

# Natural Gas Advisory Committee Q2 2024 Meeting (Hybrid)



**DATE:** April 24, 2024

**TIME:** 10:00 – 3:00pm Pacific

**LOCATION:** Hybrid @ NEEA’s office (Columbia Room)

**WEBINAR:** [Click here to join the meeting](#) (Meeting ID: 235 902 924 283 | Passcode: j9twxn)  
(if needed) Call-in audio only: 971-323-0535 | Phone Conference ID: 564 433 839#

## AGENDA (All Times Pacific)

10:00-10:20 (20 min)	<b>Welcome and Introductions</b>	Alisyn Maggiora	
10:20-10:45 (25 min)	<b>Round Robin</b> <ul style="list-style-type: none"> <li>Share-out on recent key activities/developments</li> <li><b>*NEEA Request*:</b> How have the changes in natural gas rates/costs affected your ability to have cost-effective gas efficiency programs? What trends/impacts do you foresee?</li> </ul> <p><i>Desired Outcome: Committee aware of relevant activities/developments across our organizations.</i></p>	NGAC Members	
(15 min)	<b>Break</b>	All	
11:00-11:45 (45 min)	<b>Market Progress &amp; Portfolio Overview</b> <ul style="list-style-type: none"> <li>Committee will receive a preview of the content to be shared at the Q2 Cost Effectiveness Advisory Committee Meeting including: <ul style="list-style-type: none"> <li>Market transformation highlights</li> <li>Reported and forecasted savings</li> <li>Cost effectiveness approach and results</li> </ul> </li> </ul> <p><i>Desired Outcome: Committee aware of high-level portfolio status</i></p>	Ryan Brown	p.3
(45 min)	<b>LUNCH</b>	All	
12:30-1:45 (75 min)	<b>Quarterly Portfolio Update</b> <ul style="list-style-type: none"> <li>2023 Year-end Budget Check-in</li> <li>Quarterly Progress Report highlights</li> </ul> <p><i>Desired Outcome: Committee apprised on gas portfolio developments.</i></p>	Peter Christleit Noe Contreras Mark Rehley Melissa Aguilera Aaron Winer Jason Jones Tamara Anderson	p.4-15
(15 min)	<b>Break</b>	All	
2:00-2:30 (30 min)	<b>Housekeeping &amp; Looking Ahead</b> <ul style="list-style-type: none"> <li>Cycle 7 (2025-2029) Business Plan Update</li> <li>Product Council Updates</li> <li>Workgroup Updates <ul style="list-style-type: none"> <li>NGAC Dual Fuel Program</li> </ul> </li> <li>Load Flex Update</li> <li>Reminder: Condensing Gas Storage Water Heater Research Request</li> <li>Notes &amp; Action Items: January 31 meeting</li> </ul> <p><i>(cont'd on next page)</i></p>	Becky Walker Noe Contreras Peter Christleit Aaron Winer Alisyn Maggiora	

	<ul style="list-style-type: none"> <li>● Looking ahead <ul style="list-style-type: none"> <li>○ Efficiency Exchange Reminder</li> <li>○ Stakeholder Satisfaction Survey Update</li> <li>○ Upcoming meetings (Q3/Q4 NGAC Schedule)</li> </ul> </li> </ul> <p><i>Desired Outcome: Committee refreshed on previous meeting notes/action items and aware of significant upcoming items.</i></p>		
2:30-2:45 (15 min)	<p><b>Dual Fuel Check-in</b></p> <ul style="list-style-type: none"> <li>● Discuss Workstreams</li> <li>● Timing for Updates / Next Steps</li> </ul> <p><i>Desired Outcome: Committee aware of NEEA progress and share individual updates as needed.</i></p>	Peter Christleit	<b>p.16</b>
2:45-2:55 (10 min)	<b>Public comment, wrap up and adjourn</b>	Alisyn Maggiora	

Informational Updates:

- None

Additional Resources:

