

# Regional Portfolio Advisory Committee (RPAC) Summary Notes Thursday, August 31, 2017; Portland, OR



## In Attendance:

Steve Bicker, Tacoma Power  
Brent Barclay, Bonneville Power Administration  
Charlie Grist, NW Power & Conservation Council  
Jeff Tripp, Puget Sound Energy  
Andrew Grassell, Chelan County PUD  
Dave Nightingale, WUTC

Garrett Harris, Portland General Electric  
Lori Moen, Seattle City Light  
Larry Blaufus, Clark Public Utilities  
Fred Gordon, Energy Trust of Oregon  
Jessica Mitchell, Snohomish PUD

## Phone:

Deb Young, Northwestern Energy  
Pete Pengilly, Idaho Power

**Public Attendees:** Janice Boman, Embertec

**NEEA Staff:** Julia Harper, BJ Moghadam, Emily Moore, Stephanie Rider, Mark Rehley, Harvey Mathews, Jeff Harris, Dulane Moran, Ken Baker, Jeff Mitchell, Neil Grigsby, Alisyn Maggiora

## Welcome, Introductions, Agenda Review

### A. Packet

### B. Informational Updates

### C. NEEA Operations Plan – key dates

- 1) 9/14/17: NEEA Board Guidance request
- 2) 10/10/17: AC/RPAC review of DRAFT Ops Plan (webinar)
- 3) 10/18/17: FAC DRAFT Ops Plan review
- 4) 11/2/17: Board DRAFT Ops Plan review (webinar)
- 5) 11/15/17: FAC Final budget and Ops Plan review (webinar)
- 6) 12/5/17: Board approval of 2018 Ops Plan/Budget

### D. Announcements

- 1) Lis Saunders is no longer with NEEA and is now working for Tacoma Power.
- 2) Emily Moore is now acting commercial/industrial lead as Sepideh Rezaia has moved back to Canada.
- 3) Emily Moore's role as Senior Manager, Strategic Markets will remain open given that the Regional Strategic Market Plans for C+I Lighting and Consumer Products have been developed and the new construction regional strategy work has been put on pause for now. Debbie Driscoll will join the Commercial/Industrial team and continue to monitor and help move the Lighting regional strategy work going forward. Jon Clark will join the Residential team and continue to support the Consumer Products work. And, in the near-term, Emily will continue to facilitate the Consumer Products Regional Strategy Steering Committee.
- 4) Kim Hughes (NEEA) will be leaving soon and the Commercial Code Enhancement program will transition to Neil Grigsby (now the NEEA Portfolio Program Manager for all new construction work including Next Step and Manufactured Homes). It is expected

that he will manage CCE and a program manager will be hired to manage the residential homes programs.

**E. RPAC 2018 Meeting Dates**

- Q1: Wednesday, February 28, Portland
- Q2: Monday, May 14, Seattle (day before Efficiency Exchange in Tacoma)
- Q3: Wednesday, August 22, Portland
- Q4: Monday, November 5, Portland
- October 9, 1-4 pm Pacific: All-Advisory Committee webinar re: NEEA's 2019 Ops Plan

**F. Leadership in Energy Efficiency Awards**

- 1) Submit your [nominations here](#) by October 18
- 2) Event will be held at the Treasury Ballroom in Portland on December 5

**Request: Utility Shape Files for Service Territory Mapping (pages 5 in [packet](#))**

Harvey Mathews (NEEA) presented. *The desired outcome is for RPAC to understand why data is needed and how it will be used, and provide contacts for NEEA Staff to work with directly.*

**Presentation Highlights:**

- Good time to be in energy efficiency because of data access.
- When deeper analysis is done, building shapes and outlier data are less clear, so the request to the alliance organizations is to share and contribute their data (shape files), particularly those files that are at the edges of territory lines.
- Dulane Moran (NEEA) added that shape files enhance sampling accuracy for large-scale research projects such as the Commercial Building Stock Assessment (CBSA).
- **ACTION ITEM: Organizations considering oversampling for the CBSA, need to let Dulane know by December/January.**

**Discussion:**

- **WUTC:** We're getting close to having fully updated data, will be different than what would have been provided last year. Connect with Dave ([dnightin@utc.wa.gov](mailto:dnightin@utc.wa.gov)) to get appropriate contact at WUTC.
- **NorthWestern:** *How will this work with small BPA utilities, is there data available there?* We intertwine with several co-ops in the state, so line changes can be kind of fuzzy for us.
  - **BPA:** Have a lot of mapping data as a general investment, but we don't have detail down to the metering level.
- **Northwestern:** *What about confidentiality regarding identifiable information?* **NEEA (Harvey)** noted that it differs by state, could have NEEA legal staff verify NDAs before any information is shared.
  - **Tacoma:** Data we provided was completely stripped of identifying data, just latitude/longitude of each meter.
  - **NorthWestern:** Are other utilities disclosing locations and boundaries on customer data?
  - **PSE:** Not sure, will research and find out
- **BPA:** *How are you planning on reaching out to smaller, non-direct funders?* **NEEA (Harvey)** replied direct outreach.
- **NWPC:** What's missing? Clarify the need gaps. **NEEA (Harvey)** replied that they need better Washington boundaries.
- **WUTC:** We realized historically there's a disconnect between certificates (service agreement) and actual boundaries of some utilities (only for Investor Owned Utilities).

