



Q1 Residential Coordinating Committee (RCC)

Day 1

March 18, 2025

12:30 – 3:30 p.m.

Hybrid Meeting at NEEA Offices

Meeting Attendees

Committee Members: (*In-person*) - Tyler Boehringer (Emerald PUD), (*Online*) - Carolyn Beebe [Snohomish PUD (SNOPUD)], Lis Saunders (Tacoma Power), Lars Henrikson [Seattle City Light (SCL), Griselda Gonzalez (Chelan PUD), Ryan Crews (Energy Trust of Oregon), Trevor Frick (Clark PUD), David Murphy [Bonneville Power Administration (BPA)], Haley Puntney (Inland Power & Light), William Dixon [Puget Sound Energy (PSE), Todd Greenwell (Idaho Power), Dustin Levesque [Puget Sound Energy (PSE)]

NEEA Staff: Anouksha Gardner, Alexa Hujik, Suzi Asmus, Jack Davidson, Stephen O'Guin, Emily Rosenbloom, Stephanie Quinn, Drea Bell, Britt Cutsforth-Dawkins, Alisyn Maggiora, Katherine Gifford

Resources

- Agenda Packet: [Northwest Energy Efficiency Alliance \(NEEA\) | Q1 2025 Residential...](#)
- Slide Deck: [Northwest Energy Efficiency Alliance \(NEEA\) | Q1 RCC Meeting Slides -...](#)
- Recording: Q1 Meeting was transcribed

Welcome and Packet Review

- Meeting Packet Highlights
- Collective Role – Working Together – Please come prepared to participate!
- Agenda Overview – Regional Roundtable, Regional Topic: HP HVAC, Q2 Topic Check In, Recap and Next Steps for Tomorrow
- Packet Review Reminder – Tier 1: Agenda Items, Tier 2: Program Activity Reports, Tier 3: Additional Resources and Reference Material
- Welcome new committee members!

Introductions and Regional Roundtable

Name | Organization | Program Updates | Icebreaker Answer

(Note: because there is an Advanced Heat Pump and HPWH Roundtable discussion tomorrow, the initial roundtable will not have updates for either of these programs.)

Icebreaker for Q1: What's the worst haircut you've ever had?

Carolyn Beebe – Snohomish PUD

- Q4 hear program – HEAR program providing free installation of HPWH, washer/dryer all in one combo or set, induction stoves etc. Over 600 customers who have had it done or are in queue to do it.

David Murphy – Bonneville Power Administration

- Working on the new version of the implementation manual for the April release
- Very few changes currently because we're off cycle, but there will be large changes coming in October for the start of the new cycle.

William Dixon – Puget Sound Energy

- Patrick Weaver (residential energy management group leader) has shifted to budget strategy and Andrea Jacobson has taken over the role!
- Heads down on the 2026/27 plan right now, so no big updates.

Todd Greenwell – Idaho Power

- Continuing focusing on population growth in Idaho in both Commercial and residential.
- Vetting International Energy Conservation Code of 2024 or new construction in res and comm for this year which will be handed off to legislators when ready
- Working on a lot of HP work with BPA and excited to see what that produces

Griselda Gonzalez – Chelan County PUD (filling in for Josh Mitchell)

- Completing the Conservation Potential Assessment (CPA) with Lighthouse Consulting for 26/27
- Josh is our new Customer Energy Solutions Manager, and we will be hiring someone to fill in for his residential work
- Fusion energy plan underway with Helion, more to come as we get information

Haley Puntney – Inland Power and Light

- Launched a low-income weatherization program completely from our Energy Efficiency Incentive (EEI) budget, no hear funding involved. Program is going great and helping a lot of people.
- Have a new home energy services auditor and we're 86% residential, so that'll be his main focus. Inland is going to tie in our on-bill finance program and our low-income program to his audits. And he just finished the second part of his BPI certification last week.

- 509 Energy – great contractor they are currently using (Todd Williams)

Lars Henrickson – Seattle City Light

- Gearing up to get a third party implementor for rebates and also a whole home program with new weatherization measures for residential customers aligned with the inflation reduction act
- Low-income weatherization is still happening; the city of Seattle did change to have a single application for all low-income programs, which has been a huge help for us in driving participation

Dustin Levesque – Puget Sound Energy

- Co-deployment of Smart DR with our HPWH program. Working through the timeline, but it will be sometime in 2025.

