Natural Gas Advisory Committee Q1 2025 Meeting (Virtual)



DATE: Tuesday, February 4, 2025 **TIME:** 9:30am – 12:00pm Pacific

WEBINAR: Click here to join the meeting (Meeting ID: 292 744 330 760 | Passcode: hx72pg6D)

(if needed) Call-in audio only: 971-323-0535 | Phone Conference ID: 164 151 606#

AGENDA (All Times Pacific)

9:30-9:50	Welcome and Introductions	Aliova Maggiora	p. 1-2
(20 min)		Alisyn Maggiora	μ. 1-2
9:50-10:15 (25 min)	 Portfolio Review Look Back – 2024 Highlights Look Ahead – 2025 Focus Areas and Reminder of Upcoming Program Advancements Residential Dual Fuel HVAC High-Efficiency DOAS 	Peter Christeleit Emily Moore	p. 3
	Desired Outcome: Committee apprised of gas portfolio developments and reminded for focus areas from the 2025 Operations Plan.		
10:15-10:35 (20 min)	Round Robin • Share-out on recent key activities/developments Desired Outcome: Committee aware of relevant activities/developments across our organizations.	NGAC Members	
(10 min)	Break	All	
10:45-11:00 (15 min)	Housekeeping & Looking Ahead • Product Council Updates • Notes & Action Items: Oct 22 • Looking ahead • Reporting Survey • Upcoming meetings Desired Outcome: Committee refreshed on previous meeting notes/action items and aware of significant upcoming items.	Noe Contreras Alisyn Maggiora	p. 4
11:00-11:55 (55 min)	Quarterly Report Highlights Review Q4 Quarterly Progress Report Desired Outcome: Committee apprised of gas portfolio developments.	Noe Contreras Mark Rehley Melissa Aguilera Jason Jones Deborah Sunada	p. 5-12
11:55-12:00	Public comment, wrap up and adjourn	Alisyn Maggiora	

Informational Updates:

None

Additional Resources:

- Market Research and Evaluation Newsletter
- Codes & Standards Newsletter
- Emerging Technology Newsletter
- Recent NGAC Meeting Materials
 - o Oct 22 Packet, Slides, Notes
- NGAC Charter (note: this charter will include the new milestone vote changes after the board approves it in March 2025)

2025 NGAC MEETING DATES:

Quarter	Day(s)	Date(s)	TIME (PST)	LOCATION
Q1	Tues	Feb 4	9-4	Virtual
Interim Webinar	Wed	March 12	1-2	Virtual
Q2	Wed	April 16	9-4	SeaTac / Hybrid
Interim Webinar	Thurs	June 5	1-2	Virtual
Q3	_	No Q3 Mtg	_	_
Interim Webinar	Wed	Sept 10	1-2	Virtual
Q4	Tues	Oct 28	9-4	NEEA / Hybrid
Interim Webinar	Wed	Dec 10	1-2	Virtual

Memorandum – Informational or Agenda Item

January 28, 2025

TO: Natural Gas Advisory Committee (NGAC)

FROM: Peter Christeleit, Sr. Manager, Corporate Strategy & Stakeholder Relations

Emily Moore, Director, Market Strategy & Execution

SUBJECT: Natural Gas Portfolio Quick Look Back, Look Ahead

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Our Ask of You:

Please bring any questions related to the natural gas portfolio 2025 goals and focus areas to the NGAC meeting on 02/04/2025.

Brief Summary of Discussion Topics

To kick off the new year, and first year of the Cycle 7 Business Plan (2025-29), NEEA staff will summarize key highlights from market and program progress in 2024 and review the key goals and focus areas for 2025.

Key highlights from 2024 include:

- Reconfigured portfolio for Cycle 7: more resilient to regional funder and policy dynamics.
- Finalized portfolio principles: approved by Board and emphasizing importance of dual-fuel.
- Explored dual-fuel: made progress toward a potential milestone vote in 2025.
- Integrated gas/electric portfolios: Leveraging full NEEA management capacity for Cycle 7.
- Moved High-Performance Windows & (residential) Efficient Gas Water Heating to Scanning.

