

# Natural Gas Advisory Committee Q2 2024 Meeting (Hybrid)



**DATE:** October 22, 2024

**TIME:** 10:30am – 3:00pm Pacific

**LOCATION:** **Hybrid @ Cedarbrook Lodge** (18525 36th Ave S, Seattle, WA, 98188 | Brightwood Board Room)

**WEBINAR:** [Click here to join the meeting](#) (Meeting ID: 214 093 088 400 | Passcode: 8VK9Zw)  
(if needed) Call-in audio only: 971-323-0535 | Phone Conference ID: 783 891 348#

## AGENDA (All Times Pacific)

10:30-10:50 (20 min)	<b>Welcome and Introductions</b>	Alisyn Maggiora	<b>p. 1-2</b>
10:50-11:05 (15 min)	<b>Housekeeping &amp; Looking Ahead</b> <ul style="list-style-type: none"> <li>• Product Council Updates</li> <li>• Notes &amp; Action Items: Apr 24   Sept 19 webinar</li> <li>• Looking ahead <ul style="list-style-type: none"> <li>○ Efficiency Exchange Call for Sessions (due Oct 25)</li> <li>○ Upcoming meetings (Dec 9 webinar, 2025 meeting dates)</li> </ul> </li> </ul> <p><i>Desired Outcome: Committee refreshed on previous meeting notes/action items and aware of significant upcoming items.</i></p>	Noe Contreras Alisyn Maggiora	
11:05-11:25 (20 min)	<b>Instituting Initiative Lifecycle (ILC) Vote at Long-Term Monitoring &amp; Tracking (LTMT) &amp; Associated NGAC Charter Changes</b> <ul style="list-style-type: none"> <li>• Proposal Review &amp; Discussion</li> </ul> <p><i>Desired Outcome: Committee members are informed on purpose for adding a third vote to the alliance's program stage gate process and resulting RPAC/NGAC charter changes.</i></p>	Alisyn Maggiora	<b>p. 3-10</b>
11:25-11:50 (25 min)	<b>Round Robin</b> <ul style="list-style-type: none"> <li>• Share-out on recent key activities/developments</li> </ul> <p><i>Desired Outcome: Committee aware of relevant activities/developments across our organizations.</i></p>	NGAC Members	
(55 min)	<b>LUNCH</b>	All	
12:45-1:55 (70 min)	<b>Quarterly Portfolio Update</b> <ul style="list-style-type: none"> <li>• Check in on Q2 Financials and Portfolio Update</li> <li>• Q3 Quarterly Progress Report highlights</li> </ul> <p><i>Desired Outcome: Committee apprised on gas portfolio developments.</i></p>	Peter Christeleit Noe Contreras Mark Rehley Melissa Aguilera Aaron Winer Jason Jones Tamara Anderson	<b>p.11-21</b>
(15 min)	<b>Break</b>	All	
2:10-2:50 (40 min)	<b>Potential Program Milestone Advancements 2025-26</b> <ul style="list-style-type: none"> <li>• High-Efficiency Dedicated Outside Air Systems (DOAS)</li> <li>• Efficient RTU Fuel Neutral / Dual Fuel</li> <li>• Dual Fuel Residential HVAC</li> </ul> <p><i>Desired Outcome: Committee members are aware of potential new programs and timing of committee votes anticipated over the next year or two.</i></p>	Emily Moore Debbie Driscoll	<b>p. 22</b>
2:50-3:00 (10 min)	<b>Public comment, wrap up and adjourn</b>	Alisyn Maggiora	

Informational Updates:

- Page 23-24: Memo – Program Updates for Efficient Gas Water Heating (2025 & beyond)
- Page 25-26: Memo – (Reminder) Program Updates for High-Performance Windows (2025 & beyond)

Additional Resources:

- [Q3 2024 Newsletter – Market Research and Evaluation](#)
- [Q3 2024 Newsletter – Emerging Technology](#)
- [Q2 2024 Newsletter – Codes, Standards and New Construction](#)
- Recent NGAC Meeting Materials
  - Apr 24 [Packet](#), [Slides](#), [Notes](#)
  - Sept 19 [Packet](#), [Slides](#), [Notes](#)
- [NGAC Charter](#)

**2025 NGAC FINAL MEETING DATES:**

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

# Memorandum – Agenda Item



October 15, 2024

TO: Natural Gas Advisory Committee (NGAC)

FROM: Alisyn Maggiora, Sr. Stakeholder Relations Manager

SUBJECT: Rationale and Recommended Process for Instituting a Third Milestone Vote at “Long-Term Monitoring & Tracking (LTMT)” phase and Associated Phase Name Change

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**Our Ask of You:**

***Review the context below and come to the Q4 NGAC meeting with questions and thoughts for consideration. This review and discussion in Q4 will provide NEEA staff with the input necessary to finalize proposed NGAC process and charter changes with the committee.***

**The Gist:**

We are adding a vote and incorporating a phase name change in our initiative lifecycle (ILC) process.

