Conservation Advisory Council Meeting Notes

November 17, 2017

Attending from the council:
JP Batmale, Oregon Public Utility Commission
Holly Braun, NW Natural
Julia Harper, Northwest Energy Efficiency Alliance
Wendy Gerlitz (NW Energy Coalition)
Kari Greer (for Don Jones, Jr.), Pacific Power
Charlie Grist, NW Power Planning Council
Roger Kainu (for Warren Cook), Oregon Department of Energy
Garrett Harris, Portland General Electric
Liz Jones, Citizens' Utility Board of Oregon
Lisa McGarity, Avista
Carrie Nelson, Bonneville Power Administration (for Brent Barclay)
Allison Spector, Cascade Natural Gas

Attending from Energy Trust:
Kathleen Belkhayat
Tom Beverly
Amber Cole
Mike Colgrove
Hannah Cruz
Sue Fletcher
Fred Gordon
Jackie Goss
Judge Kemp
Oliver Kesting
Steve Lacey
Amanda Potter
Thad Roth
Kenji Spielman
Art Sousa
Peter West
Mark Wyman

Others attending:
Lindsey Hardy, Energy Trust board (by phone)
Don MacOdrum, TRC
Lonnie Peet, Nexant
Elaine Prause, OPUC
Bob Stull, CLEAResult

1. Welcome, Old Business and Short Takes

Hannah Cruz convened the meeting at 1:30 p.m. The agenda, notes and presentation materials are available on Energy Trust's website at www.energytrust.org/about/public-meetings/conservation-advisory-council-meetings/. The residential staffing agenda item was moved to the February meeting.

Amanda Potter provided an update on funding for Portland General Electric large customers. An increased funding cap for PGE large commercial and industrial customers put forth by various stakeholders through PGE's rate case (UE 319) was approved by the OPUC. The change raises the cap from 18.4 percent to 20 percent. Staff incorporated the potential for this change when developing the draft 2018 budget; therefore, no changes to the budget are needed.

Charlie Grist: Was there much discussion about it with the commission?
JP Batmale: In the PGE rate case, Citizens' Utility Board pushed for it. There were issues around equitable distribution of funding from people who pay into SB 838 and the benefits they receive, leading to an investigation about the stipulation. Because UE 319 is a contested rate case, it was not a public discussion. This change was one of the stipulations from the rate case and there are a number of others.

Hannah Cruz: As a reminder, please send me any comments on the previous Conservation Advisory Council notes, so we can make any necessary changes.

2. Measure Updates
As part of our annual measure development and budgeting processes, staff have engaged Conservation Advisory Council more often this year about measures that were submitted to the OPUC for cost-effectiveness exceptions. Jackie Goss presented a final update on the cost-effectiveness exception requests that were discussed earlier this year. There were seven major measures for which staff requested cost-effectiveness exceptions, and all of them were granted. The length of time given for exceptions was shorter than expected in some cases. The Conservation Advisory Council packet online includes a slide with a complete list of measure exception requests and timing.

Julia Harper: Are there other measures relying on exceptions?
Jackie Goss: This is all we expect in 2018. There are others close to the line, but not for this year.

Holly Braun: What is the New Manufactured Homes package of incentives?
Jackie Goss: That's for eco-rated or ENERGY STAR® home packages on manufactured homes sited in our territory. It's paid to retailers when they upsell customers on more efficient homes.

Peter West: Just like with the large customer funding decision, we anticipated these exceptions would be granted and we incorporated them into the draft 2018 budget.

Marshall Johnson provided an update on two 2018 measure changes. First, there was interest in maintaining the market-rate gas furnace incentive in Eastern Oregon for Avista customers, so staff investigated further whether the incentive was necessary for high-efficiency gas furnaces. Staff found that top performing contractors are already installing high-efficiency condensing equipment in that area. With that information, the market-rate gas furnace incentive for Avista customers will sunset at the end of March 2018, and staff will not differentiate between Eastern Oregon and Southern Oregon.

