Energy Trust Board of Directors Meeting

September 25, 2013

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123rd Board Meeting

Wednesday, September 25, 2013
421 SW Oak Street, Suite 300
Portland, Oregon

Energy Trust of Oregon

	Agenda	Tab	Purpose
8:15am	**Bus departs from Energy Trust office** (meet in front entrance)		
9:00am	**Tour of Port or Portland**		
11:30am	*Lunch*		
12:15pm	**Training: board responsibilities and legal obligations** *(Penny Serrurier)*		
1:45pm	*Break*		
2:00pm	**123rd Board Meeting—Call to Order** *(John Reynolds)* • Approve agenda		
2:05pm	**General Public Comment** *The president may defer specific public comment to the appropriate agenda topic.*		
2:10pm	**Consent Agenda**	**1**	*Action*
	The consent agenda may be approved by a single motion, second and vote of the board. Any item on the consent agenda will be moved to the regular agenda upon the request from any member of the board. • June 7 strategic planning workshop on energy efficiency notes • July 31 strategic planning workshop on renewables notes • July 31 board meeting minutes • Corporate Authorization (bank signing authority)—R678		
2:15pm	**President's Report** *(John Reynolds)*		
2:30pm	**Energy Programs**	**2**	
	• Authorize New Buildings Program PMC—R676 *(Oliver Kesting and Jessica Rose)*		*Action*
	• PECI New Homes & Products Contract Extension *(Matt Braman)*		*Information*
3:00pm	**Committee Reports**		
	• Audit Committees *(Ken Canon)*		*Information*
	• Finance and Compensation Committees *(Dan Enloe)*	**3**	*Information*
	o Treatment of Reserves and Amending Using Reserve Accounts Policy—R677	**3**	*Action*
	• Policy Committee *(Roger Hamilton)*	**4**	*Information*
3:50pm	*Break*		
4:00pm	**NEEA Annual Update** *(Susan Stratton, Executive Director of NEEA)*		*Information*
4:30pm	**Staff Report**		*Information*
	• Highlights *(Margie Harris)*		
	• Update: Integrated Solutions Implementation (ISI) *(Scott Clark)*.....	**6**	
5:00pm	**Adjourn**		

The next meeting of the Energy Trust Board of Directors will be held
Wednesday, November 6, 2013 at 12:15pm
at Energy Trust of Oregon, 421 SW Oak Street, Suite 300, Portland

Tab 1 Consent Agenda
- June 7 strategic planning workshop on energy efficiency notes
- July 31 strategic planning workshop on renewables notes
- July 31 board meeting minutes
- Corporate Authorization (bank signing authority)—R678

Tab 2 Energy Programs
- Authorize New Buildings Program PMC—R676
- Briefing Paper: PECI New Homes & Products Contract Extension

Tab 3 Finance and Compensation Committees
- Treatment of Reserves and Amending Using Reserve Accounts Policy—R677
- Notes on July 2013 financial statements
- July financials and contract summary report
- Financial glossary

Tab 4 Policy Committee
- August 13 meeting notes
- September 10 meeting notes

Tab 5 Advisory Council Notes
- July 17 RAC meeting notes
- July 17 CAC meeting notes

Tab 6 Staff Report
- Update: Integrated Solutions Implementation (ISI)
- Quarterly market indicators report

Tab 7 Glossary of Acronyms and Terminology

Board Strategic Planning Workshop
Reed College, Portland, Oregon

June 7, 2013

Board members present: Rick Applegate, Julie Brandis, Ken Canon, Roger Hamilton, Mark Kendall, Jeff King, Alan Meyer, John Reynolds, Anne Root, Dave Slavensky, John Savage (OPUC *ex officio*), Anne Donnelly (by phone for the morning session)

Board members absent: Dan Enloe, Debbie Kitchin, Lisa Schwartz (ODOE special advisor)

Staff attending: Scott Clark, Amber Cole, Kim Crossman, Diane Ferington, Fred Gordon, Margie Harris, Oliver Kesting, Steve Lacey, Debbie Menashe, Ana Morel, Peter West, Elaine Prause, Jessica Rose, Sue Meyer Sample, Jan Schaeffer, Scott Swearingen, John Volkman, Marshall Johnson

Others attending: Nick Viele, *Facilitator* (c3 Strategy), Jim Abrahamson (Cascade Natural Gas), Jeremy Anderson (WISE), Bill Edmonds (NW Natural), Jason Eisdorfer (OPUC), Joe Esmonde (IBEW #48), Tom Foley, Robert Hamerly (GreenSavers), Jeff Harris (NEEA), Juliet Johnson (OPUC), Tom Kelly (Neil Kelly Co.), Jeremy Litow (PECI), Don MacOdrum (Home Performance Guild), Holly Meyer (NW Natural), Steve Nadel (ACEEE), Amanda Potter (PECI), Lis Saunders (NEEA), Lauren Shapton (PGE)

Call to order and welcome

President John Reynolds called the workshop to order at 8:00 a.m. He observed that the board Strategic Planning Committee had done a lot of work on the retreat agenda and background papers, and expressed thanks. He then introduced Rick Applegate, chair of the board's Strategic Planning Committee.

Rick: we are entering even more challenging times around energy policy in our country. He welcomed Tom Foley, former president, and thanked John Reynolds for his leadership. This gathering provides an opportunity to step back from routine agendas and take a strategic view, which is important as we develop another five-year strategic plan. We have had three strategic plans—the first in 2002, when the organization was formed, one in 2007, and the current plan developed in 2009—spurred by "seismic events" in Salem with legislation that extended the public purpose charge. Starting next year we will begin preparing our next five-year strategic plan. Today is our initial foray into that effort. We do not need to decide anything today.

Rick referred to page 27 of the workshop packet and referenced the request for a "gut check" from the board on some issues through the course of today. He and John Volkman will be making a list of interesting topics for the strategic plan. We will review them at the end of the day.

Rick referenced the agenda and speakers for the day and thanked them.

He referred to Figure 9 on page 12 in the packet. What is the load in our region without Energy Trust, and what is the load with Energy Trust? There are many benefits caught up in the gap you see on this chart. This is the backdrop, the result, the bottom line for what we have been able to accomplish.

Rick turned the meeting over to Nick Viele, facilitator, who provided some ground rules.

Margie introduced Steve Nadel of the American Council for an Energy-Efficient Economy (ACEEE), noting his 30 years of experience in energy efficiency and influence on national energy policy, and thanked him for his efforts. He has been executive director at ACEEE since Energy Trust began in 2001.

Bleeding edge/cutting edge issues in energy efficiency

Steve Nadel said he is always looking for good ideas to share between states. His presentation showed energy efficiency spending 1993-2015. Half the states have energy efficiency targets with some consequences for not meeting them. Oregon is included because we have multi-year goals. A study last year showed most states are on track with their goals.

Ken Canon asked which line on Steve's graph is Oregon; Steve showed a line in the middle of the pack. The top line is Massachusetts, which has some of the most aggressive goals. Vermont's are very aggressive as well.

A slide demonstrated that energy efficiency is the least-cost resource, which is why so many more people are investing. Most states are addressing the business case, so that utility shareholders do not lose by doing efficiency. Only eight states are not providing any benefits to shareholders. A slide depicted possible coal plant retirements. Oregon is not on the list because it has only one coal plant. States may be retiring 50-60 gigawatts; the total announced and "ripe" equals 88 gigawatts. ICF International forecasts natural gas prices bottomed out in 2011-12 but are increasing and expected to continue increasing a demand surge in 2018-20, as new power plants are built, etc. Prices are forecast to increase from the current $4 per million BTU to maybe $5 per million BTU, but will not reach the $10 per million BTU of the past. Nuclear plant retirements in 2030 and beyond will move prices up again.

Steve reviewed states' ranking on ACEEE's energy efficiency scorecard. Oregon is fourth and always scores in the top 10 in ACEEE's and others' rankings. Southern states used to be at the bottom of the pack but this is changing.

Dave Slavensky: is there a relationship between weather and state investments in efficiency?
Steve: no, California ranks number two and has mild weather. It comes down to political commitment.

Steve reviewed Oregon's scores on all the scorecard areas. It is in the top 10 on all seven. Oregon was in sixth place in 2010 savings as a percent of retail sales. This ranking likely will go up in 2011.

He reviewed challenges facing Energy Trust, including:

- Maintaining annual savings as new minimum efficiency standards take effect
- Achieving cost-effectiveness with low natural gas prices
- Integrating programs with those of public utilities and others
- Capturing industrial savings

As an example, he compared fluorescent fixtures over time. Old four-lamp fixtures used 180 watts, the latest two-lamp uses 50 watts, and one-lamp plus task lighting uses less.

He reviewed the long-term efficiency resource, what can be achieved by 2050. He said by 2050 energy use could be reduced by 40 percent.

Policy opportunities to increase savings going forward include programs like one in Massachusetts. NStar targets the top 150 customers, representing 50 percent of sales, to develop multiyear memorandums of understanding (MOUs), whereby the customer pledges to reduce energy and NStar

pledges support to help the companies achieve this. So far 15 companies have signed MOUs. After two full years, savings are around 180 GWh/year. The first signer was MIT, committing to save 15 percent over three years.

Another variation is Efficiency Vermont's Energy Efficiency Challenge. This targets the 300 largest customers, asking them to commit to 7.5 percent savings over two years, with customized technical assistance to help each of them. Thus far there are 69 participants. As of April 2013, 16 companies had met their challenge goals, and 13 companies were close.

Roger Hamilton: how closely correlated is the cost per unit of electricity and the existence of these programs?
Steve said it is easier to sell these programs to a customer if rates are high, but even on the East Coast industrial rates tend to be low.

He reviewed industrial process opportunities. The vast majority of industrial savings are in processes, not lighting. These can produce inexpensive savings. To top this requires process knowledge by industry, focus on major industries, timing and patience. ISO 50001 Strategic Energy Management is a useful tool.

Regarding market transformation, Steve showed the classic diffusion curve that starts with research and development and moves up through commercialization to codes and standards. He noted the history of building code revisions in the United States. Opportunities include adopting the latest codes (90.1-2010) and 2012 IECC (International Energy Conservation Code). He noted Massachusetts works with municipalities interested in developing "reach codes," making these easier to be adopted statewide. Improving code implementation is also important—through technical assistance and training. Oregon is doing an above-average job on this.

Opportunities for future code improvements include ASHRAE (American Society of Heating, Refrigeration, and Air Conditioning Engineers) 90.1-2013, which would reduce energy use by 50 percent. He believes it is possible at some unknown future point to have net zero codes.

He recommended doing a code compliance study, as New York did recently. This study found residential basement walls and commercial recovery and cooling efficiency to be most frequently below code.

Potential future efficiency standards could increase savings significantly, for those products that standards can influence. These include residential electric water heaters, incandescent reflector lamps, residential air handlers, walk-in coolers and other equipment.

Lighting design continues to be an opportunity, particularly in tenant build-out, when lighting is often changed.

High IEER (integrated energy efficiency ratio) rooftop systems are an opportunity. The average unit now is 12; US Department of Energy is promoting IEER 18. Energy Trust has been a leader in operations and maintenance. Chillers can be optimized and changed to water-cooled.

The holy grail for many energy efficiency programs is multi-measure retrofits, such as Home Performance with ENERGY STAR®. Many utilities are using only the utility cost test, to allow customers more flexibility in choosing measures. Oregon should consider this.

Connecticut combines blower door testing with duct sealing and other measures, at $1,000/home. Multifamily has opportunities. Multi-measure retrofits are not easy and will require a lot of trial and error. ACEEE is studying current efforts and will have results at the end of the year.

Approaches to building energy management are promising. These include retro-commissioning, continuous commissioning and data mining.

Regarding combined heat and power (CHP), he said ODOE is targeting this with a paper on barriers and incentives. Post superstorm Sandy there's more interest in equipping critical facilities with CHP systems.

A slide showed the top 20 residential MELs (miscellaneous energy loads). An ACEEE study on this is coming out soon.

Benchmarking and disclosure policies allow purchasers to access the energy use profile of properties. Washington State has adopted a commercial policy; discussions are underway in Oregon.

Financing has been a hot area. It is useful for customers without capital, but these are in the minority. A lot of financing programs have low participation rates thus far.

A hot area within financing is on-bill repayment. New York, California and Hawaii are doing major programs. New York, California and Hawaii are about to sell on the secondary market. Commercial PACE is gaining traction.

Regarding behavior, OPower is averaging about 2 percent electric savings. In-home displays are averaging 4 percent savings, most from a limited number of "cyber-sensitive" customers. There are lot of opportunities to influence behavior in the commercial sector. Savings of 4-12 percent have been documented. Programs involve education and competition.

He reviewed opportunities—up to 20 percent savings—from Crosscutting Intelligence Infrastructure.

In summary, Steve thinks new opportunities have a potential to save up to 30 percent.

Alan: Do programs you cited have the freedom to collect funds from all industrial programs or are they limited to directing funds from the contributing entities?
Steve: the successful programs offer flexibility. Some have success with self-direct variations, including putting funds into a "savings pot" that will revert to a general fund if the company does not use it within, say, three years. Companies committed to energy management will get back more than they invest.

John Savage: I have three questions. First, when you mention CHP do you mean CHP or distributed generation? Second, is anyone making benchmarking mandatory? And third, is anyone tying on-bill repayments to the meter?
Steve said most are. Benchmarking disclosures are mandatory in some cities, including New York City, Philadelphia and Boston. Regarding CHP, ACEEE is interested in efficiency through CHP—heat and power, not distributed generation. Only a couple of places have tied on-bill repayment to the meter.

Ken: Can you comment on the energy efficiency component of pre-pay meters and voltage optimization?
Steve: utilities are supposed to provide 120-125 volts. Voltage optimization involves measuring

voltage at the end of the line to see if voltage sent out can be reduced. He said pre-payment is a double-edged sword. It may mean that for a period of time people do without power. However, it can be effective producing savings.

Julie Brandis: what about energy efficiency as a system? I am interested in the MIT example, which might pertain to Oregon institutions. How do you decide which buildings to prioritize?
Steve: this is complex and gets into heavy engineering, looking at where energy is being used, where it is being wasted, identifying priorities. Engaging students in the analysis guarantees them a job for the rest of their lives. For example, fume hoods are large energy users and tend to be left on too much of the time.

Roger: what about block rates?
Steve: places like California are exploring doing away with declining block rates. This benefits thrifty users.

John Reynolds: can you elaborate on rooftop HVAC?
Steve: traditionally they are rated for effectiveness at 95 degrees. The trade association and ASHRAE collaborated to create IEER (the I equals integrated), which is better suited to places where temperatures rarely hit 95 degrees.

Mark Kendall: I'm interested in issues about meters. Regarding MOUs with large customers, to what extent is it about baselining and getting meters straight?
Steve: some may be getting into metering issues, but there is a lot you can do without getting sophisticated.

Roger: what about sources of projected natural gas cost increases?
John R: and is gas export factored in?
Steve: In the forecast I showed, most of it relates to gas demand tied to price. Gas exports are assumed at a moderate level (10 percent).

Stage-setting

Margie Harris welcomed everyone to the meeting and introduced the Strategic Planning Committee from the staff—Debbie Menashe, John Volkman, Fred Gordon and Elaine Prause. Kim Crossman wrote the chapter on industrial efficiency. Margie mentioned that her presentation uses Prezi software.

Today kicks off planning for the 2015-19 strategic plan. She said our recent double-digit growth has been exhilarating—savings increasing at a faster rate and lower cost than predicted. Electric growth 2012 vs 2011 is up 12 percent; gas savings are up 22 percent. We think our double-digit growth will level off by 2015 and begin declining starting in 2016. We would still have energy efficiency resources to attack, but savings growth will slow.

She outlined influences affecting our work, each tied to agenda topics, including:

- Advances in the energy efficiency field
- Changes in energy plans and policies
- Technology has changed; NEEA brings new technologies to market
- Economics and rules change
- Market strategies change; we test them through pilots

Margie noted the importance of:

- Making it ridiculously easy for people to act
    - Speak a language people understand

    - Offer financing to those needing it
    - More social media
    - More on-line forms
- Serving everyone
    - Everyone contributes to the public purpose charge; everyone should have an opportunity to be served
    - Reach deeper into diverse communities, such rural and urban, people who speak different languages
    - The green community needs more colors
- Leveraging momentum created by local sustainability efforts
    - Governor's 10-year energy plan
    - Energize Clackamas; efforts in southern and eastern Oregon
    - Go outside typical energy boundaries to build connections to other aspects of sustainability, such as water, waste, etc.
- Defining influence in new ways
    - How do we identify our influence in the marketplace, when there are so many actors who have woven efficiency into their business models
    - Customers now demand efficiency
    - Going forward, we need to raise the level with codes and standards, influencing behavior, and focusing on market sectors that might be lagging
    - Find and use new ways to measure our influence and our success

We need to focus on the next five years, 2015-19, with new ideas and approaches. I am very proud of Energy Trust's successes. I am personally interested in climate change, and public concerns are shifting. Energy Trust's culture, talented staff, and goal-driven work will play a role. Margie invited questions and comments.

Joe Esmonde: I want to echo what Margie said about reaching out to diverse groups.

Ken: This question does not necessarily reflect my personal point of view but is important. You stated we should be concerned about who we serve. This makes us sound like a social service entity. This needs to be balanced against meeting climate goals, for instance, which suggests the advantage of obtaining the least-cost efficiency.
Margie: are these really mutually exclusive? We need to attempt to help everyone who contributes.

Rick: Isn't this the issue we have wrestled with at each of our strategic planning retreats—balancing equity with results? The issues are not mutually exclusive but they affect each other.

Alan: you lost me when you said we need everyone who contributes to participate. People participate out of free will. Our right place is somewhere in the middle of a focus on serving all and targeting the most cost-effective energy savings.
Margie: we are researching who participates now, to determine whether our assumption is correct that they are mostly middle class and white. More diverse communities do not travel in our circles and need different communication and awareness-building approaches.

Big picture of the Energy Trust efficiency program

Fred Gordon and Elaine Prause presented. Elaine said she will explain how we are doing now, what factors limit growth and how to address them.

Elaine reviewed current goals:

- 2010-14 range of savings

- Budget and action plans, updated annually
- Utility Integrated Resource Plans (IRP)
- Governor's 10-year energy action plan

So far, we are doing very well against our goals:

- We expect to end 2 aMW above the 2010-14 strategic plan goals
- We will formulate only one combined savings goal per utility going forward, and no longer set different goals for the stretch scenario, conservative case and IRP
- We expect to achieve the 2014 strategic goal on gas as well

Elaine's analysis of successful strategies to date, over the past 11 years, shows no single, long-term strategy to credit but, rather, a combination of many approaches. Successful strategies include:

- Supersaturating key technologies
- Opportunism—data centers, megaprojects, combined heat and power (CHP), Strategic Energy Management (SEM)
- Innovations in delivery and program design—packaged approaches, contractor models, pilot process
- Customer experience should be "ridiculously easy"
- Teaming with regional partners
- Anticipation of trends

Our impact on electric load growth is dramatic: loads would have been more than eight percent higher had Energy Trust not been active. Elaine showed the trend toward declining added savings each year in the period 2015-19. This has to do with the prospect that the remaining resource for electric efficiency is declining, low natural gas prices are affecting gas efficiency, and our 10 years of success. She noted the volatility of natural gas forecasting—different forecasts portray very different estimates of future use. If we were able to maintain the cost-effectiveness of our measures, savings would not decline.

Rick: why did Energy Trust achieve only 38 percent of the 10-year "achievable potential."
Fred: "achievable potential" assumed unlimited cash. For its first years, Energy Trust was limited to a set amount of funding under SB1149.

Elaine noted that, to reach the Governor's 10-year plan goal, Energy Trust has a role but other state agencies and utility organizations also will need to contribute. She outlined coordination topics for Energy Trust and ODOE.

In order to maintain our level of annual savings, we need to increase spending efficiency through spending less to get more savings, and to identify new cost-effective resources. Strategies for more efficiency spending include:

- Transactional efficiencies, enhanced by new PMCs
- Cost-effective measure mix
- Targeting high use customers, supported by better data access
- Upstream incentives for retailers to sell more high-efficiency items

This list suggests an incremental shift in emphasis from other goals like equity toward dollar efficiency.

Ken: I am interested in benchmarking, and how Energy Trust compares to other utilities, including Puget Sound Energy (PSE).
Fred: It has been difficult to interpret the data we can get, because the information provided by each

utility is not consistent in many ways. From what we have collected we conclude we are in the ballpark.
Ken: I am interested in the comparison to Puget Sound Energy, and I wonder what the advantages are of the Energy Trust model compared to the utility-delivery model.
Fred: transparency, influence of evaluations and innovation.
Margie: at a recent NEEA meeting, member utilities talked about constraining spending on energy efficiency. We do not have that issue. We are mission-driven, single-purpose, focused. Utility efficiency programs need to fight with other utility programs for corporate support. We have a lot in common with PSE but we do not have to fight to do our work.
John S: PSE is a good comparison, because they provide both gas and electric. It is wise to benchmark ourselves against others.
Margie: we also provide renewables.

Fred: a contractor assigned to do a benchmarking study for Energy Trust concluded that benchmarking savings and cost did not work because of problems with the comparability of data and situations. They recommend that we benchmark on best practices for program management as being more meaningful.

Alan: are you including SB 838-funded results in our 10-year numbers?
Rick: did you compare the percentage attainment of cost-effective efficiency?
Elaine: we could not obtain this level of detail. We could obtain how much was spent per customer.

John R: I wonder about the value and practice of defining “large users,” noting a small, uninsulated home occupied by a lower-income family can have higher use per square foot than in a high-total-use home that is larger and middle class. Should we target the small home?
Fred: for folks with limited income and smaller loads, savings are limited. We either need to pay a lot for the limited savings or they need to spend a lot of their own money to produce savings.

Mark: what kind of metrics are we going to establish to determine whether we are getting broader reach versus greater cost-effectiveness.
Fred: we differentiate among business types and sizes. To get at ethnic and income diversity, we need to identify who they are and how to reach them. We do not currently collect information on ethnicity or language for our participants, so we will try to get indicators of these factors by looking at participation by census tract.

Ken: what about upstream incentives, and how our work coordinates with NEEA’s?
Fred: there are areas they lead and areas we lead. For example, we are doing a Market Lift pilot for lighting that NEEA is watching to see if it is regionally applicable.

Nick Viele requested questions on any of the material covered thus far today, focused on what work Energy Trust should continue, what work should stop, what new work should begin?

Mark: we want to continue the level of performance verification we have had in the past. We need to tighten our ability to forecast with rigor.

Ken: the questions are so absolute. So much of our work has been evolutionary. As we continue the programs we have, we need to consider how to target areas where we have had less success.
Rick: It is hard out of the chute to say what things we should stop. These questions seemed like good ones when the committee formulated them, but we generally rely on iterative conversation.
Alan: these are very generic questions so I will provide a generic answer. We should continue what we are doing that is successful and cost effective, and stop the things that are not.

Jeff King: I cannot respond to these questions. We need further elaboration to be able to respond intelligently.

John R: back to targeting, I remember early on we targeted restaurants and succeeded with pre-rinse sprayers. We made almost no progress on other measures, such as rooftop units.
Fred: we began our relationship with the Restaurant Association, then later came upon the opportunity with pre-rinse sprayers and achieved a lot of savings. When we figured out how to do rooftop tune-ups, we began making headway. Over time, we slowly found the things restaurants want to do, but they were not necessarily what we first envisioned. We are getting close to having served a large percentage of some building types, such as large groceries. Office and retail have a huge number of buildings, and even though we have reached many, there is a bigger unsaturated market. We are breaking this down into size, type, owners in order to better understand who is not participating that we need to target.

Rick: I do not think we have a groundswell of members who want something stopped, nor any focus on something we want to begin. I wonder if stakeholders have expressed thoughts on these points.

Margie: I think the question gets at how we are measuring our success, including cost-effectiveness. The low cost of natural gas, combined with current cost-effectiveness components, could require stopping some of our current activities.

John S: OPUC will host a public meeting in July. We will ask Energy Trust to put a hold on all waiver requests and bring results from current programs about this time next year. We will run these results through a screen that includes criteria like market transformation and social benefits that are outside the definition of cost-effectiveness. From there we will decide whether to change criteria for determining cost-effectiveness.

Ken: are there changes contemplated in how we use utility and total resource cost (TRC) tests?

John S: I do not want to go there. At the same time, I do not want you spending too much time trying to quantify all the social benefits. I would rather have clear criteria to give you guidance about whether or not to continue a program.

Mark: It is important to continue simplifying information and participation in order to engage those not currently participating. I support more web forms and promoting greater use of them.

John S: you are continually adjusting to deliver programs better, faster, cheaper. This is what you should be doing. Regardless of the governor's goal, you would still be doing all you are doing. Look at this operation as a business and ask yourselves, should we be putting more money here or there?
Margie: our newly granted access to customer data can help us target communities we are missing.

Rick: by not taking a harder look at those more-difficult-to-quantify benefits, are we confident that we are not undershooting cost-effective conservation.
John S: no, you are not undershooting. Energy Trust's cost-effectiveness formula is solid. The main benefit of Energy Trust is keeping energy costs down for all. If a measure produces huge water savings for a customer, the customer should pay a larger share of the cost.
Margie: I see that as going to where the customer is, as an entry point. If there are water and energy savings from a measure, it's a win-win.

Steve N: let's say a customer's projects meet the cost-effectiveness test and they want to do windows, can they? John S: yes, because it's not a stand-alone.

Alan: no one replaces windows in order to save energy. If by incentivizing efficient windows we can get them to buy other efficiency measures, why can't we do this?
John S: it makes sense for windows.
Fred: this comes down to some less tangible values such as comfort or health, which drive some customers but not all. Where it is hard to quantify, we are working on reaching agreement with the OPUC on how these benefits should be factored into decisions.
Alan: if it passes the utility test, who cares? I do not understand why we apply the societal test. Who are we to be making a judgment about how people invest their money?
Fred: the societal test is about how all Oregonians, considered as a group, become wealthier if we reduce the cost of energy.

Anne asked Margie for more on the ethnicity issue. Are you saying we are missing the mark on residential? Industrial? Is language the barrier?
Margie: We are at the very beginning of defining it. It has many dimensions. Ours is largely a white industry. There is something inherently beneficial in looking at how to reach different, ethnically diverse segments of the market. Everyone contributes; not everyone knows about us. This affects how we hire and procure, as well.
Anne: are you thinking about marketing? Who we work with?
Margie: we are not connected with all these groups, and they are not connected with us. It is more a series of questions and opportunities. It reflects a certain vulnerability we have by not serving all those who contribute.
Anne: you're looking at cultural pockets, not necessarily ethnic groups?
Margie: yes, for instance, we communicate in Spanish, but there are many other communities we do not communicate with.

Rick: I do not think of us as a social service organization. We are ratepayer-funded, and must respond to ratepayers. Back to an earlier question: confirming that we are not undershooting results because of cost-effectiveness definitions.
John S: you saved over 50 aMW this year—an astounding result. The bigger issue for you is sustaining this.

Dave: as we pilot new things, such as reaching more diverse audiences, it would be helpful to quantify the level of effort required.
Margie: we could do this as part of the budget.

John S: 10 percent of the public purpose fund goes to low-income housing. Are we collaborating with low-income agencies?
Margie: we work with affordable housing agencies to make sure remodeled buildings are of higher efficiency than they otherwise would be.
Diane: we coordinate quarterly with low-income agencies. We have overlap with food pantry programs and offer kits with CFLs and water aerators. We have the Savings Within Reach track, which starts at income levels where CAP agencies end. Our refrigerator recycling program serves low income populations as well as others. We have done a lot of work in that space.

John S: do you have a specific budget for pilots?
Margie: we do not create a pre-designated amount of money, but we do have a specific approach to qualifying pilots.

Ken: I view the diversity discussion as involving customer groups, each with different characteristics. They are all customers of Energy Trust. It is important to reach them. Equal opportunity does not mean we need to have equal outcome.

Steve N: to clarify what I said about financing, it is useful to some customers, but is not going to solve all problems. It needs to be complemented with other kinds of assistance. Regarding the last question, I suggest re-wording to ask what things should be expanded and what might be cut back. We should spend more effort on industrial process, water-related programs, codes and standards, intelligent efficiency and commercial behavior. A number of states, such as New Jersey, have affordable housing financing agencies, and collaboration with these organizations can produce results.
Roger noted new estimates of the social cost of carbon. The former estimate was $42/ton; it is now up to $60 or $70/ton. How does that work its way into how we evaluate the effectiveness of our programs?
Margie: a carbon adder is used in integrated resource planning.
Fred: the OPUC's charter involves cost to ratepayers. They try to forecast the cost of carbon that utilities and their ratepayers will need to pay. Without cap and trade or a carbon tax, or another federal or state policy which puts concrete costs on carbon, the forecasters are not sure that utilities will see a cost, or when, so it is hard to forecast this cost. They discount for the possibility that it might not happen, or happen soon. We do not have a big carbon adder right now as a result.
John Volkman: I was at a Northwest Power Council workshop recently when these results were reported. The Northwest Power Council has not decided what to do, but recognizes these are real costs and need to be accounted for. The issue is very much in motion.
John S: right now the cost-effectiveness calculation includes all avoidable cost, including carbon.

Tom Foley: I remember back at the first retreat, John R advocated for behavioral conservation. We had no ability to tap that then, but now we do. It is cheap and available, and Energy Trust should go way beyond its goals and achieve the vision John R talked about at that first retreat. This will help as Smart Grid comes into play, and buildings have the ability to understand more about their energy use.

The board took a lunch break at 11:30 a.m. and resumed at 12:35 p.m. John Savage left the workshop during lunch.

Large customer electric efficiency

Kim Crossman noted that Energy Trust already is doing most of the innovative practices for the industrial sector mentioned this morning by Steve Nadel. These practices led ACEEE to name our industrial program as one of three "exemplary" programs in the nation this spring.

The program just hosted its twice-annual Breakfast of Champions yesterday at Gunderson. On the topic of diversity addressed earlier by Margie, there are more than 70 languages spoken at that site. Gunderson did SEM with us. One element of SEM is employee engagement. We can learn from them how they engage employees speaking so many languages. They do this every day.

When Energy Trust began, more than 20 large industrial customers eligible for self-direction (over one aMW at their sites) chose to self-direct their public purpose fund payments. Today only seven companies self-direct for conservation. (Self-directors are eligible for 50% of normal incentives on projects that they do not use to meet their self-direct requirement. They do not have to stop self-directing in order to do this. If they want full incentives, then they have to stop for at least 36 months.)
Ken: I think some of the self-directors stopped because they sought Energy Trust advice. The rest may have stopped knowing they will receive greater benefits by participating with Energy Trust.

Dave: what about SB 838 funding?
Kim explained that SB 838 excludes customers over 1 aMW. She said Energy Trust established a methodology to identify how much Energy Trust had been spending on large customers before SB 838 passed, and we keep the average percentage at or below those historic levels. We are re-

examining this methodology with the OPUC.
Rick: Was there a board decision related to this?
Fred: the percentage cap came out of multiparty negotiations. It was not a board decision.

Kim: after 2012, we are very close to exceeding the historic percentage of spending on large customers in PGE territory. When we trigger this, we will need to constrain spending on these customers until we can bring the average spending on them back down. If this were to occur, we would lose savings; our first estimate is 8-12 aMW over the next five years in PGE territory. The loss of lower-than-average-cost savings increases overall portfolio costs. In addition, the side effects of curtailing funds could magnify these losses over the longer term. We could be damaging customers' perceptions of the value of efficiency and relationships that we have worked very hard to develop.

The planning team is determining whether the methodology is viable, understood and accepted by the OPUC. It is quantifying how the limit impacts our costs and affects 2015-19 savings. The program team is identifying the least damaging actions to reduce large customer spending when we need to, and determining what new or expanded program strategies can help make up some of the lost savings. However, we have a near-term issue, another potential megaproject in PGE territory. It is practically a sure thing that saying yes to this megaproject will send PGE spending over the limit.

Alan: you have not hit the cap yet so you may not need to reduce spending.
Fred: if we go over, we are cumulatively over; to get back in balance, we will need to reduce spending.

Kim: we will need to spend less, but this does not *necessarily* mean lower savings. We are considering how to:

- Minimize loss of savings
- Minimize damage to customer relationships and their attitude toward energy efficiency
- Keep it simple, avoid creating new inefficiencies in program operations, make changes easy to explain

She reviewed potential low-risk program actions:

- No new megaproject in PGE territory while funding is constrained
- Reduce annual cap on incentives from $1million per year to $500,000 per site.

Dave: how does the $500,000 limit compare to what a large organization pays into the fund?
Kim: I can give you an anecdotal number. As we begin to lower our site caps, the incentive for large sites to self-direct increases. At $1 million per year, the benefits of full participation far outweigh self-direction.

Alan: the megaproject site was self-directing until receiving megaproject status.

Mark: how many clients would be affected by lowering the cap to $500,000?
Kim: we have not had clear visibility into who is or is not using more than 1 aMW. I think there are 150 customers across PGE and Pacific Power. Only a few customers a year receive more than $500,000 in a year.

Ken: is $500,000 enough on an annual basis?
Kim: we need to do the math. There seem to be big projects coming—data centers, CHP, semi-conductor. These will create new opportunities; the cutback will set us up to say no to those companies.

Alan: tell us again why we give any money to self-directors?
Kim: it is a board policy from early years. We are only working with them above and beyond their self-direct requirements. Self-directors tend to be slow to see the value of energy savings; they have more of a compliance mindset about their self-direct requirements, but we can influence them to go beyond this. We get cheap savings, at 50 percent of incentives.

Kim suggested a mid-risk strategy:

- Lower site caps for self-directors to 50 percent of standard cap ($250,000)

And some additional potential actions:

- Budget cap on PGE incentives to large customers across all programs serving them
  - Tends to lead to less savings across the programs
  - Requires reservation systems, with its consequences
- Discontinue funding for self-directors
  - Would result in lower savings and loss of lowest cost savings

We could develop new sources of savings:

- Focus innovation on smaller businesses
  - Custom PDC support and SEM to small industries
  - Scale up small commercial packages of measures
  - Costs will increase; not sure how much
- Continue offering SEM for large customers
  - Keep them deeply engaged in energy efficiency and Energy Trust despite possible capital funding limitations
  - SEM is a two-edged sword at a time when we are trying to limit spending on larger customers; it comes with inexpensive savings but stimulates further engagement; they know how to get done what they want to do

She outlined discussion questions:

- What is your gut reaction to the actions we are considering implementing when we reach the funding threshold for these customers? What else should we be considering or watching?
- What other aspects of this issue would you like to explore for the 2015-19 plan?

John R mentioned the most infamous megaproject, Blue Heron, which has ceased operating. He asked for savings from megaprojects.

Kim: we have done six megaprojects, three in PGE territory and three in Pacific Power territory. Two of these, Blue Heron and SP Newsprint, saved less than we hoped but were still a good deal. We paid 1.4 cents/kWh on the projects that saved significantly less than we had hoped. The average across all megaprojects is 1 cent/kWh.

Alan: how do we know that we are allocating the dollars properly? Why such a discrepancy between Pacific Power (27 percent) and PGE (18 percent). Early on we had more effective personnel working in Pacific Power. Should the percent breakdown be maintained?
Kim: The market situation has changed; we are working effectively with large customers of PGE now. We are examining this.

Rick: should a larger group be engaged in this discussion, as Oregon is affected statewide?
Ken: both issues (electric large customer limit, transport gas customers) probably will engage others outside Energy Trust. It is probably more of a role for OPUC, ICNU, gas companies, food processors, other stakeholders to consider alternatives. Legislative change is an alternative, but not the only one.

We need strong data and a focus on lost opportunities.
Margie: I agree with Ken and would bring more large customers to the table, such as high tech and utilities. Bringing parties to the table is an OPUC role. We are in the role of bringing information to the table. There is a benefit to claiming these low-cost savings for all consumers.
Fred: the OPUC staff is looking to a process much like the one Ken described.
Ken: the challenge is to find the right type of 1-5 aMW customers to participate.
Mark: in the long run can we expect to get the same cost-effectiveness in the future? I would need more data to consider advantages of the mid-risk options.
Alan: do not wait too long to address this.
Rick: I am glad we have elevated this issue. It has some very important consequences. A lot of this can be fleshed out and our role defined before we complete the new strategic plan.

Dave: are we going to have this issue before us fairly soon through the megaproject?
Kim: within 4-6 months.
Dave: can we use our interest reserve for this?
Kim: not proactively. We would make a commitment over several years and would need to curtail spending with other customers.

Fred: it is important to know that, absent a major adjustment on how to draw the line, we are going to face these limits before the legislature can make any changes.
Rick: we would hope the discussion can get going, not as part of the strategic plan, but parallel and independently.

Kim: while we need to engage this topic now, I do not think we want to go to the market and tell them there may be a funding constraint in the future. We will want to talk with some industries, such as food processors; but by and large we need to keep offering our program or we risk losing savings.

Ken: these businesses have had the rug pulled out of them before, such as when BETC was cut out. We need to be open and honest with customers, even if they do not like what they hear.

New technologies and methods

Fred Gordon said the presentation is in two parts: what we are doing at Energy Trust, and NEEA's efforts in this area.

Long-term forecasts of the amount of efficiency that Energy Trust will acquire influence utility generation and infrastructure plans, Energy Trust business plans and state carbon management plans.

These electric conservation acquisition forecasts show a slowing of the pace as we rapidly move through the more straightforward opportunities. For gas the big question is cost-effectiveness.

This slowing is because much of the remaining available electric efficiency opportunities are expensive, have complex marketing issues, or can be acquired only when new equipment or buildings are built or bought.

But the forecasts have a bias. They are based on energy efficiency opportunities that are proven, cost-effective and available in the market today. We know that over time more efficient technologies have entered the market and that we expect more to do so in the future, and these will have a significant impact. We do not know how big that impact will be. As part of the Boardman settlement, PGE brought in Bonneville Environmental Foundation to consider the effects of technology into the future. Energy Trust staff worked with them to do a first-cut analysis of the impact on efficiency supply

of emerging technology. We agreed that this is a good start but that the estimates are not reliable enough to use in program or resource planning.

ACEEE did a 50-year look. That may be too broad to use in resource planning over 20 years. NEEA has a planning team for new technologies looking at 300 MW in the next 20 years. We are trying to thread the needle to compile a realistic picture of possibilities. Our tentative approach is not to try to build up a reliable estimate from the details of individual measuares, but to try two or three ways to develop quantitative scenarios, and perhaps use them to establish an upper and lower bound on how much new cost-effective efficiency we can expect.

Dave: in the last four years we have not built many buildings. There is a surge of new construction now. Do we track that?
Fred: we base our forecasts on utility load growth forecasts, which are based on new construction permits and plans. We are getting 70 percent of new commercial efficiency floor space and 25 percent of new homes.
John R: we used the down market as a time to educate builders. I am hoping to see that market share go up to prove out our investment.
Peter: we were at 12 percent of the new homes market when the recession hit. Now we are at 25 percent, so our approach worked.

