

November 06, 2020

David K. Wiesner, Director  
New Hampshire Public Utilities Commission  
21 South Fruit Street, Suite 10  
Concord, NH 03301-2429

Subject: Feedback on Evaluation Plan for Liberty Battery Storage Pilot (DE 17-189)

Dear Mr. Wiesner:

Thank you for providing feedback on the draft evaluation plan for the impacts of Liberty Utilities' ("Liberty") Battery Storage Pilot ("Pilot"). We have reviewed the feedback and provided responses in the addendum below.

We respectfully request that Public Utilities Commission (PUC) Staff ("Staff") review and, as necessary, follow up on these responses in order to confirm alignment between Guidehouse, Liberty, and the PUC regarding this evaluation.

At a high level, we would like to highlight the following recommendations that Guidehouse will:

- Deliver quarterly reports within 45 days following the end of each quarter in order to feasibly incorporate data for all 3 months of the corresponding quarter. We will deliver the interim evaluation report within 90 days following the end of the 18-month Phase 1 period. In order to minimize delays in proceeding with Phase 2, we will submit a letter to Staff within 45 days following the end of Phase 1 which specifically addresses the four criteria necessary for Liberty to proceed to Phase 2. Staff may use that letter as a basis for informing the decision of whether or not to proceed with Phase 2.
- Primarily rely upon a cost test (referred to as the Filing Cost Test) which replicates the benefit/cost analysis conducted by Liberty in its filing for approval to undertake this Pilot,<sup>1</sup> as well as the Societal Cost Test, which considers other costs and benefits of importance to different stakeholders. The analysis will consider perspectives based upon both the calculated actual impacts, as well as projected impacts for a scaled-up program.
- Conduct follow-up surveys approximately 1 year after installation, rather than waiting until the end of the evaluation period.

We respectfully request Staff:

- Clarify whether Staff believes any requirements would not be met with the proposed evaluation plan. Guidehouse has reviewed the Settlement Agreement and believes this proposed evaluation plan meets the stated requirements.
- Review and consider the options laid out in our June 22 letter to Staff with regard to evaluation of behavioral (non-battery) response to TOU rates and provide a response accordingly.<sup>2</sup>
- Provide a reply by Friday, December 4. If we do not receive a response by then, we will move forward with our evaluation according to the draft plan and the associated responses to Staff comments provided herein.

We appreciate your input on this matter and look forward to finalizing this evaluation plan.

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<sup>1</sup> See benefit-cost analysis in *Petition to Approve Battery Storage Pilot Program: Settlement Agreement*, Docket No. DE 17-189, Liberty Utilities, January 17, 2019.

<sup>2</sup> A quantitative behavioral comparison of control and treatment groups is not within our current scope of work with Liberty and would require additional budget to perform.



Sincerely,

A handwritten signature in black ink, appearing to read "Sam Crawford". The signature is fluid and cursive, with the first name "Sam" being more prominent than the last name "Crawford".

Sam Crawford  
Associate Director

c: Heather Tebbetts  
D. Maurice Kreis

Addendum: Responses to PUC Staff feedback on the Draft Evaluation Plan

## **Addendum: Responses to PUC Staff feedback on the Draft Evaluation Plan**

We have provided below a table addressing each of the comments provided by PUC Staff on September 29, 2020. Most of the responses are straightforward and should require no further action. However, we have provided overarching responses to key groups of comments/questions that warrant additional consideration by PUC Staff.

### **Evaluation requirements**

Staff noted that “all of the required elements of the evaluation have not been included.” We have reviewed the Settlement Agreement and believe our evaluation plan meets the stated requirements for the evaluation consultant. If there is something specific that Staff believe is missing, we would ask that Staff provide clarification.

### **Timing of reports**

Staff provided multiple comments regarding the timing of reports, including quarterly reports and the interim evaluation report for Phase 1, noting that the proposed timeframe does not align with what is laid out in the Settlement Agreement.

