

Natural Gas Advisory Committee



DATE: February 1, 2023

TIME: 9:00am – 11:30am Pacific

WEBINAR: MS Teams – See link in calendar invite or [register here](#)

AGENDA (All Times Pacific)

9:00-9:20	Welcome and Introductions	Alisyn Maggiora
9:20-9:50	Round Robin <ul style="list-style-type: none"> Share-out on recent key activities/developments Request: Highlight 2023 EE program focus areas and 2022 program outcomes <p><i>Desired Outcome: Committee aware of relevant activities/developments across our organizations; NEEA staff understand 2023 utility focus areas and 2022 outcomes.</i></p>	NGAC Members
(15 min)	Break	All
10:05-10:30	Housekeeping & Looking Ahead <ul style="list-style-type: none"> Staffing update Notes & action items from Oct 17 meeting (on neea.org here) Product Council updates Annual Charter Review (memo) Looking ahead <ul style="list-style-type: none"> Savings reporting Mar 16 interim webinar Q2 hybrid/in-person option (memo) <p><i>Desired Outcome: Committee refreshed on previous meeting notes/action items and aware of significant upcoming topics.</i></p>	Alisyn Maggiora Noe Contreras Peter Christeleit Pg. 2-8
10:30-11:25	Portfolio Update <ul style="list-style-type: none"> 2022 Preliminary Financial Results and 2023 Budget Review Progress Report highlights <p><i>Desired Outcome: Committee apprised on gas portfolio developments.</i></p>	Peter Christeleit Noe Contreras Aaron Winer Jason Jones Tamara Anderson Mark Rehley Pg. 9-17
11:25-11:30	Public comment, wrap up and adjourn	Alisyn Maggiora

Informational Updates

- Pg. 18-19: Memo - Federal Funding Opportunity Coordination

Additional Resources:

- Q4 2022 Newsletter – [Market Research and Evaluation](#)
- Q3 2022 Newsletter – [Codes, Standards and New Construction](#)
- Q3 2022 Newsletter – [Emerging Technology](#)

Memorandum – *Agenda item*



January 25, 2023

TO: Natural Gas Advisory Committee (NGAC)

FROM: Alisyn Maggiora, Stakeholder Relations

SUBJECT: Annual NGAC Charter Review



Brief Overview:

The NGAC Charter calls for an annual charter review by the committee, and if substantive changes are proposed, that they be routed through the appropriate NEEA Board committee(s) for approval.

From NEEA staff's perspective, no charter edits are needed at this time. As you may recall, NGAC adopted a robust charter update in Q3 2020, and made additional, non-substantive updates in Q1 2022, including:

- Updated milestone names per NEEA's refreshed Initiative Life Cycle (e.g. "Initiative Start" changed to "Concept Advancement")
- Updated business case description reflecting the streamlined milestone template
- Language/grammar best practice updates

Ask of You:

Please review the NGAC Charter following this memo. If you have any questions or concerns, or any revisions you'd like to suggest, please share during our Q1 NGAC meeting on February 1. Thank you!

NATURAL GAS ADVISORY COMMITTEE CHARTER

Review process:



HISTORY			
Source	Date	Action/Notes	Next Review
Board Decision	6-2-2015	Reviewed and approved with no changes.	2016
NGAC	5-18-2020	Revised	Q1 2021
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 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 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.

