

**Summary Notes – DRAFT**  
**Residential Advisory Committee Meeting**  
**Thursday, April 20, 2017**



**Attendees:**

In person:

David Murphy – Bonneville Power Administration (BPA)  
Nancy Oakley – Tacoma Power  
Doug Dickson – Snohomish PUD  
Chrissy Crowell – Puget Sound Energy (PSE)  
Andrew Gibb – Seattle City Light  
Josh Mitchell – Chelan PUD  
Todd Blackman – Franklin PUD  
Marshall Johnson – Energy Trust of Oregon (ETO)  
Thad Roth – Energy Trust of Oregon (ETO)  
Deborah DePetris – Clark Public Utilities

Nick Bengtson – CLEAResult  
Tina Jayaweera – Northwest Power & Conservation Council (NWPCC)  
Thomas Elzinga – Consumers Power  
Roger Kainu – Oregon Department of Energy

By Phone:

Deb Young – Northwestern Energy  
Don Jones, Jr. – PacifiCorp  
Colleen Neel – Cowlitz PUD  
James Marker – Puget Sound Energy (PSE)

**NEEA Staff:** Jeff Mitchell, Neil Grigsby, Stephanie Baker, Suzi Asmus, Lis Saunders, Jill Reynolds, Beth Littlehales, Christian Miner, Kyle Stuart, Geoff Wickes, Christopher Dymond, Alisyn Maggiora

**Housekeeping and Agenda Items**

- A. Follow up on action items from January 19, 2017 committee meeting.
  - 1) Everything that was committed to doing has been accomplished.
  - 2) January notes were very thorough.
- B. RAC 2017 work plan (page 21 of packet)
  - 1) Nothing required here, just a review of the plan for the year.
  - 2) Meeting locations:
    - 1. Q3 Meeting location up for grabs – Puget sound area; likely airport conference center if no specific requests
    - 2. Q4 will be in Wenatchee (Chelan PUD hosting)
- C. Packet/Informational Updates (not agenda topics)
  - 1) Appendices overview (page 22 of packet)
    - 1. Regional Building Stock Assessment (RBSA) quarterly update webinars are 11am to Noon, June 15 and September 13.
  - 2) Emerging Technology Update (page 23 of packet)
  - 3) MR&E Update ([Newsletter link](#))
  - 4) Program Updates:
    - a) Dryers (pages 24-25 of packet)
    - b) Ductless Heat Pumps (pages 26-29 of packet)

**Comments:**

- Snohomish PUD: Seems like we have to wait until longer tests happen before we can use this. NEEA (Suzi) replied that it's up to utilities. In

Northwest Energy Efficiency Alliance  
421 SW Sixth Avenue, Suite 600, Portland, OR 97204  
503.688.5400 | Fax 503.688.5447  
[neea.org](http://neea.org) | [info@neea.org](mailto:info@neea.org)

2015-16 we encouraged utilities to consider the technology and got a lot of concerns at that time. If utilities have confidence in the technology now, you can absolutely move forward with support. BPA is helping to fund the study.

- Tacoma Power: Would it be an IM, or another qualified product?
  - **ACTION ITEM: BPA replied that they will check with their program manager on this.**
  - **ACTION ITEM: Update for RAC in Q3 on this**
- c) Homes (includes real estate engagement; pages 30-31 of packet)
  - d) Manufactured Homes (pages 46-47 of packet)
  - e) Heat Pump Water Heaters (pages 32-33 of packet)
  - f) Retail Product Portfolio (pages 34-35 of packet)
- 5) Codes Update (page 36 of packet)

## Work Group Discussion (page 37 in packet)

A. Jeff Mitchell gave an introduction to the purpose of the discussion. *The desired outcome is to gather feedback from RAC on how to improve the effectiveness and increase the value of work groups.*