#### **Quarterly reports**

While the Settlement Agreement states that quarterly reports are to be provided within 30 days of the end of each quarter, it does not state any specific requirements regarding the timeframe for the data assessed in each report. The draft evaluation plan proposed that each quarterly report would be provided by the end of each quarter and that it would include data through the end of the prior quarter.

However, Staff comments on the draft evaluation plan seemingly imply that quarterly reports should include all data through the end of the current quarter. This is a challenging timeframe, which requires multiple steps that may be out of Guidehouse’s control (including delivery of requested data by both Liberty and Tesla, as well as review and delivery of feedback on draft reports by Liberty), in addition to the time required to analyze and summarize data, draft reports, and update analysis and reports as necessary.

Given these considerations, we propose to submit a quarterly report within 45 days following the end of each quarter, which includes data for all three months of the corresponding quarter.

#### **Interim evaluation report**

Staff aptly noted that it is not possible to deliver an interim evaluation report within 18 months of the beginning of Phase 1 and have that report incorporate data through the end of that 18-month period. Given that the evaluation period for Phase 2 is defined as 36 months following the beginning of Phase 1, any delays in Phase 2 start would reduce the effective timeframe available for Phase 2 evaluation.

In order to avoid delays in starting Phase 2 and produce an evaluation report by the end of Phase 1, the draft evaluation plan proposed to instead evaluate data from the first 15 months of the Pilot.

However, in order to incorporate data through the end of the 18-month Phase 1 period, we propose Guidehouse:

- Submits a letter to PUC Staff within 45 days following the end of Phase 1 which specifically addresses the four criteria necessary for Liberty to proceed to Phase 2. This letter may be used by Staff as a basis for informing the decision of whether or not to proceed with Phase 2.
- Submits the interim evaluation report, which will more thoroughly address the full scope of the evaluation, within 90 days following the end of Phase 1.

### **Cost-effectiveness tests**

Staff provided multiple comments regarding cost-effectiveness tests for the evaluation. In response these comments, Guidehouse proposes the following:

- Guidehouse will include the Filing Cost Test, which is consistent with the approach used previously by Liberty for this Pilot and appears to be Staff's preferred cost test for this Pilot.<sup>3</sup>
- Guidehouse will also include the Societal Cost Test, which provides a perspective that may be of interest to a broader group of stakeholders.
- Guidehouse will primarily report metrics based upon sums across the entire group of participants, rather than reporting on a per-participant basis.
- Guidehouse will report cost test values for both (a) the actual pilot benefits and costs and (b) the projected benefits and costs, adjusted to reflect considerations of a larger scale program deployment. Notably, many pilot projects that may appear to not be cost-effective from the pilot alone may be more cost-effective at scale for two key reasons. First, pilots often involve costs that may be smaller or zero for a scaled-up program (e.g., pilot evaluation costs, investments that can be leveraged for a full-scale program, and insights/experience that deliver operational efficiencies). Second, full-scale programs are able to spread relatively fixed costs over a much larger group of participants, thus improving cost-effectiveness. Consideration of these adjustments may provide helpful insights to inform both Phase 2 design and future programs which may succeed this Pilot.

### **Participant surveys**

Staff provided multiple comments regarding the structure and content of participant surveys. In response these comments, Guidehouse proposes the following:

- Guidehouse will conduct follow-up surveys with participants approximately 1 year after installation, in 2-3 batches depending upon the date of installation, rather than waiting until the end of Phase 1. We recommend against a third survey, as this is likely to result in survey fatigue (i.e., reduced response rate and poorer response quality).
- For the follow-up survey, Guidehouse will consider adding additional questions in line with Staff recommendations (e.g., regarding customer satisfaction and feedback on Pilot design). Notably, we will have to be selective in adding questions to the survey, as surveys with too many questions also risk negative impacts on response rate and quality.
- Guidehouse does not plan to make changes to the existing baseline survey. Guidehouse has already begun surveying customers, as installations have already occurred. The majority of the Staff comments regarding the surveys are already sufficiently addressed within the existing survey.