As a review, the focus areas for the natural gas portfolio from the 2025 Operations Plan include:

- Ramp up market interventions in the Efficient RTU program.
- Accelerate testing and research in the Advanced Commercial Gas Water Heating program.
- Advance at least one new dual-fuel or fuel-neutral opportunity into the portfolio.
- Leverage collaboration and investments from North American partners.

Potential 2025 program advancements that staff may bring to the committee in the coming year include:

- Residential Dual-fuel HVAC potential Concept Advancement milestone, likely in Q3.
- Advancing a Gas High-Efficiency Dedicated Outside Air Systems (DOAS) program addition to the
 existing High-Performance HVAC commercial program in the electric portfolio. Staff will be working
 on program change documentation and will likely bring the opportunity forward to the committee
 for review and vote in O4 2025.

Additionally, the team is exploring a potential 2026 opportunity to add electric heat pumps to the Efficient RTU program, which would result in a dual-fuel program.

If you have questions about this memo or portfolio developments, please contact Emily Moore (EMoore@neea.org).

Memorandum - Informational or Agenda Item

January 28, 2025

TO: Natural Gas Advisory Committee (NGAC)

FROM: Alisyn Maggiora, Sr. Stakeholder Relations Manager

SUBJECT: NEEA Reporting Audit & Potential Streamlining



Our Ask of You:

- 1) Please review the memo and bring any questions, recommendations, feedback, or concerns to the Q1 NGAC meeting on February 4, or contact me at the email below.
- 2) Please complete the <u>survey</u> by Friday Feb 14.

Context

NEEA staff are conducting an audit of the reports, newsletters and other materials communicated to alliance members to better understand what's useful and valuable. This effort seeks to achieve balance with the time spent compiling these materials and what's desired/useful, and/or duplicative. Feedback will help determine whether there's a need to streamline the number of reports/materials produced and possibly the communication channels used. Thank you in advance for taking a few minutes to provide us with feedback on what's most useful to you.

SURVEY LINK: https://www.surveymonkey.com/r/2025-Reports-Value-Assessment

REFERENCE ONLY: Current NEEA Reports with Linked Examples

NOTE: Please do not feel the need to review each of these reports. The survey is designed to capture the types of information that are valuable to you more generally. The list below / linked examples are provided so you have the formal names/purpose/content handy in case it's helpful. If you have a strong preference for any of these reports as they are structured today, please include that feedback in the survey.

- 1. Annual Operations Plan (2025)
- 2. <u>Annual Report, Key Assumptions and Business Cycle Savings Update</u> (electric + gas, reported to Cost-Effectiveness & Evaluation Advisory Committee in Q2 each year)
- 3. Annual Cycle Scorecard (as part of Q1 2024 Quarterly Report)
- 4. Annual Report (2023 is latest available)
- 5. Coordinating Committees Semi-annual Program Activity reports:
 - Q4 2024 Residential Program Activity Reports
 - Q4 2024 Commercial & Industrial Program Activity Reports
- 6. End of Business Cycle Report (2015-19)
- 7. Quarterly ED Update, Report & Scorecard
- 8. Quarterly Natural Gas Portfolio Progress Report
- 9. Quarterly Market Progress Report (Program progress to annual goals: electric + gas)
- 10. Codes & Standards Newsletter
- 11. Emerging Technology Newsletter
- 12. Market Research and Evaluation Newsletter

Please contact Alisyn Maggiora (amaggiora@neea.org) if you have questions about this effort.

