not develop any such  
2 alternatives.<sup>19</sup>

3 **Q What should occur after the Company submits the recommended filing?**

4 **A** Once the Company has provided its TOU Analysis and Proposal Justification and the  
5 Commission has deemed it to be compliant with the Commission’s requirements, I  
6 recommend that the Commission permit the various parties to the instant proceeding to  
7 issue discovery questions and to file responsive comments before making an ultimate  
8 determination on whether to approve, approve with modifications, or not approve D-TOU  
9 and G-3-TOU. I do not recommend that the Commission make any determinations about  
10 the Company’s proposed new TOU rates until the Company provides the advised filing.

11 **Q Can you point to any examples of utility filings in other jurisdictions similar to what**  
12 **you recommend for Liberty in the instant proceeding?**

13 **A** Yes. In Central Maine Power’s 2022 general rate case, the utility provided a document  
14 titled “Time of Use Period Analysis for use in Delivery Rate Design” that elucidated a  
15 clear quantitative methodology for determining seasons and time periods and evaluated  
16 alternatives.<sup>20</sup> I suggest that Liberty consult this filing for an example of how it might  
17 better support its rate design proposals.

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<sup>19</sup> Response to OCA 4-25(b) and OCA 4-25(d).

<sup>20</sup> ME PUC. Docket No. 2022-00152. Time of Use Period Analysis for Use in Delivery Rate Design. Prepared for Central Maine Power. August 2022. Amparo Nieto.

1 **VI. LIBERTY SHOULD IMPROVE AND FORMALIZE ITS PLAN FOR**  
2 **EVALUATING THE TOU RATES AFTER IMPLEMENTATION**

3 **Q How will the Company determine whether the D-TOU and G-3-TOU rates are**  
4 **successful?**

5 **A** The Company has proposed a specific enrollment goal for D-TOU and also addresses in  
6 general, qualitative terms, its aims for enhancing customer control and favorable load-  
7 shifting and achieving cost savings. The Company should be able to assess enrollment  
8 easily. However, it is not clear how the Company will evaluate whether D-TOU and G-3-  
9 TOU have induced sufficient load shifting, since the Company has not set any targets for  
10 load shifting. Overall, the Company lacks a comprehensive plan for evaluating the  
11 success of these rates and for making modifications, should any modifications be  
12 necessary.

13 **Q How do you recommend that the Company approach evaluation for D-TOU and G-**  
14 **3-TOU?**

15 **A** I recommend that the Commission direct Liberty to file a complete evaluation plan for D-  
16 TOU and G-3-TOU, to be provided with the TOU Analysis and Proposal Justification,  
17 which outlines how the Company will evaluate whether the proposed TOU rates are  
18 achieving their objectives (“TOU Evaluation Plan”). This evaluation plan is particularly  
19 critical since the Company is proposing to roll out its D-TOU and G-3-TOU rates without  
20 first conducting a pilot, as it common practice across the U.S. and Canada.

21 **Q What should the Commission direct Liberty to include in this evaluation plan?**

22 **A** The Commission should direct Liberty to include the following in the evaluation plan:

- 1 a. Details about what Liberty will measure and how.  
2 b. Specific quantitative targets for all goals, including load shifting.  
3 c. Specific reporting requirements.  
4 d. A process for modifying the TOU rates should Liberty or the Commission deem  
5 such modification to be necessary.

6 **Q Should the Commission permit intervenors to comment on the evaluation plan?**

7 **A** Yes. Should the Commission deem the TOU Evaluation Plan to be compliant with  
8 Commission requirements, the Commission should permit the various parties to the  
9 instant proceeding to issue discovery questions and to file responsive comments before  
10 making an ultimate determination on whether to approve, approve with modifications, or  
11 not approve D-TOU and G-3-TOU.

12 **Q Are there any other specific considerations that might inform the evaluation of D-**  
13 **TOU and G-3-TOU?**

14 **A** Yes. The Company proposes to provide customers with bill protection for one year under  
15 its “Best-Bill Guarantee.”<sup>21</sup> I support bill protection, especially in the context of an opt-in  
16 rate where customers have historically not had access to detailed load data. However, the  
17 provision of bill guarantees is likely to impact the behavioral response that the rate elicits,  
18 notwithstanding the Company’s position to the contrary.<sup>22</sup> I recommend that the  
19 Company address the impacts of bill protection on customer behavioral response in its  
20 evaluation plan. While it may not be possible to “control for” these effects quantitatively,  
21 the Company should at least address them qualitatively. Moreover, the Company might

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<sup>21</sup> Tillman Direct Testimony, pg. 14, lines 3-10.

<sup>22</sup> Liberty Response to OCA 1-57(b).

1 establish targets for behavioral response that account for the prospective impacts of bill  
2 protection by ramping up after bill protection expires for individual customers.

