Conservation Advisory Council Meeting Notes

September 3, 2014

Attending from the council:
Jim Abrahamson, Cascade Natural Gas
Jeff Bissonnette, Citizens' Utility Board of Oregon
Kyle Diesner (for Andria Jacob), City of Portland Bureau of Planning and Sustainability
Wendy Gerlitz, Northwest Energy Coalition
Kari Greer (for Don Jones), Pacific Power
Garrett Harris, Portland General Electric
Karen Horkitz, Northwest Energy Efficiency Alliance
Scott Inman, Oregon Remodelers Association
Juliet Johnson, Oregon Public Utility Commission
Don MacOdrum, Home Performance Guild of Oregon
Holly Meyer, NW Natural
David Murphy (for Brent Barclay), Bonneville Power Administration
Stan Price, Northwest Energy Efficiency Council

Attending from Energy Trust:
Sarah Castor
Karen Chase
Amber Cole
Kim Crossman
Diane Ferington
Sue Fletcher
Debbie Goldberg-Menashe
Fred Gordon
Jackie Goss
Andy Hudson
Marshall Johnson
Oliver Kesting
Steve Lacey
Ted Light
Spencer Moersfelder
Elaine Prause
Thad Roth
Kate Scott
Andrew Shepard
Ed Wales
Jay Ward
Peter West
Courtney Wilton

Others attending:
Mark Kendall, Energy Trust board
Alan Meyer, Energy Trust board
Celeste Becia, CLEAResult
Christina Cabrales, Conservation Services Group
Scot Davidson, Clean Energy Works
Dawn Doberenz, Evergreen Consulting Group
Tyler Pepple, Industrial Customers of Northwest Utilities
William Ranes, CLEAResult
Roger Spring, Evergreen Consulting Group
Bob Stull, PECI

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 Crossman mentioned July minutes were included in the Conservation Advisory Council packets. There were no additional questions or comments from the council. Holly Meyer affirmed that reviewing notes is a useful practice.

Elaine Prause provided a brief update on the draft 2015-2019 Strategic Plan. August 26 was the deadline for submission of public comments on the draft plan. Energy Trust received comments from a variety of stakeholders, including Oregon Public Utility Commission staff, utilities, industry stakeholders, attendees of Energy Trust's webinar and hosted presentation, attendees of Pacific Power business customer roadshow events around the state and Energy Trust staff. Comments are now being reviewed and addressed, and a summary of comments will be made publicly available. The proposed final 2015-2019 Strategic Plan will go to the board of directors for review and potential approval on October 1.

Mark Kendall: What themes did you notice in public comments?
Elaine: There were no comments suggesting major changes to the plan. Several comments were at the tactical, not strategic, level. Those ideas will be shared with program managers and other staff to consider in future budget and action planning. Some comments indicated that the renewable energy generation goal is too conservative.

3. Electric avoided costs and impacts on savings in 2015

Elaine Prause summarized recent changes in electric avoided costs and impacts on savings in 2015, following up on a presentation made to the Conservation Advisory Council in April 2014.

Elaine: When Energy Trust updated electric avoided costs earlier this year, avoided costs declined for some measures. Impacts of updating electric avoided costs are minimal to Energy Trust's portfolio. In a comparative analysis of 2013 results, only 5.5 percent of 2013 electric portfolio savings were not cost-effective using the updated avoided electric costs. This is evenly split between custom and prescriptive measures.

> Per UM 1696, Energy Trust proposed measures with exceptions for 2014 to be reworked in 2015. The Oregon Public Utility Commission approved cost-effectiveness exceptions for several measures. Energy Trust will refile requests for cost-effectiveness exemptions for duct insulation and multifamily ceiling and floor insulation with UM 1622, which addresses gas cost-effectiveness exceptions.
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> A few prescriptive measures were not approved for cost-effectiveness exceptions: solar water heating, 1-horsepower motors for commercial and wheel-line levelers for irrigation. The latter two measures are expected to have limited impacts on customers and savings. Discontinuation of solar water heating measures will have greater impact. Staff are working on a transition plan to discontinue these measures now, including a communications plan to trade ally contractors and stakeholders. More detail will be presented to the Conservation Advisory Council in October or November.

Juliet Johnson: Was single-family wall insulation granted an exception?
Elaine: Single-family wall insulation passed the cost-effectiveness test and did not need an exception.

Mark: Did Energy Trust include its role in quality control as a non-energy benefit for measures that did not pass the cost-effectiveness test?
Elaine: No, quality control was not specified as a non-energy benefit.

Elaine: Changes to custom measures may impact program savings, including lighting and HVAC measures for Existing Buildings, multifamily and New Buildings programs and ductless heat pumps for Existing Homes.

Holly Meyer: Is multifamily a separate sector? It could be considered one.
Elaine: Multifamily is an initiative within the Existing Buildings program.