Ryan Crews – Energy Trust of Oregon

- Rescreening to pull out HPWH measures for new construction which should influence a few additional programmatic changes (midstream, etc.)
- No-cost HPWH pilot offer running for the last 18 months – seeking OPUC exception to run into program to run through 2030
- Whole home moderate to low-income program –
- Midstream HVAC pilot this year and exploring how we might transition our HP incentives to a more midstream approach
- Building out online resources for our marketplace including air purifiers, authorization products, and then building in some functionality that allows us to issue promotional codes to different community groups.
- Implementer for HEAR program for Oregon assume funding is not revoked

Lis Saunders – Tacoma Power

- Conservation Potential Assessment (CPA) is underway and should be finalized by the end of May
- Spent all of our HEAR funding we received from Tacoma (\$2mill) – working with the county and their HEAR funding to see if we can implement some of the changes we made in the city to the surrounding counties.
- Re-introduced the 0-interest loan for non-low-income customers since we replenished the loan fund.
- Income Qualified rental program – for people with low-income tenants where PSE pays for the HP and we follow up with weatherization for those customers.

Trevor Frick – Clark PUD

- Hired a new program coordinator in late fall 2024 which has helped us focus on future
- Slow volume through HP program in 2025.

- A lot of interest in our multifamily ductless heat pump program for a few buildings both existing electric and new construction going through the DHP path.
- Contractor inquiries to join our contractor network to keep them busy/let them get additional business/leads/etc.
- Home energy report program through Oracle and their O Product. We have been offering this since 2012 and we have seen the savings decline, so we are looking at additional ways to save. We don't currently have SMART meters AMI, so we are a little way off from those being able to help with our reporting on homeowners' usage.
- HEAR program (state) gave \$500,000 and we added about \$100,000 of our own funds and we have had a lot of success.
- Excited about the BPA updates on the horizon for Oct 1st and how it will affect Clark.
- Working on our next CPA. We use Ted Light from Lighthouse consulting

Tyler Boehringer – Emerald PUD

- Focused on spending all of our EEI. We have had low adoption and we're hoping to get an uptick at least on HPWH.
 - o Trying, before the end of the rate period, giving away 150 of free HPWH shipped directly to their house. – in partnership with General Pacific
- Partnering with NEEA to get Universal modules installed with the free HPWH's to see what benefits we see through the eco port and demand response programs.
- Q: Suzi Asmus – are you saying you're equipping the HPWH for future use or the current NEEA pilot?
- A: Customers can make up to \$75 for putting this UCM's in presently and NEEA is going to transfer the UCM's to EPUD so we can start creating our demand response programs.

Emily Rosenbloom – NEEA

- Something that we have been discussing for the last 18-24 months has been the HotWaterSolutions website. Because of that we have scrubbed our installer list and sent email to everyone who was on the list letting them know that they have either been removed or stay. We have had a lot of engagement with that email with people asking to be put back on, etc. so our current list is full of great installers.

Stephanie Quinn – NEEA

- Giving RPP update for Anne Brink who couldn't make it today
- Working on adding HPWH and TVs to the retail portfolio right now as well as an additional retailer specifically to add TV's
- Changing the energy star specifications for dryers, we submitted comments and are expecting another round of comments in the next few months.

Suzi Asmus – NEEA

- Next Tuesday 10:30-12; Christopher Dymond is presenting on Low Load Efficiency and Work at the product council meeting. Everyone is invited and it will be recorded and posted on NEEA's Vimeo channel.
 - o Link for Product Council Meetings: <https://neea.org/get-involved/product-council>

- May 19, 2025 Northwest Heat Pump Symposium II: Communications and information coming soon. This will be a follow-up, half-day working session to follow up the Oct 2024 symposium sponsored by Seattle City Light, a Tacoma Power, lead by Daikin, Carrier and LG, with support from NEEA. Invitees include\ manufacturers, utilities, and distributors to discuss installation best practices, and particularly focusing on minimizing supplemental heat, to get more savings out of residential heat pumps.
- The Efficiency Exchange agenda for this May 20-21 includes 3 Residential Heat Pump sessions.

Regional Priority Topic: HPWH - Hot Water Innovation Prize update

Desired Outcome: Share status of contest with the committee and overview of cosponsoring the contest.