### **Behavioral response to TOU rates**

Staff provided a variety of comments that suggest that the evaluation plan should include a quantitative evaluation of participants' behavioral (non-battery) response to time-of-use rates. Notably, Guidehouse addressed the "analysis of cost-effective methods for control group load monitoring" via our letter to Staff sent on June 22, 2020. In that letter, we compared various potential methods and concluded that such quantitative comparisons between control and treatment (participant) groups would not be a prudent expense, as it would likely result in findings that are either spurious or statistically non-significant.

We did not receive a response from Staff to that letter, so the draft evaluation plan is aligned with the recommendations set forth in the letter. Specifically, we recommend a qualitative assessment of the behavioral

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<sup>3</sup> See benefit-cost analysis in *Petition to Approve Battery Storage Pilot Program: Settlement Agreement*, Docket No. DE 17-189, Liberty Utilities, January 17, 2019.

impact of TOU rates via customer surveys as the best approach to balance evaluation cost and likelihood of obtaining useful insights.

Nonetheless, Guidehouse is able to perform such a quantitative analysis, if desired by Staff despite the stated limitations. We respectfully request that Staff review and consider the options laid out in our June 22 letter to Staff on this topic and provide a response accordingly. Notably, Guidehouse's scope of work with Liberty does not include a quantitative evaluation of behavioral (non-battery) response to TOU rates, so any such analysis would require additional budget and Liberty's approval.

### **Individual comments**

The following table provides responses to each comment provided by Staff on September 29, 2020.

<b>ID</b>	<b>Page</b>	<b>Comment</b>	<b>Response</b>
1	3	ERN: The rate design and the TOU should be considered as part of the impact evaluation, too.	These are addressed within the evaluation plan, including within Sections 2.1 and 3.1.4.
2	3	ERN: Timeline has changed.	Updated plan will remove table with specific dates. Will instead note 18-mo and 36-mo periods from Phase 1 initiation for Phase 1 and Phase 2, respectively.
3	4	KFD: may? It should read "shall".	Will modify wording accordingly.
4	4	KFD: Net Metered should be deleted here. They are net metered when they export back to the system during peak times throughout the year.	Will modify wording accordingly.
5	4	ERN: Will this charging methodology be confirmed during the evaluation? How will this be determined and calculated?	Yes, this is addressed in Section 3.2.2.
6	4	ERN: Note rates have already changed.	Updated plan will remove rate table. Accurate rates will be reflected for the evaluation.
7	5	ERN: There is a 4th condition: there has been no material adverse change in any relevant circumstances or criteria.	Updated plan will include this condition.
8	5	ERN: the first condition says during the full 18-month Phase 1 period or the most recent 12 month period.	See discussion above under "Timing of reports".
9	6	ERN: What is the methodology for monitoring and analyzing the control groups load, which is a required element of the evaluation per the settlement?	See discussion above under "Behavioral response to TOU rates".
10	6	ERN: See the settlement agreement starting on p 18 to ensure that all of the requirements of the evaluation are fulfilled. It appears that all of the required elements of the evaluation have not been included. Please add all of the required elements.	See discussion above under "Evaluation requirements".
11	6	ERN: is this accurate that it is Liberty's monthly coincident peak demand that is wanted? I thought it was the ISO-NE system peak demand or the transmission networks peak demand?	Will update plan will reflect ISO-NE coincident peaks.
12	6	ERN: Not clear what is intended with the energy impacts. What is meant by "grid-level"? Is this getting hourly impacts for the full 18 month period or longer depending on the length that Phase 1 ends up being?	This refers to energy impacts on Liberty's overall system energy consumption due to changes in participant energy consumption (i.e., total energy change across all participants, adjusted for losses).  Updated plan will clarify accordingly.