**Background:**

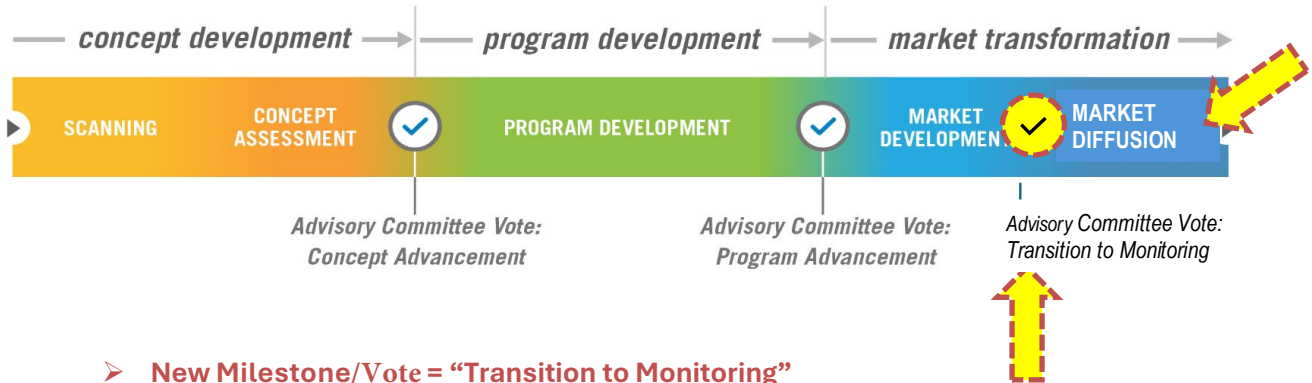
- The C7 business plan recognizes that Market Transformation will progress at different rates around the region, depending on economic, geographic, and demographic conditions, as well as the availability of local programs. It calls on NEEA to support sub-regional needs to ensure that value is delivered fairly across the region.
- In the past, NEEA has addressed differences in market diffusion across the region by opting to remain engaged in one location, while exiting the same market in other parts of the region. Or, by targeting geographically specific market barriers in a state or location that aren’t experienced across the region. These activities are balanced annually through NEEA’s annual operations planning process.
- During the Cycle 7 business planning process, funding stakeholders identified NEEA’s initiative lifecycle (ILC) process as a tool to recognize and consider regional variation in market adoption. Specifically, the addition of a third stage-gate vote prior to Long-term Monitoring and Tracking (LTMT) (i.e., the point at which NEEA ceases active market interventions).
- Currently, when planning to shift a program to LTMT, NEEA staff adhere to the following process:
  - Staff inform the Regional Portfolio and/or Natural Gas Advisory Committee (RPAC and/or NGAC) of the proposed transition and timeline for initial input and awareness.
  - Staff commission a Transition Market Progress Evaluation Report (TMPEP) for the program.
  - Results of the TMPEP along with NEEA staff recommendation are shared with RPAC/NGAC for final input and awareness.
  - The program is transitioned to the LTMT phase of the ILC at which point NEEA ceases market interventions.
- As described above, when requested, NEEA will consider extending program activities in a local utility market longer than planned if barriers identified in the program logic model have not been addressed. However, this conversation and agreement typically happens outside of the formal RPAC/NGAC decision-making process. While RPAC/NGAC are informed of plans for continued intervention, there is no formal vote in that decision.

**Recommendation:**

NEEA staff are recommending the addition of a third vote in the ILC process prior to the program transitioning to LTMT. Adding this vote will ensure the region has a tool to recognize and consider regional variation in market adoption. Furthermore, a formal vote at LTMT would ensure that regional input is considered within an established and transparent process, and that utilities who vote ‘no’ are required to engage in discussions with NEEA staff and fellow regional stakeholders to identify a path to ‘yes’ (as at other voting points in the ILC).

NEEA staff desire to mitigate significant impacts to staff/resourcing for both NEEA and committee members. Currently, the Concept Advancement and Program Advancement milestones require significant time investment by both NEEA staff and committee members to prepare and review milestone documents and organize team huddles to discuss in depth where requested. NEEA staff recommend maintaining the existing process (outlined above) for this milestone that 1) still gives funders ample lead time on consideration for a program’s transition and 2) leverages the outcomes of the Transition Market Progress Evaluation Report (TMPER). The TMPER and staff recommendation memo would serve as the supporting documentation, in lieu of an additional, formalized “milestone” document.

**Proposed ILC stage gate & phase name change:**



- **New Milestone/Vote = “Transition to Monitoring”**
- **Phase Name Change = now “Market Diffusion” (was Long-Term Monitoring & Tracking)**

**Recommended Process and Timeline:**

- **Voting Process** (same documentation process, adding a vote)
  - **Documentation:** Transition MPER + memo
  - **Feedback process:** Open call for feedback
  - **Vote:** Unanimous consent required, as with the other two voting milestones
- **Flags**
  - If NGAC does not reach full consent, the committee shall follow Step 4 under [Challenge Flag Process](#) articulated in the committee charter.
- **Timing**
  - Q3/Q4 2024
    - Input from staff
    - Tee-up with portfolio advisory committees (RPAC and NGAC)
    - Propose final process and charter changes to RPAC and NGAC, confirm recommendation to board
  - Q1 2025
    - NEEA Board reviews and approves charter changes

Please contact [Alisyn Maggiora](#) with any questions about this memo.



