Conservation Advisory Council Meeting Notes

October 21, 2015

Attending from the council:
Brent Barclay, Bonneville Power Administration
Warren Cook, Oregon Department of Energy
Wendy Gerlitz, NW Energy Coalition
Charlie Grist, Northwest Power and Conservation Council
Jeffrey Mitchell (for Julia Harper), Northwest Energy Efficiency Alliance
Garrett Harris, Portland General Electric
Scott Inman, Oregon Remodelers Association
Andria Jacob, City of Portland
Don Jones, Jr., Pacific Power
Don MacOdrum, Home Performance Guild of Oregon
Holly Meyer, NW Natural
Tyler Pepple, Industrial Customers of Northwest Utilities
Elaine Prause, Oregon Public Utility Commission

Attending from Energy Trust:
Mike Bailey
Tom Beverly
Amber Cole
Kim Crossman
Hannah Cruz
Sue Fletcher
Fred Gordon
Susan Jamison
Marshall Johnson
Steve Lacey
Ted Light
Thad Roth
Erin Rowland
Kate Scott
Julianne Thacher
Katie Wallace
Peter West
Mark Wyman

Others attending:
Susan Brodahl, Energy Trust board
Mike Christianson, Energy 350
Scot Davidson Enhabit
Mark Duly, Rogers Machinery
Carolyn Farrar, NW Natural
Sara Fredrickson, CLEAResult
Mitt Jones
Keith Kueny, Community Action Partnership of Oregon
Brian Lynch, AESC
Jen Maffei, CLEAResult
Alan Meyer, Energy Trust board
John Molnar, Rogers Machinery
Whitney Rideout, Evergreen Consulting
Becky Walker, CLEAResult

1. Welcome and introductions

Kim Crossman convened the meeting at 1:30 p.m. and reviewed the agenda. The agenda, notes and presentation materials are available on Energy Trust's website at: www.energytrust.org/About/public-meetings/CACMeetings.aspx.

2. Old business

Kim: Tyler Pepple joins us from Industrial Customers of Northwest Utilities, or ICNU. He is an attorney and works on legal matters for ICNU.

September Conservation Advisory Council minutes were approved.

3. Draft 2016 annual budget and 2016-2017 action plan

Peter West presented Energy Trust's overall 2016-2017 draft budget.

Peter: Forecasted numbers are unofficial and our best guess at the moment. We expect to achieve 40 percent of savings between now and the end of the year, which means the final results will likely differ.

> We are forecasting 102 percent of goal for NW Natural, 104 percent for Pacific Power, and 107 percent of goal for Cascade Natural Gas. We are forecasting to reach 94 percent of goal for Portland General Electric. The electric savings are benefiting from the economic recovery and strong Northwest Energy Efficiency Alliance results. NEEA has started gas-saving efforts but we will not see gas savings in 2015.
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> The economic rebound is most evident in New Buildings and New Homes for all utilities, and customers are installing LEDs.
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> PGE is a little off due to Production Efficiency. We do heavy recruitment for Strategic Energy Management, or SEM, in PGE territory. We forecasted much more savings from SEM, but the cohorts and companies involved were smaller than those in the past. The rate of savings are good but the overall load for these customers is smaller, with consequent lower overall savings.
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> NW Natural has been strong in New Buildings, Production Efficiency and New Homes. There is an underlying issue in Existing Buildings with a need to reset incentive levels, which will be flagged in the 2016 budget discussions. Existing Buildings has been lagging significantly on the gas side. The incentive price point and value proposition seems to be wanting. Paybacks are pushing closer to 6 years. They have to come in at 5 years as a cutoff point.
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> For Pacific Power, Production Efficiency remains strong but some projects will shift to 2016. That puts pressure on the 2016 budget.
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> In Cascade Natural Gas territory, like NW Natural, there are significant savings from New Homes and New Buildings. Eighty-five percent of new homes are gas connected. There is an underlying issue with commercial. The actual Existing Buildings numbers in 2015 will look good based on three large projects. However, savings are deteriorating based on incentive level. It's still cost-effective to raise incentives.

Don Jones: Are you assessing this with new avoided costs?
Kim Crossman: New avoided costs go into effect in January 2016.

4. Draft 2016 annual budget and 2016-2017 action plans by sector

Peter: Comments on the 2016 budget are accepted through November 20, but they are most useful if received by November 6.