ID	Page	Comment	Response
13	6	KFD: Although I think this is feasible, without a Commission established \$/minute value, it is difficult to quantify.	We anticipate using the Interruption Cost Estimator from Lawrence Berkeley National Laboratory to estimate \$ impacts associated with avoided outages.
14	6	ERN: Are these comparisons also to a control group (or all non-participants or to similar customers) during the same period as the pilot? If not, why not?	The avoided outages for individual participants will be based upon their actual outages. While the Pilot includes only a treatment group and no control group, calculated outage impacts for participants may be adjusted based upon typical outage rates on Liberty's network (e.g., 5-yr SAIDI/SAIFI) to reflect a typical customer based upon relative reduction in outage frequency and duration.
15	6	ERN: Can Liberty confirm what metric will be used for "other" reliability metrics?	No other metrics are envisioned. Updated plan will remove this point accordingly.
16	6	ERN: bill savings and costs.	The evaluation will consider net participant bill impacts, inclusive of both savings and costs.  This is addressed in Section 3.1.4.
17	6	ERN: would like to see the hourly (and interval) load difference (and kWh usage) between the participants (before and during pilot) and with similar non-participants	See discussion above under "Behavioral response to TOU rates".
18	6	KFD: So this will show the value of the customer's changed behavior? What about pre-battery load information to compare against?	See discussion above under "Behavioral response to TOU rates".
19	6	ERN: I believe that GHG and CO2 emission impacts weren't part of the analysis requirements, but probably easy to do. Not part of the B/C test	See discussion above under "Cost-effectiveness tests". The FCT will not include GHG impacts, while the SCT will.
20	7	ERN: The cost-effectiveness test should be determined in consultation with PUC and OCA. Should at a minimum be the same test(s) used before.	See discussion above under "Cost-effectiveness tests". The FCT is aligned with the approach used previously by Liberty for this Pilot.
21	7	KFD: Isn't the cost effectiveness test going to be UCT? Why are we leaving it up to the Company? Isn't that going to be more expensive to evaluate for tests that would not be allowed.	See discussion above under "Cost-effectiveness tests". The FCT is aligned with the approach used previously by Liberty for this Pilot.
22	7	ERN: actual costs must be used, but additional tests can be run with other considerations, if applicable.	See discussion above under "Cost-effectiveness tests". Actual costs will be assessed, in addition to assessment of projected costs for a full-scale program.
23	7	ERN: The elements to include in the tests must be similar to those used in the settlement. If other elements are to be considered, then must be discussed.	See discussion above under "Cost-effectiveness tests". The FCT is aligned with the approach used previously by Liberty for this Pilot.
24	7	ERN: What is meant by outage costs?	Avoided outage costs are anticipated to be calculated based upon the value of lost load according to the LBL ICE methodology. The updated evaluation plan will clarify this.
25	8	ERN: Avoided CO2 em costs (RGGI) are assumed to be embedded so this would not be a separate element for any of the tests. Unless looking at non electric	See discussion above under "Cost-effectiveness tests". The FCT will not consider separate societal value of avoided CO2, while the SCT will.
26	9	ERN: See comment above about required elements per Settlement. Also, need to distinguish information between a customer with and without DG.	See discussion above under "Evaluation requirements". We have reviewed the settlement agreement and do not see any elements that are not reflected in our evaluation. Please clarify if there is something specific that appears to be missing.