# Memorandum – Agenda Item

October 15, 2024

TO: Natural Gas Advisory Committee (NGAC)  
FROM: Alisyn Maggiora, Sr. Stakeholder Relations Manager  
SUBJECT: Proposed Changes to Natural Gas Advisory Committee Charter

**Ask of You:**

**Please review the proposed changes redlined in the NGAC charter following this memo and provide feedback, if any, by Nov 1.**

**Context:**

You may recall we did a charter check-in Q1 of this year. While NEEA committees do this annually, NEEA’s Board reviews all committee charters at the launch of a new business (funding) cycle or when major changes are warranted. Per the previous memo covering proposed changes to NEEA’s Initiative Lifecycle (ILC) and voting process, changes to the charter are required.

**Why are there changes? What are they?**

These changes provide simple updates to incorporate the \*new\* third milestone committee vote, and a name change to the phase previously termed “Long-Term Monitoring and Tracking” – now to be termed “Market Diffusion.”

All changes made were done using the “track changes” review feature in Word so you can see what’s been edited. The current charter is viewable on neea.org [here](#) should you like to compare them side by side.



**Please contact Alisyn Maggiora ([amaggiora@neea.org](mailto:amaggiora@neea.org)) with any questions about this memo, the new voting milestone, or feedback on the proposed charter changes.**



**NATURAL GAS ADVISORY COMMITTEE CHARTER**

**Review process:**



<b>HISTORY</b>			
<b>Source</b>	<b>Date</b>	<b>Action/Notes</b>	<b>Next Review</b>
Board Decision	6-2-2015	Reviewed and approved with no changes.	2016
NGAC	5-18-2020	Revised	Q1-2024
Governance Committee	7-8-2020	Recommended for Board consideration	Q2-2025
Executive Committee	8-27-2020	Recommended for Board consideration	Q2-2025
Board Decision	9-15-2020	Board approval	Q2-2025
NGAC	2-1-2022	Revised	Q1-2023
Governance Committee	5-13-2022	Recommended Board approval	Q2-2025
Executive Committee	5-26-2022	Recommended Board approval	Q2-2025
Board Decision	6-22-2022	Board approval	Q2-2025

**Purpose**

The purpose of the Natural Gas Advisory Committee (NGAC) is to support Alliance success by advising on NEEA’s gas program portfolio, including a formal vote for program advancement at ~~two~~ three key points in NEEA’s Initiative Lifecycle, consistent with the goals and objectives of NEEA’s current Business Plan and annual Operations Plan.

NGAC is a leadership advisory committee with a formal voting function that is used to advise NEEA’s Executive Director on portfolio management. As such, NGAC members have significant influence on alliance work and are expected to be sufficiently resourced to perform this function.

**Responsibilities**

1. Review and advise on NEEA’s annual gas Operations Plan to support effective gas portfolio performance consistent with the goals, strategies and objectives of NEEA’s Business Plan.
2. Review and vet within NGAC member organizations the “business case” document provided at voting milestones, and work as a committee to reach full consent to advance NEEA gas programs per the Program Advancement Process (refer to Addendum A), including adaptive management to achieve regional objectives via the “challenge flag.”
3. Share knowledge, expertise and resources to support successful implementation of NEEA’s gas program portfolio, including identifying opportunities for leverage among alliance and local programs, and managing intersecting activities in common markets.
4. Participate, as appropriate, in the “RPAC+” downstream marketing coordination process (refer to NEEA’s 2020-2024 Business Plan, Appendix 9) to ensure transparency, coordination in the planning process, and the ability to assess the effectiveness of the alliance’s evolving regional downstream marketing work.
5. Monitor developments in energy savings estimates, including those due to changes in assumptions or methodology vetted by the Cost Effectiveness and Evaluation Advisory Committee, to stay apprised on implications for NEEA’s gas program portfolio.
6. Monitor developments in alliance emerging technology efforts, including those vetted by the Regional Emerging Technology Advisory Committee, to advise on potential gaps in NEEA’s gas program portfolio.
7. Provide a forum for information exchange within the region on gas market and program portfolio updates and developments, and opportunities for collaboration.

**Committee Membership**

Each direct funder of the natural gas portion of NEEA’s Business Plan (NGAC Funder) will appoint a representative on NGAC and the Executive Director may appoint additional non-voting member(s) as needed to support or enhance the effectiveness of the committee. Voting is limited to NGAC Funders.

**Portfolio Consent Voting**

Full consent must be reached by NGAC in order for a NEEA gas program to advance through the Concept Advancement, ~~and~~ Program Advancement, and Transition to Monitoring milestones (refer to Addendum A – Program Advancement Process, Portfolio-Consent Voting, for voting rules). To conduct a vote, a quorum of NGAC Funders must participate (a quorum is a simple majority of eligible participants).

**Authority**

NGAC is authorized to take action or make recommendations as necessary to fulfill the responsibilities delegated to NGAC in this charter. NGAC advises NEEA’s Executive Director.

**Open Meetings and Closed Sessions**

All NGAC meetings shall be open to the public. With the exception of sensitive information not appropriate for public dissemination, meeting materials (including but not limited to meeting packets, slide presentations, summary notes and Portfolio Consent Voting records) will be posted for public access. A closed session for part or all of any committee meeting may be called at any time to discuss sensitive information such as competitive or proprietary information that can not be publicly shared. Any NGAC member may request a closed session.