NEEA Governance/ Management/ Advisory Roles and Responsibilities	
NEEA Board	<ul style="list-style-type: none"> • 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 • Strategic and Business Plan development and approval • Operations Plan and budget approval
NEEA Executive Director	<ul style="list-style-type: none"> • Manage the business of NEEA according to Strategic, Business and Operations Plans, set forth by Board • Oversee business operations and staff
Regional Portfolio Advisory Committee (RPAC)	<ul style="list-style-type: none"> • Advise NEEA’s Executive Director on portfolio performance and program advancement; “challenge flag” process; RPAC+ downstream marketing elections • Monitor developments from other advisory committees with regard to regional coordination, market progress, and emerging technology
Coordinating Committees (CCs)	<ul style="list-style-type: none"> • 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
Cost Effectiveness and Evaluation Advisory Committee (CEAC)	<ul style="list-style-type: none"> • Advise NEEA's Executive Director on methods, data sources and inputs for use in NEEA's cost-benefit analysis and energy savings reporting • Advise NEEA's Executive Director on market research and evaluation methodologies
Regional Emerging Technology Advisory Committee (RETAC)	<ul style="list-style-type: none"> • Advise NEEA's Executive Director on NEEA's work toward achieving its strategic pipeline goals • Track and coordinate the progression of energy efficiency technologies to improve technology readiness and market adoption in the Northwest
Natural Gas Advisory Committee (NGAC)	<ul style="list-style-type: none"> • Advise NEEA's Executive Director on gas portfolio performance and program advancement; "challenge flag" process; RPAC+ downstream marketing elections • Monitor developments from other advisory committees with regard to market progress and emerging technology
Work Groups	<ul style="list-style-type: none"> • 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

NGAC CHARTER ADDENDUM A – NEEA PROGRAM ADVANCEMENT PROCESS

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).

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.

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 milestones. Full consent¹ must be reached by those casting votes for a NEEA program to advance.

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.

“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:

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.

¹ **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.

- 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.

Memorandum – *Agenda item*



January 25, 2023

TO: Natural Gas Advisory Committee (NGAC)

FROM: Alisyn Maggiora, Stakeholder Relations

SUBJECT: Q2 Hybrid Meeting Format: In-Person Option

Brief Overview:

NEEA is piloting a hybrid meeting option for all Q2 advisory committee meetings in an effort to gauge whether stakeholders would like to have an in-person option for these meetings going forward. We've certainly learned a lot over the past three years on how to run meetings effectively in an all-virtual setting, and we've enjoyed some more equitable experiences as a result (recall the old days of remote folks just being a voice on the phone). There have also been cost savings related to travel and facilities. On the other hand, we also recognize there's appetite by some, to return to in-person for these forums to reclaim some of the interpersonal connection and ad-hoc conversations that can occur when we're together in-person.

In preparation for this, NEEA staff are thinking through the odds and ends of how to make the hybrid experience as equitable and effective as possible for all participants, particularly from a technology standpoint. Now we need a gauge from you on whether you plan to attend in person, and ultimately, any preference you may have for future meetings.

Ask of You:

Please consider where you're at personally, as well as any directives you may have organizationally, and come to our Q1 meeting ready to share whether you plan to attend our Q2 NGAC meeting in person. We're also interested in your thoughts on whether to offer a hybrid option at some regular frequency, or even permanently, for NGAC going forward (after Q2).

If you have any questions or concerns, have suggestions or something you'd like us to consider, or would like to share anything privately, please don't hesitate to reach out to me before or after the meeting: amaggiora@neea.org | 503-688-5430 (office direct). Thank you!

Natural Gas Progress Report

Northwest Energy Efficiency Alliance (NEEA)

Q4 2022

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



Scanning

- Combi
 - Stone Mountain Technology Incorporated (SMTI) implemented product improvements to field test units for multifamily and single-family homes.
 - SMTI 80 kBTU gas heat pump (GHP) lab test unit is expected to ship to GTI at the end of February with testing completed in May 2023.
 - Vicot V65 gas heat pump test results indicate 131.5% AFUE and 1.32 COP and an output of 58kW (197.9 kBTU/h).
 - Analyzing Robur gas heat pump technical feasibility to specific applications and understanding Robur's distribution channels in the Northwest.
 - Primary research to understand perception and general feedback from installers and end users. Expected results in Q3 2023.
- Dual Fuel
 - Reviewed extra regional field test analysis and attended Midwest utility summit to understand trends and performance.
 - Modeling dual fuel ASHP and natural gas furnace to understand relationship between switchover temperatures, equipment efficiency, and utility rates.
 - Market research to understand perception and general feedback from general installers and end users. Expected results in Q3 2023.
 - Working on a report detailing key players and product performance – Leveraging the Utilization Technology Development (UTD) for funding.
 - CSA working group to identify performance rating of this category.
- Commercial Dryers
 - Modeling the cost savings of a modulating dryer technology in the Northwest.
 - Scoping a liquid desiccant-based heat recovery solution for commercial clothes dryer systems. Approach: The proposed system uses natural gas to drive a desiccant-based thermodynamic cycle leveraging waste latent heat from highly humid air leaving the drum.
- Commercial Food Service
 - GTI Energy [Emerging Technology Program](#) Fall Membership meeting contains a presentation on indoor air quality.