Elaine: Comments are due on the gas cost-effectiveness docket to the Oregon Public Utility Commission on September 15, and there will be a public meeting on September 30. Energy Trust expects to report outcomes of the gas cost-effectiveness docket at the next Conservation Advisory Council meeting.

4. **LED technology overview and market uptake**

Dawn Doberenz is training and education manager at Evergreen Consulting Group, Energy Trust delivery contractor for commercial and industrial lighting. Dawn presented on the rapid evolution of LED technologies and market uptake observed in recent years. The presentation included an overview of LED technology, as well as history, benefits, applications, costs and predictions for growth.

Dawn Doberenz: LED technology has rapidly grown and been adopted by the market. After six years on the market in 2013, LEDs had reached a market share of more than 4 percent. In comparison, compact fluorescent light bulbs had achieved only 0.01 percent of market share after six years on the market in the 1980s. The number of qualified LED products grew from approximately 22,000 on January 1, 2014, to 54,000 on August 20, 2014.

> Linear fluorescent lighting currently makes up more than 75 percent of installed lighting in commercial buildings globally, so there is a great opportunity for upgrading buildings to LED lighting. LED lighting is increasingly part of Energy Trust commercial and industrial projects. LED lighting provides half or more of lighting savings in Energy Trust commercial and industrial programs (50 percent for commercial buildings, 63 percent for industrial buildings and 75 percent for multifamily buildings). The remaining lighting savings are from lighting controls and high-efficiency fluorescent lighting upgrades.

Holly: As LED technology gets more efficient, more applications may be invented, leading to higher energy use.

Dawn: LEDs remain more expensive than fluorescent alternatives, yet prices are rapidly decreasing. LED applications include track lighting, high bay and low bay lighting, lighting in freezers and outdoor lighting. New applications are likely to emerge and be adopted by the market.

Alan Meyer: When upgrading commercial and industrial lighting to LEDs, will entire fixtures need to be replaced?
Dawn: Yes, fixtures will probably be replaced with new technology.

Holly: Does LED technology work well with solar technology?
Dawn: Yes, there are actually some solar-powered LED fixtures in the market.
Peter West: Energy Trust recently used LEDs under canopies mounted with a solar electric system in a parking lot.

Mark: The variety of LED products has increased rapidly. Is the market expected to stabilize? Availability of products in stores is inconsistent. Will there be standards set for ballasts?

Fred Gordon: There are minimum threshold standards; however, there is not consistency between utilities on standards. Products are changing very quickly.

Scott: What is the average cost of LEDs?
Fred: There are good ENERGY STAR® products available at or below $10. The quality of LEDs available in stores right now is variable.

5. Northwest Energy Efficiency Alliance gas market transformation initiative
Jeff Harris, Northwest Energy Efficiency Alliance, presented the gas market transformation initiative, a preliminary business plan for gas efficiency, which was developed collaboratively with Energy Trust, Northwest Gas Association, Puget Sound Energy, Avista, NW Natural and Cascade Natural Gas.

Jeff Harris: NEEA created a five-year business plan for 2015-2019, with costs of about $18 million. The plan could result in annual savings for 280 million therms at a weighted average levelized cost of 28 cents per therm. The plan has been approved by the NEEA board of directors.

> In 2010, NEEA adopted a fuel-neutral mission. NEEA also adopted some key policies that shaped this plan, which are that NEEA will not promote fuel switching, provide cross subsidies between gas and electric and diminish existing electric market transformation work.
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> The scope of the gas market transformation initiative includes five gas technology initiatives: gas heat pump water heaters, combination space and water heating systems using gas heat pump water heater technology, hearth products, gas clothes dryers and rooftop HVAC equipment. The initiative will also include assessing the market for new technologies, an independent mid-cycle evaluation and a natural gas advisory committee made up of current Natural Gas Collaborative members.
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> NEEA expects benefits from an integrated approach to gas and electric market transformation. The business plan leverages existing business infrastructure and processes from NEEA's electric market transformation activities to minimize costs. Water heaters are a good example of synergy between electric and gas market transformation efforts. Nationally, water heaters are split roughly equally between electric and gas. Supporting both gas and electric market transformation allows NEEA to offer a more compelling value proposition.
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> To launch the gas market transformation initiative in January 2015, the next steps include operations planning, funding contracts and check-ins with state regulatory agencies. NEEA reached out to all gas utilities in five states, and not all of the utilities wanted to participate directly.

Scot Davidson, Clean Energy Works: I'm concerned about fuel neutrality given that gas prices are low right now.
Jeff: NEEA will focus on improving efficiency of existing gas products.

Mark: Will NEEA do any behavioral work?
Jeff: New opportunities will be considered as they arise.