- 1) Question 1 Share-out: **How would you define the purpose of a NEEA work group?**
  - a) Workgroups provide feedback to NEEA on proposed activities
  - b) Workgroups give utilities a chance to discuss
  - c) Share what is going on at a higher level at utility
  - d) Opportunity for the resident experts and program staff to share
  - e) Provide program level information to RAC/RPAC member
  - f) Information download from NEEA to Funders, including what NEEA needs from Funders (two way street/communication)
  - g) Liaison for NEEA programs to utility; information from utility perspective
  - h) Participants in work groups are directly involved in programs and share information internally
  - i) Impact development of a measure to make it work better for utility programs
  - j) Diverse representation offers wider perspective (market trends, active participation allows for effectiveness, guiding principles that are likewise used at the RPAC level)
  - k) Consistent focus on program/topics, even when turnover occurs at utility level
  - l) Opportunity for better collaboration tools and initiative/program clarity
  - m) Provide technical and tactical input
- 2) Question 2 Share-out: **What value do you get from participating in work groups?**
  - a) Being able to give feedback, feeling that you're able to influence/guide strategy and tactics at the workgroup level
  - b) Providing local input and sharing successes between each other to leverage greater success
  - c) Utilities able to cross-share
    - Greater awareness of what's going on around the region
  - d) Multiple sets of eyes on a project and glean utility perspective on programs and how they may play out in different regions
    - Utility can represent their customers when some benefits don't apply to all customers
  - e) Multiple eyes and ears on a project's barriers and opportunities
    - Can see where course correction might be needed
  - f) Frequently get more detailed information than at RAC meetings

- g) Get inside scoop on new technologies or potential pilots with early opportunity to participate
  - h) Sharing best practices and lessons learned; opportunities for improvement and avoiding pitfalls
  - i) Find out with whom other utilities are working and in what channels
  - j) Opportunity to dig into program challenges more
  - k) Expand beyond local territory
  - l) Information sharing/feedback
  - m) Chance to dive deeper into the work
  - n) Valuable when members can track work from beginning and see results
  - o) When NEEA has opportunities to facilitate discussion instead of share out.
  - p) Flexibility in working with a variety needs
- 3) Question 3 Share-out: **How would you define the role of a work group member?**
- a) Providing feedback to NEEA on program strategy, materials, opportunities, etc.
  - b) Role of work group member is to keep their organizations apprised of NEEA activities
  - c) To participate and engage
  - d) Represent your utility and share/learn from each other (leverage resources)
  - e) Be task-driven
  - f) Think regionally and identify opportunities to bundle resources
  - g) Work group is opportunity for utility reps to understand the nuts and bolts of what NEEA is trying to do
  - h) Acknowledgement that both the initiative and the work group need to be successful and to support that, even if one doesn't have a strong stake in a particular activity
  - i) Ideal to do in-person meetings or video conferencing to help keep members active and engaged (feedback, notes, contributions)
  - j) Report back to member utilities and/or others locally and regionally with similar issues and challenges
  - k) Don't shy away from tough and real conversations when needed
- 4) Question 4 Share-out: **What opportunity do you see for greater collaboration at the work group level?**
- a) Opportunity for cross-sharing, not only at work group level but also at committee level
  - b) Creating more sharing/awareness opportunities
    - Time required to keep up with all the details; would be nice to have more succinct summaries from NEEA.
  - c) How information gets shared out could be improved both within utilities and across the region
  - d) Recruitment: Utilities might have different interests at different times so make it easier to join
  - e) Communicating and highlighting work group achievements
  - f) Opportunities for more face-to-face interaction
  - g) Rotate location for work group meetings to make them more accessible, particularly for utilities that can't travel; easier to share with folks when you're more familiar with them
  - h) NEEA could improve on setting expectations to help drive desired level of interaction from utility members
  - i) Supportive environment for share-outs
  - j) Tighter timelines; sometimes the process part takes a long time, so creating efficiencies wherever possible
  - k) Ensure reporting from the WG up the chain so there are no surprises
  - l) Utilities being resident experts – make good use of them
  - m) Maintain clarity about work group purpose

- n) Set expectations of members and members should come to meetings prepared

#### Discussion on Share-out

- a) Surprised to hear issues among work groups were very similar
- b) Hard to be productive right away, particularly with new folks
- c) Important for folks to remember that they should wear both their organizational hat and the regional hat when engaging at any level (work group, committee, RPAC, board)
- d) DHP and HPWH work groups were combined; some folks think that's a positive move.
- e) Encouraged to have this discussion at the work group level to evaluate whether those members would be interested in something similar. Advice for sharing this with RPAC:
  - Share what the purpose was for this evaluation
- f) NEEA: *Would you be supportive of more work group meetings in person?*
  - Northwestern: Would be nice, but due to the number of meetings/activities, would be a huge staff commitment – need to evaluate how practical this would be. Kudos to NEEA staff for their continued effort to be effective and flexible.
  - Tacoma Power: Depends on the frequency and the topic
  - BPA: Appreciates having the cadence of the meetings and cancellations when there's no topics
  - **ACTION ITEM: Per RAC feedback, NEEA will discuss these questions with workgroup members, consolidate all feedback in a summary and provide back to RAC for review**