- Q1 2024 Newsletter – [Market Research and Evaluation](#)
- Q1 2024 Newsletter – [Emerging Technology](#)
- Q4 2023 Newsletter – [Codes, Standards and New Construction](#)
- Recent NGAC Meeting Materials (Q1 2024)
  - January 31 [Packet](#), [Slides](#), [Notes](#)
- [NGAC Charter](#)

# Memorandum – *Agenda item*



April 17, 2024

TO: Natural Gas Advisory Committee (NGAC)  
FROM: Ryan Brown, Manager of Planning and Analysis  
SUBJECT: 2023 Market Progress and Portfolio Overview

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## **Ask of You:**

- **Come prepared to listen and ask questions.**
- **If you would like to go deeper please connect with your organization’s Cost Effectiveness & Evaluation Advisory Committee (CEAC) representative and feel free to attend the Q2 CEAC meeting on April 30<sup>th</sup>.**

## **Brief Context:**

Throughout the first quarter of each year, NEEA’s Planning and Analysis team gathers market data and applies all current evaluation and market research findings to update estimates of market adoption and reportable energy savings within the market transformation portfolio. This work feeds individual funder reports that are sent out in March and April of each year and culminates in a presentation to the Cost Effectiveness and Evaluation Advisory Committee (CEAC). An executive summary of this information is also shared with other NEEA advisory committees as well as the Board of Directors. This executive summary will be covered at the April 24<sup>th</sup> Natural Gas Advisory Committee meeting.

## **Overview of Content:**

At the April 24<sup>th</sup> NGAC meeting NEEA staff will provide a preview of the material to be shared in greater detail with CEAC on April 30<sup>th</sup>. This will include:

- Background information on NEEA’s approach and processes for reporting market transformation progress and associated energy savings
- Some market transformation highlights from the portfolio
- A look ahead to what to expect in the future of the portfolio

In addition to this portfolio overview content, NEEA staff would like to take the opportunity to update the NGAC on two topics that were discussed at the Q1 CEAC call in early March. These are 1) an update on NEEA’s inclusion of emissions benefits from natural gas efficiency for cost effectiveness analysis and 2) Key model input updates for the Efficient Rooftop Units (ERTU) Program. Details about these topics can be found on pages 5-11 of the [Q1 CEAC meeting packet on neea.org](https://www.neea.org/files/2024/04/Q1-CEAC-Meeting-Packet.pdf).

Please don’t hesitate to reach out to Ryan Brown ([rbrown@neea.org](mailto:rbrown@neea.org)) with questions or concerns.

# *Natural Gas Progress Report*

**Northwest Energy Efficiency Alliance (NEEA)**

Q1 2024 Highlights

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neea.org  
info@neea.org



## Scanning

- Combi
  - GTI Energy is working on draft report for multi-family and single family. Final report expected Q2 2024.
- Dual-Fuel
  - Completed Market Landscape of Residential Hybrid Systems.
  - GTI Energy working on a lab testing in a virtual home environment. Results expected Q2 2024.
  - Combi dual-fuel concept conversations
  - Controls strategy discussion with multiple manufacturers
  - Dual-fuel measurement and demonstration/research workgroups ongoing
- Commercial Dryers
  - Working with partners to support study of absorber and desorber-condenser module of a sorption-based gas clothes dryer system.
- Commercial Water Heating
  - Review of literature for use case benchmark that include: [ASHRAE RP-1544 Hotels](#), Restaurants & Multifamily

## Codes, Standards, and New Construction

### Codes & Standards

In the first quarter of 2024, NEEA staff submitted two comment letters in response to requests from the Department of Energy.