> Second, Energy Trust currently provides a $75 incentive for clothes washers that will be reduced to $65 in 2018. It works for territories with both electric and gas, but not gas only. We didn't include it earlier in our adjustments. The value is lower with the new avoided costs.
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> There was some confusion at the October Conservation Advisory Council meeting about the new heat pump offering. The incentive for an 8.5 HSPF heat pump is $700. In a home heated by an electric forced air furnace or baseboard heat, we are encouraging an 8.5 HSPF heat pump. You can combine that with heat pump controls for $250, making the total $950. We currently have two tiers of incentives for 9.0 and 9.5 HSPF heat pumps. We want to replace electric resistance heat with heat pumps with the compressor running down to 35 degrees. The goal of the incentive is to get people who install a heat pump to go with high efficiency. We're seeing more 9.5 HSPF heat pumps installed, and the incremental cost between 9.0 and 9.5 is large compared to the differential in savings. This increased volume of 9.5 units and the expiration of the Residential Energy Tax Credit have left the current structure unworkable for the future. We encourage controls on any heat pump installed and there's no HSPF requirement. This applies to existing heat pumps, too. The smart thermostat incentive for 2018 will be consistent with this year.

3. Pilots Update
Kenji Spielman reviewed Energy Trust's approach to pilots. With pilots, we are looking at strategies we expect to be cost effective or new ways to approach a technology. We develop pilots internally, but work with Program Management Contractors on specifics. We maintain leadership and ownership for better prioritization of resources. We try to work out researchable questions, and there are ways to check in on whether or not the pilots match our assumptions. The goal of a successful pilot is to obtain actionable results. Sometimes we learn they will work well. Other times we learn

about major roadblocks. Both are useful. Pilots are also useful for measuring behavioral change efforts, which tend to be difficult to quantify.

> The heat pump pilot in manufactured homes is wrapping up. This pilot looks at creating a block of customers where a contractor can replace heat pumps in a specific group of homes. We're trying to find ways to identify a defined group, like a manufactured home park. We found that it reduced the costs to us and the residents, so we are moving to measure development.
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> An evaluation process follows each pilot. We use data from the pilot to help us structure and quantify research. We use what we learn from a pilot to develop a new savings strategy.

JP Batmale: How do you prioritize which pilots come forward? By technology or savings?
Peter West: Both are considered. We're looking forward at the Integrated Resource Plan along with what's emerging in the markets in other areas—things that are new to our region that worked well somewhere else. It's part of our strategy of looking for the next possible savings sources. It's sometimes done in conjunction with Northwest Energy Efficiency Alliance. It may be the next version of equipment that needs to be field tested. Can we deploy it cost-effectively? That question can be equally important to whether it will work. It includes our own engineering on the program and what Energy Trust staff hear in the markets about new technologies.

JP Batmale: Hannah and her team put together a pipeline chart for the board. Can that be shared with Conservation Advisory Council?
Hannah Cruz: One of the items we prepare for the annual board strategic planning workshop is an emerging technologies pipeline chart, including NEEA's work and ours. I'm happy to provide this information, which is a few levels down from Kenji's presentation.

Holly Braun: Do you also coordinate with Bonneville Power Administration on its pilots and research?
Kenji Spielman: Yes. We are also coordinating with the Regional Emerging Technologies Advisory Committee (RETAC).

Charlie Grist: In the Seventh Power Plan, we looked at a productive way of working with RETAC that looks at new directions and technologies. It seems to be going well. It's good to see you continue your work on new technologies. Sometimes savings don't emerge for a long time, if ever.

Peter West: We also look at the market. We have a list of criteria, and we judge what we have capacity to launch. We think of three levels. Does this measure have large savings if deployed widely? What is the setup? Shat has to happen for other things to move forward? Do we have the capacity to manage it? An example of a small thing that has large implications is the Nest Thermostats, which don't have big savings by themselves but enable other things to move forward. Demand response is a linkage, along with heat pump controls measures. Each of these Nest Thermostats have a little bit of savings, but we gain more using them for other strategies.