Presented by Emily Rosenbloom, NEEA – erosenbloom@neea.org

Notes: Jack Davidson

Emily Rosenbloom, Senior Program Manager of NEEA's Heat Pump Water Heater (HPWH) Program, led the committee through an update on the Hot Water Innovation Prize (HWIP), what is happening with the contest, and provided an overview of how the committee can be involved as a co-sponsor. She explained that the HWIP is a three-stage contest that launched in March 2024, with the goal to stimulate manufacturers to bring to market an innovative split system HPWH that is turnkey, low-cost, and easy to install. Being a split system, these products will either have a compressor outside running through a ductless system, or a Packaged Terminal Air Conditioner (PTAC), designed to work in temperate or cold climates. This product is needed to meet the needs of all residential consumers, as the 2029 Standard does not cover this segment of the market, as well as to ensure energy savings beyond the federal rule implementation. These products will aim to address tight spaces or instances where the water heater is close enough to the living space to make sound and cool air undesirable. Products do exist in other countries, and manufacturers are working to bring options to market in the US. Emily outlined the phases of the contest:

- **Planning Phase** – Launched in Q1 2024 where contest structure was developed, with input from two rounds of manufacturer feedback. Manufacturer Q&A webinars were also held.
- **Phase A: Participant Qualification** – Running from Q3-Q4 2024, this phase had no limit on how many participants or products were allowed to submit. No funds were allocated at this phase.
- **Phase B: Project Plan Submission** – This is the current phase of the contest, running from Q4 2024 – Q1 2025. Limiting the pool to five products, funding for this phase was \$30,000. During this phase, there were some participation changes with the announcement of tariffs and other policy changes across the country, as manufacturers shift focus to prioritize the federal standard.
- **Phase C: Prototype Submission** – This phase will run from Q1 2025 – Q1 2026, with funding of \$175,000. Including up to two products, this phase will consist of a panel of judges with national representation including builders, plumbers, and housing advocates. The winner will be announced at Hot Water Forum 2026.

Emily explained how the contest currently has national and international participation. Manufacturers were interested in national attention for their companies, so the Winner Prize Package will consist of media promotion, demonstration projects, showcasing in utility incentive pilots, support for NEEA's QPL, and up to \$250,000 in co-funding. NEEA is currently recruiting Co-Sponsor, and there has been many interested as post-2029 there will not be as many options for documenting residential water heating savings.

Questions/Discussion:

Griselda Gonzalez (Chelan PUD): Will this product be manufactured and offered to the public, making it available for potential rebate?

Emily (NEEA): Yes, that is the goal for this prize.

Lars Henrickson (Seattle City Light): With how many places there are that aren't low-boys, that are still difficult to put a HPWH for other reasons, will the HWIP address those challenges as well?

Emily (NEEA): Would have liked to use this prize to engage the space issue, but the prize will still be a good way to bring more products to market. There are more split systems coming, that while less efficient, will provide more options.

Dave Murphy (Bonneville Power Administration): Do we have any pricing data on units of this type in other countries?

Emily (NEEA): No known data right now, but the pricing information will be evaluated as a component that helps identify the winner.

Q2 Topic Check In: HPWH and Additional Relevant Topics

Presented by: Emily Rosenbloom

Notes by: Jack Davidson

Desired Outcome: Committee members confirm there is enough interest in this topic to hold time on the Q2 agenda and add any additional relevant topics.

- HPWH Topic for Q2 will be new products
 - Emily R: There are six new manufacturers that have been added to the Qualified Products List (QPL) for the Advanced Water Heater Specification (AWHS) in recent months, would like to have a discussion about what differentiates them.
 - Lars, Carolyn, Dave, and Trevor all thought that this would be an interesting and constructive topic to cover.
 - Dustin liked the idea, but had concerns about changes to the cost of the product and the impact on how cost-effectiveness is being calculated.