> Our 2016 areas of emphasis are continued use of reserves that we are trying to bring down, sustained rate of energy efficiency and renewable energy generation, and maximizing opportunities in new construction. We will continue to support LEDs. We will continue to serve high solar demand with tax credits scheduled to go away in 2017, and will lower our incentives to manage the budget. We will break into less served markets. We will always focus on internal processes, looking for areas to improve. And we will keep our own costs flat.

We will see a slight decline in gas savings. As we move deeper into the market, this is what happens. Electric savings will increase slightly. NEEA's work on battery charger standards has been part of that large increase in savings.

Delivery costs shown include helping fill forms out, awareness building, hand-holding and encouraging customers through the process. We have to convince and sell customers on the value of energy efficiency. External costs include program delivery through external contractors. We have internal delivery for Production Efficiency and renewable energy programs.

Elaine Prause: How much of Energy Trust's electric savings is attributed to LEDs?
Peter: I will follow up and get that number to you.

Thad Roth presented the residential sector action plan. We are looking at a modest budget increase from 2015. Much of our 2016 electric savings will come from products, especially lighting. We are continuing the effort to reduce reliance on Energy Saver Kits and shifting to core measures like water heater savings and space heating savings. New Homes will be the primary contributor to gas savings due to high new construction activity. Existing Homes will see a 10 percent decline in saving, due to conclusion of the Opower pilot. All programs will focus on increasing cross-program collaboration. We need to develop around technologies rather than program boundaries.

Elaine: Do you expect savings from behavioral initiatives in 2016?
Thad: We are interested in pursuing behavioral savings but don't have a lot of detail yet.
Marshall Johnson: There aren't behavioral savings in the budget. We are exploring some ideas. Controls may be a better strategy.

Alan Meyer: Is the advanced controls incentive just for heat pumps?
Thad: It will be for all forced-air furnace heating systems. We will launch a control opportunity for all retail and contractors.

Don MacOdrum: Water heating seems like an opportunity. Heat pump water heaters are oversized compared what they are replacing, and won't fit in the same locations. Are there efforts to give manufacturers feedback for optimal designs?
Marshall: The short answer is that we are a small market in Oregon. NEEA is the biggest drive for sending that feedback. They work on both sides.
Jeffrey Mitchell: We are looking into locations of water heaters in the region and what level of communication would make them appropriate. That will feed into how and when we can inform a new standard. It will depend on how these meet the needs of the local market. We will have a lot more by end of 2016.

Wendy Gerlitz: How does Savings Within Reach fit within this context?
Thad: It fits in best in the effort to expand savings that we haven't been effective in reaching.
Marshall: We made some changes with Community Action Partnership of Oregon to expand income qualifications. We expect more Savings Within Reach projects next year.
Thad: The key thing is that we think there's a resource opportunity there, but we need to figure out how to get to it.
Wendy: Budget projections in that area would give a sense of how that will work.

Warren Cook: We appreciated the cooperation with Energy Trust on Residential Energy Tax Credit rulemaking. We've been kicking around cross-promotion of Residential Energy Tax Credit and incentives. The legislature wants to know who is spending what on savings, so data management is a huge opportunity.

Susan Brodahl: What percentage of new housing starts are you planning to reach?
Mark Wyman: About one-third. We also expect about a 10 percent increase in new homes built, so volume will be higher. Market saturation was about 25 percent last year and 20 percent before that.

Holly Meyer: Where can we see more detail budgets?
Kim: The action plans are more complete.
Holly: Will we take it offline in our utility budgeting process?
Peter: When this gets posted there are a lot of utility specific slides. You can drill down more deeply using those.

Thad: This isn't everything that we are doing. These are examples that cut across the programs.

Oliver Kesting presented the business sector action plan. Gas and electric savings goals in 2016 are slightly higher than goals in 2015. The goals are higher for Cascade, PGE and Pacific Power territories. The NW Natural goal has decreased due to lower potential in Existing Buildings due to market saturation, smaller projects and fewer custom opportunities. Pacific Power increased goals reflect large opportunities in in New Buildings.

