Natural Gas Advisory Committee Q3 2023 Meeting (Virtual)



DATE: July 26, 2023

TIME: 12:30-4:45pm Pacific

WEBINAR: MS Teams – See link in calendar invite or <u>register here</u>

AGENDA (All Times Pacific)

12:30-12:50 (20 min)	Welcome and Introductions	Alisyn Maggiora
12:50-1:10 (20 min)	Round Robin • Share-out on recent key activities/developments Desired Outcome: Committee aware of relevant activities/developments across our organizations.	NGAC Members
1:10-1:30 (20 min)	Housekeeping & Looking Ahead Notes & action items from Apr 20 meeting (on neea.org here) Product Council updates Looking ahead Workgroups NGAC Dual Fuel Program CEAC Dual Fuel Measurement & Methodology 2024 Operations Planning update Business Planning update Business Planning update Leadership in Energy Efficiency Awards Upcoming meetings Sept 7 interim webinar Q4 anticipated topics 2024 meeting schedule Desired Outcome: Committee refreshed on previous meeting notes/action items and aware of significant upcoming items.	Alisyn Maggiora Noe Contreras Peter Christeleit Ryan Brown Becky Walker
(10 min)	Break	All
1:40-2:40 (60 min)	Quarterly Portfolio Update (Q2 Recap) Budget Update Quarterly Progress Report highlights Desired Outcome: Committee apprised on gas portfolio developments.	Peter Christeleit Noe Contreras Aaron Winer Jason Jones Tamara Anderson Mark Rehley Pg. 3-13
(10 min)	Break	All
2:50-3:30 (40 min)	 Washington Code Evaluation Update Gas-specific insights from recently completed code evaluation. Desired Outcome: Awareness of builders' response to Washington's 2018-WSEC code. 	Meghan Bean Pg. 14
3:30-4:00 (30 min)	Gas Heat Pump Product Development Update New manufacturer overview Potential opportunities	Noe Contreras Peter Christeleit Pg. 15

	Desired Outcome: Awareness of potential portfolio opportunities and activities.		
(15 min)	Break	All	
4:15-4:35 (20 min)	Gas Portfolio Outlook • 2024 Operations Planning tee-up • Extra-Regional Collaborations Desired Outcome: Visibility into future portfolio work and decisions.	Peter Christeleit Pg. 15	
4:35-4:45 (10 min)	Public comment, wrap up and adjourn	Alisyn Maggiora	

<u>Informational Updates:</u>

• Pg. 16-20: Memos – Update on (2) Dual Fuel Workgroups (HVAC product focused; measurement + methodology focused)

Additional Resources:

- Q2 2023 Newsletter Market Research and Evaluation
- Q2 2023 Newsletter <u>Emerging Technology</u>
- Q1 2023 Newsletter <u>Codes, Standards and New Construction</u>

Memorandum – Agenda item

July 19, 2023

TO: Natural Gas Advisory Committee (NGAC)

FROM: Peter Christeleit, Manager, Natural Gas Portfolio and Strategy

SUBJECT: Natural Gas Portfolio Budget

Due to a timing mismatch between the Q3 meeting and the close of 2023 Q2 financials, the Q2 budget report will be provided to NGAC members sometime shortly after the time of the meeting, with a verbal update provided during the meeting.

Should you have any questions or concerns in the interim, please don't hesitate to contact me: PChristeleit@neea.org

Natural Gas Progress Report

Northwest Energy Efficiency Alliance (NEEA)

Q2 2023 Highlights



Scanning

- Combi
 - SMTI 80 kBTU gas heat pump (GHP) field testing ongoing at two single-family homes and a multi-family home,
 expecting conclusions and findings Q4 2023
 - Vicot V20 gas heat pump for GTI Energy lab testing delayed in transit to North America, expecting testing and results Q4 2023
 - Published research report outlining HVAC installer and end-user perceptions and feedback: https://neea.org/resources/dual-fuel-and-gas-heat-pump-market-research
- Dual Fuel
 - Ongoing work includes, modeling dual fuel ASHP paired with natural gas furnace, research report outlining installer and end-user perceptions and feedback and a report detailing key players and product performance. All expected complete by Q4 2023.
- Commercial Dryers
 - o Modulating dryer technology draft final report, expecting to be published Q3 2023
 - o Scoping liquid desiccant-based heat recovery solution for commercial clothes dryer systems
- Engine-Driven Gas Heat Pump
 - o Identifying opportunities for space heating applications in the Portland, Oregon area

Codes, Standards, and New Construction

Codes & Standards

In the second quarter of 2023, NEEA staff submitted one comment letter to a request from the Department of Energy.