NEEA's stage-gate process on technology identification and development

Jeff Harris said everybody is talking about emerging technologies but not all of them are ready for the market nor are they cost-effective. NEEA's view about the path of innovation is: it is a long, slow ramp-up until everyone gets it, and it takes off. NEEA is in the business of increasing market share sooner. If we are successful, we will lower the cost to everyone. CFLs cost $15 in 1990; now you can buy a 12-pack for this amount.

I am talking today about the very front end of that process. To get to the inflection point takes a lot of work. The NEEA process begins with concept identification, then through real-world testing, through a mature market, and long-term monitoring. At the front end, we throw out three out of every four things that come in the door.

Jeff showed a graphic depicting technologies fully developed, and level of effort supporting them, along with higher cost, higher risk technologies that are less far along.

Another slide showed NEEA savings over the years from 1999 and into the future (2029). Each funding cycle is depicted in a color. Past performance guides forecast for the future.

High-efficiency televisions have been a major savings generator. Over time, the savings from televisions begin to shrink as the market is transformed. Another significant technology is ductless heat pumps, in development since 2010. Heat pump water heaters will grow dramatically after 2025, when federal standards are expected to take effect.

Heat pump water heaters save 40-50 percent of the energy that an ordinary resistance water heater would use. They are quiet and come with full microprocessor controls. There is interest in using these things for interactive communications to manage demand. The cost is $2,000 plus installation. We are early on the S-curve. When federal standards kick in, Jeff expects the cost to come way down.

Ductless heat pumps operate down to -15°F. They produce two units of heat out for each unit of electric input. A single system's installed cost is $3,500. For the audience that still has baseboard

heat, this single unit may be all they need or can afford. Customers give the product high scores for comfort, although comfort is not yet included among the product's non-energy benefits.

Luminaire level lighting controls allow controlling of individual fixtures.

For the industrial sector, there is a "pumping system in a box" that gains savings up to 50 percent.

Jeff's last example was Home Energy Management. Comcast supplies this in Seattle for $30/month; it monitors security systems and much more along with energy.

Jeff said NEEA collaborates with Energy Trust in early stage demonstrations of emerging technologies. Through pilots, Energy Trust helps NEEA find sites for these technologies. Energy Trust benefits because costs are shared regionally.

Rick: the emerging technologies Jeff mentioned are not displayed on Fred's graph on page 14 of the packet.

Roger: what was NEEA's role on the Bullitt Foundation net zero building?
Jeff: efficiency was the biggest contributor to the net zero performance of the building, including HVAC, lighting, miscellaneous loads. NEEA's design lab contributed.

Mark: NEEA does not do much in gas efficiency. Rankine heat capture systems have huge potential.
Jeff: NEEA's mission is fuel-blind energy efficiency, but at the moment no gas revenues fund NEEA.

Roger: did you say you did work on renewable energy technologies?
Jeff: Our mission is focused on energy efficiency, but many of our technologies can do renewable system integration.

Effects of low gas prices on cost-effectiveness

Diane Ferington: the Existing Homes portfolio currently is achieving 0.8 cost-effectiveness on gas weatherization. She described some remedial measures, including stopping incentives for duct sealing, which qualifies for ODOE incentives, and modification of measure level thresholds using insulation requirement changes as an example. On-line forms are being developed and are more broadly used to decrease administrative costs. The requirement for modeling by contractors has been removed to make their processes more efficient. Responsibility for marketing has been moved toward contractors, and we are developing an on-line tool to help drive traffic to contractors which eventually they will be able to monitor the effectiveness of their particular marketing pieces and project close rates.

Weatherization contractor panel discussion

Diane introduced the weatherization contractor panel: Jeremy Anderson (Weatherization Industries Save Energy WISE), Robert Hamerly (GreenSavers USA), Tom Kelly (Neil Kelly Company), and Don MacOdrum (Home Performance Contractors Guild).

How will you manage your efficiency business, given cost-effectiveness constraints and falling gas prices?

Robert Hamerly: falling gas prices means falling rebates. Rebates stimulate interest, endorse product, create urgency. With lowered rebates, the sales team has to work harder and push non-energy benefits. He believes the people open to the non-energy benefits (indoor air quality, reliability, home

health, etc.) may be higher income. With lower rebates, we do not serve that segment of the market that well.

Jeremy Anderson: there is no cost-effective gas efficiency market right now. Minor adjustments around the edges are not going to double savings. The only answer left short of changing legislation is to change the definition of cost-effectiveness. If we do not solve this problem, we lose the gas weatherization program—which is Energy Trust's flagship offer. Cost-effectiveness is defined in law only as consumer-based. He noted the half of Existing Homes program spending that is not incentives is not required to pass a cost-effectiveness test. The board should get involved and ask OPUC if the TRC test can be dropped.

Tom Kelly agreed that rebates get customers interested. He also agreed that talking to customers about energy savings will not get them to do all possible measures. His marketing focuses on comfort, air quality, etc. Neil Kelly's sales are up 63 percent this year. They will continue on a growth curve so long as incentives do not disappear altogether.

Don MacOdrum advocated similarly to Jeremy for a new way to value cost-effective energy efficiency. This is a challenge not only in our market but across the nation. He is working with national groups to stimulate a dialogue nationally and regionally. He hopes to work with program staff on incremental savings. We are working on ways to bring down costs, and to help transfer certain program functions to the market. The Guild conducts Energy IQ workshops. We are setting goals around Fluid's goals on kWh and therms and lead generation. Their new brand message: "get a plan, do the tests, trust the results."

Alan: SB 1149 does not apply to gas. This morning someone advocated dropping TRC and going with utility cost in determining cost-effectiveness.
Tom: if rebates go away, my business will go down by 50 percent. The societal test supports the integrity of the industry.
Alan: I was the one advocating getting rid of the TRC. We are here subsidizing the savings, not the non-energy benefits. There seemed to be a concern that the fact we are offering a rebate may be a factor in their decision to do projects.
Robert: rebates help and are a factor in decision-making. Price matters. Home Performance is on the front end of the curve. Comfort and home health as values are only just beginning to resonate with customers. It may be a different story 10 years down the road, when we may have developed to the point we can sustain business without rebates.
Jeremy: when incentives are used best, they augment a customer's budget and allow purchasing more measures. A large percentage of customers simply do not have capital. TRC uses avoided cost. The customer does not care about avoided cost; they are paying retail cost.
Don: let's identify what we lose if we move away from TRC. I have begun making a list. If we can identify these items, we can begin to identify other tools for delivering the lost functions.

Ken: there are several types of incentives. Do you see any interest in a financing incentive?
Tom: interest rates are low. The lower the rate, the better the chance the consumer will go ahead. They are used to 0 interest loans on new cars. Perhaps we could offer lower rates than they are right now.
Robert: financing is huge and has been a huge stimulus for the growth in his industry. It does not serve all market segments. Having tools to serve other residents would be a good step forward.
Jeremy: I work in Salem. People in Salem do not like to finance. If we have an attractive loan, without strings attached, we could widen that pool. CEWO products have a lot of strings attached. There is a time value of an incentive. Waiting 6-8 weeks is a long time. A significant improvement would be to pay incentives directly to the contractors.
Don: CEWO opened the door to Home Performance financing in Oregon. They have been so efficient

in getting lenders to step up that CEWO no longer considers financing to be one of its brand identifiers. Other ARRA-funded programs have had success with lowering interest rates. The lender ally program that Energy Trust is developing has great potential.

Tom: I think as soon as some of the export facilities are in place, gas prices will go up more than predicted in the workshop materials. Some of my customers are motivated to do projects because of the declining cost of gas. They do not feel this represents how the fuel should be priced.

How do you innovate and "close the deal" in the field?

Tom: we found simplification is better than complexity unless we are dealing with an engineer. Our sales technique is to sell to what they prioritize—energy savings or comfort or whatever. When we got into the business, our auditors were also selling and spent a lot of time explaining technical details to customers. Their eyes glazed over.

Ken: how much of your business is from referrals?
Tom: 20-30 percent. This is not unusual in the remodeling business in general. We underpromise and overdeliver. If we tell a customer they will get a 30 percent savings and they get 50 percent, they become a strong advocate for us.

John R: are folks interested in the resale value of their home?
Tom: yes, but it is not a primary motivator for most. Astute folks are interested in the energy performance score (EPS).
John R: do a lot of your customers seek an EPS before they sell a house?
Tom: no, but we get a lot who do, having just bought a house. Getting a home energy inspection is as important as a structural inspection when you buy a house.
Robert: on the transaction side, many people who buy older homes want to bring the shell up to more efficient levels. We found effective selling cannot be referencing only dollars saved. It is like shopping at New Seasons or Whole Foods.

Tom: my past experience in the remodeling industry has shown when new things come along, a lot of bad actors are attracted. That has not happened in this case.

Jeremy: the company I am most familiar with has been doing whole-house upgrades for 30 years and gets 75 percent from referrals. Salem Electric, the utility company for West Salem, pays half the money and makes some of the calls. McMinnville Electric decided in 2009 to get all their savings in one year and established high incentives to do so.

Don: Tom said he did not want to share his approaches to closing sales with Robert....but he already has. "I'm trying to get a customer for life." Develop a plan that they can use over time. The Guild is engaging with USDOE developing Home Performance with Energy Star® marketing pilots. Helping drive the lenders is a key for us. The Oregon legislature is taking the EPS Energy Trust developed statewide.

Ken: what part does benchmarking with other states or other parts of the nation play in the work of the Guild? Are there other entities doing similar functions and how do you compare to them?
Don: just about everything we do is measured and measured again. I have mentored establishment of Home Performance programs across the nation and in Canada. I am heading to a national leadership summit in July. The goal around this is try not to recreate the wheel whenever possible, and trying to replicate good ideas from others.

Tom: we are in Seattle, too. When we first got there things were not working well. Now they have basically adopted what we do here.

Anne: where is interest across the state in Home Performance?
Don: we have members concentrated in Portland but also have members in Hood River, Bend and Southern Oregon, driven by CEWO.

Jeremy: a note of caution regarding EPS. Every dollar we spend measuring something is a dollar we do not spend doing something. It is a large and varied state with many types of customers.

Within this environment of energy efficiency constraints, how can Energy Trust strengthen its working relationship with contractors?

Robert: the management of Energy Trust has embarked on this already. In the past few years I have been pleasantly surprised by your willingness to listen and put our suggestions into action. The biggest thing is consistency. We do not want to bear the cost of retraining staff multiple times a year on program changes. Reducing paperwork is great. Broad education is helpful to our industry. It is hard for contractors to do broad educational campaigns.

Ken: are you making a distinction between education and marketing?
Robert: there is overlap.
Ken: do you see any advantage in having a generic marketing toolkit you could put your name on and use?
Robert: a lot of the time we want to differentiate ourselves from our competitors. Help with broader marketing is welcome.
Jeremy: if you made “Energy Trust” a little smaller and contractor name larger we might want to use generic marketing materials. Assigning incentives to contractors would be a big improvement. ODOE had an opportunity announcement for multifamily that had some computer modeling requirements that the industry could not handle but Energy Trust could. He would like Energy Trust to assist contractors in such instances. Changing benefit/cost rules is important.

Tom: getting a customer to sign up for an audit is important. Energy Trust and CEWO messages can have more effect with customers. You are talking to the largest businesses here. A lot of the smaller businesses can use help with marketing.
Don: marketing would help, such as defining energy efficiency. There are not enough ads that say Energy Trust and energy efficiency in the same sentence. Addressing this involves education, marketing and outreach. The association is happy to play a role. Energy Trust involvement in trade associations is helpful. We have an Energy Trust representative on our board. This helps build the ranks of the top tier energy efficiency contractors. This entails building the pool of experts, not just the pool of trade allies. Direct lines of communication, through trade ally roundtables and sitting on the Conservation Advisory Council, are helpful.

Julie noted that we talked earlier today about reaching underserved markets. Perhaps we could work together to address this.

Tom suggested the creation of a carbon tax to fund low income efficiency.

Robert: financing that could serve those groups.

Jeremy: better coordination with ODOE to reach rental households. ODOE will match Energy Trust incentives. It is a problem that the landlord often does not get the benefit. So the cost to the owner needs to be lower with more direct outreach.

Don: Energy Trust has a limited role in advocacy but is able to provide consulting services and education. Energy Trust does not have to drive an agenda, but you could suggest ideas and opportunities to organizations like ours.

Mark: regarding the other values that can drive sales (comfort, health), I hope we are looking for data.

Tom: an example is sound-deadening from new windows. We have actually been marketing to busy streets because of this.

Mark: it costs as much to transact a $7,500 loan for some efficiency as a $25,000-40,000 loan. There is an economy of scale in partnering with a lender. How long is a remodeling job happening alongside an energy efficiency job?

Tom: CEWO is more liberal about this. We offer an audit to remodel customers, which generates efficiency business. On the other hand, few efficiency jobs include remodeling elements.

Steve N: of the 43 states we surveyed, only 30 do measure-by-measure cost-effectiveness, while the rest test the cost-effectiveness of the whole program.

The board took an afternoon break at 3:40 p.m. and resumed at 3:55 p.m. Julie Brandis left the workshop during the break.

Introduction of upcoming 5-year strategic planning process

Rick Applegate referred to the strategic planning timeline in the packet. He noted the timeline is laid out in general form without narrative. From today's discussion, particularly John Savage's comments, I think we have to add the OPUC cost-effectiveness process next year. It makes the schedule a little tight but I think we should engage with it.

We are in the preliminary work phase now. A lot of staff work will go on and intensify in January. Staff will do a lot of analysis through spring, working on a draft plan. Early in 2014 we will have conversations with CAC and RAC and the strategic utility roundtable. By the June board strategic planning retreat, we hope to have a draft plan. The budget process begins in summer. In September, as we get to the draft final plan, staff will be working on the budget. The strategic plan will be adopted in October 2014, leading logically to the budget and action plan. This gives you a rough idea of what 2014 looks like.

Margie noted the outreach plan is not fully reflected here—for example, to utilities.

Ken: does the strategic planning process require more board meetings?
Margie: in the past we have not added board meetings.

Anne asked if the legislative action should be reflected in this timeline.
Margie: we do not initiate legislation. We are reactive.

Roger: does Rick anticipate a scenario approach?
Rick: this is what commonly occurs.

John R: at some point during the process, scenarios could be presented to the board. He noted the board tends to rely on its committees and asked if the whole board should be involved.
Rick: yes, in March.

Roger: Make sure we look at the environment within which our entity operates, and anticipate different futures. We cannot plan on just one future but need to plan alternative futures that might be very different.

Dave: we need to get the issues around the IRP and goals resolved before the strategic plan, so this can be reflected in the strategic plan.
Margie: we plan to bring you resolution on that by the end of July.

Roger: does the plan have a five-year horizon?
Margie said yes, but noted some of her colleagues in other states are planning on a three-year horizon.
Roger said a utility IRP needs a 20-year horizon with updates every two years.
Rick: you can do a five-year plan but be ready to update if needed. You want flexibility.
Margie: five years is required in our OPUC grant agreement. We can update or revise a plan before the five years is over, if needed.

Rick noted John V and others on staff have teased out potential areas to explore in the strategic plan:

- Target larger energy users with multiyear MOUs, etc.
- Leverage codes and standards
- Disaggregate “other” sources of savings
- Add more colors to “green” programs
- In considering where we engage and how much, identify level of effort (e.g., financing)
- Behavioral savings, intelligent energy technologies and management systems

Ken: how do we add more items to the list after we have had time to reflect?
John V: we are not jelling a concept for the plan until January.
Rick: to the extent board members have other ideas, we could collect these and route them to the Strategic Planning Committee later in 2013.

John V: I took the first three topics from Steve Nadel’s presentation. First topic: targeting large energy users.

Ken: I am interested to know what we are thinking with respect to strategic versus tactical.
Roger: it may be that strategic matters cover a longer timeframe. It is hard to separate the two.
John V: these might be things the board wants us to look into and then decide whether to include them in a strategic framework.

Rick: we could ask if we could afford to leave out large energy user contributions.
Ken: large energy users in SB 1149 is a different question than when applied in the residential sector. We need crisp definitions.

John V: leveraging codes and standards was on Steve N’s list, as was the need to disaggregate “other” sources of savings. Adding more colors to the green program was a suggestion from Margie.
Rick: this goes to diversity, hard to reach, extra effort, etc.

John V: also on the list is getting a handle on how much effort a particular initiative warrants. Finally, the reference to behavioral savings and intelligent energy technologies stemmed from Tom Foley's comment.

Alan: the missing topic is cost-effectiveness. I was surprised by how much agreement there was that TRC should go away—all but the OPUC.
Roger: the TRC is not bad but it is incomplete. He agrees this issue should be included on the list.

Rick: I would add what we should do about the gas pricing problem.

Jeff: it would be helpful to me to understand how cost-effective criteria are arrived at.
Ken: this suggests another list: what kind of information would be helpful to us and others as we develop the strategic plan.

Mark: I am interested in where we leverage ourselves in the market. To what extent do we leverage contractors' ability to offer low costs by providing incentives directly to them? What additional market motivators are there that need to be more adequately described? This may be more tactical than strategic. Should we provide incentives directly to contractors?

Dave: this plan will take us out to 2019, and considering the downward trend currently forecast, should we add innovative technologies to the list?

Ken: strategically what should Energy Trust be thinking about when we enter an era when results are not as good as in prior years? How do we manage risk and vulnerability here?

Dave: how do we use comparisons to other states to leverage participation? This might involve broad messaging such as "did you know we are trying to become the highest energy efficiency state?"

Alan: regarding Don MacOdrum's statement that people do not equate Energy Trust with energy efficiency, should we address this?
Mark: we should seek data first. I think our brand recognition is quite high. Let's examine how we can use benchmarking to motivate taking action. There is evidence that it does motivate, but we do not have enough benchmarking data to do this.

Rick: I am concerned about saying we are concerned about how Energy Trust is characterized in an era of declining savings—it is not just about how Energy Trust describes itself.

John R: increased savings is not the only measure of success.

Rick asked Steve Nadel for comment.

Steve: is there a strategic option to sustain cost-effective savings?

Mark: one other area in which we may be missing an opportunity has to do with the tightness in the industrial market, as Kim reflected. Can we maintain large-user savings without more money?

Ken: are we striking the right balance between efficiency and equity?
Rick: we come back to that quite regularly.

Mark: is there a role for defining the boundaries of state agencies and other entities in the market? We sometimes get unfunded mandates.

Rick: are there aspects of other state strategic plans that would be helpful?

Roger: should we make sure our strategic plan is correlated with the Governor's 10-year plan and the NW Power Council plan?

Mark: metrics on financing have some leveraging potential. We want to understand that better so we are strategically engaged in that market.

Ken: is there a difference between this and item #4?

Anne: bullet five is addressing everything we are doing. The new bullet is addressing just financing.

Dave: one of the things we wrestle with in our organization is how to prioritize a list like this. What's the most important?
John V: staff is going to need to sort through these. We could take them to the Strategic Planning Committee and bring a priority order back to the board.

Rick: Margie, is this list what you were hoping for?
Margie: a lot of what is on this list is on the list I shared at the beginning. I think this is one of our better retreats.
Roger: a big shout out to the Strategic Planning Committee.

Mark: I want to make sure we heed Margie's mom's advice and write like people talk.

Anne thanked Steve Nadel for coming out. It was fantastic to see how we compare to other states. There was consensus that it was one of the best presentations the board has seen at a retreat.

Closing remarks

Margie: We still do not have a good way to measure our influence and success. I am so impressed by the board, your commitment and your time. I am very pleased with the quality of what we covered today. I would like to retain the techniques used today, including the panels. We might bring panels into board meetings.

John R: I have a suspicion that cost-effectiveness does not include the costs to the environment from standard fuels. I did not hear the word "coal" today. I need more information on fracking and tar sands. I need this information to be able to push for a better definition of cost-effectiveness. There is a lot more that goes into a decision to take energy efficiency actions that is not related to cost-effectiveness. This includes the moral question of how to live on the planet and not use more than you should. There is a huge opportunity to achieve more savings by appealing to what is best in human nature. An example is the Bullitt building, where people are willing to go to a whole new system of printers. There is so much potential for living differently that supports a stronger push to think about why people do things and why they change.

Adjourn

The meeting adjourned at 5:00 p.m.

Alan Meyer, Secretary

Board Strategic Planning Workshop on Renewables

July 31, 2013

Board members present: Rick Applegate, Ken Canon *(by phone)*, Anne Donnelly, Dan Enloe, Roger Hamilton, Jeff King, Debbie Kitchin, Alan Meyer, John Reynolds, Anne Root *(by phone)*, Dave Slavensky

Board members absent: Julie Brandis, Mark Kendall, Lisa Schwartz (ODOE special advisor), John Savage (OPUC *ex officio*)

Staff attending: Margie Harris, Ana Morel, Hannah Hacker, Debbie Menashe, Amber Cole, Steve Lacey, Peter West, Sue Meyer Sample, Fred Gordon, Thad Roth, Betsy Kaufman, Elaine Prause, John Volkman, Rob del Mar, Peter Gibson, Chris Dearth, Dave McClelland, Dave Moldal, Lizzie Rubado

Others attending: Nick Viele, *Facilitator* (c3 Strategy), Juliet Johnson (OPUC), Lauren Shapton (PGE), Michael O'Brien (Renewable Northwest Project), John Charles (Cascade Policy Institute), Meghan Nutting (SolarCity Corp.), Paul Israel (Sunlight Solar Energy, Inc.), Shannon Souza (Sol Coast Consulting & Design)

Call to order and welcome

President John Reynolds called the workshop to order at 8:00 a.m.

Stage-setting

John Volkman welcomed everyone and thanked the staff for the paper.

John V: We are one of the richest places on earth for renewable energy. Energy Trust has a key role in developing them. We provide financial incentives, studies and expertise to support development. We have had to adapt to economic conditions and policy changes. Our programs are continuously adapting to make renewable energy projects work. There was a big policy change in 2009 when the state Business Energy Tax Credits were scaled back. Because our funds, are fixed we had to modify our strategy a couple of years ago. We will look at how those strategies are working and consider new renewable energy opportunities for the long term.

Rick: I see that this is John Reynolds' day to focus on renewable energy. Glad we could make more time for renewables. The Strategic Planning committee pushes itself to look at opportunities and what we can do differently. We do a great job at looking at what we have done and are doing in the area of renewable energy. For today's discussion, we want to push folks to probe beyond and identify things we should discuss during the strategic planning process.

Nick Viele reviewed the agenda.

Margie: Thank you all for being here, and for the work of the Strategic Planning committee: Thad, John V, Debbie M, Elaine and Fred. The purpose for today is to:

1. Update all board members on our role in the renewable energy field. Focus on our strategies, and understand what we are doing in the renewable energy marketplace.
2. Identify how our strategies have evolved with the change of the Business Energy Tax Credit and policy since 2010, and how we need to further evolve.

3. This is an opportunity for the board to engage among themselves and help identify themes for us to consider in our future strategic program.

We have a highly successful program. We've completed 5,200 diverse projects, the majority of which solar, including projects in all the five renewable energy technologies we support.

Margie: Our role is to foster development of renewable energy. We have had to adapt. We have exercised judgment and have technical skills. Peter's past leadership in renewable energy and Thad's transition to sector lead have set us up well. We have a clear command of the sector and subject matter. Let me introduce to you Thad Roth, renewable energy sector lead. Three personal things about him are his name comes from the bible, he enjoys playing tennis and he's about to be a grandfather for the third time.

Briefing: Renewable Energy Programs

Thad: Thank you Margie. And thank you to all the staff for the support in developing this paper and the Strategic Planning committee for providing guidance. Here with me are Betsy Kaufman, renewable energy senior program manager, and Dave McClelland, new solar program manager replacing Kacia Brockman.

The renewable energy paper is intended to provide context for new board members and identify issues. Thad will draw out some key issues from Energy Trust's perspective that have driven program design and affect program delivery to developers in the state of Oregon.

We are looking for a review and acknowledgement of the current strategy of the renewable energy program to continue to fund a portfolio of technologies, which includes a solar program and a custom program of biopower, geothermal, hydropower and wind. Included in the discussion today will be detail regarding the competitive processes that have been used to deal with declining funds, expanding development assistance, strategies to reduce soft costs of solar installations and potential changes to state solar funding.

Today's presentation will cover the market environment, program design, program performance and the 2013-2014 strategy.

The wholesale market involves selling power to a utility; these are called qualifying facilities. Thad showed avoided cost rates from Pacific Power as an example.

As a key takeaway, in 2009, the rate that a qualifying facility (QF) could be assured of was $66 or $67 a megawatt hour. In 2013, a QF would receive $32.50 per MWh in the first year. Developers look at this and wonder how they will develop at that rate, and if they do move ahead, someone needs to make up part of the difference. That is a role that Energy Trust plays and it puts a burden on our available funding, especially as it declines.

In the retail market, renewable energy offsets purchases at the retail value of power; the nonresidential offset is $0.065/kWh and residential is $0.10/kWh. This would lead a developer toward residential.

Most of our developers rely heavily on the wholesale market.

In addition to this uncertainty with pricing, federal incentives are uncertain.
The Production Tax Credit (PTC) supports custom technologies and there have been last minute extensions and short term extensions by Congress, which creates an unpredictable environment for developers, especially when projects take 18 months to develop. It was noted that utility-scale wind is a little different. The PTC is currently set to expire in 2013.

The Investment Tax Credit (ITC) is primarily available for solar. It is available through 2016 and will decline significantly after 2016, from 60 percent of project cost to 10 percent of project cost. We'll see if that gets extended or not.

There are state tax credits. Residential Energy Tax Credits remain in place for solar, and they support direct ownership and lease models. Business Energy Tax Credits changes dramatically reduced tax credits for commercial renewable energy. A couple of bright spots are biomass producer collection tax credit, and there is an energy incentive program for combined heat and power and a few biomass projects have applied. We will see what happens.

The good news about the average cost of solar installations is that it has declined. People are talking about grid parity now in some states.

The key about Energy Trust funding and revenue versus expenditures here is that we were spending less than we were accumulating in revenue before 2009. Since then, we have been spending more than our revenue and using those unspent funds. We expect by 2014 we will be at about $14 million a year (down from $18 million to $20 million being available), which is less than in years past.

2010-2014 Renewable Energy Strategic Plan themes are:

- Support a portfolio of technologies
- Design programs for reduced funding
- Expand development assistance
- Expand market opportunities

For example, the hydropower permitting guidebook educates developers on the hydro side.

Enabling legislation provides for five technologies in our portfolio. The board has supported these technologies by establishing technology-based program budgets.

In 2010, staff brought forward some options for transition. The Renewable Energy Advisory Council (RAC) recommended continuing support of the portfolio, and adding expanded development assistance to manage reduced budgets.

What emerged and evolved over time, and where we are with our current program design, is the concept of establishing two program tracks: solar and custom. Our thinking with respect to our funding challenges and our desire to support a portfolio of technologies drove us here. Our Solar program is similar to a prescriptive strategy on the energy-efficiency side. There are predictable incentives for solar and strategies to reduce the cost of solar, and staff has the ability to adjust incentives throughout the year to manage to the budget. On the custom side, the projects have a longer development cycle across all technologies with similar development challenges. So we have chosen to create a custom path to support them. We will come to you this afternoon to ask for your support to adapt our budget approach to this structure.

Roger: Why do we not use competitive processes on the solar side?
Thad: We have done one of those and we can talk more about it. We did do a request for proposals, RFP, for solar with PGE. The state offers alternatives for solar developers: the two funding opportunities are Energy Trust incentives combined with the state residential tax credit and the state's Volumetric Incentive Rate (VIR) that sets a 15 year rate for projects. Participants in the VIR program can't receive state tax credits or Energy Trust incentives. Larger systems in the VIR program are selected based on a bidding system.

There were no performance measures set for 2012, the OPUC set them aside. In 2012 we worked with OPUC staff to establish new measures and they are in the write-up. We will discuss them today. We feel the new measures better acknowledge the range of resources we bring to the market and aligns with our strategies.

Thad showed a slide on existing development with a chart of total installations, 2008-2012 (aMW). You can see that we have been able to deliver about 3 aMW a year, on average.

You can see the solar generation increase in recent years. Under biomass you can see the "lumpiness" of the generation. The portfolio concept allows us to take advantage of projects when they are ready to develop. So that's the advantage of our approach.

Best year for generation was 2012 with 5.05 aMW. Solar was very active. In biomass, that number would have been even higher but some projects were delayed, one of which is already online as of early 2013.

Regarding the Custom program performance in 2012, there were two competitive processes for Pacific Power. Five projects were reviewed and two funded.

Benefits for the competitive process were:

- Transparency
- Projects further along development process
- Unfunded projects can pursue development assistance
- Market signal to developers of project funding

Regarding the Solar program performance in 2012, the program reduced incentives to respond to declining installation costs.

With regard to program performance in 2013, we are offering funding for expanded development assistance. We are currently negotiating with four projects, and others are developing proposals. We expect to have four to six projects under development by the end of 2013. We also conducted a solar RFP in PGE service territory. The RFP resulted in four proposals. Of the four proposals two projects didn't meet our eligibility criteria, one project withdrew and one project was funded.

Moving ahead to 2013-14 program themes, the custom program will extend its competitive process for funding for both utilities. At the beginning of 2013, we had four custom applications that exceeded our budget. Two won't go forward, and we can fund the other two. We will also evaluate the outcomes of this first phase of development assistance funding. We will be able to see if we made the right choice in offering this funding and if it was structured correctly. That will inform how we move forward in 2014. On the solar side, we continue to fine tune management of standard solar incentives to maintain a predictable program. We are also developing process improvements to reduce soft costs (permitting, interconnection, etc. for standard solar installations. There are things we can do internally to improve our processes and there are things we can participate in on a state and regional level to reduce soft costs as well.

We are looking for feedback on our current strategy. Should we continue to support this portfolio of technologies? Should we utilize a competitive process to fund custom projects?

We did not include the strategy around reducing soft costs but that is in development now.

The next slide was on the strategic issues in the Solar program. As part of HB 2893, the OPUC will study the effectiveness of programs that provide incentives for the use of solar photovoltaic energy

systems. On or before July 1, 2014, the OPUC will report on the results of the study and may include recommendations for legislation.

There was a discussion regarding the labeling of the individual Renewables programs. There was concern expressed by board members that a distinction between “solar” and “custom” is misleading. Staff and the board agreed to return to this labeling matter later in the board meeting later in the day when the issue will come up in the context of a proposed amendment to the “Other Renewables” board policy.

Debbie: My concern is that over time the program might evolve to just one technology or resource. How do you evaluate the proposals to make sure you have a balance across the portfolio? Is it year by year? Do you provide points if you have not supported a wind project lately?
Betsy: The main criterion for evaluating projects is the cost, although there is a list of criteria. We look at that and whether we have a qualified development team, etc. And we have bonus points regarding how a project helps us fill out our portfolio. We have so far seen a huge variety. The last one was four applications and four different technologies. One thing to keep in mind, because the market dynamics are so challenging, there are going to be certain technologies that will have an easier time in the short term. But we do try, through the bonus points system, to maintain a portfolio across the board.

Debbie: I think that is a good approach, and also to be following the market and not reserve the funds if there is not a project coming forward in a certain technology. But I like the idea of having some way to support projects that do not seem to be coming along.
Thad: The way we do that is assigning individual staff to pursue those technologies, to meet with the market players and provide support for those technologies.

Betsy: One thing we are always doing is pipeline development in all technologies using project development assistance and connecting people. That is how we spend our time throughout the year. Which project advances in the pipeline and crosses the finish line may be more about what particular funding sources are available at any one time, but just making sure the pipeline is full is one way we are supporting the portfolio.

John R: So it is really tough. I’m thinking of small wind. A few years ago when big wind was going strong, we thought there would be a big market for community wind when older turbines became available. It just looks like it will not happen and you can only go so far in encouraging a technology. I think we have got it about right in how we are supporting a pipeline and no more.

Jeff: It sounds like in the custom track process, there is an emphasis on the stage of development, the more points it gets depending on how far along it is in the development process. How does that compare with the development assistance work?
Betsy: We are talking about two parallel activities in the department. We are trying to provide some project development assistance funds for projects that are in the very early concept stage. For example, we have considered a proposal regarding methane burn-off in a city. A related project we are evaluating is in the permitting phase. We are watching these two sets of activities at the same time. We do not see them as in conflict. Hopefully one feeds into the other.

Jeff: So it is like there are four programs: prescriptive solar, custom solar, custom advanced projects and development assistance.
Betsy: You could say that. But the custom solar is the last thing we are expected to do with our dollars
Thad: We can fund those custom solar projects as the last thing we are able do with our available dollars. Based on our budget, returning to what our annual revenues are, we know we cannot sustain a robust program or large projects. We could take a million dollars and get one project, or we could take that same million and support eight projects to move toward getting funding from other sources.

Dan: One of the interesting discussions that came up during Chief Financial Officer interviews for Energy Trust is around the cost-effectiveness of getting different energies, and as I look at the renewable energy program progress, we are offering a very standard approach. There is nothing special about the metering that we evaluate. I have been watching the technology in smart meters, smart grids and technology logic, so is there a value opportunity in the custom program for increasing incentives on time-sliced value. Have we considered incentivizing ones that are more valuable so they pay back more quickly, not necessarily with regard to technology?
Thad: When we score projects in a competitive process, 50 percent of the score is price. So if a project can get revenue during peak periods that should improve their price score and improve their success in a competitive process.

Dan: For example, if I got a battery charging solar system, and pump solar back to PGE during a high rate return time, could I make money?
Dave M: Maybe in California, but Oregon does not have the price drivers.

Dan: So that is an opportunity, to design systems to pump value back in so they pay back more quickly.
Dave M: With the cost of electricity and the cost of batteries and battery maintenance and longevity, it is a losing proposition. So right now, it is not something customers are taking advantage of. But in 10 years we may see that.
Betsy: Also with our net-metering structure, it is not possible.
Thad: To get in the weeds, there are self-generators out there that are able to meet their own needs with the generation. They are a QF and are selling excess power to the utility during peak times, so they have come up with a way to make money. Those are limited circumstances, and there are tariffs that address that for eligible projects. Think large forest products industries, such as Roseberg Forest Products.

Roger: What stood out to me in the briefing paper is that you are selecting scenario 2 and emphasizing more dollars for early project support. And it seemed to me that you are putting more dollars at risk. But you seemed to allude to a limit or a balance. So are we putting more money at risk by focusing on early stage development?
Thad: It is a little more risky to invest at that stage, but the way we manage that risk is to create milestones. We divide the funds into deliverables occurring throughout the development process so we only pay when the milestone is achieved. If we discover that a project no longer has legs, we stop funding it. We also manage it by limiting the amount of funds available for development assistance and we only make it available through a competitive process.
Betsy: We found the Renewable Energy Advisory Council and the board brought values around geographic diversity, portfolio of technologies, and so we developed this approach to address this so we would not only fund the lowest cost projects but preserve the portfolio.
Roger: And one of Energy Trust's greatest contributions may be to take on a little more risk and support projects that may not be able to develop otherwise.

Alan: I am concerned that we do not stray too far from the prescribed path laid out for us, and we are charged with covering the above-market cost of renewable energy technologies. I can see when we have a surplus of funds, which we might experiment with new technologies. In a time of limited funds, if we are going to take incentive dollars and divert them to activities that are not explicitly called out in our purpose, I am not sure I support that.
Thad: I understand your issue and we have countervailing dynamics at play here. We are in a market where it is very difficult to develop geothermal, wind and hydro projects. We think we need to provide a signal to the market that we can help with projects. That is why we have carved out 5 percent of our total budget to do this. On the other hand, as our funding returns to $14 million a year provided by the

ratepayers, we are looking for a balance. We think we can add value by bringing forward more projects, even some that we cannot fund. One thing we looked at was being a conduit to other funders, as a connector to investors, and that our role might be around due diligence. We believe that to have the robust market we envision, we cannot fund all those projects ourselves. So we need to find other ways to support projects. We think carving out 5 percent of our funds to create development capacity in the market will do this. There are not many developers in the market that really understand how to develop projects. We had a developer come to us that misunderstood a couple of key issues that we were able to educate them about just as part of our review process. That is another benefit of this approach. We have two third-party developers for biogas, and we would love to see five.
Betsy: And this puts us in a better position to fund projects that have above-market costs, as SB 1149 directs us. We can do that if we do have high quality projects.

Margie: How much latitude do we have to tag on new technologies that were not identified in SB 1149? It is a legal question.
Thad: I defer to legal counsel. I think it is a conversation the legislature may have to have.

Dan: You could interpret that the waves came from the wind.
Roger: Or the sun. The founding fathers had the same problem.
Rick: I think we are due for a presidential comment.

John: Waves off the Oregon coast are the strongest in the country. I do think it is important to remember that Alan brought up strict constructionism of SB 1149, but in SB 838, the question came up as to whether market transformation in renewables was part of our charter and the state Attorney General concluded that it could be.

Debbie: There is a strict constructionist argument, but it is not clear. I think this is an issue for looking ahead in our Strategic Planning process for 2015-2019. But it is not clear and it will require more discussions from this group.

Roger: Cannot you just look at intent? If wave had been a reality then, it would have been our intent to include it.

Debbie: That would be part of the discussion.

Rick: Do we intend to look at this issue in our strategic plan development early next year? If we have something like an answer now, that is ok, but it is not our intent to consider it until next year.

Betsy: Wave falls off our plate right now. There have been other constraints to our involvement because of wind challenges. Currently they are not in the water generating electricity, and so far there is nobody talking about selling power to one of our two utilities. So it has been off our plate to date. But we want to stay abreast of what is going on, so I will be doing a “state of the state” for Energy Trust and it will likely dovetail with the Strategic Plan efforts. I should work with you to time my report so it can provide input for your process. I will keep in touch with the Strategic Planning committee.

Ken: In regard to this issue, have we looked to see who else might be doing renewable energy support in the region? Like NEEA does in efficiency?
Betsy: With regard to wave, there is the Oregon Wave Energy Trust. They are playing the biggest role, along with PNGC. The executive director of OWET is on our Renewable Energy Advisory Council, and our staff also attends the Oregon Wave conference. So we are definitely connected, and I can look at those other potential partners in my study, making sure the scope of our study supports what our role could potentially be.

Ken: Snohomish County Public Utility District (PUD) is very active in various forms of wave tidal energy. We don't want to try and do something unique and then find out that others are doing work we could learn from.
Betsy: Point taken.

Dave Slavensky: As I was reading the briefing, when you talk about expanded development assistance you are helping get a project off the ground. Do we do any educational assistance or software work to help make the development process any easier? How do you help upfront rather than once they have developed a project move it forward?
Thad: These are complicated projects. We know the development steps and the path have been documented in a variety of ways. At this point I am not sure there are ways to shortcut those steps. On the solar side, we think there are ways to shorten the process, so that is where we are starting. Hopefully that will be some instruction to custom projects related to hydro, biopower, geothermal and wind. It would be great if we could find ways to streamline that process. The state, with rules around interconnection and Power Purchase Agreements (PPA's), is a leader in the rules to create more certainty, so some has been done. They are complicated projects to develop so that does make it more challenging.

