

Conservation Advisory Council Meeting Notes

May 22, 2019

Attending from the council:

Holly Braun, NW Natural
Charlie Grist, Northwest Power and Conservation Council
Dave Moody, Bonneville Power Administration
Jeff Mitchell, NW Energy Efficiency Alliance, for Julia Harper
Warren Cook, Oregon Department of Energy
Wendy Gerlitz, NW Energy Coalition

Tim Hendricks, Building Owners and Managers Association
Kari Greer, Pacific Power
Anna Kim, Oregon Public Utility Commission
Danny Grady, City of Portland Bureau of Planning and Sustainability
Jason Klotz, Portland General Electric
Kerry Meade, Northwest Energy Efficiency Council

Attending from Energy Trust:

Hannah Cruz
Fred Gordon
Peter West
Ryan Crews
Debbie Menashe
John Volkman
Jackie Goss
Cameron Starr
Kenji Spielman
Alex Novie
Lizzie Rubado
Spencer Moersfelder
Steve Lacey
Mark Wyman
Kati Harper

Kate Wellington
Ashley Bartels
Jeni Hall
Peter Schaffer
Amber Cole
Jessica Iplicki
Michael Colgrove
Amanda Zuniga
Kirsten Svaren
Kate Hanson
Jack Cullen
Rob Strange
Jessica Kramer
Jay Olson

Others attending:

Alan Meyer, Energy Trust board
Lindsey Hardy, Energy Trust board (on phone)
Elee Jen, Energy Trust board
Shelley Beaulieu, TRC
John Molnar, Rogers Machinery
Whitney Rideout, Evergreen
Jenny Sorich, CLEARResult

Aaron Leatherwood, Evergreen
Nick Dreves, ICF
Joe Marcotte, Lockheed Martin
Greg Harr, Evergreen
Jon Eicher, ICF
Karla Hendrickson, ICF
Laura Hall, ICF

1. Welcome, Old Business and Short Takes

Hannah Cruz convened the meeting at 1:32 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 meeting was recorded on Go To Meeting. If you'd like to refer to the meeting recording for further detail on any of these topics, email info@energytrust.org.

2. Guest Speaker: NW Energy Coalition

Topic summary

Northwest Energy Coalition Policy Director Wendy Gerlitz provided an overview of recent clean energy advancements in Washington State, including three of the major bills her organization worked directly on. Northwest Energy Coalition's website contains a legislative digest with more information.

Discussion

The first bill, SB 5116, aims to transition the electric sector to 100 percent clean energy by 2045, with a key provision that coal-fired energy cannot be charged to customers after 2025. The bill also states that all electric utility retail sales must be greenhouse gas neutral by 2030 and electric utilities are required to pursue all cost-effective efficiency and demand response. The bill would begin factoring the social cost of carbon at a 2.5% discount rate. It also contains a low-income assistance section requiring all programs to make funding available by 2021. The requirements extend to all electric utilities.

The second bill, HB 1257, will implement energy performance standards for large commercial buildings. It includes a tiered implementation time period to meet the standard, which must include energy use intensity targets by building type. Another part of the bill introduces energy efficiency standards for natural gas utilities and requires that by 2022 all natural gas utilities must identify and acquire cost-effective conservation incorporating a 2.5% social cost of carbon instead of the current cost of carbon compliance.

Holly Braun: Using the social cost of carbon should create a higher bar and make more measures cost effective.

Hannah Cruz: Since we serve customers in Southwest Washington, would this affect our processes?

Holly Braun: Yes and no. We already get all cost-effective energy efficiency. We have to change one of the components of the cost-effectiveness calculation to include the societal cost of carbon. We don't think there's a huge difference but it's worth exploring.

Wendy went on to describe the third bill, SB 2044, which creates new energy and water use standards for 16 appliance products, and also allows the Department of Commerce to update the standards.

Next Steps

No next steps.

3. Review of Draft 2020 Organizational Goals

Topic summary

Staff described the process to developing the 2020 organizational goals. The goals are still in draft form and will be revised with further staff input and with feedback from members of the Conservation Advisory Council and Renewable Energy Advisory Council. When final, the goals will guide the organization in developing the 2020 budget and action plan this fall.

Mike Colgrove reviewed Energy Trust's draft 2020-2024 Strategic Plan goals in their current form and explained. He noted that this year's process to developing organizational goals is different from past years because the annual organizational goals are being developed ahead of the final strategic plan goals. In subsequent years, the strategic plan will be final and a reference point before developing annual organizational goals.