**Meeting Schedule**

NGAC will conduct standing meetings quarterly and additional meetings and/or webinars as needed.

**Shared Commitment**

NGAC members and NEEA Staff share a commitment to communicate within and coordinate among the member organizations on the activities of this and related advisory committees, in the spirit of collaboration and with the intent of operating with no surprises.

**Review schedule**

NGAC will review this Charter at least annually and route substantive revisions to the appropriate NEEA Board Committee(s) for review. The Board will review this charter during the first year of the funding cycle, or at other times as needed.

<b>NEEA Governance/ Management/ Advisory Roles and Responsibilities</b>	
NEEA Board	<ul style="list-style-type: none"> <li>• All corporate governance and fiduciary duties, including ensuring the system of rules, practices and processes by which NEEA is directed to balance the interests of the alliance’s stakeholders, to support the achievement of the organization’s purpose</li> <li>• Strategic and Business Plan development and approval</li> <li>• Operations Plan and budget approval</li> </ul>
NEEA Executive Director	<ul style="list-style-type: none"> <li>• Manage the business of NEEA according to Strategic, Business and Operations Plans, set forth by Board</li> <li>• Oversee business operations and staff</li> </ul>
Regional Portfolio Advisory Committee (RPAC)	<ul style="list-style-type: none"> <li>• Advise NEEA’s Executive Director on portfolio performance and program advancement; “challenge flag” process; RPAC+ downstream marketing elections</li> <li>• Monitor developments from other advisory committees with regard to regional coordination, market progress, and emerging technology</li> </ul>

Coordinating Committees (CCs)	<ul style="list-style-type: none"> <li>• Collaborate with NEEA Staff and report to RPAC on coordination and optimization of NEEA programs and related activities, to identify and manage through potential implementation challenges between NEEA and local utility activities, and seize opportunities for amplified market influence</li> </ul>
Cost Effectiveness and Evaluation Advisory Committee (CEAC)	<ul style="list-style-type: none"> <li>• Advise NEEA's Executive Director on methods, data sources and inputs for use in NEEA's cost-benefit analysis and energy savings reporting</li> <li>• Advise NEEA's Executive Director on market research and evaluation methodologies</li> </ul>
Regional Emerging Technology Advisory Committee (RETAC)	<ul style="list-style-type: none"> <li>• Advise NEEA's Executive Director on NEEA's work toward achieving its strategic pipeline goals</li> <li>• Track and coordinate the progression of energy efficiency technologies to improve technology readiness and market adoption in the Northwest</li> </ul>
Natural Gas Advisory Committee (NGAC)	<ul style="list-style-type: none"> <li>• Advise NEEA's Executive Director on gas portfolio performance and program advancement; "challenge flag" process; RPAC+ downstream marketing elections</li> <li>• Monitor developments from other advisory committees with regard to market progress and emerging technology</li> </ul>
Work Groups	<ul style="list-style-type: none"> <li>• Formed by RPAC on an as-needed basis and staffed with as-needed expertise, for a limited term and specific purpose that is distinct from that of RPAC, the CCs, and other Advisory Committees or Work Groups</li> </ul>



## NGAC CHARTER ADDENDUM A – NEEA PROGRAM ADVANCEMENT PROCESS

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### OVERVIEW

The Natural Gas Advisory Committee (NGAC) will take a formal vote prior to a NEEA Program being adopted into the NEEA natural gas market transformation program portfolio (Concept Advancement milestone), ~~and~~ prior to a NEEA Program being approved to scale-up its market activities (Program Advancement milestone), ~~and prior to a NEEA Program ceasing active market activities (Transition to Monitoring milestone).~~

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For the Concept Advancement and Program Advancement milestones, NEEA will provide NGAC with a detailed “business case” at least 10 business days prior to a vote. Key components of the business case include: progress and findings to date; planned activities for the next stage; investment rationale and proposed budget, including estimated energy savings and cost effectiveness (at Program Advancement milestone); market transformation theory, including market drivers, barriers and intervention strategies; a program risk assessment, and detailed roles and responsibilities to clarify expectations for funders and for NEEA staff regarding the execution of and coordination on key program activities. For the Transition to Monitoring milestone, NEEA will provide NGAC with the Transition Market Progress Evaluation Report (T-MPER) and a memo summarizing key decision criteria that substantiate staff’s rationale for advancing the program to the next stage.

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In addition to this process, there is a formal intervention process (i.e. the “challenge flag”) that allows NGAC Funders to request changes and improvements if the funder believes a program is heading in a direction contrary to that which was agreed upon.

### PORTFOLIO-CONSENT VOTING

A roll-call vote will be taken at NGAC prior to a NEEA gas program advancing through the Concept Advancement, ~~and~~ Program Advancement, ~~and~~ Transition to Monitoring milestones. Full consent<sup>1</sup> must be reached by those casting votes for a NEEA program to advance.

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An NGAC Funder may register a vote as follows:

1. Yes
  - a. In person or by phone during a meeting where a vote is taken
  - b. In writing (electronic or otherwise) to NEEA Staff in advance of a meeting
  - c. Via an appointed delegate, in the event the NGAC member is unable to participate
2. No
  - a. In person or by phone during a meeting where a vote is taken
  - b. NGAC Funders voting “No” shall identify their concerns and propose a solution consistent with 3(c) under Challenge Flag Process
3. Abstain
  - a. An NGAC Funder may choose to abstain as a means of registering a neutral opinion or dissent without voting “No”
4. Present, Not Voting
  - a. An NGAC Funder who is present may choose not to vote as a means of remaining neutral on a program’s advancement.