> New Buildings electric savings goal is increased due to the economic rebound.
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> There are changes to the way we're claiming savings in commercial SEM. We used to project commercial SEM savings based on regression modeling but it's difficult analysis and accuracy is not great without a full year of data. We got an evaluation back that suggested waiting until savings had proven and claim them at that point. We will be moving to this methodology in 2016.
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> Existing Buildings makes up half of the sector's gas and electric savings, and goals are reduced due to market saturation, smaller projects and fewer opportunities for custom projects. The SEM goal is down by 50 percent. In 2016, Existing Buildings will maintain statewide program reach and work to develop opportunities in under-participating areas. We will adapt lighting to a changing market and to changing codes and standards. The program will expand work with trade allies, drive customers to the most cost-effective measures, and expand operations and maintenance offerings.
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> Multifamily will diversify the measure mix so we are not as reliant on direct installation of energy-saving products for savings. Multifamily will also continue to build relationships with customers to help them implement longer-term energy-saving strategies.
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> New Buildings incentives will likely remain the same. The goal is to transform practices and increase owners' ability to target and sustain deep energy savings. We are building on the momentum and interest in the Path to New Zero as well as the Architecture 2020 Challenge. We will continue to support small commercial building owners and businesses with our Market Solutions Packages, maintain and grow opportunities with new measures
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> We will also launch several new initiatives in 2016. Existing Buildings will expand direct installation offerings, expand Pay for Performance, launch a retrocommissioning offer and add SEM tools and training materials. Multifamily plans to offer new measures,

which may include advanced power strips, heat pump clothes dryers, ventilation optimization, low-e storm windows and commissioning of building energy management and controls systems. New Buildings will update the market solutions offering to add new technologies and respond to HVAC code changes.

Don Jones: One comment says that we are trying to wean ourselves off direct installation of energy-saving products, but another comment says we will expand.
Oliver: We're trying to reduce reliance on direct installation of products in multifamily properties, but we will add direct installation offerings in the Existing Buildings program. It's about diversifying the portfolio.

Andria Jacob: Is there a focus on multifamily new construction? In Portland, 80 percent of new construction is expected to be multifamily.
Becky Walker: There is a market solutions offering for multifamily buildings, and our multifamily outreach staff person has been very busy.
Wendy: Is anyone targeting affordable housing?
Becky: We do a lot of affordable housing.

Brent: How do retrocommissioning and SEM fit together?
Oliver: Retrocommissioning is targeted to specific measures. Pay for Performance is more comprehensive. SEM focuses on multiple buildings and improving organizational energy practices.
Don Jones: Pacific Power does a system approach that's more comprehensive. Retro-commissioning is a gateway project to get customers comfortable.

Jeffrey: Are you going to target only multifamily properties with community blitzes or do you work with single-family properties as well?
Kate Scott: Our business development representatives do target multifamily properties, but we work with residential programs to hand off leads.

Kim presented the industrial and agricultural sector plan. There is a low forecast in Cascade Natural Gas territory in 2015 currently. We typically make our Cascade Natural Gas goals based on two to four projects a year. We have set our 2016 Cascade Natural Gas goal to match 2015.

In NW Natural territory, there is a high forecast for this year, but we don't see this level of savings sustained in 2016. But there is a robust 2016 pipeline.

We will come in under goal for PGE territory in 2015, driven by things that will also matter in 2016. We don't have a megaproject in PGE in 2015 or 2016.

In Pacific Power territory, we have the largest project pipeline we've ever had going into 2016 in Pacific Power. We recut the territories for Program Delivery Contractors in 2014.

In 2016, we expect a slight decrease in electric and gas savings, but our budget won't decrease. There is a change in our electric free ridership rate of 8 percent, which means we need 8 percent more working savings to reach our goal. In addition, custom projects have high initial costs but low levelized costs because of long measure lives. A custom kilowatt hour is about twice as expensive in first-year costs.

The volume of trade ally-driven streamlined track projects are expected to increase in 2016, and projects are expected to decrease in size. This is due to PDC promotion strategies and growth in LEDs. More small projects will help us reach our goals more consistently and smooth out some of the lumpiness that comes from relying on a small number of large projects to meet goals.

We've intentionally targeted medium-sized industries with SEM, which results in fewer savings per site. After having provided SEM for seven years in PGE territory, we are finding that we have hit the best candidates. The sites we are recruiting now may not be ready yet, but it's our job to move them along. We are developing continuous SEM in 2016. Planned development of a scoping walk through tool will help custom PDCs serve small to medium customers. We need to automate high quality reporting and expand services without raising costs. We are gathering other markets' baseline data regarding cannabis as a new industry.

We are not proposing major incentive increases. We are looking at better lighting control incentives, but most Production Efficiency incentives will stay the same in 2016.

The industrial lighting and streamlined industrial PDC contracts will be rebid in 2016.