Natural Gas Progress Report

Northwest Energy Efficiency Alliance (NEEA)

Q4 2024 Highlights

Northwest Energy Efficiency Alliance
700 NE Multnomah, suite 1300
Portland, Oregon 97232
p 503.688.5400
neea.org
info@neea.org



Scanning

- Hybrid Field Study
 - Team provided comments to draft report for multi-family and single-family field study with SMTI/ANESI prototype.
 In progress of collecting feedback from manufacturers
 - Multifamily site resulted in net efficiency upwards of 136% and saved 54% gas consumption for hot wateronly mode and up to 55% for combined space heating and water heating mode
 - Single family hydronic & forced-air heating sites resulted in in net efficiency upwards of 110%-130% for combined space heating and water heating mode
- Lab testing of Vicot's Gas Absorption Heat Pump Project was co-funded with Fortis BC Energy and Enbridge. Team in progress of providing comments to draft report.
 - Vicot V65: testing through the ANSI Z.21.40.4 method of test (residential and commercial space heating & cooling test method), resulted with an efficiency metric of 131.5% AFUE (annual fuel utilization efficiency), with a seasonal COP_{αas} of 1.32
 - Vicot V65: testing through the ASHRAE standard 118.1 method of test (commercial water heating test method), resulted with an efficiency metric between 1.17 to 1.72 COP_{gas} depending on return temperature and firing rate.
 - Vicot V20: testing through the ANSI Z21.40.4 method of test resulted in an efficiency metric of 121.3 AFUE
- Commercial Water Heating
 - Modeling of hybrid Gas Absorption Heat Pump and Dual Fuel configurations
 - Engaging manufacturers of Dual Fuel products to understand system performance, target applications, and supply chain maturity
 - o In-progress of identifying potential field-testing sites
- Dual-Fuel Res HVAC
 - GTI Energy lab testing in collaboration with Utilization Technology Development; systems selected and procured.
 Testing expected to begin Q4 2024 and findings expected in 2025.
 - Multiple dual-fuel modeling projects completed, findings presented in Q4 2024/Q1 2025 for team review
 - Lab testing of simultaneous heating dual fuel combi expected in Q1 2025
 - Installation begun residential dual-fuel HVAC technology field demonstration
 - o Program Mapping Workshop planned for Q1 2025 with external facilitator

Codes, Standards, and New Construction

Codes & Standards

Standards

• In the fourth quarter of 2024, NEEA staff did not submit any comment letters to DOE for Federal standards. The Department of Energy dramatically slowed dockets after very busy quarters early in the year.

Washington Codes

- Commercial Code: the Washington State Energy Code-Commercial (WSEC-C) Integrated Draft (combining the most efficient elements of 2021 WSEC-C and 2024 IECC-C) was completed in November, and the public code change proposal submission period was opened. This Draft served as the basis for these proposals, which were due January 14, 2025.
 U.S. DOE completed its analysis of the current code, 2021 WSEC-C. It was found to be 25.7% more efficient than ASHRAE 90.1-2019, the contemporaneous model commercial energy code.
- Residential Code: The Washington State Energy Code Residential went into effect in March 2024. No action has been taken by the State building Could Council to start the 2024 code process.
- Passage of WA Ballot Initiative I-2066 in November 2024 introduced uncertainty to the efficiency levels of current and future WA energy codes. WA SBCC action to date indicates that measures to comply with I-2066 will be taken as part of the 2024 WSEC development process in 2025, but it is unclear what if any changes will be made to the current code (2021 WSEC) due to I-2066.
- Trainings were offered on 2021 energy code overview, commercial mechanicals, and residential energy code.

Montana Codes

• In Q4 2024, there were no significant updates to the Montana energy codes. The state Department of Labor and Industry did set the dates for their annual codes education conference, to be held March 24-28, 2025, in Helena, MT.

Oregon Codes

Commercial: Oregon completed its commercial energy code update process in Q4 2024. The Building Codes Division
adopted the 2025 Oregon Energy Efficiency Specialty Code (OEESC), effective January 1, 2025, with a six-month phase-in
period and mandatory effective date of July 1, 2025. The 2025 OEESC is based on ASHRAE 90.1-2022, and Oregon is one
of the first states in the country to update to a code based on the most recent model energy code versions. However, 2025

OEESC does includes weakening amendments, including removal of a new provision that requires renewable energy production in some cases.

