

Conservation Advisory Council Meeting Notes

September 16, 2020

Attending from the council:

Jeff Bissonnette, NW Energy Coalition
Anna Kim, Oregon Public Utility
Commission
Jess Kincaid (for Dave Moody), Bonneville
Power Administration
Jason Klotz, Portland General Electric
Keith Kueny, Community Action Partnership
of Oregon
Kari Greer, Pacific Power
Lisa McGarity, Avista

Jeff Mitchell, Northwest Energy Efficiency
Alliance
Rick Hodges, NW Natural
Tim Hendricks, BOMA
Warren Cook, Oregon Department of
Energy
Tina Jayaweera, Northwest Power and
Conservation Council
Tyler Pepple, Alliance for Western Energy
Consumers

Attending from Energy Trust:

Amber Cole
Hannah Cruz
Sue Fletcher
Fred Gordon
Jeni Hall
Marshall Johnson
Steve Lacey
Alex Novie
Thad Roth
Julianne Thacher
Jay Ward
Kate Wellington
Peter West
Amanda Zuniga
Tom Beverly
Cheryle Easton
Kathleen Belkhatay
Elizabeth Fox
Andrew Shepard
Oliver Kesting
Greg Stokes

Shelly Carlton
Amanda Potter
Spencer Moersfelder
Mark Wyman
Tyrone Henry
Susan Jowaiszas
Scott Leonard
Karen Chase
Ryan Crews
Jessica Kramer
Quinn Cherf
Kati Harper
MacKenzie Kurtzner
Wendy Gibson
Michael Colgrove
Peter Schaffer
Kenji Spielman
Debbie Menashe
Jackie Goss
Cameron Starr
Ashley Bartels

Others attending:

Lindsey Hardy, Energy Trust board
Elee Jen, Energy Trust board
Alan Meyer, Energy Trust board
Rep. Pam Marsh
Dave Backen, Backen Consulting
Shelly Beaulieu, TRC
Jon Eicher, ICF
Joe Marcotte, TRC
Aaron Leatherwood, Evergreen Consulting
Alicia Dodd, CLEARResult

Bayo Ware, Casa of Oregon
Neil Grigsby, NEEA
Cassie Hibbert, Wenaha Group
Kyle Hemmi, CLEARResult
Brian Lynch, AESC
Arthur Chaput
Carrie Ng, Utility Advocates
Jenny Sorich, CLEARResult
Misti Nelmes, CLEARResult
John Molnar, Rogers Machinery

Eric Zechenelly, Willamette Homes
Dan Elliott
Karla Hendrickson, ICF
Kelly Fleck, Next Step
Erica Mills, NW Umpqua
Paul Hawkins, Bonneville Power
Administration
Callie Lawson, Craft3
Randall Olsen, CAO Washington
Garrick Harmel, Casa of Oregon
Rob Prasch, Noah-Housing

Brady Peeks, Northwest Energy Works
Melanie Stutler, Eco Act
Pamela Ruddock, South Central Oregon
Economic Development District
Monica Cowlshaw, Cascade Natural Gas
Theresa Deibele
Alejandro Saucedo-Avila, CLEAResult
Patrick Murphy, CLEAResult
Kyle Kent, CLEAResult
Michael Budds, CLEAResult

1. Welcome and Introductions

Hannah Cruz convened the meeting at 1:30 p.m. The meeting was held as a video conference. Prior council meeting notes are posted [online](#) and the council accepted them with no changes. The meeting was recorded.

Hannah Cruz acknowledged attendees' time and competing priorities many are facing due to the wildfires. Because of the large number of attendees, introductions were limited to council members.

Hannah Cruz welcomed two new council members: Tina Jayaweera with the NW Power and Conservation Council and Keith Kueny with the Community Action Partnership of Oregon.