Charlie Grist: You prepare the list of pilots every May for the board. Do you feel constrained by the amount you can work on in pilots?
Peter West: We report what's concluding or about to begin. There's some sifting between now and May about what we'll do. It's a matter of capacity. It's done with NEEA and the utilities to make that determination.

Julia Harper: We've made progress on getting annual joint planning meetings between NEEA and Energy Trust on the calendar each year.

Elaine Prause: If you can share that graphic, it's helpful. From the commission's perspective, designing pilots well is a key concern, and I think your framework is good. An annual assessment of your learnings for the year would be a good addition.

JP Batmale: Are there plans to put things that are in the pipeline into a back-of-the-envelope guesstimate for potential savings and market penetration?
Peter West: We do a qualitative look at budget and potential savings. We want to learn if it can work and where it will work, then do the subsequent math to determine if it's worth it to go forward. The market may be tiny.
Kenji Spielman: By design, we keep it simple early in the process.

Charlie Grist: The post-evaluation wrap-up meeting sounds great. Are you looping in the RETAC? They could benefit.
Kenji Spielman: It's internal, but for RETAC we could post the full evaluation results. The report can take a while to be published.

Commercial Pay for Performance Pilot

Kathleen Belkayat gave an overview of Pay for Performance pilot design in May, and is presenting an update today. There is an operations and maintenance pathway and a capital pathway. The capital pathway does include operations and maintenance, but only if greater than 50 percent of savings come from capital. We put together an ally guide, recruited allies and put together a forms workbook for the project phases. We included a cost-effectiveness calculator, a calculator for lighting and a modeling support tool. We now have three allies after the training, and they are recruiting customers using the list we helped put together. There is a tight timeline and we wanted to give them as much time as possible. The buildings must be larger than 50,000 square feet. Once they find customers, they will submit them to determine eligibility and then they'll construct a savings plan.

> The clock will start in mid-2018. We expect about 500,000 kilowatt-hours per year, per project. We listed considerations and budgeted for an impact evaluation to start in 2018. We expect an adjustment factor to come out of the evaluation. Are they over or under estimating savings? Are things becoming code? Incentive levels may need to be adjusted based on what will motivate a customer. Modeling is complicated, based on our Strategic Energy Management experience. We'll open the pool of allies depending on what will be feasible. We want to avoid projects with few measures. We want more measures and deeper savings.

Lisa McGarity: Are your three allies based in Portland? Will recruitment be in other areas? What building types are included?
Kathleen Belkhayat: The list is broader than Portland, and we encouraged project and geographic diversity. The allies are in Portland. We are looking at grocery stores, retail, office and medical office buildings. These are standard operating buildings.

Charlie Grist: Is there likely advanced metering infrastructure (AMI) for these buildings?
Garrett Harris: In PGE territory, yes.
Charlie Grist: That will help the evaluators.
Kari Greer: Pacific Power begins the infrastructure installation for AMI in January.
Kathleen Belkhayat: We're on a monthly data basis for modeling.
Charlie Grist: Consumption patterns will help you target things. It will be another great use.

Wendy Gerlitz: I suggest another evaluation topic: a payback period of three years may limit things. The longer period may be more attractive for both you and the customers. There may be some opportunity to take that to the commission.

Lonnie Peet: What are the barriers? There's only a small number of allies on board.
Kathleen Belkhayat: We had a pool of about 30 Allied Technical Assistance Contractors. They were retro-commissioning companies. All were invited. The timeline was somewhat of an issue. We'll find out more about other barriers, like potential structure and requirements.

Elaine Prause: Are any other implementers doing this? What's the landscape?

Kathleen Belkhayat: New Jersey is doing something similar. Seattle City Light is about on our same timeline, so they are sharing with us.
Wendy Gerlitz: Puget Sound Energy is also doing something like this.
Charlie Grist: I think Snohomish Public Utility District is also working on this. All of them are at about the same place as our area, as far as I know.
Wendy Gerlitz: Seattle included a multifamily building, which is interesting.