- **NorthWestern:** *Are you making the same ask of gas utilities?* **NEEA Harvey** replied that we have pretty good data there, but want to get electric data down first.
  - ACTION ITEM: Harvey to follow up with NorthWestern
  - ACTION ITEM: Funders to provide Harvey with appropriate contacts in their organizations to acquire GIS data.

### Coraggio Group Review of RPAC Vote Process (pages 6-8 in [packet](#))

BJ Moghadam (NEEA) presented an overview of the challenge flag process for RPAC. *The desired outcome is for RPAC to provide input and support for the proposed Challenge Flag process.*

#### Discussion:

RPAC members expressed general support for the proposed Challenge Flag process (Addendum B to the RPAC Charter), and reached consensus on one revision to Sections 3(c) and 4 (see edits below). While members felt that a proposed solution should address the viability of the market transformation effort, there was general agreement that the challenge itself could question that viability and “maintaining” it was not the responsibility of the member exercising the challenge flag.

3. Member prepares “Challenge Flag” memo for Advisory Committee, articulating:
  - a. The NEEA activity that has not honored the Standard Rules of Engagement and/or goes beyond the scope of effort agreed upon by the Advisory Committee;
  - b. The nature and scope of Member’s concern;
  - c. A proposed solution that Member feels addresses **both** its concern and **maintains** the viability of the NEEA market transformation effort.
4. NEEA Staff convenes Advisory Committee for a facilitated discussion on Member’s proposed resolution, with the goal of **addressing** both (i) **addressing** Member’s concern, and (ii) **maintaining** the viability of the NEEA market transformation effort.

### NEEA Residential Portfolio Program Updates (pages 9-10 in [packet](#))

Neil Grigsby (NEEA) presented on Manufactured Homes. *The desired outcome is for RPAC members to receive an update on, and understand, current market conditions as well as to provide sector feedback and support on changes in program direction.*

#### Presentation Highlights:

1. Desired Outcomes:
  - a. Review NEEM 2.0 and changing market conditions
  - b. Review RAC/Work Group feedback
  - c. Discussion and RPAC feedback on revised program activities and strategy
  - d. Agreement on NEEM 2.0 strategy
2. NEEM 2.0 Project Background
  - a. Proposal for HUD code to change in 2015
  - b. This was a time sensitive opportunity, as well as an expected easy lift given the previously existing HUD code in place (NEEM 1.0)
3. Market update:
  - a. HUD code change delayed resulting in reduced manufacturer motivation to change practice; previously they were eager to work with NEEA.

- b. Manufacturers are busy, the demand is back up to 2007 levels, prior to the recession.
  - c. **NWPCC:** *What are the built levels?* In 2016 it was 4,000 in the Northwest. Prior to that, around 2000 in 2015/2016. Some is catchup along with a slight increase in demand.
  - d. NEEM 2.0 savings were reduced (lighting and heat pump baselines updated). Final RTF determination was to account for a 20% heat pump baseline.
4. Gathered Utility Feedback To-Date:
- a. Supportive of NEEA continuing a NEEM 2.0 Pilot
  - b. NEEM 1.1 adoption suggests it's time for a higher tier
  - c. MH buyers are an important customer base
  - d. Encourages ongoing relationships with the market
  - e. Future replacement programs can include NEEM 2.0
  - f. Sounds like NEEA wants out because it got hard

**Discussion:**

- **BPA:** This would be a lost opportunity if we slid back. Support all the feedback noted above. Hope they didn't give full value for the heat pump installs in these, usually they're lesser quality; they need a program solution for a good heat pump.
- **Energy Trust:** Support this. Staying in this market is important to maintaining momentum. Willing to support it if we're going to measure the success against what we ask for.
- **PSE:** Board needs to hear that, believe they're thinking about this.
- **Snohomish PUD:** Residential team feels NEEA should stay engaged; we've added these incentives. We'll be left alone in that area if NEEA pulls out.
- **NWPCC:** This has received a good vetting from the workgroup, have confidence it's on track. This was one of the first markets where NEEA incentives were seen as a good market transformation to scope. This still seems worthwhile to pursue as a collaborative effort.
- **Idaho Power:** This looks good.
- **NEEA (Neil):** Rural is a large percentage, so gives funders access to hard to reach markets.
- **Idaho Power:** *How does this compare with ENERGY STAR homes, since that's what we currently incent?* **NEEA (Neil)** replied that NEEM 1.1 spec in market today is also the ENERGY STAR spec and has 50% market share. Currently, NEEA has no activity or support towards the NEEM 1.1 program; it has been market driven with utility incentives and manufacturer collaboration.