2. Manufactured Home Replacement Pilot Update and Discussion

Topic summary

Mark Wyman presented an update on the pilot, which was recently extended through 2021. He noted the remaining expenditures allowed for the pilot are being prioritized for and combined with Oregon Housing and Community Services' manufactured home replacement program that is in development. Mark Wyman pointed out that the impact of fires on manufactured home communities in Phoenix and Talent has been staggering and will impact how the pilot operates going forward. He introduced state Rep. Pam Marsh, who was a chief sponsor of HB 2896 to support manufactured home replacement and protection of manufactured home communities. Rep. Marsh provided a summary of the fire damage in Talent and Phoenix near Medford, areas with high senior citizen and Latino populations. She called on attendees to identify affordable housing solutions like this pilot to support residents in rebuilding.

Discussion

Rep. Pam Marsh: I have been involved in policy discussions around manufactured home parks for a number of years. My district is in the center of the fire impacted areas. The impact is significant in Talent and Phoenix. About 40% of Talent's land mass is impacted. So far we know we've lost about 2,400 housing units in communities of 4,000 and 6,000 people. We know that 12 or 13 parks are damaged and the homes that were spared may not be habitable. This doesn't include RV parks or apartments. These are low- to moderate-income people, along with seniors and Latinx families.

The good news is that city leaders understand the value of the parks. Planning is underway on a couple of levels, including loan packages for those with lower income. Craft3's package has been limited so far, but now we need to consider how we scale it up. To get people back into these parks will take a lot of work and focus. Replacement homes can be very efficient, but that will mean they are more expensive.

What's happening in my area and other parts of the state will be critical for large numbers of people. Manufactured homes are one of few naturally occurring low-income housing options. I appreciate your support and your expertise.

Mark Wyman: We are able to pursue projects like this under the cost-effectiveness exception framework. The OPUC extended the timeline for manufactured home replacement under this framework. We have completed projects in Portland and the Umatilla reservation. The pilot was designed to serve occupied properties. This requirement will have to shift.

Umpqua Ranch park is still standing, which was one of the cooperatives we worked with. We are thankful for that, but we are still coming to terms with the staggering losses.

Lisa McGarity: Given the scale of this, we could be talking about \$150 million in replacement costs, which doesn't include taking care of the sites. If we pay \$15,000 in incentives per home, you wouldn't be able to scale it up that much. It would be a burden for ratepayers.

Mark Wyman: There's a performance upgrade to be had even if they aren't going to a newly built high-efficiency home. At this point, we know of damage to 16 parks, 15 of which are in our territory.

Kari Greer: Pacific Power supports getting customers back into homes. How we fit in should shake out even further. We are supportive of on-bill financing. Tariff updates may be needed. We are still taking inventory of what was lost here. After we get the full scope is there the opportunity for something like a group buy? Can we work with manufacturers to do large orders and look for discounts that way?

Mark Wyman: There are a lot of experts on the call and we are trying to learn from one another now. The concept has come through in total park redevelopment like Oak Leaf. It helps. We also have to be aware that the Santa Rosa fire in California is having an impact on production and manufactured home inventory. Most facilities have also adjusted production for COVID-19. The surge in demand and the drop in capacity will pose some challenges. Our role isn't to be a buying agent, but we can provide assistance as we did with Umatilla Housing Authority.

Pamela Ruddock: Will there be a time when this comes to Southern Oregon, like Klamath and Lake Counties?

Mark Wyman: We've had projects scattered around the state, but not those exact areas. It's possible that we can move into that area.

Eric Zechenelly: My company helps with replacing homes in manufactured home parks. We are seeing production times ranging from four to 12 months to build new homes. Group discounts are less of an option right now due to demand and surcharges on construction materials. Build time will be the biggest concern right now.

Mark Wyman: Timing couldn't be worse in terms of COVID-19 and demand.

Jess Kincaid: Bonneville Power Administration customers are seeing momentum around replacement, too. The supply chain will be a problem for a while. When you add this crisis we need to take a step back and not exacerbate the supply chain problem. We'll need to work collaboratively. And we need to take a statewide approach to ensure we're not driving up prices.

