

Natural Gas Advisory Committee Meeting  
NEEA Office: Portland, OR  
January 31, 2019  
10:00am

### Attendees

#### Committee Attendees in Person:

Holly Braun	NW Natural
Gary Heikkinen	NW Natural
Dan Johnson	Avista
Carlos Limon	Avista
Phil Degens	Energy Trust of Oregon
Andrew Rector	Washington Utility and Transportation Commission

#### Committee Attendees by Phone:

Rem Husted	Puget Sound Energy (PSE)
Andy Hemstreet	Puget Sound Energy (PSE)
Monica Cowlshaw	Cascade Natural

### NEEA

Becky Walker, Aaron Winer, Christine Riegler, Jeff Rigotti, Amanda Davidowitz, BJ Moghadam, Alisyn Maggiora, Anu Teja, Ryan Brown, Becca Yates, Virginia Mersereau, Veronica Marzilli, Louis Starr

### Resources

- Agenda packet on NEEA.org: <https://neea.org/img/funder-documents/January-31-2019-NGAC-Meeting-Packet.pdf>
- Master slide deck on NEEA.org: <https://neea.org/advisory-committee-documents/ngac-2019-q1-january-31-master-slide-deck>
- Meeting Recording: <http://neea.adobeconnect.com/p9jh17tuyf8k/>

### Welcome & Introduction / Housekeeping Items (p. 1-6 in [packet](#))

#### A. **Agenda Review**

#### B. **Packet Review – Housekeeping Items**

- 1) Action Item Follow Up
  - a. All in progress, no comments/questions
- 2) Staff Update
  - a. Christine Riegler departing soon on maternity leave; Amanda Davidowitz will manage Condensing Rooftop Units while she's out.
- 3) Announcements
  - a. Next meeting: April 2 at SeaTac
  - b. Efficiency Exchange conference this year in Coeur d'Alene, ID May 15-16
- 4) Budget and Forecast Update
  - a. Note, some budget for CRTU field trial work will be forwarded into 2019
  - b. 2019 budget is available in the operations plan
    - **ACTION ITEM: Becky to send 2019 budget to committee as refresher**

- c. Request: discuss budget true-ups at next meeting; after further discussion it was determined that individual budget discussions may be more effective since each funder is on a slightly different budgeting structure.
  - **ACTION ITEM: NEEA staff to setup custom budget reviews as needed**
- 5) Strategic/Business/Operations Planning Update (Becca Yates)
  - a. Cycle 6 2020-2024, dual-fuel business plan finalized
  - b. \$187.8MM budget will include \$18.9MM for natural gas and \$9.5MM for special projects, like End-Use Load Research
  - c. Plans are available on neea.org [HERE](#).
  - d. Work will be framed under product groups like HVAC or Lighting, versus by sector
- 6) Conduit Transition / NEEA.org update
  - a. Conduit is not funded in Cycle 6; working to transition advisory committee resources to neea.org
  - b. NEEA.org has a funder portal section that requires a login, this is to access funder-specific features including savings reports and other confidential type information. *Note: this is different from board member logins; please direct any questions about this to Virginia Mersereau at [vmersereau@neea.org](mailto:vmersereau@neea.org).*
  - c. Discussion: Posting NGAC materials on a public forum
    - **ACTION ITEM: Keep all old NGAC materials on Conduit with locked group access, new materials can be open to the public posted on neea.org; can still lock individual documents on neea.org as needed.**

## Round Robin

### 1. What lessons from current cycle can we carry into next?

- a. Understanding where some barriers are for individual funders and operating from the collaborative perspective
- b. Ensuring we're creating a safe space for folks to share concerns, and that we're hearing folks
- c. Maintaining a level of patience as we move through this work
- d. Choosing strategic external partners, like the Gas Technology Institute
- e. Creating visibility and sharing back progress internally for those in funder organizations
- f. Encouraging more dialogue between funders, not just bouncing back and forth in response to NEEA
- g. More information sharing (data, etc) to help reduce duplication of effort
- h. Better way to characterize what happens to funders from a regulatory standpoint, there are differences in approach as a result
- i. Understanding the business implications that codes/standards have, especially on natural gas use (i.e., is NEEA promoting activities that work against the business foundation of its funders?)
- j. Wearing regional (NEEA) hat versus individual organization hat
- k. Creating more opportunity for check-ins and updates between meetings
- l. Maintaining awareness of varying perspectives across funders, recognizing that not everyone is on the same page
- m. Hear more between meetings about research going on
- n. During Round-Robin shareouts – be more conscientious of broader impacts to their organization to shed light on new barriers and helpful context; also consider situating round-robin near the beginning of the meetings
- o. Consider, at end of each meeting, categories of updates to consider/prepare for next meeting
- p. Idea: consider monthly progress updates via email between quarterly meetings