Kim: Does supporting gas market transformation allow NEEA to capture savings from its existing efforts that are fuel neutral, such as Strategic Energy Management?

Fred: Energy Trust is already tracking and booking gas savings achieved through NEEA's fuel-neutral efforts. NEEA's gas market transformation initiative is just getting started and the five technology initiatives are just a starting point.

Holly: NW Natural is excited to work with NEEA on gas market transformation efforts.

Jim Abrahamson: I would like to acknowledge NEEA for keeping Cascade Natural Gas informed of gas market transformation efforts. Cascade Natural Gas will not participate because added costs would negatively impact the cost-effectiveness of Cascade Natural Gas's efficiency programs. Cascade Natural Gas may work with the Gas Technology Institute on different gas market transformation efforts, such as creating an experimental program in gas heat pump development. We'll be talking to the Washington Utilities and Transportation Commission, so these decisions are tentative.

Kari Greer: Is Avista participating?
Jeff: Avista is participating in all three states it serves.

6. Residential Trade Ally Portal

Diane Ferington, residential sector lead, and Andrew Shepard, project manager, demonstrated Energy Trust's new web tool created to help Existing Homes trade allies improve service to customers.

Andrew Shepard: The Trade Ally Portal gives trade allies visibility into information about their Energy Trust projects. By using the portal, trade allies can see pending applications for incentives and identify applications that need additional information, which expedites payment and saves administrative time. Trade allies can also confirm that incentive payments have been made for their customers. They can also see the energy savings and carbon reduction impacts of their projects, which can be used in trade ally marketing efforts.

Alan: Will trade allies receive email alerts when incentive applications are missing information?
Diane: The onus is on the trade allies to check the portal. Existing processes are still in place to alert trade allies when information is needed for incentive applications. Additional portal functionality will be developed and improved on an ongoing basis.

Andrew: The Trade Ally Portal allows trade allies to update their information with Energy Trust, such as contact information, primary contact or adding new employees. The portal gives trade allies more visibility into Energy Trust's Existing Homes star rating system and provides information to help them achieve higher star ratings. The portal also features information about Business Development Funds. Finally, the portal drives trade allies to submit incentive applications online, rather than on paper, which reduces administrative time.

Kari: I would like to have a similar interface for utilities.

Andrew: The portal was developed with extensive trade ally input, and it is currently being used by five trade allies and will gradually extend to 100 trade allies in the next year.

7. Proposed residential measure changes for 2015

Marshall Johnson, Existing Homes program manager, presented proposed residential measure changes for 2015, including adjusting incentive levels, tiers and/or qualifications for windows, gas fireplaces, air sealing, pool pumps and solar water heating. Outcomes of the cost-effectiveness docket are unknown at this time, and Energy Trust is making assumptions that measures will not be given cost-effectiveness extensions.

Marshall: Energy Trust provides advanced notice to trade allies on measure changes, and strives to provide more than the 30-day minimum notice. Energy Trust is now working to update internal materials and systems to prepare for these changes in 2015.

> Proposed changes to windows measures in 2015 include increasing U-Values and changing incentive amounts. For tier one windows, incentives will decrease from $2.25 to $1.75 per square foot. For tier two windows, incentives will be increased from $3.50 to $4.00 per square foot. Energy Trust presented results of market study and savings evaluation for windows measures to the Conservation Advisory Council in June 2014.

Scott Inman: What does a 0.27 U-Value window look like on a Total Resource Cost test?
Marshall: This measure is cost-effective on the TRC, because we use the incremental cost from a 0.30 efficiency level.

Scott: Will windows measure changes apply to multifamily properties?
Marshall: These changes are for Existing Homes only.

Marshall: Proposed changes to gas fireplace measures in 2015 include increasing the minimum Fireplace Efficiency rating for tier one gas fireplaces from 65 percent to 70 percent, and increasing the minimum Fireplace Efficiency rating for tier two gas fireplaces from 70 percent to 75 percent. Incentives will remain $200 for tier one fireplaces, and will increase from $250 to $300 for tier two fireplaces. Significant energy savings can still be achieved through gas fireplace installations. Energy Trust will also work mid-stream with fireplace vendors to promote hearth products that meet pilot ignition requirements but not Fireplace Efficiency rating requirements.

> Changes to air sealing measures are also proposed for 2015. Energy Trust provides incentives for whole-house air sealing through Home Performance, Savings Within Reach and existing manufactured homes tracks. Energy Trust proposes removing the Home Performance whole-house air sealing incentive for gas-heated homes in 2015. The Total Resource Cost for electrically heated homes is still acceptable. Incentives will remain $150 for Savings Within Reach and existing manufactured homes.

Garrett: How do these measure changes impact Clean Energy Works?
Marshall: Clean Energy Works is an aggregator of Energy Trust incentives. It passes Home Performance incentives on to customers, so a reduction in this incentive means fewer incentive dollars passed through Clean Energy Works to participants.