Betsy: There are some things we have done where we have seen common barriers across a set of projects. For example, in hydro, you have to deal with the Federal Energy Regulatory Commission (FERC), and we created a set of guidebooks to get that barrier as low as we could get it. So it is much less of an issue than it used to be. Also we published a community wind guidebook about six years ago. So when we see generic issues, we are happy and willing to step in and do that.
John R: Betsy just said what I would say.

Roger: Same thing. I participated in a resource innovations group on outreach for renewable energy on farms. And Energy Trust participated in seminars and workshops to educate folks on basic technology issues. So we have done that.

Solar Panel Discussion

Dave McClelland introduced the solar contractor panel. Two companies provide third-party options, and each company does both residential and commercial installations while remaining exceptional trade allies for the program.

Paul Israel, founder and president of Sunlight Solar Energy, which is one of Energy Trust's first trade allies and remains one of the most active. Sunlight Solar is based out of Bend and also does work in Connecticut and Massachusetts. Paul is the president of the Oregon Solar Energy Industries Association (OSEIA).

Shannon Souza is principal and founder of SolCoast, which is based in Coos Bay and is a long-time trade ally for solar electric and solar water heating projects. SolCoast also completes Home Performance with ENERGY STAR projects. Shannon is a licensed and professional engineer, and SolCoast is distinguished in design and quality.

Meghan Nutting is the Solar City director of policy and electricity markets. Solar City is the largest solar installer in the state and nationally. Meghan is based in Colorado and has expertise in how regulatory policy impacts the solar market. She knows the Oregon solar market and shows up when solar policy is being discussed at the OPUC, the Oregon Department of Energy and other places. We almost lost her to Arizona where they are debating net metering.

Question: How does your business work and how do you close a sale?

Meghan: Solar City does one in four residential installations in the country right now. The best way to get new customers is direct referrals from existing customers. We work to keep our customers happy. One of the soft costs in the industry is customer acquisition. Several years ago, it cost a few thousand dollars to get a customer to sign up for solar, and those costs are coming down now. Solar City is a fully integrated installer. We do financing and the installations ourselves. We raise funds of multiple hundreds of millions to finance upfront customer costs. But we also sell to customers outright. We have 3,200 employees because we have support staff for installers. We have about 50 staff in Oregon. We also do commercial and residential.

Shannon: I am on the other end of the spectrum. SolCoast is regional and focusing on the south coast, and delivering conservation and renewable energy hand-in-hand. We were concerned about the health and environmental effects of oil-heated or radiant heating homes where owners were looking at solar. Now we do a lot of Home Performance contracting at this time, and that is how we close a solar sale. We try to help customers figure out what they need. They may approach us to request a solar system, and we try to help them figure out what works best to fit their goals. We use Energy Trust heavily and the vetting of the services that we offer specifically on the solar side to help us close the sale. The solar incentives are subtracted from the system costs.

Paul: Sunlight Solar Energy is an Oregon grown company. It started with one employee, and we are now 26 in Oregon and 46 nationwide. Oregon gave us a platform to move into the national market. Solar is an economic sale. Many folks want it for environmental reasons, but the sale is based on economics. We are moving to a third-party finance world. In Oregon 10 percent of our commercial installs are with Energy Trust funding. On residential 75 percent are third-party financed and 5 percent are direct sale. Energy Trust is a large percentage of our work. Feed-in tariff projects are a small percentage, but it allows for a larger system.

Question: Where is your part of the solar market headed?

Shannon: Great question. Our demographic is 45 percent of customers are over the age of 45, and 35 percent are over the age of 65. All our residential solar clients have been over the age of 45. We have an increasingly growing retirement community, and we are starting to see refugees from climate change. We are also seeing aging in place, too. Most homes in the region were built in 1960, so there is a big retrofit market. We have installed about 0.5 MW of solar. Of that, 400 kW has been through grant funding and Energy Trust has been an essential seed component for matching funds. You are the first place we go to, so customers will see Energy Trust has reserved funds for the project. And I know you are considering dropping incentive funds, but I would encourage you to consider that carefully in the rural areas. You are an essential seed for us. We are small. We do not compete or have third-party financing. Our market is customers with cash in hand, or with a Veterans Affair loan that allows for an increase for solar. For residential it is about a nine year return in investment. Depending on how our application moves through review, we are looking at an eight year return on investment for commercial.

Paul: We are concerned about the commercial market. We are down in the Bend office on employees. Not sure why that is. So we are concerned. The economic offering seems to undersell. I am concerned the Sun Run third-party financing will not see the value in Oregon and pull out. And we see utilities pushing back on net metering and the feed-in tariff. We were lucky to see diminished capacity come out, and it does not compare to other states where there is much more capacity. Thank you very much for the increased rebate on the commercial side, it seems to have helped. We have seen how important the incentives affect the market, and the Energy Trust staff has done a great job with managing.

Meghan: The Oregon market is a little more difficult and more unstable. We use Energy Trust incentives and the feed-in tariff to serve customers. For those without a tax appetite, we try to put them into the feed-in tariff, and with reductions there it will be more difficult to serve the numbers of customers we would want. And the Residential Energy Tax Credit is scheduled to expire. So it is difficult to make the investment here as a company, not knowing what will happen with the market. When we invest in a market, it takes a big investment. We hire people, train them, rent a warehouse when we come into a new market. And it's hard to increase that.

Question: Describe how you work with Energy Trust a little more and how the relationship is working for you.

Paul: Energy Trust has been fantastic lately. There were rough patches early on, but everything has evolved very well. [Paul referenced the handout] What drives the Oregon market is really the Residential Energy Tax Credit. On average the Oregon residential customer finds the 3,000 watt system most economic. It is very hard to make this work from a business. I would like Energy Trust to consider providing a higher incentive on a little larger system to overcome the cap on the Residential Energy Tax Credit. You can see the simple payback falls off with larger systems. My suggestion is to move the incentive up for larger systems. In Portland, the roofs are smaller, but in the rest of Oregon we are not constrained by roof space. I think the sales folks will find it is easier to move larger systems when they are in the home. I think that would go further on the economics for Energy Trust, as well. Also, for folks that already have systems, they are constrained, and if we can move that cap up customers can expand their systems.

Shannon: We actively use Energy Trust to help close our sales. The relationship is working very well, particularly on the technical side. The market is volatile. There have been some nice breakthroughs. We just had an inspection on our first AC-coupled battery-backup system. We are seeing more and more and more prolonged outages. We are at the end of the Pacific Power line. We have seen outages of more than six hours. We are seeing folks interested in batteries, with the objective of allowing the system to operate during an outage. These are conversations we are having on the technical side with Energy Trust, because you have not seen them before, and you are incentivizing them. Also, the rapid transformation in technology makes it challenging to keep up. Energy Trust has supported our knowledge in the industry. I would encourage you to keep that going, particularly in small communities. For some of the roundtables, if you could add videoconferencing that would save us fossil fuel in travel and allow for more participation. We can attract rural grant funds, but we need your help to bring them in.

Meghan: Energy Trust has been a fantastic partner. We work in a lot of states, and in most states, programs are run by utilities. And we are starting to run across programs, particularly as utilities see solar as a treat to their bottom line. Energy Trust is a great model that avoids it because it is independent. We are actually looking at trying to propose replicating the Energy Trust model in other states. I commend you. One thing Energy Trust can do is offer predictability. Energy Trust provides that, and I would like you to keep that up. It would be nice to have incentives that support larger systems.

Questions from the board:

Roger: You mentioned outages in the Coos Bay areas. What time of year is that and also how do you see outages driving markets?
Shannon: Outages are happening at all times of the year. People who live in river valleys expect it, but it is happening more in downtown Coos Bay and affecting commerce. So we are getting approached more and more. As Meghan mentioned, the utilities are not compelled to support what is going on. In our area, we have offered to do "lunch and learn" for the Pacific Power linemen, because

they have told people misinformation about what solar will do to appliances, etc. If we could get access to data about the system it would help us understand where on the grid solar with battery backup would be most effective.
Paul: It is endemic to the utility industry that they are not investing in the system right now. In Connecticut we are seeing more loss of power. Utilities are really scared of battery technology. People are going off grid and utilities are fighting back now. Micro climate events and power outages will increase in the U.S. in the next decade for sure.
Meghan: Yes, we see outages driving interest in solar. We have to educate around that. The Holy Grail is around battery storage. The founder of Tesla is involved in our company. We are partnering with them to use their battery storage technology to back up our systems. We are running some pilot projects in California around battery storage. Our CEO recently said he hoped to have battery storage in the next two years. And maybe that makes outages less of a concern and it could change the conversation around how power is provided to people. But currently we do need to work with utilities.

Dan: Are you seeing a switch to where it is now the 1 percent of customers that are working with you to go off the grid or are the only people off the grid those that are in rural areas and too far away from the lines?
Shannon: We do not do many off grid systems.
Dan: Even on the south coast?
Shannon: There, it is the 1 percent or the 30-year-old goat farmer. I really see the market in grid tied with battery backup. What they really want is for their system to work when the sun is out.
Paul: Back in 2000, there was no grid tie, but now people want battery backup and grid tie. The technology is evolving on our side so we do not spend all the time going back and tweaking the systems.

Dave Slavensky: To Meghan, if your company is going to invest in one of the states, which one and why?
Meghan: We look at a few things before going into any market. First we look at energy prices. We try to offer customers 10 percent below what they get from utilities. Also, insulation, sun resource, state policies and incentives—for example, do they have net metering policies, allow third-party ownership or incentives to lower the cost of going solar for our customers?

Ken Canon: I have been looking at a solar installation myself in an area 14 miles east of Myrtle Creek, Oregon. One installer we talked to was interesting as they talked about whole life: return on investment, etc. What struck me was very little discussion on the technology and how I was going to hook into the system. I am interested in knowing how the sale is made. Second question is when do you forecast that solar will not need an incentive?
Meghan: When will solar not need incentives? It will vary by policy and state by state; it is definitely state specific. In Southern California we are installing without incentives, in Arizona we are at 10 cents per watt which is minimal and will run out shortly. In Oregon, the market needs to grow in scale on some sort of predicable ramp, so Oregon is not there yet. In terms of financing a system, the ITC is 30 percent and will go down to 10 percent in 2017; this will make some other incentive necessary in order to reach a similar financial viability.
Paul: Incentives will be needed until there is grid parity with natural gas. To make the sale, it is about customer education; most OSEIA companies will give a complete dialogue on how solar panels are made.
Shannon: I know Paul has been involved in this as well, for us there are diagrams that show what the system and components will look like. We also host a solar and green home tour to make it hands on.

Margie: With policy differences by state, does that change how you make the pitch to close a sale?
Meghan: When we close a sale, we talk about energy savings, which is pretty standard across states.

Paul: In our Connecticut and Massachusetts offices, the rates are so competitive, 10 percent would be great, especially for third party.
Shannon: Within our market, we typically define a financial sweet spot for the client. In residential it is a 3.4-kW system size right now. We also look at what they say they want and give them that financial outlook. Plus, for those that qualify for Rural Energy for America Program (REAP) grants, those systems could go up to $20,000.

Roger: When you are doing outreach, Shannon you mentioned climate refugees; do climate goals motivate your customers? Or policies about greenhouse gas reductions?
Shannon: We have some representatives who are knowledgeable in this. With energy performance scoring, people are concerned about greenhouse gas emissions.
Meghan: In our proposals, we show people how many trees are saved or carbon dioxide avoided. It is very appealing. Some people see it as improving their home's resale value and others as something good to do.
Paul: For some it is the environment and others it is primarily financial. And we want to mass market, we want all Oregonians. It is an economic driver—keep the money in Oregon.

Dan: Policy question, when you net meter, is it at the meter or at the customer and utility? For example, if someone has more than one meter.
Shannon: The systems are net metered at the meter.
Paul: Oregon had a virtual net metering bill that failed this past session.
Meghan: That is useful for a lot of farms. Some states allowed aggregated net metering.

Dan: What was the argument against the virtual net metering?
Paul: Utilities will kill anything with solar right now except if they will own the power plant.
Shannon: We are looking at multifamily, low-income housing units. We needed to install 100 inverters though, even if the entire building was owned by the weatherization and low-income housing group. Pacific Power would not let us.

Dave S: What is your view of how financing affects the ability to finish a sale and where do you see the cost of solar going?
Meghan: We find financing to be incredibly important. There is a great study by NREL that people who lease their systems are younger, less educated or have less money. We offer our customers both options and about 90 percent choose financing. Plus we are able to reach a segment of the population that otherwise would not be able to afford financing. As for the costs of solar, there are soft and hard costs. For hard costs like equipment I see it plateauing and maybe going up; we will not see the dramatic decline. As far as the soft cost, you can decrease permitting times. For example, we have been given a three-hour window for an inspection, and we have to pay our crew to sit around and wait for the inspector.
Shannon: Financing is not something we offer so we kick those over to other companies. It is about 40 percent of our inquiries. My electricians are members of the International Brotherhood of Electrical Workers (IBEW) and I spend a lot on electricians, and also spend money on key journeyman to keep them with us, so I see those costs going down; it is the knowledge and on-the-job experience.
Paul: OSEIA allows electricians now, not just solar installers. We have a lot of journeyman electricians. SolarWorld and Energy Trust helped a lot with bolstering this job market when the economy went down. For larger systems, the best way to decrease costs is to install larger systems.

Anne Donnelly: Thank you for the profile on Coos County. Can you speak more to what percentage of people who contact you do not go forward mainly because they had such an inaccurate perception of the costs? Also, how can Energy Trust assist with the need for education?
Shannon: Half of the people who come to us do not know what they are asking for and of those, three-quarters will walk away because of their misperceptions. I do refer a lot of people to Energy

Trust's website which gives a good snapshot of what the costs would be. There are good interactive pieces that OSEIA has that could be leveraged. Also, we do a lot of community outreach through educating our children, like through science fairs, using solar tools from Bonneville Environmental Foundation and donating our time. Energy Trust helping in those education and outreach areas would be helpful as well.
Paul: Of 10 that call us, one will lead to a sale and it costs about $500 per customer so anything you can do on education would be wonderful.

John: Meghan, I am surprised you think the dramatic decrease in panel costs will slow and maybe reverse. What is your reasoning?
Meghan: It is through reading trade publications. There has been a lot of competition in the industry through tariff wars, with SunTech in trouble, etc. and a lot of shake-out in the past years and panels can only go so low, until they are free. As companies go out of business, there is less over-capacity. There is an ability to make many more panels. Whoever is left in the game will be able to charge more for their panels.
Paul: SolarWorld experienced this. Panel prices seem to be stabilizing around 80 to 90 per watt. And the efficiency of panels is increasing as well.

Break from 11:05 to 11:10 a.m.

Wrap-up

Nick introduced the remaining items:

1. Do the notes capture what we feel needs more conversation
2. Is there anything not on the list that should be
3. Brief review of strategic planning timeline

John V: I kept a running tally of questions that might be worth more explanation on our part or discussion by the board:

1. Setting incentives based on time of use or other unique values associated with different technologies (Dan)
2. Collection of questions around our charter: wave technology , to what extent does SB 1149 allow us to get involved in early stage assistance (Alan)
3. Outages in rural areas and the role battery backup can play, should we get involved
4. Virtual metering rather than net metering at the meter and what can we do about that given the fact that the legislature has not really gotten into it

John V: Also, prescriptive versus custom program terminology. This does not sound like a strategic issue, more a program issue, which you may talk about this afternoon. What did I miss?

John R: From Paul, increasing photovoltaic system size, unused roof space out there.

Nick: Any other points of clarification needed?

Dan: From a technology standpoint on the panels, the panels and power from the sun, efficiency of the panels is bringing us to diminishing returns. Energy Trust wants to support emerging metering and other technologies, but this requires balancing the risk concerns of the utilities versus taking advantage of the opportunities.
Roger: I want to reinforce the storage issue, not just for solar but in general. This is also associated with reliability issues, which is important with distributed generation. This may be difficult to assess or quantify but is something that warrants additional discussion.

Dave: Shannon mentioned videoconferencing from rural areas, it would be good to look into this. Government projects do not get tax incentives so some of those projects may not move forward but they may be prime projects.

Rick gave an overview of the strategic planning schedule. There will be a lot of staff and committee work early on, plus consultations with stakeholders, interaction with the board, the usual retreat in June, further consultations and development of a draft of the report in fall 2014. There is a strong linkage between the development of the new strategic plan scheduled for board adoption in October 2014, and development and refinement of the 2015-2016 budget scheduled for board adoption in December 2014. There are still some process issues to figure out.

Dave: Does alignment with utility integrated resource plans (IRP) affect any of this?
Margie: We do that now during the budget process.

Margie: Please note that on page 16 of the renewables paper there is reference to the legislation requiring the OPUC to review the merits of solar incentives in the state, including ours. The paper is not due until the second half of 2014, so that timing does not align well with this timing. I want to point out that we will be working closely with the OPUC on the completion and submission of this report. It may or may not require changes from what the board sees at the June 2014 retreat and what you will see in October 2014.

Nick: Any closing thoughts?

John R: I would like to hear from staff on Paul's suggestion that we incent larger photovoltaic (PV) systems.

Dave M: Energy Trust currently offers 75 cents a watt up to a maximum of $5,000 for both PGE and Pacific Power customers. Our residential incentives are not biased to system size—we go to about 7 kW. Where the bias comes from is the Residential Energy Tax Credit, a $6,000 tax credit which gets maxed out before you get to a 3-kW system. I know the Oregon Department of Energy is looking at this and it is something Energy Trust will be involved in, in terms of providing analysis for them. If we were to offer a higher incentive for larger systems that potentially becomes risky, especially for Pacific Power territory where we are right on target to meet our budget. We do not need to sweeten the pot to meet that budget. In PGE territory, we could use a little more activity and we have 60 percent of the renewable budget, versus 40 percent in Pacific Power. How we drive demand in PGE territory is something we are looking at. Also, we are already seeing our average system size go up; the average is 5.5 kW, so contractors are taking advantage of economies of scale. A year ago it was 4 kW and two years ago it was 3 kW.

Peter: We will come back to you on what the budget impact of this would be. The other question is what is the best way to support the industry? Is it many smaller systems or fewer larger systems? And this impacts the trade allies. With larger systems in a net-metered situation and you are a gas customer, you are just donating the energy back. So you have to look at the circumstances this would make sense for. We want to avoid a give-back situation. We will come back to you on this.

Alan: We could do it because our charter is to cover above-market cost. On the other hand, we will incentivize systems that will invariably go to wealthier homeowners and people may come back and say we are not being equitable.
Peter: The feed-in tariff helps those customers that want a larger system. Energy Trust is fitting a particular niche.

Nick: Any final thoughts before we close the meeting?

Roger: It is great to hear directly from the industry.

John R: I appreciate the work of the staff and their accommodations for our last minute requests.

Debbie K: I appreciate the ground work done for our upcoming strategic planning discussions. Retreats give us the opportunity to step back and look at the issues more broadly.

Rick: Great panelists involved and we should look at ways we can do this more often. There were some surprising and candid conversations. Excellent staff work as usual and good board participation. For renewables, we might find it difficult to deviate from the path set in the past, but that does not mean the process was not needed.

Margie: For the first time, we have split apart the renewable energy focus from the energy efficiency focus for the board strategic planning retreat. What is your feedback? And you can e-mail me, too.
Ken: I apologize for not being there today. I like the way this has been split up. This gives us more time to focus our energies and attention on energy efficiency and then renewables. Trying to do it in one time period like previously, we tend to run out of energy.
Rick: I think renewables got their due and President Reynolds got his day.

Nick thanked staff and the board for their attendance and participation.

Adjourn

The meeting adjourned at 11:30 a.m.

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Alan Meyer, Secretary

Board Meeting Minutes—122ndMeeting

July 31, 2013

Board members present: Rick Applegate, Ken Canon (by phone), Anne Donnelly, Dan Enloe, Roger Hamilton, Jeff King, Debbie Kitchin, Alan Meyer, John Reynolds, Anne Root (by phone), Dave Slavensky

Board members absent: Julie Brandis, Mark Kendall, Lisa Schwartz (ODOE special advisor), John Savage (OPUC *ex officio*)

Staff attending: Margie Harris, Ana Morel, Hannah Hacker, Debbie Menashe, Amber Cole, Steve Lacey, Peter West, Sue Meyer Sample, Fred Gordon, Thad Roth, Betsy Kaufman, JP Batmale, Athena Ehnot, John Volkman, Kim Crossman, Tara Crookshank, Kathleen Belkhayat, Sue Fletcher, Elizabeth Fox, Alison Ebbott, Michelle Spampinato, Cheryle Easton, Steven Jonas, Diane Ferington, Diana Rockholm, Wendy Bredemeyer, Cheryl Gibson, Jessica Rose, Denise Olsen, Ted Light, Jackie Cameron, Sloan Shang, Susan Jowaiszas, Phil Degens, Erika Kociolek

Others attending: Juliet Johnson (OPUC), Jim Abrahamson (Cascade Natural Gas), Lauren Shapton (PGE), Don Jones, Jr. (Pacific Power), Bill Newell (Cascade Policy Institute), Lisa Wojacki (PECI), Mary Stewart (CSG), Adam Parker (CSG)

Business Meeting

President John Reynolds called the meeting to order at 12:47 p.m.

General Public Comments

There were no public comments.

Consent Agenda

The consent agenda may be approved by a single motion, second and vote of the board. Any item on the consent agenda will be moved to the regular agenda upon the request from any member of the board.

MOTION: Approve consent agenda

Consent agenda includes:
1) May 22 strategic utility roundtable notes
2) May 22 board meeting minutes

Moved by:	Debbie Kitchin	Seconded by: Dave Slavensky
Vote:	In favor: 11	Abstained: 0
	Opposed: 0	

President's Report

John Reynolds presented on solar electricity and steam, a slightly different look at solar than what the board heard earlier in the day at the Board Strategic Planning Workshop on Renewable Energy.

Concentrating solar power (CSP) converts solar energy to heat, and that heat produces steam. This makes CSP a similar process to other thermal processes like coal, natural gas, biogas and nuclear.

The oil circulating in the pipes can be stored or used to make steam and, for a short time, generate electricity after the sun has gone down.

A picture was shown of Nevada Solar One, a plant with 64 megawatt capacity. While operating, it can meet the air conditioning load in nearby Las Vegas. Dedicated in 2008, it is the first CSP plant of its kind in 16 years. John showed the operating history of the plant from 2007 to 2012. The reflectors are in rows north to south on axis trackers. The arrays can be rotated separately. Under normal operating conditions, the oil enters at 318 degrees Celsius and leaves at 393 degrees Celsius. There is considerable waste heat and that means the plant uses water, both for power plant cooling and for washing the reflector field.

Photovoltaic (PV) has an advantage over CSP due to the smaller water requirement, and by having a simpler process and requiring less maintenance.

Alan: It looks like CSP has a higher power density than PV.
John R: Yes, PV does have a theoretical efficiency limit and solar thermal has its disadvantages.

John R showed a photo of a building that had photovoltaics integrated into the skin of the building, on the roof and wall surfaces.

About one-half of electricity in Oregon is generated using fossil fuel, according to the Oregon Department of Energy in 2010. John R said there is still a long way to go.

Dave: What is the life of PV and CSP? 20 years for PV?
John R: 20 years for PV is an underestimate.

John R clarified the Nevada CSP plant uses wet cooling versus dry cooling.

Committee Reports

Evaluation Committee, Debbie Kitchin

Today's board packet has minutes from the June 28 meeting. The first item was Fast Feedback 2012 Results. Fast Feedback surveys are done on a continuous basis close after a project is completed, while evaluations are contacting projects that have completed a year or two ago. Fast Feedback is useful for evaluating customer service, as well as free rider and spillover rates. The 2012 report shows customer satisfaction exceeds the Oregon Public Utility Commission performance measure.

The second item was the 2013 Lighting Shelf Space Survey, which surveyed retailers and what lighting products get what shelf space. Through this, staff can get a sense of what is available to consumers at their neighborhood store.

The third item was a presentation on the Commercial and Industrial Market Research, a more qualitative survey to understand decision making. Part of the goal was to determine if customer segmentation made sense for commercial and industrial customers. Results showed this would not be very easy because customers differ in many different ways.

Debbie mentioned all studies are available on the Energy Trust website, and the next committee meeting is in September.

John R: For customer satisfaction, we have an actual performance measure to meet, which is good. This survey shows a lower satisfaction rate for New Buildings, do you know why?
Debbie K: The OPUC performance measure is for all programs.
Phil Degens: We will discontinue including New Buildings customers in Fast Feedback. It is hard to contact one person on the project who can respond meaningfully, since these projects usually involve a variety of people over many years. Currently for process evaluations of New Buildings we contact them over the different phases of the project, whether it is a design charrette, design phase, etc.
John R: It is good you are asking different people at more appropriate times.

Alan Meyer: We do a lot of studies, most of the information is not sensitive or proprietary and we are a public organization so we share everything. Are there ever instances that we should not give information out to the public? Information that we have paid for that we would not want out there?
Margie Harris: That has not been our practice of course. I am not aware of any pushback we have received.
Phil: Our major concern is proprietary information on customers. For example, in the industrial program, there are only so many large manufacturers and one could look at it and identify the company. In those cases, we will publish the overall results but not specific, identifiable customer information if we do not have the proper release.

Finance and Compensation Committees, Dan Enloe
The first page after Tab 6 includes an action item, Resolution 672, on renewing Energy Trust's line of credit. For the programs to maintain activity during any unforeseen budget issues, Energy Trust maintains a line of credit. It helps bridge any timing gaps between revenues and expenses, and provides temporary emergency funding if needed. As a result of a request for qualifications, Energy Trust has the option to renew a $4 million credit through Umpqua Bank. The cost to obtain the credit availability is $5,000 per year. At the moment, using the line of credit is unlikely. Staff still recommends maintaining it and allowing it to be drawn from by the two officers required to draw it after consultation with the Finance Committee. The line of credit is needed for continuity and consistency of programs.

RESOLUTION 672

AUTHORIZE RENEWAL OF $4 MILLION LINE OF CREDIT AT UMPQUA BANK

WHEREAS:

1. **Energy Trust wishes to renew its $4 million line of credit at Umpqua Bank to bridge timing issues of revenue receipt and program expense, if the need arises.**
2. **Umpqua Bank has authorized a commitment for a line of credit in the amount of $4 million at an interest rate of prime minus 0.50 basis points conditioned upon the board's approval by resolution.**
3. **A fee of $5,000 is charged by Umpqua Bank for this service.**

It is therefore RESOLVED:

1. **That this corporation, Energy Trust of Oregon, may:**
    a. **Borrow up to $4 million from a revolving unsecured line of credit offered by the Umpqua Bank at an interest rate of prime minus 0.50 percent.**
    b. **Repay the line of credit with monthly interest payments and principal due at maturity, within one year from the date of the agreement.**
2. **Any two (2) of the following officers of this corporation:**
    a. **President**
    b. **Vice President**
    c. **Treasurer**
    d. **Executive Director**
    e. **Chief Financial Officer**

    are hereby authorized and directed, in the name of this corporation to execute and deliver to Bank and Bank is requested to accept the credit agreements, other instruments, agreements and documents which evidence the obligations of this corporation under the credit facilities obtained or to be obtained pursuant to this resolution.

3. **The Bank is authorized to act upon the foregoing resolution until written notice of revocation is received by the Bank, and the authority hereby granted shall apply with equal force and effect to the successors in the office of the authorized officers.**

Moved by: Dan Enloe		Seconded by: Alan Meyer
Vote:	In favor: 11	Abstained: 0
	Opposed: 0	

Margie: We have had this in place for most of Energy Trust's duration. We have never needed to use it. It is the least favorable way to supplement our funds. We would exhaust our other options before using this.

Alan: It is a very inexpensive safety net.

Dan reviewed the April 2013 financials, saying Cascade Natural Gas revenues were slightly below budget. Steve Lacey met with the utility, as shown in the May 2013 financials, and a plan is in place to get caught up by year end.

Jim Abrahamson, Cascade Natural Gas: The tariff adjustment went into effect. My understanding is of a year-end negative balance of $392,000, the actual amount of funds Energy Trust advanced to Cascade Natural Gas. Cascade Natural Gas had conversations with Energy Trust on the issue. As a result, Cascade Natural Gas put in a rate tariff to change our public purpose charge, that charge was in effect July 1. We are now collecting 5 percent from customers, plus an additional 0.75 percent. Of the public purpose funds Cascade Natural Gas collects, 95 percent of the money goes to Energy Trust. We are confident we will have sufficient public purpose funds by year end to cover the 2013 budget expenditures and cover the $392,000 we were in the hole at the start of the year.
Dan: And that will be in line for 2014?
Steve Lacey: They will file another tariff for that.

Jim: We will be looking at two things, backing down collections we no longer have to make and making whatever modifications we need to adjust for the program budget.

John R: What type of customer reaction do you expect?
Jim: We haven't heard of any yet, they would go into our call center in Idaho. They are prepped with scripts. Customers are probably still just opening their bills, plus July is a low gas month and it won't really show up until the fall or winter months. I would anticipate some feedback then.
John R: But that will also coincide with the reduction in the percent of bill going to efficiency.

Dan reviewed the June 2013 financials, especially the under spending of incentives. As usual, Energy Trust is under running incentives with a hockey stick in fourth quarter. The pie chart on page 2 shows a good snapshot of incentives paid by program between January and June 2013. Dan compared changes in incentives paid from this time period to January through June 2012. Existing Buildings went up 2 percent and is now at 49 percent. New Buildings is at 68 percent and in the ball park, it was at 76 percent before. Renewables went down 19 percent, the sector slowed down a lot, and is now only at 51 percent. Energy Trust's incentive situation in renewable is good this year but staff is having a hard time getting incentives out the door.
John R: Keeping in mind there are big renewable energy projects sitting in the queue still.

Dan: Industrial is doing better than anybody right now, having spent 80 percent and increasing. Existing Homes is up 17 percent, and New Homes is up 6 percent.
Margie: I appreciate the analysis. It's noteworthy that the hockey stick effect has been even more extreme in the past few years; it's no longer 50 percent like a few years ago, but now 60 percent to 65 percent in the last quarter of the year.

Dave Slavensky: Have the PMC changes that affected the first quarter settled down?
Margie: They have been worked through. It takes time to transition, with building relationships and getting out in the market. It all seems better now than at the beginning of the year.

Sue Meyer Sample: We are still on track as far as the programs are concerned to at least meet conservative goal.

Policy Committee, Roger Hamilton
A few of the items Policy Committee discussed at the July 2 meeting will be brought to the board later today.

For the first item, Margie briefed the committee on the Program Management Contractor transition "lessons learned" project. Energy Trust contracted with Hitachi Consulting. The findings assumed that Energy Trust's business model to subcontract implementation of programs is not in question, but looked at how the RFP process and the transition were implemented. The review recommended not doing two large transitions at the same time, to make sure support groups are engaged, to engage IT more effectively and to use a dedicated project manager for the transition.

Margie: The findings also support having backfilling resources available, either through staff or contracted resources so the project manager leading the transition can be focused on it.

Roger continued on the findings. The number of RFP responses increases if the contract is broken into multiple scopes. There needs to be a clearly defined project manager for the transition and defined Energy Trust and PMC roles. It was recommended to use the Energy Trust University training model again.

A few agenda items that the committee talked over will be discussed in detail at today's board meeting are the nomenclature around annual goals and utility IRP targets, Program Delivery Contractors Custom Track RFQ results and a proposed amendment to program designations for renewable programs.

The committee also heard from Fred Gordon on Energy Trust's cost-effectiveness exceptions. The OPUC has granted the exception for gas measures through October 18, 2014, and they have expressed their preference for a holistic approach to gas measures instead of Energy Trust coming back for additional exceptions. Energy Trust will take steps to make its gas programs as cost effective as possible, eliminate measures that are not cost effective now or won't be in the future, and eliminate measures that do not meet the exception criteria as set forth in UM 1530. Staff will continue to work with the OPUC and will report back them on July 1, 2014.

Last, there was a legislative update that is also on the agenda for today. HB 2435 involved adding geothermal energy to the types of electrical energy that can be net metered.

Briefing: Strategic Utility Roundtable Discussion

Goals, Funding and Relationship to Utility Integrated Resource Plans

Margie Harris and Steve Lacey presented, along with Jim Abrahamson from Cascade Natural Gas, Lauren Shapton from PGE, Juliet Johnson from the OPUC and Don Jones, Jr from Pacific Power.

Margie gave a briefing on what has transpired between the May 22 utility roundtable and today's meeting. A number of items have been discussed, all in attempts to answer these questions:

1. How should Energy Trust describe its annual electric and gas efficiency goals and their relationships to long-term IRP targets?
2. How could the OPUC set the performance measures for Energy Trust acquisition of efficiency savings to meet utility IRP targets?
3. What is the appropriate level of funding negotiated annually and reserves that Energy Trust maintains for two purposes, contingency and programs?

A review of the consensus points coming out of the May 22 utility roundtable:

1. The existing process used by the utilities to develop and submit IRPs to the OPUC will not be altered.
2. Energy Trust will employ current utility IRP targets identified through regular updates to establish a single goal for each utility on an annual basis. Energy Trust will no longer have goals set in a range from conservative to stretch. The single number is born out of the work on the IRP and Energy Trust will default to the most recent IRP on off-years between updates.
3. Utilities will file tariffs with the OPUC and they will be related to the amount of funding necessary for Energy Trust to achieve that single target for each utility. This is very similar to the process used now.

4. The OPUC will hold Energy Trust accountable for achievement of a minimum of 85 percent of that IRP target. This is also similar to what is in place currently. If there is a problem meeting that 85 percent, Energy Trust must provide an explanation and a plan for remedy. .
5. All parties involved expect Energy Trust results will vary. In some years, Energy Trust may exceed the single number and in some years come under. In no time do anyone want Energy Trust to come under the 85 percent in any one year or sequence of years.
6. One puzzle was linking annual Energy Trust numbers to multi-year action plans each utility has associated with their IRPs. The group will come back to this topic as it's still a challenge. Energy Trust expects savings over time to approximate what those targets are. Margie pointed out that baseline changes every two or three years as the integrated resource plan s are updated, and can be adjusted by agreement between Energy Trust and the utility every year.
7. Individually by utility and by all utilities combined, Energy Trust will report on achievements of goals. This is not a major change to current practice. Energy Trust would prominently display goal by utility, progress to goal in quarterly and annual reports, and would show aggregate and individual breakouts, annotating or indicating what is contributing to achievement of that goal or challenges related to that goal.
8. The OPUC will review Energy Trust trend performance relating to multi-year results, just as they do trend performance to other aspects of each utility's IRP.

A smaller working group convened after the roundtable and included Jason Eisdorfer and Juliet Johnson from the OPUC, Don Jones, Jr from Pacific Power, Brian Keeney from PGE, Jim Abrahamson from Cascade Natural Gas, Bill Edmonds from NW Natural, Margie and Steve. The working group also commented on the briefing paper before the board today.

The group meeting began by reaffirming and endorsing all consensus items just recapped for the board. The rest of the meeting focused on two areas outstanding, which were savings acquisition and how it relates to multi-year action plans, plus comments and feedback on Energy Trust reserve accounts.

No solution was arrived at on the multi-year action plan question. It is an elusive subject because of changing the forecasts of loads and savings in each IRP. No one solution was immediately apparent on how to do it. The group determined what is important is capturing, quantifying and explaining achievement and shortfalls.

Don Jones: This was a great exercise in terms of systematically going through linkages. Energy Trust is in IRPs, and IRPs are updated with load forecasts, price curves. The challenge is in coming up with pinpoint estimates plus it's an ongoing planning function. This is done to get it to more closely align. Is it a perfect alignment? Probably not, but it probably can't be because the IRP cycles are different. It's important to lose the excess numbers and get everyone on the same page.

Alan: As imperfect as it may be I'm pleased we're working toward it.

Jim: We're in a bit of a different position than Pacific Power. First, through the working group, I learned the purpose of the roundtable, which is to link the Energy Trust goal with the efficiency goal in each IRP. For Cascade Natural Gas, we were in the process of updating our two-year action plan, which will be updated in August. We will show our trued up savings that Energy Trust provides to the OPUC in the true up report for 2006-2011. Than 2012 will show non-trued up savings and when 2012

numbers are ready, we will update that in our history. And for 2013, using estimates as provided by Energy Trust and approved by the board in December 2012. The remainder of the 20-year forecast for energy efficiency by customer class comes from the latest technical potential provided by Energy Trust. We will have a mixture of an older 20-year forecast, old meaning a year and a half, and most current numbers for 2013. We'll take the annual efficiency goal from Energy Trust and include that as our IRP target, working with and advising Energy Trust as we go recognizing that Energy Trust is the expert in these fields. Then we fund through changes in the public purpose charge to get to the budgeted levels Energy Trust needs to achieve those savings.

Margie: Jim, you've just demonstrated that this is always a leap frogging effort- one process catching up with the results from another. You capture the most current information, adjust backward when true up is ready and adjust forward when the next action plan is ready.

Lauren: PGE is really encouraged by this. The best thing is goal tracking by individual utility. PGE agrees with all the consensus points in principle. For the statement on slide 3 and also as the last bullet on page one of the briefing paper "Utilities will file tariffs …..", that is certainly our intention, but there could be situations where Energy Trust is asking for an increase while that hits with other increases. We want to put out there that's not always an absolute automatic for increase in budget. That depends on what else is in the rate filing.
Juliet: The OPUC would expect you to do that, too.

Margie: Thank you for the discussion; let's move on to reserves. This was discussed at the working group, and is a decision the board can entertain at a future meeting. There are two different reserves. The first reserve is an organization-wide contingency reserve, currently known as the interest reserve. This could be called something else, like operating reserve. Energy Trust sets aside funds for operations in the event of a revenue shortfall or weather related emergency. This helps us keep going as needed. It's $5 million dedicated and untouched for that purpose, anything above that amount can be used to help with revenue shortfalls and projections. And therefore could be for renewable project investments as we've used in the past. The cap is $8 million. Interest rates are low enough that if they are increased in the future we might want to revisit this at that time. We will report on what is in this account at board meetings and utility roundtables.

Alan: You state "repayment may be specified and required." When is it required?
Margie: We want to me more consistent about this than in the past. Sometimes we've required repayment for use of the interest reserve, sometimes not. We need to ask ourselves how to do this in a consistent manner, which will take additional staff work.

Margie: The second reserve, currently called program reserves, is proposed to be different than it has been historically. We have had a convention of budgeting a 5 percent program reserve for each utility in the course of identifying funding required to meet IRP efficiency targets. That has proven more in some instances and most times than we need. All at the working group were united in the view that this amount should vary by utility and not be a fixed percentage for each year. The reserve should be tailored and negotiated with each utility depending on what is in the pipeline, projections of carryover and what we're seeing in the marketplace. We would then estimate the amount of program reserves needed with each individual utility. This gives us flexibility and helps us hone in on a more exact amount. Consensus on both points was reached by the smaller working group.

Dan: The best thing we can do with our money is spend it on incentives. We don't want to have cash sitting around. We want to push at our budgeted amounts.
Margie: Agreed.