#### Quick recap of Consumer Products Regional Strategy Steering Committee Meeting on 4/19/2017

- Discussion of commitments that came in from RPAC member utilities on HPWHs
- Identified opportunities for collaboration and gaps
- Lessons learned from Commercial Lighting collaboration
- Getting clear about what utilities will actually commit to
- Commitments were shared across utilities.

#### Residential/Mass Markets Portfolio Update (overview details on page 38 of packet):

Jeff Mitchell (NEEA) gave a quick update on the progress with the Regional Product Portfolio (RPP) initiative. As discussed at last RAC meeting, it has been confirmed that NEEA will move the *Scale-Up* stage-gate from Q3 2017 to Q3 2018. The work group agreed it was better to wait until more is known on the effectiveness of their interventions. As a reminder, this will ultimately go to RPAC for a vote.

#### Heat Pump Water Heater Change Document (page 43 in packet)

- A. Jill Reynolds (NEEA) gave an overview of the proposed changes. NEEA HPWH team added the Sanden CO<sub>2</sub> split system to their qualified product list on the HPWH program. *The desired outcome is an understanding of opportunity, how utilities will participate, and lifecycle process for this program.*
  - 1) BPA clarified that they have added the same 5 Sanden products that are on NEEA's QPL; this is a temporary measure that can be claimed as tier 3 for \$500 until October when they expect to have the CO<sub>2</sub>-based new measure.
  - 2) Geoff Wickes (NEEA) added that another split system is coming to the lab in Bellevue for testing. One of the big three manufacturers will likely be building that product and bringing it to the US.
  - 3) HPWH workgroup in support of adding Sanden unit to QPL.
  - 4) This will go to RPAC for review/approval as well in May.

#### Comments/Discussion:

- a) ETO: *Is this a new construction play or a retrofit?* NEEA replied split system works well in either applications. The outdoor compressor makes the unit suitable for installations that may not accommodate HPWH. Additionally, with new construction there is opportunity to plan around the tank, but price point is significantly higher than traditional HPWH.
- b) BPA: Sanden split system will be Tier 4 once Sanden adds demand response capability to the unit. It was added that this product works well at low temperatures (as low as -17 F) and will recover from a power outage very well.
- c) ODOE: *Are installers finding this to be a positive solution?* NEEA noted they haven't had a chance to check in with them on it.
  - BPA engineering team has been working with potential stockers; finally found an OR state company that will be stocking it.
  - NEEA is in the process of their third market progress evaluation report on this, so more will be provided on the Sanden product in that process. It was also noted for clarity that this is just the water heating product, not the combo/split product.
  - BPA added that there will also not be a measure for combined space and water heating products for some time until US designs for that are available.
- d) Chelan PUD: *Savings and price-point?* NEEA: Significant savings - tier 4 level savings. Price is estimated at \$2600-2800 before install. Will be more like an HVAC install early on, but as time goes on some manufactures may go more along the lines of a quick install with coupling so plumbing can do it.
- e) No concerns from members about sharing this with RPAC members.

### Low-E Residential Window Attachments Change Document (page 40 in packet)

- A. Neil Grigsby (NEEA) gave an overview of the proposed changes. *The desired outcome is a understanding of opportunity, how utilities will participate, and lifecycle process for this program.*
  - 1) Took RAC support and RPAC feedback, confirmed having this updated through a program change document.
  - 2) No formal work group yet. As additional developments happen, NEEA will be thinking about next steps for utility engagement.
  - 3) Commercial Windows program does have a NEEA (internal) work group already, which meets next week. This will go to the CAC next week as well.
  - 4) BPA: No retail measure for this, do we want to focus on this? NEEA (Neil), there is a measure, but it's not delineated between retail and commercial. Once ratings happen, we want to evaluate this and it's a the top of the list.
  - 5) No comments/concerns regarding the change document.

