

Memorandum



August 24, 2023

TO: Cost Effectiveness Advisory Committee

FROM: Jonathan Belais, NEEA

SUBJECT: Key Takeaways & Action Items – August 24, 2023

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To Committee Members,

Thank you for your attendance and participation at our August 24th Cost Effectiveness Advisory Committee meeting. We appreciate your feedback and questions. Below is a high-level summary of the meeting and the feedback we heard. If we missed anything or you have additional questions, please contact Jonathan Belais (ibelais@neea.org).

- [Meeting Packet](#)
- [Slides](#)

NEEA Staff: Aaron Ingle, Alisyn Maggiora, Amy Webb, Anouksha Gardner, Ben Spearing, Chris Cardiel, Havala Hanson, Jonathan Belais, Kathryn Bae, Lauren Bates, Mark Rehley, Meghan Bean, Ryan Brown, Stephanie Rider, Susan Hermetet, Suzi Asmus, Traci Frantz, Zdanna King

On the Phone: Bryan Russo (Tacoma Power), Danie Williams (NorthWestern Energy), Haixiao Huang (NW Natural), Jake Kennedy (Energy Trust), Kathy Yi (Idaho Power), Kevin Smit (Northwest Power and Conservation Council), Phillip Kelsven (Bonneville Power Administration), Tina Jayaweera (Northwest Power and Conservation Council)

CEAC Charter

You can access the CEAC charter any time on neea.org.

Public Outreach on 2025 – 2029 Plans

NEEA has reached out for public opinion on the plan from June to August. The NEEA board will now review the feedback, and a final plan will be voted on at the December Board Meeting. Please reach out if you have any questions

2024 Cost Effectiveness Advisory Committee Draft Meeting Dates

- Q1 – February 28th
- Q2 – April 30th
- Q3 – August 28th
- Q4 – November 4th

Market Research and Evaluation Update (Presenter: Amy Webb)

Description – NEEA staff gave time to discuss current studies being held by the Market Research and Evaluation team. A poll was provided to the committee to decide which studies they would like to hear updates on. The two studies chosen were the Codes Market Progress Evaluation Report, and the HP HVAC Market Progress Evaluation Report.

Codes Market Progress Evaluation Report (MPER): Meghan Bean is the lead for this study with assistance from Chris Cardiel. This includes residential and commercial codes across all four states. ADM has been contracted for this study. They have reviewed the codes logic model, and progress on outcomes for some of NEEA's codes work. Specifically around training and education and code proposals. NEEA anticipates a final report in late Q4 2023 or Q1 2024.

High-Performance HVAC MPER: This is a commercial HVAC program. Equipment and design practices are being combined to maximize efficiency. This program has been in market development for about a year now, so it is quite early in its lifecycle. A summative evaluation will be performed. The study also seeks to qualitatively observe any market transformation. Qualitative data, external document review, supply chain interviews, and training feedback and surveys will all be included in this MPER. Data collection will take place in the Fall/Spring, with a final report anticipated towards the end of 2024. This study does overlap slightly with the Efficient Rooftop Units (ERTU) MPER.

All of these reports, when finished, will be published to the Resource and Reports portion of neea.org.

Feedback/Questions –

- Question – Haixiao Huang: You mention ADM is contracted. Which one is this?
Response – Meghan Bean: Their full name is ADM Associates.

Action Items –

- None

Milestone Review: Advanced Heat Pumps (Presenter: Lauren Bates, Havalá Hanson, and Suzi Asmus, NEEA Staff)

Description – NEEA staff presented on the new Advanced Heat Pumps (AHP) program. This program was formerly named Variable Speed Heat Pumps (VSHP). By 2030, the program hopes that the average install efficiency of residential-size HPs is 30% more efficient from 2017. Market barriers and opportunities, Market Transformation approach, intervention approach, heat pump improvements, and key assumptions within the program were all discussed. Low Load Efficient HPs deliver greater savings during shoulder season. The program is also looking to identify central ducted systems that do well in low temperatures, or colder climates. The Market Size of this program was discussed including data sources, estimation methods, results, and considerations. Cost-effectiveness of the program was also presented, which included data, methods, incremental cost results, benefit-cost ratio results, and considerations. Heating-zone weighted benefit-cost ratio was found to be 79, which although a highly favorable number is out of the ordinary and will be heavily reviewed. A third party review was performed by Cadmus Group, and this report can be found on neea.org. Results of this review were presented. The Regional Portfolio Advisory Committee will vote on whether the AHP program will move into market development on August 29th, 2023.