Housekeeping

NEEA Reports Survey Request – **Due Friday, April 4**

- LINK: <https://www.surveymonkey.com/r/2025-Reports-Value-Assessment>
- Assessing value of various reports created and distributed by NEEA

Efficiency Exchange 2025 (EFX): Happening in Portland May 19-21

- Reminder that all activities on May 19th are optional and networking focused
- See Agenda and Conference information here: [Northwest Energy Efficiency Alliance \(NEEA\) | Efficiency Exchange](#)
- Register here: [Efficiency Exchange 2025 Registration](#)
- Submit Lunch Roundtable Ideas here: <https://info.neea.org/efx25-lunch-roundtable-form>
 - o **Due Friday, April 4**

Questions for tomorrow's Roundtable Discussions:

Heat Pump Water Heaters (HPWH)

- How are you spending dollars in your region for Heat Pump Water Heater adoption?
 - o Incentives in specific market channels?
 - o Trade ally network support?
 - o Consumer marketing?
- Are tariff and price increases changing program design plans?
- Do you have a low income offering?
- Are you working with state funding?
- Are you rolling out new offerings in 2025?

Advanced Heat Pumps

- Are you currently - or would you in the future - make minimizing supplement heat part of your heat pump program?
- What would you need to do this?



Q1 Residential Coordinating Committee (RCC)

Day 2

March 19, 2025

9:30 a.m. – 12:00 p.m.

Hybrid Meeting at NEEA Offices

Meeting Attendees

Committee Members: (*In-person*) - Tyler Boehringer (Emerald PUD), (*Online*) - Griselda Gonzalez (Chelan PUD), Haley Puntney (Inland Power & Light), Christian Douglass [Northwest Power and Conservation Council (The Council)], Robert Bogataj [Seattle City Light (SCL)], Trevor Frick (Clark PUD), Thad Roth (Energy Trust of Oregon), Dustin Levesque [Puget Sound Energy (PSE)], Carolyn Beebe [Snohomish PUD (SNOPUD)], Laura Thomas [Northwest Power and Conservation Council (The Council)], David Murphy [Bonneville Power Administration (BPA)], Todd Greenwell (Idaho Power), Lis Saunders (Tacoma Power), John Davey [Puget Sound Energy (PSE)], Jonathan Belmont [Bonneville Power Administration (BPA)], Lars Henrikson [Seattle City Light (SCL)], James (Jim) White (Chelan PUD), Andrew Shepard (Energy Trust of Oregon), Lonnie Junderson (Tacoma Power), Jamie Anthony [Bonneville Power Administration (BPA)], Richard Arneson (Tacoma Power)

NEEA Staff: Anouksha Gardner, Alexa Hujik, Suzi Asmus, Jack Davidson, Stephen O'Guin, Emily Rosenbloom, Stephanie Quinn, Drea Bell, Christopher Dymond, Peter Christeleit, Alisyn Maggiora, Aaron Ingle, Britt Cutsforth Dawkins

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Regional Priority Topic: Advanced Heat Pumps Roundtable on Cold Climate | Peak Management and addressing Backup Heating Management

- HEMS = home energy metering study

Desired Outcome: Committee members come away with actionable ways to help customers and installers better manage back-up or supplemental heat in heat pump households through program requirements, customer education, trade ally engagement, or other innovative approaches.

Presented by Suzi Asmus, NEEA – sasmus@neea.org and Christopher Dymond, NEEA – cdymond@neea.org

Notes: Stephen O’Guin, NEEA

NEEA’s Advanced Heat Pump Program focuses on identification of and accelerating adoption of improvements within heat pumps that increase energy savings. Suzi Asmus, Senior Program Manager for NEEA’s Advanced Heat Pump Program, and Christopher Dymond, Senior Product Manager for NEEA’s Advanced Heat Pump Program, led the committee through an update and discussion on two of the program’s improvements: cold climate capable and minimizing supplemental heat.

The discussion around cold climate capable heat pumps focused on the significance of proper sizing and selecting climate-appropriate heat pumps to ensure optimal performance. Cold climate heat pumps are designed to maintain adequate capacity even at low temperatures, such as 5°F. NEEA recommends heat pumps qualify for Energy Star and the \$2000 tax credit. They come in both two-stage and variable speed variants, with some low-cost options available. The Advanced Heat Pump program aims to identify those heat pumps that achieve better performance without necessarily driving consumers to the most expensive models.

The discussion around minimizing supplement heat focused on strategies to minimize the use of supplemental heat, including proper sizing, choosing climate-appropriate heat pumps, and setting the switch-over temperature to supplemental heat as low as possible. Another strategy discussed was to minimize supplemental heat during set back recovery, which involves allowing the heat pump to handle the recovery process without relying on electric resistance heat.

Both improvements discussed will require consistent messaging and education for the consumer and contractor to help ensure that all stakeholders have the knowledge they need to optimize heat pump usage.