JP Batmale: What did the program settle on for the actual performance and limitations? If they over or underperform in the contract, what happens?
Kathleen Belkhayat: There’s a cap of 200 percent of first year on the operations and maintenance pathway and 150 percent on the capital pathway.
JP Batmale: It sounds like, if they over achieve, there’s still something there for them.

New Manufactured Homes Replacement Pilot

Mark Wyman presented on the development for the Manufactured Homes Replacement Pilot. In the past, we have treated manufactured homes similarly to existing homes. We have found that there’s a reason to tailor our engagements and look at them differently.

> Prior to 1976, there was no code on manufactured homes. U.S. Department of Housing and Urban Development created some guidelines in the 1990s. Older homes reach a point where the repairs may not make sense. They remain in use despite their deteriorated state. We used county tax records to determine the rate of replacement but found that the homes are there and not going away.
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> We’re working with manufactured home parks owned by nonprofits. St. Vincent DePaul, Casa of Oregon and Neighborworks Umpqua, which acquired a park in Roseburg. We use participant interviews and utility bill evaluations, and capture the costs of projects as we replace them.
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> We are creating a financial model with partners to create a viable measure. We’re assembling a critical mass of interested parties and thinking about the funding cycles for repairs. We are working together to frontload the investments to make a more lasting impact. We need to develop safe and affordable lending products to serve this market, and we are lining up enough grants so the balance of costs can be affordable. The United States Department of Agriculture Rural Development 502 direct program may be able to adapt to a leased-land structure like this. We are working on a new class of personal property loan with Craft3. A working group was convened to determine the best way to tackle the problem of lending. We need to work together with communities to determine something that won’t put people in a default position.

Lisa McGarity: What is owed by the homeowner after all the funding kicks in? At what interest rate?
Mark Wyman: There aren’t any projects yet, but current financing available through manufactured home dealerships now would start at 10 percent for 10 years, which isn’t workable. The target is to keep payments around $200 to $250 per month. The balance of cost is about $30,000. The product can go out to 30 years depending on borrower criteria. Multnomah County is working with us on the Oak Leaf community. Properties there are rental housing. The balance of cost will be about $25,000 per unit. The process of determining eligibility is still in the works.

Mark continued his presentation. We look at the climate zone and age of unit, starting at a base level of $20,000 per project. We’re looking at ways to close the gap.

Holly Braun: It’s nice to see traction and forward movement. BPA had a workshop on this recently.
Mark Wyman: There’s a savings value from the Regional Technical Forum allowing BPA to include home replacement in its measures. We need to determine how we will work with providers at each step in the process. We need to work with partners at different phases, and on the financing side.

We need to jump in and create a blueprint for how to do this. We're working with BPA on the logistics they're putting in place. Everything we learn will be shared with others.

Holly Braun: Are you figuring out how to keep costs separated to avoid double counting of savings? How do you keep all of those value streams and costs distinct?
Mark Wyman: Costs will be segmented. There are a number of options to avoid double counting of savings, including segmentation of support for given measures. Energy Trust, OHCS and the OPUC have been in dialog, and have agreed on reporting and project segmentation protocols to delineate roles and attribution. This is a complex issue. We believe it is best resolved through a coordinated public investment model.

4. Draft 2018 Budget and 2018-2019 Action Plan Update
Peter West reviewed comments received and changes made to the Draft 2018 Budget and 2018-2019 Action Plan based on those comments and standard quality control checks and internal reviews. Budget comments are due today. Staff has so far heard supportive feedback on the budget and action plans. Concerns were raised about changes in gas savings and costs, and shifts in relative value of program costs for gas in New Homes.

