January 6, 2023

Lisa A. Skumatz, Ph.D.

Skumatz Economic Research Associates (SERA)

762 Eldorado Drive

Superior, CO 80027

RE: X1942A Cross-cutting NEI Study – HP/HPWH NEI Analysis Results

Dear Dr. Skumatz,

Eversource Energy (“Eversource”) is pleased to submit these written comments regarding the Review Draft Memo: *X1942A Cross-cutting NEI Study – HP/HPWH NEI Analysis Results* (“Draft Memo”), by NMR Group (“Evaluator”). Eversource received the Draft Memo on December 13, 2022 and asked for an extension to provide comments by January 6, 2023. Per the Energy Efficiency Board Evaluation Road Map Process, these comments are in response to the Draft Memo for consideration for inclusion in the Final Memo.

The Draft Memo presents non-energy impacts (NEIs) for residential heat pumps and heat pump water heaters that the study was able to quantify using information from end-user surveys.

**General Comments on Draft Memo Findings**

One overarching question is how are we able to apply the findings of this study? There do not appear to be any recommendations, and the Consideration section includes a sentence saying, “Additional research on negative NEIs may be needed before these NEI values can be applied for cost effectiveness testing.” Eversource would appreciate clarification around how to apply these results and what programs they would be applicable to.

**Comments on Methodology**

The Evaluator conducted primary data collection via web surveys to quantify NEIs associated with heat pumps and heat pump water heaters in Connecticut. The Evaluator used a combination of a contingent valuation approach where respondents were asked to place a value on the NEIs they experience using a labeled magnitude scale of non-health related impacts, such as reduced noise and maintenance, and self-reported direct measurement of health impacts, such as impacts on asthma triggers. Eversource finds this methodology to be appropriate.

**Additional Questions and Comments**

1. Are there any actionable recommendations coming from this Draft Memo? Are we able to apply these NEIs or are they being presented as findings that may be incorporated in the future?
2. Why did the Evaluator exclude participants of the HES program in the end user survey? Was this to avoid getting responses from someone who had multiple energy efficiency updates done at one time (e.g., someone receiving insulation and air sealing at the same time as a heat pump installation)?
3. Should the NEIs be applied at the measure level (i.e., CASHP, GSHP, MSHP, etc.)?
4. Are the health NEIs applicable to all heat pumps and heat pump water heaters? If so, should those Health NEI values in Table 0-3 be combined with the total Non-health NEI values in Table 0-1 for each measure?
5. Please see our redline version of the Draft Memo for additional clarifying questions and suggested edits for your consideration.

Thank you for the opportunity to provide comments.

Sincerely,

Megan Errichetti

Analyst, Evaluation | Energy Efficiency | Eversource

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