5. Proposed Plan Revisions:

	Original Plan	New Plan
<b>Adoption Goal (2017 - 2020)</b>	30%+	5-10%
<b>Manufacturer Incentive</b>	\$800/home	\$1,000/home
<b>Incentive Budget (2017 - 2020)</b>	\$2M+	\$640k - \$1.3k
<b>Key Window of Opportunity (2019 - 2020)</b>	HUD code change	All Utilities offer NEEM 2.0 incentives; end NEEM 1.1 incentives

- a. NEEM 2.0 will be available for utility programs in the October BPA Implementation Manual.

- **ENERGY TRUST:** How much attention this gets will vary across organizations. Our Public Utility Commission is fairly sensitive to where we pay more than 100% of incremental cost. Utility cost test may be fairly tight on this; need to see if NEEA is incenting up to the utility cost test cap, if so can't put more money on it. Our incentives stack against the utility cost test with these once we're out of NEEM 1.
- b. Transitioning NEEM 1.1 utility incentives to NEEM 2.0 will take regional agreement and demonstrated success of NEEM 2.0 in the market. Want to make sure NEEM 2.0 product is available in all markets for all utilities. This is where we can track throughout 2018 as we start this incentive program.

**Discussion:**

- **WUTC:** *Price goes up by \$2000-3000 between 1.1 and 2.0?* **NEEA (Neil):** Correct. Would minimize impact on consumer cost with upstream incentive to offset that cost even further.
- **Energy Trust:** Others need to think about the split of the incentive that's more effective in the market, think of it interactively.
- **BPA:** *NEEA's not controlling the downstream, who do you mean?* **Energy Trust** clarified that program managers need to keep the split incentive in mind. When it comes to regulatory end, you're dealing with caps. In Oregon, regulators look at the totality. Think about how much there is all together and the strategic uses of the incentives versus 'can I get more money?' – will work better in the long run.
- **BPA:** *When you do your cost test, would you be able to count above HUD code baseline?* **Energy Trust** replied they would probably do it from a market baseline.
- **NEEA (Jeff)** clarified that feedback from RAC and workgroup members put emphasis on the market and having a viable program – we're putting together a program designed to allow NEEA to take their incentives off once utility programs add theirs. There will be some overlap to address, but this is meant for utility programs to take over the incentive. **Energy Trust** added that there's been some flexibility with the Total Resource Cost test in Oregon, but not on the Utility Cost test.
  - **RPAC COMMITTEE MEMBER ASK:** Please also filter this message through your organizations to reinforce.
- **PSE:** Timing on transition will be important. If we're talking about stopping ENERGY STAR and just doing NEEM 2.0, this doesn't pass the Utility Cost test for us. *What is the timeline for maintaining some ENERGY STAR with it to get there?*
- **BPA:** To clarify, NEEM 1.1 will still be there, NEEA is not running it. You would be building off of it. **NEEA (Neil)** added that the desire is for utilities to start to shift their incentives towards NEEM 2.0 once market adoption starts to occur.
- **PSE:** If PSE kills the current ENERGY STAR (NEEM 1.1) incentive at all in the future, we won't be able to offer the NEEM 2.0 incentive by itself.

6. Timeline:

- a. September – December
  - Develop marketing strategy
  - Manufacturer engagement
  - Finalize manufacturer commitments
  - Utility outreach on NEEM 2.0 planning
- b. January – Q1
  - Launch upstream incentive pilot with Manufacturers

## **RPAC Round Robin**

### **Puget Sound Energy**

Have implemented Nexant (Demand management Side Central) planning system, now have all commercial and residential programs loaded. Will make reporting a lot easier. Avoided costs – now deferring to state cost effectiveness tests instead of Total Resource Cost (TRC) starting January 2018 for the next biennium. Will allow us to run LIW gas conservation programs and still do a good job on electric side. Our TRC threshold is .667 for low income weatherization; as long as it's in the Commerce Weatherization Manual we're good. Will do whichever is better for the customer. This has been shared with advisory committee so it's basically public. Just completed phase 1 of line voltage connected thermostat pilot project for multifamily – have 600 Honeywell thermostats hooked up in 250 units; looking forward to what they can do data wise (funded by Washington State University) and working with BPA on expanding the pilot. We believe we have a portfolio ready to move forward, will be confirmed tomorrow.