Warren Cook: The decision makes sense in the context of having to stack several funding mechanisms to make it work. But for action on replacing fire-loss homes, let's brainstorm a quickly deployed program to make sure folks get an efficient home.

Jay Ward: You mentioned a four month build time. Does that pertain mostly to regional manufacturers? There are national nodes and companies out here. Is it possible to use up the capacity here and put some of the demand back on other areas of the country without driving up costs due to transportation?

Eric Zechenelly: Oregon and Idaho serve a lot of this area. Transportation costs would be high to bring homes from California. It would probably add \$3,000 to \$4,000 per section of the home. That's almost a 10% increase in price.

Lindsey Hardy: We recently got a question in Bend for hosting a green tour next week. This is a hard time to do it when so many people are struggling. This brings to mind, if someone is trying to rebuild a single-family home, what resources exist? There's a great opportunity to put this information out, too.

Mark Wyman: I agree. We are still trying to take stock and determine where we can engage. Our residential new construction program can help customers with that work. It's early in the game, but we'll take that as an endorsement.

Elee Jen: Our former board member, Debbie Kitchin, builds green homes. She will have tons of information you can use.

Hannah Cruz: There is a lot of staff interest. We will explore all of these helpful insights.

Comments provided via Zoom chat (edited for clarity):

Warren Cook: The decision to hold remaining incentive funds for the OHCS program makes sense in the context of having to stack several funding mechanisms to make it work. For rebuilding efforts, the state could arrange with FEMA on recovery homes that are built in Oregon and built with efficiently. They could be purchasable by people afterward instead of returning to FEMA.

Elee Jen: How about the idea of reusing material even without LEED material reusing credit? There is a way to quantify the reused material to reduce the material cost.

Eric Zechenelly: Willamette Homes will be reaching out to park owners directly to start the process to redevelop communities. If anyone wants more information email info@willamettehome.com.

Next steps

Updates on the pilot will be provided to the council over the next year.

3. Update on Goals Forecast and Measure Changes

Topic summary

Peter West and Alex Novie discussed Energy Trust's progress toward 2020 energy savings goals. Due to the economic slowdown related to COVID-19, staff initially forecast in spring that the organization would achieve the 60% range for the electric savings goal and about 70% for the gas savings goal. The latest year-end forecast from July indicate achieving 90% or more for both electric and gas goals. (See [slides](#) for more details.) The savings goal forecast doesn't

account for the wildfires as it was prepared before the fires. Staff will reforecast and update in a month for budget purposes

Discussion

Council members asked about windows and if they are the thin triple pane ones NEEA is working on, noting the cost is still fairly high but is supposed to come down (Tina Jayaweera). Staff said Energy Trust does work with thin triple pane windows; it is not limited to thin triple pane on Tier 3 windows, but any units that can achieve a U-value 0.24 or lower.

Next steps

Responses to questions on measure changes were emailed to council members after the meeting and are copied below in [Appendix A: 2021 Measure Changes Questions](#).

4. Draft 2021 Action Plans Preview

Topic summary

Staff presented a preview of 2021 draft action plans for each sector, along with the business lighting initiative and overarching context. The presentation included new strategies for 2021 and changes from 2020, including a new program design for business lighting and Existing Buildings and merging Multifamily with Existing Buildings. Overarching themes included a decline in consumer spending for a large segment of the population, along with businesses. Areas of focus will include underserved populations and marketing as efficiently as possible to reach them. Details are provided in the [presentation slides](#). The council will provide input in a workshop on October 14, and the final proposed budget will go to the board for approval in mid-December.

Discussion

Council members asked what pilots Energy Trust is running or planning to run and how are location-specific incentives being structured (Jason Klotz). Staff said it plans to integrate data-centric differential baselines into measure development to identify and overcome barriers in underserved markets. This approach considers whether measure elements (such as measure life, consumption patterns, non-energy benefits and incremental costs) are consistent across all markets. If not, it may collect market data to develop differential baselines for the measure.