ID	Page	Comment	Response
			The Technical Evaluation describes our plans to compare customers with and without DG.
27	9	ERN: The question is what impact did the program have on peak demand for LNS and RNS purposes and annual ISO-NE peak demand.  Not sure what is meant by impact on average participant demand....?	See discussion above under "Cost-effectiveness tests". Total impacts will be assessed in the evaluation.
28	9	KFD: At this time a single customer outage is not considered an outage under the 300 rules. It would however play a extremely small contribution to the IEEE metric as a single customer outage does count unless it is caused by customer	The intention of the evaluation is to assess the ability to avoid outages that the customer experiences. The cause and extent of each outage may not be known. However, the outage impacts may be adjusted to account for typical outage frequency duration on Liberty's network (e.g., based upon 5-yr average SAIDI/SAIFI).
29	9	ERN: Is this evaluation going to calculate new avoided cost rates for each of the elements of the benefit/cost? If so, how? If this section is assuming that new rates won't be calculated specifically for this analysis, are these "values" referring to the TOTAL costs or benefits?	Values refer to total costs. Avoided cost rates will be based upon existing metrics.
30	9	KFD: Shouldn't we also measure the payout of customers for the 25% of the time the peak is missed.? That payout should be a cost against the benefit.	Costs paid to customers will be considered as part of BCA, so this will be accounted for.
31	9	ERN: How can the evaluation assume that there isn't any interactive effect between the battery and TOU? That is one of the key elements of the pilot.	See discussion above under "Behavioral response to TOU rates".
32	9	KFD: Without pre-battery meter installation, the only measure of behavior would be to use similar sized load research to the battery customer of the similar load size.	See discussion above under "Behavioral response to TOU rates".
33	10	ERN: Did the participant change usage behavior when an event was called? OR if they aren't aware that an event is going to be called, how did this impact their usage before and after an event?	See discussion above under "Behavioral response to TOU rates".
34	10	ERN: How can you determine after the fact during the evaluation, if the battery was fully charged at the event?	We expect to have state-of-charge data available for the batteries.
35	10	KFD: I'm not following this one. How would you know the theoretical maximum?	This is addressed in Section 3.2.2. The estimation of theoretical maximum requires modeling that assumes perfect foresight (i.e., customer load for all future hours is known).
36	10	ERN: How are you determining customer baseline load?	Customer baseline load is the customer's load without any battery contributions. Updated evaluation plan will clarify accordingly.
37	10	ERN: This seems more like a battery performance issue than a TOU issue. Isn't this condition guaranteed as a requirement of the pilot? I guess it is good to evaluate if it isn't guaranteed.	Avoidance of net export should be guaranteed. We intend simply to confirm that the systems are operating as designed.
38	10	KFD: This would only be for net metered Solar Customers as the storage-only customers cannot export during non dispatch times.	While net-metered solar customers may net export, our understanding is that the battery may not contribute to that net export (except during peak events). We have added a footnote for clarification.

ID	Page	Comment	Response
39-41	10	KFD: How does solar vs. battery only compare?	These battery performance metrics should not differ significantly based upon whether or not the customer has solar. However, event and TOU performance may differ significantly, and the plan discusses those planned comparisons.
42	10	KFD: Were the customer's expectations achieved? Would they do this again or recommend it to another customer?	See discussion above under "Participant surveys".  We do have questions in the enrollment survey for the customer to rate their satisfaction with the installation process. We will consider incorporating broader question(s) re. customer satisfaction for the follow-up survey.
43	11	ERN: Questions about the compensation rate- was it adequate, cost of participation, and did they pay upfront or monthly, were they aware when the battery was being controlled by Liberty/Tesla, communication regarding the events - would they have preferred advance notice or some other communication, was the battery available when they wanted it? Would they participate in the program today, knowing what they know now?	See discussion above under "Participant surveys".  We do have questions in the enrollment survey assessing customer comprehension of the pilot design and battery operation. We will consider adding new questions aligned with this comment to the follow-up survey.
44	11	KFD: and the export compensation process?	See discussion above under "Participant surveys".  We do not ask this specifically in the enrollment survey. We ask the customer to: (a) define TOU and demonstrate knowledge of rate period times, (b) identify when the system charges, and (c) identify what % of charge is left when Liberty draws from the battery.
45	11	ERN: education regarding TOU rate, battery operation, Liberty/Tesla control of battery	See discussion above under "Participant surveys". We are measuring the comprehension soon after enrollment and again in the follow-up survey. We will then be able to infer any changes in comprehension, which we assume would be attributable to education throughout the Pilot.
46	12	KFD: Rather than timing, I would say " Advance notification dates and time , cancel times (if applicable), and method of notification"	Advance notification is not required or planned, so this will be removed from the updated evaluation plan.
47	12	KFD: Rather than timing, I would say " Date and times of actual coincident peaks."	Will modify wording accordingly.
48	12	KFD: Maintenance fees or repairs	Will modify wording accordingly.
49	12	KFD: including participant monthly payment (total payment for battery only), differential payment for solar.	Will clarify wording accordingly.
50	12	KFD: Be more specific here.	Updated plan will clarify that this refers to the "T&D infrastructure costs" are specifically based upon the marginal cost of capacity.
51	12	ERN: For DG customers, increase in "sales" (exports to the grid) that are associated with the battery and associated increased credits (payments) to the customer.	These points are addressed in Section 3.1.4.
52	12	ERN: What is the source of these benefits value rates?	Specific sources will be identified during data gathering for the evaluation.