### **Idaho Power**

In planning phase for 2018; forecasting savings and costs to ensure alignment with IRP target. Residential lighting a challenge because it took off this year, not sure how to forecast for next year. Demand Side Management (DSM) prudence case pending, waiting on order. Have 2017 IRP filed in both OR and ID, get involved from energy efficiency and demand response aspects. Have two Public Utility Regulatory Policies Act (PURPA) pricing cases in Idaho; demand response and energy efficiency affect our capacity, which affects the PURPA pricing. Docket 1893 investigation opened by commission staff on avoided cost for efficiency programs, not sure what it came out of, perhaps they may be looking for more consistent application.

### **Energy Trust**

Update avoided costs for purposes of reporting and efficiencies screening. This summer, we discovered that the value of energy is crashing and the value of capacity is beginning to dominate the value of energy efficiency. Methodology development is really important since we don't know whether capacity challenges are in summer or winter. RPS bill created a loading order on cost-effectiveness, but doesn't address what we are avoiding. Recommendations are expected in 3-6 months. Having to do 3-4 things simultaneously: participate in docket to figure out where value lies, review load shapes to evaluate whether there are capacity issues in summer, estimate summer savings, then look separately at summer and winter totals to evaluate both sides. Not sure where all this will land. Went to a market-based line for lighting and retail and multifamily. Working very hard to come up with viable budgets right now. Having challenges with savings in commercial lighting; baselines are eroding savings and we're trying to figure out how to make it all work. Doing the market practice baseline because multifamily tenants shop retail as well. About to announce goals around a diversity and equity initiative, committing time with different ethnic groups to be more effective in that effort. Trying to understand what different markets actually need to engage. Will be interesting to see where that goes.

### **WUTC**

Working with staff on two legislative reports: electric vehicle supply equipment and transmission distribution and planning. Both will plug into IRP rule that we're revising right now. Hired a consultant to help ensure we're not missing anything. Results from the EV supply equipment legislation in 2015 included a policy statement that set out a path forward on decisions for investments, not interfering with market and several other things – available in Docket 160799. Happy to discuss this further with anyone interested.

## **Tacoma Power**

CEO is leaving, doing a search for replacement. Low-income has been time consuming; don't have much left that's cost-effective, not sure there's enough left in portfolio to get trade ally or property managers interested. Tacoma does a significant amount of low-income work so this has been a big challenge. Multiple approaches have been met with challenges. Working through the 2018-19 conservation plan (may not be called conservation plan, something more along the lines of 'energy programs'). Biggest program is commercial lighting rebates program (almost all LEDs). Finally changing out all street lights. Created a rate to cover both energy and depreciation of hardware costs. Since everything is LEDs, decided to decrease incentive levels: \$4 for TLEDs; cap for lighting jobs will go from 70% down to 60% and settling on \$1 for commercial A-lamps. Starting to think about capacity as part of an emerging capacity market; recently sold some excess capacity to Mason 3 and looking for more opportunities. Looking for something quick and responsive to make some money and reduce rate-payer costs. Asked IT folks to develop a "kudos" email flow alert as a hopeful way to remind and inspire staff around customer satisfaction.

## **Chelan PUD**

Looking at new CIS programs (conservation energy efficiency models), looks cost effective. Just got new CPA. Investigating demand response with NEST program; see value in capacity and working with distribution planners – have 14 substations that need to be built but no one wants them near their home. Same issues with low-income, not cost-effective. Just completed community (residential and commercial) audits, taking data to drive targeted marketing efforts. Hired more diverse workgroup, seeing an uptick in energy efficiency efforts in Hispanic population as a result. Project managing LED, county-wide street light retrofit to ideally be implemented next year; have commerce funding, TI funding and state funding to contribute to this to cover 100% of the cost. Haven't had a rate change on those in a long time.

## **Seattle City Light**

Focus on program design and management across all sectors; have a lot going on at all levels. Business Officer just left, Customer Energy Solutions department has moved from Power Supply and Strategic Planning division to Engineering and Field-facing customer service unit. Within division, Strategic Planning and Evaluation manager position has been open for a long time, which has recently been filled so we now have a full team. Working on portfolio and criteria; designing a lifecycle process similar to NEEA's. putting into first AMIs, won't have total functionality immediately. Have an RFP buyout for DSM tracking system. Developing business analytics database to house everything building related; hope this will be a foundation for several reporting needs. Looking for a CRM and a customer digital portal. New billing system up and running. Implementing public, fast-charging EV pilot along with a residential EV pilot; residential pilot may be a power management opportunity. Just implemented a competitive grant green-power purchase program for non-profits, schools and government; had \$1.2MM in grants come in. On residential side, looking at increasing low-income reach on direct install initiatives and collaborating with housing office to evaluate high users enrolling in utility discount programs. On commercial side, Seattle has adopted a new building tune-up ordinance; starts with largest buildings (those greater than 50,000 sqft will be required to do this). Doing an accelerator targeting buildings greater than 100,000 sqft to get them going in advance of the requirement. May have 5-7 MMkw on that program if capacity comes through as expected from the city. Will be piloting virtual energy audits on up to 60 commercial buildings to see if we can replicate a tune-up type effort with the virtual software; RFP has not gone out yet. Hoping to scale Pay for performance program on deep retrofits of large commercial buildings; waiting for Council to grant us contracting authority that extends past two years. Looking at a 3-5 year