Margie: Concerning setting levelized costs. The small working group took this up from the roundtable; however, a resolution did not come out of the meeting.
Steve: Levelized cost is part of our performance measures with the OPUC. It is set at a level that is inconsistent with our savings performance measure. We have gotten comments from some utilities that it needs to be more consistent. I was reminded by Juliet that the commission actually asked for a review and recommendation for this performance measure coming up. So we assessed what the performance measure might be. This was touched on at the working group, but wasn't fully talked though. Based on comments from staff and utilities, we feel comfortable aligning our levelized cost performance measure with the 15 percent bandwidth that we use for our savings. So it is going from being set at 10 percent above the current conservative goal, which is at 15 percent below the stretch goal, essentially a 25 percent bandwidth between the stretch savings and costs and what the performance measure is, which works out to 125 percent of stretch levelized cost. We have proposed levelized costs consistent with 15 percent range or bandwidth of the savings. So it would essentially become 15 percent above the IRP savings target, which we will be adopting for the 2014 budget. This is consistent with what Pacific Power has commented they want to see and is consistent with what the OPUC would entertain.

Debbie K: So we have dollars for the IRP goal but we only achieve 85 percent of it, the levelized cost would be the cost over the 85 percent.
Steve: And the levelized cost would inflate up to 115 percent.
Don: If there's a solution that works, let's use it. This is getting to one.
Steve: And it would follow the savings performance measure.

Jim: My understanding is that the utilities' responsibility in this more simplified methodology is taking the Energy Trust estimates for energy efficiency and making sure they are including them in the IPR plans and making sure we have filed tariffs with our customers to make sure funds are sufficient to fund Energy Trust. For a lot of these pieces, it's the "OPUC holding Energy Trust accountable." For situations like "If the goal is not met over multi-year, Energy Trust will identify reasons," these are issues I would view primarily between the OPUC and Energy Trust.

Debbie K: And if we don't meet them, it's between the OPUC and Energy Trust?
Jim: Right.

Debbie: Though there are implications to the utilities?
Steve: And we would be in direct conversation with them.
Jim: Yes, there could be issues that arise for the IRP, particularly for the electrics.

Juliet: I appreciate what you are saying Jim. It will come down to what the OPUC sets. This discussion makes a picture of how things can work together.

Alan: In terms of setting the number, we're in it together. And from that point on, it's on Energy Trust.
Don: And there is different IRP modeling approaches. The Energy Trust approach gives us a framework that we can fit within each utility's approach to IRP.

Lauren: And PGE is different because Pacific Power has IRPs it develops for other states. PGE is just in Oregon. We really do rely on Energy Trust to do this.

Don: It's a comment on Fred's staff. For the ability on the Pacific Power side, we (PacifiCorp) and Energy Trust are plugged into each other's resources plans. And we've gotten better at it. The alignment is improving even on the resource potential side. We work closely with Energy Trust.

Margie: Potential next steps are the OPUC has a role in reviewing the briefing paper and finalizing minimum performance measures. There would be a transition period from what we are currently doing to new IRP target setting. Utilities are in different stages for their IRP "refresh," if you will. It's up to each utility and the OPUC on how that works. There needs to be board resolution regarding reserves, if needed, and updating the usage of reserves accordingly.

Margie will check with the Citizens' Utility Board of Oregon and the Industrial Customers of Northwest Utilities to make sure they are on board with where the discussion landed.

Debbie K: So for budget for next year, will there be a single target?
Margie: Yes, for each utility.

Jim: For two years, the first year for operational use and the second as a best estimate.
Steve: Yes, and that practice is the same as in the past.

Energy Programs

Kim Crossman, Industry and Agriculture sector lead, and JP Batmale, Production Efficiency Custom Track program manager, presented.

Kim: For context, an industrial sector in efficiency programs is fairly unique. Six years ago, the Production Efficiency program was brought in-house at Energy Trust. It's now internally managed, with no PMC. Internal staff are responsible for technical management, administering incentive, data entry and more. A lot of the scope of what we do in our sector is done in-house. Custom Track PDCs act as our energy-efficiency account managers, they are our boots on the ground, working one-on-one particularly with medium to large industrial customers. They inform the customers, make it easy to participate, and bring in two-thirds of our savings. We are nearing the end of a five-year contract period with the existing Custom Track PDCs.

The program chose a RFQ because the Production Efficiency program is a fully mature, designed program that is working very well. Staff is not looking for a new program design, and is instead looking for people to implement the program already designed. Program staff know the scope very well. The RFQ is to find contractors who will implement the already designed program. This is not the first time this has been done. Two years ago, the program re-competed the other two program contracts, which are industrial lighting and the small industrial initiative. Those were done through an RFQ as well, and the processes were was successful.

Contracts for the current Custom Track PDCs expire in December 2013. The RFQ was issued in April 2013 and JP drove the process.

JP: I was pleasantly surprised with the level and number of people competing. We received 13 intents to respond and 12 submissions. Most of the firms that applied could have been PDCs. We had a two tier process. First, five in-house staff and one representative from the Bonneville Power Administration reviewed the submissions and recommended firms to interview. Second, the interview panel, consisting of nine in-house staff and the same BPA representative, interviewed 5 firms.

The program received submissions from good firms, the RFQ was set up with this "challenge" in mind. Evaluation criteria helped staff separate the good firms and distinguish the best firms. The review staff evaluated each firms' energy efficiency program expertise, their ability to deliver savings requires firms to be flexible as the program evolves and diversified. Reviews also looked at account management experience, engineering experience with technical projects, and ability to facilitate a project and move pipeline. Finally, sample project staffing plans were reviewed to see into each firm's approach on how they would deliver on their contract in a hypothetical territory.

After the interviews, the selection was unanimous for four companies: Portland General Electric Customer Technical Services, RHT Energy Solutions, Energy 350, Inc. and Nexant, Inc. Their distinguishing characteristics were past success, technical role, a clear business strategy in implementing the program, highly collaborative and embracing strategic direction.

Staff proposed the contracts to be for three years from January 1, 2014, to December 31, 2016, with an option to renew for up to two additional one-year periods. Territory assignments will be determined over the next few months once contracts are signed. The approved budget is $6.4 million for the four firms, with first-year savings goals is 104 million kWh and 825,000 therms.

John R: Are any of these repeat firms?
JP: Three are incumbents and all four are new contracts. The fourth company is familiar to us.

Alan: The new one is Energy 350, who was an Allied Technical Assistance Contractor. Who do they replace?
Kim: Cascade Energy, as a custom PDC. Cascade Energy is a good contractor for us. We really did have to select from good contractors. They also hold contracts for our small industrial initiative, Strategic Energy Management, Refrigeration Operator Coaching and they are an ATAC. Out of all the contractors we have worked with over the past five years, they have held the most work. Our program is built on a portfolio basis, and we try not to put too many eggs in one basket, to manage risk. Because they are still part of our team, this helped sway our decision.

Alan: What territory did they cover?
Kim: Territory wise, we will recast all territories so there are balanced savings resources. Our work over the next few months is to redraw the territories and implement transition. This is our moment to look at territories and rebalance them. There will be transition for some customers across all the places we serve. This is mostly a customer transition and is unlike the PMC transitions, which impacted staff. This transition will be a more relationship-based transition.

Alan: Do you have a general idea of what Cascade Energy covered and what 350 will cover?
JP: Generally speaking, the territories Cascade Energy had, which is largely Portland Metro, will most likely be split between two firms.

Kim: One nuance is in the past five years we have ran a blended design, geographical territories and a PDC, like Cascade, that had specific market segments. A few months ago, we evaluated that design to see if it was the best approach and if the savings achieved justified the added complexity. We are moving toward a specific geographic territory. This has been discussed at Conservation Advisory Council. We had a food processing industry representative attend a Conservation Advisory Council meeting and they expressed their support.

Ken: Will the geographic territories follow utility bounds or be broken up by utility?
Kim: This is a complicated question. Do you draw boundaries by what's on a map or by what the utility boundary is? We are taking an all of the above approach and it depends.

Ken: Do you try to balance based on total industrial load they have to service?
JP: We tried to balance it as best we could, giving them enough large customers and load to do a good job. We are looking to scale the territory to the capabilities to the firm and what came through the RFQ. We are still customer oriented, too.
Kim: We are drawing multiple maps, looking at 1 aMW customers, total resource potential, where we have done well and who holds relationships. We are cutting it a lot of different ways.

Dave: Do your contracts match up with the Existing Buildings and Existing Homes contracts?
Kim: My understanding is they are offset. We are 3 years with two years of one-year extensions where the PMC contracts are 2 years with two-year extensions.

Dan Enloe stepped out of the room briefly.

RESOLUTION 673

Authorize Custom Track Program Delivery Contractors for the Production Efficiency Program

WHEREAS:

1. **Energy Trust contracts with Custom Track program delivery contractors for Production Efficiency terminate December 31, 2013.**
2. **With assistance from an outside party, staff has conducted a fair and open procurement process to select four program delivery contractors to deliver the Custom Track for the next 3-5 years.**
3. **The following firms were selected and contract terms are being negotiated:**

   Portland General Electric Company-CTS; R.H.T Enterprises, Inc. D/B/A RHT Energy Solutions; Energy 350, Inc.; Nexant, Inc.
4. **In total, staff has estimated a total first–year (2014) budget for these four contracts of approximately $6.4 million, including possible performance compensation.**
5. **Based on current assumptions, staff projects the following total program savings and fully-loaded costs in 2014:**

	Electric	**Gas**
Savings	**103.7 million kWh**	**824,000 Therms**

$/Unit Savings	**$0.189/kWh**	**$2.73/Therm**
Levelized Cost	**$0.025/kWh**	**$.292/Therm**

It is therefore RESOLVED:

3. **Subject to determination of final contract amounts based on the board-approved 2014 budget, the executive director is authorized to enter into a contract with each of the following firms to deliver the Production Efficiency Custom Track from January 1, 2014, through December 31, 2016:**

   Portland General Electric Company-CTS; R.H. T. Enterprises Inc. D/B/A RHT Energy Solutions; Energy 350, Inc.; Nexant, Inc.

4. **First-year contract costs and savings goals included in the contracts shall be consistent with the board-approved 2014 budget. Thereafter, the contracts may be amended annually consistent with the board's annual budget decisions.**
5. **The final contracts may include a provision allowing staff to offer up to two one-year extensions if the program delivery contractor meets certain established performance criteria.**
6. **Before extending any of these contracts beyond December 31, 2016, staff will report to the board on the program delivery contractor's progress and staff's recommendation for any additional extension time periods. If the board does not object to extension, contract terms would remain as approved in the most recent action plans, budgets and contract at the time of extension, and the executive director is authorized to sign any such contract extensions.**

Moved by: Alan Meyer Seconded by: Debbie Kitchin

Vote: In favor: 10 Abstained: 0

Opposed: 0

Peter: I want to acknowledge the Production Efficiency staff and the BPA representative. We had a great response. There was a lot of detail and rechecking. JP did a great job and ran a fabulous process. He deserves a lot of credit for these results.

Committee Reports, *continued*

Executive Director Review Committee, Roger Hamilton

The committee has met a few times this year and has completed its review of Margie Harris' 2012 performance. The committee contracted with a consultant to conduct a survey of comparable executive director positions. The committee concluded that Margie's performance in the past year has been outstanding. The results were shared during executive session today and brought to the full board in Resolution 674.

Dan Enloe stepped out of the room briefly.

RESOLUTION 674

EXECUTIVE DIRECTOR REVIEW AND MERIT INCREASE

WHEREAS:

1. **Energy Trust's Executive Director Review Committee completed its evaluation of Margie Harris's performance.**
2. **Ms. Harris's compensation was not adjusted in 2012, and the current evaluation spans two years, 2011 and 2012.**
3. **The committee surveyed the opinions of a large number of stakeholders, board members and staff using specific categories of leadership and management.**
4. **The Committee retained an independent consultant to survey compensation for comparable executive director positions, which indicated that Ms. Harris's compensation is well below the market.**
5. **The Committee evaluated Ms. Harris's performance as outstanding.**

It is therefore RESOLVED:

The Board of Directors authorizes a merit award increasing Ms. Harris's salary by 4.5% effective January 1, 2012 and by 4.5% effective January 1, 2013. SERP contribution and vacation accrual to remain at current rates.

Moved by: Roger Hamilton Seconded by: Anne Donnelly

Vote: In favor: 10 Abstained: 0

Opposed: 0

Break from 2:30 p.m. to 3:00 p.m. in recognition of the retirement of Sue Meyer Sample, Energy Trust Chief Financial Officer.

Margie: In the process of seeking a "replacement" for Sue I have become acutely aware of her talents. Sue brings, for a decade now, an extraordinary amount of skill, not only in financial matters but with decision making at Management Team, risk mitigation, Human Resources and IT systems. It's been a pleasure knowing and working with Sue. I will miss your friendship and your daily humor.

Board members expressed their gratitude for Sue's service.

Sue: This is the most passionate board I have worked with. I could not have done this without my staff. I am going to miss them and you all very much. Thank you for giving me the opportunity.

Policy Committee, Roger Hamilton

Thad Roth presented on Resolution 671, reading aloud the resolution's Whereas 3 and saying it is the main goal for the change before the board today.

Alan: I suggest a language change on page 5 of the policy, in the second paragraph, "The Custom Renewables program will operate with the same two tracks for project approval as the Other Renewables program: …", and to change it to "The Custom Renewables program will operate with two tracks for project approval: …"

The board agreed to the change.

Anne: What is the meaning of “custom?” Can a solar project be described as a custom project and vice versa? What is the relationship?
Thad: Custom track means a biomass, hydropower, geothermal or wind project. From a budgeting standpoint, when we come to you with the 2014 budget, if you approve this, you will see two programs being funded, a solar program and a custom program.

Anne: Wouldn’t the parallel comparison to solar be “other” renewables? It implies a solar project cannot have a custom quality.
Peter: For every single efficiency program, except residential, all the business programs have two tracks, a standard track and custom track. We are trying to emulate that for renewables along the lines that it may be easier for the board. A custom project is characterized by its interconnection. On most solar projects, they are net metered and a standard set of incentives works for those types of projects. It’s just the opposite for biomass, hydro, small wind and geothermal. The incentives vary. On top of that, we want to treat larger-scale solar under the solar budget, because we have a longstanding approach to balancing our support across technologies. By putting larger-scale solar into solar we are aligning with the strategic plan, to be balanced.

Alan: Are you open to changing it to “other”?
Peter: Yes, what makes sense for you is all that matters here.

Anne: The nomenclature just needs to be clear. So when you look at it you know whether solar is included or not.
Peter: I agree. I like Alan’s idea of changing it.
Debbie K: Solar and Other?
Debbie M: I suggest we move forward in the policy change with the label “Other” which is what we had previously. We’ll change “Custom” to “Other” in the policy and the resolution, and all other changes will move forward.

John R: We all agree?

The board agreed and moved the resolution as amended.

Debbie M: And for clarity, this resolution, in addition to the name of the program, the change is that the Biopower program is now merged into the Other Renewables program.

RESOLUTION 671

AMENDING THE OTHER RENEWABLES POLICY TO REFLECT THE MERGER OF BIOPOWER ~~AND OTHER RENEWABLES PROGRAM INTO A CUSTOMN~~INTO THE OTHER RENEWABLES PROGRAM

WHEREAS:

1. **Energy Trust’s Renewable Energy group has had three board-recognized programs, each with its own budget: Solar, Biopower, and Other Renewables (hydro, geothermal, and wind).**

2. **In recent years, renewable energy program budgets have decreased as cash carryovers were expended. Demand for incentive funds now regularly exceeds our budgets. To manage demand for non-solar project incentives, in 2012 Energy Trust began pooling incentive funds from the Biopower and Other Renewables budgets and solicits proposals for projects, regardless of technology.**
3. **Merging the Biopower ~~and Other Renewables programs into one~~into the ~~Custom~~ Other Renewables program would align Energy Trust's program and budget structure with practice, more accurately reflect how programs function, and make management and reporting more efficient.**

It is therefore RESOLVED that the Board of Directors hereby approves amendment of the Other Renewables Projects policy as shown in Attachment 1, reflecting the merger of the Biopower ~~and Other Renewables programs into a single~~into the ~~Custom~~ Other Renewables program with a single budget.

Moved by: Alan Meyer Seconded by: Debbie Kitchin

Vote: In favor: 11 Abstained: 0

Opposed: 0

Staff Report

Briefing: Energy Trust Memberships

Sue Fletcher presented on this follow-up item from the May board meeting. This was a concern raised by Jim Scheppke and Evan White. In advance of today, staff shared the briefing document with them to see if it alleviated their concerns. Jim emailed saying he appreciated the responsiveness and it alleviated his concerns, and indicated it looks like it alleviates Evan's concerns. Jim's email said he supports the recommendations in the briefing paper.

John R: I found the write up to be very informative and it outlined the benefits of these memberships.

Sue F: The recommendations are to continue to utilize memberships as a path to reach customers. Outreach memberships help us reach customers at least cost. We do appreciate the concern that Jim and Evan raised and have come up with four steps when making determinations around memberships and sponsorships:

1. Additional training on existing guidelines for staff and contractors on decision-making around memberships.
2. New language added to existing sponsorship guidelines to make restrictions more explicit on the topic of political support.
3. Add a process step to reassess memberships on an annual basis to see if the mission of the organization or its areas of focus have changed substantially.
4. Maintain a common database of all Energy Trust memberships to support review and visibility across the organization.

Anne: Is there any language specific to geographic representation?
Sue F: It doesn't directly address where memberships should be placed but that they should support acquiring savings and generation, as determined by program plans and assessments of where in the state they will acquire those savings.
Anne: I encourage a look at geographic distribution.

Alan: Being from Salem, I am concerned we didn't renew our membership with the Salem Chamber of Commerce. This seems like an overreaction.
Su Fe: The renewal was exactly at the time of the development of this briefing paper. Because of that we decided to miss the deadline.
Alan: That seems like a weak reason of missing a whole year of membership.
Sue F: If the board is comfortable with reengaging, we can start those conversations up.

Anne: We are members in a lot of chambers of commerce but why not Josephine or Medford?
Sue F: I can't specifically say why we are a member of one chamber or another. There is not an organization-wide practice of becoming a member of all chambers. They are one by one decisions. I can take away that we are not uniformly represented across territories and look into any gaps.
Anne: It would be good to add to the policy, too. It may be worth doing ads or have some form of presence in chambers across all areas of the state.
Sue F: We will look into that, thank you.

Margie: Public comment at board meetings, though rare, is very welcome and part of our openness and transparency. Jim's email in response to the briefing paper said: "I've reviewed the briefing paper in the board packet. I want you to know that I am pleased to the level of responsiveness it shows to the concerns Evan and I raised at the last board meeting." That was the main concern and we addressed it. We can now go back and reassess the Salem Chamber of Commerce membership.

Debbie K: I like seeing the report and it is important for us to be involved in groups like this. It's true sometimes these groups will take positions we don't agree with. And if you only join those groups that completely support efficiency and renewables, you may miss out on opportunities to reach customers.

Legislative Update
Debbie Menashe presented. During the 2013 legislative session, Energy Trust tracked legislation from the beginning of the session and continued to monitor any bills relevant to Energy Trust or the energy industry throughout the session. Of all the bills introduced during session, staff tracked more than 100.

Debbie emailed the board and staff a legislative update on July 12. Debbie reminded the board that Energy Trust does not take position on any legislation. The briefing today is for information only. She noted the session closed on July 8.

HB 2322, Section 31, is a bill that may redirect public purpose funds. Not the Energy Trust portion, but portions of the low-income funds. On July 7, the legislative fiscal office circulated a memo on unspent funds from Oregon Housing and Community Services, OHCS, roughly $4.8 million in uncommitted funds from the low-income weatherization pool. OHCS under SB 1149 receives public purpose funds for low-income weatherization as well as low-income housing.

Energy Trust staff knows there has been legislative interest in providing funds to Clean Energy Works Oregon to help it bridge their business model past federal American Recovery and Reinvestment Act, ARRA, funds it has received. Energy Trust has been engaged with Clean Energy Works Oregon since the beginning first as an on-bill repayment financing pilot to help Energy Trust test the state's Energy Efficiency and Sustainable Technology Act. Energy Trust worked with Clean Energy Works Oregon to set up a pilot on home energy retrofits. Its ability to carry-on is from a federal ARRA grant that is now

diminishing and it needs seed funding to continue. The $4.8 million identified as uncommitted from OHCS is close to the amount of money Clean Energy Works Oregon needed to continue. Sometime between July 7 and July 8, Section 31 was added to HB 2322 that purports to transfer the funding from OHCS to the Oregon Department of Energy to put into the Oregon Department of Energy's Clean Energy Deployment fund for coordination with of residential energy efficiency, financing, and contractors pursuant to the Governor's 10-Year Energy Action Plan. At the end of the session, this bill passed.

Since then, much concern has been raised, starting with PGE, Pacific Power and CUB explaining their strong concerns in a letter to the Governor with the legal concerns of moving public purpose charge funds from ratepayers to a general purpose, plus functional concerns relating to the statute. Following that letter, a number of stakeholders have engaged in a letter writing campaign to the Governor in support of the original letter. Energy Trust is on the Advisory Committee to OHCS, ACE, which also sent a letter in support. Energy Trust abstained from signing the letter, as well as Jess Kincaid from the Oregon Department of Energy, due to the conflict of interest. A follow-up letter July 26 was sent from PGE, Pacific Power and CUB explaining the process for a line item veto. There is activity here and Energy Trust staff want the board to be aware.

Alan: Weyerhaeuser also signed the letter, largely because of the precedent that would be set.

John R: You're not recommending we take any sort of position because we can't take a position, but you're just letting us know?
Debbie M: Yes, we are prohibited from taking a position. There is activity there and we are monitoring it. We believe the Governor has 30 working days from the end of the legislative session to veto, approximately August 12 or 13.

Roger: Who authored the redirection?
Debbie M: It's not entirely clear. It was in the House Ways and Means Committee before passing and being referred to the senate.

Debbie K: I'm on the board with the Portland Business Alliance and they also sent a letter. I abstained due to the conflict of interest.

Margie: Concerns have also been raised about how OHCS has separated low income and housing public purpose funds. I am reminded of how cautious we are in all of our accounting that clearly leaves a trail and clearly has us abiding by our obligations to responsibly investing public purpose monies.

Debbie M: And there is a lot of discussion at OHCS and the Community Action Program agencies on what is committed versus carryover funds.

Margie: Special thanks to you Debbie, Hannah and John V who continue to monitor legislation during session. It is quite an effort.

Debbie M: Thank you. I'd like to touch on a few other bills that have raised questions since session ended. HB 2801 permits energy efficiency funding to be used for whole building energy efficiency assessments. It's a new way of looking at how we provide our incentives on a whole building

perspective for both residential and commercial. There are questions here on how that will affect our programs. It also requires Construction Contractor Board certification for home energy assessors to provide energy performance scores for buildings. CCB will be the provider and the Oregon Department of Energy has rulemaking authority over training and certification steps. This certification needs to be in place by July 2014. This is significant to our programs at EPS is an inherent part of our New Homes program and is a pilot in our Existing Homes program. Our contractors delivering those EPS ratings will need to go through the training and obtain the certification.

Debbie K: Do they have to be licensed contractors, too, like Earth Advantage?
Debbie M: In our program, contractors who deliver EPS are trade allies, and as such they need to have CCB licensing.

Debbie: Regarding the feed-in tariff pilot, a report is due to the legislature by the OPUC in mid-2014. The OPUC is required to consult with the Oregon Department of Energy to study the effectiveness of the feed-in tariff pilot and other solar incentives in Oregon, which would include Energy Trust incentives and state tax credits. They must make a report available to the legislature in July 2014. There will be information in there regarding the feed-in tariff and our incentives that will inform the renewables program for us.

Debbie: SB 844 requires the OPUC to design a voluntary emission reduction program with the gas utilities and to undertake a study of this program and clean air tax or carbon tax. There are a number of different dimensions in the bill. A carbon tax study could impact our strategic planning. We will keep you posted on this bill and the others as developments occur.

Public Annual Report
Amber Cole, Communication and Customer Service director, introduced the team that worked on the 2012 public annual report. This report is different from the OPUC annual report. The public report is consumable. It is located at www.energytrust.org/annualreport. All board members and stakeholders will get an email announcing the annual report. It is a primary communication tool and puts out key messages that Energy Trust will use for a year. Hannah Hacker is the project manager. It is produced each year. The website is an effort to move the publication online. There will still be hard copies available for key conversations. The email will go to the board, Conservation Advisory Council, Renewable Energy Advisory Council, legislators, utility contracts, utility contractors, PMCs, PDCs, trade allies, staff and others.

It is Energy Trust's moment to communicate results for the year. There will also be a press release announcing the report. The website appeals to a wide audience. Visitors can easily dive into the site and see results, savings and generation increases, customer stories, performance and levelized costs, customer satisfaction and more.

A key message is that Energy Trust is delivering on its mission. There are also info graphics this year that communicate key savings and impact statistics. They make it more fun and interactive. One of the key audiences is legislators. New this year is a feature where visitors can see results by region. There is also a leadership section that features the board as well as Energy Trust's national recognition. The final section is the audited financial statements.

It is a team effort to execute this piece each year. Amber and Hannah welcomed the board's feedback on how it represents the work of Energy Trust and the community.

Anne: This is really simple and clean and I know that it takes a lot of work to do that.

John: It provides a great deal of depth.

Dan: Will there be a link for people to connect to this document from utility channels.
Amber: We typically reserve those channels for program marketing and presenting offers but those are conversations that we can engage in.

Dave: Chambers could be good venues for sharing out the annual report.

Dan: Does this replace the paper version?
Hannah: There is a condensed paper version that you will receive by mail in a few weeks.

Adjourn

The meeting adjourned at 3:56 p.m.

The next regular meeting of the Energy Trust Board of Directors will be held Wednesday, September 25, 2013, at 12:15 p.m. at Energy Trust of Oregon, Inc., 421SW Oak Street, Suite 300, Portland, Oregon.

_____
Alan Meyer, Secretary

Board Decision
Corporate Authorization (Bank Signing Authority)

September 25, 2013

RESOLUTION 678

AUTHORIZING APPROVED BANK SIGNERS

WHEREAS:

1. **Umpqua Bank and Bank of the Cascades provide general banking services to Energy Trust (collectively, the "Banks").**
2. **Section 7.3 of the Energy Trust bylaws requires that the board of directors authorize officers or agents to sign checks, drafts, or other orders for the payment of money, notes and other evidences of indebtedness ("authorized bank signers") by way of resolution from time to time.**
3. **Effective September 5, 2013, Susanne Meyer Sample retired from her position as Chief Financial Officer of Energy Trust.**
4. **Effective September 16, 2013 Courtney Wilton was appointed Chief Financial Officer.**
5. **Susanne Meyer Sample is currently an authorized bank signer for Energy Trust's accounts at the Banks.**
6. **In connection with appointment to the chief financial officer position, Courtney Wilton should replace Susanne Meyer Sample as an authorized bank signer for the Banks.**

It is therefore RESOLVED that,

1. **Susanne Meyer Sample to be removed from the list of authorized bank signers for the Banks.**

2. **Courtney Wilton to be added to the list of authorized bank signers for the Banks.**

3. **The resulting list of authorized bank signers for the Banks is as follows:**

    a. **John Reynolds, Board President**
    b. **Dan Enloe, Board Treasurer**
    c. **Margie Harris, Executive Director**
    d. **Courtney Wilton, Chief Financial Officer**
    e. **Peter West, Director of Programs**
    f. **Steve Lacey, Director of Operations**
    g. **Debbie Goldberg Menashe, General Counsel**

4. **The Executive Director is authorized to execute all required documentation to implement this resolution.**

Moved by: Seconded by:

Vote: In favor: Abstained:

Opposed:

Board Decision
Authorizing a Program Management Contract for the New Buildings Program

September 25, 2013

Summary

Approve the basic terms for program management services agreement for Energy Trust's New Buildings program, and authorize the executive director to execute and amend the contract to conform to annual board-approved budgets and corresponding action plans.

Background

- In May 2013, Energy Trust staff issued a request for proposals for a program management contractor (PMC) to design, develop, manage and implement a new or enhanced program strategy to specifically focus on and serve the New Buildings market, deliver energy savings and contribute to reaching Energy Trust's goals.
- Energy Trust received six notices of intent to respond. Several of these parties indicated an interest in teaming together, and four distinct bidders submitted proposals.
- A review team comprised of Energy Trust staff and external reviewers from the Northwest Energy Efficiency Aliance agreed that three of the proposals for PMC services warranted interviews.
- After oral presentations and written responses to follow-up questions, the review committee unanimously selected Portland Energy Conservation, Inc. (PECI) to provide PMC services.
- The selection process and criteria are further explained in Appendix 1.

Discussion

- Staff proposes an intial two-year term, January 1, 2014 through December 31, 2015, with an option to renew for up to three additional one-year periods.
- The estimated first year budget estimate of up to $14.75 million for incentives contract management, service delivery, and potential performance compensation.
- Energy Trust staff estimates the associated savings to be as much as 45,000,000 kWh and 650,000 therms, at a cost of approximately $2.00 million per aMW and $1.30 per therm at a levelized cost of $0.024 per kWh and $0.160 per therm.
- After the board adopts the 2014 annual budget and action plan in December 2013, the PMC contract amounts and goals will be negotiated. As with other program management contracts, actual contract amounts will be negotiated annually, consistent with each year's board-adopted budget. Contracts and contract amendments conforming to these budgets would be signed without further board action.
- The contract will refer to expected program incentive costs of up to $10.05 million for incentives ($9.2 million for electric, $850,000 for gas), but will not include these costs in PMC contract payments. Incentive costs are part of the program's costs, and they are paid by Energy Trust to support program participants. Program incentive amounts will also be provided and reviewed as part of the annual budgeting process and ensuing contract amendments.

Recommendation

Authorize the executive director to negotiate and sign the PMC contract with PECI for New Buildings program management services by adopting resolution 676.

RESOLUTION 676
AUTHORIZING A PROGRAM MANAGEMENT CONTRACT FOR THE NEW BUILDINGS PROGRAM

WHEREAS:

1. **Energy Trust's contract for New Buildings program management services will terminate December 31, 2013.**
2. **With assistance from outside parties, staff has conducted a fair and open procurement process to select a contractor to manage and deliver New Buildings program services for the next 2-5 years.**
3. **PECI was selected and contract terms are being negotiated.**
4. **Staff has assumed a total first-year program management contractor budget for 2014 of approximately $14,550,000, which includes first-year contracted management and delivery costs, incentive amounts and possible PMC performance compensation.**

Based on current assumptions, staff estimates the following program savings and fully-loaded costs in 2014:

	Electric	Gas
Savings	**45,000,000 kWh**	**650,000 therms**
$/Unit Savings	**$2,000,000/aMW**	**$1.30/therm**
Levelized Cost	**$0.024/kWh**	**$0.160/therm**

It is therefore RESOLVED:

1. **Subject to determination of a final contract amount based on the board-approved 2014 budget, the executive director is authorized to enter into contract with PECI to manage the New Buildings program services from January 1, 2014 ending not later than December 31, 2015.**
2. **First-year contract costs and savings goals included in the contract shall be consistent with the board-approved 2014 budget. Thereafter, the contract may be amended annually consistent with the board's annual budget and the executive director is authorized to sign any such contract amendments.**
3. **The final contract may include a provision allowing staff to offer up to three one-year extensions if the program management contractor meets certain established performance criteria.**
4. **Before extending the contract beyond December 31, 2015, staff will report to the board on the program management contractor's progress and staff's recommendation for any additional extension time periods. If the board does not object to extension, contract terms would remain as approved in the most recent action plans, budgets and contract at the time of extension, and the executive director is authorized to sign any such contract extensions.**

Moved by: Seconded by:

Vote: In favor: Abstained:

Opposed: [list name(s) and, if requested, reason for "no" vote]

APPENDIX I: Program Management Contractor Selection Process

Energy Trust of Oregon followed a comprehensive competitive Request-for-Proposal (RFP) process.

The RFP was issued on May 8th, with responses due by July 10th. Energy Trust received six "intents to respond"; four final proposals were submitted. The proposal review process was undertaken by a team consisting of eleven Energy Trust representatives and two Northwest Energy Efficiency Alliance ("NEEA") representatives. The review team considered, evaluated and numerically scored the proposal on three overall major factors:

1. Strength of the Proposal (30%) - Considerations included: strength of the approach; responsiveness to the specific objectives; creativity in solving problems; creating and leveraging market opportunities; and ability to collaborate with other Energy Trust programs in order to provide seamless customer service.

2. Strength & Cohesiveness of Program Management Team (30%) – Proposals were evaluated based on demonstrated management experience and technical capability to address the many issues in the RFP for the design, implementation, marketing/outreach and management of the program as described in the RFP. Subcontracting to provide expertise for specific program management tasks, such as outreach and delivery to specific market sectors, was encouraged and the submitted proposal was to demonstrate how the respondent would work cohesively and efficiently to perform various aspects of program administration.

3. Cost and Savings (40%) - Proposals were evaluated based on the proportion of the total implementation and delivery budget as compared to the incentive budget. Considerations included labor rates for management and program activity, and reasonableness and credibility of each cost elements, with penalties for underestimating costs factors to reduce the bid amount. Proposals were also evaluated based on the proposed savings goals.

Following proposal review, the review team selected three of the respondents for interviews. The interviews were conducted the week of August 5th. The interview panel was comprised of Energy Trust New Buildings program staff, Energy Trust support department staff (finance, IT, contracts, planning and evaluation, customer service and marketing), Energy Trust management and one NEEA representative. Based on strength of their proposal and interview, the review team unanimously selected the PECI proposal for the following reasons:

- Presentation of a comprehensive program design to deliver resource acquisition savings and a market transformation model to drive efficiency further into markets allowing future adoption of cost-effective codes and standards
- Overall responsiveness to specific objectives, creativity in addressing current and expected challenges with administering a code-based program with rigorous cost-effectiveness standards
- Ability to adapt to changing market conditions, create and leverage market opportunities, and implement new program developments
- Focus on advancing how buildings are designed and support for integrated design approaches to drive our ability to influence projects in early development
- Strong track record of delivering verifable savings results and technical aptitude of outreach staff and engineering staff to build credibility and brand in the market place
- The team skills and experience necessary to implement the strategy and interface with owners, architects, engineers to design better buildings
- A strategy to deliver results at the best value kWh and therm value
- Demonstrated flexibility needed to address potential cost-effectiveness challenges for some efficiency measures and delivery approaches

Briefing Paper
PECI New Homes & Products Contract Extension
September 25, 2013

Summary
Extend the New Homes and Products contract with PECI for one year, through December 31, 2014. The executive director may extend the contract for one year if extension criteria are met and the board of directors does not object.

Background
- The New Homes program helps builders and subcontractors increase energy-efficiency levels, integrate solar and utilize performance testing in new home construction.

- The New Products efforts include cash incentives to purchase qualifying ENERGY STAR® clothes washers, refrigerators, freezers and lighting, and to recycle old refrigerators and freezers. The program also works with community action agencies, water bureaus and other nonprofit organizations to distribute low-cost energy-saving products and information.
- In November 2009, the board authorized a contract for program management and delivery services through PECI with a first-year budget of $6.4 million. During this time the delivery budget (which pays for PECI services) has not increased significantly, while the volume of projects and program incentives (which go to participants) have gone up more than 50 percent.
- The 2013 delivery budget is $6.4 million with a savings goal of 58.3 million kWh and 880,000 therms.
- The November 2009 board resolution also directed staff to report to the board on PECI's progress toward meeting contract extension criteria prior to recommending whether to extend the contract for up to two years. The contract extension criteria include:
    1. Cross-program referrals
    2. Project pipeline
    3. Innovation
    4. Teamwork
    5. Satisfactory execution of Statement of Work deliverables

- In May 2012, Energy Trust staff recommended a one year extension of the contract having concluded that all extension criteria had been met and preserving flexibility to decide on another extension year in 2013. Staff reports that PECI has again met extension criteria for another one year extension.

Discussion
Staff has assessed PECI's performance in relation to the extension criteria and determined that PECI has again satisfactorily performed in all categories in 2013, through:

1. **Cross-program referrals** PECI has done a good job referring Products participants to the Energy Trust Existing Homes program through marketing collateral, customer triage and call center efforts.
2. **Project pipeline** Since 2009 PECI has significantly increased the number of retailers participating in the program and the diversity of products selling at retail that are

supported with incentives. The program is currently expanding support for general purpose CFLs, while continuing to focus on specialty lighting (reflector, globe, candelabra, and 3-way bulbs), and has expended retail offerings to include showerheads and shower wands, dishwashers, and a growing selection of LEDs. PECI has also established and maintained a growing network of almost 400 qualified trade allies in the new construction industry.

3. **Innovation** PECI has introduced new technologies and methodologies, such as a rating system for newly constructed homes (EPS, Energy Trust's home energy performance scoring tool), an instant incentive pilot with Sears, an air sealing pilot aimed at improving air leakage in code-built homes, and innovative marketing campaigns to highlight the benefits of energy-efficient newly built homes and refrigerator recycling.
4. **Teamwork** PECI has been flexible in meeting Energy Trust's priorities to provide new initiatives, incorporate planning and evaluation results, submit invoices on time, provide monthly reports and improve the accuracy of forecasting. In addition, PECI has worked with the Northwest Energy Efficiency Alliance and Bonneville Power Administration, as well as other NW and West Coast utilities, to develop regional retail programs leveraging the collective voice of the region.
5. **Deliverables** While the program just missed the electric savings goal in 2012, in other years PECI has consistently met contract savings goals and has often exceeded savings goals. In 2013, PECI is forecasting to exceed the savings goal in three utilities and meet the savings goal in the other. In addition, PECI has met deadlines identified in the Statement of Work.

Next Steps

If the board does not object, the Executive Director will extend the contract with PECI for delivery of the New Homes and Products program to December 31, 2014. This is the final year of this contract. Staff will undertake a review of the program delivery model for these segments of the residential market and will issue a Request for Proposal for services in spring 2014 in anticipation of a new contract or contracts for these services beginning in January 2015.

Board Decision
Treatment of Reserves and Amending Using Reserve Accounts Policy

September 25, 2013

Summary
Adopt a new Energy Trust approach to using reserve accounts consistent with recent board and utility roundtable discussion and consensus, and amend the Using Reserve Accounts Policy.

Background
- During the 2013 Energy Trust budget process, questions surfaced regarding the complex relationships between utility Integrated Resource Plan (IRP) targets, Energy Trust savings goals, OPUC minimum performance measures for Energy Trust, and Energy Trust reserve accounts. These topics were the focus of the strategic utility roundtable held on May 22, 2013 (the "Roundtable").

- Three fundamental and specific questions were discussed at the Roundtable:

    - How should Energy Trust describe its annual electric and gas efficiency goals and their relationship to long-term utility Integrated Resource Plan energy efficiency targets?

    - How should the OPUC measure Energy Trust acquisition of efficiency savings to meet utility IRP targets?

    - What is the appropriate level of Energy Trust funding and reserves?