 Conventional Cooking Products – Efficiency Conservation Standard – SNOPR (Supplemental Notice of Public Rulemaking)

Washington

- Commercial Code: Effective date delayed until October 2023. Public process started to adjust code in light of Nineth Circuit Court's decision on Federal preemption violations by Berkley's natural gas ban.
- Residential Code: Effective date delayed until October 2023. Public process started to adjust code in light of Nineth Circuit Court's decision on Federal preemption violations by Berkley's natural gas ban.

Montana:

• The Montana Homes Collaborative group met several times in Q2 2023 and discussed topics such as the DOE national energy codes conference (which was attended by three NEEA employees), the Cold Climate Heat Pump Insights Panel that was hosted by City of Bozeman in May, and how ADUs can be economically built for maximum energy efficiency, a theme that will be particularly important considering the newly signed SB 528 which requires cities to adopt rules allowing construction of accessory dwelling units (ADUs) starting January 1, 2024.

Oregon

- Commercial This quarter, Oregon Building Code Division (BCD) began the Oregon Energy Efficiency Specialty Code (OEESC) update process. BCD will review the changes made in ASHRAE 90.1-2022 and draft amendments in developing the OEESC as necessary. The target code adoption date is January 1, 2024.
- Residential The 2023 Oregon Residential Specialty Code (ORSC) adoption process continued this quarter. After the 2023
 ORSC final draft was approved by the Residential and Manufactured Structures Board (RMSB) in Q1 2023, a public hearing
 on 2023 ORSC was scheduled for July 18, 2023, and a public comment period was opened until July 28, 2023. The 2023
 ORSC is expected to be adopted October 1, 2023 and will likely go into full effect three to six months later.

Idaho

• In Q2 the Idaho Building Code Board and the Idaho Division of Occupational and Professional Licenses (DOPL) continued meeting to discuss the governor's Zero-Based Regulation executive order, which will likely have an impact on the energy code in Idaho. Throughout the rest of the year, the Board, DOPL and stakeholders will continue participating in rulemaking meetings with the goal of voting on and approving an updated set of rules by the end of the year. International Energy Conservation Code (IECC):

IECC

The 2024 IECC development process continued in Q2 2023. The Residential and Commercial IECC committees (and their subcommittees) completed their review of the second round of code change proposals, which led to proposed versions of the Residential and Commercial 2024 IECC proposed second draft. (Early in Q3 2023 these proposed versions were confirmed as Residential and Commercial 2024 IECC Public Draft #2.)

New Construction

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

ENERGY STAR®

Joined other members of the North American Gas Heat Pump Collaborative in submitting comments regarding ENERGY STAR®'s proposal to sunset the current ENERGY STAR® boilers and furnace specification and launch a new hydronic heating specification. Comment highlights include:

- The ENERGY STAR® label has been effective at increasing adoption of efficient gas appliances and lowering emissions across the country.
- High-efficiency natural gas appliances provide reliable practical, low cost, and low emission optionality for consumers and provide a cost-effective path to achieving emission goals.
- Sunsetting the certification pathway also negatively affects consumers due to high costs of alternatives and potential lack of ENERGY STAR® rated products on the market.
- There are negative consequences, particularly to low and moderate -income consumers, to removing the ENERGY STAR® label from gas boilers and other gas appliances.
- Sunsetting the certification pathway is inconsistent with Inflation Reduction Act Section 13301.
- GHPs should be included in the new ENERGY STAR® specification for Heat Pump Hydronic Heating Appliances.