**ACTION ITEM: Committee members are expected to share this with their RPAC members.**

### DHPs: Cost Containment (discussion/presentation only, no memo)

- A. Suzi Asmus (NEEA) reviewed the DHP team's data analysis activities and findings undertaken to address containment of install costs to the utility customer. *The desired outcome is that RAC is updated on NEEA Staffs cost reduction research and provide feedback on level of interest in NEEA pursuing any program activities related to the findings.*

#### Presentation highlights:

- 1) Market Trends: As the market has matured, we didn't see significant cost reduction as expected in the MT theory. Also, the savings came down after repeated RTF adjustments.
- 2) Market Challenges: Utilities are challenged by cost effectiveness. The target households are challenged by higher priced systems aimed at lower and middle-income households (63% of

target homes are bringing home \$80,000 or less). The supply chain is seeking out larger homes and multi-head applications – raising prices and leaving out smaller jobs.

- 3) NEEA taking several approaches to address this: international market scanning, business cohorts, financing research, promotions, increasing market competition, DIY/quick connect research and testing.
- 4) Data analysis of utility rebate data 2012-2016 yielded the following findings regarding impacts to cost:
  - a) 1:1 systems' costs are coming down over time while multiple zone system costs are increasing.
  - b) 1:1 systems are diminishing in overall % of rebated installs.
  - c) Size of system – lower nominal capacity systems are decreasing in cost over time while larger nominal capacity systems are increasing in cost over time.
  - d) Higher Heating Seasonal Performance Factor (HSPF) (greater than 11.0) does equate to higher cost.
  - e) Lower costs have been achieved by Tacoma Power and Efficiency Maine as examples of successful pricing strategies. Both of these programs install lower HSPF and lower nominal capacity systems.
- 5) Opportunities:
  - a) Program design (preference 1:1 systems, capacity 9-15k BTU, focus rebates on HSPF 9.0-11.0),
  - b) Utility or Regional pricing RFP

#### Discussion:

- 1) ETO: *Do you know anything about the HSPF savings?* NEEA replied that we know some through the work that was done for the RTF for that measure. *So if we go up by incremental HSPF, we increase savings by how much?* NEEA: About 100-200 kWh per tier; it's roughly linear. The point is that the incremental cost doesn't warrant the incremental savings you can get.
- 2) NEEA: *Have your utilities been talking about any of these program design levers, playing with rebate options?*
  - c) ETO: Multifamily home situations seem most appropriate to this – highest rebate for single/cheaper units. Savings are relatively good. We pay \$1000 in moderate income applications, \$800 in market rate applications; could potentially reduce investments in market rate. We could potentially reduce our Income qualify home purchase makes sense to dedicate effort/funds. Could create qualified products lists and incentivize only the 1:1s. We could also limit the multi-head systems for the incentive. Have a floor of 9.0. Also need to consider whether there are benefits that we can't quantify.
    - NEEA working with BPA on some non-energy benefit opportunities and other cost-effectiveness activities.
- 3) Franklin PUD: *Why are we giving preference to single-head systems?* Just want to make sure that we're not pigeon-holing ourselves in the same way that happened with HPWHs on the 50-gal tanks that were grossly undersized for the home, but sought out because of the incentive.
  - a) NEEA: Not giving preference, if the cost is a concern to your utility, these are opportunities to address it. There are applications where the multi-head is appropriate or better than what a customer currently has and we certainly want to support that as well.

- 4) Snohomish PUD: We also need to educate customers; they often think they need a DHP in every room they had a baseboard heater, which is not the case.
  - a) Franklin PUD: what about quick-connect units? NEEA noted that we may want to bring this back up at the next RAC meeting for more discussion. They're not just a DIY.
    - **ACTION ITEM: Bring this to the Q3 RAC for discussion**

**ACTION ITEM: NEEA willing to put together a follow-up meeting or working group on regional pricing RFI.** Interested RAC members: Doug Dickson, Debbie DePetris, Todd Blackman, Andy Gibb, Josh Mitchell, Nancy Oakley, Chrissy Crowell