- q. Idea: have strategic-level, context type conversations at NG board committee meetings
- 2. What are you excited about as we move into next cycle?**
  - a. New technologies: Smart Thermostats, heat exchangers tied to rooftop units, thin triple-paned window
  - b. Maturity on some of the gas initiatives, seeing some savings start to come through, especially the gas HPWH
  - c. Learning more about different technologies in gas realm and how they're applied
  - d. Role RTF plays on electric side – is there opportunity for NGAC to play a similar role for gas?
  - e. Getting smarter about leveraging the web of market actors and being able to tell the story more crisply
- 3. What, if anything, should we consider doing differently?**
  - a. Have fresh fruit!

### Bi-Monthly Progress Report Review (p.7-20 in packet)

Becky Walker, Aaron Winer and Christine Riegler (NEEA) gave a portfolio overview and highlighted key activities for each technology. *The desired outcome is to address the Committee's questions and that members understand the status of activities related to NEEA's gas efforts.*

#### **Overview Topics w/ Key Discussion Points, Action Items & Decisions: Review packet for greater detail**

##### 1) Portfolio Overview:

- a. Monica Cowlshaw (Cascade Natural) to chair Board-level Natural Gas Committee. First meeting is scheduled for Feb 5; the committee is charged with reviewing the business plan and annual operations plans.
- b. Cost-Effectiveness Working Group update: Bringing topic to Cost effectiveness Advisory Committee (CEAC) at March 20 meeting; will discuss operational policy and implications for CEAC charter, membership and meeting organization; during 2019 we will focus on determining the appropriate input values for calculations as guided by the policy.
  - i. **Ask of Committee: consider organizational representation and data review**
- c. Codes & Standards update on Conduit [HERE](#)
  - i. Concern was raised about the carbon emissions factor included in the proposed Total System Performance Ratio (TSPR) in WA, that it's unfairly favoring electric equipment vs high-efficiency natural gas technologies. Could have both short and long-term implications. There will be a round of public comment coming soon.
  - ii. Question whether NEEA staff are representing funders and how NEEA staff are gaining funder feedback for codes work in general. NEEA staff provide market opportunity assessments for review and feedback for gas proposals (e.g. Optimum Stop and Efficient Kitchen Equipment). Do funders approve proposals? No, but funder perspectives are gathered and taken into consideration.
  - iii. Residential code proposal deadline is April 15
  - iv. **ACTION ITEM: Consider holding discussion at future meeting about codes and carbon legislation implications**

- v. **ACTION ITEM: Julia to follow up with Bing Liu, Sr Manager for Codes & Standards, regarding how external input is gathered in general and how it was gathered for the TSPR proposal.**
- 2) Combination Unit: DOE funded project in Wisconsin going well, expect a results report in early February. Getting contract in place w/ SaltX on space and water heating, expect prototype to be complete at end of Q1. Blue Mountain Energy project delayed due to major OEM restructure but expect project to follow original timing, preparing to build three prototype units.
- 3) Efficient Gas HWPHs: No news on AO Smith non-power damper. Rheem/Saltx work now switched to combi. SMTI/OEM working on strategy for field test of pre-production units yielding key data collection to accelerate utility program development utilities. Starting tankless lab testing with contractor soon. Forensic investigation report on failed Tecogen Ilios heat pump unit expected later this quarter; failure was related to the engine itself and not the overall system.
- 4) Dryers: Last push effort to gather utility support for advanced gas dryer specification, reaching out to targeted utility partners list (Nicor and SDG&E signed up, expect to get PGE and others). DOE may open a RFI to update the dryers standard and/or test procedure; there is also some discussion that DOE may open an opportunity to review the clothes washers standard as well. The NEEA gas dryer team will coordinate efforts with the NEEA electric dryer team if either of these come to fruition.
  - a. **ACTION ITEM: Christine will follow up with her Samsung contact on whether or not Samsung is involved in the recent DOE funding opportunity announcements on gas dryers.**
- 5) Hearths: NEEA will submit proposals to eliminate standing pilot lights in fireplaces for both Washington residential code updates and IECC 2021 code updates.
- 6) Condensing Rooftop Units: Experienced minor issues at field trial site, most related to the controls; working on a Commercial HVAC Roadmap, which is expected to help broaden understanding of opportunities within the commercial HVAC space that could supplement or complement the condensing rooftop unit program.
- 7) Scanning: Conduit list updated w/ gas products, see subsequent agenda item below for greater detail.