Other Updates

- Highlights from the North American Gas Heat Pump (GHP) Collaborative include:
 - Two product-focused committees 2023 scoped work is underway, including:
 - Gas Heat Pump Water Heater (GHPWH) Committee
 - Codes/standards review and roadmap and early adopter trade ally segmentation/market research.
 - Due to uncertain commercialization timeline for residential GHPWH, committee voted to recommend shifting focus to monitoring the market and reallocate resources to commercial GHP.
 Recommendation will be reviewed by Collaborative leadership and decision expected in Q3.
 - Residential Space Heating Committee- Manufacturer outreach and engagement, Residential and commercial GHP collateral development, and Residential GHP TRM workpaper template, development of GHP adoption rates and standard program design/utility engagement plan.
 - Based on 2022 findings, Resource Innovations recommended further exploration on possible activities related to a "Golden Carrot" type project driving GHP product commercialization/ broad adoption. Survey distributed to membership with findings expected Q3.
- 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 (ETP) Bi-Annual Meeting: Attended meeting to learn technology updates, network with gas industry peers, share Northwest activities and identify collaboration opportunities.
 - CEE Summer Program Meeting: Staff attended multiple sessions to highlight regional activities, share knowledge and network with stakeholders throughout North America.
 - Energy Solutions Center Virtual Technology and Market Assessment Forum: Staff attended multiple sessions to learn the latest technology advancements from manufacturers and technology developers, including hydrogen readiness, fuel supply considerations, codes and policy developments, as well as the integration of AI.

Efficient Rooftop Units (Efficient RTUs)

2023 Goal	Key Success Metric	Status	Progress and Next Steps
Finalize specification and refine QPL; identify partner/owner of specification and QPL.	Partner identified by Q1	Head's Up	 Prescriptive Path QPL is posted on BetterBricks.com and will be revised quarterly. Consortium for Energy Efficiency (CEE) has delayed taking ownership of specification and QPL. CEE and NEEA have scheduled a webinar to solicit feedback from CEE members on supporting a whole box metric for RTUs. NEEA will continue to own and host specification until CEE agrees to moving forward on a Efficient RTU specification (or another national partner is identified).
Encourage manufacturers in developing and promoting efficient RTUs for the light commercial market.	Agreement from two manufacturer s to produce and offer light-commercial units by Q2.	Head's Up	 Regular meetings with manufacturers are ongoing, but no formal agreements to produce new qualified products. One manufacturer is working to bring an ERV product to market to be used in place of the economizer of their RTUs.
Create awareness of and support for efficient RTUs from market actors (manufacturer reps, distributors, contractors) and utilities across the U.S. and Canada.	Three partners reference Efficient RTU specification by Q4	On Target	 Regular meetings are scheduled for regional market actors to align ERTU specification extra-regionally. This alignment will show increased demand to manufacturers for qualifying products. NEEA has partnered with MN-CEE to align on the ERTU specification for market transformation efforts in Minnesota. NEEA is in discussions with Nicor Gas, Enbridge, and other utilities to collaborate on commercial HVAC measures
Improve cost data, increase understanding of costs of Efficient RTUs.	Acquire data by Q3	On Target	NEEA staff is continuing to work with manufacturers and suppliers to acquire cost data for Efficient RTUs and ERVs.

Activities, achievements, or events

- Two qualified RTU/DOAS products were identified in talks with suppliers and will be added to the QPL in Q3.
- The second field study site in Portland, the KBOO radio station, is still delayed. The RTUs have been installed, but the contractor is working on some electrical issues on site. These issues expect to be resolved in Q3 of 2023 in time for data collection in the fall and winter of the 23/24 heating season. The field study will also include bolt-on ERVs to capture cost and savings information.

Efficient Gas Water Heaters

2022 Goal	Key Success Metric	Status	Progress and Next Steps
Drive GHPWH product advancement and testing	Successful lab demonstration, >1.0 UEF, of both absorbtion and adsorption GHPWH technologies (Threshold: Successful demonstration of one technology)	Head's Up	 Adsorption GHPWH prototype complete and shipped to North America for testing. Testing expected to be complete Q3, 2023. Technology developer of absorption GHPWH has decided to focus on commercialization of GHP furnace/combi product in the near term, NEEA staff maintaining ongoing engagement
Understand certainty of commercialization timelines	2 manufacturers initiating product commercialization (Threshold: 1 manufacturer initiating commercialization)	On Target	 Regular meetings with manufacturers and technology developers, ongoing Initiation of discussions with European-based major manufacturer with multiple global residential HVAC and water heating product lines
Assess utility commitment to supporting a GHPWH	NEEA NGAC + North American GHP Collaborative formalize commitment platform (Threshold: NEEA NGAC indicates significant support for GHPWH)	Head's Up	 North American GHP Collaborative "Golden Carrot" draft report indicates members are currently unable to make financial commitments commensurate with those previously identified as required to significantly affect manufacturer decision making. Through NEEA's Cycle 7 Business and Strategic Planning process, the draft plan has a focus area to support market transformation work of products that become commercialized and have a good regional fit.