## **Manufactured Homes (MH): Program Design Discussion (page 46 in packet)**

- A. Neil Grigsby (NEEA) reviewed the program design. *The desired outcome is that RAC is updated on current state of the MH initiative and for the Committee to provide feedback and advice on the path forward.*

### **Presentation highlights:**

- 1) Market changes impacting 2017 plan:
  - a) Federal standard delayed, likely up to 5 years
  - b) Manufacturers are very busy
  - c) Market condition discoveries: retired customers, where Energy Star brand has value, and younger customers looking to get into a home quickly
  - d) RTF savings were cut by half of expectation (1500 down to 830 per unit and from 7aMW to 4aMW potential)
- 2) Risks to MH Program
  - a) NEEA: Savings dropped by about half + delay in code change savings
  - b) NEEM Program: Lots of hustle for very little kWh; reputation also at risk
  - c) Manufacturers: Less motivated
  - d) Utilities: Negative impact on NEEM 2.0 savings targets
- 3) Strategy Pivot options:
  - a) **Option A:** Continue support for current ENERGY STAR (NEEM 1.1), consider support for NEEM 2, and add enhancement packages + regional impact.
    - Refer to [slides 85 and 86](#) for comparison of risks and benefits and evaluation of regional impacts.
  - b) **Option B:** Reduce support of NEEM 2.0 until new federal standard is implemented. Revise 2017/2018 strategy and redirect budget, as well as finish demonstration homes and marketing strategy. NEEM 1.1 (ENERGY STAR) continues to exist in the marketplace w/ utility support + regional impact. This option results in no uptake of NEEM 2.0 and allows NEEA to redirect resources elsewhere until the HUD code can be changed.
    - Refer to [slides 87 and 88](#) for comparison of risks and benefits and evaluation of regional impacts.

### **Discussion RE Option A:**

- 1) Snohomish PUD: *Do we know if there will be lower manufacture participation, regardless of whether there's a lower incentive/rebate?* NEEA: We have a strong indication of yes. A major motivation for manufacturers to participate with NEEA was the pending HUD code change. Now that the HUD code is not changing, manufacturers are much less interested in adopting a new higher tiered specification.
- 2) NEEA: This is a pivot towards a market-driven effort. NEEA's support will be focused on Retailer outreach to provide marketing tools and messaging for consumers that highlight the benefits of energy efficiency in a new manufactured home. Utility support would include a new heat pump rebate at the time of sale.

- a) Franklin PUD: Concerns about increasing consumer awareness. Past attempts have proven difficult in this market.
- b) BPA: Understands the progress we've made and the new challenges we face, doesn't agree with changing course at this juncture based on the investment that's been made and would like to see NEEA stay with original plan to support NEEM 2.0.
- c) PSE (James): *Implementation manual has \$1200 incentive for 1.1 NEEM; how much of the incremental cost does that actually cover for manufacturers to go up to next level of hood above code?* In this hot market, if we're not covering 100% of incremental cost we're going to be faced with challenges.
  - a. NEEA (Christopher): NEEM 1 (EnergyStar) sells for a \$2000-3000 retail bump in cost. That level is \$800-1200 at factory. NEEM 2 specs will add \$800 hard cost. These are things we hoped up-stream incentives would address so we could level the playing field between NEEM 1 and NEEM 2 so retailers could push NEEM 2 and we can build scale while the code is changing. Jeff Mitchell added that when the code changed, the 55% market share that NEEM 1 has will go away. Need to acknowledge from a cost standpoint, we can't invest a couple million dollars to drive market share because savings are down by almost half and market urgency isn't there.

