

Meeting Notes
Q3 2023 Products Coordinating Committee
Thursday, August 17, 2023
Virtual



Attendees:

Trevor Frick – Clark County Public Utilities (Clark)
Whitney Jurenic – NorthWestern Energy (NWE)
Carolyn Beebe – Snohomish PUD (SnoPUD)
William Dixon – Puget Sound Energy (PSE)
Lis Saunders – Tacoma Power (Tacoma)
Lars Henrikson – Seattle City Light (SCL)
Josh Mitchell – Chelan County PUD (Chelan)
Jay Olson – PacifiCorp (Pacific)

Dave Murphy –
Bonneville Power Administration (BPA)
Michael Gump – Avista Utilities (Avista)
Ario Salazar – Puget Sound Energy (PSE)
Matt Babbitts –
Clark County Public Utilities (Clark)
Thad Roth – Energy Trust of Oregon (ETO)

NEEA Staff: Alisyn Maggiora, Emily Rosenbloom, Britt Cutsforth Dawkins, Tamara Anderson, Anne Brink, Emily Moore, Anouksha Gardner, Alexa Hujik, Jack Davidson, Warren Fish, Stephanie Quinn, Jon Clark, Ryan Brown, Christopher Dymond

Resources

- **Agenda packet on neea.org:** [Northwest Energy Efficiency Alliance \(NEEA\) | Q3 2023 PCC Agenda...](#)
- **Slide Deck on neea.org:** [Northwest Energy Efficiency Alliance \(NEEA\) | Q3 2023 PCC Slides](#)
- **Meeting Recording Part 1 :** <https://vimeo.com/856856624>
- **Meeting Recording Part 2 :** <https://vimeo.com/856861029>

Welcome, Agenda, and Packet Review ([slides 1-4](#) | [packet p. 1-4](#))

If you have questions regarding general content in this meeting please contact Alisyn Maggiora (amaggiora@neea.org).

Introductions & Regional Roundtable ([slide 5](#))

Trevor (Clark): Moving forward with Smart Thermostat online marketplace with GenPac, goal to launch in the fall. Other utilities have had success doing this with them. Getting ready to budget for 2024 across all sectors in residential. Tough to see what the future holds with changes to BPA PCTS and HP measures retiring and incentive levels going down. Question for the group: Clark has an internal contractor network for HPs and weatherization, and get a lot of interest without final follow through. Does anyone have any experience with Apex Energy Solutions?

Whitney (NWE): Recently launched new programs in July. Updated avoided costs went up quite a bit this year. New TRC requirements this year, with new residential measures and commercial rebates. Also working on finishing potential assessment, and completed surveys. There are also several pilots kicking off, for Cold Climate DHPs, Lighting Controls, and HPWHs. NWE has not experience with Apex.

Carolyn (SnoPUD): SnoPUD is staying steady right now, don't expect many bonuses at the end of year. However, looking good for meeting targets this year. No experience with Apex, but Carolyn is pretty detached from the residential weatherization programs.

Will (PSE): PSE is tracking about 87% of goal for biennium, pulling out all the stops for that right now. In full planning for 2024/2025. Not sure what the gas targets will look like, but electric targets should be attainable. PSE is adding EV charger rebates to their marketplace, with a direct to consumer version as well. PSE has about three dozen programs for large CNI, and retail and multifamily. Hoping to launch an electrification pilot in mid-September. PSE launched a behavioral demand response offering that got a lot of press, even with concerns about the hot weather. At the same time there was a quiet launch of a Time Variable Rate (TVR). PSE has a new Chief Customer and Transformation Officer. His name is Aaron August, and he started in July. Will has heard of Apex, will look into what information he has.

Lis (Tacoma): Can you tell us more about PSE's electrification pilot?

Will (PSE): Three components of this program. Education, information, and on the ground assessments of people's homes. This is not framed to be fuel-switching, but want to understand things like panel upgrades. PSE has 18 months to connect with 10,000 customers. This is something that Mark Lennsen is working on.