Codes, Standards, and New Construction

Codes & Standards

In the fourth quarter of 2022, NEEA staff responded to six requests for comments from the Department of Energy on product rulemakings, either by responding directly or signing on with other organizations. Below is a list of gas products for which NEEA submitted comment letters in this quarter.

Natural Gas Progress Report for Q4 2022

- Consumer Furnaces – Standard – NOPR (notice of proposed rulemaking)
- Clothes Dryers – Standard - NOPR (notice of proposed rulemaking)
- Miscellaneous Gas Products – Standard – NOPR (notice of proposed rulemaking)

Washington

- Commercial Code: No updates
- Residential Code: No updates

Montana

- No updates

Oregon

- In December, Oregon formalized its process of adopting the most recent version of ASHRAE 90.1 as the energy provisions of its commercial energy code, the Oregon Energy Efficiency Specialty Code (OEESC). This will require Oregon to begin its next OEESC update process within six months of the publication of ASHRAE 90.1-2022 (which is now expected in early Q1 2023).

Idaho

- Idaho's Building Code Board met in November with no vote on the disposition of building energy code. This means that the 2018 code remains in place until the code board decides to reconsider reducing code regulation.

International Energy Conservation Code (IECC):

- The 2024 IECC development process continued in Q4 2022. The public comment period for the Commercial 2024 IECC first draft, which is roughly 10% more efficient than the 2021 IECC (and roughly 17% more efficient when considering net savings from new requirements for energy generation), was conducted from September to October. The public comment period for the Residential 2024 IECC first draft, which is roughly 6.5% more efficient than the 2021 IECC, went from November to December. The Residential and Commercial IECC committees began processing the hundreds of comments received on these drafts this quarter and will continue discussions and voting on these proposed changes in 2023. NEEA staff are voting members of the main Commercial code committee as well as the Residential and Commercial HVAC and Refrigeration (HVACR) and Water Heating subcommittees. NEEA staff have participated in all meetings of these committees and are monitoring several others.

New Construction

NEEA staff is continuing to support utility programs for above code new construction. Data is collected monthly on homes built and rated.

Other Updates

- Highlights from the North American Gas Heat Pump (GHP) Collaborative include:
 - Two product-focused committees (Gas Heat Pump Water Heater and Residential Space Heating) have scoped work that will flow into mid-2023:
 - Gas Heat Pump Water Heater (GHPWH) Committee-
 - Codes/standards review and roadmap – Contracting
 - Early adopter trade ally segmentation/market research – Interview guides developed and interview process has commenced
 - Updated installer support materials – Pending product development/updates
 - Residential Space Heating Committee
 - Manufacturer outreach and engagement – Interview guides developed, and interview process has commenced
 - Residential and commercial GHP collateral development – First drafts complete and posted
 - Residential GHP TRM workpaper template, development of GHP adoption rates and standard program design/utility engagement plan – In development
 - To understand viability of a “Golden Carrot” type project driving GHP product commercialization/ broad adoption, collaborative members have been interviewed and Resource Innovations is preparing a summary of findings and recommendations, expected Q1 2023.
- Alliance staff attended multiple meetings/workshops to highlight Northwest progress, identify opportunities to collaborate and gain industry insight. Events included:
 - GTI Energy Emerging Technology Program Fall Membership meeting. New technology snapshots, presentations, technology specific slides, and complete meeting notes are [available to NEEA gas funders online here](#).
 - Post-GTI Emerging Technology Program meeting with other North American utilities to discuss potential areas for gas efficiency market transformation collaboration.
 - Presented 2022 update of gas heat pumps and dual fuel technologies at the Regional Emerging Technology Advisory Committee.
 - Worked with Regional Technical Forum to review multiple categories including hearths and dual fuel space heating technologies