timeframe with that. Training all staff on total analytics. On MEETs side, looking to expand pilot with 4 new use cases. Bullet Center being used as pilot for rate-case.

### **Northwest Power & Conservation Council**

With respect to capacity, models finding significant value in capacity and energy efficiency. Every year the Council looks at regional and system adequacy. Expect soon we will become a dual-peaking region. Even though some are long on capacity, others are short, so there's a market there; this is coming and should be top of mind in your program design and cost-effectiveness work. Hard to reach market pilot will launch September 7. RTF work plan is out for next year for comments. Looking to report on regional conservation progress in about a month. Tina Jayaweera and John Olas working on demand response advisory committee. Released draft of marginal carbon impact paper. Publishing a white paper on storage economics analysis, identifying how to value storage, capacity flexibility, and reserve margin work. Working with PNUC to update and upgrade data on transmission and distribution deferral values. TLEDs are on fire, need to focus on the edge of what's next.

### **Bonneville Power Administration**

Still pursuing continuous improvement. Harder look taking shape these days around what exactly BPA's needs are; working with Council on this. New management looking at positioning. BPA still sponsors low-income workgroup. Annual and rate period programmatic aMW will be exceeded. Terri Oliver retired (Tech Innovation Shop), a little concerned around where that might go. Staffing continues to be a challenge, even with retirements occurring replacements are not being hired.

### **Snohomish PUD**

Taking hard look at renewables program; terminated solar express program (homeowner solar installs), replacing with something that better serves population equity. Residential sector, planning to expand outreach with home energy audits and efforts on low income. Last year multifamily program came in less than regular residential weatherization program. Pay for performance pilot program launched in July, have some customers lined up to sign on. Capacity has been the driver, so now in the midst of pivoting programs to target capacity resources, methodology and value. On track to put out next round of targets at of year. Cannabis program huge in-service territory; program has been up for about 9 months and see a great deal of growth potential here. Lighting program exploded so stopped accepting new projects for 2017; went to corporate for another \$1.5MM and blew through that as well. Closely evaluating incentives on TLEDs, echo NWPCC's thoughts on stepping away from incentivizing them anymore. Targeting substations to potentially increase value to district. Looking at timing for AMI, may not happen in the 2018/19 timeframe as originally thought.

### **Portland General Electric**

Reiterating comments from Energy Trust on avoided cost document. Sense the commission is seeking consistency. 2016 IRP focus on demand response. Trying to ramp up existing programs, including Nest and C&I programs. Looking at water heaters in addition to existing work on BPA pilot. In process of replacing meter data management and CIS system, will be focusing on this first and second quarter of 2018. New CEO in place in December, Maria Pope.

### **Clark Public Utilities:**

Recognized by JD Power for highest in customer satisfaction for mid-size public utilities for the 10th year in the row. No rate increase planned until at least 2020, haven't had one since 2011. Getting several manufacturing companies seeking industrial space. Grappling with data center inquiries with respect to job market benefits. Will save about 11 aMW this year, best ever. CPA for next time around is 25% higher. Trying to stay close to budget, withdrawing some SKUs from

Simple Steps residential lighting program this month. State of Washington production credit for solar proving to be a strong market driver.

### **NorthWestern**

Regarding Energy Efficiency, eliminated all new construction residential, commercial, gas and electric programs with exception of custom incentive program for commercial due to lower avoided costs. Avoided cost and potential just wouldn't support new construction. VP of Regulatory Affairs has left, so EE division now falls under Customer Care, Corporate Communications and Human Resources. Experiencing issues similar to others with respect to demand response opportunities, value capacity and T&D. In low-income, put nearly \$4 million into low-income weatherization in 2016. Program is structured so that it mirrors state-federal programs. On renewables, we eliminated our incentive on residential PV (solar) a few years ago because prices came down and installations were occurring without the need for incentives. Put about half a million in incentives toward small scale renewables; now put those funds towards broad public purpose projects. Looking to hire an engineer to fill a vacancy, also just brought on new engineer in May. Hard to reach markets – need to connect further with Harvey at NEEA on contributing data to better serve this market.