Lis (Tacoma): Steve Bicker has retired, so Lis is doing her job and his for the time being. Tacoma is pausing on hiring his replacement, doing an assessment to see if a small re-organization would be beneficial. Tacoma has completed its CPA, working on energy programs plan for 2024/2025. Current target is 50K MWH. Tacoma is losing large industrial customer, WestRock paper mill is shutting down in September, which will impact the target. Tacoma has sent out 2nd Home Energy Report, using Bidgley, and got much better responses this time. Tacoma is pausing its conservation loan program, but the rebates still have participation, and still offering the deferred loan for income qualified customers and forgivable loan for income qualified rental properties. Tacoma has no experience with Apex.

Emily R (NEEA): DOE released the NOPR for HPWH on July 21st. Closely matched the joint recommendation that was submitted by several stakeholders. Proposed rule would make incremental steps for both electric and gas. Currently language exists to create carveouts for WH smaller than 35 gallons meant for space constrained spaces. The public comment period currently set to close September 26th. If following a typical process, within 6 months to a year, DOE will come out with the final rule, and implementation would be between 4-6 years after that. NEEA continues to engage with other advocates, and determining which comments to submit in support of the standard. The HPWH program also sent out an RFP, and has selected three contractors: D+R, Evergreen Efficiency, and C+C to implement our HPWH initiatives. Should be getting started in the next few weeks. As part of this work, we will be revamping Hot Water Solutions site to improve its function and usability. The current site will stay up for now and the updated launch will be in 2024.

Britt (NEEA): C+C is the agency of record for the marketing portion of the HPWH program. Contract is currently being working on, and looking forward to 2023 and 2024 work on the program.

Lars (SCL): Not a lot of changes right now, but looking forward to an RFP that has gone out for a new HVAC midstream program. Planning on what happens when IRA funds arrive, with a focus on a whole home approach. SCL is working on the HPWH nut, looking at retrofits and fixed-price offer for installations. Expecting to offer EV charger incentives by the end of the year. SCL is very close to offering smart line voltage thermostats through MISA if all goes well. Looking ahead to next year, Integrated Resource Plan will need more customers to have more solar, so more incentives may be coming for that. SCL is coordinating with other utilities like PSE on electrification, with focus on weatherization for low-income homes, managed by the Seattle Office of Housing. Just launched a DR pilot, first event within the last few weeks, a BYO thermostat program. SCL is below target, but looking for savings.

Tamara (NEEA): In response to Trevor's question about Apex, NEEA's High-Performance Windows program is focused on windows with a U value of .22 or less. Program has not worked with Apex, and happy to have a

conversation with anyone interested from this committee about the program.. Big focus for Efficient Fans is the fan market characterization study. This information has gone out to everyone in the [quarterly MR&E newsletter](#), and the program will be reaching out to commercial and industrial customers in the near future. If there are any questions on this, you can reach out [Chris Cardiel](#), the MR&E scientist on the program. Program has received shipment data from one manufacturer that will be used to inform the baseline, and expect to receive more shipment data from a second manufacturer soon. Goal is to work with manufacturers to update fan selection software to highlight fan energy index and promote efficient fans. Program has hired a new Sr. Product Manager, Kristen Aramthanapon, who has experience from UC Berkeley and extensive product development in a number of different products.

Josh (Chelan): Chelan has been doing research on the HP program, noticing that half of the VSHPs added have added load to the grid. As an aggregate they make more sense, but seeing increased load is alarming. Chelan launched a low-income program a few weeks ago, starting with reconnaissance, before doing appliance and weatherization work. Hope to align this with the IRA opportunities. DR program development ongoing with voluntary commercial curtailment starting this year. WH and residential programs for DR starting in 2024. Chelan will have a new opening for commercial program manager and new building coming up. Recently, Chelan had market sale prices with low water and hot temperatures of about \$1 a kWh. There is a market for solar, so Chelan should be looking into that soon. Chelan finishing their CPA which will have higher savings than the last few years, and should be able to meet that. No Apex experience.