- Water Heaters – Efficiency Conservation Standard – SNOPR (Supplemental Notice of Public Rulemaking)
- Consumer Furnaces – Efficiency Conservation Standard – NOPD (Notice of Proposed Determination)

### Washington

- Commercial & Residential Code: The 2021 Washington State Energy Code–Commercial (WSEC-C) and Residential (WSEC-R) became effective on March 15, 2024. This concluded a three-year public process with NEEA participating throughout by providing data and analysis to encourage good decisions for fuel neutral code provisions. The final code is expected to result in 24% (Commercial) and 38% (Residential) increases in efficiency over the 2018 WSEC. NEEA is closely analyzing the final code to document differences from the previous code and to develop updated training and resources for builders and utilities.
- Soon after the conclusion of the 2021 WSEC, the State Building Code Council (SBCC) began the process of developing the 2024 WSEC. A public request was opened for technical experts interested in participating on the WSEC-C technical advisory groups (TAG), and nearly all of the TAG seats have since been filled. New WSEC-C proposals are likely due in August 2024.

### Montana

- During Q1, the Montana Homes Collaborative (MHC) met and discussed topics such as 2024 IECC and its potential adoption in Montana (MHC expects the state to hold adoption proceedings in late 2024, then adopt it in early 2025), heat pump water heaters, and the [Montana Building Codes Education Conference](#) (which was well attended by MHC members).
- NEEA's BetterBuiltNW has been planning with Earth Advantage a [Best Practices in New Home Construction training](#) in Bozeman to be held May 2-3<sup>rd</sup>. The event will consist of a site visit to a high-performance home under construction as well as the best practices training session which will be held at the Montana Weatherization Training Center. Topics are to include building science fundamentals, ventilation & healthy indoor air, air barriers, incentives and tax credits, and more.

## Oregon

- Commercial: In Q1 2024, the 2024 Oregon Energy Efficiency Specialty Code (OEESC) adoption process was essentially paused. The [first draft of the 2024 OEESC](#), which is based on the model standard ASHRAE 90.1-2022, was reviewed and approved in October 2023, but rulemaking steps to adopt the 2024 OEESC were stalled because the COMcheck software version for ASHRAE 90.1-2022 was not yet available. The target code adoption date has now been delayed to July 1, 2024, and [the 2024 OEESC is now expected to go into effect six months later](#) on January 1, 2025. While ASHRAE 90.1-2022 would deliver an approximate [10% increase in energy efficiency](#) from the current code (2021 OEESC), the 2024 OEESC final draft includes weakening amendments.
- Residential: The 2023 Oregon Residential Specialty Code (ORSC) [went into effect on April 1, 2024](#). While the Oregon Building Code Division (BCD) maintains that the 2023 ORSC is [at least as efficient as the 2021 IECC](#), U.S. DOE found that 2023 ORSC is [5.7% less efficient than 2021 IECC](#). BCD also continued the process of updating the Oregon Residential Reach Code (ORRC). In Q1 2024, BCD posted the [final draft of the 2023 ORRC](#), which has since been approved and will become effective (as a wholly voluntary standard) later this year.

## Idaho

- Throughout Q1, the Idaho Code Collaborative has met regularly in preparation for the state's next code update cycle. IECC 2021 and 2024 are currently being reviewed by the group, with the goal being to recommend one to the Building Code Board.

## International Energy Conservation Code (IECC):

- The 2024 IECC development process was completed in Q1 2024 after 2.5 years. The final step, the appeals process, was very significant in shaping the final 2024 IECC. Nine appeals were submitted, with each seeking removal of provisions the appellants viewed as unduly promoting electrification and features like rooftop solar, electric vehicles, demand response, and energy storage. The International Code Council's (ICC) stood up an Appeals Board to hear the nine 2024 IECC appeals filed, and [the Appeals Board recommended not to grant the appeals](#). However, [the ICC Board of Directors, which has the final say, voted to grant all nine appeals](#), thereby removing these requirements from the 2024 IECC. ICC staff must now incorporate the Board's decision to truly finalize the 2024 IECC, which is expected to be published later this year.

## New Construction

NEEA staff continue to support utility programs participating in the Performance Path above-code new construction program. Data is collected monthly on homes built and rated. Additionally, training resources are developed and distributed through NEEA's BetterBuiltNW newsletter and website <https://betterbuiltinw.com/>.