#### Note:

Voting results will be shared with NEEA’s Executive Director, communicated to the Board, and posted for public access along with other NGAC meeting materials. If NGAC does not reach full consent for program advancement, the committee shall follow Step 4 under Challenge Flag Process.

<sup>1</sup> Full Consent = In groups that require unanimous agreement or full consent (unanimity) to approve group decisions, if any participant objects, a participant can block consensus.

**“CHALLENGE FLAG” PROCESS**

The “challenge flag” is a formal intervention process that allows an NGAC Funder to request changes and improvements if the funder believes a program is heading in a direction contrary to that which was agreed upon. In such a case, the requesting Funder should exercise the process as follows:

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1. Funder shall first communicate the concern in a timely way to NEEA staff and attempt to resolve the matter directly. If a satisfactory resolution cannot be reached, Funder should inform NEEA Staff that the funder intends to exercise the “challenge flag” option.
2. Funder and NEEA Staff work together to determine the best option for addressing the concern with NGAC, based on the impact on the program and timing of the next scheduled NGAC meeting. Options include, but are not limited to:
  - a. Discuss during the next regularly scheduled NGAC meeting.
  - b. Convene a special NGAC meeting/webinar.
3. Funder prepares “Challenge Flag” memo for NGAC, articulating:
  - a. The NEEA activity that a funder believes is going in a direction contrary to that which was agreed upon by NGAC;
  - b. The nature and scope of Funder’s concern;
  - c. A proposed solution that Funder feels addresses both the funder’s concern and the viability of the NEEA market transformation effort.
4. NEEA Staff convenes NGAC for a facilitated discussion on Funder’s proposed resolution, with the goal of addressing both (i) Funder’s concern, and (ii) the viability of the NEEA market transformation effort.
  - a. If NGAC and NEEA staff agree on a proposed solution that achieves 4(i-ii), then NGAC shall indicate its support by reaching full-consent on the proposed solution and the NEEA market transformation effort shall proceed as modified.
  - b. If NGAC and NEEA staff cannot agree on a proposed solution that achieves 4(i-ii), NEEA’s Executive Director shall escalate the matter for discussion by the full Board (the Board’s Executive Committee shall not serve as a proxy for the full board in such instances) prior to the Executive Director making the final decision on how the NEEA market transformation effort shall proceed.

**Review process:**

Commented [AM1]: Review process table moved to end of charter to align with formatting for other NEEA charters.



<b>HISTORY</b>			
<b>Source</b>	<b>Date</b>	<b>Action/Notes</b>	<b>Next Review</b>
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Executive Committee	5-26-2022	Recommended Board approval	Q2 2025
Board Decision	6-22-2022	Board approval	Q2 2025

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# *Natural Gas Progress Report*

**Northwest Energy Efficiency Alliance (NEEA)**

Q3 2024 Highlights

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



## Scanning

- Commercial and Residential Gas Absorption Heat Pump Space/Water Heating
  - Team reviewing comments to draft report for multi-family and single-family field study with ANESI prototype.
- Lab testing of Vicot's Gas Absorption Heat Pump - Project was co-funded with Fortis BC Energy and Enbridge
  - 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, with a seasonal COP 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 depending on return temperature and firing rate.
  - Vicot V20 Gas Absorption Heat Pump
    - Lab testing data collection completed
    - Report expected in Q4 2024
- Dual-Fuel
  - 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 in-progress, findings beginning in Q4, 2024
  - Lab testing of simultaneous heating dual fuel combi expected in Q4 2024
  - Began selecting sites for residential dual-fuel HVAC technology field demonstration
- Commercial Dryers
  - Working with partners to support study of next generation desiccant-based clothes dryer system.
- Commercial Water Heating
  - Modeling of hybrid Gas Absorption Heat Pump and Dual Fuel configurations
  - Engaging manufacturers to understand product performance, target applications, and supply chain maturity

## Codes, Standards, and New Construction

### Codes & Standards

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

- Clothes Dryers - Efficiency Conservation Standard - NOPR (Notice of Proposed Rulemaking)
- Consumer Water Heaters: Efficiency Conservation Standard – NODA (Notice of Data Availability)

#### Washington

- Commercial Code: Delays in developing the base code for Washington 2024 energy code for commercial buildings, limited progress was made by the Technical Advisory Group (TAG) in Q3. Activities are ramping up for Q4 as the code development process accelerates.
- Residential Code: The Washington State Energy Code – Residential went into effect in March 2024. No action has been taken by the State building Code Council to start the 2024 code process in Q3, 2024.
- Trainings were offered on 2021 energy code overview, commercial mechanicals, and residential energy code.

#### Montana

- Mid-cycle weakening amendments to its commercial energy code approved by the Building Code Council in Q2 [became effective 9/21/24](#). Beyond the updated code, there were no meetings of Montana’s Building Codes Council in Q3.