Activities, achievements, or events

- Collaborated with NEEA's electric water heating team and additional stakeholders to conduct outreach informing stakeholders and garner support for joint <u>residential</u> water heater <u>rulemaking recommendation</u> submitted to the Department Of Energy.
- Reviewed final commercial GHPWH feasibility screening analysis findings and incorporated into Opportunity Assessment, informing decisions regarding possible future program development and/or resource allocation.

High-Performance Windows

2023 Goal	Key Success Metric	Status	Progress and Next Steps
Builders engaged in pilot grow their use of HPW as a standard offering in new homes	3 builders grow their use of HPW as standard offering in new homes in the Northwest	On target	 Two of the four builders who participated in the volume builder pilot for 2022 have committed to grow their use of High-Performance Windows as their standard offering in new homes in the Northwest, as documented in the exit interviews from the project and the 2022 final report. The other two builders who participated in the volume builder pilot for 2022 will continue to consider High-Performance Windows as a path to energy efficient homes. The program is continuing the volume builder pilot in 2023 with three different builders and have confidence that at least one more will grow their use of High-Performance Windows as their standard offering in new homes in the Northwest.
Engage manufacturers to co-create strategies for scaling future supply of HPW to meet growing demand	By Q2, 1-2 leading manufacturers supplying the Northwest develop roadmap to scale production of HPW	On target	 Seven large window companies dominate sales in the Northwest and are also active in California and Canada. Currently, hybrid triple pane windows are available and scalable to meet demand from Andersen, Marvin, Milgard, Pella, PlyGem and Prime (the latter two are brands owned by Cornerstone Building Brands). A national manufacturer with regional manufacturing capacity is nearing commercial launch of its thin triple window (it does not make a hybrid triple at this time).
Finalize key intervention strategies and transition to market development.	Q4 Program Advancement presented to RPAC and NGAC.	Action Required	NEEA is reviewing its benefit/cost analysis and the overall business benefits for the High-Performance Windows program to determine how the program moves forward.

Activities, achievements, or events

- Tamara Anderson and Rick Dunn recently attended the <u>Window and Door Manufacturers Association's Technical and Manufacturing Conference</u> where we met with four major manufacturers to build relationships along with a representative from <u>MN CEE</u>.
- We're close to signing a **contract with a major manufacturer** for data acquisition and to explore limited market channel activities in support of market adoption of High-Performance Windows and discover market insights, lessons learned and key takeaways.
- We collaborating with MN CEE on a macro level study based on manufacturer/supplier interviews to understand the total number of units sold in the Northwest (and MN) segmented by efficient and non-efficient windows defined as .22 U-Factor or less, along with understanding the breakdown of prescriptive (≤ .22 U-Factor) and the Equivalent Energy Performance defined by the new ENERGY STAR v7 specification. The purpose of this is to refine our baseline and forecasting for the program.
- A third-party review of our Naturally Occurring Baseline and Forecast is expected to be posted on neea.org by the end of Q3.
- We have a new article posted on BetterBuilt^{NW} with a focus on the <u>Benefits of Triple-Pane Windows</u>.
- We're starting work on a case study for project at the Confederated Tribes of Grande Ronde which should be posted on BetterBuilt^{NW} this fall.

Memorandum – Agenda item

July 19, 2023

TO: Natural Gas Advisory Committee (NGAC)

FROM: Meghan Bean, Senior Market Research & Evaluation Scientist

SUBJECT: Washington Residential Code Evaluation Findings Presentation

Our Ask of You:

Please attend this presentation and come prepared with any questions you have about the methodology and findings of the most recent evaluation of homes built under Washington's 2018 Residential Code.

Brief Overview:

This presentation will cover findings from the recently published Washington Residential Code Evaluation, with a focus on findings relevant to gas use in new construction residential buildings under the 2018 Washington State Energy Code (WSEC). Lucy Albin, the lead author from TRC, will join the meeting to help answer questions. The key objectives of this evaluation were to:

- Calculate code compliance among single-family buildings constructed under the 2018 WSEC.
- Determine the compliance pathways builders are taking to meet 2018 WSEC code requirements, with a focus on water heating and space heating equipment, renewables, and (where possible) air tightness levels achieved.
- Investigate whether homes built under 2018 WSEC include dual fuel systems (for example, homes with both electric and gas-fueled space heating options).
- Investigate whether and how new construction homes use natural gas for end uses including stoves, dryers and hearths, and the prevalence of gas hookups in homes with all-electric appliances.