## Other Updates

- Highlights from the North American Gas Heat Pump (GHP) Collaborative include:
  - Residential Space Heating Committee:
    - Residential and commercial GHP collateral that focuses on the GHP value proposition developed. Links here: [Residential GHP Value Proposition](#), [Commercial GHP Value Proposition](#)
    - The Committee developed a Manufacturer Outreach & Engagement report summarizing the current state of GHP manufacturers. This is currently available for members. A residential GHP TRM Workpaper template is also in process. The TRM workpaper will be populated with modeled GHP savings assumptions and will be available for members in 2024.
  - Commercial GHP Committee:
    - Mission: Accelerate the development and adoption of Commercial GHP Space and Water Heating systems across North America.
    - In Q2, funding commitments for 2024-2025 activities will be finalized, and planning and implementation will begin. NEEA will also lead the market characterization scope development in Q2.



- Alliance staff attended multiple meetings/workshops highlighting Northwest progress, identifying opportunities to collaborate and gaining industry insight. Events included:
  - Meetings and site visits with Enbridge Gas, Vicot/Homy and iFlow: Staff met with numerous contacts and toured installation locations to learn successes, identify opportunities, and build relationships. Highlights include:
    - Multiple discussions with Enbridge Gas staff to learn successes and lessons learned related to commercial and residential gas heat pump installations.
    - Site visits to see 2 commercial gas heat pump and 2 residential gas heat pump installations.
    - Working session with Vicot’s North American distributor, Homy, to learn product updates, roadmap and discuss possible field demonstrations.
    - Working session with iFlow to learn more about their dual-fuel product, tour warehouse/manufacturing facility and identify near-term product demonstration opportunities.
  - ACEEE Hot Water & Hot Air Forum: Staff attended conference and ancillary meetings, including:
    - Moderating and/or speaking at multiple conference sessions to highlight the Alliance’s work related to ERTU, gas heat pumps, dual-fuel products, and other efficient gas technologies.
    - Utilizing the highly attended conference to meet with key stakeholders and partners, including:
      - Major water heater, boiler and HVAC manufacturers
      - Efficiency advocates
      - State, jurisdictional and federal agencies
    - Touring Rheem’s Innovation Learning Center to learn about Rheem’s water heating and HVAC training capabilities, product roadmap and collaboration opportunities.
  - CEE Winter Meeting: Staff attended multiple sessions highlighting regional activities, sharing knowledge and networking with stakeholders throughout North America.

# Advanced Commercial Gas Water Heating

2024 Goal	Key Success Metric	Status	Progress and Next Steps
Validate product performance and energy savings.	Successful demonstrations of two commercialized GHP products (Threshold: Demonstration of one product)	On target	<ul style="list-style-type: none"> <li>• Prioritizing Robur, Vicot, and SMTI GHP products based on previous product testing and market readiness/availability.</li> <li>• Compiling lab/field testing results done for all currently available products.</li> <li>• Identifying possible field and/or lab demonstration opportunities.               <ul style="list-style-type: none"> <li>○ Please reach out to program team if you are interested in having a GHP field demonstration in your service area.</li> </ul> </li> </ul>
Refine target market and value proposition, integrating findings into updated project strategy.	Complete market research, initiate market characterization and pilot incentive program(Threshold: Complete market research and initiate market characterization)	On target	<ul style="list-style-type: none"> <li>• Released a limited RFP for market research to confirm three target market building types for GHP water heating: Lodging, Restaurants, Residential multifamily.               <ul style="list-style-type: none"> <li>○ Contractor selection and kick-off will take place in Q2.</li> </ul> </li> <li>• Scoping Market Characterization in Q3. Working to identify possible partners to expand beyond NA Gas Heat Pump Collaborative.</li> <li>• Establishing relationship with NW distributor with a goal of developing draft incentive program Q2.</li> </ul>

## Activities, achievements, or events

- Visited Enbridge Gas and Vicot/Homy as referenced above.
- Led a Commercial Gas Heat Pump Market Transformation session at ACEEE’s Hot Water Forum in March. Presentations highlighted Gas Heat Pump projects around the country and encouraged continued collaboration among interested stakeholders. Slides from the presentation are available, upon request.