Anne (NEEA): In Q1 DOE adopted TV test procedure that NEEA helped create, going into effect in September. This sets the spec for E* v9. 48 TVs meet this now, but expect it to go up after September. NEEA is in discussions with Best Buy to find ways to support them meeting the spec. Speaking with E* about ESME category. Hawaii Energy has joined RPP, and Eversource NH is interested.

Jay (Pacific): No experience with Apex. Not many organizational changes going on. Will have an RFP going out for CA and WA within a week for the Wattsmart business program. HER program has been under goal for a few years, but will be at 111% of goal this year. Will be launching a HER program in CA with Bidgely, and will be an equity program. Struggling to get HPWH off the ground, but will be rolling out a new delivery program with fixed installation price. Has not been a lot of uptake for high efficiency windows in WA. Looking at direct install storm window program for manufactured homes.

Dave (BPA): Have you hired a distributor to the work for you on the HPWH program?

Jay (Pacific): Pacific is farther along on HPWH. The product is A.O. Smith, and the distributor is Ferguson.

Dave (BPA): BPA has been focused on the implementation manual and the measure list. BPA lost a lot of measures to due to lack of C/E from RTF, especially in residential. Focus will be in WH and HVAC moving forward. Comfort Ready Home for HVAC and HPWH installs is out in the field. Not sure about experience with Apex, will follow up with the windows person at BPA.

Michael (Avista): Avista's VP of Customer Solutions has changed. Kim Boyton is the new manager of EE & Analytics. Working through midstream, hoping to get 2nd report next week. Only had 5 participants so far, but hope to see an increase this month. Avista launched a small business lighting program last month which is already exceeding annual target. Avista is working on annual plan, and does not expect to meet biennium goal. Also going to implement OR transport, likely through NEIs. Avista has no experience with Apex.

Ario (PSE): The Equity Product Manager at PSE and here today with interest in the agenda item about equity. PSE is in a BCP planning year, and so his work involves connecting with external and internal allies and partners to help increase distributional equity capacity. PSE's CIP was approved on June 6th, with a set of conditions that inform PSE in the domain of equity.

Warren (NEEA): Things are bouncing back for the pump and circulator supply chain, improvements from last year's issue with chip shortages and shipping delays. Hearing good things about training and education that the program is supporting in the market. Some uncertainty on the horizon, as Q2 is usually strong for pumps, but we'll see how the rest of year is.

Housekeeping ([slides 7-13](#))

If you have questions about this section, contact Alisyn Maggiora (amaggiora@neea.org) or Jon Clark (jclark@neea.org).

- A. RPAC Related
 - a. August 29 Milestone Vote for Advanced Heat Pumps (formerly Variable Speed Heat Pumps)
 - i. RPAC members wrapped up their feedback this week
- B. Online Marketplace Update (Jon Clark, NEEA's Retail Strategy Manager)
 - a. PCC has a generally favorable view of online marketplace solutions. There may be potential for creating a 'regional' marketplace supported by NEEA. Benefits of a 'regional' solution may include:
 - i. Staying engaged with customers on everyday purchases
 - ii. Reduced costs and opt-in functionality
 - iii. Greater leverage with market partners
 - b. Next steps:
 - i. Facilitate a discussion among interested stakeholders to understand utility needs. If interested in being part of this conversation, reach out to [Jon Clark](#) or [Alisyn Maggiora](#) by the end of August.
 - 1. Interest from Carolyn (SnoPUD), Dave (BPA), Matt (Clark), Lis (Tacoma), Josh (Chelan), Thad (ETO), Lars (SCL), and Jay (Pacific).
- C. Operations Planning Update
 - a. Operations Plan overview webinar October 26th
 - b. Draft Ops Plan will be emailed out to the board, RPAC, and NGAC on October 12th, allowing three weeks for review and feedback
 - c. Let Alisyn know if you would like to attend and she can forward the invite
 - d. Board will vote on final 2024 Ops Plan on December 5th
- D. Upcoming
 - a. Leadership in Energy Efficiency Awards; find out more and submit your nominations here: <https://neea.org/get-involved/leadershipawards>
 - i. Nominations are now open for the following categories:
 - 1. Rising Star
 - 2. Innovative Collaboration
 - 3. Lifetime Achievement
 - 4. Chairperson's Award – No nominations needed
 - b. NEEA Meetings
 - i. 9/12 - Q3 Board Meeting
 - ii. 11/15-11/16 – Q4 PCC Meeting
 - iii. 12/5 – Q4 Board Meeting
 - c. Other events or announcements – none mentioned