3 **VII. LIBERTY SHOULD COMMIT TO MITIGATING THE COSTS ASSOCIATED**  
4 **WITH AMR METERING FOR NEW TOU CUSTOMERS.**

5 **Q How does the Company propose to meter customers opting that opt in to D-TOU**  
6 **and G-3-TOU?**

7 **A** On an ad hoc basis. Since the Company proposes to open these TOU rates before it has  
8 completed its deployment of AMI and to make the rates open to all customers, it plans to  
9 install AMR meters on an as-needed basis for opting-in customers who have yet to  
10 receive AMI at their respective premises.<sup>23</sup>

11 **Q Do you have any concerns about this approach?**

12 **A** Yes. Based upon the Company's description of its metering plans, and the extent of  
13 uncertainty, I am concerned that the Company's approach will result in additional capital  
14 and operations and maintenance costs compared with an alternative scenario in which it  
15 did not open TOU rates to customers until AMI had been installed – an approach that has  
16 been taken in many jurisdictions.

17 **Q Why are you concerned that the Company's proposed metering approach could**  
18 **result in extra costs?**

19 **A** First, it is unclear whether AMR meters will be costlier to procure than AMI meters.<sup>24</sup>  
20 Second, if the Company ultimately replaces AMR meters with AMI before the AMR

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<sup>23</sup> Tillman Direct Testimony, pg. 12, and response to OCA TS 1-18.

<sup>24</sup> Response to OCA 4-16(a) and OCA 6-11(b).

1 meters are fully depreciated, then these AMR meters could become stranded assets.

2 While the Company indicates that it “believes” that this early replacement of AMR with  
3 AMI will not be necessary, it has not confirmed that such a replacement will not occur.<sup>25</sup>

4 Finally, there may be ongoing costs associated with meter reading for AMR meters  
5 deployed to customers in D-TOU and G-3-TOU which could be avoided if these  
6 customers instead received AMI.<sup>26</sup>

7 **Q Are there any alternatives that might prevent needless costs from deploying AMR**  
8 **meters on an ad hoc basis?**

9 **A** Yes, the Company could commit to removing any undepreciated AMR meter balance  
10 from its rate base should it elect to replace these AMR meters with AMI before the end of  
11 the AMR meters’ useful lives. Options for mitigating the cost impacts of an ad hoc  
12 deployment of AMR were discussed at the technical session on October 30, 2023, and are  
13 documented by witnesses Anthony Strabone and Dmitry Balashov in their response to a  
14 follow-on technical session data request.<sup>27</sup> I note that the potential cost control solutions  
15 proposed by Mr. Strabone and Mr. Balashov do not clearly address concerns about  
16 greater per-unit capital costs for AMR or ongoing incremental meter reading expenses  
17 associated with AMR.

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<sup>25</sup> Response to OCA 1-50 and OCA 4-16(b).

<sup>26</sup> Response to OCA TS 1-19(a) and OCA 6-11(b).

<sup>27</sup> Response to OCA TS 1-19(b).

1 **Q How can the Commission ensure that Liberty’s metering plan for D-TOU and G-3-**  
2 **TOU does not result in needless costs?**

3 **A** The Commission should direct Liberty to file a plan indicating how it will mitigate any  
4 incremental metering costs for customers enrolling in D-TOU and G-3-TOU (“Metering  
5 Cost Mitigation Plan”).<sup>28</sup> This cost mitigation plan should be provided with the TOU  
6 Analysis and Proposal Justification, and it should include estimates of any additional  
7 capital and operations and maintenance costs associated with deploying AMR meters to  
8 customers in D-TOU and G-3-TOU relative to the costs associated with those customers  
9 instead receiving AMI meters. The Metering Cost Mitigation Plan should include a  
10 commitment to take specific actions to minimize costs –with the quantification of the  
11 expected cost minimization benefits– which might include:

- 12 a. Limiting eligibility for D-TOU and G-3-TOU to customers with AMI.  
13 b. Removing any undepreciated AMR meter balance from its rate base  
14 should the Company elect to replace AMR meter with AMI before the end  
15 of the AMR meters’ useful lives.  
16 c. Plans for minimizing any ongoing incremental meter reading costs  
17 associated with the AMR meters deployed to customers in D-TOU and G-  
18 3-TOU

19 **Q Should the Commission permit intervenor input on this metering cost-minimization**  
20 **plan?**

21 **A** Yes. Should the Commission deem the Metering Cost Mitigation Plan to be compliant  
22 with Commission requirements, the Commission should permit the various parties to the

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<sup>28</sup> While the Mr. Strabone and Mr. Balashov indicate in response to OCA TS 1-19 that Liberty has “plans” for mitigating the costs associated with ad hoc AMR deployment, the Company has not provided any formal plan or commitment to take specific actions to mitigate these costs.

1 instant proceeding to issue discovery questions and to file responsive comments before  
2 making an ultimate determination on whether to approve, approve with modifications, or  
3 not approve D-TOU and G-3-TOU.

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

5 **A** Yes, it does.