#### Oregon

- Commercial: Q3 2024 saw continued delays in the 2024 Oregon Energy Efficiency Specialty Code (OEESC) adoption process. A 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 were stalled until April 2024 because the COMcheck software version for ASHRAE 90.1-2022 was not yet available. However, software bugs in this new COMcheck version have further delayed the target adoption date to January 1, 2025. While ASHRAE 90.1-2022 is expected to deliver an approximate 10% increase in energy efficiency from the current code (2021 OEESC), the 2024 OEESC final draft includes weakening amendments.
- Residential: No changes occurred in Q3. The 2023 Oregon Residential Specialty Code (ORSC) went into full effect on April 1, 2024, and the 2023 Oregon Reach Code (ORRC) went into effect as a voluntary standard on July 1, 2024

## Idaho

- Idaho's Building Code Board is considering IECC2024 for its next code update. No code board meetings occurred in Q3, and the next meeting is scheduled for 10/22/2024.
- Trainings were offered that covered air balancing, load calculations, air sealing and code,

## International Energy Conservation Code (IECC):

- In Q3, 2024 – 2024 IECC was published and is available for purchase. The International Code Council (ICC) announced the scope and intent of the 2027 energy code. The scope softened the requirements for efficiency and preserved natural gas and electric efficiency in new construction. ICC also requested applicants for the 2027 committees.

## 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. Ongoing discussions are continuing in Q4.
    - Drafted the North American commercial water heating market characterization Request for Proposals (RFP). A final draft and release of the RFP is on target in Q4.
    - “Manufacturer and Utility interviews” to identify perceptions, barriers/challenges, and areas of needed support are continuing in Q4.
- Alliance staff attended multiple meetings/workshops highlighting Northwest progress, identifying opportunities to collaborate and gaining industry insight. Events included:
  - CEE Industry Partners Meeting: Staff attended conference and ancillary “Future of Gas Efficiency Programs Summit”; highlights include:
    - Speaking at multiple conference sessions to highlight the Alliance’s work related to gas heat pumps, dual-fuel products, and other efficient gas technologies.
    - Utilizing the highly attended conference to meet with key stakeholders and industry partners.
    - Influencing a revised vision for the Gas Program Strategy Committee and informing near term priorities for the committee to focus on. (CEE Members can view full Summit notes and report, contact [wlarsen@cee1.org](mailto:wlarsen@cee1.org))
    - ERTU team helped facilitate Commercial AC and HP Committee RTU Project meeting to define roadmap with manufacturers for future design cycles, including expansion of heat pump/hybrid heating products and enclosure improvements.

# 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)	Heads Up	<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. Installations projected for Q1 2025.               <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)	Heads Up	<ul style="list-style-type: none"> <li>• Initiated “Market Research on Existing Water Heaters in Select Commercial Buildings,” with a focus on confirming lodging, restaurants, and multifamily target applications.               <ul style="list-style-type: none"> <li>▪ Market research effort to be completed in Q4 2024.</li> </ul> </li> <li>• Developed RFP for the “North American Commercial Water Heater Market Characterization Study.”               <ul style="list-style-type: none"> <li>▪ Funded by the North American Gas Heat Pump Collaborative and led by NEEA.</li> <li>▪ RFP is on target for a Q4 release.</li> </ul> </li> </ul>

## Activities, achievements, or events

- Engaged with NW Gas utilities and other North American Gas utilities through the NAGHPC to identify and coordinate field demonstration candidates in our region and throughout North America.
- Scoping commercial water heating field demonstrations within the region.
- Scoped water heating modeling study with GTI to further showcase the value of gas heat pumps and quantify the performance of multiple configurations of gas heat pumps in various commercial building type and climate zone simulations. Expecting results Q1 2025.



## 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).	Heads Up	<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. The initial products are in production as of August 2024.</li> <li>The team visited the Aeon factory in September. Aeon already makes qualified RTUs, and team discussed ways to increase market adoption in the NW.</li> <li>Expecting to meet threshold of 2 manufacturers to provide new products and price points by year end.</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)	Heads Up	<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>Program has contracted with Outreach and Incentive Implementation vendor for increased supply chain engagement for remainder of 2024 and early 2025.</li> <li>Expecting to reach threshold of commitments from 4 manufacturers by year end.</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> )	Action Required	<ul style="list-style-type: none"> <li>Team had meetings with Northwest natural gas utilities in Q1 and Q2 to discuss measures related to Efficient RTUs.</li> <li>Ongoing discussions with the RTF to develop RTU measure for the region.</li> <li>Most utilities offer a custom HVAC program, which could be used for ERTUs, but not a prescriptive path.</li> <li>Do not expect to meet threshold of 2 NW utilities to offer ERTU prescriptive measures by end of year.</li> </ul>

## 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 will be available soon.
- 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.
- **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, we are also going to deemphasize condensing burners by removing the option from the Tier 2 prescriptive path (condensing could still be used to meet the requirements of the performance path).