Discussion

The council broke out into small groups and were given questions to prompt a discussion about the draft goals. Each group reported out their feedback to the group. High-level takeaways are as follows:

Group 1:

- Overall, the first goal felt a lot like business as usual, whereas the second through fifth goals related to how Energy Trust is collaborating internally or externally.
- One concern is how Energy Trust will integrate with other organizations. Will it be cumbersome? From the utility side, the concern is how Energy Trust influence will be perceived in conversations with other organizations. For example, with the goal relating to local and statewide policies, Energy Trust has a lot of influence. How do you avoid showing advocacy while still supporting with technical experience for others to leverage?
- From a trade ally perspective, the goals are a little high level.

Group 2:

- We are supportive of the fourth and fifth goals. We need more clarity on the third goal and are curious to know the effects it may have on entities that currently conduct some of this work.
- It would be helpful to get more clarification on what non-market transformation innovations you're pursuing.
- This doesn't go into specifics so it's hard to give direct feedback. Are these goals in addition to current activity or supportive of it?
- Defining your role is a tangible thing you could call out in here.

Group 3:

- What underlies these goals? They lack specificity and a way to measure progress. Various goals stated seemed to be at different levels; some are broad and others very specific. Either simplify or build out each goal.
- These goals advance and expand Energy Trust's goals. But the current core work about delivery wasn't mentioned anywhere explicitly.
- Regional stakeholders and communities want to be part of the innovation conversation. How would they be impacted?
- We appreciate the exercise, and its valuable to do it early on. It would be nice to add an additional touchpoint to understand why and how the goals were developed.

Group 4:

- Thank you for doing this process. It feels more whole and complete. More time to complete the exercise fully would be great.
- The goals seem more specific to the current time compared with last year. These feel timely for 2020.
- Advancing flexibility is something you always should do.
- The goals should all be high level. It feels appropriate for us to engage with the top-level goal and then be informed on the second, activity-based level.
- Under the innovation goal, you should also identify barriers to innovation.
- In the fifth goal, the Portland Clean Energy Fund and state carbon policy appear to be linked but might deserve partitioning. You can still provide impartial information but figuring out what your role is as it pertains to implementing the Portland Clean Energy Fund isn't called out here. It would go beyond providing information and analysis, and you could expand that.

Group 5:

- Some of the goals seemed too technical.

- We liked the mentions of creating future savings opportunities. That's specific to today. The notion of sustaining efficiency in a changing world was good.
- The goals don't need to represent the totality of what the organization is doing.
- The goal relating to operational improvements was confusing and you may want to re-word it.
- We liked the "create" clause in goal one suggesting advancing and expanding because it reflects a pursuit of innovation.
- On the fifth goal regarding impartial objective analysis, it needs to reflect collaboration. Implementation of policy happens after, but information sharing could occur prior to that.
- Early engagement on developing these goals is appreciated. We would like to be involved in the tactics and understanding implementation strategies.

Hannah Cruz: Do you have interest in being involved in the next steps of the process as the goals are used to inform action plans?

Warren Cook: Yes. It helps link tactical decisions back to the "why."

Next Steps

With this feedback, staff will continue revising the draft 2020 organizational goals. The final goals will be brought back to the council at a later meeting as an informational item. The goals will also be referenced by program staff developing their 2020 action plans, and the council will receive presentations in the fall on this plan.

4. Commercial and Industrial Lighting Strategy

Topic summary

Staff is developing a longer-term lighting strategy for the Existing Buildings, Existing Multifamily and Production Efficiency programs. The council received an early look at the savings forecasts and how programs are proactively planning for anticipated savings declines.

Discussion

Jessica Kramer reviewed five-year lighting projections for commercial and industrial lighting. Staff convened a lighting strategy team to better understand future program savings and proactively plan for an expected reduction in savings from commercial lighting measures, which currently account for almost half of the total savings for the Existing Buildings, Existing Multifamily and Production Efficiency programs.

The lighting strategy team examined market effects for each technology to understand its savings potential, then looked at the delivery model which predicts cost effectiveness and whether each measure could continue. The team explored two scenarios: one in which there were no changes to the programs and another that factored in new program and delivery models.

Alan Meyer: Why is lighting not going to be cost effective?

Jessica Kramer: It's the changing baselines. There are fewer savings because highly efficient LED technology will become the standard.

Jessica described that the second scenario could include increased midstream delivery of commodity LEDs and a better designed program that could potentially provide design assistance to customers for major remodels. The second scenario predicts a much less steep drop-off in savings, which would decrease shock to the market.

Alan Meyer: Is the incentive spending the same in both scenarios?

Jessica Kramer: We haven't got to that level of detail evaluating the midstream and design incentives. We'd still have to stay within the maximum allowed incentive for each measure. We

want to support the midstream offering at a higher incentive rate to get the best adoption rate with distributors.