Discussion Questions around the topic were as follows:

Lars Henrikson (Seattle City Light): Is there an optimal setback temperature to save energy than just save peak energy when ramping back up in the morning?

Christopher Dymond (NEEA): The important thing is to not use electric resistance back up heat – to avoid a morning peak with recovery and additional energy usage. Optimally, customers do not set back temperatures at night.

James (Jim) White (Chelan PUD): Are there cold climate heat pumps that can meet full load on the west side of the Cascades? Do you have any installations where you've installed cold climate heat pumps or meet the rating that can operate without electric strip heat on the West side and provide comfort? Do we have data? Chelan PUD has data. We have three heat pump installations in Chelan County that we are measuring. They aren't functioning as we believe they should. They have supplemental heat with the supplemental heat is running far more than it should. The results are inconclusive at this point.

Christopher Dymond (NEEA) shared there are heat pumps that can handle the full load and some HVAC contractors that only do cold climate heat pump installations. We do not have a big sample of data. There is the BPA high-performance, high-capacity heat pump data and some additional data points. Contractors and customers may need more convincing to rely solely on a heat pump without back up.

Tyler Boehringer (Emerald PUD) mentioned how Emerald PUD has 20,000 meters in the Willamette Valley and 5 contractors who exclusively do installs of cold climate heat pump with no back up heat. He discussed how Emerald PUD fields many calls this time of year from customers who got a heat pump through one of their programs but are dissatisfied because the back-up heat caused high bills during the coldest months. Tyler mentioned it would be good for Emerald PUD, for utilities, to have data and a measure to be able to increase incentives for heat pumps without back up heat. Emerald PUD would be ready to implement such a program.

Christopher Dymond (NEEA) shared that NEEA and BPA are working with the Regional Technical Forum (RTF) for an updated savings number for no supplemental heating heat. NEEA has submitted a proposed, draft measure to the RTF with a thermostat requirement to limit back up heat to 5 kW for west of the Cascades, 10 kW east of the Cascades, and 20kW for Montana

Robet Bogataj (Seattle City Light) mentioned there is an EPRI report for the west Cascades of five centrally ducted heat pumps with no supplemental heat. He noted that not all "cold climate" heat pumps are the same with some going down to -5F while others go down to 10 or 15F.

Christopher Dymond (NEEA) added that cold climate heat pumps even just 5 years ago only had only 40-60% capacity at 5F. Now, some have 70-100% capacity at 5F and without additional cost.

Laura Thomas (The Council) added to Christopher's comment about the RTF that this is something the RTF is looking at and knows that BPA feels a priority for a measure to limit supplemental heat.

Thad Roth (Energy Trust of Oregon): We see costs are coming down, what is the premium for cold climate heat pump?

Christopher Dymond (NEEA): It seems to be around \$1,000 per ton although you can go find minimal advertised price (MAP) price of a cold climate heat pump that is the same as a 2 speed or single speed model. Some manufacturers are starting to price aggressively to gain market share, but distributors aren't necessarily expanding their offerings to these products yet. Some of the cold climate heat pumps in this range qualified for the tax credit whereas the 2 and single speed do not.

Thad Roth (Energy Trust of Oregon): Regarding customers setting their thermostat temperature back at night, is there any feedback from customers wanting their home the same temperature while sleeping?

Christopher Dymond (NEEA): Tacoma Power is doing some survey work and has learned that a significant portion of people that do nighttime setback is for comfort and not energy savings. There are two primary ways to approach this: one of them is don't do a deep set back and the other one is to have some kind of controller that only allows the heat pump to come on at least for the 1st hour. We need to find out which are the thermostats that can do this. There are products out there, but I don't have a qualified products list yet or anything.

Robert Bogataj (Seattle City Light): I'll mention two words: Optimum start. This is what you're talking about with, you know, starting up early. Start up the heat pump a bit early so that it ramps up using only the heat pump to get to temperature. We used to have algorithms called "Optim start" once upon a time when it had more controls.

Christian Douglass (The Council): We can still keep the setbacks for nighttime comfort but start the recovery an hour or 2 earlier – this is not a sophisticated solution but we aren't there yet.