Efficient Rooftop Units (Efficient RTUs)

2022 Goal	Key Success Metric	Status	Progress and Next Steps
Create awareness of and support for Efficient RTUs from targeted market actors.	Three partners will reference Efficient RTU specification by Q4 2022.	Goal not achieved	<ul style="list-style-type: none"> Specification has been finalized based on manufacturer feedback for our initial market development. Spec and Prescriptive QPL is posted on BetterBricks. Due to Program Advancement happening in Q4, expectation is partners to reference specification in 2023
Finalize key intervention strategies and transition to market development.	Present Program Advancement to NGAC in Q2 2022.	Threshold Achieved	<ul style="list-style-type: none"> Program Advancement vote at the Q4 NGAC meeting on October 17, 2022. NGAC voted to advance ERTU program to Market Development.
Support manufacturers in developing and promoting Efficient RTUs to increase product availability.	Agreement from two manufacturers to expand availability by Q4 2022.	Goal not achieved	<ul style="list-style-type: none"> The program team continues to hold meetings in 2023 with manufacturers to refine intervention strategies that would expand the availability of qualified equipment Manufacturers have returned completed CSA P.8 calculators for products to identify equipment that will qualify using the performance path specification. The program team will continue to work with Manufacturers to expand product availability in 2023. Due to Program Advancement happening in Q4, expectation is to have agreements with Manufacturers in 2023

Activities, achievements, or events

- NGAC voted to advance Efficient RTUs in Market Development at the Q4 meeting in October.
- Due to weather events, the RTUs for the second field study site in Portland, the KBOO radio station, will be installed in early 2023 along with metering equipment for data collection for the remainder of the heating season.

Efficient Gas Water Heaters

2022 Goal	Key Success Metric	Status	Progress and Next Steps
Collaborate with manufacturer and gas utilities across North America to finalize GHPWH product design, demonstrate performance in cold climates and prime the market. Total of ~60 units estimated to be installed early 2023.	GHPWH Demo installations scheduled (Threshold: Confirmed shipment dates for GHPWH demo units)	Goal not achieved	<ul style="list-style-type: none"> Neither metric achieved; GHPWH demonstration project timeline dependent on product development status, which has been delayed due to COVID, supply chain issues and other market disturbances Mitigation: Adjusted 2023 Operations plan to focus on activities assessing likelihood of a commercialized residential GHPWH by 2025
Partner with NA GHP Collaborative and major manufacturer to develop GHPWH product launch strategy, likely including aligned rebate programs, supply chain awareness activities, proactive replacement campaign and/or alternate financing mechanisms.	GHPWH Product Launch Plan Implemented (Threshold: GHPWH Product Launch Plan Developed)	Goal not achieved	<ul style="list-style-type: none"> Per above, manufacturer commitment to GHPWH commercialization is unconfirmed. Collaborative activities supporting GHPWH launch re-scoped and will flow into 2023. Mitigation: Adjusted 2023 Operations plan to focus on activities assessing likelihood of a commercialized residential GHPWH by 2025
Partner with technology developers and manufacturers to accelerate testing and commercialization of additional GHPWH technologies and/or optimized versions of existing technologies	2 technologies demonstrated (Threshold: 1 technology demonstrated)	Threshold Achieved	<ul style="list-style-type: none"> Completed initial testing of full-scale prototype: encouraging results related to performance and product dimensions. Improvements identified and being integrated into current build in preparation for further testing. 2023 activities build on this work and include additional lab testing and field test planning, integrating major water heater manufacturer input Monthly check-ins with major manufacturer exploring opportunities and debriefing on lab test findings, pricing, cost analysis, and NEEA market research