### **Community Building Renewal (page 11 in [packet](#))**

Ken Baker (NEEA) presented on the Community Building Renewal project. Funded through Department of Energy (DOE) dollars, this project has guided four regional cities (Boise, Tacoma, Eugene and Missoula) through a process of strategic energy management (SEM) for assessing and managing upgrades to their public building portfolios. *The desired outcome is for RPAC to discuss how best to use Community Building Renewal work to influence local policies in support of EE efforts, and how to best support these continuing efforts as a region.*

#### **Presentation Highlights:**

- 1) Serving utilities were partners in the process for each of the four city governments
- 2) Project Background:
  - a. 2012 Funding received
  - b. 2014 New Buildings Institute (full implementation team)
- 3) Goals of SEM Process:
  - a. Replicable process for small to mid-size cities (Possibly K-12)
  - b. Long-term, strategic approach to conserving energy in municipal buildings
  - c. Develop roadmap that that's logical and actionable
  - d. Data for decision making (a critical piece)
  - e. Automate data validation
  - f. Portfolio level diagnostics
  - g. Lifecycle visualization
  - h. Code sensitivity
- 4) Data cleansing is a critical component of the process
- 5) Goal is to help cities prioritize biggest impact
- 6) Interesting findings thus far:
  - a. Community pools shown to have greatest share of end-use load for heating, in blind example it was almost completely gas heat.
  - b. That EUI (kBtu/sqft) doesn't always translate to total Energy Use (kBtus)
  - c. Virtual Energy Auditing Tool
  - d. Using MAALKA data base to validate and cleanse data attributes; easy for cities to upload to and receive data feedback. New Building Institute's FirstView provides a load disaggregated, high level audit for buildings.

- 7) FirstView Reports include end-use signature by average monthly temperature, energy consumption by end use category, automatic diagnostics and custom notes.
- 8) Protocol for Existing Building Upgrades:
  - a. Weigh energy use against comfort, maintenance, etc.
  - b. Operational and behavioral upgrades first
  - c. Low hanging fruit
  - d. Load reduction
  - e. Strategic capital improvements (well-planned based on ROI)
  - f. Sensitivity analysis based on climate
- 9) Next Steps:
  - a. Analyze regional savings potential
  - b. Finalize a simple guide for cities and K-12
  - c. Final report on project – accomplishments, lessons learned

**10) RPAC ASK:**

- a. *Do you see longer term opportunities for Community Building Renewal pilots?*
- b. *How can we best expand CBR and engage you?*
- c. *Should CBR be a NEEA program? Should it belong to utilities?*

**Discussion:**

- **Tacoma:** *How much have you worked with utilities directly on this? **NEEA (Ken)** replied that Tacoma Power was involved in all the steps.*
  - **Tacoma** noted that this is a challenge to wrap their heads around because it's a tool different than what they're using.
  - **NEEA (Ken)** clarified that those Tacoma systems will communicate with the MAALKA database, the greater challenge is getting cities to commit and need a real process for them to commit; that's what this is will provide.
- **WUTC:** *What about Missoula and Boise; what was the experience there?* **NorthWestern** noted that there were some challenges initially on usage information, but have figured out problem solving around other issues; not completely sure about the City of Missoula's perspective on this. Haven't seen additional energy efficiency work out of this project yet.
- **NEEA (Ken):** Agreed with NorthWestern's comments. It took about 9 months to get everything up and running initially, anticipate that timeframe to shorten as time goes on and processes are streamlined. Good press came out of the Missoula effort.
- **Energy Trust:** Have a lot of initiatives going with local government, have a process and relationship system setup, but not sure we have the analytics piece setup as well as what you're doing here. *Are there parts of the analytic platform that could be adopted within programs?* **NEEA (Ken)** confirmed that's possible. Pierce County in Tacoma Power's region is doing this.
- **Tacoma Power:** Have some issues right now with commercial SEM and see this as a possible solution to that.
- **BPA:** Not seeing the capability to quantify results of energy use and how it moves over time, trending, Energy Use Index (EUI), etc. that would be consistent with M&V protocols like what the RTF has adopted around capturing energy savings. **NEEA (Ken)** noted that there wasn't time to present all of the program pieces, for example, a communication function (MailChimp) built into this system and the time piece is there and functioning.
- **BPA:** *Did you detect/read from participants whether there is need for financial support from the utility?* **NEEA (Ken)** replied no.
- **BPA** added that this could be a marketing/awareness building platform to embed savings when equipment is changed out, etc. *Does the capability address anything*

other than energy? **NEEA (Ken)** replied that the database can process any data you put into it.