Jamie Anthony (BPA): Would 5 kW of back up heat be enough to properly raise temperature for recovery from overnight setup back in Heating Zone 1? Would 10kW be enough in HZ2 and 15kW be enough in HZ3? (Jamie references a graph from John Bush's presentation from a High-Performance High-Capacity Heat Pump (HP HC HP) meeting)

Christopher Dymond (NEEA): Depending on how the system is sized. To heat the air, you need to a certain amount of BTUs, but if your chairs, drywall, etc is cold too, you will need more BTUs for recovery. 5 kw is 18,000 BTUs

Jamie Anthony (BPA) mentioned that BPA will continue to proceed with this measure, pending more analysis from John Bush. To adequately address minimizing supplemental heat by climate zone, do we leave out other factors like sizing, leaky ducts, etc?

Christopher Dymond (NEEA): Weatherization, duct work, duct sizing – it's about the whole system and not about sizing. It would be beneficial if the region could align on a common specification for minimizing supplemental heat.

Trevor Frick (Clark PUD): The common thread is kWh savings versus kW savings. Depending on the utility rate schedule, we need to have something beneficial to the customer who's maybe only paying for the kilowatt hours. They're not paying any kind of demand charge. So having like a qualified products list of all very high performing heat pumps out there that customers can pick from could turn into kWh savings and it could generate kilowatt savings for the utility.

The back up heat cap, is kind of a wash which is a wash to the customer, so how do you convince the customer? Is there an assumption that these programs have the system in perfect order? I feel like you're assuming that the installation is pretty dialed in: They've got perfect refrigerant charge, they've got great airflow, there's not leaks in the system, etc. Because if you do have those issues, or the performance of the compressor goes down over time and the strip heat's not there to pick up the slack, then that turns into an immediate customer comfort issue. And I wonder if that's part of what contractors are hesitant about.

Richard Arneson (Tacoma Power): Speaking from Tacoma's perspective, customers have programmed heat pumps with significant setbacks which is forcing electric resistance to occur on not only the coldest days but also on just cooler days. Tacoma is currently fielding a customer survey. A bulk of the customers are causing demand peaks in the morning due to programmable thermostat setbacks. A fair chunk of customers think they are saving money but when you look at the 3F-15F setbacks, the energy spikes are amazing. There could be additional savings depending on the age of the heat pumps too.

Griselda Gonzalez (Chelan PUD): An issue for Chelan PUD is getting contractor buy-in. They seem to misinform customers with their instructions which are to turn off your heat pump and use back up heat and a lot of customers did this for the whole winter. Contractors told Chelan it is mostly to avoid call backs from customers. So, Chelan is currently creating a short 2-minute video for customers to learn how to use their heat pumps properly and to dispel myths.

Christian Douglass (The Council) mentioned that the value proposition to the customer seems entirely tied to rate designs. He did some analysis with a flat rate scheme and learned the customer could probably still save some money with these setbacks but as more utilities move to Time of Use or other demand charge methods, there would be huge economic incentive to change this behavior.

Trevor Frick (Clark PUD): in the absence of Time-of-Use and demand charges, we may need to incentivize this behavior. If the utility is able to quantify what the benefit to our infrastructure and wholesale rates, we could incentivize that. That could be the value proposition for the customer: paying up front to make the right choice. In the background their savings would probably be the same either direction they went. But we were kind of purchasing that that additional benefit upfront for them to make that right decision.

Jamie Anthony (BPA): Recalls from the high-capacity, high-performance heat pump study (but will need to confirm this) that John Bush saw in his analysis: If you don't set your thermostat back at all, you avoid the spike but also consume about the same amount of energy as somebody who did set back. People still want to have their room cool while they're sleeping.

Suzi Asmus (NEEA): What else are you doing to educate contractors/customers?

Griselda Gonzalez (Chelan PUD): Meeting with installers, 1:1 training, explaining the program and needs. We need to educate the contractor to educate the customer at the time of install in order to receive the incentive.

Trevor Frick (Clark PUD): New heat pump customers appreciated operating instructions from utilities because they want to save money. Contractors provide varying levels of guidance.

Some of our customers say their contractor explained the change in setback behavior with heat pumps, and other customers say they turn their system off at night and back on in the morning. With Clark PUD's follow up QA inspections, not only are we looking at the equipment installation, and that the right equipment went in, but also adding the customer service piece to adjust their behavior is a huge benefit to QA inspections.

Robet Bogataj (Seattle City Light): Including contractors in the conversation is great – they need to be educated and taught the right thing to do and the right information to share. One contractor we work with shared with a customer that heat strips are required by law.