Activities, achievements, or events

- Collaborated with NEEA's electric water heating team and additional stakeholders submitting a joint recommendation to the Department Of Energy, proposing efficiency levels for consideration in the residential water heater rulemaking process.
- Highlighted the regions commitment to efficient gas heat pump technology in a [short video posted to social media](#) on Heat Pump Water Heater Day.
- Kicked off project to gain detailed insight into commercial GHPWH performance and economic screening opportunities. Findings expected Q1 2023 for integration into ongoing program development.
- NEEA staff was interviewed by a project representing Wisconsin Focus on Energy to understand the state of gas heat pump water heating technology and near-term opportunities for the Wisconsin market. Interview content informed recommendation to narrow in on commercial boiler applications for gas heat pump technology and a demonstration project as a suggested next step.

High-Performance Windows

2022 Goal	Key Success Metric	Status	Progress and Next Steps
Confirm barriers and opportunities for HPW adoption among retrofit installers and homeowners	Q2 Market Characterization Study complete (Q3 threshold)	Threshold Achieved	<ul style="list-style-type: none"> NEEA's residential windows market characterization study was published in Q3 on neea.org. The study included a survey of retrofit window installers about install and sales experience with high performance, triple pane windows, as well as a survey of homeowners about the windows path to purchase.
Engage manufacturers and suppliers to co-create strategies for increasing availability of HPW in NW	3 brands of HPW available via NW distribution channels	On target	<ul style="list-style-type: none"> Three major manufacturers are currently supplying the Northwest with high-performance windows. We've learned via our builder pilot that the incremental price is in the \$3 - 8/sq ft range depending on the manufacturer and product line; lead times are on par with code windows. All three manufacturers have indicated they can scale to meet demand but won't build supply ahead of demand as windows are not stocked items for new construction. NEEA is also engaged with a key manufacturer to assist them in getting to market with their thin triple window product.
Test HPW as an easier path/tool to reach aggressive code and above code targets with volume builders in the Northwest.	Use of HPW technology by six Northwest volume builders.	Head's Up	<ul style="list-style-type: none"> We have six builders enrolled in the program. These vary in size from small, green builders to a larger Northwest builder and including one national, volume builder. Four enrolled builders have purchased and installed high-performance windows in one or more homes. The program has completed interviews and documented lessons learned from the first year of the pilot in 2022. Two additional builders are engaged in the pilot for 2023. One has purchased windows for 4 of 24 units in Q4 2022 for a development in Oregon and will continue to purchase and install the remaining windows by mid – 2023. The other builder enrolled in the pilot is a national, volume builder who will be installing high-performance windows for 100 homes for a development in Washington throughout the next two years.
Finalize key intervention strategies and transition to market development	Program Advancement presented to NGAC and RPAC in Q4	Goal Not Achieved	<ul style="list-style-type: none"> The program will require more time in program development than originally anticipated to assess NEEA's cost benefit ratio, refine program logic, target market(s) and intervention strategies. The program team has revised its target for Program Advancement to Q4 2023 – Q2 of 2024 per NEEA's approved 2023 Operations Plan.

Activities, achievements, or events

- NEEA's [High-Performance Windows Market Characterization Study](#) was published in Q3 2022.
- NEEA published a [Study of High-Performance Windows Incremental Manufacturing Cost](#) on neea.org.
 - The Northwest Energy Efficiency Alliance (NEEA) contracted with Steve Selkowitz, formerly of Lawrence Berkeley National Laboratory (LBNL), to conduct a cost study of high-performance windows. The study sought to quantify the incremental manufacturing cost of upgrading windows from the current dominant market leader, an ENERGY STAR® V6 compliant window with a U-factor of 0.27, to the new ENERGY STAR V7 window with a U-factor of 0.22 in the Northern Zone. Understanding these manufacturing cost options will allow NEEA to assess the value and design of potential market intervention programs to accelerate the shift to the higher efficiency V7 option.
 - The report explores several technical pathways to make the required thermal improvements and concludes that an upgrade to a thermally enhanced double-glazed window or a shift to a triple glazed window can be achieved at an incremental manufacturing cost of ~ \$1.80 - \$2.10/sf with volume production.
- The program documented lessons learned from the first year of the builder pilot which included interviews of the initial four builders about their recent experiences with high performance windows to learn how to support builders in increasing their use of the product going forward. Two of the four builders reported that they will continue to install high-performance windows in the future as their standard offering. The other two will consider installing high-performance windows in the future.
- The [ENERGY STAR® Version 7 residential window specification](#) was approved last October and shall take effect October 23, 2023. The update will raise the Northern Climate Zone specification from the current U-value 0.27 to a U-value of 0.22.