# 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)	Action Required	<ul style="list-style-type: none"> <li>Due to ongoing testing delays (referenced below) and lack of interest in commercialization, team is suspending activities related to developing regional launch strategy.</li> <li>Associated budget reallocated to other gas portfolio activities with near-term opportunities.</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)	Action Required	<ul style="list-style-type: none"> <li>The team continues holding meetings with manufacturers and technology developers, no indications of commercialization stage gate initiation.</li> <li>Ongoing condensing/efficient gas storage water heater market research, expecting a final report by Q4 2024. Findings will be leveraged for existing utility program support and possible future activities.</li> </ul>
Scan market to identify additional options.	2 additional technologies identified (Threshold: 1 additional technology identified)	Action Required	<ul style="list-style-type: none"> <li>Began adsorption GHPWH design review (final report expected late Q4) and identified partner to take lead on further product advancement and testing.</li> <li>Associated budget reallocated to other gas portfolio activities with near-term opportunities.</li> </ul>

## Activities, achievements, or events

- As noted above, ongoing delays with testing and development of adsorption GHPWH have impacted all 2024 goals. The team has reallocated 2024 budget to other gas portfolio activities and identified a strategy for shifting future activities focusing on scanning and monitoring. Additional details are provided in memo.

# 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 was kicked off in Q2.</li> <li>• The work for the study will begin in Q3 and the team anticipates this evaluation to be completed by the end of Q4.</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.)	Action Required	<ul style="list-style-type: none"> <li>• The team actively collaborated with contractor (TRC) to leverage contacts and relationships from the builder project with major Northwest window suppliers for data acquisition.</li> <li>• Additionally, the team is working with extra-regional partners to pursue sales data from national manufacturers and unify their request.</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>• 92 of 100 homes have been completed.</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

TRC presented on behalf of NEEA on the Builder Project at the [EEBA conference](#) along with Partnership for Advanced Windows Solutions (PAWS) members. Additionally, while the Creekside Elder Housing Project from the Confederated Tribes of Grande Ronde did not win the final selection in the category of Electrification for the EEBA Excellence Award, it was quite an honor to be one of the final four nominated for the category.

# Memorandum – *Informational or Agenda Item*



October 15, 2024

TO: Natural Gas Advisory Committee (NGAC)

FROM: Emily Moore, Director of Portfolio; Debbie Driscoll, Sr. Market Transformation Manager – HVAC & Whole Buildings; Peter Christeleit, Sr. Manager Corporate Strategy & Stakeholder Relations

SUBJECT: Potential 2025 Program Milestones Discussion

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## **Our Ask of You:**

Please bring any questions related to the potential program changes/advancements to the NGAC meeting on 10/22/2024.

## **Brief Summary of Discussion Topics**

NEEA staff will be discussing 2025 portfolio work and potential program changes and milestones votes that staff may bring to the Natural Gas Committee in the upcoming year.

Potential programmatic updates include:

- 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 mid-2025.
- Developments on progress of Residential Dual-fuel HVAC work toward a potential Concept Advancement milestone in mid-2025.
- Updating Efficient Rooftop Unit tactics to increase manufacturer interest in updating product lines to include Tier 1 and Tier 2 efficiency levels. Also exploring potential opportunity to add electric heat pumps, which would result in a dual-fuel program likely not until 2026.

The purpose of the discussion is to give a preview of potential key portfolio decisions in 2025 for committee members to start socializing within their respective organizations.

If you have questions about this memo, please contact Emily Moore ([EMoore@neea.org](mailto:EMoore@neea.org)).

# Memorandum – *Informational or Agenda Item*



October 15, 2024

TO: Natural Gas Advisory Committee (NGAC)  
FROM: Aaron Winer, Project Development Manager and Melissa Mejía, Project Manager  
SUBJECT: Efficient Gas Water Heaters Program Update

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## **Our Ask of You:**

Please review the memo and bring any questions, recommendations, feedback, or concerns to the NGAC meeting on 10/22/2024, or contact me at the email below.

## **Brief Summary of Program Update**

There have been limited efficiency improvements in residential gas water heaters over the last 20+ years. Due to this lack of innovation, demand for efficient gas water heaters is low. Additionally, there is only one gas technology that can achieve significant efficient improvements in this category – gas-fired (or thermal) heat pump water heaters.

The portfolio’s goal has been to transform the residential gas storage water heating market to a standard of UEF >1, which has the potential to save the region more than 100MM annual terms over 20 years. By overcoming barriers related to product development and supply chain adoption, NEEA has hoped to secure these savings and create lasting market change.

**As noted in recent progress reports, ongoing delays with testing and development of residential gas heat pump water heaters (GHPWH) have impacted all 2024 goals. Additionally, recent policy developments have meant NEEA’s gas portfolio is de-emphasizing residential products in Cycle 7 (with the exception of dual-fuel HVAC). The team has reallocated 2024 budget to other gas portfolio activities and will shift future activities focusing on scanning and monitoring rather than continuing to advance through the initiative lifecycle.** While it is disappointing for progress on this innovative technology to slow, the program has had many successes that the region can benefit from for years to come:

- Completing field demonstration of residential GHPWH prototypes verifying the technology can operate efficiently in our cold, Northwest climate
- Driving a code interpretation in Washington State clarifying standards are not required for garage installations of storage water heaters, reducing installation costs for all efficient gas water heaters in Washington
- Partnering with a major water heater manufacturer and utilities across North America to develop a 5-year product launch/Market Transformation plan that can inform future efforts
- Cultivating relationships with technology developers and major manufacturers in North America, Europe and China, facilitating ongoing collaboration around multiple efficient technologies
- Leveraging co-funded product advancement projects, maximizing available budget and reducing risk by partnering with other utilities and organizations. It is expected that residential GHPWH product advancement will continue without NEEA investment because of these partnerships.