- A small, representative working group was convened after the Roundtable to discuss and arrive at recommendations to address these questions. The group's recommendations were presented in detail at the July 31, 2013 Energy Trust board of directors meeting. At the July 31st meeting, staff committed to return to the board with recommendations regarding amending the current board policy on using reserves.

- The discussion below outlines working group recommendations regarding reserves and proposes certain related board actions.

- Energy Trust currently maintains two reserve accounts, "interest reserves" and "program reserves".

    - The *interest reserves* account was established in 2006 and is comprised of accrued interest on Energy Trust deposits. The interest reserves account was established as contingency funding for any efficiency or renewable energy program and is available for other organization purposes consistent with our mission.

    - The *program reserves* account was established after the 2007 legislature authorized electric utilities to collect supplemental revenue for energy efficiency measures for customers with loads under one average megawatt, to augment public purpose funds authorized originally in SB 1149. Since 2007, Energy Trust has utilized a negotiated approach to annual supplemental energy efficiency funding with both electric and gas utilities. Negotiations are linked to savings targets identified in the most recent utility IRP. Also at this time, the OPUC suggested maintenance of a 5% contingency fund to

accommodate unforeseen market demand. This new set-aside was included in annual funding negotiations with each individual utility and named the efficiency program reserve.

Discussion

- Staff worked closely with Roundtable working group discussions regarding both reserve accounts to ensure that recommended changes are consistent with Energy Trust operational requirements. A summary of Roundtable working group recommendations and corresponding staff suggestions to integrate them into Energy Trust administration follows:

- First, the working group agreed Energy Trust reserve accounts currently contain more than adequate funding.

- Second, the working group recommended Energy Trust maintain the current interest reserve account and rename it the "contingency reserve". The current balance in the interest reserve account is $7.5 million. Staff proposes several administrative refinements related to this recommendation:

  - Use $8 million as a maximum target for the contingency reserve, and continue to treat it as unattributed to any specific utility.

  - Dedicate $5 million of the contingency reserve for emergency or other catastrophe use, enabling staff to use up to this amount without further board authorization provided staff reports to the board on emergency expenditures made.

    - Require staff to undertake an annual risk assessment and determine the appropriate level of contingency reserve to be dedicated for emergency or other catastrophe use, and review the recommended amount with the Finance Committee.

  - Require prior board authorization before staff may allocate the remaining contingency reserve balance, currently at $2.5 million. The use of such funds may be loans to be repaid and might be used for such needs as:

    - Revenue shortfalls due to weather or other conditions
    - Renewable energy projects for which other funds are insufficient or unavailable
    - Energy efficiency projects in the event that utility-specific program reserves are otherwise insufficient or unavailable

  - The balance maintained in the contingency reserve account would be reviewed at Roundtable meetings convened no less often than every other year.

- Third, the working group recommended that utility-specific energy efficiency program reserves be individually determined and negotiated as part of annual Energy Trust utility funding negotiations. Staff acknowledges that the current 5% utility-specific program reserve can at times result in over-collection of revenues. Staff therefore endorses the recommendation to annually negotiate the amount of the program reserve needed instead of establishing a default 5% reserve.

- Working group members anticipate that determination of program reserve amounts by utility would be based on such factors as:

    - Projected carryover funds expected to be available in the subsequent year

  - Revenue risk associated with weather or other factors impacting utility revenue shortfalls
  - Unanticipated changes in market conditions impacting savings acquisition
  - Future energy savings opportunities not anticipated in the current IRP cycle

- Staff also recommends the board Finance Committee review the contingency reserve balance at its regular meetings, and consider whether to adjust the balance in light of utility funding negotiations, or use reserves for renewable programs or offsetting the need for additional program reserves.

- At its September 10, 2013 meeting, the Policy Committee reviewed recommended changes in treatment of the reserve accounts and corresponding proposed revisions to the Using Reserve Accounts Policy, resulting in recommended changes to the Using Reserve Accounts Policy as indicated below.

Recommendation

Amend the Using Reserve Accounts Policy consistent with these recommendations and as shown in the attached.

RESOLUTION 677

APPROVING THE TREATMENT OF ENERGY TRUST'S RESERVE ACCOUNTS AND AMENDING THE USING OF THE RESERVE ACCOUNTS POLICY

WHEREAS:

1. **Energy Trust wishes to specifically identify two distinct reserve accounts with specific treatment of each. Representatives of the Board and the strategic utility roundtable have met and agreed upon these accounts and their treatment.**
2. **The two distinct reserve accounts shall be named the (1) Contingency Reserves Account and the (2) Efficiency Program Reserves Account.**
3. **Energy Trust wishes to approve treatment of the reserve accounts consistent with the Roundtable recommendations and outlined as follows:**

   Contingency Reserves Account

   An organization contingency reserve will be established; such account is currently named the interest reserve. This reserve account should be renamed "contingency reserve." The current interest reserve account balance is approximately $7.5 million. Staff currently proposes using $8 million as a target for the total amount in contingency reserves. Funds in this account will continue to be unattributed to any specific utility.

   - Energy Trust staff currently proposes dedicating $5 million of the contingency reserve account to maintain or restore operations during or after an emergency or other catastrophic event; such funds shall be designated as a subset of the contingency reserve account and designated as the "emergency contingency pool." The board authorizes staff to use the emergency contingency pool and to inform the board of such actions. It is expected the amount of the emergency contingency

pool may be adjusted in accordance with an annual risk assessment conducted by staff and reviewed by the Finance committee.

- With prior board authority, staff is authorized to allocate the balance in the contingency reserve, to be identified as the "organization contingency pool." Usage of the organization contingency pool would be to address other organizational needs such as:

    - Revenue shortfalls derived from weather or other conditions. Repayment may be specified and required.
    - Renewable energy projects for which other funds are insufficient or unavailable. Repayment may be specified and required.
    - Support for energy efficiency projects in the event utility-specific program reserves are otherwise insufficient or unavailable. Repayment may be specified and required.

- The board Finance Committee will review the contingency reserve balance at its regular meetings. Any changes in the contingency reserve account amount will be reflected in Energy Trust's annual board-approved budget.

- At a Roundtable meeting no less frequently than biennially, staff will present a review of the contingency reserve account to assess the adequacy of the account balance. This is suggested to occur in late spring, after fourth quarter results identifying revenue and carryover amounts are available and before the annual utility funding cycle and negotiations begin in July.

Efficiency Program Reserves Account

Individual utility energy efficiency program reserves will be established as part of the annual funding cycle negotiations initiated each summer between Energy Trust and utilities. Determination of the amount of each individual utility program reserve will be made collaboratively and based on such factors as:

- Projected carryover funds expected to be available in the subsequent year
- Revenue risk associated with weather or other factors impacting utility revenue shortfalls
- Unanticipated changes in market conditions impacting savings acquisition
- Future energy savings opportunities not anticipated in the current IRP cycle

The amount of energy efficiency program reserves will be tailored to each utility depending upon their individual needs and circumstances. The current practice of creating a standard 5% utility energy efficiency program reserve will be discontinued.

4. **Current board policy language on Using Reserve Accounts will be amended to reflect the naming of the Energy Trust reserve accounts and authority for uses.**

It is therefore RESOLVED that:

1. **The Interest Reserve Account shall be renamed the Contingency Reserves Account and shall be divided into two components as follows:**

    a. **An emergency contingency pool and an organization contingency pool.**

    b. **The emergency contingency pool is currently established in the amount of $5 million and such amount may be adjusted in accordance with an annual risk assessment conducted by staff and reviewed by the board Finance committee.**

    c. **The amount of the organization contingency pool shall be the difference between the total amount in the Contingency Reserve Account and the amount allocated to the emergency contingency pool.**

2. **Energy Trust staff is permitted to allocate the emergency contingency pool to respond to an emergency and shall inform the board of such actions.**
3. **Board action shall be required before staff is permitted to utilize the organization contingency pool to respond to unusual circumstances, such as a shortfall in program reserves, advantageous renewable projects requiring funds beyond those available or budgeted and other unanticipated organizational needs consistent with our mission.**
4. **The Efficiency Program Reserves Account will be established on an individual utility basis as part of the annual funding cycle negotiations between Energy Trust and each of its funding utilities. The amount of the Efficiency Program Reserves Account will reflect the amount of each individual utility reserve requirements depending upon individual utility needs and circumstances.**
5. **Energy Trust staff is permitted to utilize up to 50% of Efficiency Program Reserves, on an individual utility basis, absent prior board approval, provided such usage is clearly identified in the quarterly report to the board and the OPUC.**
6. **Board action shall be required before staff is permitted to utilize more than 50% of the Efficiency Program Reserves on an individual utility basis provided such usage is clearly identified in the monthly financial statements provided to the board and the OPUC.**
7. **Energy Trust's Finance Committee will routinely monitor and report on the balances in both reserve accounts and provide options to prevent excess accumulation in the Contingency Reserves Account .**

It is therefore further RESOLVED that:

The Energy Trust board policy on Using Reserve Accounts is amended as shown in the attachment.

It is therefore further RESOLVED that:

Staff is directed to work with the Policy and Finance committees to reference reserve account treatment changes and corresponding guidelines within other Energy Trust policies and procedures as appropriate.

Attachment 1

5.05.010-P Using Reserve Accounts Policy

History			
Source	Date	Action/Notes	Next Review Date
Board Decision	May 23, 2012	R633	May 2015

POLICY ON USING RESERVE ACCOUNTS

1. Energy Trust shall maintain two categories of reserve accounts, a contingency reserves account and an efficiency program reserves account.

2. Staff is authorized to use the contingency reserves account in emergency or other catastrophic situations to maintain or restore operations (the "emergency component"), provided that staff shall inform the board after such use and clearly identify it in the quarterly report to the board and the OPUC. The emergency component shall be updated pursuant to an annual risk assessment by staff and reviewed by the Finance committee.

~~1. Board action shall be required before staff may draw upon the interest reserve, or if staff proposes to use more than 50% of the program reserve specific to an individual utility and provided such usage is clearly identified in the monthly financial statements provided to the board and the OPUC.~~

3. Board action shall be required before staff may draw upon the contingency reserves account for any use other than the emergency component, and staff shall identify such use in the monthly financial statements to the board and the OPUC.

~~2.~~4. Efficiency program reserves shall be established in annual funding negotiations with utilities. Board action shall be required only if staff proposes to use more than ~~Enable staff to tap up to~~ 50% of any individual utility program ~~annual~~ reserve ~~funds absent prior board approval~~, provided such usage is clearly identified in the quarterly report to the board and the OPUC.

~~3. Staff is directed to work with the Policy and Finance committees to reference this change and corresponding guidelines within appropriate Energy Trust policies.~~

Notes on July 2013 Financial Statements

August 22, 2013

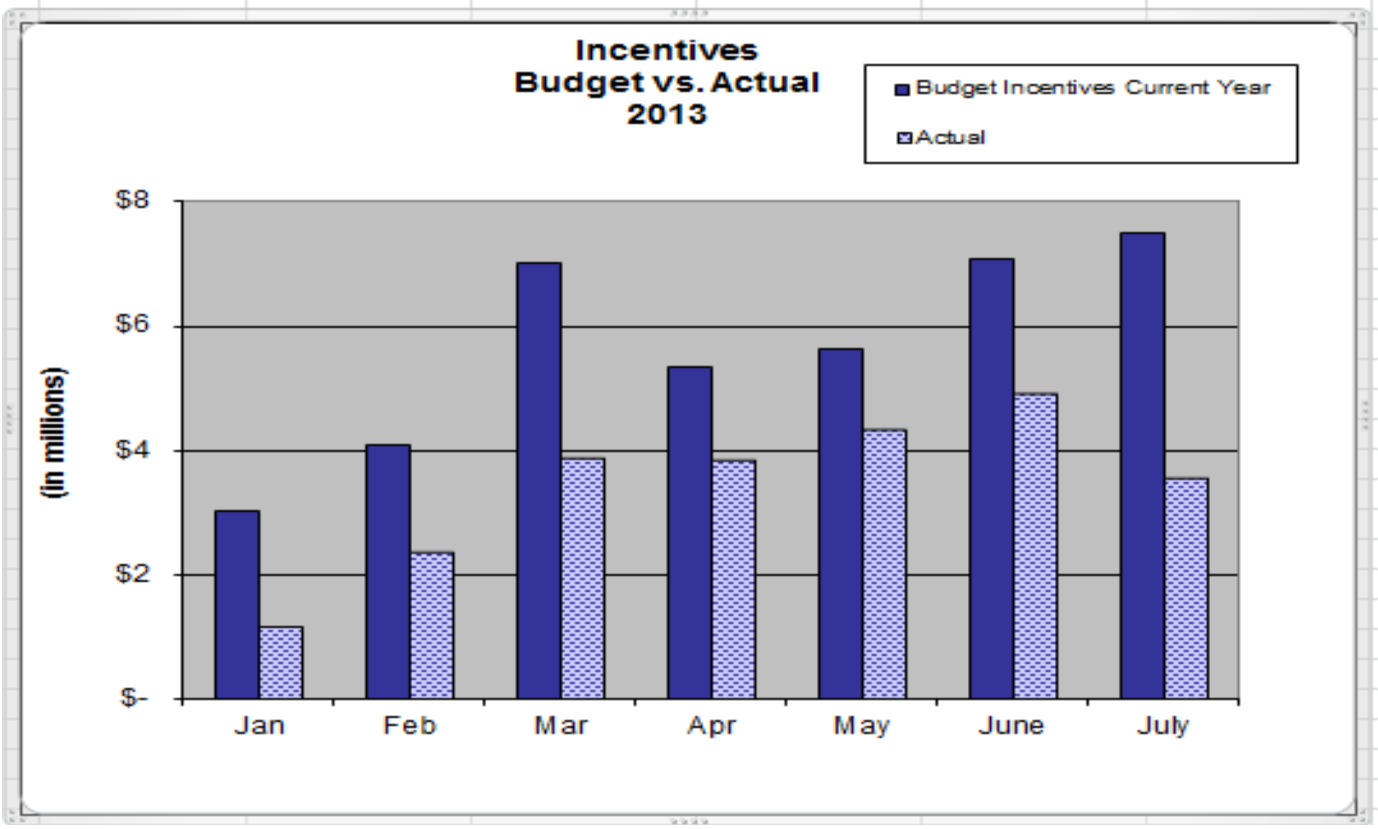
Revenue & Cash

Year-To-Date (YTD) Revenues are close to budgeted amounts for all utilities other than Cascade Natural Gas. CNG's funding is expected to ramp up beginning in September to bring it in line with the budgeted revenues for the year. Investment income expectations will be reduced by 20% due to low interest rates.

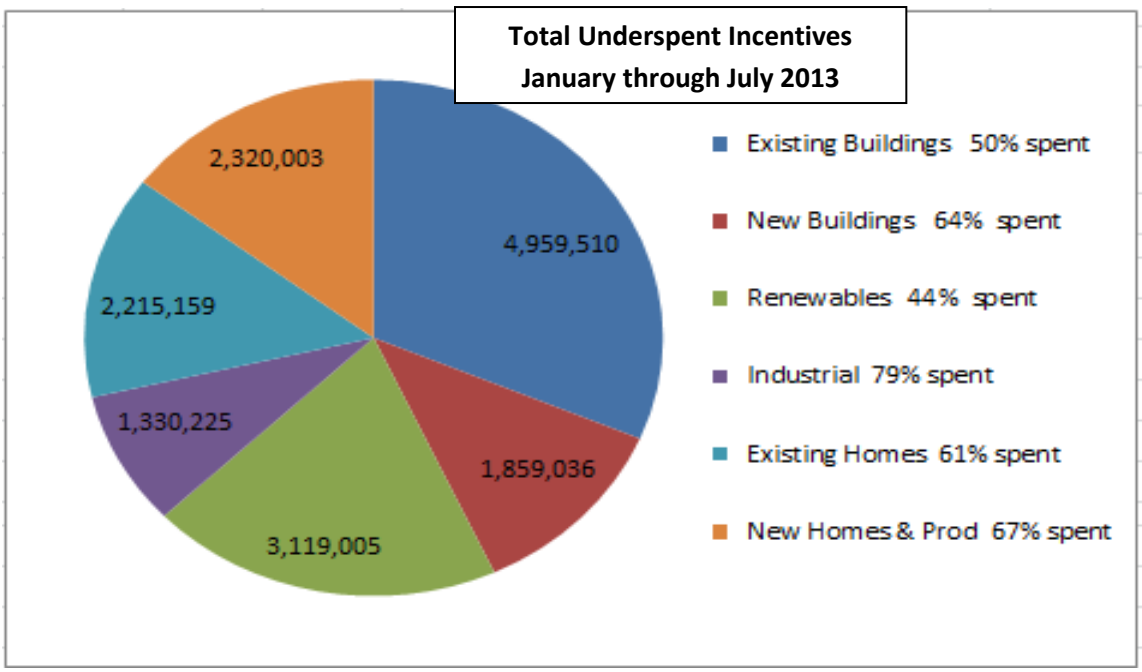
Jul-13	YTD Actual	YTD Budget	YTD Var	YTD %
PGE	50,286,796	50,131,743	155,053	0%
PAC	30,759,463	30,076,149	683,314	2%
NWN	19,223,514	18,792,293	431,221	2%
CNG	1,422,138	2,327,584	(905,446)	-39%
Investment Income	50,469	70,000	(19,531)	-28%
Total	101,742,380	101,397,769	344,611	0%

Expenses

Total company expenses YTD are $59 million, which is $21 million less than budgeted spending. Incentive spending makes up $15.8 million (73%) of the total amount underspent. Incentive spending during July was impacted by a budgeted $1.5 million payment for Renewables for Oregon Institute of Technology (OIT) Geothermal that has now been pushed out to 2014.



The following chart shows, by program, the incentive variance (versus budget) for the first seven months. The % next to the program indicates how much of the current year's budgeted incentives have been spent. Industrial, for example, has spent 79% of their January to July incentive budget, the remaining unspent 21% totals $1,330,225 of incentive spending variance.



Again, the large balance in Renewables includes the budgeted $1.5 million OIT Geothermal payment that will not be paid out until 2014.

All programs and departments are currently putting the final touches on their 2013 Forecast. Once these figures have been reviewed we should have a good idea of where the focus will be for the rest of the year and where we can expect to end up.

Incentives thru July 2013	Total Incentives Year-to-Date 2013			
	Actual	Budget	Variance	Var %
Existing Buildings	4,912,975	9,853,357	4,940,382	50%
New Buildings	3,324,951	5,183,987	1,859,036	36%
Production Efficiency	5,017,339	6,347,564	1,330,225	21%
Existing Homes	3,473,877	5,656,413	2,182,536	39%
New Homes & Products	4,528,616	6,806,047	2,277,431	33%
Washington Programs - All	186,059	280,385	94,326	34%
Solar	1,873,523	3,095,693	1,222,170	39%
Open Soliciation	190,660	1,837,796	1,647,136	90%
Biopower	360,716	610,415	249,699	41%
Total Incentives	23,868,716	39,671,655	15,802,938	40%
Energy Efficiency Only	**21,443,817**	**34,127,753**	**12,683,936**	**37%**

Incentives thru July 2012	Total Incentives Year-to-Date (Prior Year)			
	Actual	Budget	Variance	Var %
Existing Buildings	7,567,535	8,915,686	1,348,151	15%
New Buildings	3,833,710	4,357,700	523,990	12%
Production Efficiency	3,856,390	5,886,781	2,030,391	34%
Existing Homes	5,894,142	6,734,883	840,741	12%
New Homes & Products	5,327,117	6,828,532	1,501,415	22%
Washington Programs - All	150,436	289,672	139,236	48%
Solar	8,679,617	2,773,505	(5,906,112)	-213%
Open Soliciation	393,319	871,004	477,685	55%
Biopower	338,853	641,748	302,895	47%
Total Incentives	36,041,119	37,299,507	1,258,388	3%
Energy Efficiency Only	**26,629,330**	**33,013,254**	**6,383,924**	**19%**

Energy Trust of Oregon, Inc
BALANCE SHEET
July 31, 2013
(Unaudited)

	JUL 2013	JUN 2013	DEC 2012	Change from Prior Month	Change from Beg. of Year
Current Assets					
Cash & Cash Equivalents	87,013,636	83,626,597	64,005,605	3,387,039	23,008,031
Restricted Cash (Escrow Funds)	252,704	252,696	462,692	8	(209,988)
Investments	4,980,363	4,980,057	0	307	4,980,363
Receivables	8,709	8,119	123,795	590	(115,085)
Prepaid Expenses	811,770	833,677	265,829	(21,908)	545,940
Advances to Vendors	1,753,938	2,314,471	2,109,014	(560,533)	(355,076)
Total Current Assets	**94,821,120**	**92,015,617**	**66,966,935**	**2,805,503**	**27,854,186**
Fixed Assets					
Computer Hardware and Software	1,368,867	1,368,867	1,347,388	0	21,479
Leasehold Improvements	313,333	313,333	287,385	0	25,948
Office Equipment and Furniture	600,662	600,662	600,662	0	0
Total Fixed Assets	**2,282,863**	**2,282,863**	**2,235,435**	0	47,427
Less Depreciation	(1,362,779)	(1,334,802)	(1,183,098)	(27,977)	(179,681)
Net Fixed Assets	**920,083**	**948,060**	**1,052,337**	**(27,977)**	**(132,254)**
Other Assets					
Rental Deposit	64,461	64,461	64,461	0	0
Deferred Compensation Asset	449,688	440,575	409,369	9,113	40,319
Total Other Assets	**514,149**	**505,036**	**473,830**	**9,113**	**40,319**
Total Assets	**96,255,353**	**93,468,713**	**68,493,102**	**2,786,640**	**27,762,251**
Current Liabilities					
Accounts Payable and Accruals	6,714,725	7,289,994	21,430,138	(575,269)	(14,715,413)
Deposits Held for Others	(0)	(0)	49,433	0	(49,433)
Salaries, Taxes, & Benefits Payable	643,213	673,319	585,703	(30,107)	57,510
Total Current Liabilities	**7,357,937**	**7,963,314**	**22,065,273**	**(605,376)**	**(14,707,336)**
Long Term Liabilities					
Deferred Rent	350,013	346,188	323,237	3,825	26,776
Deferred Compensation Payable	449,688	440,575	409,369	9,113	40,319
Other Long-Term Liabilities	14,064	13,904	13,674	160	390
Total Long-Term Liabilities	**813,765**	**800,666**	**746,279**	**13,099**	**67,485**
Total Liabilities	**8,171,702**	**8,763,980**	**22,811,553**	**(592,278)**	**(14,639,851)**
Net Assets					
Temporarily Restricted Net Assets	252,704	252,696	462,692	8	(209,988)
Unrestricted Net Assets	87,830,947	84,452,038	45,218,858	3,378,910	42,612,089
Total Net Assets	**88,083,651**	**84,704,734**	**45,681,549**	**3,378,917**	**42,402,102**
Total Liabilities and Net Assets	**96,255,353**	**93,468,713**	**68,493,102**	**2,786,640**	**27,762,251**

BS-Acct-YTD-001

Energy Trust of Oregon
Cash Flow Statement-Indirect Method
Monthly 2013

	January	February	March	April	May	June	July	Year to Date
Operating Activities:								
Revenue less Expenses	$ 10,219,705	10,927,972	7,324,090	5,958,617	2,986,589	1,606,211	3,378,918	$ 42,402,102
Non-cash items:								
Depreciation	27,270	27,452	28,129	27,410	27,977	27,977	27,977	$ 194,192
Loss on disposal of assets								$ -
Receivables	53,256	66,082	35	(5,470)	(0)	0	(0)	$ 113,904
Interest Receivable	546	129	(496)	1,647	(518)	465	(590)	$ 1,182
Advances to Vendors	705,543	733,344	(1,456,911)	410,950	709,011	(1,307,397)	560,532	$ 355,072
Prepaid expenses and other costs	(559,565)	51,323	(82,665)	(46,877)	(9,774)	79,710	21,907	$ (545,941)
Accounts payable	(14,214,238)	1,481,611	(2,237,661)	700,669	(1,049,325)	1,129,368	(575,269)	$ (14,764,845)
Payroll and related accruals	16,657	39,359	5,770	21,984	25,790	9,262	(20,993)	$ 97,829
Deferred rent and other	(271)	(1,101)	(1,829)	(1,217)	(1,318)	(2,289)	(5,128)	$ (13,153)
Cash rec'd from / (used in) Operating Activities	(3,751,097)	13,326,171	3,578,462	7,067,713	2,688,432	1,543,307	3,387,353	$ 27,840,341
Investing Activities:								
Purchase of Investments Held to Maturity					(4,980,004)	(53)	(306)	$ (4,980,363)
(Acquisition)/Disposal of Capital Assets	-	(6,570)	(25,948)	-	(29,420)	-	-	$ (61,938)
Cash rec'd from / (used in) Investing Activities	-	(6,570)	(25,948)	-	(5,009,424)	(53)	(306)	$ (5,042,301)
Cash at beginning of Period	64,468,299	60,717,202	74,036,802	77,589,318	84,657,031	82,336,039	83,879,294	$ 64,468,299
Increase/(Decrease) in Cash	(3,751,097)	13,319,602	3,552,516	7,067,713	(2,320,992)	1,543,255	3,387,048	$ 22,798,044
Cash at end of period	60,717,202	74,036,802	77,589,318	84,657,031	82,336,039	83,879,294	87,266,340	$ 87,266,340

Energy Trust of Oregon
Cash Flow Projection
January 2013 - December 2014

	Actual							2013 Budget				
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Cash In:												
Public purpose and Incr funding	15,975,013	18,276,561	16,633,304	14,890,395	12,680,595	11,539,660	11,696,383	11,000,000	11,200,000	12,800,000	12,300,000	16,200,000
From other sources	53,256	66,082	35	(4,540)	(0)	0	(0)					
Investment Income	7,847	6,746	7,212	9,359	6,368	6,941	7,176	14,000	14,000	14,000	14,000	14,000
Total cash in	16,036,116	18,349,389	16,640,551	14,895,214	12,686,963	11,546,601	11,703,559	11,014,000	11,214,000	12,814,000	12,314,000	16,214,000
Cash Out:	19,787,213	5,029,788	13,088,038	7,827,499	15,007,955	10,003,347	8,316,510	10,400,000	18,300,000	16,800,000	17,100,000	27,400,000
Net cash flow for the month	(3,751,097)	13,319,601	3,552,516	7,067,718	(2,320,989)	1,543,254	3,387,048	614,000	(7,086,000)	(3,986,000)	(4,786,000)	(11,186,000)
Beginning Balance: Cash & MM	64,468,299	60,717,202	74,036,802	77,589,318	84,657,031	82,336,039	83,879,294	87,266,340	87,880,342	80,794,342	76,808,342	72,022,342
Ending cash & MM	60,717,202	74,036,802	77,589,318	84,657,031	82,336,039	83,879,294	87,266,340	87,880,342	80,794,342	76,808,342	72,022,342	60,836,342
Dedicated funds Adjustment	(10,600,000)	(10,600,000)	(7,900,000)	(8,100,000)	(8,400,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)
Committed Funds Adjustment	(37,200,000)	(40,000,000)	(33,900,000)	(46,300,000)	(45,800,000)	(41,200,000)	(39,900,000)	(39,600,000)	(39,600,000)	(38,200,000)	(38,200,000)	(33,200,000)
Cash Reserve	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)
Ending Cash & MM, adj by Above	**6,717,202**	**17,236,802**	**29,589,318**	**24,057,031**	**21,936,047**	**23,179,294**	**27,866,342**	**28,780,342**	**21,694,342**	**19,108,342**	**14,322,342**	**8,136,342**
Escrow Cash Balance												
Beginning Balance	462,692	381,052	381,090	381,118	252,683	252,690	252,696	252,702	77,965	77,971	77,977	77,983
Net Escrow (Payments)/Funding	(81,682)		-	(128,457)				(174,743)				
Interest Paid on Escrow Balances	42	38	28	22	7	6	6	6	6	6	6	0
Ending Escrow Balance1	381,052	381,090	381,118	252,683	252,690	252,696	252,702	77,965	77,971	77,977	77,983	77,984

1Included in "Ending cash & MM" above

Dedicated funds adjustment: reduction in available cash for commitments to Renewable program projects with board approval, or when board approval not required, with signed agreements
Committed funds adjustment: reduction in available cash for commitments to Efficiency program projects with signed agreements
Cash reserve: reduction in available cash to cover cashflow variability and winter revenue risk
Escrow: dedicated funds set aside in separate bank accounts

Energy Trust of Oregon
Cash Flow Projection
January 2013 - December 2014

	2014 Board Approved Projection											
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Cash In:												
Public purpose and Incr funding	16,000,000	17,100,000	17,500,000	15,500,000	13,900,000	12,200,000	12,300,000	11,600,000	11,800,000	13,900,000	13,000,000	17,300,000
From other sources												
Investment Income	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Total cash in	16,010,000	17,110,000	17,510,000	15,510,000	13,910,000	12,210,000	12,310,000	11,610,000	11,810,000	13,910,000	13,010,000	17,310,000
Cash Out:	28,400,000	9,000,000	11,900,000	11,300,000	11,200,000	15,500,000	14,600,000	12,700,000	16,100,000	14,200,000	14,900,000	23,900,000
Net cash flow for the month	(12,390,000)	8,110,000	5,610,000	4,210,000	2,710,000	(3,290,000)	(2,290,000)	(1,090,000)	(4,290,000)	(290,000)	(1,890,000)	(6,590,000)
Beginning Balance: Cash & MM	60,836,342	48,446,342	56,556,342	62,166,342	66,376,342	69,086,342	65,796,342	63,506,342	62,416,342	58,126,342	57,836,342	55,946,342
Ending cash & MM	48,446,342	56,556,342	62,166,342	66,376,342	69,086,342	65,796,342	63,506,342	62,416,342	58,126,342	57,836,342	55,946,342	49,356,342
Dedicated funds Adjustment	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)
Committed Funds Adjustment	(36,200,000)	(37,400,000)	(39,900,000)	(39,900,000)	(39,900,000)	(39,900,000)	(39,900,000)	(39,900,000)	(39,900,000)	(39,900,000)	(39,900,000)	(39,900,000)
Cash Reserve	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)
Ending Cash & MM, adj by Above	**-**	**-**	**2,766,342**	**6,976,342**	**9,686,342**	**6,396,342**	**4,106,342**	**3,016,342**	**-**	**-**	**-**	**-**
Escrow Cash Balance												
Beginning Balance	77,984	78,000	78,016	13	13	13	13	13	13	13	13	13
Net Escrow (Payments)/Funding			(78,003)									
Interest Paid on Escrow Balances	16	16	-	-	-	-	-	-	-	-	-	0
Ending Escrow Balance1	78,000	78,016	13	13	13	13	13	13	13	13	13	13

1Included in "Ending cash & MM" above

Dedicated funds adjustment: reduction in available cash for commitments to Renewable program projects with board approval, or when board approval not required, with signed agreements
Committed funds adjustment: reduction in available cash for commitments to Efficiency program projects with signed agreements
Cash reserve: reduction in available cash to cover cashflow variability and winter revenue risk
Escrow: dedicated funds set aside in separate bank accounts

Energy Trust of Oregon, Inc
INCOME STATEMENT - ACTUAL AND YTD COMPARISON
For the Seven Months Ending July 31, 2013
(Unaudited)

	July			YTD		
	Actual	**Budget**	**Variance**	**Actual**	**Budget**	**Variance**
REVENUES						
Public Purpose Funds-PGE	2,555,785	2,492,998	62,788	20,770,677	20,832,653	(61,976)
Public Purpose Funds-PacifiCorp	2,041,912	2,139,366	(97,454)	15,421,415	14,889,990	531,426
Public Purpose Funds-NW Natural	863,057	232,640	630,417	17,426,071	17,349,714	76,357
Public Purpose Funds-Cascade	56,797	133,881	(77,084)	1,422,138	2,327,584	(905,446)
Total Public Purpose Funds	**5,517,550**	**4,998,884**	**518,666**	**55,040,301**	**55,399,941**	**(359,639)**
Incremental Funds - PGE	3,635,890	3,731,262	(95,372)	29,516,119	29,299,091	217,029
Incremental Funds - PacifiCorp	1,966,996	2,134,095	(167,098)	15,338,047	15,186,159	151,888
NW Natural - Industrial DSM	575,946	797,028	(221,082)	1,151,892	797,028	354,864
NW Natural - Washington	0	0	0	645,551	645,551	0
Contributions	0	0	0	930	0	930
Revenue from Investments	7,766	10,000	(2,234)	50,469	70,000	(19,531)
TOTAL REVENUE	**11,704,149**	**11,671,269**	**32,880**	**101,743,310**	**101,397,769**	**345,542**
EXPENSES						
Program Subcontracts	3,507,357	4,064,610	557,253	25,688,477	26,751,549	1,063,072
Incentives	3,526,438	7,500,833	3,974,396	23,868,714	39,671,654	15,802,940
Salaries and Related Expenses	764,237	900,972	136,736	5,589,356	6,277,269	687,913
Professional Services	316,060	747,406	431,347	2,620,696	6,200,628	3,579,933
Supplies	2,172	10,354	8,182	18,205	72,476	54,271
Telephone	4,491	4,453	(38)	30,434	31,671	1,237
Postage and Shipping Expenses	968	833	(134)	6,231	5,833	(398)
Occupancy Expenses	59,323	58,434	(889)	387,739	409,035	21,296
Noncapitalized Equip. & Depr.	55,281	82,341	27,060	369,254	516,588	147,334
Call Center	41,778	44,917	3,139	393,480	314,417	(79,064)
Printing and Publications	7,431	17,112	9,681	82,947	119,787	36,840
Travel	9,745	16,682	6,937	85,607	122,874	37,267
Conference, Training & Mtng Exp	8,373	29,507	21,134	74,376	237,277	162,902
Interest Expense and Bank Fees	(35)	625	660	443	4,375	3,932
Insurance	9,455	9,167	(289)	57,066	64,167	7,101
Miscellaneous Expenses	0	225	225	590	1,575	985
Dues, Licenses and Fees	12,160	10,134	(2,026)	67,594	86,984	19,390
TOTAL EXPENSES	**8,325,231**	**13,498,605**	**5,173,374**	**59,341,208**	**80,888,160**	**21,546,951**
TOTAL REVENUE LESS EXPENSES	**3,378,917**	**(1,827,336)**	**5,206,254**	**42,402,102**	**20,509,609**	**21,892,493**

IS-Acct-YTD-001

Energy Trust of Oregon, Inc
Statement of Functional Expenses
For the Seven Months Ending July 31, 2013

	Energy Efficiency	Renewable Energy	Total Program Expenses	Management & General	Communications & Customer Service	Total Admin Expenses	Total	Budget Total	Variance
Program Expenses									
Incentives/ Program Management & Deliver	47,051,281	2,505,910	49,557,191				49,557,191	66,423,203	16,866,012
Payroll and Related Expenses	1,635,268	483,529	2,118,797	1,059,475	505,096	1,564,571	3,683,368	3,917,934	234,566
Outsourced Services	1,756,911	211,630	1,968,541	86,876	348,564	435,440	2,403,981	5,001,384	2,597,403
Planning and Evaluation	1,079,786	48,753	1,128,539				1,128,539	1,613,080	484,541
Customer Service Management	642,890	12,676	655,566				655,566	609,553	(46,013)
Trade Allies Network	206,015	9,324	215,339				215,339	260,182	44,843
Total Program Expenses	**52,372,151**	**3,271,823**	**55,643,974**	**1,146,351**	**853,660**	**2,000,011**	**57,643,985**	**77,825,336**	**20,181,351**
Program Support Costs									
Supplies	4,853	1,317	6,170	5,212	1,990	7,202	13,372	45,758	32,386
Postage and Shipping Expenses	2,453	510	2,963	1,018	485	1,503	4,466	4,581	115
Telephone	1,887	779	2,666	1,080	438	1,518	4,184	3,629	(555)
Printing and Publications	74,952	3,412	78,364	243	2,626	2,869	81,233	115,252	34,019
Occupancy Expenses	119,254	36,275	155,529	71,443	34,533	105,976	261,505	261,800	295
Insurance	17,630	5,363	22,993	10,562	5,105	15,667	38,660	41,210	2,550
Equipment	14,325	15,591	29,916	3,067	1,482	4,549	34,465	13,959	(20,506)
Travel	30,029	12,001	42,030	13,574	1,775	15,349	57,379	90,731	33,352
Meetings, Trainings & Conferences	16,144	3,061	19,205	16,851	3,220	20,071	39,276	164,553	125,277
Interest Expense and Bank Fees		100	100	343		343	443	4,375	3,932
Depreciation & Amortization	29,410	10,298	39,708	17,619	8,516	26,135	65,843	60,190	(5,653)
Dues, Licenses and Fees	27,153	12,039	39,192	(876)	2,414	1,538	40,730	38,587	(2,143)
Miscellaneous Expenses	572		572	18		18	590	1,053	463
IT Services	745,347	87,739	833,086	148,651	73,341	221,992	1,055,078	2,217,143	1,162,065
Total Program Support Costs	**1,084,007**	**188,486**	**1,272,493**	**288,804**	**135,926**	**424,730**	**1,697,223**	**3,062,823**	**1,365,600**
TOTAL EXPENSES	**53,456,159**	**3,460,308**	**56,916,467**	**1,435,155**	**989,586**	**2,424,741**	**59,341,208**	**80,888,160**	**21,546,952**
OPUC measure vs. 9%	**3.63%**								

Exp-Acct-YTD-002

Energy Trust of Oregon, Inc
Year to Date by Program/Service Territory
For the Seven Months Ending July 31, 2013
(Unaudited)

	ENERGY EFFICIENCY										
	PGE	**PacifiCorp**	**Total**	**NWN Industria**	**NW Natural**	**Cascade**	**Oregon Total**	**Clark PUD WA**	**NWN WA**	**WA Total**	**EE Total**
REVENUES											
Public Purpose Funding	$16,051,875	$11,986,242	$28,038,117		$17,426,071	$1,422,138	$46,886,326				$46,886,326
Incremental Funding	29,516,119	15,338,047	44,854,166	1,151,892			46,006,058		645,551	645,551	46,651,609
Contributions											
Revenue from Investments											
TOTAL PROGRAM REVENUE	**45,567,994**	**27,324,289**	**72,892,283**	**1,151,892**	**17,426,071**	**1,422,138**	**92,892,384**		**645,551**	**645,551**	**93,537,935**
EXPENSES											
Program Management (Note 3)	1,409,781	966,036	2,375,817	70,935	593,904	41,537	3,082,193	1,517	110,602	112,119	3,194,312
Program Delivery	10,950,241	7,647,258	18,597,499	215,407	2,826,631	213,465	21,853,002	1,639	162,594	164,233	22,017,235
Incentives	11,029,558	6,167,543	17,197,101	815,110	3,022,850	222,697	21,257,758	9,261	176,798	186,059	21,443,817
Program Eval & Planning Svcs.	872,696	571,955	1,444,651	31,060	298,749	19,622	1,794,082	604	16,888	17,492	1,811,574
Program Marketing/Outreach	1,195,827	830,096	2,025,923	14,114	613,582	39,522	2,693,142		17,299	17,299	2,710,441
Program Quality Assurance	16,715	18,760	35,476	0	21,374	899	57,748				57,748
Outsourced Services	122,205	93,382	215,587	2,940	66,336	3,260	288,124				288,124
Trade Allies & Cust. Svc. Mgmt.	206,811	166,446	373,257	2,373	150,842	8,492	534,964	426	14,430	14,856	549,820
IT Services	325,161	228,313	553,473	9,036	153,245	9,164	724,918	556	19,871	20,427	745,345
Other Program Expenses	237,438	195,759	433,197	9,336	165,688	8,171	616,392	548	20,804	21,352	637,744
TOTAL PROGRAM EXPENSES	**26,366,433**	**16,885,548**	**43,251,982**	**1,170,311**	**7,913,202**	**566,828**	**52,902,323**	**14,551**	**539,286**	**553,837**	**53,456,159**
ADMINISTRATIVE COSTS											
Management & General (Notes 1 & 2)	664,833	425,771	1,090,604	29,510	199,532	14,293	1,333,938	367	13,598	13,965	1,347,903
Communications & Customer Svc (Notes 1 & 2)	458,424	293,583	752,007	20,348	137,584	9,855	919,794	253	9,376	9,629	929,423
Total Administrative Costs	**1,123,257**	**719,354**	**1,842,611**	**49,857**	**337,116**	**24,148**	**2,253,732**	**620**	**22,974**	**23,594**	**2,277,326**
TOTAL PROG & ADMIN EXPENSES	**27,489,694**	**17,604,900**	**45,094,594**	**1,220,166**	**8,250,319**	**590,974**	**55,156,053**	**15,171**	**562,260**	**577,431**	**55,733,484**
TOTAL REVENUE LESS EXPENSES	**18,078,304**	**9,719,387**	**27,797,691**	**(68,276)**	**9,175,753**	**831,162**	**37,736,329**	**(15,171)**	**83,291**	**68,120**	**37,804,449**
NET ASSETS - RESERVES											
Beginning net assets	12,168,475	3,036,549	15,205,024	1,099,798	3,013,149	(392,281)	18,925,690	50,734	353,174	403,908	19,329,598
Change in net assets this year	18,078,304	9,719,387	27,797,691	(68,276)	9,175,753	831,162	37,736,329	(15,171)	83,291	68,120	37,804,449
Interest attributed	-	-	-	-	-	392,281	392,281	-	-	-	392,281
Ending Net Assets - reserves	**30,246,779**	**12,755,936**	**43,002,715**	**1,031,522**	**12,188,902**	**831,162**	**57,054,300**	**35,563**	**436,465**	**472,028**	**57,526,328**
Ending reserve by category											
Program reserves	30,246,779	12,755,936	43,002,715	1,031,522	12,188,902	438,881	56,662,019	35,563	436,465	472,028	57,134,047
Interest attributed						392,281	392,281				392,281
Contingency available for program use											
Contingency reserve											
Ending Net Assets - reserves	**30,246,779**	**12,755,936**	**43,002,715**	**1,031,522**	**12,188,902**	**831,162**	**57,054,300**	**35,563**	**436,465**	**472,028**	**57,526,328**

Note 1) Both Management & General and Communications & Customer Service Expenses (Administrative) have been allocated based on total expenses.
Note 2) Administrative costs are allocated for management reporting only. GAAP for Not for Profit organizations does not allow allocation of administrative costs to program expens
Note 3) Program Management costs include both outsourced and internal staff.