PCC Annual Workplan ([slides 14-18](#) | [packet p. 5-6](#))

If you have questions about this section, contact Alisyn Maggiora (amaggiora@neea.org).

A. Questions to consider:

- 1) Do you see value in the annual planning process as we've done it thus far?
- 2) Should we use Mural again to discuss/develop new topics?
- 3) Should we use part of the Q4 mtg, in lieu of a separate meeting?

Lars (SCL): Generally find mural a good tool to interact through, one of the highlights of working remotely. Not sure if the planning is a time crunch or not.

Whitney (NWE): Find these meetings valuable to determine the plan for the coming year. Mural is an ok tool, although she does find the commenting a bit restrictive to indicate whether there is interest or not in a topic. It seems like follow-up is always needed, as you have to reach out to get clarity on the comments from different committee members. Using some of the Q4 meeting would be useful as she did feel a time crunch.

Alisyn (NEEA): We are going to try think through how to more effectively pick topics this year, perhaps sending out a survey prior to meeting to have more intel going into that planning session.

Whitney (NWE): Support that idea, and would like to do it sooner rather than later. I also really like the transparency of seeing what other utilities are valuing. It can be a good indicator if NWE needs to take a conversation offline if other utilities are headed in a different direction.

Thad (ETO): ETO values the annual planning process, and supports whatever process is decided on. My only question is if we used time in the Q4 meeting, do we have a sense of what we are not going to talk about.

Whitney (NWE): If we used the November meeting as a planning session, would it be an initial planning session, or would it be finalized?

Alisyn (NEEA): If we did an initial survey prior to the meeting, we could probably finalize the priority topics at the November meeting. We can also find a way to work in input from those who are not able to attend the November meeting.

Whitney (NWE): How does this coordinate with the annual Ops Plan and Business plan? Breaking this up into January might spread out the review timeframe more. It would be good to keep the comments consistent between both series of plannings.

Alisyn (NEEA): We would be having this conversation before the Ops Plan is finalized in December.

Michael (Avista): January would not work for me, as that is when all of Avista's year-end stuff after December.

CONSUMER PRODUCTS REGIONAL PRIORITY TOPIC: Sales Data & Equity ([slides 19-49](#) | [packet p. 7](#))

If you have questions about this section, contact Anne Brink (abrink@neea.org), Jon Clark (jclark@neea.org), Ryan Brown (rbrown@neea.org), or Christopher Dymond (cdymond@neea.org).

Presentation Highlights

- A. Desired Outcome: Committee members understand how Equity is being discussed/targeted around the region in utility programs, and explore how NEEA may be able to support those efforts where appropriate.
- B. Stakeholder Roundtable:
 - a. What are you currently doing, or do you plan to do to ensure rural customers and/or low-income customers are benefitting from energy efficiency efforts driven by your organization?
 - b. What other underserved communities are you targeting and how are you reaching them with your programs?
 - c. What questions do you have of your peers on this topic? What questions do you have of NEEA?