> Staff provided more information for Cascade Natural Gas on the differences between Avista and Cascade Natural Gas levelized costs. There are some differences because there is a different mix of programs. As we mature with Avista, they'll probably match other utilities. Costs seem low for Avista right now, since we inherited some projects with New Buildings where we didn't need to do studies. We could complete the projects without extra costs. We also were slow to get going in such programs with relatively higher costs, such as New Homes.
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> Changes were made to NEEA electric market transformation savings and allocations based on a comment made at the October Conservation Advisory Council meeting. Staff met with NEEA's planning staff to review the allocation methodology between PGE and Pacific Power. The draft budget used a modified allocation methodology that will be reverted back to the previous methodology. We need to look at it again in the future, but the shift we made was too soon. Consequently, in the final proposed budget, PGE savings and costs will go down and Pacific Power savings and costs will go up. Overall savings and costs will not change.
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> OPUC comments will be on the OPUC website over the next month; the OPUC staff memo is already online. The commission supported our budget and action plans at a public workshop this week. The commission and staff expressed concerns with staffing and administrative costs. We addressed these by lowering overall staffing costs modestly.
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> Efficiency expenditures are changing by less than 1 percent. We realized we can press harder on lighting, particularly in Pacific Power territory. We also may be able to get more out of smart thermostats. Both these things increased overall costs from the draft budget to the in-progress final proposed budget.
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> We realized that the New Homes forecast in Eastern Oregon wasn't as robust as we thought it should be and we lowered the goal. This primarily affects Cascade Natural Gas. The drop in PGE savings is the shift of NEEA back over to Pacific Power. NW Natural goes up slightly. The Cascade Natural Gas drop is primarily due to getting fewer new homes. Savings Within Reach and Nest thermostats, along with new homes, caused a slight bump up for Avista.
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> Overall, we reduced staffing costs by about $375,000 in response to the OPUC staff comments. We decided to roll several projects out over time. Portals can be delayed, as can updates to calculators on our website. We also removed a Solar process evaluation and reduced the time for a New Buildings evaluation. We'll look at the measure development and approval processes, and work to gain significant efficiencies there. We also pulled back from

targeted demand-side management projects for the next two years. We will do the follow-on from Pacific Power in Albany, and continue the planning for NW Natural.

Charlie Grist: What does targeted demand-side management mean?
Peter West: We take what we're doing now and target it to a certain area in a short period to get fast results and alleviate capacity constraints.

Holly Braun: You mentioned staff related costs and staff cost reductions of $375,000. Were the examples you gave reductions in staff costs?
Peter West: They were to reduce staffing and contractor costs. Our budget includes contractors hired to run these projects and staff time to hire and manage them. Our staffing cost increases, per the OPUC, will be capped at 10 percent in subsequent years. We are not changing savings or generation goals and expenditures.
Holly Braun: Are these staff or staffing related costs?
Peter: These are staffing related costs.

Julia Harper: What are key drivers for the variation of levelized cost differences between gas utilities?
Peter West: We are still rolling out Avista programs, and the mix of efforts is different in different utilities. The customers and the opportunities aren't the same.

Charlie Grist: When we look at current and historical costs of savings on the electric side in the region, we see the upward cost pressure for the same reasons you mentioned. It used to be much higher on lighting and we drove it down. It was driven by technology. We may see it go back up and we should keep an eye on it.

Elaine Prause: Resource demands on staff are a concern. Does that mean the budget was designed so you have to say no to things, or is there some room as more demands surface?
Peter West: We did say no to some things in response to staff comments and goals. We have to say it more to other things in 2018. Year-over-year growth in projects keeps increasing. Record new home and new building starts create a lot more demand from us for meeting market levels of activity.
Elaine Prause: I understand it takes more delivery, people and time to get the same results. Are there other external demands on delivery?
Peter West: Overall, we are involved in more Integrated Resource Plans than before. Six IRPs are planned for 2018. We added a new utility this year in 2017, and the second year is past the startup phase. The Washington Utilities and Transportation Commission does things differently than the OPUC, so we have to work with two regulatory structures. We are still growing demand and launching new things to meet the markets, but we can't completely let go of older efforts yet. We've been involved in three or four OPUC dockets, and there have been external demands to do more. Schools are demanding more of us. These demands all require more staff time, and we will face more tradeoffs in 2018-19 to manage all the competing demands.

Charlie Grist: I don't recall your volume metrics. Delivery mechanisms are reasonable things to look at for change. Not all are valued in the same way, and it may be valuable to add this to reporting.