## Efficient Rooftop Units (Efficient RTUs)

2024 Goal	Key Success Metric	Status	Progress and Next Steps
Encourage manufacturers to develop and promote Efficient RTUs for the light commercial market.	Engage minimum of 4 manufacturers to provide either new eligible equipment, 2 new price points, or 2 expanded products under 12 tons (Threshold: Engage a minimum of <b>2</b> manufactures, to provide either new equipment, <b>1</b> new price point, or <b>1</b> expanded product).	On Track	<ul style="list-style-type: none"> <li>One manufacturer (Daikin North America) has designed and is bringing an energy recovery ventilator (ERV) product to market to be used in place of the economizer of their light commercial RTUs. This product will be available for wholesale purchase in 2024.</li> <li>Working with extra-regional partners to develop manufacturer engagement plans to align on future RTU design improvements.</li> </ul>
Create awareness of and support for Efficient RTUs from market actors (manufacturers, manufacturer reps, distributors, contractors) and utilities across the US and Canada.	By Q2 six manufacturers/distributors /manufacturer reps recruited to partner and submit data showing Efficient RTU sales (Threshold: By <b>Q4 four</b> manufacturers/distributors /manufacturer reps recruited)	On Target	<ul style="list-style-type: none"> <li>Regular meetings with distributors and manufacturer reps are ongoing.</li> <li>One manufacturer rep has begun submitting initial sales/pipeline data.</li> <li>Recruiting an outreach vendor to engage with supply chain to increase awareness of efficient RTUs and develop data sharing agreements.</li> </ul>
Work with alliance stakeholders to increase utility programs that reference NEEA's Efficient RTU specification.	Get commitments from four Northwest utilities by Q2 2024 to offer Efficient RTU measures. (Threshold: Commitments from <b>two</b> Northwest utilities by <b>Q4</b> )	On Target	<ul style="list-style-type: none"> <li>Team had meetings with Northwest natural gas utilities in Q1 to discuss measures related to Efficient RTUs.</li> <li>Ongoing discussions with the RTF to develop RTU measure for the region.</li> </ul>

## Activities, achievements, or events

- Team moderated and presented at a Rooftop Unit panel at ACEEE Hot Air Forum. Panel presented on RTU technologies, including gas efficiency as a decarbonization strategy.
- The team is working with utilities and efficiency organizations across North America to create an RTU collaborative for alignment of RTU efficiency measures across fuel types and climate zones. Initial meeting will be held in Q2. Goals for the collaboration include sharing strategies, data, and to identify common goals to reduce barriers of increasing the efficiency of RTUs.

# Efficient Gas Water Heaters

2024 Goal	Key Success Metric	Status	Progress and Next Steps
Develop regional residential GHPWH market acceleration strategy.	Finalized regional market acceleration strategy by Q4 (Threshold: Draft strategy complete)	On Track	<ul style="list-style-type: none"> <li>Team developed draft timeline and structure for strategy development, identifying data needs and support resources</li> <li>Next steps include contracting for support resources, analyzing existing data and interviewing key resources</li> </ul>
Support expedited review of residential GHPWH business case and initiation of commercialization.	2 manufacturers initiating commercialization stagegate process (Threshold: 1 manufacturer initiating commercialization)	On Track	<ul style="list-style-type: none"> <li>Numerous meetings with manufacturers and technology developers, ongoing (including at ACEEE Hot Water Forum, as noted above)</li> <li>Distributed condensing gas storage water heater market research RFP, expecting work to begin in early Q2 resulting in a final report by late Q3 2024</li> </ul>
Scan market to identify additional options.	2 additional technologies identified (Threshold: 1 additional technology identified)	On Track	<ul style="list-style-type: none"> <li>After additional delays due to issues with ancillary components, adsorption GHPWH testing results (expected early Q2) will inform next steps for manufacturer collaboration and market acceleration strategy</li> <li>Absorption GHPW developer maintaining market awareness, but currently focused on monobloc (furnace/combi replacement) gas absorption heat pump</li> </ul>

## Activities, achievements, or events

- 2024 ACEEE Hot Air/Hot Water Forum, referenced above.