Whitney (NWE): NWE is focused on low and moderate income, and currently looking at how to categorize residential customers. NWE looked at what kind of parameters would trigger someone to be in low or moderate income. The work is continuing on a different level than just EE, more focus on affordability. NWE has end-use assessments happening now, trying to better understand the customer. There is also a very rural vs urban challenge in Montana, which may create barriers. NWE may be doing more promotion to target customers. Montana is a state with tight privacy rules, so this makes it harder to target and promote to customers. Customers may not even know that EE is an offering through their utility, maybe 80K of them. NWE does partner with state entities that do low-income work, but it is an uphill battle.

Dave (BPA): BPA has a low-income program, although it is pretty complicated with interaction between contractors, the CAP agency, repairs cots, etc. Very proud of CRH as well as Spanish translation documents. Aim is to make sure that anyone who communicates in Spanish has the same access to resources. Equity question will keep getting larger, along with expanded DEI efforts. Focused on the human cost to those who are impacted by heat and wildfires in the region.

Josh (Chelan): All materials that have gone out the last few years are going out in relevant languages to Chelan County, as well as have people who look like their customers. The impact has been an increase in uptake of minorities in EE programs. Chelan is going neighborhood to neighborhood to find which customers need the most help. Also working to understand the IRA funding and how this will be available to customers. There are some areas where it doesn't make as much sense to go door-to-door.

Carolyn (SnoPUD): SnoPUD has income qualified discount program which provides either 25% or 50% off of their electric or water bill. When customers qualify for that program, they are offered a free bundle of EE products, and have four different versions to choose from. They are asked questions about their home and what might be appropriate to offer the customer. Right now SnoPUD is offering a free thermostat. There is also a Project Pride program where customers can donate money to help low-income customers cover their bills. There is also a program they run with Snohomish County that provides weatherization, heating, water, heat replacement etc., but there have been struggles to do as much as they would like due to county resources. Online marketplace provides access for more rural customers. A big piece is also BPA's increased reimbursements for income qualified households.

Trevor (Clark): Most low-income weatherization has been done through Clark County. Resources of the county are limited, not as much lack of funding but having sufficient staff and contractors. Clark is looking to do work with the Vancouver Housing Authority, as well as Habitat for Humanity. The local chapter purchased 42 residential homes and aiming to partner with the BPA programs for low-income. Clark has aimed to be a coordinator for different programs, from local to federal LIHEAP. Clark will be expanding their income requirements for programs, as they have used the 200% of federal poverty level in the past. Will be shifting to 80% of AMI threshold to align with the Energy Transformation Act. Many customers who do need help aren't reaching out to Clark at this point in time. May be the ability to use a customer list for those who needed support during the pandemic.

Lars (SCL): Been doing low-income programs for 40 years, and data and information is now the most critical piece. SCL did a pilot program to go out and try to find 1,000 low-income homes with the highest energy use, and they were able to get into about 240 homes. Refining the data and methodology to make sure they're getting to the right customers.

Thad (ETO): When ETO was launched, low-income work was separated from the work they did. Only recently has there been interest from stakeholders to take a larger role. ETO tries to partner with community-based organizations, and even then the capacity is in very short supply. Renters have always been a challenge, but now ETO has equity metrics to aim to address those issues. The wider scope aims to include people besides income or communities or color.

Ario (PSE): PSE has been developing a blended strategy that includes ACEEE framework for dialing into trans-generational equity. There is something called Named Communities, which is Highly Impacted and Vulnerable Populations. PSE has been doing population baselining, and will be identifying those most in need. Cross-referencing those groups will give them the highest need communities. PSE teams have been trained and coached in human-centered design to see how programs may need to be structured. Goal is to leverage internal and external resources to be connected with customers through a variety of sectors. PSE has 60+ program within the customer energy management team. Looking at scaling up methods that empower the customers.