#### **Discussion RE Option B:**

- 1) Tacoma Power: *Where would you redirect resources if you went with option B?* NEEA: Depends, might redirect or might not spend; possible some might allocate towards DHPs if we did launch something related to HPs and manufactured homes.
- 2) Franklin PUD: *Can we scale it back and craft a SPIFF for retailers before we write it off?* NEEA: Possibly. Appreciates this hybrid approach Franklin PUD is suggesting, these are the kind of ideas and guidance we are looking for.
- 3) PSE: *How certain is the adoption of the new HUD code?* NEEA: It's been supported in public process, but it's likely not happening anytime soon, much of which is a result of the new administration's direction.
- 4) Snohomish PUD: Don't feel I have the information I need to convince me to make the switch on either option.
- 5) NEEA: To be clear we're not making a decision, just looking for guidance.
- 6) Snohomish PUD: Would like to evaluate more so what led to this decision point. NEEA clarified – we're not getting away from what was published as NEEM 2; it's more so how much NEEA invests up-stream given the decreased savings we're going to get in return now – that's the biggest shift.
- 7) NEEA: *What do you think is the best approach for NEEA going forward?*
  - c) Snohomish PUD: Not comfortable with this change, given the time BPA and the region has spent developing NEEM 2.0 and limited information provided on how we arrived at these recommendations. Wants to know what the steps are that led to this decision.
  - d) NEEA (Neil) clarified, NEEA is not recommending we eliminate NEEM 2.0. Option A still provides manufacturer and retailer support for the specification, but reduces NEEA incentives. In both options, NEEM 2.0 is still a viable specification once the next HUD code change comes around.
  - e) BPA: If we don't do it now, we may not ever get to do it, that concerns me.
  - f) BPA: It seems the incentives are more effective than some collateral. NEEA replied (Christopher): We're dealing with a market driven thing. You can pull money away and still stay in the game. We could go to manufacturers with some feedback and suggestions for going forward.
  - g) ETO: Going to evaluate; option 1/A is a better option for us. Let's do a little more consideration around hybrid options to try to salvage this. Mark Wyman (ETO) made a point offline previously that with NEEM 1.1 we have a lot of market share. There is a

potential that we see the NEEM 1.1 opportunity work its way out of the market in another year or two if the baseline is raised. NEEM 2.0 provides the next specification for utility programs.

- h) NEEA (Christopher): What about an “option C” idea. See if we can get super-efficient windows standard in NEEM 1 and NEEM 2 and you only have 1 spec again. That’s a possibility. It’s also a really interesting place where we can have quick connect DHPs. Franklin PUD agreed.
- i) Chelan PUD: *Are we going to go down a route of pushing 2.0 models and nothing sells, if we continue?* It’s possible.

**Proposal:** have a work group + RAC webinar to continue the discussion. Several members were in agreement. **ACTION ITEM:** NEEA staff to setup webinar before end of Q2 to continue this discussion.

*Special Thanks to Dennis Rominger at PSE, who has served on RAC for several years and is now in another position with PSE. Also special thanks Nancy Oakley at Tacoma Power, who is retiring and also served for several years on RAC; she is especially appreciated for her contributions in assisting with facilitation and assisting NEEA with better understanding the needs of utilities.*

## Utility Share-outs/Round Robin

### A. Snohomish PUD:

Looking at adding non-incentivized measures to Enervee platform. Trying to tell customers we are a resource for product info, contractors, etc. Launching a new home construction program and will be training staff on a building simulation. Starting low-income/high-use home energy surveys; will go out in the field. Want to evaluate their energy burden (utility bill divided by income) and help bring costs down. Looking to shave peak demand.

### B. BPA:

Lighting savings –40% cut from recent RTF review. This reduction came too late to adequately address in the April IM. For the October IM, savings will be re-evaluated and reduced. Originally expected the program to taper off in 2020 anyway with EISA. Bringing in new products, like pin-based lamps. Expect extreme contraction of lighting program by 2018/2019. CFLs will expire so going all out for LEDs. Fighting to save refrigerator and freezer decommissioning, that was not successful so those measures will expire this October. BPA will be implementing a low-income HPWH measure on October 1; looks to have good data to share by end of Q4. The Sanden units are temporarily on the current QPL at tier 3 for \$500, expect increased savings with new measure on Oct 1. Federal government has lifted hiring freeze, but energy efficiency division of BPA is still constrained and will not see any changes.

### C. Clark Public Utilities:

Simple steps program burned through 40% of annual budget in the first two months; was due to the canned lights promo at Costco. Rolled out smart thermostat retail program April 1, have seen two rebates come in already. In the process of testing out thermostatic shut-off valves on employees to get feedback. Finished CEEP program administered by WSU; completed spending of \$330,000 grant that was for low-income customers on weatherization efforts – installed 99 DHPs and 24 weatherization projects. County CAP forwarded leads for the program for households that were above 100% poverty level. In April, completed 2<sup>nd</sup> largest efficiency project in BPA history, an industrial project that saves 5.2 aMW. Not active on many other programs since they’ve reached their savings, but still trying got make sure they’re balanced and not scaling back too much that they lose momentum needed in the future.