Members also asked about specific strategies, targets and goals for serving low-income communities (Keith Kueny). Staff provided information after the meeting on this. Primary low-income strategies relate to expanding relationships with low-income agencies to coordinate funding of insulation, windows and heating system improvements. This builds on a co-funding demonstration project over the past 15 months with the Community Action Agency of Washington County. Another strategy is to work with community-based organizations to deliver no-cost ceiling insulation, water heaters and HVAC installations to their clients.

Members asked when results for the reforecast are expected (Lisa McGarity). Staff said results will be available in November, noting it will be an estimate similar the spring forecast related to COVID-19.

Next steps

Staff to follow-up with council members on the measure-specific questions and low-income question.

5. Existing Buildings and Commercial Lighting RFP Results

Topic summary

Energy Trust recently completed a request for proposals for the Existing Buildings program and business lighting. Existing Multifamily will be combined with Existing Buildings under the new

structure. The board approved the staff recommendation. TRC Environmental was selected as the new PMC for Existing Buildings and CLEAResult was selected as the business lighting PDC. Oliver Kesting provided more detail on transition. Tyrone Henry discussed diversity, equity and inclusion components.

Discussion

Council members said they were concerned whether diversity, equity and inclusion goals include people in rural communities (Lisa McGarity). Staff said community-based liaisons will do training and outreach outside the Portland area and staff will work with the Program Management Contractor to identify additional community-based liaisons in other communities.

Next steps

None.

6. Large Electric Customer Funding Activity

Topic summary

Steve Lacey covered the annual analysis of incentive spending provided to large electric customers, those who consumer 1 average megawatt or more of electricity per year at a site. These customers do not pay the supplemental public purpose charge allowed under SB 838 and do not benefit from Energy Trust expenditures of those funds. To monitor this spending cap, staff complete a spending report every year. In Pacific Power territory, the spending threshold is 27% and currently at 19%. In PGE territory, the spending threshold is 20% and currently at 19.9%.

Energy Trust's industrial sector anticipates staying just below the 2021 cap. There may be a PGE megaproject in 2022 that could push it over the threshold. Staff will monitor that to determine if changes are needed.

Discussion

None.

Next steps

None.

7. Public Comment

There were no additional public comments.

8. Adjourn

The meeting was adjourned at 4:25 p.m. The next Conservation Advisory Council meeting will be a virtual budget workshop scheduled on October 14.

Appendix A: 2021 Measure Changes Questions and Answers

1. Residential Gas Tankless Water Heater: Gas Line Upgrades and Snap Back

How is this incentive offer different from the one provided 10 years ago? How do you account for the gas line upgrade (or not)? How do you ensure systems are using existing pipe size? Is there any snap back on the tankless units?

Tankless Water Heater Gas Line Question and Comparison to Past Technology

Up until recently tankless water heater technology almost always required an upgrade to a ¾" gas line so those cost were included in the Energy Trust cost-effectiveness screen and led to the last iteration of the tankless water heater (circa 2010) offer to not be cost effective. Improvements in the technology allow for newer tankless units to operate off a ½" gas line; however, it's understood that the majority of installations still require a ¾" gas line to serve the gas appliance load in the home. The measure is cost effective for those installations that don't require the upgraded gas line or when the cost of upgrading the gas line is not assumed by the customer. Therefore, the offer will be downstream to ensure the contractor can accurately report the cost associated with the installation. This is similar to the 2010 version of this offer in that it was delivered downstream; however, that offer was applicable to any home with gas service and allowed upsizing of gas lines, when needed.

Tankless Water Heater Snap-Back Question

Energy Trust does not study snap back, or increases in energy usage, as a separate issue. When we conduct evaluations of measures like water heaters, we usually do a billing analysis. Any snap back (or increase in use) is captured in the pre/post comparison of energy use. So, we consider it as part of the whole in terms of a savings value, but don't separate it out for measure analysis.