Energy Trust of Oregon, Inc
Year to Date by Program/Service Territory
For the Seven Months Ending July 31, 2013
(Unaudited)

	RENEWABLE ENERGY				TOTAL		
	PGE	PacifiCorp	Total	Other	All Programs	Approved budget	Change
REVENUES							
Public Purpose Funding	$4,718,802	$3,435,173	$8,153,975		$55,040,301	$55,399,940	($359,639)
Incremental Funding					46,651,609	45,927,828	723,781
Contributions				930	930		930
Revenue from Investments				50,469	50,469	70,000	(19,531)
TOTAL PROGRAM REVENUE	**4,718,802**	**3,435,173**	**8,153,975**	**51,399**	**101,743,310**	**101,397,769**	**345,542**
EXPENSES							
Program Management (Note 3)	168,622	314,907	483,529		3,677,841	3,495,563	(182,278)
Program Delivery	40,696	40,317	81,013		22,098,248	23,495,997	1,397,749
Incentives	1,345,850	1,079,049	2,424,899		23,868,716	39,671,654	15,802,938
Program Eval & Planning Svcs.	18,246	30,507	48,753		1,860,327	3,193,375	1,333,048
Program Marketing/Outreach	38,864	19,931	58,795		2,769,236	3,012,268	243,032
Program Quality Assurance	1,123	0	1,123		58,871	148,750	89,879
Outsourced Services	79,534	72,179	151,713		439,837	1,410,316	970,479
Trade Allies & Cust. Svc. Mgmt.	14,253	7,706	21,959		571,779	636,984	65,205
IT Services	35,980	51,759	87,739		833,084	1,750,924	917,840
Other Program Expenses	48,304	52,484	100,788		738,532	704,538	(33,994)
TOTAL PROGRAM EXPENSES	**1,791,472**	**1,668,839**	**3,460,308**		**56,916,467**	**77,520,369**	**20,603,898**
ADMINISTRATIVE COSTS							
Management & General (Notes 1 & 2)	43,765	43,487	87,252		1,435,155	2,071,788	636,633
Communications & Customer Svc (Notes 1 & 2	30,177	29,986	60,163		989,586	1,296,003	306,417
Total Administrative Costs	**73,943**	**73,472**	**147,415**		**2,424,741**	**3,367,791**	**943,050**
TOTAL PROG & ADMIN EXPENSES	**1,865,417**	**1,742,307**	**3,607,724**		**59,341,208**	**80,888,160**	**21,546,951**
TOTAL REVENUE LESS EXPENSES	**2,853,388**	**1,692,861**	**4,546,249**	**51,399**	**42,402,102**	**20,509,608**	**(21,892,489)**
NET ASSETS - RESERVES							
Beginning net assets	8,211,384	7,461,615	15,672,999	10,678,953	45,681,550	37,070,557	(8,610,993)
Change in net assets this year	2,853,388	1,692,861	4,546,249	51,399	42,402,102	20,509,608	(21,892,489)
Interest attributed	585,000	2,235,000	2,820,000	(3,212,281)	-	-	-
Ending Net Assets - reserves	**11,649,772**	**11,389,476**	**23,039,248**	**7,518,071**	**88,083,651**	**57,580,165**	**(30,503,482)**
Ending reserve by category							
Program reserves	11,064,772	9,154,476	20,219,248		77,353,295	57,580,165	(30,503,482)
Interest attributed	585,000	2,235,000	2,820,000		3,212,281		
Contingency available for program use				2,518,071	2,518,071		
Contingency reserve				5,000,000	5,000,000		
Ending Net Assets - reserves	**11,649,772**	**11,389,476**	**23,039,248**	**7,518,071**	**88,083,647**	**57,580,165**	**(30,503,482)**

Note 1) Both Management & General and Communications & Customer Service Expenses (Administrative) have been allocated based on total expenses.
Note 2) Administrative costs are allocated for management reporting only. GAAP for Not for Profit organizations does not allow allocation of administrative costs to program expenses.
Note 3) Program Management costs include both outsourced and internal staff.

Energy Trust of Oregon, Inc
Program Expense by Service Territory
For the Seven Months Ending July 31, 2013
(Unaudited)

	PGE	Pacific Power	Subtotal Elec.	NWN Industrial	NW Natural Gas	Cascade	Subtotal Gas	Oregon Total	Clark PUD WA	NWN WA	Total WA	ETO Total	YTD Budget	Variance
Energy Efficiency														
Commercial														
Existing Buildings	6,673,460	4,375,092	11,048,552	117,360	1,759,422	72,172	1,948,954	12,997,506	15,171	203,073	218,244	13,215,750	19,448,344	6,232,594
New Buildings	4,226,446	2,027,770	6,254,216	58,862	271,498	83,765	414,125	6,668,341			0	6,668,341	9,383,910	2,715,569
NEEA	938,990	708,359	1,647,349				**0**	1,647,349			0	1,647,349	1,684,965	37,616
Total Commercial	**11,838,896**	**7,111,221**	**18,950,117**	**176,222**	**2,030,920**	**155,937**	**2,363,079**	**21,313,196**	**15,171**	**203,073**	**218,244**	**21,531,440**	**30,517,219**	**8,985,779**
Industrial														
Production Efficiency	6,317,070	3,281,241	9,598,311	1,043,944	244,632	39,797	1,328,373	10,926,684			**0**	10,926,684	13,000,053	2,073,369
NEEA	431,515	325,529	757,044				**0**	757,044			**0**	757,044	827,361	70,317
Total Industrial	**6,748,585**	**3,606,770**	**10,355,355**	**1,043,944**	**244,632**	**39,797**	**1,328,373**	**11,683,728**			**0**	**11,683,728**	**13,827,414**	**2,143,686**
Residential														
Existing Homes	3,034,652	3,405,907	6,440,559		3,879,985	163,105	4,043,090	10,483,649		215,970	215,970	10,699,619	14,006,650	3,307,031
New Homes/Products	4,475,793	2,431,073	6,906,866		2,094,782	232,135	2,326,917	9,233,783		143,217	143,217	9,377,000	12,537,443	3,160,443
NEEA	1,391,768	1,049,929	2,441,697				**0**	2,441,697			**0**	2,441,697	2,419,628	(22,069)
Total Residential	**8,902,213**	**6,886,909**	**15,789,122**		**5,974,767**	**395,240**	**6,370,007**	**22,159,129**		**359,187**	**359,187**	**22,518,316**	**28,963,721**	**6,445,405**
Energy Efficiency Program Cos	**27,489,694**	**17,604,900**	**45,094,594**	**1,220,166**	**8,250,319**	**590,974**	**10,061,459**	**55,156,053**	**15,171**	**562,260**	**577,431**	**55,733,484**	**73,308,354**	**17,574,870**
Renewables														
Biopower	20,695	508,101	528,796				**0**	528,796			**0**	528,796	901,440	372,644
Solar Electric (Photovoltaic)	1,680,084	841,952	2,522,036				**0**	2,522,036			**0**	2,522,036	4,252,777	1,730,741
Other Renewable	164,638	392,254	556,892					556,892				556,892	2,425,587	1,868,695
Renewables Program Costs	**1,865,417**	**1,742,307**	**3,607,724**				**0**	**3,607,724**			**0**	**3,607,724**	**7,579,804**	**3,972,080**
Cost Grand Total	**29,355,111**	**19,347,207**	**48,702,318**	**1,220,166**	**8,250,319**	**590,974**	**10,061,459**	**58,763,777**	**15,171**	**562,260**	**577,431**	**59,341,208**	**80,888,160**	**21,546,951**

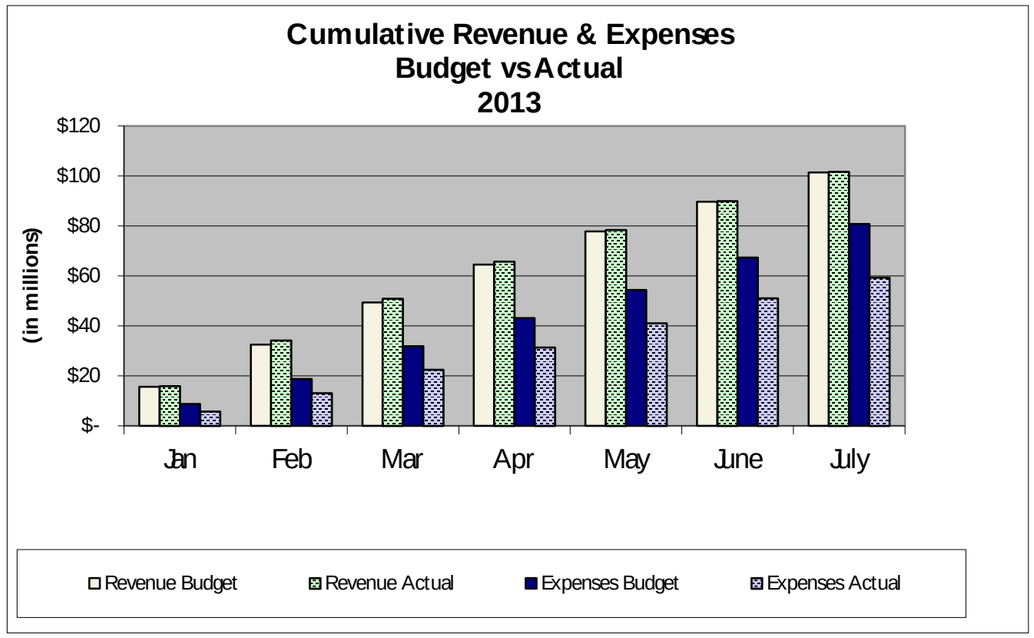
PUC-Proj-ST-07-C

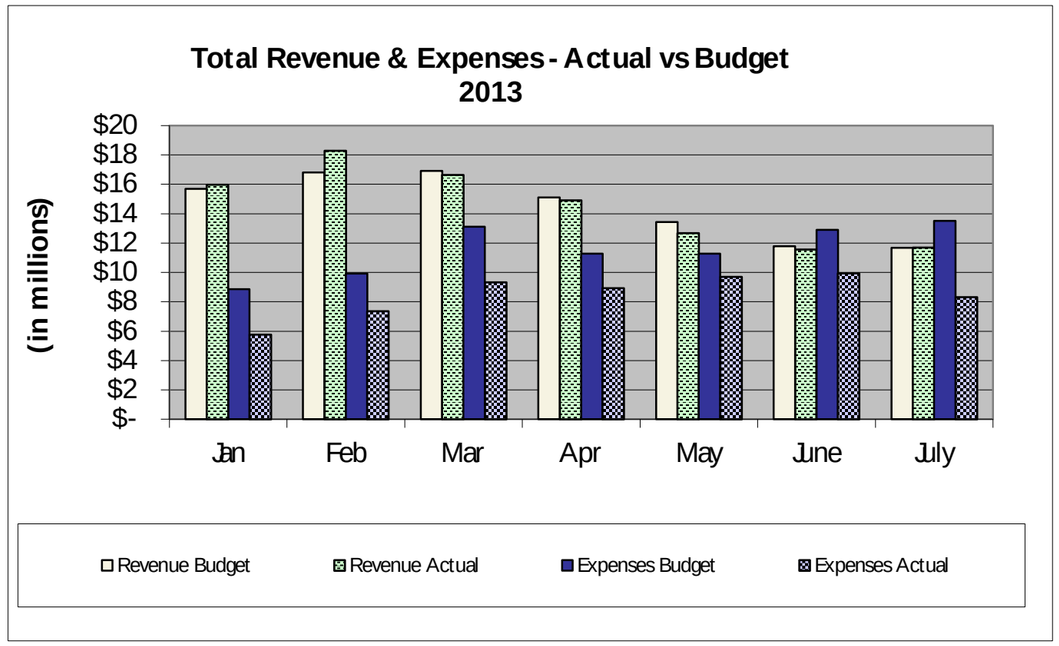
Energy Trust of Oregon, Inc.
ADMINISTRATIVE EXPENSES
For the Month and Year to Date Ended July 31, 2013
(Unaudited)

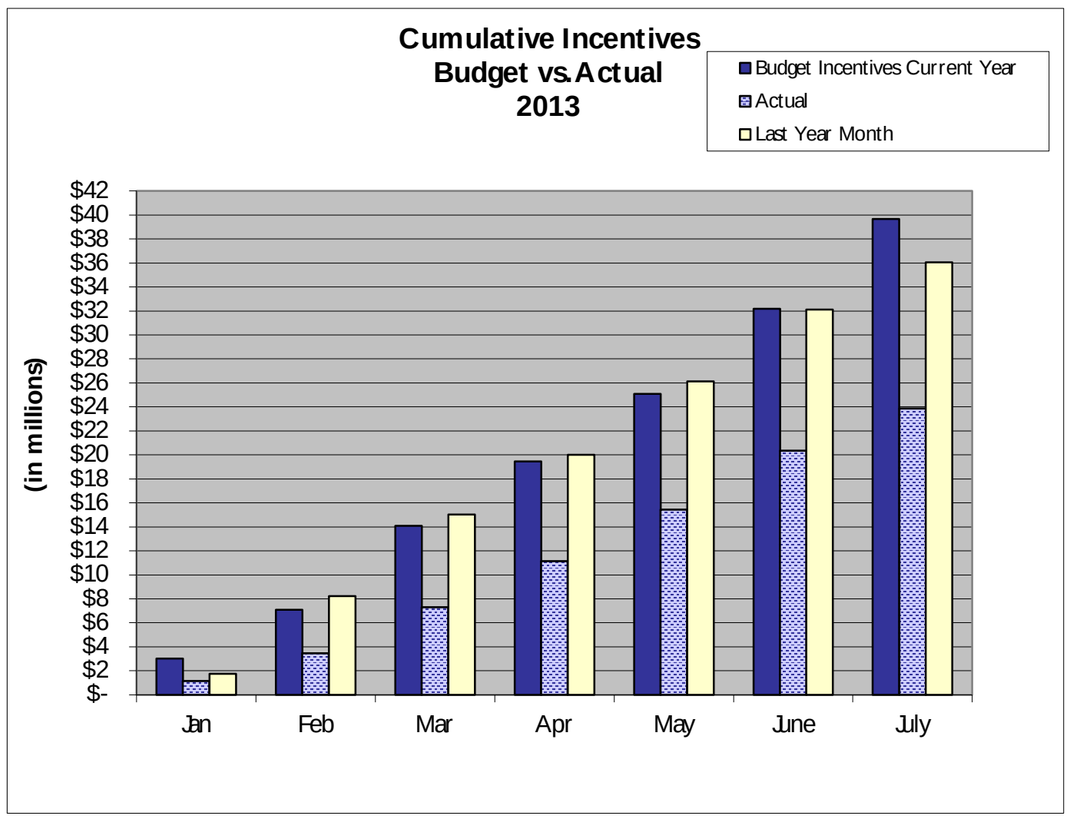
	MANAGEMENT & GENERAL						COMMUNICATIONS & CUSTOMER SERVICE					
	MONTHLY	QUARTERLY	QUARTER	YTD			MONTHLY	QUARTERLY	QUARTER	YTD		
	ACTUAL	BUDGET	REMAINING	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	REMAINING	ACTUAL	BUDGET	VARIANCE
EXPENSES												
Outsourced Services	$16,740	$127,046	$110,305	$83,874	$278,107	$194,233	$39,566	$232,500	$192,934	$348,564	$542,500	$193,936
Legal Services		22,500	22,500	3,002	52,500	49,499						
Salaries and Related Expenses	140,086	511,750	371,664	1,059,475	1,168,918	109,443	66,139	208,331	142,192	505,096	485,652	(19,444)
Supplies	10	1,575	1,565	2,695	3,675	980	125	250	125	773	583	(190)
Telephone	210	710	500	352	817	464	27		(27)	87		(87)
Postage and Shipping Expenses	14		(14)	14		(14)		1,000	1,000		2,333	2,333
Noncapitalized Equipment								250	250		583	583
Printing and Publications	20	150	130	80	350	270	1,251	13,750	12,499	2,547	32,083	29,536
Travel	1,645	11,833	10,189	13,574	27,611	14,038	27	1,750	1,723	1,775	4,083	2,309
Conference, Training & Mtngs	3,988	41,147	37,159	16,851	104,236	87,385	614	7,125	6,511	3,220	16,625	13,406
Interest Expense and Bank Fees	(35)	1,875	1,910	343	4,375	4,032						
Miscellaneous Expenses		50	50	18	117	99						
Dues, Licenses and Fees	220	1,380	1,160	(876)	4,720	5,596	442	500	58	2,414	1,167	(1,248)
Shared Allocation (Note 1)	14,952	48,964	34,012	107,103	114,196	7,094	7,994	24,156	16,162	51,769	56,338	4,569
IT Service Allocation (Note 2)	20,273	111,224	90,951	148,651	312,165	163,514	10,002	54,889	44,886	73,341	154,053	80,712
TOTAL EXPENSES	**198,123**	**880,204**	**682,081**	**1,435,155**	**2,071,788**	**636,633**	**126,186**	**544,501**	**418,314**	**989,586**	**1,296,001**	**306,415**

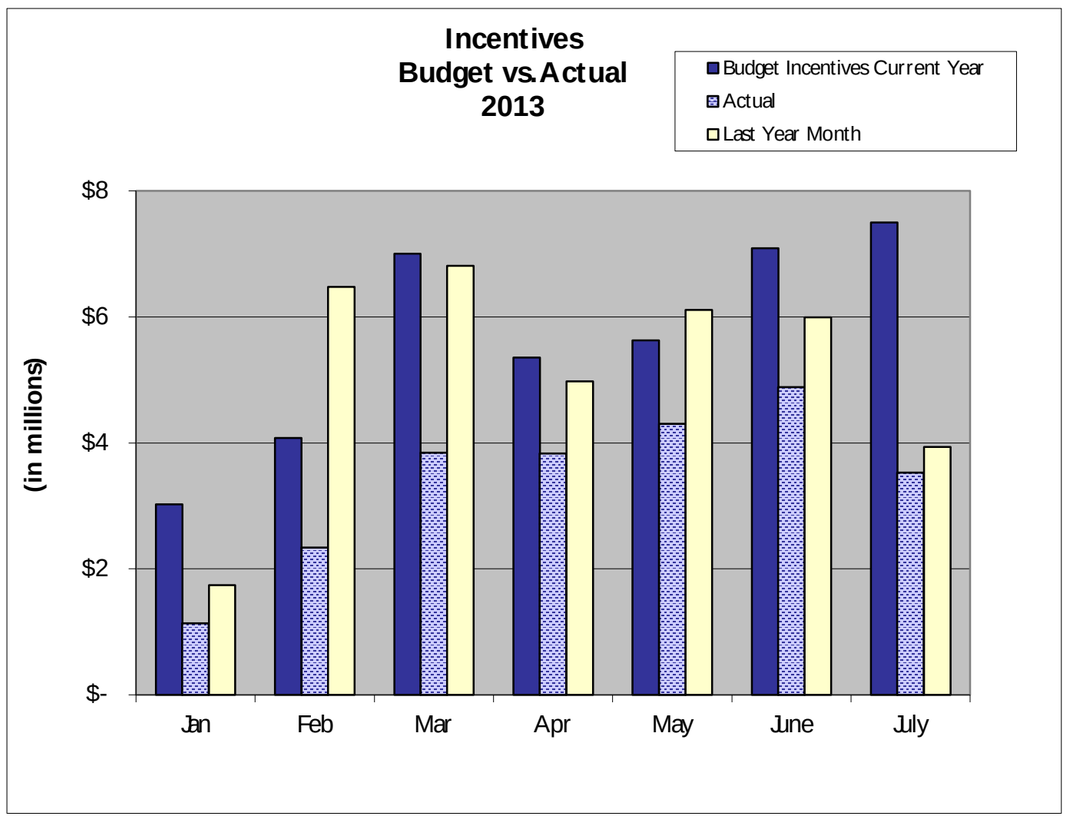
Note 1) Represents allocation of Shared (General Office Management) Costs
Note 2) Represents allocation of Shared IT Costs

Exp-Prog-YTD-001


Cumulative Revenue & Expenses
Budget vs Actual
2013
(in millions)
$120
$100
$80
$60
$40
$20
$-
Jan
Feb
Mar
Apr
May
June
July
Revenue Budget
Revenue Actual
Expenses Budget
Expenses Actual


Total Revenue & Expenses - Actual vs Budget
2013
(in millions)
$20
$18
$16
$14
$12
$10
$8
$6
$4
$2
$-
Jan
Feb
Mar
Apr
May
June
July
Revenue Budget
Revenue Actual
Expenses Budget
Expenses Actual


Cumulative Incentives
Budget vs. Actual
2013
Budget Incentives Current Year
Actual
Last Year Month
(in millions)
$42
$40
$38
$36
$34
$32
$30
$28
$26
$24
$22
$20
$18
$16
$14
$12
$10
$8
$6
$4
$2
$-
Jan
Feb
Mar
Apr
May
June
July


Incentives
Budget vs. Actual
2013
Budget Incentives Current Year
Actual
Last Year Month
(in millions)
$8
$6
$4
$2
$-
Jan
Feb
Mar
Apr
May
June
July

R00407

For contracts with costs through: 8/1/2013

Energy Trust of Oregon
Contract Status Summary Report

Report Date: 8/16/2013

Contractor	Description	*City	Est Cost	Actual TTD	Remaining	Start	End
Administration							
		Administration Total:	**6,594,985**	**1,916,864**	**4,678,121**		
Communications & Outreach							
		Communications & Outreach Total:	**2,660,986**	**1,631,192**	**1,029,794**		
Energy Efficiency Programs							
Northwest Energy Efficiency Alliance	Regional Energy Eff Initiative	Portland	39,138,680	25,577,915	13,560,765	1/1/10	7/1/15
ICF Resources, LLC	PMC BE 2013	Fairfax	7,731,351	4,166,271	3,565,080	1/1/13	12/31/13
Fluid Market Strategies LLC	2013 HES PMC	Portland	7,338,775	3,986,797	3,351,978	1/1/13	12/31/13
Portland Energy Conservation, Inc.	PMC NHP 2013	Portland	6,315,684	3,439,768	2,875,916	1/1/13	12/31/13
Portland Energy Conservation, Inc.	2013 NBE PMC	Portland	4,736,060	2,306,501	2,429,559	1/1/13	12/31/13
Intel Corporation	Intel D1X Megaproject	Hillsboro	4,000,000	2,540,546	1,459,454	11/15/12	12/31/14
Lockheed Martin Services, Inc.	2013 MF PMC	Cherry Hill	2,673,341	1,481,099	1,192,242	1/1/13	12/31/13
OPOWER, Inc.	OPOWER Agreement	Arlington	2,092,200	2,047,420	44,780	3/2/10	2/28/14
Oregon State University	CHP Project - OSU	Corvallis	2,024,263	1,920,000	104,263	12/20/10	1/31/16
Portland General Electric	PDC - PE 2013		1,871,000	982,781	888,219	1/1/13	12/31/13
Cascade Energy, Inc.	PDC - PE 2013	Walla Walla	1,725,055	1,042,740	682,315	1/1/13	12/31/13
RHT Energy Solutions	PDC - PE 2013	Medford	1,278,651	706,125	572,526	1/1/13	12/31/13
Cascade Energy, Inc.	PDC - PE 2013 Small Industrial	Walla Walla	1,147,500	708,540	438,960	1/1/13	12/31/13
Evergreen Consulting Group, LLC	PE Lighting PDC 2013	Tigard	1,071,000	594,015	476,985	1/1/13	12/31/13
Northwest Power & Conservation Council	Annual Work Plan		874,652	550,195	324,457	3/20/12	12/31/14
NEXANT, INC.	PDC - PE 2013	San Francisco	825,818	346,689	479,129	1/1/13	12/31/13
Ecova Inc	Plug Load Solutions Funding	Spokane	499,950	213,419	286,531	1/1/13	12/31/13
Evoworx Inc.	EnergySavvy Online Audit Tool	Seattle	472,500	298,634	173,866	1/1/12	12/31/13
Clean Energy Works Oregon Inc	Clean Energy Works	Portland	448,500	300,000	148,500	1/1/10	7/31/13
OPOWER, Inc.	OPower Personal Energy Reports	Arlington	425,850	155,760	270,090	8/1/13	7/31/15
Navigant Consulting Inc	Analytical Model & Study	Boulder	412,052	0	412,052	8/12/13	4/30/14
SBW Consulting, Inc.	BE Program Impact Evaluation	Bellevue	400,000	425,433	-25,433	1/15/12	6/30/13
The Cadmus Group Inc.	NB Impact Eval 2010-2011	Watertown	295,000	240,776	54,224	1/13/12	12/31/13
Fluid Market Strategies LLC	2013 HES WA PMC	Portland	265,000	168,594	96,406	1/1/13	12/31/13
ICF Resources, LLC	NWN WA BE 2013	Fairfax	191,538	63,113	128,425	1/1/13	12/31/13
Research Into Action, Inc.	PE Evaluation	Portland	170,000	127,096	42,904	2/1/12	7/31/13
Home Performance Contractors Guild of Oregon	Existing Homes Program Support	Portland	155,000	107,343	47,657	1/1/12	3/31/14
D&R International LTD	Market Lift Program	Silver Spring	150,000	0	150,000	1/1/13	9/30/13
ICF Resources, LLC	CHP Performance	Fairfax	116,320	77,920	38,400	8/5/09	6/30/13
ICF Resources, LLC	NWN DSM Initiative 2013	Fairfax	110,000	35,556	74,444	1/1/13	12/31/13
J. Hruska Global	Quality Assurance Services	Columbia City	100,000	49,533	50,468	1/1/13	12/31/14
PWP, Inc.	NBE Process Evaluation	Gaithersburg	100,000	84,078	15,922	1/6/12	12/31/13
Vitesse LLC	Vitesse Data Center	Menlo Park	100,000	0	100,000	10/18/12	10/30/13
Evergreen Economics	New Homes Process Eval - 2013	Portland	70,000	0	70,000	6/24/13	3/31/14
Portland Energy Conservation, Inc.	EE Consultant Services	Portland	54,170	50,758	3,412	6/1/11	12/31/13

*The city indicated is the contractor's mailing address, not necessarily the location where work was performed.

Contractor	Description	*City	Est Cost	Actual TTD	Remaining	Start	End
The Cadmus Group Inc.	Commercial Op Pilot Eval	Watertown	50,000	35,252	14,749	7/1/11	12/31/13
Research Into Action, Inc.	Products Process Evaluation	Portland	46,000	1,496	44,504	7/1/13	4/1/14
Benenson Strategy Group	Residential Awareness 2013	Santa Monica	45,000	30,000	15,000	4/15/13	12/31/13
PWP, Inc.	Comm SEM Initiative Evaluation	Gaithersburg	45,000	32,496	12,505	7/1/12	6/30/14
KEMA Incorporated	Shelf Space Survey	Oakland	42,750	21,375	21,375	12/1/12	9/30/13
Portland General Electric	Utility Data Payment - OPOWER	Portland	40,000	19,928	20,072	8/1/10	2/28/14
NW Natural	Info Transfer & Reimbursement	Portland	35,000	21,263	13,737	7/12/10	2/28/14
The Cadmus Group Inc.	Lighting Pilot Evaluation	Watertown	35,000	14,403	20,597	4/1/12	12/31/13
WegoWise Inc	Wegowise Benchmarking License	Boston	35,000	35,000	0	5/14/12	5/14/14
Navigant Consulting Inc	CORE Improvement Pilot Eval	Boulder	34,000	11,342	22,658	9/1/12	8/30/14
MetaResource Group	Data Center Evaluation	Portland	30,000	2,246	27,754	5/1/13	12/31/14
Navigant Consulting Inc	Sustainable Energy Syst Pilot	Boulder	30,000	19,381	10,619	2/15/11	6/30/13
Seattle City Light	Lighting Design Lab	Seattle	30,000	0	30,000	1/1/13	12/31/13
Stellar Processes, Inc.	BE Measure Evaluation	Portland	25,250	19,125	6,125	10/24/12	10/24/14
Northwest Food Processors Association	NW Industrial EE Summit 2014	Portland	25,000	0	25,000	7/16/13	1/15/14
Triple Point Energy Inc.	SEM Workshops	Portland	24,240	9,114	15,126	4/29/13	1/15/14
Michael Blasnick & Associated	Billing Analysis Process	Boston	20,000	3,938	16,063	1/1/10	12/31/13
Oregon Assoc. of Clean Water Agencies	SEM Training - Round III		19,920	8,000	11,920	5/23/13	6/15/14
Northwest Food Processors Association	NW Industrial EE Summit 2013	Portland	17,500	17,500	0	12/10/12	12/31/13
Lane Community College, NEEI Science Division	2013 Scholarship Grant	Eugene	16,600	0	16,600	1/1/13	12/31/13
Consortium for Energy Efficiency	Membership Dues - 2013		15,551	15,551	0	1/1/13	12/31/13
Oregon Department of Energy	Oregon Leaders Project	Salem	15,000	15,000	0	9/19/11	1/31/14
Portland State University Foundation	Green Modular Classroom Proj	Portland	10,500	10,500	0	6/13/12	7/31/14
Consumer Opinion Services Inc	Customer Engagement Survey	Seattle	8,200	5,939	2,261	3/15/13	9/30/13
American Council for and Energy Efficient Economy	Utility Behavior Landscape		7,500	7,500	0	2/1/13	10/31/13
American Council for and Energy Efficient Economy	Case Studies		7,500	7,500	0	2/1/13	10/31/13
American Council for and Energy Efficient Economy	Opportunities for Scaling Up		7,500	7,500	0	2/1/13	10/31/13
Future Energy Conference	Future Energy Conference 2012	Portland	6,500	6,500	0	12/10/12	12/31/13
Social Enterprises Inc.	GoGreen Sponsorship - 2013	Portland	5,000	5,000	0	6/17/13	10/31/13
	Energy Efficiency Programs Total:		**90,109,421**	**55,178,261**	**34,931,160**		
Joint Programs							
D&R International LTD	Better Data Better Design	Silver Spring	133,500	25,000	108,500	4/30/13	4/30/14
Abt SRBI Inc.	Fast Feedback Survey	New York	65,000	21,278	43,722	3/1/13	2/28/14
Portland State University	Technology Forecasting		57,674	45,060	12,614	11/7/11	12/31/13
Issues & Answers Network Inc	Residential Awareness 2013	Virginia Beach	32,125	32,125	0	4/15/13	12/31/13
Glumac Inc	Planning Technical Analysis	Portland	15,000	15,000	0	10/17/12	10/17/14
The Cadmus Group Inc.	Evaluation Consultant	Watertown	14,940	3,575	11,365	6/20/13	2/28/15

*The city indicated is the contractor's mailing address, not necessarily the location where work was performed.

Contractor	Description	*City	Est Cost	Actual TTD	Remaining	Start	End
Strategic Research Associates LLC	Trade Ally Survey	Spokane	14,000	6,098	7,902	5/1/13	12/31/13
CoStar Realty Information Inc	Property Data	Baltimore	12,668	12,714	-46	6/1/11	1/31/14
American Council for and Energy Efficient Economy	ACEEE Sponsorship - 2013		10,000	10,000	0	1/1/13	12/31/13
KRH Consulting	Work Load Mangement	Portland	10,000	5,922	4,078	4/23/13	10/1/13
		Joint Programs Total:	**364,907**	**176,772**	**188,135**		
Renewable Energy Program							
Outback Solar LLC	Outback Solar	Portland	5,000,000	4,950,000	50,000	5/9/12	5/9/37
Sunway 3, LLC	Prologis PV installation		3,405,000	3,396,044	8,956	9/30/08	9/30/28
JC-Biomethane LLC	Biogas Plant Project Funding	Eugene	2,000,000	0	2,000,000	10/18/12	10/18/32
Rough & Ready Lumber Company	Biopower Funding Agreement	Cave Junction	1,685,088	1,685,088	0	7/21/06	7/21/26
Oregon Institute of Technology	Geothermal Resource Funding	Klamath Falls	1,550,000	750	1,549,250	9/11/12	9/11/32
Alder Solar LLC	Habilitation Center PV	Portland	1,236,750	1,224,244	12,506	1/18/08	12/31/28
Central Oregon Irrigation District	Juniper Ridge Hydroelectric	Redmond	1,000,000	1,000,000	0	10/31/08	6/30/31
Farm Power Misty Meadows LLC	Misty Meadows Biogas Facility	Mount Vernon	1,000,000	250,000	750,000	10/25/12	10/25/27
Three Sisters Irrigation District	TSID Hydro	Sisters	1,000,000	0	1,000,000	4/25/12	4/25/32
RES - Ag FGO LLC	Biogas Manure Digester Project	Washington	883,320	331,245	552,075	10/27/10	10/27/25
Stahlbush Island Farms, Inc.	Funding Assistance Agreement	Corvallis	827,000	551,334	275,666	6/24/09	6/24/29
RBS Asset Finance Inc	Black Cap Solar PV Funding	Chicago	600,000	600,000	0	10/1/12	10/1/37
Tioga Solar VI, LLC	Photovoltaic Project Agreement	San Mateo	570,760	497,399	73,361	2/1/09	2/1/30
C Drop Hydro LLC	C Drop Project - Klamath Irrig	Idaho Falls	490,000	490,000	0	11/1/11	11/1/31
Oregon Institute of Technology	Geothermal Resource Funding	Klamath Falls	487,000	487,000	0	3/2/10	3/2/30
City of Medford	750kW Combined Heat & Power	Medford	450,000	225,000	225,000	10/20/11	10/20/31
City of Pendleton	Pendleton Microturbines	Pendleton	450,000	150,000	300,000	4/20/12	4/20/32
K2A Properties, LLC	Doerfler Wind Farm Project	Aumsville	230,000	174,667	55,333	5/20/10	5/20/30
Confederated Tribes of the Umatilla Indian Reservation	Small Wind Project Funding	Pendleton	170,992	0	170,992	7/25/13	12/31/28
Farmers Irrigation District	Low Line Canal Pressurization	Hood River	150,000	95,000	55,000	9/26/12	11/30/32
Farmers Irrigation District	Indian Creek Corridor Project	Hood River	100,000	100,000	0	1/5/10	1/4/29
Wallowa Resources Community Solutions, Inc.	Upfront Hydroelectric Project		100,000	11,850	88,150	10/1/11	10/1/15
Stoller Vineyards, Inc.	Stoller Vineyards PV	Dayton	79,815	77,390	2,425	12/1/05	12/1/26
Bloomberg LP	Insight Services	San Francisco	79,200	59,283	19,917	4/1/11	1/1/14
Wallowa Resources Community Solutions Inc	Integrated Biomass Energy Camp	Enterprise	70,000	70,000	0	2/1/12	1/31/27
Deschutes Valley Water District	Early Development Assistance	Madras	68,373	0	68,373	7/23/13	12/31/14
City of Portland Water Bureau	Vernon Hydro	Portland	65,000	65,000	0	11/15/10	11/15/30
University of Oregon	UO SMRL Contribution - 2013	Eugene	45,000	45,000	0	3/9/13	3/9/14
MC Energy LLC	Small Wind Incentive	Spokane	43,250	43,250	0	9/21/10	9/21/25
Clean Energy States Alliance	CESA Year 11 (2014)		39,500	39,500	0	7/1/13	6/30/14
Wind Products Inc	Wind Consultant	Brooklyn	37,500	27,500	10,000	2/6/12	12/31/13
Harold Hartman dba Lynhart Farms	17.5 kW PV project	Malin	32,500	31,386	1,114	5/25/07	5/25/27

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Contractor	Description	*City	Est Cost	Actual TTD	Remaining	Start	End
Northwest SEED	Grant Agreement	Seattle	30,000	30,000	0	10/3/11	12/31/13
SPS of Oregon Inc	Spaur Microhydro	Wallowa	25,000	25,000	0	7/23/10	7/23/30
Robert Migliori	42kW wind energy system	Newberg	24,125	8,561	15,564	4/11/07	1/31/24
Solar Oregon	Outreach Services	Portland	24,000	14,000	10,000	1/1/13	12/31/13
Wind Products Inc	Web Portal Tool	Brooklyn	24,000	25,000	-1,000	6/25/12	9/20/13
Farmers Conservation Alliance	FID Small Hydro Analysis	Hood River	20,000	0	20,000	11/1/12	6/30/13
Solar Oregon	Energy Education Sponsor 2013	Portland	16,000	16,000	0	1/1/13	12/31/13
Warren Griffin	Griffin Wind Project	Salem	13,150	9,255	3,895	10/1/05	10/1/20
Corbett Water District	Corbett Water District Hydro	Corbett	12,000	4,559	7,441	4/16/12	6/30/32
Clean Energy States Alliance	CESA ITAC		10,000	10,000	0	1/1/13	12/31/13
Garrad Hassan America Inc	RE Consulting Services	San Diego	6,840	0	6,840	6/11/13	2/28/15
American Wind Group LLC	Anemometer Incentive Funding	Oasis	4,031	4,031	0	7/22/11	2/15/14
eFormative Options LLC	RE Evaluation Consultant	Vashon	3,000	3,000	0	3/1/13	2/28/15
	Renewable Energy Program Total:		**24,158,194**	**16,827,335**	**7,330,859**		
	Grand Totals:		**123,888,493**	**75,730,423**	**48,158,070**		

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Financial Glossary

(for internal use) - updated August 9, 2012

Administrative Costs

Costs that, by nonprofit accounting standards, have general objectives which enable an organization's programs to function. The organization's programs in turn provide direct services to the organization's constituents and fulfill the mission of the organization.
i.e. management and general and general communication and outreach expenses

I. **Management and General**
- Includes governance/board activities, interest/financing costs, accounting, payroll, human resources, general legal support, and other general organizational management costs.
- Receives an allocated share of indirect costs.