Code change proposals for the Oregon Commercial Reach Code update were due from the public on 12/15/24. NEEA staff submitted one proposal intended to better align Reach Code requirements with unamended ASHRAE 90.1-2022 provisions.

• Residential: The Energy Efficiency chapter of the Oregon Residential Specialty Code (ORSC) had no significant updates in Q4 2024. It is expected that initial code development activity for the 2026 ORSC will begin in mid-2025.

Idaho Codes

- The Building Code Board met on October 22, 2024, and announced their 2025 meeting dates and confirmed their intent to review and adopt 2024 I-Codes in 2025. Idaho Division of Occupational and Professional Licenses (DOPL) staff shared that they will schedule public meetings in 2025 to allow for public comment related to the proposed code adoption.
- Trainings were offered that covered air balancing, load calculations, air sealing and code.

International Energy Conservation Code (IECC):

In Q4 2024, NEEA staff applied to and was selected for 2027 IECC Commercial Consensus committee. NEEA also submitted three code change proposals, due to ICC on December 9, 2024, and were co-proponents on an additional proposal. These proposals target both residential and commercial construction and would result in a mix of electric and gas savings. In 2025, the committee will form topical subcommittees and begin reviewing the hundreds of submitted proposals.

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://betterbuiltnw.com/.

Other Updates

- Highlights from the North American Gas Heat Pump (GHP) Collaborative include:
 - Commercial GHP Committee:
 - Reviewed a proposal from Vicot (GHP manufacturer) and Homy (manufacturers rep) to collaboratively fund commercial GHP product certification that would allow North American distribution. Collaborative is exploring funding stream options and additional lab testing needs before agreeing on certification support.
 - The North American Commercial Water Heating Market Characterization Request for Proposals (RFP) scope continued to be refined through Q4 and is on track to be released in Q1 2025.
 - "Manufacturer and Utility interviews" to identify perceptions, barriers/challenges, and areas of needed support continued in Q4.
- Alliance staff attended multiple meetings/workshops highlighting Northwest progress, identifying opportunities to collaborate and gaining industry insight. Events included:
 - Energy Transition Coordinating council Summit 2024 collaborating with Lincus on lessons learned using gas absorption heat pumps in commercial water heating applications
 - American Society of Plumbing Engineers manufacturer engagement focus on dual fuel commercial water heating systems. Met with multiple boiler manufacturers launching a dual fuel solution to the market
 - GTI Energy Emerging Technology Program Meeting: Staff attended the ETP fall meeting at GTI Energy's campus in Chicago; highlights include:
 - Updates on partner utility initiatives including Commercial HVAC and Water Heating



Advanced Commercial 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)	Action Required	 Prioritizing Robur, Vicot, and SMTI GHP products based on previous product testing and market readiness/availability. Expanding to validate performance of dual fuel commercial water heating solutions. Kicked off Energy Modeling Analysis of Commercial Water Heating Systems with GTI, expecting preliminary results in Q1 2025. Visited various field demonstration site candidates, resulting in at least two viable dual fuel sites for 2025 implementation. Please reach out to program team if you are interested in having a GHP field demonstration in your service area.
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)	Heads Up	 Completed "Market Research on Existing Water Heaters in Select Commercial Buildings," with a focus on confirming lodging, restaurants, and multifamily target applications. Findings are on track for Q1 2025 publication. Refined RFP for the North American Commercial Water Heating Market Characterization Study. Funded by the North American Gas Heat Pump Collaborative and led by NEEA. RFP is on target for a Q1 2025 release.