2. Residential Ductless Heat Pump (DHP) Cost: Current Offer and Low-Income Direct-Install Targeted Offer

Questions about cost screening for current market wide DHP offer, including electrical panel upgrades. What costs do you include for the DHP low-income direct-install targeted offer? How many DHP units are targeted for installation at low-income residences? How do you approach increased usage from the addition of cooling when DHPs are added in homes where there had only been zonal heat?

Costs for Current Typical Retrofit DHP Offer in Market

Analysis of past DHP projects determined that a primary driver of high cost was more than one indoor head. The current DHP offers for market rate, Savings Within Reach and single-family rentals are designed for prescriptive DHP installations. Based upon our implementation and market experience, we assume that DHP installations do not regularly require a significant upgrade to the electric system that would drive up the installation cost.

When screening for cost effectiveness in our DHP measure analysis, we used costs from past Energy Trust projects for prescriptive DHP retrofits. In our cost-effectiveness screening, we assume the majority of installation scenarios for these DHP retrofits do not include significant costs from electrical upgrades. Project invoices, however, do not break out installation costs at that level of detail.

Costs and Estimated Volume for Targeted Low-Income Direct Install DHP Pilot

Energy Trust is in the process of developing a targeted offer for DHP direct installs in low-income homes and our measure analysis has yet to be completed. Part of the learning objective of the pilot is to understand the characteristics of suitability of these homes for the prescriptive

DHP upgrades. The program design aims to identify the best candidates for prescriptive direct installation of DHPs in low-income homes. If the home requires significant upgrades for health and safety beyond the prescriptive install, our current thinking is that these projects would be excluded from this pilot offer and referred to low-income agencies for other funding.

Staff anticipates approximately 75 installations of this targeted offer through March 2021. Energy Trust will update CAC on the final program design and lessons learned from implementation in 2021.

Cooling Saturation Assumptions and DHP Retrofits

Energy Trust makes assumptions about what would have happened without the DHP retrofit. In our savings analysis for DHPs, we start with a billing analysis. In a fraction of homes without prior cooling, the added summertime load reduces initial savings estimates. Energy Trust's 2019 DHP evaluation asked participants about planned purchases of cooling equipment and found that approximately 20% of homes would have purchased some form of cooling while maintaining existing heating – which would have added similar or greater summertime loads. This saturation – along with the prevalence of existing cooling – was used to weight savings, costs and non-energy benefits in our measure analysis.

3. Commercial Heat Pump Water Heater (HPWH) Warranty

Would installing a residential HPWH unit in a commercial application void the warranty? Are there concerns about providing an incentive for products in an application they aren't designed for without a warranty?

Commercial HPWH Warranty

According to the Regional Technical Forum, manufacturers limit the warranty of residential grade heat pump water heaters in commercial spaces to one year. There are warranty considerations for this measure, but the market seems to have sorted this out to a degree. We assume that if a customer is making the choice to install this smaller-sized water heater, they believe it will fit their needs.

4. Sharing Energy Trust's Measure Approval Documents (MADs)

Can Energy Trust share measure approval documents (MADs) with council members, possibly including them in packets once they are developed/published?

Sharing Energy Trust's Measure Approval Documents (MADs)

Energy Trust's Measure Approval Documents (MADs) are the final description of our measures, analysis and demonstration of cost effectiveness for all our prescriptive and semi-prescriptive measures. Energy Trust can continue to provide MADs upon request for members; however, we don't plan to distribute all MADs to members or in meeting notes. We produce between 60-100 documents per year, which is more than we anticipate members wanting to read. MADs are written for internal purposes and not currently written for external audiences or stakeholders. Changing the format and adding content to meet the needs of stakeholders would require more time and resources for our measure development teams than we currently have in our schedule and budget. Additionally, MADs are completed as the final step of our measure development process. Often, they are not yet finalized before we bring a topic to CAC – especially when we're asking for the council's input on something that might change our approach or analysis.

Energy Trust can provide more detail on measure development and analysis for interested members beyond the "Year-End Changes" topic discussed at the September 2020 council meeting. If of interest, Energy Trust staff can work with members to develop potential agenda items on measure development in 2021.