II. **General Communications and Outreach**
- Expenditures of a general nature, conveying the nonprofit mission of the organization and general public awareness.
- Receives an allocated share of indirect costs.

Allocation
- A way of grouping costs together and applying them to a program as one pool based upon an allocation base that most closely represents the activity driver of the costs in the pool.
- Used as an alternative to charging programs on an invoice–by–invoice basis for accounting efficiency purposes.
- An example would be accumulating all of the costs associated with customer management (call center operations, Energy Trust customer service personnel, complaint tracking, etc). The accumulated costs are then spread to the programs that benefited by using the ratio of calls into the call center by program (i.e. the allocation base).

Allocation Cost Pools
- Employee benefits and taxes.
- Office operations. Includes rent, telephone, utilities, supplies, etc.
- Information Technology (IT) services.
- Planning and evaluation general costs.
- Customer service and trade ally support costs.
- General communications and outreach costs.
- Management and general costs.
- Shared costs for electric utilities.
- Shared costs for gas utilities.
- Shared costs for all utilities.

Auditor's Opinion
- An accountant's or auditor's opinion is a report by an independent CPA presented to the board of directors describing the scope of the examination of the organization's books, and certifying that the financial statements meet the AICPA (American Institute of Certified Public Accountants) requirements of GAAP (generally accepted accounting principles).

- Depending on the audit findings, the opinion can be unqualified or qualified regarding specific items. Energy Trust strives for and has achieved in all its years an unqualified opinion.
- An unqualified opinion indicates agreement by the auditors that the financial statements present an accurate assessment of the organization's financial results.
- The OPUC Grant Agreement requires an unqualified opinion regarding Energy Trust's financial records.
- Failure to follow generally accepted accounting principles (GAAP) can result in a qualified opinion.

Board-approved Annual Budget

- Funds approved by the board for *expenditures* during the budget year (subject to board approved program funding caps and associated policy) for the stated functions.
- Funds approved for *capital* asset expenditures.
- Approval of the general allocation of funds including commitments and cash outlays.
- Approval of expenditures is based on assumed revenues from utilities as forecasted in their annual projections of public purpose collections and/or contracted revenues.

Carryover Funds

- In any one year, the amount by which revenues exceed expenses for that year in a designated category that will be added to the cumulative balance and brought forward for expenditure to the next budget year.
- In any one year, if expenditures exceed revenues, the negative difference is applied against the cumulative carryover balance.
- Does not equal the cash on hand due to noncash expense items such as depreciation.
- Tracked by major utility funder and at high level program area--by EE vs RE, not tracked by program.

Commitments

- Represents funds obligated to identified efficiency program participants in the form of signed applications or agreements and tracked in the project forecasting system**.**
- If the project is not demonstrably proceeding within agreed upon time frame, committed funds return to incentive pool. Reapplication would then be required.
- Funds are expensed when the project is completed.
- Funds may be held in the operating cash account, or in escrow accounts.

Contract obligations

- A signed contract for goods or services that creates a legal obligation.
- Reported in the monthly Contract Status Summary Report.

Cost-Effectiveness Calculation

- Programs and measures are evaluated for cost-effectiveness.
- The cost of program savings must be lower than the cost to produce the energy from both a utility and societal perspective.
- Expressed as a ratio of energy savings cost divided by the presumed avoided utility and societal cost of energy.
- Program cost-effectiveness evaluation is "fully allocated," i.e. includes all of the program costs plus a portion of Energy Trust administrative costs.

Dedicated Funds

- Represents funds obligated to identified renewable program participants in the form of signed applications or agreements and tracked in the project forecasting system.

- May include commitments, escrows, contracts, board designations, master agreements.
- Methodology utilized to develop renewable energy activity-based budgets amounts.

Direct Program Costs

- Can be directly linked to and reflect a causal relationship to one individual program/project; or can easily be allocated to two or more programs based upon usage, cause, or benefit.

Direct Program Evaluation & Planning Services

- Evaluation services for a specific program rather than for a group of programs.
- Costs incurred in evaluating programs and projects and included in determining total program funding caps.
- Planning services for a specific program rather than for a group of programs.
- Costs incurred in planning programs and projects and are included in determining program funding expenditures and caps.
- Evaluation and planning services attributable to a number of programs are recorded in a cost pool and are subsequently allocated to individual programs.

Escrowed Program (Incentive) Funds

- Cash deposited into a separate bank account that will be paid out pursuant to a contractual obligation requiring a certain event or result to occur. Funds can be returned to Energy Trust if such event or result does not occur. Therefore, the funds are still "owned" by Energy Trust and will remain on the balance sheet.
- The funds are within the control of the bank in accordance with the terms of the escrow agreement.
- When the event or result occurs, the funds are considered "earned" and are transferred out of the escrow account ("paid out") and then are reflected as an expense on the income statement for the current period.

Expenditures/Expenses

- Amounts for which there is an obligation for payment of goods and/or services that have been received or earned within the month or year.

FastTrack Projects Forecasting

Module developed in FastTrack to provide information about the timing of future incentive payments, with the following definitions**:**

- Estimated-Project data may be inaccurate or incomplete. Rough estimate of energy savings, incentives and completion date by project and by service territory.
- Proposed-Project that has received a written incentive offer but no agreement or application has been signed. Energy savings, incentives and completion date to be documented by programs using this phase. For Renewable projects-project that has received Board approval.
- Accepted-Used for renewable energy projects in 2nd round of application; projects that have reached a stage where approval process can begin.
- Committed-Project that has a signed agreement or application reserving incentive dollars until project completion. Energy savings/generations, incentives and completion date by project and by service territory must be documented in project records and in FastTrack. If project not demonstrably proceeding within agreed upon time frame, committed funds return to incentive pool. Reapplication would then be required.
- Dedicated-Renewable project that has been committed, has a signed agreement, and if required, has been approved by the board of directors.

Incentives

I. **Residential Incentives**

- Incentives paid to a residential program participant (party responsible for payment for utility service in particular dwelling unit) exclusively for energy efficiency and renewable energy measures in the homes or apartments of such residential customers.

II. **Business Incentives**

- Incentives paid to a participant other than a residential program participant as defined above following the installation of an energy efficiency or renewable energy measure.
- Above market cost for a particular renewable energy project.

III. **Service Incentives**

- Incentives paid to an installation contractor which serves as a reduction in the final cost to the participant for the installation of an energy efficiency or renewable energy measure.
- Payment for services delivered to participants by contractors such as home reviews and technical analysis studies.
- End-user training, enhancing participant technical knowledge or energy efficiency practices proficiency such as “how to” sessions on insulation, weatherization, or high efficiency lighting.
- CFL online home review fulfillment and PMC direct installations.
- Technical trade ally training to enhance program knowledge.
- Incentives for equipment purchases by trade allies to garner improvements of services and diagnostics delivered to end-users, such as duct sealing, HVAC diagnosis, air filtration, etc.

Indirect Costs

- Shared costs that are “allocated” for accounting purposes rather than assigning individual charges to programs.
- Allocated to all programs and administration functions based on a standard basis such as hours worked, square footage, customer phone calls, etc.
- Examples include rent/facilities, supplies, computer equipment and support, and depreciation.

IT Support Services

- Information technology costs incurred as a result of supporting all programs.
- Includes FastTrack energy savings and incentive tracking software, data tracking support of PMCs and for the program evaluation functions.
- Includes technical architecture design and physical infrastructure.
- Receives an allocation of indirect shared costs.
- Total costs subsequently allocated to programs and administrative units.

Outsourced Services

- Miscellaneous professional services contracted to third parties rather than performed by internal staff.
- Can be incurred for program or administrative reasons and will be identified as such.

Program Costs

- Expenditures made to fulfill the purposes or mission for which the organization exists and are authorized through the program approval process.
- Includes program management, incentives, program staff salaries, planning, evaluation, quality assurance, program-specific marketing and other costs incurred solely for program purposes.
- Can be direct or indirect (i.e. allocated based on program usage.)

Program Delivery Expense

- This will include all PMC labor and direct costs associated with: incentive processing, program coordination, program support, trade ally communications, and program delivery contractors.
- Includes contract payments to NEEA for market transformation efforts.
- Includes performance compensation incentives paid to program management contractors under contract agreement if certain incentive goals are met.
- Includes professional services for items such as solar inspections, anemometer maintenance and general renewable energy consulting.

Program Legal Services

- External legal expenditures and internal legal services utilized in the development of a program-specific contract.

Program Management Expense

- PMC billings associated with program contract oversight, program support, staff management, etc.
- ETO program management staff salaries, taxes and benefits.

Program Marketing/Outreach

- PMC labor and direct costs associated with marketing/outreach/awareness efforts to communicate program opportunities and benefits to rate payers/program participants.
- Awareness campaigns and outreach efforts designed to reach participants of individual programs.
- Co-op advertising with trade allies and vendors to promote a particular program benefit to the public.

Program Quality Assurance

- Independent in-house or outsourced services for the quality assurance efforts of a particular program (distinguished from program quality control).

Program Reserves

- Negotiated with utilities annually, with a goal of providing a cushion of approximately 5% above funds needed to fulfill annual budgeted costs. Management may access up to 50% of annual program reserve without prior board approval (resolution 633, 2012).

Program Support Costs

- Source of information is contained in statement of functional expense report.
- Portion of costs in OPUC performance measure for program administration and support costs.
    - Includes expenses incurred directly by the program.
    - Includes allocation of shared and indirect costs incurred in the following categories: supplies; postage and shipping; telephone; printing and publications; occupancy expenses; insurance; equipment; travel; business meetings; conferences and training; depreciation and amortization; dues, licenses,

subscriptions and fees; miscellaneous expense; payroll & related expense; outsourced services; and an allocation of information technology department cost.

Project Specific Costs (for Renewable Energy)

- Expenses directly related to identified projects or identified customers to assist them in constructing or operating renewable projects. Includes services to prospective as well as current customers.
- Must involve direct contact with the project or customer, individually or in groups, and provide a service the customer would otherwise incur at their own expense.
- Does not include general program costs to reach a broad (unidentified) audience such as websites, advertising, program development, or program management.
- Project-Specific costs may be in the categories of; Incentives, Staff salaries, Program delivery, Legal services, Public relations, Creative services, Professional services, Travel, Business meetings, Telephone, or Escrow account bank fees.

Savings Types

- **Working Savings/Generation:** the estimate of savings/generation that is used for data entry by program personnel as they approve individual projects. They are based on deemed savings/generation for prescriptive measures, and engineering calculations for custom measures. They do not incorporate any evaluation or transmission and distribution factors.
- **Reportable Savings/Generation:** the estimate of savings/generation that will be used for public reporting of Energy Trust results. This includes transmission and distribution factors, evaluation factors, and any other corrections required to the original working values. These values are updated annually, and are subject to revision each year during the "true-up" as a result of new information or identified errors.
- **Contract Savings**: the estimate of savings that will be used to compare against annual contract goals. These savings figures are generally the same as the reportable savings at the time that the contract year started. For purposes of adjusting working savings to arrive at this number, a single adjustment percentage (a SRAF, as defined below) is agreed to at the beginning of the contract year and is applied to all program measures. This is based on the sum of the adjustments between working and reportable numbers in the forecast developed for the program year.
- **Savings Realization Adjustment Factors (SRAF):** are savings realization adjustment factors applied to electric and gas working savings measures in order to reflect more accurate savings information through the benefit of evaluation and other studies. These factors are determined by the Energy Trust and used for annual contract amendments. The factors are determined based on the best available information from:
  - Program evaluations and/or other research that account for free riders, spill-over effects and measure impacts to date; and
  - Published transmission and distribution line loss information resulting from electric measure savings.

Total Program and Admin Expenses (line item on income statement)

- Used only for cost effectiveness calculations, levelized cost calculations and in management reports used to track funds spent/remaining by service territory.
- Includes all costs of the organization--direct, indirect, and an allocation of administration costs to programs.
- Should not be used for external financial reporting (not GAAP).

Total Program Expenses (line item on income statement)

- All indirect costs have been allocated to program costs with the exception of administration (management and general costs and communications & outreach).
- Per the requirements of Generally Accepted Accounting Principles (GAAP) for nonprofits, administrative costs should not be allocated to programs.
- There is no causal relationship—costs would not go away if the program did not exist.

Trade Ally Programs & Customer Service Management

- Costs associated with Energy Trust sponsorship of training and development of a trade ally network for a variety of programs.
- Trade Ally costs are tracked and allocated to programs based on the number of allies associated with that program.
- Costs in support of assisting customers which benefit all Energy Trust programs such as call center operations, customer service manager, complaint handling, etc.
- Customer service costs are tracked and allocated based on # of calls into the call center per month.

True Up

- True-up is a once-a-year process where we take everything we've learned about how much energy programs actually save or generate, and update our reports of historic performance and our software tools for forecasting and analyzing future savings.
- Information incorporated includes improved engineering models of savings (new data factor), anticipated results of future evaluations based on what prior evaluations of similar programs have shown (anticipated evaluation factor), and results from actual evaluations of the program and the year of activity in question (evaluation factor).
- Results are incorporated in the Annual Report (for the year just past) and the True-up Report (for prior years).
- Sometimes the best data on program savings or generation is not available for 2-3 years, especially for market transformation programs. So for some programs, the savings are updated through the annual true-up 2 or 3 times

Policy Committee Meeting

August 13, 2013, 4:00–5:30 pm

Attending by phone and videoconference
Roger Hamilton, John Reynolds, Rick Applegate, Ken Canon, and Alan Meyer

Attending at Energy Trust offices
Margie Harris, Steve Lacey, Peter West, Fred Gordon, Amber Cole, Debbie Menashe

1. Preview on 2014-2015 Budget Themes and Action Plans

Margie previewed staff's current draft of the 2014-2015 Budget and Action Plan Themes and explained that the high level themes provide an initial framework for budget planning, including as a basis for evaluating needs for new staffing positions. Current draft themes are: Easy Access, Targeting, Innovation, Improved Systems and Processes, and Looking Ahead.

Committee members expressed appreciation for the themes, and had some questions and requests. The committee would find it helpful, and thinks it would be helpful to new board members, to identify which of these themes are new this year, which are not, and whether and how these themes reflect lessons learned. Additionally, the committee had questions regarding some of the examples of specific action plan activities, particularly with respect to regional and local relationship development, the Aclara software initiative in collaboration with PGE, and the connection between diversity outreach efforts and achieving greater savings and generation, recognizing the tension and needed balance between greater efforts in outreach and serving Oregon customers equitably. Staff will provide expanded information on these and other initiatives in the budget action planning information provided to the board in the next months.

There was additional discussion regarding the upcoming strategic planning process and the expected discussion through that process of anticipated slower Energy Trust growth. The committee discussed how this is not a budget theme, but a tactical issue with significant program design and operational implications as Energy Trust executes on the budget themes.

Margie expressed her appreciation for the input and questions which will inform upcoming budget presentations to stakeholders and to the full board.

2. NEEA Strategic Planning Input

NEEA is in the midst of its strategic planning process, looking ahead to its next funding cycle. Energy Trust is a major funder of NEEA and plays a role in NEEA's strategic planning efforts through Margie's board membership. Ken, who is consulting with NEEA on this process, along with Margie and Fred briefed the Committee on the NEEA strategic planning process. NEEA is the energy efficiency market transformation delivery entity for the region. In general, market transformation means pushing good energy efficiency products into the end-user market.

This strategic planning cycle is different than previous cycles for NEEA. There are challenges as the utilities experience no or low load growth. Nevertheless, an initial draft plan will be circulated to the board's strategic planning committee next week, with the objective of finalizing the plan in December 2013.

Margie described that she has solicited a lot of input from Energy Trust staff who work closely with NEEA, and she has set up a brown bag lunch with Energy Trust staff to engage in a direct discussion with NEEA staff on the issues. Margie explained that Energy Trust aims to describe the ways in which we derive most value from NEEA services and offerings in the Oregon territories we serve.

The committee then discussed the challenges before NEEA as they try to serve a very diverse region, both in terms of demographic factors and political outlook. In fact, Idaho Power has already indicated that they are not planning to provide funding to NEEA in its next funding cycle, so it is important, through the NEEA strategic planning process, that the organization's strategic focus is defined at a high level that resonates with the varying stakeholders. The committee expressed support for Energy Trust staff and Ken's engagement in the strategic planning process since Energy Trust is a large NEEA funder. Ken expressed his appreciation for Margie's extraordinary and productive help and engagement in the process as a member of the NEEA board's strategic planning committee. Margie thanked Ken for his kind words.

3. Legislative Update, Including Update on HB 2322 Public Purpose Funds Redirection

Staff updated the Committee on the status of Section 31 of HB 2322, the legislation that would transfer public purpose charge funds from Oregon Housing and Community Services (OHCS) to the Oregon Department of Energy for specified purposes that appear to be consistent with the Clean Energy Works Oregon offerings. On August 7, 2013, Governor Kitzhaber issued a veto notice regarding HB 2322, and staff expects that the governor will exercise his line-item authority to veto the public purpose funds redirection. There are still issues to be addressed even following a veto. There are concerns that the legislature has attempted to transfer public purpose funds, and Margie explained that she has had conversations with OPUC staff on how to respond. Additionally, the funds to be transferred from OHCS public purpose funds were intended ultimately to Clean Energy Works Oregon (CEWO), and Margie anticipates discussions with the PUC and the governor's office, as well as legislative leadership, about how to support after the veto. Staff believes that there may be some press inquiry or coverage on these matters, and Margie promised to keep the board apprised.

4. New Information on Avoided Cost and Update on Cost-Effectiveness Efforts

Fred provided a preliminary report on developing avoided cost forecasts. In short, both gas and electricity avoided costs are projected to fall. Since, on the margin, electric avoided costs are affected by gas avoided costs due to gas fired electricity plants, it is no surprise the electric avoided costs are falling too. Current forecasts are that electricity avoided costs could be 15% lower in the short term and 20% less in the long term. With this initial information, Energy Trust is doing a rough impact assessment across programs as the 2014 budget planning begins. The board will have more avoided cost developed information before it when budget recommendations are made.

5. New Buildings Program Management Contractor RFP Update

Peter updated the committee on the status of the RFP process. The review process is nearly complete, and staff expects to recommend a finalist with whom to enter into a new program management contract at the board's next meeting in September.

Next Policy Committee Meeting: Tuesday, September 10, 2013, 4:00 pm.

Videoconferencing will again be available if committee members prefer to participate remotely.

Policy Committee Meeting

September 10, 2013, 4:00–5:30 pm

Attending by phone and videoconference
Roger Hamilton, Rick Applegate, Ken Cannon, and Alan Meyer

Attending at Energy Trust offices
Steve Lace, Fred Gordon, Amber Cole, Oliver Kesting, and Matt Braman

1. Preview of Board Meeting Items

PECI New Homes and Products Program Management Contractor Agreement Extension Notification
Matt Braman previewed staff's presentation regarding the extension of the current PECI New Homes and Products Program Management Contractor Agreement. Matt explained that by resolution in November 2009, the board approved a contract with Portland Energy Conservation, Inc. (PECI) to implement and deliver the Energy Trust New Homes Program under a contract that provided for, among other things, a three year term and two possible additional extension years. The November 2009 board resolution also directed staff to report to the board on PECI's progress toward meeting contract extension criteria prior to a determination of whether to extend the contract for up to two years. In the absence of board objection, contract extensions are authorized consistent with the resolution. The contract extension criteria include:

1. Cross-program referrals
2. Project pipeline
3. Innovation
4. Teamwork
5. Satisfactory execution of Statement of Work deliverables

In 2012, Energy Trust staff recommended a one year extension of the contract having concluded that all extension criteria had been met and preserving flexibility to decide on another extension year in 2013. The board did not object, and the contract was extended through 2013. Staff reports that PECI has again met extension criteria for a final one year extension through 2014 consistent with the original board authorizing resolution. Staff has concluded that PECI has satisfied the extension criteria, and Matt explained the factual underpinnings of this conclusion. Committee members provided helpful revisions to the board briefing paper on this matter, and expressed support for the extension.

Results of New Buildings Program Management Contractor Rebid Process and New Buildings Program Management Contractor Agreement Authorization
At the last meeting of the Policy Committee, Peter provided an update on the rebid process for the New Buildings program management contractor services. Since that meeting, staff has completed the review. Oliver Kesting briefed the committee on the results of the process and the proposed board presentation. Committee members posed questions regarding PECI's work in other markets and the length of their contract engagement with Energy Trust in the New Buildings program.

Treatment of Reserve Accounts and Proposed Amendment to Board Policy on Using Reserve Accounts

Debbie and Steve briefed the committee regarding the proposed new treatment of Energy Trust's reserve accounts and a proposed amendment to the Board's "Using Reserves Accounts" Policy that will be presented to the full board at its meeting on September 25th.

At the May 22, 2013, Energy Trust board strategic utility roundtable, attendees discussed new options to link utility Integrated Resource Plan (IRP) targets and corresponding Energy Trust savings goals, related OPUC performance measures for Energy Trust and Energy Trust reserve accounts. A representative small group of roundtable participants convened to finalize decisions on these issues, and at the July 31st Energy Trust board meeting, final recommendations on linking utility IRP targets, Energy Trust savings goals and OPUC performance measures were presented and approved. Committee members discussed the proposed changes in reserve accounts treatment and the resulting changes to the board policy on reserves. Committee members recommended that the proposed policy amendment include more specific language describing the process by which the amount of the proposed emergency component of the contingency reserves account (now called the "interest reserves" account) be more specifically described in the process, including reference to the Finance Committee's role in oversight of this component of the account. Staff will revise the proposed draft amendment to the Using Reserves Accounts Policy accordingly, and a board briefing paper and resolution regarding the policy amendment will be provided to the full board in the September 25th board meeting packet.

Board of Director Roles and Responsibilities Presentation

Stoel Rives attorney Penny Serrurier will present a short overview of board of director roles and responsibilities at the September board meeting. Penny made a similar presentation to the Energy Trust board in 2010, and given new membership on the board, staff believes a similar presentation is appropriate again. Committee members engaged in a discussion regarding the purpose of and information to be provided at this presentation. Committee members requested that the presentation specifically address certain topics including board member roles as compared to staff roles, and liability and risk management through director and office insurance. Debbie will meet with Penny in advance of the presentation to discuss how these topics can be addressed.

2. Consent to Appointment of New Member to the Conservation Advisory Committee (CAC)

Anne Snyder Grassman, current PGE representative on the CAC, is assuming a new role at PGE. She has recommended the appointment of Garrett Harris to serve as her replacement on CAC, and staff supports this recommendation. Pursuant to board policy, Energy Trust staff will appoint CAC members after obtaining consent from the board Policy Committee.

Garrett has spent over twelve years working at public and investor owned electric utilities, primarily in the field of energy efficiency. His experience includes over six years at the City of Forest Grove where he developed and administered energy efficiency programs and the past six years at PGE. He has held a wide variety of energy efficiency related roles at PGE in the residential, commercial and industrial sectors. Garrett now serves as a Product Line Manager in PGE's Customer Mass Programs Group. In his current role, Garrett is responsible for promoting Energy Trust programs to commercial and residential customers. Garrett holds a B.S. in Management from Linfield College and an A.A.S. in Energy Management from Lane Community College. The committee consented to Garrett's appointment to the CAC.

3. Change in Membership on Audit Committee

The Energy Trust Board of Directors Audit Committee charter specifies that Audit Committee membership shall consist of three Energy Trust directors and may include two additional members who are external to the board. Audit Committee Chair Ken Canon reported on recent changes in Audit Committee membership. The committee is currently in the process of identifying potential external candidates for Audit Committee membership. In particular, committee members are interested in identifying candidates who are CPAs and have experience in large and complex non-profit organizations.

The next meeting of the Policy Committee is scheduled for Tuesday, November 19, 2013 at 4:00 pm.

Renewable Energy Advisory Council Meeting Notes

July 17, 2013

Attending from the council

Glenn Montgomery, Oregon Solar Energy Industries Association
Robert Grott, Northwest Environmental Business Council
Juliet Johnson, Oregon Public Utility Commission
Bruce Barney, Portland General Electric
Vijay Satyal, Oregon Department of Energy
Dick Wanderscheid, Bonneville Environmental Foundation
Tashiana Wangler, PacifiCorp
Suzanne Leta-Liou, Atkins

Attending from Energy Trust

Betsy Kauffman
Jed Jorgensen
Thad Roth
Aaron Wythe
Dave McClelland
Chris Dearth
Peter West
Hannah Hacker
Jackie Cameron

Others attending

Erik Anderson, PacifiCorp
Matt Hale, Oregon Department of Energy
Jimmy Lindsay, Renewable NW Project
Wayne Lei, Portland General Electric
Jeff Bissonnette, Citizens' Utility Board of Oregon

1. Welcome and introductions

Betsy Kauffman called the meeting to order at 9:30 a.m. and reviewed the agenda. The agenda, notes and presented materials are available on Energy Trust's website at www.energytrust.org/About/public: meetings/REACouncil.aspx. Approval of June's minutes was delayed until the next meeting due to a delay in posting the minutes online.

Glenn Montgomery announced that he will be leaving Oregon Solar Energy Industries Association. He will be serving as a part time, independent contractor and other portions of his prior role are posted as part-time positions now.

Betsy Kauffman announced that Troy Gagliano is leaving EDF Renewable Energy and will be resigning from the Renewable Energy Advisory Council. Troy has served nine years on the council and will be missed.

2. 2013 legislative session wrap-up

Jeff Bissonnette from the Citizens' Utility Board of Oregon presented and provided a summary of energy-related legislation that came out of the recently completed 2013 Oregon legislative session.

Jeff: This session can be most aptly described as not having any game changing legislation; nothing came out of it that will significantly change the way that we do business.

> The Emissions Performance Standard loop was closed and Senate Bill 242 was passed. This regulates out of state resources, saying that they must be from the most efficient source. Any new plants have to be constructed to meet an emissions standard of the most efficient, new natural gas plants. PacifiCorp expressed concerns that natural gas resources will not fit in the standard. We worked through some issues and passed the bill.

The future feed-in-tariff framework, House Bill 2893, has passed. This bill extended the feed-in tariff pilot for one year and set the limit for commercial systems in the pilot at 2.5 MW. There may also be a docket by CUB, Renewable Northwest Project and the utilities to address issues about cost shifting and cost substitution within net-metering programs.

There were a few siting and zoning bills. Renewable Northwest Project was the main proponent behind these and can answer questions better. House Bill 2981 was passed, which allows counties to establish a voluntary waiver to the employment requirements for rural renewable energy development zone exemptions from property taxation if a certain minimum investment is made in qualified property. This is meant to encourage new renewable energy development. HB 2020 was also passed.

A bill to standardize net metering was introduced by CUB and others, but it did not get out of committee. It would take net-metering rules used by investor-owned utilities and standardize them statewide across consumer-owned utilities. This bill will continue to be worked on and an informational hearing will be held, most likely in the September legislative days, to start the discussion. RNP will take the lead in interacting with the consumer-owned utilities and on preliminary discussions. From this hearing, CUB is hoping to set up framework for a more formal dialogue on this issue in 2015.

Several bills to weaken, undo or bend the Renewable Portfolio Standard were introduced but were defeated. A significant one was from Umatilla Electric Co-op, who will be categorized as a large utility under the standard due to data centers in its territory. UEC would like to be exempted from the large utility standard.

There was a proposal to allow historic hydro into the Renewable Portfolio Standard, which is the hydropower from the dams. Lobbyists from UEC have filed a ballot measure to allow this. CUB hopes to negotiate with the UEC before too long and the Governor is open to starting a task force to look at this issue. CUB is taking the prospective measure seriously. The ballot title has been approved but only two signatures have been collected, Representatives Smith and Hansel.

Betsy: What did UEC ask for?
Jeff: To be either exempt or exempt the load from single large entities from the standard. They have said that it will cost too much but our analysis says it won't cost enough to reach the cost cap. I hope the task force will help to work through the issues as I am pretty sure that the ballot initiative goes away if the issues are solved.

Betsy: At the Future Energy Conference, it was discussed that some of the owners of these data centers want green power; does that come up in these discussions?
Jeff: It has come up but these owners have not been that active in the legislative session. For example, RPS advocates tracked down the Amazon contacts for the data center in UEC territory and talked to them but they decided to ignore this for 2012. It's time to circle back and have a larger discussion and we need to engage these owners more.

Jeff continued: There was also a public purpose issue that came up very late. On the last Sunday night of session, there was a proposal to redirect some money out of the low-income weatherization portion of the public purpose charge to the Oregon Department of Energy for Clean Energy Works Oregon.

Juliet: Did the full body pass that?

Jeff: Yes, they passed HB 2322 that has the redirection of public purpose funds that had previously been going to low-income weatherization.

Juliet: Which section of this bill addresses that?
Jeff: Section 31.

Juliet: What happened with the host of carbon tax bills?
Jeff: One carbon tax study bill moved forward, SB 306. Under the oversight of the legislative revenue service, an RFP will be put out for studies of a carbon tax. The intention is to have studies ready for 2015 to inform debate.

Vijay: What is the big picture goal of these studies?
Jeff: To identify if the tax can work, how would it work and can it work in junction with other existing programs. Is this an efficient way to reduce emissions? What would be the revenue economic impact?

Dick: I wanted to highlight that SB 837, which is a hydro bill that has passed and may help small-scale hydro projects move forward. Also, what happened with the Low Carbon Fuel Sunset removal?
Jeff: It failed. No one is giving up on it. Oregon Environmental Council is the lead group but it is a priority of the overall environmental community. The sunset does not enact until 2015 but we were hoping to be proactive and get the sunset extended and actually implement the program. We will revisit in 2014.

Matt: Did you want to mention anything about how the Oregon Institute of Technology was interested in adding geothermal to the list for net metering?

Jeff: Yes, they wanted to have geothermal added to the list of acceptable net-metered resources and increase the cap from 2 MW to 5 MW, which raised a lot of issues. No one minded having geothermal added. It didn't make sense in 1999 but there is no reason not to add it now, but just up to 2 MW. The net-metering piece was added to HB 2435 and passed.

Jed: I should speak more to SB 837, the hydro bill. It gives another pathway for in-conduit hydro projects, those that use water from existing diversions, to comply with environmental regulations about fish passage. If they have fish passage issues at the site where the water is diverted, regardless of actual project site, they are required to provide fish passage both upstream and downstream. This statute allows them to instead pay into a fund at a reasonable rate if the hydro project cannot bear the burden of fish passage. The fee is scaled based on the size of the project. This was a good outcome and it dovetails well with a case study that Energy Trust and Bonneville Environmental Foundation funded, which shows the environmental and social benefits that have accrued over the last 30 years due to irrigation hydro installed in the Hood River watershed.

Vijay: Do those benefits capture the environmental impact concerns?
Jed: Yes, the case study looks at negative and positive impacts.

Suzanne: For the solar-related resource assessment study required of the OPUC, I would want to make sure that the commission and Energy Trust find a way to help use the study for Energy Trust's benefits. Not just ensuring the OPUC understands Energy Trust's incentives and how that plays into the studies but if the study is intended to look at the solar market and future costs and incentives, and how this could inform Energy Trust and its longer plan. If there is a way to combine resources on this study, this could be a good thing.

Juliet: I want to make sure I understand your point. You're talking about the first study discussed, regarding the feed-in tariff? How it is scoped, it should not only be applicable to the feed-in tariff but also be beneficial to Energy Trust?
Suzanne: Yes. Not intended to look at just the feed-in tariff, but a broader look at the solar market. Keeping that in mind, I recognize that the OPUC can only do so much and is limited in what is possible. But if there is a way to work with Energy Trust to add capabilities so that if you're looking at the markets, incentives, cost drivers, etc. Energy Trust can benefit. If no extra funding is available, just make sure the study is broad enough.
Juliet: I think that is doable.

3. PGE Smart Power project in Salem
Wayne Lei from Portland General Electric briefed the Renewable Energy Advisory Council on PGE's project in Salem that includes a 5-MW battery inverter system.

PGE is participating in the Pacific Northwest Smart Grid Demonstration Project and has installed a 5-MW lithium ion battery system. This battery is housed in an 8,000 square foot facility in Salem and is being coupled with several features. One is to test automated power transactions on a five-minute basis, which is faster than most people can handle. The idea is to take a shot at doing an offline, off grid test where 12 utilities have lined themselves up to test this system and give it a shot.

The battery is in Salem because it is close to three substations and on a feeder line that serves both commercial and residential customers. This project is funded principally through federal American Recovery and Reinvestment Act funding, via Bonneville Power Administration and Battelle in the Tri Cities. PGE is a sub-contractor to Battelle. The project timeline is 2009 to 2015 and in 2013 PGE is looking to get the battery fully operable. There are only a couple dozen batteries of this size in the United States and a large portion of this project is software development as virtually none of this can be purchased off the shelf.

Lithium ion is notorious for fire so the facility has a variety of fire controls. The battery can be operated in three ways: on-grid, on-grid and peak shaving and off-grid. The battery can recharge in 15 to 20 minutes, though that is hard on it to go so fast. The lifecycle is not known but stress tests are being completed. The best estimate is a 10-year lifespan.

One of the uses of batteries like this could be firming and shaping up intermittent power, such as wind turbines like those in Biglow Canyon. This particular battery will shape the power from the Kettle Foods 100-kW solar array, which is just down the street from the location.

Hannah: Does the location matter? The battery is in Salem which is far from the wind turbines in Biglow Canyon. Does the distance affect ability to firm up intermittent power?
Wayne: Yes and no. It matters from the perspective of transmission loss. It does help if you are closer. Biglow is an example of how far can you push this kind of technology.

Suzanne: I am totally impressed with this presentation and the project. Could you talk a little bit about next steps, such as tweaks, changes and other project related next steps?
Wayne: You incur a fair amount of learning in a new project like this and we will be applying that learning. In the upcoming year, our goal is to make it useful by the third quarter of the year.

Robert: Are you going to actually island the battery?
Wayne: That is to be determined. This is great reliability, but raises the question if we want to actually release it on the customers. We are not sure how that would be handled yet.

Robert: What are PGE's long-term goals? This whole thing with transactive control and pricing, will the price differential be enough for customers to care?
Wayne: There is a huge amount of learning to be gained here. Would PGE ever have paid the full cost, without the outside funding? No, but how could we not jump at the chance to be a part of this.

Jimmy: To figure out if you would pay the full cost, don't you need to have a method by which you can quantify the benefit? PGE has been unable to model the storage device principally because they haven't been able to quantify the benefits provided. How is this going to help the challenge of quantifying?
Wayne: There are quite a few reports out there that allow you to quantify these benefits. There are something like 31 evaluation mechanisms. We could probably qualify for "spinning reserve" but we would need to work through semantics since nothing is spinning. Arbitrage, being what it is, doesn't do much for right now, you'd put most of the valuation on the survey and spinning reserve, and then start to explore the firming and shaping potential.

Peter: Are you going to quantify any of the environmental benefits? Quantify the ability and benefit to replace onsite backup diesel generators and displace the local pollution?

Bruce: In terms of having a battery replace the need for an immediate diesel generator, that won't be possible. There will always be a need for locally diesel fueled machines for emergencies such as weather events. Codes require that you have to have onsite fuel for lifesaving machines.

Dick: Did you have a hard time getting customers to opt in to this test or did you have to pay them to do this? How many customers are on this and did you have to entice them at all?
Wayne: There is a $50 Fred Meyer gift card involved. These customers are radio controlled and PGE was particular about who to include. Everyone has been very cooperative. The 51 commercial customers are voluntary.

Vijay: Follow up to Jimmy's question, without which external money you would not have done this project. Don't you want to quantify transmission and distribution benefits? And other benefits? The proposal was built on the idea of islanding and to facilitate reliability if there is an outage. If islanding is not the goal, what is the goal and how will you do the metrics?
Wayne: I don't doubt that there wasn't good cost-benefit analysis before this was started. Most of our expenditures in the beginning were to figure out how to place this into this system. This work and learning can be assigned a price value. For all intents and purposes, we jumped for financial opportunities because why would you not have jumped at the chance to learn.

The Renewable Energy Advisory Council thanked Wayne his presentation.

4. Quarter 2 dashboard
Jed Jorgensen presented the dashboard from Quarter 2, which shows progress toward budget goals for the first half of 2013.

Jed: The goal of this presentation is to give the RAC an overview of the renewable energy sector's budgets so that the Renewable Energy Advisory Council can be better prepared to provide feedback during the budget cycle. To recap, funding is applied to projects for above-market costs and project development assistance. Energy Trust sets aside money from the current year action plan budget until the project takes place or it becomes clear that the project can't move forward. Both custom projects and development activities are paid over time, often

over multiple years, so staff has to keep track of when and how much funds have been committed. Because there are these previously "dedicated" funds, there are two budgets: the action plan budget and a profit and loss budget. The action plan shows current year new funds. This plan is about how funds will be dedicated and/or spent but doesn't include previously dedicated funds. Profit and loss budget shows, just for 2013, the money that will actually get spent through new money or previously dedicated funds.