Wendy: I'm on a panel at the Citizens' Utility Board conference that has cannabis as a topic. If you are going to spend 2016 learning, I'm concerned there will be lost opportunities as these production facilities get built. Have you assumed any savings from this market in your 2016 goal?
Kim: Working with these sites is one the ways we will learn. We can do custom analysis and provide incentives right now. That said, there is some caution about going big before we know more. We didn't include overt savings from this sector in our goals, as we don't build our goals that way anyway. We do them top down based on what we did in the past and guesses about what we can get. There is uncertainty about rulemaking and the second half of the year could bring a rush. We also hope to work with NEEA in 2016 to bring in information from Washington and Colorado.
Peter: We are in an emerging industry without fully written rules. Directionally it's clear, but not operationally. We have some products that can serve the industry today, which we know from work with the medical marijuana industry.
Don Jones: There could be a big bubble in the cannabis industry and things might change over time. Caution is not a bad thing.

Jim Abrahamson: Have you discovered natural gas applications in the cannabis field?
Kim: Not yet. So far it's mostly lighting and ventilation. If anything, we need to take heat out.

Tyler Pepple: What was the cause of the free ridership change?
Kim: It was largely driven by a single site's survey. They were deemed a 50 percent free rider. Since it was such a big project and large portion of the total surveyed, it had an 8 percent impact on our electric savings.
Fred Gordon: Social science is never precise. We use three years of history, and cumulatively it still had an impact. Since no method is precise, we use simple, transparent methods.
Brent Barclay: Is the gross savings still reported to the council? There's still value that should be recognized by quantifying the gross savings.

Ted Light presented the NEEA action plan. There has been a significant increase in NEEA savings due to battery charger standards, which impact devices from phones all the way up to golf carts. Savings will continue in 2016. The budget is under 5 percent of our budget but brings in 12 percent of savings. It's very cheap on levelized costs.

Jeffrey: We are trying to target how and where heat pump water heaters are appropriate so we can impact standards. We are trying to target the emergency replacement market and distributors, which comprise about 70 percent of the region's water heater replacement. There are new manufacturers with higher quality, tier two products. Ductless heat pumps have a little bit of cost-effectiveness risk. The price hasn't come down as much as we wanted, and we are looking at ways we can reduce it.

Alan: Can anyone tell me more about battery chargers?
Fred: There may be some smart features but it's more about transformers.
Peter: We'll bring that back with more information.

5. 2016 residential sector incentive changes
Marshall: There are three categories of changes. With gas water heaters, there have been federal standards changes. We have to shift how we analyze those measures. There have been reductions in ductless heat pump savings. Gas fireplaces have seen some changes, which were previewed at Conservation Advisory Council earlier this year. Savings are declining in lighting, which make it more difficult to do direct installation.

> We will discontinue the Existing Homes EPS™ incentive. It was created to support a transition when we removed the Home Performance with ENERGY STAR® assessment incentive. We were asked by the Conservation Advisory Council to come up with an approach to help home performance contractors, and the $75 EPS incentive was the result, along with the $100 multi-measure bonus.
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> In the last 10 months, we have received 367 incentives for EPS, including 208 from one contractor and 114 from another contractor who provides few projects to the program and also leverages direct installation of products. We haven't seen core measures using these incentives. There isn't a robust market that depends on our incentive. There are other ways we can drive interest in EPS.

Holly: People who get an Existing Homes EPS might take a few months to move forward with projects. It seems kind of premature to decide it doesn't work. We need time to see what people might do. Why do you feel it failed?
Marshall: Maybe 25 to 30 percent of the time after a Home Performance assessment people participated. We applied that benefit to people who did multiple measures to bring more savings into the program. It provided a way to decrease the impact on contractors using that business model. We don't fully know the long-term strategy for EPS. There will be compliance with standards from Oregon Department of Energy and we can support that infrastructure. We think we can invest in other places that are more influential, such as marketing and possibly EPS connections to Regional Multiple Listing Service. The $75 incentive is not a scalable approach for driving awareness and adoption of EPS. In new construction, EPS has been effective, but not in the retrofit market. We are facing a cliff at some point where savings from instant savings measures will be reduced. Few dollars will be on the table to drive activity. We're trying to make investments in areas where there is a connection to energy savings.

Holly: The scalability doesn't have to be forever, just enough to get the market running on its own. It seems odd to pull out this early as we are trying to get it adopted. I hate to back out when something is getting momentum.
Peter: We are still going to promote EPS, but we are unsure how we will do it. There is a supply side and demand side. In supply, we agreed to it as a broad-based transition for contractors. It really is only being used by a narrow set of contractors. The supply side isn't working. It hasn't

attracted enough contractors. We have a lot of work to do, but don't want to throw out a bunch of demand side-advertising while we have a $75 per unit budget hole.