Suzi Asmus (NEEA): Is cold climate heat pumps or temperature setback included in your contractor training, like Comfort Ready homes?

David Murphy (BPA): They do have a cold climate section or training and videos with sizing, strip heat and those topics are included in the light touches in the program.

Trevor Frick (Clark PUD): [Back to the question about cost of cold climate systems] Clark was incentivizing ductless heat pumps and central variable speed heat pumps, and they had to either be on the Northeast Energy Efficiency Partnership's cold climate air source heat pump list ("NEEP list") or ENERGY STAR cold climate listed to be installed. We had about 28 central variable speed heat systems installed with an average cost of a little over \$14,000, which I was very surprised at because through our standard income program costs are all over the place for heat pumps. I think since it was a low-to-moderate income program, contractors weren't adding in as many markups. These homes are not very large, two- to two-and-a-half or three-ton systems. It made me feel good that the newer cold climate systems can be affordable.

Suzi Asmus (NEEA): Manufacturers are interested in developing consistent messaging around minimizing supplemental heat for distributors to deliver to their contractors - if an outcome is messaging and training content, is this something that your local programs would want to help deliver to your local contractor base?

Todd Greenwell (Idaho Power) indicated that the region needs to get a handle on contractor training since we aren't the ones doing the work in the field, yet we want so much to happen out in the field. But for many contractors this is a foreign language ("cold climate heat pump", "COP", "heat transfer"). In order to minimize supplemental heat, contractors need to do a load calculation, but the contractors Todd works with lack many of the technical elements for load calculating. You can't limit resistance heat unless the heat pump can keep up, and it won't if it is sized incorrectly. **Do any utilities enforce Manual J?** Or enforce a compressor lockout at 5F, balance point, etc?

I now require new contractors in my program to provide evidence of a Manual J. I've been enforcing no balance point or winter design temperature above 30F.

I'm talking about being able to do a thermal load calculation to know the balance point - The temperature outside at which that heat pump compressor won't keep up. And that's when you trip the five kW or 20 kW, but you've got know that balance point or you're either going to be oversized or undersized.

Is it our regional responsibility turn these folks into HVAC technicians or that should that be coming through the trades?

John Davey (Puget Sound Energy): A standard for the region on minimizing supplemental heat would be fabulous – especially considering zonal units. Our main priority is making sure that heat pumps are still cost effective (as much as possible, with all the costs going up), but also looking into how to reduce supplemental heat and zonal heat where there's a lot of single head systems and there's still auxiliary, electric resistance heat. We are interested in the window heat pump options or single heads not in the primary heating zone of the home.

Jamie Anthony (BPA): The only way contractors will meet the no more than 5kW of back up heat is if they size it right. BPA is considering asking for a Manual J calc to prove they can do the load calculation. That might be too much for programs.

Utility Roundtable discussion on HPWH Activities - Utility Program Strategies, what is your 2025 Plan and Goals

Desired Outcome: Committee roundtable share-out on HPWH Program Strategies, incentives, and activities dedicated to driving demand for HPWH market.

Discussion led by Emily Rosenbloom, NEEA – erosenbloom@neea.org

Notes: Jack Davidson

Emily began the conversation by outlining that the standard is coming, and region only has several years to build up market and prepare installers for that market. Savings will need to be obtained before the standard is in place, so the following discussion questions were proposed to RCC members:

- How are you spending dollars in your region for HPWH adoption?
 - o Incentives in specific market channels?
 - o Trade ally network support?
 - o Consumer marketing?
- Are tariff and price increases changing program design plans?
- Do you have a low income offering?
- Are you working with state funding?
- Are you rolling out new offerings in 2025?

Dave Murphy – Bonneville Power Administration:

- BPA has a simple measure structure right now focusing on conditioned or unconditioned space. If this information is unknown, BPA is using the retail channel measure. Additionally, BPA is running distributor programs and spending a lot of money on trade ally network support leveraging Comfort Ready Homes.
- . BPA does not have a retail program or any retail infrastructure right now.

- Pricing trajectory is increasing, so BPA is focusing on HPWHs. BPA has resources for contractors and has emphasized translating materials into Spanish.
- BPA is running one or two events a month.
- Moving away from Continuing Education Units (CEUs) and long form online training, towards how-to videos that may be a more effective way to reach installers. BPA would like to expand the video offerings to increase interest in the market. The recent 'How to use your smart thermostat' video got 100,000 views with a \$2,000 campaign.