Jay Olson: We think we'll save a lot on operation costs. Program cost-effectiveness would go up.

Hannah Cruz: Are you largely maintaining TLEDs?

Jessica Kramer: Yes, that is the category that helps maintain savings throughout the years in the second scenario. It is the largest category for commodity LEDs.

Danny Grady: When you mentioned that in 2022 there were commodity LEDs that wouldn't be cost effective, is that using the existing baseline?

Jessica Kramer: In 2019, the baseline will still be the existing baseline but we're preparing for a dual baseline in 2020. We're in that transition period.

Jay Olson: Exploring the two scenarios helps determine the timing. At first, we wanted to move to midstream on January 1, 2020, but the study shows we would have lost savings by moving that quickly. We need more analysis to figure out when we should move forward.

Jeff Mitchell: What is the dual baseline?

Kenji Spielman: In Regional Technical Forum terminology, this is an early retirement baseline. It is trying to account for current practice after the technology that is replaced is expected to fail.

Dave Moody: Regional coordination will be important.

Jessica Kramer: The NEEA lighting meeting is happening in June. It would be good to come back after that with a regional perspective.

Kerry Meade: When you look at lighting savings from controls, how are you able to measure cost effectiveness since they impact HVAC and things other than the lighting portion? Is that something you're exploring in discussions? Should we be exploring it in our council meetings? Technology is moving toward connections within a building. It's a little easier in Washington to look at whole building impact. They just rolled out a commercial building performance standard to get past the cost-effectiveness barrier. There's still more out there that needs to happen. How are you thinking about that and how do we talk about it?

Jay Olson: Better lighting design approach comes into play to look at a system-based approach. Also, we're trying to launch a networked lighting controls pilot. It would incorporate the whole building approach with high-efficiency lighting, smart controls, lighting design, layout and exterior lighting. That's also part of what we want to come back in a few months. We're not looking at just these two things, but they are the two biggest we identified to not lose savings.

Anna Kim: I'd like to request more information on the lighting landscape.

Jason Klotz: Are there integration costs with the building management system if you're doing whole buildings with lighting?

Jessica Kramer: We haven't gotten to that level. The better design option is the least fleshed out. We'll bring that in.

Dave Moody: The post-2022 midstream approach looks like its protected. Do you anticipate that much of baseline savings to make that up? Are midstream savings really viable?

Jessica Kramer: According to the two factors we considered, we could prolong that into 2024. After 2024, we don't have that projection, but we think it will dramatically drop off. These are going to be consistently revisited. We'll have to test any scenario.

Anna Kim: Could you share more about what goes into your scenario?

Jessica Kramer: We'd love to do that in a follow-up. Would you like a short report?

Anna Kim: Yes, that would be good.

Alan Meyer: Thank you for bringing it to the CAC before it's a fully formed decision.

Kenji Spielman: Caveat is that we don't know as much about the market share as we'd like.

Dave Moody: Are you working with our market research team? I believe they have some good data.

Kenji Spielman: Yes. But working with NEEA and distributor-level data and piecing that together is challenging.

Jeff Mitchell: The market research indicates that there should be 200 million lamps, but we can only account for half of that.

Next Steps

Staff will continue developing the long-term business lighting strategy, and will follow-up with the council at a later meeting in fall 2019 or early 2020.

5. Pilots Update

Topic summary

Staff provided an overview of recently completed and in-progress pilots. Kenji Spielman presented on Energy Trust's pilot process as a whole and some current ongoing pilots. Pilots are used to test technologies, behavioral change techniques and delivery methods and may or may not lead to a new measure being created.

Discussion

Holly Braun: What is the cadet plus heater?

Kenji Spielman: Cadet came out with a more efficient version of the traditional cadet wall heater, and we thought there may be savings in upgrading to that more advanced version. However, due to the sale of the company and distribution issues, we didn't get enough data.

Elee Jen: What about the data you are using for each of the pilots? For example, with the variable refrigerant flow pilot, how do you collect data?

Kenji Spielman: The pilot didn't come back with strong actionable results. We found barriers around permitting and how units were going in. Some of the modeling work and market research was used to create a different prescriptive measure that the New Buildings team is currently using. In terms of data collection around cadets, we need enough units going into buildings, but we just didn't get that.

Charlie Grist: I heard a talk yesterday on ductless heat pumps in manufactured housing that argued the Regional Technical Forum measure isn't really a good one. You should also have controls on the existing system or remove it. Have you looked at the effect of the existing embedded system working in conjunction with the new system?