Memorandum – *Informational Only*

January 25, 2023

TO: Natural Gas Advisory Committee (NGAC)

FROM: Jonathan Belais, Policy Manager, NEEA Staff

SUBJECT: Federal Opportunity Coordination

Our Ask of You:

Please review the memo and bring any questions, recommendations, feedback, or concerns to the Q1 NGAC meeting on February 1, 2023, or contact me at the email below.

Context

The passage of the Infrastructure Investment and Jobs Act (IIJA, 2021) (IIJA), also known as the Bipartisan Infrastructure Law (BIL), and the Inflation Reduction Act (IRA, 2022) has meant a dramatic increase in federal activity and the emergence of a variety of new opportunities for energy efficiency stakeholders. NEEA staff are closely tracking these opportunities and working to incorporate them into market transformation strategies, where appropriate. As state agencies are the primary conduit for much of the increased energy efficiency funding, NEEA will continue to work closely with each state to best leverage these new resources and NEEA's expertise to support the regional adoption of efficient products and practices.

NEEA staff have received several requests from utility staff interested in potential regional coordination efforts. Staff strongly suggest that interested committee members coordinate with their state energy offices to identify the best avenues of engagement. Additionally, your states may offer consolidated information regarding recent or upcoming federal opportunities (see [Idaho's tracker](#) of federal funding opportunities or [Oregon's blog](#) on bringing federal funds to Oregon). Federal Request for Information (RFIs) are a good way to provide direct feedback to the relevant federal implementation teams, but coordination locally will be critical as the needs and plans of individual states will vary greatly.

NEEA's Role

NEEA staff are aware of the scale of this collective opportunity and will continue to identify ways NEEA can help to maximize the impact for the region. Due to the structure of the new and expanded programs outlined in IIJA/BIL and IRA, it is unlikely NEEA will be a direct recipient for most programs. Instead, NEEA will continue to work with funders, market actors, and other stakeholders to adapt to and prepare for the shifting political landscape. Resulting shifts in market strategies and program activities will continue to flow through coordinating committees (electric) and NGAC (gas) to help align with local programs. NEEA staff are connecting regularly with the region's state energy offices to support coordination and identify connections to NEEA's work. As more concrete opportunities for engagement develop, NEEA may serve as a regional convener for discussions regarding upcoming opportunities.

Timing

The timeframe for these opportunities and associated activities is uncertain. As federal agencies have grappled with the exponential increase in new program and staffing needs, the development and release of information and new federal program funding has been markedly slow. It is also important to

remember that many of these resources, including the \$9 billion in new residential efficiency rebates, will be dependent upon proposals and timing from state agencies and may have multiple application windows over the coming years. While a few opportunities are already live, expectations are that the first half of 2023 will see a bevy of new Requests for Information (RFIs), leading to a similar number of Federal Opportunity Announcements (FOAs) in the second half of the year. NEEA staff are monitoring previous and existing RFIs and FOAs and will continue to track upcoming opportunities as they are released. Just to highlight a few high-profile efficiency programs:

1. [Live] [Industrial Efficiency and Decarbonization](#) – Full Applications due 1/4/23
2. [Live] [Resilient and Efficient Codes Implementation](#) – Concept Papers due 1/27/23
3. [Live] [Renew America's School Grant](#) – Available until expended
4. [Home Energy Rebate Programs](#) (High-efficiency Electric Home Rebate Program and Whole Home Energy Reduction Rebate) – RFI responses due March 3, FOA in late 2023

Please contact NEEA's Policy Manager, Jonathan Belais (jbelais@neea.org), with any questions.