Final report will be made available at end of October. Ken offered to setup a webinar to discuss and review this further with anyone interested; reach out to him in the meantime if you have questions or interest ([kbaker@neea.org](mailto:kbaker@neea.org) | 208-861-5736). **ACTION ITEM: Share with Commercial Advisory Committee (CAC).**

- **Idaho Power:** Be cautious to assume that other cities in Idaho have the same interest as Boise. Also, hope this takes into account wastewater and water supply cohort, think this does motivate other capital projects.
- **WUTC:** *What does NEEA think of this?*
- **NEEA (Julia)** replied that it seems there's good value in it but we're still working to evaluate this, don't typically do this. **NEEA (Emily)** added that there's still a question on implementation and perhaps that's a role NEEA could fill if needed.
- **PSE:** Would like to hear more about this opportunity.
- **NEEA (Julia)** added this could end up being a lot of different things; for example, a program structure for utilities or something NEEA sets up to hand off.
- **WUTC:** Sounds promising. From regulatory perspective would appreciate knowing there's an M&V component to it.
- **NEEA (Julia):** If the cities can see the value and experience how to do SEM themselves, they can encourage their communities to do it.
- **Seattle City Light:** would be interested to see what cities are already doing something like this. There's a lot of actors in the market place for energy analytics and that market place is becoming more and more interconnected. Being cautious about how involved the commercial marketplace is in the tool because they're more adaptive than utilities. **Snohomish PUD** agreed.
- **Tacoma Power:** If were thinking about this as commercial SEM, we're missing an energy champion. You have a bunch of facility managers but they're not used to doing energy efficiency as a career. Maybe that's a role for NEEA – to train energy champions to take and own it to make it turnkey for utilities and others. They would have to know a lot about databases, utilities, etc.
- **NEEA (Emily)** agreed with Tacoma; the NEEA SEM program seeks to meet that goal. Without resources and consistency, however, that will be a gap. This could be a supplement.
- **Energy Trust:** It would be useful if there was a list of cities that signed the Paris Accord. That would be an early indicator. It's rare that cities have the labor to support this.
- **Snohomish PUD:** If you're taking it to CAC, heads up; most of this is handled in our Account Management department and it would be nice to have some account managers attend.
  - **ACTION ITEM: Ken to setup webinar**

## ENVIROSTARS (CA Based Program)

Snohomish PUD announced that Snohomish and King counties, several waste carriers and cities are engaging to bring this program to Washington. Working with ENVIRO STARS program out of California. If you're interested in learning more, contact Jessica at Snohomish PUD ([jamitchell@snopud.com](mailto:jamitchell@snopud.com) | 425-783-8163).

## Natural Gas Mid-Cycle Review (page 12 in [packet](#))

Julia Harper (NEEA) presented on the progress with the Mid-Cycle Assessment. *The desired outcome is for RPAC to understand regional feedback on NEEA's Natural Gas work, and relevance to RPAC's continued discussion on dual-fuel funded initiatives.*

### Presentation Highlights:

- 1) Status update today; final report coming out at September board meeting.
- 2) Recap:
  - a. Natural Gas Mid-Cycle Assessment is to evaluate the progress of the Natural Gas program thus far.
  - b. Mid Cycle Assessment committee members include: Holly Braun (NW Natural), Monica Cowlshaw (Cascade Natural Gas), Andrew Grassell (Chelan PUD), Fred Gordon (Energy Trust of Oregon), Clay Norris (Tacoma Power), Bob Stolarski (PSE)
  - c. Opinion Dynamics hired as consultant to handle assessment
  - d. Explored 6 keys areas:

#1 Product Advancement	#2 Cost Effective Savings
#3 Market Transformation	#4 Adherence to Core Principles
#5 Value Proposition	#6 Organizational Health

- 3) Key findings:
  - a. Found stakeholders are very satisfied with the management of the gas portfolio and communication methodologies.
  - b. Majority of market actors feel NEEA's activities are valuable and significant, particularly in the advancement of gas technologies in the market.
  - c. Some stakeholders expressed governance concerns, particularly lack of gas-only representation on the NEEA board.
  - d. Concern that some core technologies that were mapped out as early wins did not pan out; despite that, most funders are still pleased with the progress of the portfolio.
  - e. Two out of the five of initiatives in portfolio are on track or ahead of schedule according to the Business Plan.
  - f. Two initiatives targeted as early wins (dryers and hearths) were somewhat derailed due to product performance issues or realization that savings and/or cost-effectiveness estimates came in lower than anticipated. NEEA has redirected efforts accordingly and is still pursuing those on slightly different paths, which is taking a bit longer. Most stakeholders see those setbacks as disappointing but still valuable with respect to avoiding product recommendations where customer satisfaction or energy savings would be disappointing.
  - g. Became clear that committee members have differing expectations about when savings would be achieved.
  - h. All want to see savings realized this cycle, or early in the next cycle, in order to be willing to fund another cycle.
  - i. Most funders are committed to continue to fund next cycle; however, one funder is significantly worried about lack of progress and believes the portfolio

should be reviewed and reset before moving forward in this cycle. Another funder believes the potential for savings needs to be reevaluated before they're willing to move forward with funding.