C. RPP Sales Data

- a. Long-Term Objective: Manufacturers build energy efficiency into product designs for consumer goods
- b. RPP Interventions: Emerging technologies, midstream incentives, specification advancement, standards, and measurement & compliance
- c. Most big box stores are located in the more densely populated areas, much fewer in the rural areas
- d. All of our data is from point of sale data, so not a clear indicator of the household where an appliance is used
 - i. Confidentiality requirements limits the granularity available in the dataset
- e. Clothes Washers
 - i. Analysis at the product level

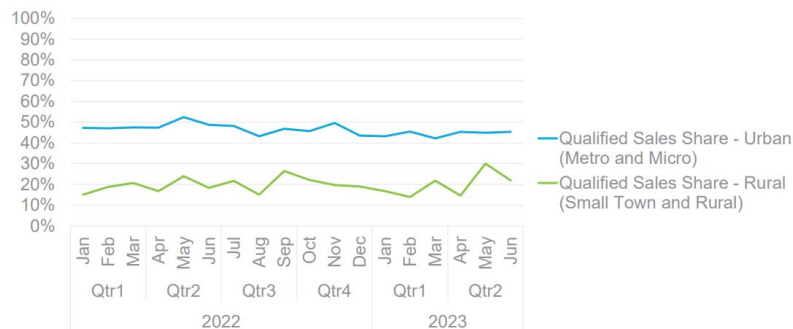
- ii. Greater market share in urban vs rural
- f. Clothes Dryers
 - i. Much more alignment between market share in urban and rural
 - ii. Signals are not as clear; hypothesis is that dryers do not have as much product diversity as clothes washers
 - iii. Kicking off more research into this area in the future. Any type of information that would be helpful to the utilities in the future?

RPP Participating Stores: Region



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Clothes Washers Qualifying Sales Market Share



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Questions:

Will (PSE): Does NEEA have any assumptions going into this analysis? And what products did you look at?

Ryan (NEEA): NEEA is assuming some differences between retailers, such as different focus and products. The customer base can be different as well, but we wanted to avoid going in with too much preconceived notions. This analysis was done with the current product portfolio.

Anne (NEEA): Just had the personal assumption that there would be less market penetration of ENERGY STAR in rural vs urban.

Jon (NEEA): Having been in retail for so long, there are many hypotheses, but will defer to what the data says.

D. Window Heat Pumps

- a. Defined as Window AC with reverse cycle – mechanically very similar to window ACs
- b. Not well differentiated in the market
- c. Refrigerants shifting to lower global warming potential (GWP) in 2025
- d. DOE and EPA Room AC Criteria are Increasing
- e. Currently there is no seasonal efficiency rating for window heat pumps. Consequently, they do not qualify for a 30% federal heat pump tax credit
 - i. Goal is to have a tax credit available if and when a seasonal rating is developed.
- f. 2023 NEEA Micro HP Research
 - i. Understand the customer experience installing, operating and their expectations of what a window heat pump is and does
 - ii. Understand, installation, noise, and any mechanical limitations that may impact performance or customer experience
 - iii. Understand how users changed behavior such that the window HP displace heating and cooling from preexisting sources.
- g. Research Phases
 - i. Phase 1 – Customer Perspective
 - ii. Phase 2 – Home Use Test
 - iii. Findings
 - 1. Participants liked the idea, but mostly focused on spot heating/cooling
 - 2. Participants were happiest with the ease of use; used product for primary heat in space only when instructed to
- h. [Webinar – Product Council Presentation Recording](#)



Window Heat Pumps Both Heat & Cool

(also called window AC w/ reverse cycle)

- Twice as efficient in heating than electric resistance

Window AC
w/reverse cycle



Portable
(dual hose)

Dual hose is very important to performance

Saddlebag



U-shape not yet sold as heat pump

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Questions:

Josh (Chelan): What are the BTU output on these Micro HPs?

Christopher (NEEA): So far what we've seen in them are 12,000 BTU, one ton nominal. They might be 11,000 and the ones that going to come in 2024 are the sort of next generation of cold climate. The data I've seen is half that capacity at 5 degrees Fahrenheit.

Will (PSE): Very interested in the micro heat pumps, and want to learn more as this continues to develop. Good questions raised about how much savings are actually going to come out of this.

E. Next Steps

Recap, Next Steps, Adjourn ([slides 50-55](#))