Holly: Why is the Total Resource Cost benefit cost ratio different for electrically and gas-heated homes?
Fred: Analysis of electrically heated homes relies on the Regional Technical Forum rather than billing sample data.

Scott: Will these measure changes be impacted by outcomes of UM 1622?
Marshall: Energy Trust proposed removing these measures in a cost-effectiveness report submitted to the Oregon Public Utility Commission, and a recent Oregon Public Utility Commission memo indicated air sealing measures will likely be discontinued.
Juliet: Energy Trust recommended discontinuation of these measures. The commission will likely support this recommendation.

Marshall: Energy Trust is testing an alternative approach to air sealing by providing a prescriptive specification rather than the current measure which requires a diagnostics component to testing reductions. This pilot will conclude at the end of this upcoming heating season.

Scot Davidson, Clean Energy Works: Elimination of this measure and other Home Performance measures will have a devastating effect on the Home Performance industry and Clean Energy Works, in which the state has invested $10 million. Non-energy benefits are not prescribed values in Total Resource Cost calculations.

Don MacOdrum: I share Scot's concerns. If incentives for whole-home air sealing go away, how will that impact Blower Door technology and assessments to ensure safety of home occupants? The Home Performance Guild of Oregon will still try to persuade the commission to preserve these incentives. When are results of the prescriptive air sealing pilot expected?
Marshall: We are early in the pilot process, and approval from the Oregon Public Utility Commission is needed to continue the pilot through the end of the heating season. The pilot will test the effects of combining air sealing and ceiling insulation. A resulting measure would specify that air sealing is part of the ceiling insulation measure specification.

Juliet: The Oregon Public Utility Commission wants Energy Trust to proactively eliminate measures that are not cost-effective. I acknowledge there is some uncertainty until results of the docket are available in October. How would unexpected docket results impact Energy Trust's 2015 budget and measure changes?
Marshall: Energy Trust would be able to adjust to unexpected docket results.
Juliet: I advise Energy Trust to carry on as if measures will be discontinued.

Karen Horkitz: If whole-home air sealing measures are discontinued, will Energy Trust evaluate whole-home savings with and without air sealing?
Fred: We disaggregate individual measures based on billing data. We have estimates of energy savings by measure based on statistical models.

Holly: I'm concerned that offering incentives for electric measures and not gas measures will cause market confusion. It sends a message that electricity is worth conserving but not gas.

Scot: Can Energy Trust really disaggregate measures and judge the impact of each measure? We want people to understand that homeowners make decisions differently than businesses, based on other considerations besides money. The home operates as a system. We should start looking at residential energy efficiency in a new way.
Peter: The Existing Homes program will have to change. The whole program has a high-service, high-touch delivery model that isn't passing the Utility Cost Test. To remedy this, the Existing Homes budget for 2015 will need to feature a redesign of the program. We are cognizant of the go-to-market implications of unwinding a highly complex set of offerings and the impacts on trade allies and consumers. Given the timing of the docket late in the development of the draft budgets, the redesign will likely be somewhat of a rough draft when you see it at the next Conservation Advisory Council meeting.
Juliet: There will be changes coming down the road. To commissioners, energy efficiency is a resource that must be compared to other resources. Energy Trust needs to bring the Utility Cost Test up above 1.0. This will require program changes, not just cutting incentives.

Holly: What is the levelized cost for air sealing?
Fred: It's high.

Marshall: Pool pump incentives will change from $350 to $200. The initial incentive was set high for market introduction and this reduction was planned.

Kari: How many pool pump incentives does Energy Trust provide?
Marshall: Not many.

Marshall: Solar water and pool heating incentives will be discontinued for homes with gas and electric water heating.

Holly: Dow do we consider the energy-efficiency and renewable energy components of solar water heating measures?
Peter: Oregon Senate Bill 1149 designated solar water heating as an energy-efficiency measure, and it needs to pass the same test as the other efficiency measures. Prices of solar water heating have more than doubled in the past five years. The reasons for increased prices are beyond Energy Trust's control.
Marshall: More cost-effective water heating measures have emerged, as well.

Marshall will provide updates on these residential measure changes at the next Conservation Advisory Council meeting.

Holly: If Energy Trust has fewer cost-effective measures, will the public purpose charge go down?
Peter: Existing Homes is just one of eight programs and represents a smaller proportion of Energy Trust energy savings. We still have significant savings we can reach in products, new construction and with commercial and industrial businesses.
Jim: Energy Trust must balance the public purpose charge with utility Integrated Resource Plans and Energy Trust's potential to save energy.

8. Public comment
No public comment.

9. Meeting adjournment
The meeting adjourned at 4:25 p.m. The next Conservation Advisory Council meeting is scheduled on October 22, 2014.