Feedback/Questions –

- Question – Haixiao Huang: 30% more efficient includes heating and cooling combined? How do we get there?

Response – Suzi Asmus: The answer to this question is tough. Most of our improvements are geared toward the heating season, and in particular to cold climate zones. I would need to go back and confirm the tactics, and reach out to you later. The improvements we have identified we expect to apply to 2-stage HPs as well, not just Variable Speed.

****After the meeting, the AHP team found that the 30% efficiency related to heating only****

- Question – Tina Jayaweera: When you are talking about baseline are you talking about all centrally ducted HPs? In response to the discussion held around Market Size.

Response – Havala Hanson: Just Variable Speed.

- Question – Haixiao Huang: The market size is just for the NW region?

Response – Havala Hanson: That is correct.

- Question – Tina Jayaweera: As many of us know, the actual HP performance is dependant upon installation. Does this study have any requirements that influence the savings?

Response – Havala Hanson: There is documentation in the study that lends to this that I would be happy to provide you. NEEA is very sensitive to the fact that HP installation and usage is a very large factor in savings numbers. A lot of this will take refinement over time along with third party reviews. We have current plans to further investigate the savings.

Follow-up Question – Tina Jayaweera: What are these savings incremental to?

Response – Havala Hanson: The study put together various archetypes to see what HPs look like in the real world. They then compared these archetypes to a reference unit. We would be happy to point you to the published study. [[VSHP Product Assessment and Analysis](#)]

Response – Suzi Asmus: The Product Council also has a very detailed presentation on this study if that would help. [[VSHP Product Assessment Product Council October 26, 2021](#)]

- Question – Tina Jayaweera: When you talk about capacity do you mean tonnage?
Response – Havala Hanson: Yes.
- Question – Tina Jayaweera: HP distribution was compared to RBSA 2, but do you use other data? The numbers are constantly changing.
Response – Havala Hanson: RBSA 3 will be out later this year, so we will make updates when we have that. Also, the distribution data we have showed similar results to what we showed here.
- Question – Haixiao Huang: The distribution of heat pumps being at 85%, is this in heating zone 1?
Response – Havala Hanson: Yes, we then weigh the results depending on heating zone.

Action Items –

- Havala to provide documentation around requirements that influence HP savings to Tina.

Dual Fuel Measurement and Reporting Work Group (Presenter: Ryan Brown, NEEA Staff)

Description – NEEA staff presented on the Dual Fuel Measurement and Reporting Work Group. The purpose of this group is to develop guidelines for NEEA to use when calculating and reporting savings, peak load reduction, and avoided emissions from Dual Fuel Market Transformation programs. This group is comprised of 10-15 members who are NEEA funders, commission staff, and other technical experts. The work groups approximate timeline was presented, which showed a final draft being shared with CEAC after February 2024.

Feedback/Questions –

- No questions

Action Items –

- NEEA would like to know if the committee knows of other sources the work group should consider. Please email Ryan Brown (rbrown@neea.org) with any ideas.

Key Assumption Updates (Presenter: Ryan Brown, NEEA Staff)

Description – NEEA staff provided time to the committee to answer any questions that members may have in response to the Key Assumptions Quarterly Report provided in the meeting packet.

Feedback/Questions –

- No questions

Action Items –

- None

Assessment of NEEA's Approach to Evaluation of Market Transformation Programs (Presenter: Amy Webb, NEEA Staff)

Description – NEEA staff presented on the Assessment of NEEA's Approach to Evaluation of Market Transformation Programs. The report is finalized and has been posted to neea.org. Michael Harnar, Ph. D. of Pointed Arrows Consulting and Western Michigan University was contracted to conduct this assessment. The guiding questions of the assessment were discussed. The three research tasks and two evaluation tools of the study were presented. Conclusions and recommendations were also covered, and an action timeline was shared.

Feedback/Questions –

- No questions

Action Items –

- None

Final Announcements and Remarks

- Next CEAC meeting will be on November 1st, 2023. Please submit any topic requests to Jonathan Belais at jbelais@neea.org.

Meeting Feedback

- None

Public Comment

- None