Don MacOdrum: There would be concern on the demand side if it was overly adopted. It negates the concern of too few contractors offering it. I heard from the contractors and all have plans to do more of these. It's a valuable incentive and the logic of it being underutilized and too expensive is a problem. What's most troubling is that the EPS market has seen a lot of change. There are two major initiatives underway that could tie in nicely with promotion to customers. HB 2801 and real estate information aggregator efforts are huge. I wish we could have a conversation about the strategy. This change seems out of the blue. Was the EPS concept map project only internal?
Marshall: There were stakeholders involved. It was more about how we promoted and provided value. It's not serving as a gateway into the program. EPS feels more like a validation of investments already made than a tool to drive new sales. It doesn't bring value in the way we planned.

Warren: To clarify, Oregon Department of Energy doesn't have a platform, but we have rules to establish one. There are some game changers out there nationally. If someone reaches a certain energy score with their home, they can receive an Federal Housing Administration interest adjustment, for example. Taking away the $75 incentive doesn't mean giving up on EPS.

Scott Davidson: What we would like to hear is that there will be an investment in creating demand.
Mark Wyman: We are investing in other areas, like training real estate professionals. It can be a tool for signaling the market at large.

Holly: It feels a bit jarring for those of us who have worked on EPS all this time to say it's over. Some coaching along the way would have been great in terms of honoring those efforts and time investments.

Kim: You can also email your comments to Marshall, Peter and Mark.

Marshall: When we looked at the multiple measure bonus, only eight trade allies were using it. It didn't appear to be a big driver of deep savings. We can reduce program costs by eliminating it.

Holly: Was it not cost-effective?
Marshall: Since we now calculate all insulation as a single measure and insulation is only continuing under an exception from the OPUC, we didn't see this as driving more cost-effective measures like it was designed to.

Don MacOdrum: In the action plans, it says "must be cost effective." Does that cover these measures that are available under the exception process?
Marshall: No, it doesn't include them.

Wendy: Why align the gas furnace incentives with Savings Within Reach?
Marshall: The incentive is for rentals. This will align the incentive level at $550 so furnace incentives will be consistent for moderate-income customers and rental homes. We anticipate these incentives being relevant to NW Naturals Clean Heat initiative.

Elaine: Will the change in ductless heat pumps bring more savings at the higher tier?
Marshall: We will see increased savings at the higher tier.

Warren: There is also a $1,200 tax credit at that higher tier that we can align on.

Garrett: PGE has a concern that we will drive people to invest in the wrong things. They will think that they should replace a standard, 5-gallon water heater with a 50-gallon heat pump water heater when that won't meet their needs. The structure may cause problems and we won't realize the savings.
Marshall: The issue is the federal baseline, and it will be a problem to drive against that baseline. We see it as 5 to 7 percent of our heat pump water heater volume. We'll work with NEEA on tier three heat pump water heaters.

Charlie: What was the advice behind the change?
Fred: Data was presented to the Regional Technical Forum indicating that incentives did not influence the size of water heaters purchased.
Garrett: If the customer is purchasing for themselves, they think it's a one-for-one replacement.
Charlie: The Regional Technical Forum struggled with that also.
Marshall: We could go either way.
Don Jones: Pacific Power went to small tanks to claim savings.
Peter: We are reacting to an evaluation and how we understand the data. We can meet separately to go through it. We can get the key people together to discuss.

Alan: Will we also do that for the EPS incentive change?
Marshall: What I heard from the group is that we should meet with Don MacOdrum and others who want to discuss EPS further.

Brent Barclay: I suggest you take the clothes washer recycling details to the Regional Technical Forum.
Don Jones: Are you keeping washers out of the rebuild market?
Brent: If someone has already done the work, we could leverage that work at Bonneville Power Administration.
Peter: We will share the data and schedule discussions to walk through it.

Marshall: I want to explain how we plan to simplify the heat pump water heater requirements. We plan to adjust this measure from a consumer-based incentive to a retail measure, which provides a lower savings assumption per unit. However, it allows for driving significantly more units.
Mark: Gas heated homes can't get heat pump water heaters, so we are adjusting for that.
Don Jones: But customers can purchase them at retail.
Mark: We are trying to move into retailer instant incentives. There are gaps in how we engage the market. We will devote marketing and field staff to promoting water heating at retail.

Kim: We will engage individuals to follow up on these concerns. In the meantime, you can reach out to Peter, Marshall or Mark with feedback.

6. Public comment

There were no additional public comments.

7. Meeting adjournment

8. The meeting adjourned at 4:30 p.m.

The next scheduled meeting of the Conservation Advisory Council will be on November 20, 2015, from 1:30 p.m. – 4:30 p.m.