# High-Performance Windows

2024 Goal	Key Success Metric	Status	Progress and Next Steps
Evaluate the alliance’s influence to-date via program efforts and participation via the Partnership for Advanced Windows Solutions (PAWS) on the ENERGY STAR Residential Windows, Doors, and Skylights Version 7.0 Specification.	Complete ENERGY STAR Version 7 Influence Study by Q2 2024. (Threshold: Complete ENERGY STAR Version 7 Influence Study by Q3 2024.)	Head’s Up	<ul style="list-style-type: none"> <li>• NEEA’s ENERGY STAR Version 7 Influence Study Limited RFP will be posted on neea.org soon.</li> <li>• The team anticipates this evaluation to be completed on by the end of Q3.</li> </ul>
Engage major manufacturers and/or window suppliers to acquire sales data and learn about their go-to market strategies for high-performance windows.	Confirm three partners to supply sales data by Q2 2024. (Threshold: Confirm two partners to supply sales data by Q4 2024.)	Head’s Up	<ul style="list-style-type: none"> <li>• Manufacturer outreach will be a focus for Q2 yet contracting agreements are not likely to be completed by the target date.</li> <li>• The program has been partnering with MN CEE to collaborate on national manufacturer engagement to consolidate the asks for data and to maximize the potential of success for both organizations.</li> <li>• The program is still working to reach the threshold by the end of the year.</li> </ul>
Continue the Volume Builder Project and complete an in-progress project with national production builder.	Document lessons learned by Q4 2024. (Threshold: Document lessons learned by Q1 2025.)	On target	<ul style="list-style-type: none"> <li>• 68 of 100 homes have been completed by the end of Q1.</li> <li>• The window purchases are forecasted be completed in early Q4.</li> <li>• The program team will conduct an exit interview with the builder to document lessons learned in Q4.</li> </ul>

## Activities, achievements, or events

- The [Lennar Case Study](#) is posted on BetterBuilt<sup>NW</sup>
- We collaborated with [MN CEE](#) on a **macro level study based on manufacturer/supplier interviews** to understand the total number of units sold in 2022 in the Northwest (and MN) segmented by efficient and non-efficient windows defined as 0.22 U-Factor or less, along with understanding the breakdown of prescriptive ( $\leq 0.22$  U-Factor) and the equivalent energy performance defined by the new [ENERGY STAR v7 specification](#) for the Northern Climate Zone. This will be published soon on neea.org.

# Memorandum – *Agenda item*



April 17, 2024

TO: Natural Gas Advisory Committee (NGAC)

FROM: Peter Christeleit, Manager, Gas Portfolio

SUBJECT: Dual-Fuel Scanning Activity Updates

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## **Our ask of you:**

- ***Bring any dual-fuel-related questions you have for NEEA staff or for other NGAC members.***
- ***Share any dual-fuel updates from your organization that haven't been shared at either of the ongoing workgroups.***

## **Update on NEEA dual-fuel workstreams:**

- As part of NEEA's scanning efforts to evaluate the potential program opportunity for residential dual-fuel HVAC staff have a handful of ongoing workstreams to understand:
  - The magnitude and scope of the dual-fuel opportunity
  - What the unique market transformation opportunity is for NEEA
  - How a potential dual-fuel program would fit into the portfolio
- As staff, workgroups, and committees make progress in each of these areas NGAC Committee members will be kept informed.

## **Purpose of the agenda item:**

- Provide general updates, timelines, and provide space for NGAC Committee members to ask questions and give their own updates if applicable.

Please contact [Peter Christeleit \(PChristeleit@neea.org\)](mailto:PChristeleit@neea.org) if you have questions about this memo.