Hannah Cruz: We will continue refining the draft budget into a final proposed budget that will go online December 8. We value your input over the past four meetings on budget-related material. Next year, I want to reach out early in the summer to identify what information really resonates and what you're giving input on, and to ensure the process and time continues to be valuable to us and is valuable to you, also.

5. Update on Diversity, Equity and Inclusion Strategy

Debbie Menashe presented on Energy Trust's Diversity, Equity and Inclusion initiative. The draft 2018 budget includes specific diversity, equity and inclusion strategies and the first action plan dedicated to them. Debbie reviewed highlights of the action plan. The draft budget also proposes support for continued Energy Trust organizational activities that are focused on diversity, equity and

inclusion. Among those activities are continued outreach to community-based organizations. Outreach to community-based organizations has helped build relationships among Energy Trust staff and communities around our region. Internally, Energy Trust is also deploying A Diversity, Equity, and Inclusion Lens to its work. The lens is a form that each internal workgroup will consider when they make decisions, asking questions like how will this decision impact different communities? What kind of input do those communities have? What outreach will happen?
Holly Braun: Will some of the information you get on the back end include qualitative information?
Debbie Menashe: The goals are quantitative for the most part, but the work continues to evolve. We did an Intercultural Effectiveness Survey of staff last year to measure those improvements and developments, so there are ways in which we will measure qualitative progress too

Debbie continued her presentation. In addition to the activities mentioned, the board has also been examining diversity, equity and inclusion issues through revisions to its current equity policy. The OPUC included equity and service to all customers in Energy Trust's original goals, and the board adopted an equity policy early on. In reviewing the policy in 2017, staff worked with several experts to determine what other boards are doing in this area, and found little to work with. The board is working on an expanded policy, which is being reviewed. They are interested in continuous learning and review each year, which is more often than other board policies. They are interested in Conservation Advisory Council feedback.

Holly Braun: How do you recognize and reconcile your diversity, equity and inclusion goals with public purpose charge earmarked money?
Debbie Menashe: It doesn't deviate from our other obligations. We coordinate with OHCS on low-income considerations and program coordination. We coordinate with Community Action Partnership of Oregon in the same way. Our programs need to be inclusive without deviating from other policies.
Holly Braun: If money goes into serving a customer group that already has money earmarked for them, I want to better understand how you coordinate and possibly fill gaps in service and don't work cross purposes.
Debbie Menashe: We have a low-income working group internally to ensure we coordinate with utilities and OHCS.

Lisa McGarity: You mention building the workforce. What does that mean?
Debbie Menashe: Demographics are changing in Oregon. We are looking at recruiting strategies, along with internship programs, for people of color and young women in IT that give us a more diverse pool of candidates.

Charlie Grist: Can you give us a flavor of the five questions in the lens?
Debbie Menashe: Have you reached out to impacted communities? Have you considered the impact on these communities?

Kari Greer: There are carve-outs for schools and low-income customers in SB 1149. That doesn't exist in SB 838. Does SB 838 have a gate those customers can't get through? Are we limiting ourselves when we don't have to?
Debbie Menashe: Recognizing that SB 838 is paid by those groups and flows directly to Energy Trust instead of to schools and OHCS, we are looking at how SB 838 funds are used and go back to them.
Kari Greer: We would be supportive of that.

Mike Colgrove: I want to point out that low-income isn't all we're talking about with diversity. Not all communities of color are low-income. There are multiple dimensions and we're talking about all those dimensions.

Debbie Menashe: The changes to the board's equity policy are open for ongoing comment, but it may be recommended to go forward in December.

Holly Braun: When we attempt to be more inclusive and evolve our thinking, it's good that we have these questions to help bring about a shift in the organizational culture.

6. Public Comment
Don MacOdrum: I would like to add congratulations to Energy Trust for another good year.

There were no other public comments.

7. Meeting Adjournment
The meeting adjourned at 4:40 p.m. The next Conservation Advisory Council meeting is Wednesday, February 7, 2018.

Hannah Cruz: Thank you for the time you spend with us in these meetings and all of the reading that goes along with it. We appreciate your time, efforts and input.