ID	Page	Comment	Response
53	12	KFD: If we are doing a SCT.	See discussion above under "Cost-effectiveness tests". The FCT will not consider separate societal value of avoided CO <sub>2</sub> , while the SCT will.
54	12	ERN: date of initial charge and discharge of battery, AC and DC capacity of DG and type of DG, date of installation and operation of DG.	Will add "DG type, capacity (AC), and date of installation". DC data is not available.
55	14	ERN: We need total kW reduced during the peak periods so that the total impact on RNS, LNS, and avoided capacity costs can be determined. It will be good to know on average how much a participant contributes and the range of reduction by participant. Also what are the cost savings per customer.	See discussion above under "Cost-effectiveness tests". Total impacts will be assessed in the evaluation.
56	14	ERN: Impact per participant does not seem to be the correct unit. Seems that we also need total \$ impact, \$/kW and/or \$/kWh and total kW, and also impact to all customers.	See discussion above under "Cost-effectiveness tests". Total impacts will be assessed in the evaluation.
57	14	ERN: All customers should benefit from the program, not just the participants. If there are different benefits for the participants, then those should be indicated, but I think those are covered elsewhere.	See discussion above under "Cost-effectiveness tests". Total impacts will be assessed in the evaluation.
58	15	ERN: PUC and OCA should be involved in discussion related to the evaluation.	We have engaged and will continue to engage PUC and OCA in this evaluation, including soliciting and addressing feedback on the evaluation.
59	15	ERN: also need to know when battery is charging and how much kWh is consumed to charge.	This will be determined from interval battery data and incorporated into calculation of impacts.
60	15	ERN: don't understand why all of the impacts are looked at as average. We need total impacts, plus in some cases an average and a range by participant.	See discussion above under "Cost-effectiveness tests". Total impacts will be assessed in the evaluation.
61	15	ERN: How is this different than bill savings?  If it is different, what are the avoided energy cost rates? How are they calculated?	These impacts are based upon avoided energy costs associated with Liberty payments for energy. We tentatively plan to calculate based upon hourly ISO-NE energy costs for Liberty.
62	15	KFD: This may prove difficult as far as keeping track of single outages. That is difficult to query.	We expect to receive data that indicates when an outage is detected by a battery and when it operates in backup mode.
63-64	16	KFD: I can't see this being a significant impact at this level.  KFD: Again, Liberty does not have an avoided cost for customers at the residential level.	Avoided outage costs are anticipated to be calculated based upon the value of lost load according to the LBL ICE methodology. The updated evaluation plan will clarify this.
65	17	ERN: What is meant by the "annual" component of the participants bill?	This simply means bill savings calculations will consider annualized savings realized for purposes of projecting savings in subsequent years. Wording will be modified for clarity.
66-67	17	ERN: If preprogram data is available it should be used. Also, thought load research customer data was going to be used.  ERN: If only battery impacts are be analyzed then it seems that it is possible to separate the TOU and battery impacts so the TOU effects should be considered too.	See discussion above under "Behavioral response to TOU rates".
68-69	18	ERN: One of the tests needs to be similar to that in the settlement agreement.	See discussion above under "Cost-effectiveness tests". The FCT is aligned with the approach used previously by Liberty for this Pilot.