- j. Committee members have different expectations around whether NEEA should be involved in pre-commercialized work. Even though this activity was included in the business plan, continuance thereof is in question.
- k. Most felt gas and electric integration is not ready at this time, but there is some desire to evaluate possible baby steps around planning for possible dual-fuel integration.

**Discussion:**

- **Energy Trust:** Focus has been on gas-only technologies thus far. Agreed that there were different expectations at the onset. Since working on this, however, there has been potential gas-electric issues have risen and create some concern due to segregated fuel management (co-governance issues). Example of Dettson furnace testing results – this was a test on a different technology that resulted in some important learnings and potential for savings. To do some of the things we're talking about may require some level of integration.
- **NEEA (Julia):** Need to focus on how to make it a win-win.
- **Energy Trust:** A lot of it is figuring out the baby steps around parallel funding; that may help move the experience along to get our feet wet.

## **Emerging Technology – RETAC 2.0 Preliminary Report (pages 13-28 in [packet](#))**

Mark Rehley (NEEA) provided a RETAC 2.0 preliminary report. *The desired outcome is for RPAC to receive a preliminary look at RETAC 2.0 development and progress to date.*

**Presentation Highlights:**

- 1) Goals:
  - a. Address action plan from 7<sup>th</sup> Power Plan to improve regional coordination
  - b. Align investments of RETAC members in ET
  - c. Generate insights and opportunities for collaboration
  - d. Proactively manage pipeline
  - e. Avoid duplication
  - f. Structure effort according to the 7<sup>th</sup> Plan's MCS-4 action plan item
- 2) Half of savings from 7<sup>th</sup> Power Plan are from Emerging Technology (ET) new measures
- 3) 2.0 components:
  - a. Regional view of the work
  - b. Consistent approach
  - c. Readiness assessment: evaluate market, product performance and programs
    - i. Ex: Heat Pump Water Heaters
- 4) Pipeline consists of 100s of technologies that feed 10s of measures and ultimately 1000s of applications/measure applications. Each of these pipeline phases can have projects.
- 5) First step focus is on commercialized products that have potential to save energy at the product level.
- 6) Update:
  - a. As of July, 77 products and 105 projects (from all RETAC 2.0 members) in the database.
  - b. Recent enhancement allows for capture of products/projects with electric-only, gas-only, or electric and gas savings
- 7) Product and Project report overview (refer to details in the [packet](#)):

- a. At first glance, readiness levels by product came out fairly distributed, not concentrated in any one level/phase indicating a balanced pipeline.
  - b. By project (the research that informs on the product, service or application), a greater number of projects were ready in the higher levels (3-6), typically because the additional work happens at later levels when more information is known and there's greater confidence; this indicates a balanced investment.
- 8) Additions (Gas focused)
- a. Modulating valve retro-fit fryers
  - b. Drain heat recovery heat exchanger
  - c. Turbopots
  - d. Kitchen exhaust heat recovery
  - e. Commercial dryer moisture 'sensor'
  - f. Through-the-wall condensing heat, MF
  - g. Integrated air and water RTU
  - h. Gas water heater; non-electric ignition
  - i. Zoning technologies
  - j. Add-on non-condensing boiler economizers
- 9) Open questions and comparison by industry were also shared, but not thoroughly discussed due to time limitations. Refer to [slides 66-69](#) for detail.
- 10) 2018 Scanning Options:
- a. Data Centers
  - b. Whole building approaches
  - c. Task/ambient HVAC
  - d. Refrigerant changes
  - e. Advanced network lighting controls
  - f. Heat Pump Water Heaters
  - g. Advanced thermostats

**Discussion:**

- **Tacoma Power:** Guessing that some products or projects might spend a longer or shorter period of time within any given level depending on the needs and initial data results.
- **NEEA (Mark)** agreed and noted that one of the next steps in analysis he's hoping to dive into is to code the readiness levels by organization to evaluate who is spending time at which levels. Also, gas pitched in on the cost for this and now all the gas technologies are loaded into this database as well.

## Meeting Wrap-up:

**Public Comments:** None

**Committee comments and debrief:**

- **Snohomish PUD:** Great lunch.
- **Energy Trust:** Wondering about whether CAC should have heard about the Community Building Project first.
- **Snohomish PUD:** Utility Shape mapping conversation – was there a heads up on this? **Tacoma Power** noted they thought an email went out about three weeks ago.