Todd Greenwell – Idaho Power:

- Does not see price as always, an issue, but unclear right now what the impact of tariffs will be. People spend significantly on other imported products, we will see if this translates to water heating.
- Selling about 25 a year, no matter what is done on the marketing.
- Finding success with small videos goes a long way in educating DIY and installers. Sees this as a good way to empower customers.
- Idaho is not moving very many units right now. Idaho Power is incenting \$300 per water heater.

Lars Henrickson – Seattle City Light:

- SCL is running a midstream program that includes a \$750 rebate on HWPB and also has programs at Lowes and Home Depot for the same amount. Found that at higher incentive more units led to a reduction in the overhead price. SCL will be setting up a program in parallel with the state HEAR program.
- Effective marketing with wet dog picture, which had a dramatic impact on getting people to buy water heaters. SCL plans to do more marketing this year.
- There is not much activity in engagement with the trade ally network, but midstream program with Comfort Ready Homes has been ongoing. The first two years had 80 people at a one-day training, but not drawing as big of crowds at more recent events.
- SCL has been engaging more with distributors.

Trevor Frick – Clark County PUD:

- Clark currently has a \$700 rebate for HPWHs, and seeing a lot of DIY installs. Clark uses the Retail Sales Allocation Tool (RSAT) to estimate Home Depot and Lowes sales, as well as spillage across territory with ETO. Clark has paid rebates on about 86 units.
- Created a HPWH network, and had customers refer to the installer list.
- With high DIY numbers, they have been looking to the General Pacific model of instant rebates for customers when buying on a marketplace. This idea is on hold right now but might be returned to later.
- Struggled to get traction in the low-income market.
- Trevor participated in the Demand Response HPWH program with PGE and could not tell any difference with how the WH was being used.
- Recently we have been hearing very high quotes for installation, sometimes exceeding \$7000.

Lis Saunders – Tacoma Power:

- Tacoma Power has a \$500 rebate for HPWH, as well as a \$6000 interest free loan. Last year Tacoma supported 65 projects.
- For low-income, Tacoma offers a \$4000 rebate with a \$2000 deferred loan.

- In territory, contractors are pricing HPWH at \$8,000 or \$9,000, which is making it difficult to direct customers to go that route. There is an increase in HVAC contractors doing installations, but these are also the companies charging high rates.
- Tacoma picks a campaign for each quarter of the year and aims to do a blitz on HPWH in Q4.

Lonnie Junderson – Tacoma Power:

- Tacoma was involved in the Puget Sound retail program, but backed away as the numbers were not sustainable. However, Tacoma has kept their \$500 rebate tags up in big box stores. Has not done a recent comparison of performance between the Puget Sound program and operating independently.

Dustin Levesque – Puget Sound Energy:

- PSE has also been seeing \$7000 quotes from installers, creating a situation where installs that are not DIY are not realistic. This is compounded with high interest rates. Installers are looking to the customers to request the product, who are then more than happy to do an installation. Not seeing trade ally network promote the technology.
- To kick off later this year, to receive rebates, customers need to sign up for DR program
- PSE has had success with short videos, finding it to be a great way to get information out and to educate customers.
- Dustin discussed the federal standard with contractors, has the impression they are waiting for it to go into effect before they make the change. Hesitation tied to time to install, callback rates, and other reasons.

Griselda Gonzalez – Chelan PUD:

- Chelan is paying \$1000 incentive for either DIY or contractor installed units. They have averaged about 30 units each year.
- For low-income program, Chelan has allotted \$5000 per install but having difficulty getting installers to do it at that price.
- Retrofits have been a challenge as well, with contractors sometimes walking away from those complicated replacements.

Emily Rosenbloom – NEEA:

- Summation of themes across utilities:
 - o Short from videos to consumers are finding success, can these resources be pooled?
 - o Targeting approach to installers. NEEA is holding fewer formal trainings, more time actually going to shops to lead trainings - Shop Talks
 - o Unclear how best to serve the DIY market right now.
 - o Costs are high.
 - Drilling into what is behind price increases can better help us to address them. For example, a recent itemized invoice for an installation showed plumbers charging \$250 an hour.
 - Installer consolidation could also be playing a role.