April 17, 2023

Lisa A. Skumatz, Ph.D.

Skumatz Economic Research Associates (SERA)

762 Eldorado Drive

Superior, CO 80027

RE: R1983 HES/HES – IE Impact and Process Evaluation

Dear Dr. Skumatz,

Eversource Energy (“Eversource”) is pleased to submit these written comments regarding the draft evaluation report: R1983 HES/HES – IE Impact and Process Evaluation, by NMR (“Evaluator”). Eversource received the following:

* R1983 HES/HES IE Draft Report on March 13, 2023
* Impact Evaluation Supporting Documentation Workbook on March 27, 2023 ("Calculation Workbook”)
* A memo in response to Eversource preliminary questions on April 08, 2023 (“Memo #1”)[[1]](#footnote-1)

Eversource asked for an extension to provide comments by April 17, 2023, and extend the study cutoff date to June 1, 2023, to accommodate for the additional review time. Per the Energy Efficiency Board Evaluation Road Map Process, these comments are for consideration for inclusion in the Final Report.

The Draft Report summarized the Evaluator’s assessment of the Home Energy Solutions and Home Energy Solutions Income Eligible Program. Specifically, the study had the following objectives: 1) to assess program delivery 2) to determine program impacts and 3) to understand program reach.

Eversource appreciates the Evaluator’s efforts to conduct a comprehensive evaluation of the Energize Connecticut Home Energy Solutions and Home Energy Solutions Income Eligible programs, and for providing early responses to preliminary comments. This letter provides an overview of comments on the initial draft report as well as subsequent memo. The comments below are a subset of comments Eversource wishes to highlight. The attached document “CT-Review- R1983 REVIEWDRAFTREPORT\_13MAR2023\_v2\_Final for Submission” contains all comments on the draft report. The below list of comments on Memo #1 is comprehensive.

Comments on the Draft Report:

* + Please clarify in the methodology section how solar homes and supplemental heating were treated in the billing analysis.
  + Regarding Recommendation 1b: Targeting larger homes with high preprogram usage could potentially skew the equitability of the program if implemented incorrectly. Would it be possible for the recommendation to find a way to focus on more strategically targeting inefficient homes using energy usage/ square foot, or set thresholds for those who can get insulation based on R-value?
  + Regarding Recommendation 1c: The methodology and approach for inspection varies between the utilities. Is it possible to see a breakdown of savings between the utilities for inspected vs uninspected sites?
  + The study cites repeat participation as a potential driver of lower savings values. Did the analysis identify the extent of repeat participation in the program? Is there any way to compare savings of a repeat customer to savings of a new participant?
  + The study noted declining pre-program natural gas consumption by 20%-30% for more recent cohorts (i.e., 2017/2018 vs 2019). This seems to imply that 2019 participants (treatment group) and the future participant group used as the control group could be different. Please show comparison of the pre-program consumption of the treatment and control group and other analysis/equivalency checks employed to ensure a valid control group.
  + Regarding Recommendation 2A, should the incentives be tied to the conversion rates rather than the recommendation rates to avoid encouraging too many recommendations where they are not valuable?
  + It would be helpful to include the final recommended realization rates for the 2024 PSD update (Appendix G Table 78) in the Executive Summary instead of Table 3 under Key Findings and Recommendations which pulls from Appendix G Table 77.
  + Please include the regression results from the billing analysis as an Appendix or add these results to the calculation workbook.

Comments on Memo #1:

Thank you for investigating the issues we raised in our preliminary comments. We summarize our comments and follow-up questions below:

* + The memo states “*The overall revised realization rate (RR) results have only limited overall impact of program-level gross realization rates (RR). This is because they were revised downward or remained the same for the vast majority of participants (~80%) and were revised upward for only ~20% of the participants*.” Please update the revised program-level gross realization rates for 2019 in the report. While the impact is considered by the study team as limited based on measure mix in 2019, it may not be the case for future years as the program continues to encourage a larger percentage of participants to act on their vendor’s recommendations and from a cost-effectiveness standpoint.
  + It would be helpful if the report included a narrative on why the ex-ante values for air sealing & insulation for HES and HES IE went through the following changes:
    - HES: 264 therms and HES IE: 360 therms in the initial findings memo dated September 22, 2022
    - HES: 269 ccf and HES IE: 273 ccf in the draft findings presentation on February 1, 2023
    - HES: 415 ccf and HES IE: 303 ccf in the Draft Report
    - HES: 191 ccf and HES IE: 238 ccf in Memo # 1.
  + Do the updated ex-ante calculations for air sealing and insulation now include a weighted average according to the savings distribution between Eversource and UI? Please include a narrative on why the ex-ante savings values for air sealing went through the following changes:
    - HES: 69 ccf in the Draft Report to 100 ccf in the revised ex-ante calculation and reported tracking savings value
    - HES IE: 71 ccf in the Draft Report to 75 ccf in the revised ex-ante calculation to 106 ccf in the reported tracking savings value
  + Regarding the newly dubbed Achieved Savings Rate; we are currently applying 50% realization rates for air sealing and insulation. Would it be beneficial to also use the 50% realization rate for the “Achieved Savings Rate?” for a more current look at the effect on program savings?

Comments on the Calculation Workbook:

* + Please provide a copy of the updated worksheet with the revised memo.
  + Program data inputs tab, it looks like the average installed area of square footage for UI HES IE Rpre<10 is double the area of the HES program and the Eversource HES and HES IE programs. Is it possible this might include multifamily units?
  + In our preliminary comments we had highlighted savings values using a flat average between UI and Eversource for insulation and questioned why it was not weighted. Is a flat average used for all measures, and would it be better to use a weighted average?

Sincerely,

Romilee Emerick

Supervisor, Energy Efficiency Evaluation, Eversource

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1. Eversource received a follow-up memo on April 13, 2023. This memo includes measure-specific gross realization rates, billing analysis dataset and an analysis of participants included vs excluded from the billing analysis. Eversource is currently reviewing the information provided in this memo. [↑](#footnote-ref-1)