

**Meeting Notes**  
**Q4 2023 Natural Gas Advisory Committee Interim**  
**Webinar**  
**December 7, 2023**  
**Webinar Only**



**Attendees:**

Carlos Limon – Avista

Jackie Goss – Energy Trust of Oregon

Michelle Wildie – Puget Sound Energy

Laney Ralph – NW Natural

Dennis Joshua – Washington Utilities & Transportation  
Commission (WUTC)

Emily Gilroy – WUTC

**NEEA Staff:** Alisyn Maggiora, Peter Christeleit, Brandon Lindquist, Aaron Winer, Becky Walker, Jack Davidson, Neil Grigsby, Mark Rehley, Anu Teja, Eric Olson

**Resources**

- **Agenda packet on NEEA.org:** [Agenda Packet](#)
- **Master slide deck on NEEA.org:** [Slide Deck](#)
- **Meeting Recording:** <https://vimeo.com/892712086>

**Welcome and Introductions**

**Vote Refresher ([Slides 5-7](#))**

Alisyn Maggiora ([amaggiora@neea.org](mailto:amaggiora@neea.org)) briefly went over the process for voting on the Concept Advancement milestone in anticipation of the Advanced Commercial Gas Water Heating opportunity.

**Advanced Commercial Gas Water Heating Context ([Slides 9-25](#) | [Packet 2-16](#))**

Peter Christeleit ([pchristeleit@neea.org](mailto:pchristeleit@neea.org)) and Neil Grigsby ([ngrigsby@neea.org](mailto:ngrigsby@neea.org)) discussed the Advanced Commercial Gas Water Heating opportunity within the context of the overall Cycle 6 (2020-2024) gas portfolio. Neil also provided a quick overview of the Initiative Life Cycle process at NEEA, as well as the milestone criteria for the Concept Advancement milestone. The milestone criteria include a market transformation theory, a product plan, savings potential, a target market, and portfolio fit/need. The program would begin Program Development activities in 2024. Gas heat pumps used in commercial applications are available today, have undergone a series of new technology developments, and currently have regional and national market momentum that makes this a straightforward Market Transformation opportunity for NEEA. Barriers include high first cost; lack of defined value proposition for decision makers; and the high degree of system design, installation, and operational complexity. Ongoing commercialized product development is an opportunity. While new construction is a good potential market for the technology, code limitations will likely present a barrier for widespread new construction adoption in some markets. Retrofit application in existing buildings is more likely. The target market for the program is buildings with high daily hot water demand such as multifamily residential buildings, lodging, and restaurants, and have an existing central water heating system. Healthcare facilities are being left out for now, despite having high daily hot water demand due to the complexities involved with these types of buildings. Market research during the Program Development stage will reveal where the best opportunities are for this technology and help the team narrow the target market. Key activities in Program Development include validating product performance and savings, collaborating with national and regional partnerships to align goals and activities, and conducting a market characterization. The market characterization will include market actor interviews with key market influencers to learn about

decision-making criteria, barriers to adoption and the intervention strategies to remove those barriers. Neil summarized feedback on the Milestone documentation from the Natural Gas Advisory Committee that arose from the Q4 Natural Gas Advisory Committee meeting. Feedback from the Committee revolved around clarifying the focus of the proposal, the market viability, and the current product status.

#### Discussion

**Carlos Limon (Avista):** The focus of this opportunity should be on our region while working within national collaborations. Emphasized that, external modeling for example, should be tracked back to what's relevant to our region (e.g. climate zone applicability).

**PSE** seconded this comment.

**Peter Christeleit (NEEA):** The Vicot V-65 unit that we tested at the Gas Technical Institute earlier this year is an example of national collaboration. We can now deploy a unit in the field in the Northwest and we will hopefully monitor similar data points that are being monitored in other regions to be able to augment our sample with similar data from other buildings and climate zones from outside the region at no additional cost.

**Jackie Goss (ETO):** Is this intended to replace a hot water boiler or a hot water heater? It sounds like either, but there are regulatory differences between boilers and heaters.

**Peter Christeleit (NEEA):** It is either. That is something that we are hoping to learn more about during market characterization work.

**Mark Rehley (NEEA):** It's not clear whether this could replace or augment current boilers, this is a large part of the program development work.

#### Advanced Commercial Gas Water Heating Context Vote ([Slide 16](#))



### 'Concept Advancement' Milestone

#### Advanced Commercial Gas Water Heating

Name	Organization	Yes	No	Abstain	Not Present
RPAC Voting Members					
Carlos Limon	Avista	X			
Caleb Reimer	Cascade Natural Gas	X			
Jackie Goss	Energy Trust	X			
Laney Ralph	NW Natural	X			
Michelle Wildie	PSE	X			

All voting NGAC members voted in meeting except Cascade Natural Gas, who cast their vote in advance via email.

#### Reminder of Commercial Gas Absorption Heat Pump Pilot Opportunity ([Slide 19](#))

Noe Contreras ([ncontreras@neea.org](mailto:ncontreras@neea.org)) reminded the committee about the results of the Vicot Lab test and the test unit that is available for field deployment, which was mentioned in the October Q4 NGAC meeting. A good potential fit for the unit would likely be multifamily residential buildings, lodging, and restaurants as they likely have the best savings potential and water heating needs. If Committee members have questions about a potential fit for the unit, reach out to Noe.

**Carlos Limon (Avista):** Is it possible to see the literature from the mentioned lab testing?

**Noe Contreras (NEEA):** We have the lab test results for one unit, but the final report not yet published. There are multiple models we had planned to test. The lab is still working through testing one model and NEEA has been holding off on publishing all results until that work is finished and the results are finalized. The one that is held up is a brand new Vicot model. It is unclear when testing for that model can be finalized but NEEA is hoping for the first quarter of 2024. Could share preliminary report on the commercial-sized unit with gas funders.

**ACTION:** Noe to send a preview of the data so far along with these notes.

## Feedback, Wrap-Up, & Adjourn

### A. Upcoming Meetings:

- 1) Q1 January 31, 2024
- 2) Interim Webinar March 7, 2024
- 3) Q2 April 24 (in person at NEEA?)
- 4) Interim Webinar June 5, 2024
- 5) No Q3 meeting
- 6) Q4 October 22 (in person at SeaTac?)