



Natural Gas Advisory Committee

Q4 2023 Interim Webinar

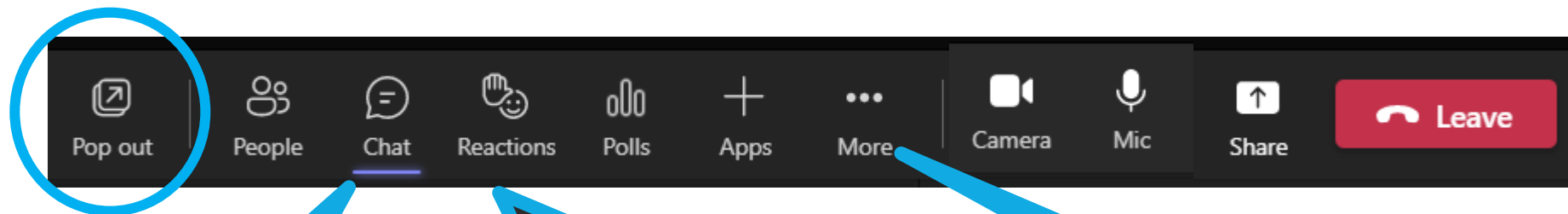
December 7, 2023
Virtual

This meeting will be recorded and transcribed





Tools for Today: Engaging on Teams



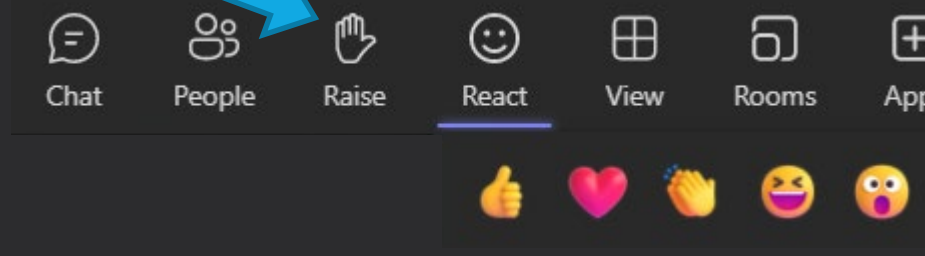
The chat is not captured in the recording.

Do you have any accessibility challenges with this technology today?



Comments/Questions?

Please raise your virtual hand or chime in
Chat & reactions also welcome



“...” More includes:

- ✓ Settings: mic & video
- ✓ Background effects



Agenda

All times Pacific

1:00-1:05	Welcome and Quick Introductions
1:05-1:50	Advanced Commercial Gas Water Heating <ul style="list-style-type: none">• Program Review + 2024 Focus Areas• NGAC Feedback Themes• *VOTE*
1:50-2:00	Housekeeping, public comment, adjourn





Introductions

- Name
- Organization
- *And...*

XXX





Vote Refresher

Alisyn Maggiora
Sr. Stakeholder Relations Manager





RPAC Vote: ‘Concept Advancement’ Milestone

Advanced Commercial Gas Water Heating

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





Yea buts... How abouts... What ifs...

- Work in advance to draw out show-stoppers
- [Charter](#) provides guidance on next steps and ensures transparency



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Advanced Commercial Gas Water Heating

- Program Review + 2024 Focus Areas
- NGAC Feedback Themes
- ***VOTE***

1:50-2:00

Housekeeping, public comment, adjourn





Advanced Commercial Gas Water Heating - Concept Advancement

Peter Christeleit
Neil Grigsby
Noe Contreras

NEEA



Initiative Life Cycle

Initiative Lifecycle





Concept Advancement Milestone

Stage gate criteria for Concept Advancement includes:

- **Preliminary Market Transformation Theory:** The market transformation theory represents a reasonable hypothesis, and it includes hypothesized barriers, interventions, how it diffuses, leverage points, and outcomes.
- **Product:** We have a reasonable product definition and clear product assessment/validation objectives.
- **Savings:** The energy savings potential is worth the anticipated cost/effort to intervene in the market, and we anticipate a viable way to measure savings.
- **Market:** We have reasonable preliminary target/defined market, as well as application.
- **Portfolio:** This program supports short-term and long-term portfolio needs, and there are available resources.



Opportunity Summary

Technology: A Gas Heat Pump (GHP) as the primary heat source within a commercial or multifamily central water heating system.

Technical Potential: 42 million total therms

Target: mid/high-rise multifamily and commercial buildings

- majority of savings opportunity is in retrofit and a small amount in new construction

Barriers/Opportunities:

- High first cost (*barrier*)
- Lack of defined value proposition for decision makers (*barrier*)
- High degree of system design, installation, and operational complexity (*barrier*)
- Ongoing commercialized product development (*opportunity*)
- Code limitations/opportunities for natural gas water heating (*opportunity/barrier*)

Strategy: Develop a GHP water heating business case and value proposition for multifamily/commercial building owners and key decision makers. As increased demand influences supply chain support and pricing, federal standards revisions for gas water heating technology will eventually exceed 1.0 Thermal Efficiency.





2024 – *Key Activities*

Product Testing and Savings Validation

- Provide lab testing on GHP products to validate performance & energy savings.
- Conduct GHP water heating demonstration projects for real world test results, cost information, market actor feedback.

Collaboration

- Leverage national and regional partnerships to align GHP goals and activities to advance the technology and develop market outreach resources.

Market Research

- Gather data on current water heating systems in existing commercial and MF buildings to inform baseline assumptions and narrow the target market.
- Identify and interview key market influencers to learn about decision making criteria, barriers to adoption, perceptions of GHP technology, and key leverage points.

Feedback Summary

1. Clarifying the focus of the proposal
2. GHP market viability
3. Current product status





*Any other thoughts,
concerns or
questions before we
vote?*





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Advanced Commercial Gas Water Heating

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» Neil Grigsby

Market Transformation Manager, Water Heating
ngrigsby@neea.org





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Reminder: Pilot Opportunity

Commercial Gas Absorption Heat Pump unit

- Replacement of conventional commercial-use gas-fired domestic water heating (DHW) equipment such as boilers and water heaters
- Multifamily, lodging, and restaurants likely have the greatest savings potential due to high occupant density (or meals in the case of a restaurant), and equipment with large water demand per occupant (or meal) which results in high water use
- Buildings with high daily hot water demand (and ideally moderate peak demand) to take advantage of the higher average annual COP
- If the building has large, non-sequential hot water demand draws that will also allow the GAHP to perform well and have time to recover



Contact Noe Contreras (NContreras@neea.org)

2024 Meeting Schedule

Dates confirmed

QUARTER	DAY	DATE	TIME (PACIFIC)	LOCATION
Q1'24	Wednesday	Jan 31	9am – 4pm hold	Virtual
Interim Webinar	Thursday	Mar 7	1-2pm hold	Virtual
Q2'24	Wednesday	Apr 24	9am – 4pm hold	<i>In-Person @ NEEA?</i>
Interim Webinar	Wednesday	June 5	1-2pm hold	Virtual
Q3'24	-	No Q3 mtg	-	-
Interim Webinar	Thursday	Sept 19	1-2pm hold	Virtual
Q4'24	Tuesday	Oct 22	9am – 4pm hold	<i>In-Person @ SEATAC?</i>
Interim Webinar	Monday	Dec 9	1-2pm hold	Virtual

Would you like to gather in-person in Q2 and/or Q4?



Recap: Action Items





Public Comment?
Closing Remarks?

» Until we meet again...

Upcoming Meetings (all times Pacific):

➤ *Q1 2024 NGAC Meeting: Wednesday, January 31 (Virtual)*