Jackie Goss: It's an issue we need to look at, but won't address in the pilot.

Kenji Spielman: It's an issue with how we deal with the interaction between the ductless heat pump and backup heating.

Charlie Grist: In the multifamily homes, you were looking at regular and ductless heat pumps. Were ductless heat pumps installed through the wall or embedded in the ducts?

Jackie Goss: Through the wall.

Charlie Grist: Were there noise concerns?

Scott Leonard: It's two different ductless heat pumps, one on the lower and one on the upper floor with a ducted distribution system on the upper floor that connects to the bedrooms. The noise is coming from an inline fan within the distribution system that moves air through the ducts. Contractors have since discontinued using this system design and moved to manufacturer created duct systems that connect directly to the upstairs unit indoor head.

Next Steps

No next steps.

6. Establishing Baselines for Diverse Population Groups*Topic summary*

This presentation examined what staff might be able to do from a data perspective to support more targeted program services and outreach to underserved customers. Kenji Spielman and Alex Novie presented highlights from a recent panel they participated in at NEEA's Efficiency Exchange Conference that looked at how a focus on equity could better quantify potential savings for certain customers. For example, secondary market purchases could potentially become cost effective if a different baseline were used. Energy Trust current baselines are calculated using a broad set of averages that don't necessarily reflect specific groups of participants.

Discussion

Hannah Cruz: How would you describe our current framework?

Kenji Spielman: We use measure-level cost effectiveness. We include fairly discrete ways to incorporate non-energy benefits. We assume certain customers, like very low-income populations, are specifically being served by other organizations. It is important to bring up that other jurisdictions use a 20 percent adder on savings reaching certain customer groups.

Alex Novie reviewed an example about residential clothes washers, explaining that the baseline for low-income customers could potentially be much lower because many purchases in this demographic are from a secondary market.

Alan Meyer: I understand what you're saying. You could offer higher incentives if you were getting more savings, but how do you know?

Kenji Spielman: Yes. It might not even be justifying higher incentives. We're normally only supporting front-loading washers. However, if it turns out there's a case that movement to an ENERGY STAR® top loader is cost effective, and we can get those into specific channels, maybe we have a different set of products to support.

Holly Braun: What happens to all these used appliances? Would re-use be better even if it's less efficient? What would be done to the used ones since if you're trying to look society wide.

Kenji Spielman: All those appliances have high value as scrap metal so they would likely end up in the recycling stream. We haven't looked into a full lifecycle assessment of the energy used in creating a new unit.

Holly Braun: I feel like this is a consideration even though we're about carbon emission. It feels congruent with better affordability.

Kenji Spielman: If existing units are wasting a lot of energy and water, the quality of the new appliances sometimes is much higher than what's on the secondary market.

Alex Novie: It's an important observation that we've also heard from customers.

Charlie Grist: The key from my point of view is getting data on a baseline for different populations: how much of that market is new and what level of efficiency are they buying? The market for efficient products is not ubiquitous. The Regional Technical Forum looks at four states and all income levels. If other markets are different, those need to be tapped but you have to find out what they're buying. It's hard, but I support that work.

Kenji Spielman: Also, what data do we have already? What else can we start to gather and leverage so it's not piecemeal and hyper-regional. Can there be regional collaboration to answer some of these questions? Are there enough savings to justify the effort to quantify it and gather enough data to support it?

Hannah Cruz: Beyond secondary markets, did the panel have other examples?

Kenji Spielman: Yes, for example small hardware stores and the baseline of what's being sold in urban versus rural areas. Also, the age of water heaters in rentals versus owned homes or units. And delving into different census tracts and what the housing conditions are.

Mike Colgrove: If there's a differential in installation cost in rural communities due to product and installer availability, could that be an example?

Alan Meyer: We pay on average now. If we pay above average in targeted areas, maybe we could pay less than average in other areas. That gets even more complicated.

Hannah Cruz: Were there any business examples?

Alex Novie: There are retail lighting examples for areas where there might not be a Lowes or a Home Depot. Installer availability is also a factor. The market baseline for lighting is a very broad average for commercial buildings. Are there ways we could segment the market more? We aren't necessarily collecting data to inform program design. We are also looking at operating hours between business types and digging deeper on business sizes.

Mike Colgrove: From the NEEA conference, I thought an interesting observation is the impact this could have on the rest of the population. If measures are averaged over whole populations and we pull out the higher savings component, is that even built in the assumption? What does that then do to the remainder?

Next Steps

No next steps.

7. Public Comment

There was no public comment.

8. Meeting Adjournment

The meeting adjourned at 4:30 p.m. The next meeting is Wednesday, June 26, 2019.