- Verifying performance of currently available gas tankless and storage water heaters, informing development of Regional Technical Forum (RTF) savings measures that can be leveraged by utility programs throughout the Northwest

**Because the program will shift to scanning/monitoring, there will be no 2025 Operations Plan developed.**

Over the next 6-8 months, the team will be:

- Documenting major program successes, lessons learned, and research summaries
- Developing summary of why this shift was made, what would cause resumption of progress through the initiative lifecycle and expected activities should this occur

This documentation will be shared with NGAC in 2025.

**Thank you to everyone who has been involved in this project. While it is not the outcome envisioned, we made much progress and are confident that every opportunity was leveraged in an effort to bring significant energy savings to the region. If a product does come to the market and sees adoption in the region staff will monitor progress and report back to the Natural Gas Advisory Committee.**

Please contact [Melissa Mejía](#) if you have questions about the Efficient Gas Water Heaters Program.



# Memorandum – Informational (Tier 2)



August 15, 2024

TO: Regional Portfolio Advisory Committee (RPAC)  
FROM: Emily Moore, Director, Portfolio and Tamara Anderson, Program Manager  
SUBJECT: High-Performance Windows Program Update

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## **Program Update**

After careful consideration, NEEA staff has decided to move the High-Performance Windows (HPW) program from the Program Development phase back to Scanning beginning in 2025. In 2024, NEEA had paused program development activities to further assess the program’s benefit-cost ratio (BCR) and data challenges, which continue to be hurdles for the program’s viability. Acknowledging when a program in development is not proving out and re-prioritizing resources for more promising MT opportunities is an expected outcome of NEEA’s milestone stage gate process and is part of the over-arching value of the alliance in pooling resources and risks.

## **Background:**

Since 2021, the High-Performance Windows program has been in Program Development, developing key strategies to help accelerate the adoption of high-performance windows. HPW, as defined by NEEA, are residential, primary windows with a U-Factor of 0.22 or lower. HPW also offer multiple high-value, non-energy benefits, including thermal comfort, reduced glare, and noise reduction. HPW also, like all building envelope measures, have a fuel-neutral benefit.

Key barriers for market adoption of HPW include low awareness of HPW from builders and installers, high first cost with a delayed return on investment, and perceived installation difficulty. Key program interventions have included development of market awareness via the Volume Builder Project, and documenting results in case studies ([Confederated Tribes of Grande Ronde](#), [Habitat for Humanity Bend/Redmond](#), and [Lennar](#)). The long-term goal has been for the current definition of HPW to be established as the go-to product for all homes, via inclusion in increasingly stringent codes while simultaneously increasingly advancing future iterations of the ENERGY STAR® specification.

## **Current Status:**

After almost 3 years in Program Development, opportunities for transforming the market for residential primary windows remain. However, NEEA has also encountered significant challenges to advancing the HPW program to the Market Development phase. As acknowledged in the 2024 Operations Plan, the program has been at a crossroads given BCR and data challenges and limited activities this year to evaluating NEEA’s influence to-date on the market and ENERGY STAR Residential Windows version 7 specification, continuing to engage manufacturers and suppliers, and completing the remaining Volume Builder Pilot project.

### **Current Opportunities Include:**

- HPW are more available in the market and are available from all major window manufacturers with lead times on par with double-pane or code complaint alternatives.
- The [ENERGY STAR V7](#) prescriptive path specification meets the target U-Factor of 0.22 set by NEEA.
- Interest in HPW is growing from builders and installers. Growing demand may lead to eventual decrease in pricing via manufacturers and local window suppliers.

### **Current Challenges Include:**

- Current savings rates from the RTF's Single-Family Weatherization UES create a benefit cost ratio below the program target of 1, which makes the HPW program not viable.
- Lack of data from manufacturers prohibits a deeper understanding of the market and prohibits measurability for energy savings moving forward.
- In general, there has been a lack of interest in promoting HPW from manufacturers and window suppliers, as well as from industry organizations.

### **The Path Forward:**

Going forward, NEEA Product Management staff will maintain relationships with manufacturers, monitor the RTF unit energy savings updates and/or data availability to inform potential positive updates to NEEA's benefit/cost ratio, leverage national and extra-regional partnerships for the purpose of aligning Market Transformation strategies, and monitor the market and policy landscape for opportunities to re-enter the market at a future time.

- Given the continued challenges for the program, NEEA staff has decided to discontinue the HPW program as a standalone program for 2025.
- Building Envelope scanning projects including a Commercial Secondary Windows Field Study, Grid-interactive Net Zero manufactured homes, and vacuum insulated panel retrofits.
- Utilities may consider and/or continue to develop programs focusing on retrofit and replacement of single-pane windows for HPW.
  - There is a Utility Program Collaboration working group via the Partnership for Advanced Window Solutions (PAWS) with information [here](#) for utilities interested in creating programs.
  - PAWS resources include the [Utility Playbook](#).
- NEEA plans to continue to monitor the HPW market, as well as change in the policy landscape and may enter back into the market at some time in the future when the time is right.

Please contact [Tamara Anderson](#), [tanderson@neea.org](mailto:tanderson@neea.org) if you have questions about the **HPW** Program.