The report can be found on neea.org: https://neea.org/resources/washington-residential-code-evaluation

Please contact Meghan Bean (mbean@neea.org) if you have questions about this study or NEEA's residential code evaluations.



Memorandum – Agenda item

July 19, 2023

TO: Natural Gas Advisory Committee (NGAC)

FROM: Peter Christeleit, Manager – Natural Gas Portfolio & Strategy

SUBJECT: Gas Portfolio Outlook and Gas Heat Pump Update

Our Ask of You:

Please attend this presentation and come prepared ready to engage in the discussion and bring any questions you have about the Portfolio for the remainder of 2023 and 2024.

Brief Overview:

Staff will cover two primary topics with these presentations:

- The first presentation will cover recent gas heat pump commercialization developments, and potential implications for the remainder of Cycle 6. This discussion will be relevant to the following presentation about portfolio decision making.
- The second presentation will be a higher-level discussion of Gas Portfolio decision making for the remainder of Cycle 6 (the remainder of 2023 and 2024), and potential opportunities and tradeoffs.

Please contact Peter Christeleit (<u>pchristeleit@neea.org</u>) if you have questions or would like to make sure any topics are included in the discussion.



Memorandum – Informational item



April 13, 2023 (for reference only; see *Q3 Update below)

TO: Natural Gas Advisory Committee

FROM: Peter Christeleit, Manager - Natural Gas Portfolio and Strategy

SUBJECT: Establishment of dual fuel HVAC-focused work group

*Q3 2023 UPDATE:

We're including this memo as a reminder of the proposal that came forward to NGAC in Q2 to help distinguish between this effort and the Cost Effectiveness Dual Fuel Work Group being proposed in Q3.

Our Ask of You:

Review the Dual Fuel Work Group Charter on the following pages and come ready to discuss your organization's potential interest in participating in a dual fuel HVAC work group. For interested organizations, please identify who from your organization would participate by May 20^{th.}

Brief Overview:

There is great interest in, and exploration of dual fuel HVAC products by a growing number of NEEA's funders. Staff see an opportunity to come together to share insights and coordinate efforts, with the ultimate goal of accelerating dual fuel adoption within the region. We envision the work group discussions will inform dual fuel programs and market transformation within the region, reduce duplication of efforts, and better steward ratepayer funds.

The level of relevant dual fuel activities within the region exceeds the available time for discussion within NGAC meetings so additional time via a work group is recommended.

Primary focus of discussions will be residential applications, but many topics may be relevant to commercial as well.

NGAC WORK GROUP CHARTER

Purpose

The purpose of NEEA Work Groups is to support alliance success by collaborating with NEEA staff to achieve specific objectives identified by the Natural Gas Advisory Committee (NGAC) and/or NEEA staff, consistent with the goals and objectives of NEEA's then-current Business Plan and annual Operations Plan. Work Groups shall be formed on an as-needed basis and staffed with as-needed expertise, for a limited term and specific purpose that is distinct from that of NGAC.

An NGAC member and/or NEEA staff may propose to NGAC the formation of a work group, including guidance on desired stakeholder representation and expertise (i.e. right people, right topic, right time). NGAC is responsible for sponsoring the formation of all NGAC-related Work Groups, and shall conduct an annual review of each active Work Group to ensure its purpose remains both relevant and distinct from that of NGAC and any other active Work Group.

Responsibilities

- 1. Collaborate with NEEA staff to support the objective(s) identified by NGAC (see *Objectives* below), sharing knowledge, expertise and resources to achieve the identified objective(s).
- 2. Determine with NEEA staff the appropriate meeting cadence and required duration for the Work Group, and commit the resources required to achieve the identified objective(s) on schedule.
- 3. Ensure information and outcomes from Work Group collaboration are (a) shared within Work Group-member organizations, and (b) reported to NGAC, and the Natural Gas Board Committee (NGC) if applicable.
- 4. Sunset the Work Group (a) on schedule or upon extension from NGAC, and (b) upon achieving the objective(s) set by NGAC.

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DUAL FUEL WORK GROUP

Statement of Purpose and Connection to Business and/or Operations plans

A work group is recommended for the purpose of informing and accelerating dual fuel work programs and market transformation within the region. The potential for overlapping activities likely exists and collaboration will likely avoid duplication of efforts, better steward ratepayer funds, and accelerate dual fuel market transformation efforts. The level of relevant dual fuel activities within the region exceed the available time for discussion within NGAC meetings and so additional time via a work group is recommended.