### Condensing Rooftop Units (CRTUs) Update (p.21 in [packet](#) | [slides 12-23](#))

Anu Teja (NEEA) provided the update on the installation research findings and next steps. *The desired outcome is for Committee members to be aware of findings and next steps.*

#### **Overview Topics w/ Key Discussion Points, Action Items & Decisions: *Review packet for greater detail***

- 1) Overview
  - a. Installs typically take two days and all units are custom-built
  - b. Field trial entailed four installs: 1) Bend, OR, 2) Post Falls, ID, 3) Gladstone, OR, 4) Renton, WA
- 2) How the Region Can Help (third-party recommendations from Illume)
  - a. Set best practices and set expectations
  - b. Help standardize; e.g., pipe diameter requirements
  - c. Monitor installations and track issues

- d. Create experienced teams and share personnel across installation projects
- 3) Canadian Research
  - a. Will consist of interviews with four to six market actors (Canadian, including utility staff) and one to two installation ride-alongs to compare with OR and WA installs
  - b. Results will inform: condensate management best practices, content for trade ally training / guidance, and content for installation specification.
- 4) Key Discussion Points and Action Items:
  - a. Consider wireless interface for controls specifications
  - b. NEEA's intent is to provide common, consistent guidelines for utilities, trade allies, manufacturers and other market partners in the installation of condensing RTUs.
  - c. Need to decipher what installation and/or ongoing product issues are due to being a
    - 1) typical RTU, 2) custom RTU, and 3) custom condensing RTUs

### Extended Motor Products (XMP) Update (p.22 in [packet](#) | [slides 24-33](#))

Mark Rehley (NEEA) provided the update on XMP program activities and research opportunities. *The desired outcome is for Committee members to be aware of the XMP program activities, which have natural gas efficiency implications, and to provide direction on participating in gas savings validation research*

#### **Overview Topics w/ Key Discussion Points, Action Items & Decisions: *Review packet for greater detail***

- 1) Overview
  - a. Focus on “system” savings, as opposed to components
  - b. Motor-driven products are organized into three groups: fans/blowers, pumps, compressed air
  - c. Even though much of the motor-driven pump efficiencies are focused on electric savings, there's potential for gas savings, primarily in the hydronic heating and domestic hot water realms
  - d. Research project currently under way on commercial and industrial pumps under 50hp; goal is to analyze data for savings potential. Some of these pumps are circulator pumps, which is where the gas savings opportunity lies.
    - i. Technical workgroup has been established to oversee research and provide technical input along the way
    - ii. If interested in this workgroup, please contact Warren Fish [wfish@neea.org](mailto:wfish@neea.org).
- 2) Committee interest in further information
  - a. Size of the market
  - b. Building types it applies to and relative percentage
  - c. Average MW to therms calculation
  - d. What the electric cost-effectiveness is
    - i. **ACTION ITEM: When electric savings analysis is complete (likely mid 2019), provide a share out to this committee.**

### Emerging Technology Update – RETAC 2.0 (online demo)

Jeff Rigotti (NEEA) provided a demonstration and review of the natural gas products and projects residing in the emerging technology database on Conduit; these resources are meant to provide high-level, pipeline information related to items that are of interest around the Northwest. This site is public

and anyone can contribute. There is also an open submission form on neea.org where anyone can submit an idea: <https://neea.org/get-involved/submit-your-idea>

*The desired outcome is for Committee members to be aware of the projects in the database and how to access them in Conduit.*

Helpful links:

- [Regional Emerging Technology Advisory Committee](#)
- [RETAC Products \(for consideration\) on Conduit](#)
- [RETAC Projects \(wishlist for studies, etc\) on Conduit](#)

Action items:

- 1) Jeff R to follow up with Intellihot to see about test project on Vancouver waterfront

## Feedback & Wrap-Up, Adjourn

- A. Comments:
- B. Next meeting topic suggestions
  - 1) Triple-paned thin windows
  - 2) Updates on legislative session activity, i.e. carbon legislation and codes implications
  - 3) E3 Decarbonization Study conducted for NW Natural
  - 4) Next Step Homes update
- C. Next meeting is scheduled for Tuesday, April 2, 2019, at SeaTac Airport Conference Center.
- D. Meeting adjourned at 3:40pm