### D. Franklin PUD:

BPA rep asked to have shared a Smart-Thermostat Utility Group request: looking for utilities that are already implementing, or want to implement this program. Going to streamline Energy Star appliance rebate process, gearing it more towards a marketing effort than an energy saving effort. Convinced utility to focus on low-income, with priority on energy indexing the housing stock and prioritizing projects that way. HPWH low-income rebate, not working ideally right now, looking to BPA to see how theirs comes in. Prioritizing by number of people in the household and offering a higher rebate for bigger units.

**E. Chelan PUD: 2:32:00**

Updating multiple programs over a two year period: CIS, MDMA and Smart Meters. *Does anyone have a conservation module that they use for CIS?* From program/EE standpoint - Smart Thermostat program kicking off soon. Seeking to launch new construction program modeled after what NEEA (Neil) is doing. Participating in BPA's demand response water heater pilot.

**F. Tacoma Power:**

Adding new measures: air source ducted heat pumps and smart thermostats; interested in learning more from others who are running those programs already. Announced it to contractors in April, expect to have everything up and running in next few months. Planning to offer incentives for HPWH. Re-examining low-income program offers (currently offer grants for DHPs); feels there are groups of customers that are being missed (manufactured homes pose a challenge due to ownership of land under the homes – if the land is sold after install, for example, could be an issue with the outdoor unit). Low-income/high-use customers: rethinking the program to better evaluate how to help and educate them. Participating in BPA's demand-response water-heater pilot, working through final agreements.

**G. PSE:**

Launched 2018-2019 RFP/RFI, included 11 programs, 9 of which are residential. Focusing on hard-to-reach and self-service options for customers. Multi-family retrofit with web-enabled line voltage thermostats, working with WSU for CEEP grant funding on that. Adopted a prescribed per-unit savings for multifamily air sealing. New construction: working with Neil to align with Snohomish PUD on single-family new construction performance path. Settled with Microsoft on their energy direct purchase activity so they can achieve their corporate commitments – this will provide additional funds for low-income energy efficiency services and renewable energy technology. Exploring video verifications with customers using WebEx, starting with DHPs, furnaces and water heaters – hope to launch in second half of year. Just updated HPWH to remove installation location requirements for tiers 2 and 3, retiring tier 1 as well in July. Participating in the BPA DR pilot. Lowered single-family rebate for DHPs to \$800 due to market trends (manufactured homes staying at \$1200). Working with manufacturers and distributors on limited time offer deals for their customers. Looking to see how rebate bundles might work. Offering web enabled thermostats – Ecobee & Nest. Upgrades campaign is in progress, doing blitzes on Saturdays, door-to-door drop-offs, and lots more outreach. Unusual usage pilot expanded to full campaign and launched to help 500,000 customers evaluate their energy usage in comparison to the previous year. Energy Efficiency ad campaigns running. Releasing an ad campaign that will use seasonal and geographical approaches targeting customer education.

**H. ETO:**

RFP out for program management contractor to provide services for all residential programs. Looking to combine under one PMC for all three programs (Consumer Products, New Homes and Existing Homes). Light savings will decline significantly for all three programs soon, so made a decision to combine all lighting programs under one PMC. Including opportunities for smaller contracts to focus on homes program, and program delivery contractor to focus on retail programs in this changing environment. Don't see as much of a decline in gas savings over the next 5 years, but are getting exceptions from the PUC to continue some measures since they're not as cost-effective. Expect to have new PMC in place in January 2018; have had a very robust

“Intent to Respond” pool - 8 on PMC side, 5 for retail, 6 for new construction. Since lighting market is moving so quickly, there are concerns about how long we stay in those markets so we are in the process of evaluating that. Moving to midstream approach on water heating in Q2, expect to have distributor agreements in place for incentives sometime in Q2. Will roll that into retail side as well, but don’t expect them to work in parallel. On new construction, the program in 2016 achieved 38% market share in service territory.