Primary focus of discussions will be on residential applications, but many topics may be relevant to commercial as well.

¹ In the event a Work Group requires additional time to achieve its objective(s), beyond the duration identified in Responsibility #2, a justification shall be provided to RPAC for approval.

Objective(s)

- 1. High-level awareness in product and market explorations within region.
- 2. Well-coordinated activities and investments among regional stakeholders (well-planned use of regional ratepayer funds, avoidance of duplication, etc.).
- 3. Aware of relevant extra-regional work and insights
- 4. Identify methods of staying coordinated beyond meetings in work group
- 5. Develop initial vision for alliance engagement in dual fuel in the Northwest

Outcomes Reported To:	☑ NGAC only	☐ NGAC and NGC
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Estimated Duration and Meeting Cadence

- Start date: June 2023 (please have staff identified for attendance by May 20)
- Meeting frequency: 3-4 times per year
- Completion/sunset date: End of C6—4Q24
- Potential expected time commitment: Individual preparation time for each meeting, including review of materials and coordination within individual organization to prepare for share outs (1-2 hours). Occasional offline reviews or information gathering may be necessary (~1 hour)

Specific Expertise Needed

 Program developers; individuals conducting market research, pilots/demos, etc.; Invited experts who may share expertise on specific topics at individual meetings

NEEA Staff Representation Expected:

 Product management; Market, Research & Evaluation manager; HVAC Market Transformation manager; others with expertise as relevant to agenda

Memorandum – Informational item



July 19, 2023

TO: Cost Effectiveness Advisory Committee

Natural Gas Advisory Committee

Regional Portfolio Advisory Committee

FROM: Ryan Brown, NEEA, Manager Planning and Analysis

Peter Christeleit, NEEA, Manager Natural Gas Portfolio & Strategy

SUBJECT: Dual Fuel Measurement and Reporting Methodology Work Group

Background and Purpose

As the region continues to respond to decarbonization policies there is an increasing need to consider solutions that use or indirectly impact usage of both natural gas and electricity. One such concept is for dual fuel residential HVAC systems where an electric Air-Source Heat Pump is paired with a gas furnace in a home. This solution is beginning to gain popularity not only in the market, but with utility programs in the region and across the country. NEEA staff are currently evaluating whether to advance a concept for a dual fuel HVAC market transformation program as well.

There are complexities about how savings, efficiency, peak reduction, and carbon emissions are valued, measured, and reported for a program such as this. For these reasons, NEEA proposes forming a Cost Effectiveness Advisory Committee (CEAC)-based workgroup to collaboratively develop guidelines for NEEA to use when calculating and reporting on the aforementioned metrics. These guidelines would be used for NEEA's regional work only.

Membership

This work group would consist of 10-15 members representing an array of regional perspectives including NEEA gas-only, dual-fuel, and electric-only funders, utility commission staff, and other technical experts from regional organizations such as the NW Power and Conservation Council and Regional Technical Forum.

Proposed work plan

NEEA staff are proposing a series of collaborative 1–2-hour sessions that would begin in Q3 2023 and run roughly every other month through the next 6-9 months to develop a guideline document. This process will have to be adaptively managed as it unfolds, but here is a rough outline of how those meetings may play out:

Meeting 1 - August	Work group background and objective Groundrules and expectations	
Meeting 2 - October	Results of literature review Proposed outline of guideline document	
First draft distributed	Work group feedback provided asynchronously	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Meeting 3 - December	Discuss feedback and how it will be incorporated Determine if more rounds of review are needed	
Final draft distributed	•When ready, the near-final draft will be distributed for final review	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Meeting 4 - February	•Final draft overview and celebration!	
Advisory Committees	Share with the Cost Effectiveness, Natural Gas, and Regional Portfolio Advisory Committees	

Expectations of work group members

Work group members will be expected to do the following:

- Attend meetings on an approximately bi-monthly basis
- Bring expertise and a willingness to lean in to finding solutions to complex questions
- Review and provide comment on materials between meetings as needed
- Represent their organization's position, which will include socializing drafts, soliciting feedback, and getting buy-in from their colleagues and supervisors

Please let Ryan Brown (rbrown@neea.org) know who from your organization you would like to attend **by July 31**st so that we can schedule the first meeting to kick off this effort.