Activities, achievements, or events

- Received proposal from Ecotope outlining effort to integrate gas as a backup to EcoSizer.
- Submitted service water heating official opinion inquiries to the Mechanical, Ventilation, Plumbing & Energy Codes Committee to inform proposals to incorporate GHPWHs in the 2024 WSEC-C.
- Engaged with GHP manufacturers to support NW presence and go-to-market strategy.

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 2 manufactures, to provide either new equipment, 1	Action Required	 While the program team did not meet the Threshold of this goal, progress in 2024 includes: One manufacturer (Daikin North America) has designed an energy recovery ventilator (ERV) product to market to be used in place of the economizer of their light commercial RTUs. They are currently planning for 2025 design priorities and whether this product will be included. In 2024, the program team began vetting the Paragon product line by CaptiveAire to add to the compliant product list in early 2025. In late 2024, CaptiveAire is also offering a "quick ship" option to ship emergency replacement RTUs in 2-3 days, which is an important part of engaging with the replacement RTU market.
	new price point, or 1 expanded product).		The program team made progress with manufacturers by showing the need for better efficiency options in the RTU offerings, expecting to see expanded offerings in 2025
Create awareness of and	_	Action Required	While the program team did not meet the Threshold of this goal, progress in 2024 includes:
support for Efficient RTUs from market actors			 Regular meetings with distributors and manufacturer reps are ongoing.
(manufacturers, manufacturer reps, distributors, contractors) and utilities across the US			One manufacturer rep has begun submitting initial sales/pipeline data.
and Canada.			 Program has contracted with Outreach and Incentive Implementation vendor for increased supply chain engagement for remainder of 2024 and early 2025.

2024 Goal	Key Success Metric	Status	Progress and Next Steps
	Get commitments from four Northwest utilities by Q2 2024 to offer Efficient RTU measures. (Threshold: Commitments from two Northwest	Action Required	While the program team did not meet the Threshold of this goal, progress in 2024 includes:
Work with alliance stakeholders to increase			 Team had meetings with Northwest natural gas utilities in Q1 and Q2 to discuss measures related to Efficient RTUs.
utility programs that reference NEEA's Efficient RTU specification.			 Most utilities offer a custom HVAC program, using metering or other calculations for custom incentives, which could be used for ERTUs, but not a prescriptive incentive per unit.
	utilities by Q4)		 Ongoing discussions with the RTF to develop RTU measure for the region, which will give utilities an option to offer prescriptive incentives.

Activities, achievements, or events

- The team is meeting regularly with utilities and efficiency organizations across North America in partnership with CEE for alignment of RTU efficiency measures across fuel types and climate zones. Future meeting will provide alignment on RTU efficiency measures and a roadmap for manufacturers to plan design improvements.
- KBOO field test of a Tier 2 RTU and code-level RTU w/ bolt-on ERV report has been posted to Better Bricks. The project is showing savings in line with modeling and lab testing.
- NEEA is expanding on the 2022 RTU modeling effort by creating more nationally representative models, such as including more climate zones throughout the United States. This expansion will also involve a more extensive range of packaged rooftop equipment, both electric and natural gas equipment, and a larger set of efficient measures. The goal of broadening the modeling efforts to cover a greater portion of the United States is to enhance our understanding of how measure and tier impacts vary by climate region, which could eventually inform the development of a national program applicable to the RTU market and representative federal efficiency metrics for this product. The work is currently underway and should be completed by Q2 of 2025.
- ERTU specification has been updated to reflect the program change to include all RTUs that include desired efficiency measures. Manufacturers design product lines around feature sets (better enclosure construction, high efficiency, high performance, etc.), and heating type is usually selected as an option (AC-only, HP, Gas-pack) after the product line is chosen. By creating the Qualified Product List (QPL) to include full product lines based on the prescriptive measures (R-12 insulation, low-leakage dampers, and H/ERVs) we can create more demand in the market, rather than focusing on heating type. To align with this change, Tier 2 Condensing Burner was removed from the prescriptive path (condensing could still be used to meet the requirements of the performance path).