I. **NWPCC:**

Mid-May (May 11), working with PSE and NEEA to host workshop to explore under-served markets, several utilities will be joining the conversation. Working on capacity impact of energy efficiency (Power Plan); coordinating with David Clement (NEEA) on RFP to do some end-use load research to get a better sense of those profiles for primarily HVAC equipment. In last RBSA got some great data on appliances, but HVAC data is limited. Project will focus at the circuit meter level. The RTF is working on putting together a tool to provide quality to how our load shapes are translating to kW.

J. **Oregon DOE:**

RETC sunsets this fall; looking at the impact this will have since it’s been in place for over 40 years. Home energy scoring – mandatory scoring required now in Portland; this is really unique, it’s the only place in the country this has been implemented. Portland adopted climate action plan in 2009, and now there’s a climate plan in place to use 100% renewables by 2050.

K. **Seattle City Light:**

Getting high-bill complaints (30-40% higher this year than in previous years) and doing a lot of home visits. Seeking to provide better information to customers about their energy use. Working on new customer information system. Looking for something more comprehensive, and to hopefully include water services in the long-term. Heat pump dryer program uptake has been going well, and they are looking at trying to bundle with washers. They have been encouraged by participation in homeowners with small laundry spaces. Considered closing down refrigerators program since the savings is no longer there. Rolled out a dryer rebate on hybrids, EnergyStar and full heat pump models. Prioritizing low-income hard to reach customers, especially subsidized power customers. Looking at traditional weatherization services on electric projects. Installed 100 DHPs through the grant program. Green-power solar demonstration program, collected a lot of funds with this; will launch in the next month or two. Dropped DHP incentive from \$1200 to \$800 as well, due to savings reductions.

L. **Northwestern:**

Nothing to report for now, will have more at Q3.

M. **Cowlitz Power:**

Been doing a lot of energy audits due to cold weather season. Partnered with Lower Columbia Contractors Association to do a contractor education series. Rolling out WIFI thermostats rebate program starting May 1, had quite a bit of uptake already. Re-evaluating window rebate, working closely with CAP agencies since housing stock is a challenge for them. Looking to do data collection with HPWHs, finding there are several homes (about 40%) currently that have two water heaters. Getting close to going live with new database.

## Public Comment Opportunity

No public attendees were remaining in the meeting at this time.

## Wrap up - Thoughts/Comments?

- A. Tacoma Power: Enjoyed the breakout exercise (work group discussion)
- B. NEEA (Neil): Also liked the breakout session and the honest feedback during the homes discussion.

- C. Chelan PUD: Lunch was good, meeting was useful; impressed everyone is working on hard-to-reach markets. Thankful for Nancy and her contributions.
- D. Franklin PUD: Great meeting. Excited to hear there's a greater focus on low-income and near-low-income sectors.
- E. NEEA (Suzi): really appreciated the round-tables. Good to have this feedback to take back to work group. Also excited to hear about low and near-low income work being done.
- F. Clark PUD: enjoyed work group discussion, despite her initial impression of what would occur.
- G. NEEA (Jill): Likes seeing everyone in person.
- H. BPA: Appreciated honest, frank discussion.
- I. NEEA (Jeff): Good meeting. Appreciates Nancy and will miss her calm and prepared presence.
- J. Snohomish PUD: Seems like manufactured home discussion went better than in the past.
- K. Seattle City Light: appreciated the conversations and detail on DHPs. Echoes all good things said about Nancy.
- L. NEEA (Beth): appreciated openness and frankness of shared discussion
- M. ODOE: Appreciated low-income discussion, keep the focus up.
- N. NWPCC: Good, frank, open discussion. Appreciated NEEA's effort on the work group discussion/facilitation.
- O. ETO: Observation that we've all been on the other side of concerns, so great to see folks stay engaged and listening. Equity conversation is right on track (savings within reach) and worthwhile focus.
- P. PSE: appreciated getting up to speed on RAC and excited about collaboration and being more involved with NEEA.
- Q. NEEA (Stephanie): Liked work group discussion, good to start off with that since it got folks warmed up and it also allowed her to move around and work with people she doesn't normally get to talk to. Echoed appreciation for Nancy.
- R. NEEA (Kyle): Appreciated the opportunity to sit in and gain better understanding of perspectives.
- S. Northwestern: Loves the webcam because it helps to see interactions and who's talking. Appreciated agenda and full discussion, well organized.