ID	Page	Comment	Response
		ERN: The B/C test like in settlement must be modeled. Others can be done, too, but at a minimum a test similar to that in the settlement must be conducted.	
70	19	ERN: Any rates need to be agreed to.	The assessment of rate impact is based the evaluated costs and benefits of the Pilot. The evaluation is not intended to propose any new changes to rates.
71	20	ERN: This list may not be complete, so the test should not be limited to just these. For example, consultant costs should be included.	We will include all relevant costs, as appropriate. If there is something specific that Staff feel is missing, please clarify.
72	20	ERN: Need to take into account payments by customers.	This is addressed in "Participant Fixed Payments".
73	20	ERN: The credit or payment to the participants for demand reduction should be considered.	Yes, such credits or payments will be included.
74	22	KDF: I thought they were going to compare the bills before and after assuming no added load was at the address.	<p>The approach for calculating bill savings considers is based upon net load with battery charge/discharge and TOU rates relative to baseline load (adjusted to remove battery charge/discharge) without TOU rates.</p> <p>For calculating "savings vs. maximum", we plan to compare actual bill savings against what would be the maximum achievable savings if the battery operated optimally with perfect foresight of customer load.</p>
75-76	23	<p>KDF: Shouldn't there be a survey 1/2 way through so they can correct anything that may be out there. Why wait 18 months to hear back?</p> <p>ERN: If do a survey before the end, may want to do one at the end also?</p>	<p>See discussion above under "Participant surveys".</p> <p>We propose to conduct the follow-up surveys approximately 1 year after installation for each customer instead of at the end of Phase 1.</p> <p>Liberty should be able to identify any issues with dissatisfaction or gaps in education or program comprehension based on the first survey. They will be able to work to correct these issues throughout the duration of the Pilot.</p> <p>Since the Pilot includes so few participants, we need to survey every participant at the beginning and end. Adding a third survey to this small population would not align with best practices (survey customers no more than once per year) and might jeopardize the response rate for the final survey due to "survey fatigue" (frustration with being over-surveyed).</p>
77	24	ERN: Is the timing (within 2 weeks of battery installation) critical, because that timing has already been missed for many.	The enrollment survey has begun. To our knowledge, we have so far succeeded in surveying all customers within two weeks of installation. That said, no, the exact period (2 weeks) is not critical. What is important is that we survey soon after installation in order to effectively capture participants' experience with installation.

ID	Page	Comment	Response
78	24	ERN: What is the purpose of the dashboard? Is it automatic? If not, I would apply those costs to additional evaluation efforts.	The dashboard is automated and provides Liberty real-time access to survey results without requiring that Guidehouse team does pull, analyze, or transfer any data to Liberty, making it a very cost-effective way to share results.
79	24	ERN: Is the incentive necessary or do you think a statistically significant number of participants will complete the survey without it?	We do believe an incentive is necessary, particularly for this Pilot. Since the population is so small, we need a large portion of participants to complete the survey to reach statistical significance. Incentives greatly increase response rates.
80	25	ERN: Interim Report should include any recommended changes to the pilot for Phase 2.	Yes, this will be addressed.
81	25	ERN: Guidehouse is managed by Liberty in consultation with PUC and OCA.	We have engaged and will continue to engage PUC and OCA in this evaluation, including soliciting and addressing feedback on the evaluation.
82	26	ERN: This timeline does not work. Per settlement, the quarterly reports are issued within 30 days following the quarter.	See discussion above under "Timing of reports".
83	26	ERN: how will they get data for the full 18 months or last 12 months as required for the evaluation? AND deliver the report within 18 months of Phase 1 minimum deployment. Schedule and requirements need to be aligned because also inconsistent within this plan.	See discussion above under "Timing of reports".