Jed presented the action plan budget chart for PGE for Q1 and Q2. It shows the new funds that are available to commit to spend in this year and future years. Not a lot happened in Q1 but a little changed in Q2. Last year the solar market was incredibly hot and this year it is much slower, especially in the commercial sector. Energy Trust implemented some commercial solar incentive changes and June was the strongest commercial solar month since March of last year. In PGE territory, there is a little bit more of a challenge in getting custom projects so staff hasn't seen much activity yet. Staff is working with two biomass projects that may show up later in the year.

Bruce: Does Q2 show Q1 as well?
Jed: Yes, it is year-to-date.

Jed presented the action plan budget for Pacific Power. There is a larger diversity of project opportunities in Pacific Power territory. Activity shown is development assistance activities that occurred and the commitments are for the Central Oregon Irrigation District project as well as $120,000 in hydro development assistance and two other commitments for wind. Incentive changes pushed up commercial solar in Pacific Power territory, too.

Robert: Just a suggestion, can you break out the solar into sectors with different colors so we can see the differences?
Jed: We can look at that and see if it makes sense to do.

Suzanne: What we are seeing is the levels of committed and completed in comparison to total budget. Are we not seeing quarterly projections?
Jed: Correct, we don't have our projections laid over this. With solar, we have some projections but for custom projects we don't.

Suzanne: This represents the expected budget for the entire year or quarter?
Jed: Yes, the entire year.

Suzanne: How far below projections are you for the quarter?
Betsy: We don't get that granular in our projections. We only do projections for the year, not the quarter.

Suzanne: Okay. I'm trying to figure it out from a trending perspective, how the year is going.
Thad: Custom and solar are very different in terms of trends. Solar lends itself to trending and can help you project the rest of the year. Custom has a small number of projects and does not allow you to project out the rest of the year. Our budget becomes our expectations. We can better project on solar but it is just more difficult to do on the custom side.

Betsy: Are you asking, how are we doing? Is this what we expect? Do we feel we are in a good spot?

Thad: We had an RFP in 2013 and had $2.5 million available for custom projects and have allocated about one-half of that and have a project we are still talking with. There could be

dollars left over and a decision will have to be made later in the year how to deal with unallocated funds. In the past we've done additional RFPs. We've allocated half the funds and are half way through the year.

Jed presented on the profit and loss budget. This budget is not presented as custom vs. solar, just dollar amounts in PGE and Pacific Power. This has less change in Q2 because previously dedicated funds are still dedicated. The completed shows a biomass project that came on. If the program doesn't reach the budget, something about the expectations changed such as a project moving into another year. This also shows some hydro project development activity, ongoing payments and biomass.

Vijay: Committed dollars hasn't increased in proportion to completed dollars. I would have expected the committed to have increased in proportion as well, why is it not?
Jed: This is previously dedicated and current year. This is only 2013 so commitments made for future years don't show up here.

Jimmy: One visual suggestion. Could we see how many projects are represented, perhaps using little black lines to indicate how many projects?
Jed: On the custom side that might help but with solar, there would be too many solar projects to count. There is a lot more data we can show if there is a desire to see it.

Jed presented on solar generation, comparing commercial and residential across the past two years. 2012 was a large year in solar due to state tax credit and incentive changes, which led to some big changes and spurred more activities.

Bruce: Why is this presented as kWh instead of kW?
Thad: That is how we count on the efficiency side of things, so we present as kWh to stay consistent. It is a standard assumption of what the generation will be.

Bruce: But why not just use kW?
Peter: Organizationally, we are not measured in capacity but generation. On a custom project, the first-year savings will be what you are seeing here. For solar, we do an occasional survey of performance. On the last survey, there was a 30 percent sample size and we took the average generation, which was per watt.
Jed: We use kWh because that is how Energy Trust measures itself.

Betsy: One of the goals of what we are doing is to help the Renewable Energy Advisory Council understand how we look at our budget and goals and vocabulary so that when we get to budget numbers in the fall, you'll have an easier time understanding what we are presenting because you'll have heard these kinds of things before.

Hannah: In 2013, hasn't your solar budget also declined? How would you show that?
Jed: We could show that as well, yes. The generation does embody the incentives.
Thad: That is something we will do during the budget process.

Suzanne: This slide doesn't get at what I'm asking regarding projections. I'd like to see if there is a way Energy Trust can be more aggressive or perhaps a little less risk averse if you feel like you are going to get a bigger bang for taking that risk. It was slow, you bumped up that incentive but are you getting the activity you really want?

Thad: Do we expect to achieve what we forecast we would achieve during budget? The answer is yes.

Suzanne: You still do?
Thad: Yes. We believe we are on track to achieve goals on the solar side but less certain on the custom side for a variety of reasons.

Betsy gave an outline of the fall meeting schedule. The next council meeting is in September then there will be October and November meetings. In September, budget themes will be presented and some overall numbers. In October, budget numbers will be presented and in November, final budget numbers will be presented and finalized before it goes to the board of directors in December.
Thad: We might also discuss some individual projects here. We are expecting some custom projects.

Juliet: When the OPUC approved the performance measures, there was a check-in on some items in six months. I believe they include the amount of money that is going to utility projects and a check in around costs per allocated MWh. This check in is coming up next month. Thad, we'll need to chat off line about planning for this.
Thad: Yes, we'll chat offline.

5. Public comment
There was no public comment.

6. Meeting adjournment
Betsy thanked the council members for their participation and adjourned the meeting at 11:55 a.m.

The next full council meeting is September 11, 2013.

Conservation Advisory Council Meeting Notes

July 17, 2013

Attending from the Council

Jim Abrahamson, Cascade Natural Gas
Brent Barclay, Bonneville Power Administration
Warren Cook, Oregon Department of Energy
Joe Esmonde, International Brotherhood of Electrical Workers
Wendy Gerlitz, Northwest Energy Coalition
Scott Inman, Oregon Remodelers Association
Juliet Johnson, Oregon Public Utility Commission
Don MacOdrum, Home Performance Guild
Holly Meyer, NW Natural
Anne Snyder-Grassman, Portland General Electric

Attending from Energy Trust

Matt Braman
Amber Cole
Kim Crossman
Diane Ferington
Fred Gordon
Kevin Havice
Andrew Hudson
Susan Jamison
Marshall Johnson
Oliver Kesting
Steve Lacey
Spencer Moersfelder
Jessica Rose
Scott Swearingen
Julianne Thacher

Others attending

Jeremy Anderson, Wise Energy
Monica Blakeslee-Kish, PECI
John Charles, Cascade Policy Institute
Christina Cobrales, CSG
Tim Davis, CSG
Carolyn Farrar, NW Natural
Jeff King, Energy Trust board
Marilyn Morfitt, NW Natural
Lis Sanders, Northwest Energy Efficiency Alliance
Tracy Scott, Lockheed Martin
Jeffrey Swartz, ICF
Sarah Traux, PECI

1. Welcome and introductions

Kim Crossman convened the meeting at 1:35 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.

Kim: Our mission today is to discuss the budget process, including the development of budget concepts. These are conceptual design ideas. Today, we'll have presentations on preliminary budget concepts and have time for discussion of these concepts.

2. Annual goals, funding nomenclature and relationships to utility IRPs

Kim: We'll start by inviting Steve Lacey, Energy Trust director of operations, to present on a change to how Energy Trust sets goals. This has relevance for the 2014 goals and budget we will be developing over the next few months.

Steve: I'm going to present on our annual goals discussions with the Oregon Public Utility Commission, stakeholders and utilities. This discussion came out of an observation from our last budget process that there was confusion with nomenclature regarding Energy Trust savings goals and Integrated Resources Planning, IRP, targets. We wanted to clear up that confusion and thought the topic would be a good fit for strategic utility roundtable discussions. Typically, we do strategic utility roundtables a few times a year.

On May 22, we held a strategic utility roundtable to explore options regarding how we link our savings goals to utility IRP targets and how that translates to Oregon Public Utility Commission, OPUC, performance measures. We also wanted to tackle a related issue, which is how to characterize and administer reserve accounts going forward. We presented these topics and options for consideration at the roundtable. Three primary issues emerged. First, how should we describe our annual savings goals and their relationship to IRP targets? Second, how should the OPUC measure the acquisition of our savings to meet utility targets? Third, how are funding levels determined?

We came out of the strategic utility roundtable with consensus on the following issues. We want to preserve existing utility IRP processes. That is, we do not want to change the IRP processes and how they get administered between the OPUC and the utilities. We want to use current adjusted IRP targets that we provide to utilities on a regular basis, which is every two years. Energy Trust efficiency goals will be set to the IRP targets. What that means to you is that, previously, the resource potential and the IRP targets have not been lined up. We right-sized to give a degree of confidence for IRP targets that had come out of alignment with historical definitions of IRP. That is, we realigned the resource potential and the IRP targets.

We also agreed that utilities would file tariffs with the OPUC to fund Energy Trust at individual IRP target levels on an annual basis. The OPUC will hold Energy Trust accountable to 85 percent of IRP targets as minimum requirements.

Energy Trust is aware that we can't achieve higher targets consistently on an annual basis. Some years our accomplishments may be lower or higher. Targets will be met on average over a longer period, which would translate to a utility's multi-year action plan. We will also link our results to the utilities' multi-year action plans.

We'll summarize the individual and combined utility goal achievement in our annual reports. Typically we have an aggregated portfolio savings report. Now we will report by individual utility for those IRP performance measures.

There were two outstanding issues after the strategic utility roundtable. First, how do we come up with a definitive annual performance measure for multi-year action plans? We weren't able to agree on what that would be at the roundtable, so we decided to convene a working group to work on that issue. Second, how do we identify and characterize our reserve accounts? Currently we have two reserve accounts, an interest reserve account that is not attributed to utilities and a 5 percent program reserve account.

On June 12, a working group convened consisting of Margie Harris and me from Energy Trust, Juliet Johnson and Jason Eisdorfer from the OPUC and representatives from the four utilities. The working group reconfirmed the agreed upon outcomes from the strategic utility roundtable and made recommendations for the two outstanding items.

Regarding IRP goals and performance measures, the working group recommended using the most current resource assessment to provide individual utilities with the full range of energy-efficiency resources by cost and over the planning period. Previous to this, Energy Trust would provide recommended numbers and decrement them by 15 percent to emulate conservative goals. Individual utilities would then select and generate an IRP target. This single number will be the basis for establishing annual savings goals for the budgeting process. We will no longer use conservative and stretch labels to

characterize savings. There will be just one Energy Trust goal, which translates to individual utility IRP targets.

Then the working group addressed the question of how to come up with a specific and quantifiable performance measure that spans utilities' multi-year action plans. We were not able to come up with a measure that's easily and transparently administered. The problem is utilities have action plans that are filed every two to five years with two-year update cycles. So the baselines can change every two years. It would be difficult to align two-year updates with four-year action plans and compare them to historical values as baselines change.

The recommendation from the working group was to stick with an 85 percent performance measure based on IRP annual targets to determine Energy Trust annual performance. In any given year, if Energy Trust performs below the minimum standard, Energy Trust will provide explanation to the OPUC. OPUC staff and commissioners will determine next steps to address the shortfall. This could range from an informal working group roundtable to opening a docket to conduct a formal investigation.

The working group also recommended that Energy Trust track over a number of years how we are doing and provide narrative in annual reports regarding trends. If over a period of time we are fairly low—say below 90 percent of our target—we will provide narrative explanation. Then it is up to the OPUC to determine necessary action.

If we are consistently low, Energy Trust will come to the Conservation Advisory Council for discussion and to identify what's going on and why.

Don MacOdrum: From a layperson view, conservative and stretch goals were nice because they provided a window. If Energy Trust is more than 15 percent below the goal, it seems like there's some explaining to do.
Steve: We would provide narrative even if results are less than 15 percent below goal.

Don: So you'll provide narrative anyway?
Steve: Yes.

Don: Where is this new goal in relation to the current conservative and stretch goals?
Steve: It emulates the stretch goal. Prior to this, the stretch goal was basically the IRP. We and the utilities wanted certainty on delivering IRP. So the current convention is set at 85 percent of IRP. We are now resetting back to the past.
Juliet Johnson: There's still a range. The range is now the IRP target, which we're glad is at the full resource potential—and 15 percent below, which represents minimum OPUC performance measure. Fifteen percent below IRP is not a target, it's a floor, you should not fall below it.

Holly Meyer: Is it assumed that you could be between 85 and 100 percent of IRP for multiple years?
Steve: Because we have five-year action plans and two-year IRP goal resets, we can't come up with a quantifiable number that will hold longer term across multiple different IRP periods. So we'll update the OPUC with narrative on annual reports. For example, if we were coming in below 100 percent in Portland General Electric territory, we would note that and explain the reason. If we were overachieving in a certain utility territory, it could be that we were looking at a conservative IRP profile. There would be continuity and reflection of multi-year performance.

Jim Abrahamson: Cascade Natural Gas is the first utility coming out of the gate with our IRP update due in August. We're approaching this by making sure that our historical data set of demand-side management achievements are the Energy Trust trued up numbers by customer class from 2006 to 2011. The 2012 number has not been trued up yet but we will update it after true up on August 1. Then we will add therm savings from the low-income program.
Kim: That's a good example of the type of work that must go on over the next few months with Energy Trust's planning staff and the utilities because old IRP goals were not the same as stretch goals.

Steve: Then the working group addressed the second unresolved issue of the two Energy Trust reserve accounts, the interest reserve and the program reserve. The interest reserve will now be called the contingency reserve or contingency interest reserve. There is approximately $7.5 million in the contingency reserve. The working group recommends that $5 million be held for emergency purposes to keep the organization operational. The additional $2.5 million can be used to address shortfalls in revenue due to warm winters and other shortfalls, or to go after great cost-effective projects that come up unexpectedly. The working group recommends that the contingency reserve is capped at $8 million, so it won't grow bigger than that. With this recommendation, we will always have $5 million to $8 million in bandwidth to address emergencies and opportunities.

> Energy Trust also has a 5 percent program reserve. The working group suggests that this reserve no longer be 5 percent. Rather it should be negotiated individually with each utility to be based on the individual needs of each utility. The amount could be the outcome of utility carry over, market conditions or future energy savings that weren't anticipated in IRP. We felt that we were over-collecting with a blanket 5 percent and wanted to tailor to individual utilities.
>
> Next steps are to send a briefing paper out to utility roundtable participants and have a briefing discussion with the Energy Trust board of directors at the July 31 board meeting. Utility roundtable attendees are invited to the July 31 board meeting. If there are any action items for the board, we will bring them to the September 25 Energy Trust board meeting.

Kim: Peter has been calling this the "unified goal theory." That helps me remember and understand this.

Brent Barclay: Is there any difference between the Northwest Power and Conservation Council's power plan for the electric utilities and the resource potential found in the utilities' IRPs?
Steve: We provide utilities with resource potential. Utilities select cost-effective resources and select the plan that becomes our target. The driver is that Energy Trust provides IRP targets through resource potential studies conducted for utilities.
Peter West: We have come to the same conclusions. IRPs are ahead of pace.
Juliet: Often utilities will refer to the power plan and the IRPs. It's kind of incidental. The power plan is not really directly used.
Steve: The power plan is not a driver for the decision-making process but people can use it as a gauge to see if their IRPs are way off.

Juliet: Energy Trust gives utilities potential and utilities determine cost-effectiveness and IRP. This concerns me because what Energy Trust provides them shouldn't be too far off from what utilities come back with.
Steve: Each utility has its own model. They use Energy Trust as the initiator for that information.

Kim: Is it accurate to say Energy Trust is developing the deployment scenarios?
Steve: Yes.

Jim: We take 20-year deployment numbers that are based on potential assessment of what is possible. We take that as an input into our IRP process. To my understanding, Energy Trust demand-side management numbers are hardwired into this process. We won't change Energy Trust numbers 10 years out because of a supply situation.

Juliet: I want to go on record saying we would want to understand if there were discrepancies between Energy Trust inputs and utility IRPs.

Jim: Cascade Natural Gas won't deviate. We rely on Energy Trust to come up with targets and see Energy Trust as our delivery agent.

Warren Cook: What is the likelihood of a tariff filing because resource potential exceeds the public purpose charge?
Steve: The public purpose charge is SB 1149 and the tariff-based charge is SB 838. Add them together and that's IRP. It's a combination of those two funding streams. Public purpose funds do not float.

3. Quarter 2 dashboards

Peter West: Now back to this year. We have two goals, conservative and stretch. Dashboards are preliminary numbers at the close of Q2. Refer to the Conservation Advisory Council packet for detail. A better edited version will be available on the Energy Trust website tomorrow morning.

> What we have here is the 2013 chart. The three bars show proposed, committed and short-cycle. Short-cycle are things that come in unannounced. What we do with that data is adjust it and put confidence factors around it, then it becomes adjusted. Adjusted is the forecast.
>
> We are forecasting to meet or exceed conservative goal for all utilities. Multifamily and New Buildings are particularly strong across all utilities. Production Efficiency is particularly strong in certain utilities. The New Homes and Products program is more robust than forecast and EPS™, our energy performance score, is penetrating the market deeper. The New Buildings Market Solutions offering is strong, especially for low-rise, multifamily and assisted living. Data centers are clicking along. Multifamily direct installations for all utilities are strong. All of these efforts are overachieving and providing significant savings.
>
> There are some issues that don't apply to all programs. With increased standards to higher tiers and products, market recovery is not coming at the same pace as in years past. We may have gone too hard on products. There are not enough choices for high-end products and we are not getting enough penetration.
>
> The market, especially in big box retail, has driven hard on LEDs. We lost a lot of shelf space for specialty compact fluorescent light bulbs, CFLs. We are relooking at what we can do for LEDs. No matter what we do at this point, we will still take a hit in 2013. We won't be able to change until Q3.
>
> Overall, particularly on Existing Buildings and Industry and Agriculture, we're having fewer large projects, especially in lighting. We saw the loss of Business Energy Tax

Credits and the end of the Energy Trust temporary bonus in 2012. Economics are now poorer for many lighting projects and the length of payback is too long.

Especially in residential, we wanted to move past Energy Saver Kits and reduce savings from kits from 60 percent of savings to 35 percent. This proves to be an over-aggressive switch. Other sources of savings have not increased fast enough. The Clean Energy Works Oregon forecast dropped from 1,500 projects for 2013 down to 1,000 projects. Of those projects, we're getting fewer savings per project. As we go through the year, we update our benchmarks. What we're getting out of those Clean Energy Works Oregon projects are insulating projects that have already met our baseline so we're not getting the savings back that we should expect. Those savings we depended on are not there to replace what we wanted to reduce in kits. We may get 40 or 45 percent savings from kits. Kits have already achieved market penetration and we wanted a slower ramp down to zero. We may see a cliff sooner.

Overall, the economic recovery has been more robust in western Oregon. On the western side of the mountains, our savings are bolstered by more small projects, particularly in commercial and industrial sectors. We're not getting this in eastern Oregon, where we're still dependent on a few large projects to carry savings. This will be particularly true for Cascade Natural Gas.

For Pacific Power, this is a conservative forecast. The forecast is down but is trending up dramatically and will likely continue to go up. Also this forecast did not count any Opower savings. The pilot has been delayed and we are holding back to make sure Opower is fully launched this year. If it is not fully launched, we can't count Opower savings. Also there is a large data center in Pacific Power territory, we estimated conservatively at 50 percent of potential savings.

The NW Natural forecast is at 93 percent of stretch goal. Production Efficiency, New Homes, New Buildings and multifamily are all doing very well. Rooftop HVAC unit tune ups are having a lag effect in the market.

Cascade Natural Gas is at 80 percent of stretch goal. The industrial sector has only seven large projects in play. We're at 50 percent of goal now and we could be at 105 percent of goal next month. We had two projects fall out and it made a big impact. Residential is at 95 percent of stretch goal. A few choices from large industrial plant managers can make a big impact on our savings.

Juliet: Why is Opower delayed?
Peter: Opower provides a standard product and Energy Trust rejected some of its recommendations. It takes time for them to rewrite them. Their recommendations are good if you are in the Midwest or on the east coast.

Juliet: The recommendations are tips included in mailers to customers?
Peter: Yes, and we want some of the tips to be taken out. For example, in other states they want to encourage fuel switching and we don't. We don't want to go out until they make changes and they've been resistant to changes until recently.

Brent: Have you done any analysis to see your year ahead pipeline as a ratio to your completed pipeline?
Kim: We don't get into 2014 yet. Our contractors are optimistic about finishing projects in the current year. We start pushing on them now to get real about completion dates and put projects

into next year if there is a chance or likelihood they'll push. By the time we get a Q3 dashboard, we begin to see better numbers. Each program behaves differently in terms of how much pipeline they have and how far ahead they can look. New Buildings can look far ahead, but Production Efficiency can't. When we build our goals for 2014 we will be looking at our pipeline, but the best indication is really historical performance. How much didn't we know at this time last year?
Peter: The pipeline is sloppy data and it's only a little less sloppy at the end of Q3. Pipeline is not that meaningful to us until December.
Kim: In February of next year we have more information from projects that pushed from the prior year. At that point in Q1 2014, we would raise concerns and change strategies to adjust pipeline.

Joe Esmonde: Did you factor in the $5 million to $6 million that the Clean Energy Works Oregon picked up?
Peter: That would be for 2014 and beyond, and no, that's not our funding. Our funding is not changed by that.
Joe: But will that affect or drive the market?
Peter: Not in 2013. Folks should know there was a legislative push and money was set aside with the Oregon Department of Energy. We're hearing very different things about whether that money goes to Clean Energy Works Oregon or not.

Kim: So Jim, do you want us to come back to you on your question about Clean Energy Works Oregon?
Jim: We'll get to it when we talk about budget. I notice that our agenda is so loaded that we don't have time to thoroughly address the issues at hand.
Kim: The first two agenda items were supposed to be informational. We're trying to leave substantive time on the agenda for the discussion of budget concepts.
Jim: If we're an advisory group, you need to give us time to give advice.
Kim: Can we also have purely informational items on a Conservation Advisory Council agenda? That was my understanding coming out of our work on operating principles earlier this year, but we can continue to explore to try to dial in agendas for these meetings. Thanks for your input.

Peter: If you have questions about the dashboards, call me or one of the sector leads.

4. Draft 2014/2015 action plan and budget themes
Peter: We iterate back and forth between the program plans and concepts you're about to see and the Energy Trust strategic plan. What emerged are the themes of easy access, targeting, innovation, improved systems and processes and looking ahead at longer-term strategic issues. These five themes relate to each other.

> Easy access: We're talking about how to be more accessible for both contractors and customers. For example, by providing electronic forms that facilitate participation.
>
> Targeting: There are pockets of markets and territory, territory being both locations and customer types, that we'd like to get deeper with. We'd like to do more specific outreach to more specific customer types and stakeholder groups. This is where we're going to get savings in the future.
>
> Innovation: This is always a theme for Energy Trust, pilots, new initiatives. Because of how supply curves work, available savings will plummet in the next five years if we don't innovate. Some of these innovations won't be hardware; they'll be like the New Buildings Market Solutions packages. We need to innovate in delivery as well as products.

Improved systems and processes: We're stepping up our own information systems and technology in order to do more electronic forms, provide portals for trade allies and make communications through the website easier. We need a different system in order to do this. You won't see this theme so much in program plans.

Looking ahead: If we're going to target folks, we need to engage stakeholder groups differently. We need to have different cohorts and different sets of actors out there in the community. This includes being more diverse about our trade ally set and certain customer sets, for example, people for whom English is a second language, and look at whether or not we're making it easy for these customers to interact with us.

5. 2014 budget concepts: residential sector

Kim: These budget concept reports are comprehensive and we're not going to dive into everything in detail, since we've just spent the last three council meetings going through deep dives on each sector and our historic trends. We'll focus today on what's changing and what has budgetary relevance. We won't have enough time to talk at length and in depth about these reports. We'll walk you through what's most important at the moment and leave time for some discussion. If you have feedback, thoughts or concerns, please provide them by the end of the month to Kim, Diane, Oliver or Peter. We need feedback by the end of July because we'll develop budgets in August.

Diane Ferington: In 2014, we are re-competing the New Homes and Products contract to start in 2015.

New Homes and Products: We will leverage the Northwest Energy Efficiency Alliance's NW ENERGY STAR® New Homes and Next Step programs. NEEA is developing a software platform for verifiers and we are integrating with that platform to automatically generate EPS ratings, which will result in a large administrative cost reduction. We are also working with subcontractors to drive additional savings. We are working on a joint proposal for the building codes division for the 2015 energy code. We will continue to increase homebuyer awareness and understanding of EPS, collaboratively with Existing Homes.

Products: We will expand the market lift concepts piloted in 2013, expand online and instant retail incentives, increase point-of-sale field services, this means targeting sales staff that has a big influence on consumer purchases, and we will expand LED lighting options through regional utility network efforts, including the Pacific Northwest and California utilities.

Existing Homes: We will equip trade allies with tools, offer more electronic forms, create an online portal for contractors and create referral codes for contractors to connect them with customers. We will continue to transition away from kits while maintaining cost-effectiveness, increase key product penetrations for ductless heat pumps and water heating and reach underserved populations with the Savings Within Reach track. Savings Within Reach and the demographic served is growing. This includes the Savings Within Reach loan product that will launch in fall 2013 and expanding contractor-installed instant-savings measures.

Other areas for 2014: We will leverage NEEA for the promotion of ductless heat pumps and heat pump water heaters. The Existing Homes program will coordinate with the Oregon Department of Energy on HB 2801. The consumer-facing savings tool will

launch in 2013 with a vision for contractor features to be made in 2014. In 2013, a Savings Within Reach loan product with Craft3 will launch. We will continue to evaluate EPS for existing homes in 2014. The lending and real estate ally networks will expand. In 2014 the Existing Homes program will continue to test air and duct sealing strategies to find the most cost-effective approaches and conduct a NEST pilot with heat pumps that may lead to a gas effort in the fall of 2014, depending on the results of this pilot.

2014 anticipated challenges include gas weatherization avoided costs, heat pump water heater selection and availability, ductless heat pump average installation costs, uncertainty about CFLs amid Energy Independence and Security Act, EISA, legislation, moving away from consumer retail buy-downs, Clean Energy Works Oregon transition from federal grant funding and balancing new savings levers with migration away from Energy Saver Kits.

Scott Inman: Prescriptive installations are projected to be down significantly in 2014 over 2013. Why?
Marshall Johnson: Because of changes in R-Value requirements for attic and floor insulation. There will be 40 percent fewer attic insulation projects recognized this year. That number is forecasted based on the fact that certain measures were removed from the portfolio this year.

Scott I.: Does 20 percent fewer installations mean 20 percent less energy savings?
Marshall: We have other ways of making up for those savings. We want other things to fill this void.

Don: That's confusing to me. We're losing savings with kits and we're also losing savings because of the measures. They're both reductions, so what balances it out?
Marshall: Historically we've relied on kits to fill the gap when falling short of goal. Savings from products in kits are being reduced because of EISA. So we need to do more kits and come up with replacements for savings from those kits.

Don: Seems like there are a lot of hits to Existing Homes? I assume there are some other levers to pull.
Diane: We're looking for more ideas. We've talked with NW Natural and Cascade Natural Gas about options in the gas arena. NEST may be promising. There are new technologies coming, including gas heat pumps. We may potentially look at a targeted early furnace retirement program. Current cost-effectiveness of gas weatherization measures are not looking good.

Holly: Will Savings Within Reach incentives change?
Marshall: Wall and floor insulation are not cost-effective for Savings Within Reach. There will be more information for the Conservation Advisory Council in October.
Holly: We're on a cost-effectiveness hiatus.
Marshall: Savings Within Reach incentives must pass a utility test and these two measures do not pass. This must be addressed immediately in 2013.

Jim: I wanted to raise my Clean Energy Works Oregon questions. Probably these questions are more for Clean Energy Works Oregon than Energy Trust. First, why do we have a drop from 1,500 to 1,000 homes? Second, I just heard that Clean Energy Works Oregon is changing its name to Clean Energy Works. Now they are expanding activities to the Seattle area. Third, I have some funding questions. Clean Energy Works Oregon received $9.8 million total from the State of Oregon in this legislative session, including $5 million from lottery funds and $4.8 million from existing low-income weatherization programs. What will the funds be used for? How

will Clean Energy Works Oregon protect Oregon ratepayer money from work in Washington state?
Peter: These are all questions for Derek Smith. We can invite Clean Energy Works Oregon here but they're not here today. I don't know. We're trying to find the answer about the drop from 1,500 to 1,000 projects. We set aside money for Clean Energy Works Oregon to complete work depending on their forecast, but we don't have control. We roll that forecast into our goals and budget. We've talked about hedging those more but then we don't have the money in case they actually do perform. Derek needs to answer these questions.

Jim: It doesn't look like there's an opportunity for stakeholders to ask these questions of Clean Energy Works Oregon. We need to have some kind of a forum to be looking at Clean Energy Works Oregon.

Don: They haven't dropped the "o". It's Clean Energy Works and Clean Energy Works operates Clean Energy Works Oregon.

Scott I.: But Clean Energy Works Oregon has to report to someone about Oregon public money. Who?
Kim: Let's hold off this conversation until Clean Energy Works Oregon is present.

Holly: Can you ask Clean Energy Works Oregon to give a presentation?
Kim: We need to discuss it internally.

Juliet: Last year there were a lot of savings in residential gas from Opower. I know we transitioned into a persistence study of Opower savings. Is that something to consider increasing? If we're looking for savings, behavioral savings are a potential source.
Diane: Yes. Both Portland General Electric and NW Natural are capable of making reports similar to Opower.
Holly: Yes, we're launching this fall. They will be available to all people. It may be a cheaper way of getting to the savings.

Juliet: Is this an Energy Trust thing or a NW Natural thing?
Holly: We'll collaborate but NW Natural will take a lead role.
Susan Jamison: We're collaborating from a marketing standpoint.

Peter: We need to further collaborate on how one would measure baseline if we're going to count savings.
Holly: Yes, we will definitely have control groups.

Brent: Regarding ductless heat pumps, do program eligibility requirements constrain participation to zonal heating only? Bonneville Power Administration, BPA, has a forced-air furnace offering. We leave the forced-air furnace and add a ductless heat pump, this offers twice the savings.
Diane: Putting ductless heat pumps in the mobile home market is something we want to pursue. We're definitely interested in that area. There's a plan to figure out how to get ductless heat pumps into mobile homes.

Brent: Utilities are excited about broadening the ductless market.

Diane: What kind of installation costs does BPA experience?
Brent: It's the same, so your incremental cost is identical.

6. 2014 budget concepts: commercial sector

Oliver Kesting: In 2012, overall lighting savings declined, partly because of a fall bonus that accelerated lighting in 2011. Lighting baseline changes due to the federal standards are less dramatic than anticipated due to exceptions in the lighting specifications. However, the new ballast standards will go into effect in 2014 and we are working with NEEA on a comprehensive lighting design pilot to prepare the market for the new standards. We are introducing prescriptive incentives for LED lamps. In 2013 we have had lots of success with LED streetlights in PGE territory and will be introducing prescriptive incentives.

Existing Buildings has had a big push for operations and maintenance through Strategic Energy Management and building controls pilots. We are supporting the states' Cool Schools efforts. Non-PMC activity includes working with midstream buy-downs for computer equipment. Innovative efforts include running pilots on building controls and working with distributors on buy-down incentives for lighting. We are also engaging non-lighting trade allies such as roofing companies to push insulation incentives.

For New Buildings, the number of large new building construction projects has been slowing. Industrial and multifamily new construction projects have been picking up. Small commercial has historically had difficulty working with new construction because of the high cost of energy modeling, but we have had great success with Market Solutions packages geared toward the smaller projects. We have been providing design assistance to help people to get beyond new state building codes. Data centers have been a huge opportunity. Regarding lighting, we introduced comprehensive lighting design assistance. Regarding innovation, we are rolling our Path to Net Zero learnings into a program in the form of goal setting, design strategies, increased technical support and tiered incentives. We also introduced a solar-ready offering to help make buildings ready to install solar at a later date if they can't justify the cost now. And we've been supporting the development and adoption of energy-efficient modular classrooms.

We are working to provide more comprehensive design for multifamily customers and increasing our support for midstream incentives. We launched clothes washer and refrigerator incentives through distributors, and in July we will launch a water heater initiative. We will continue to support energy-efficient memory care facilities and Mpower pilots.

In 2014, we will work on streamlining processes, enhancing tools and providing simple prescriptive incentives where appropriate. We will expand SEM for larger customers and we will develop offerings to provide a streamlined SEM initiative to smaller customers. We will develop ways to better serve individual unit owners through the multifamily program, rather than through homeowners associations. We are developing a pay-per-performance pilot to assess feasibility of longer-term incentives that pay out after savings have accrued. We are developing a Request for Proposals, RFP, now. We are working with lending allies to develop partnerships. We will be developing prescriptive incentives for new measures as they become cost-effective.

To address outreach and targeting, we will develop a business case for energy efficiency to help customers sell energy-efficiency projects to decision makers within their company. We will expand relationships with the public sector to ensure we address retrofit, new construction and renewable energy opportunities. We're working on a targeted direct install strategy, which we call the "six pack" approach. We will go to outlying small commercial customers and target direct installations for specific measures that are not generally implemented through our trade allies. We will continue

collaborative relations with the Oregon Department of Energy, NEEA, cities and counties.

To improve program administrative efficiencies, we plan to improve forms and leverage Customer Relationship Management tools.

Anticipated risks for next year include serving the needs of larger customers. For customers greater than 1 average megawatt, we have a legislative cap on total incentives we can pay. Other risks include cost-effectiveness issues for innovative approaches while federal American Recovery and Reinvestment Act funds are drying up. We are in the process of rebidding the New Buildings contract, so there is potential we could select a different vendor than the incumbent and we would work through a transition. CFL baseline changes hit in 2014, which will impact savings in multifamily. Rooftop tune-up savings may be limited. We hit the market so aggressively in 2012 there's not a lot left for 2013 and 2014.

Joe: How many customers in Oregon are over 1 aMW?
Kim: We don't have an exact number. Somewhere along the lines of under 200.

Joe: How many have worked with Energy Trust?
Kim: Almost all of them. There's only one we've found that has not. Keep in mind that the vast majority of them pay the public purpose charge. There are fewer than 15 self directors for energy efficiency in the state.

Scott I.: On multifamily, individual condominium owners got switched to multifamily. Prior to that they were in the Existing Homes program.
Oliver: This has been a series of transitions. Multifamily used to be in the residential sector but that wasn't ideal because for the most part the program works with building owners and managers. So multifamily transitioned to the commercial sector.
Scott Swearingen: At the beginning of the year, small multifamily units of two or more moved to the multifamily initiative. We transitioned relationships with homeowners associations and property owners. We found that individual unit owners weren't represented by homeowners associations, so we went through process mapping to figure out who was best to serve these customers. A lot of these owners saw themselves as single-family homes and applied for Home Energy Reviews through Existing Homes. The ultimate decision needs final approval but we do plan to serve them in multifamily and treat their whole unit as a whole building. We are designing a walk-through survey complete with direct installations of instant-savings measures that will give them in-unit service but that is not available through multifamily currently. We are also trying to reach out to unit owners in a way that generates projects with their neighbors.

Scott I.: In condos, you're responsible for everything from the walls in, including windows. So it sounds like you have that figured out. For that individual condo owner, you're having them fill out the multifamily form.

Scott I.: Do you treat these customers as a business rather than a homeowner? Do they get a 1099 form? I've been told by customers that they're made to fill out the multifamily form and send in a 1099.
Tracy Scott: This has not been an issue.

Holly: You talked about figuring out Path to Net Zero buildings. How does that work with gas?

Oliver: Path to Net Zero is a pilot that's concluding and lessons are being rolled into the program. There will still be customers that want to exceed code, but we don't have that specific program. As far as gas savings, there's a lot you can do to save gas in a building.
Holly: Great. We'll want to weigh in on this to make sure it's messaged in a way that includes gas customers.

Wendy Gerlitz: Can you explain the Pay for Performance pilot?
Oliver: There's a pilot that's being run in Seattle and we're exploring something similar. The plan is to put out an RFP. It will be for large projects to get operational savings as well as capital savings. They will be incented after the fact of achieving savings, over multiple years.

Wendy: So staff will develop the methodology for measuring building performance?
Oliver: Yes. We're working on that with Energy Trust's Planning staff and getting input from other organizations.

Juliet: We've been involved with these discussions and looked at Energy Efficiency Power Purchase Agreements, EEPPA, which is a specific type of pay for performance. What's interesting about the Seattle pilot is they let the proposers determine how to do the measurement and verification. I like the idea of letting the proposer bring a plan and letting the market bring ideas. I like the idea of leaving it a little open.

Wendy: What is the financial scope and budget?
Oliver: We don't have that yet. Someone is working on it.

Kim: Maybe we should bring the pilot's business brief back to the council to share details and get feedback.

7. 2014 budget concepts: industry and agriculture sector
Kim: I don't have slides. I'll just speak to the big bullets on pages one and two of the budget concepts document. Before I do that, I'll say that we've been over the core program a lot recently. If you need an overview, please review the trends presentation.

> We are in the middle of a Program Deliver Contractor, PDC, competition for our custom delivery contractors, which represent the bulk of how Production Efficiency goes to market. We will have a board resolution on July 31 about the selection of contractors. The news is not public yet. A memo for the board will probably be published a few days before July 31 and it will be public. After that, we will go into a period of transition.
>
> Regardless of the selected contractors, we will look at our territories. We have decided to go with geographic territories. This is the best way to get the best outcomes and is a simpler communication to the customers. We are re-cutting territories to be more balanced in terms of resource potential and to get better, more balanced outcomes from each territory, such as by reducing drive time. Ideally, we'd like all customers to be within a two-hour drive of their assigned PDC. We have a detailed communications plan for this change in assigned PDCs. This is 2013 activity. Next year in 2014, we'll be in these new contracts. So a theme for 2014 is to make sure the new PDCs and new territories are working. Of course with any transition there can be glitches, so we're preparing to minimize impacts on the customers or our stakeholders.
>
> A few other changes we have planned in 2014. First, we'd like to have our custom PDCs begin to serve all sizes of industrial customers. Up until this time, they served medium to large customers. In order to bring in the most cost-effective savings, they targeted bigger

energy users with custom services. But at this point we're acting on market research that says smaller customers actually need handholding just as much as large customers and we want to give it to them. So we're essentially expanding the territory we serve by including all customers in custom services. We don't necessarily have deep relationships with small industries so this is new territory for us. This is expected to increase delivery costs a small amount because we get bigger savings out of larger customers. Our development path over the next two years is to figure out what the right level of custom support is for all different sizes to get us the outcomes we need. Currently our delivery costs are very low relative to overall program costs so there's room. Additional savings from these efforts will show up at first in the streamlined tracks, in projects delivered by trade allies.

Another area that's shifting has to do with SEM, which represents a quarter of our electric savings and a smaller but growing portion of gas savings. We're beginning the second cohort of Core, our small industrial SEM pilot. The good news is we've filled the cohort very quickly in only three weeks. This was helped by good word of mouth from the first cohort. There's great potential for the next cohort. Early indications from the first cohort are that we're getting about 4 percent savings for both electric and gas across the group. Large SEM customers have averaged between 7 and 8 percent.

Brent: That's net of capital projects?
Kim: Yes.

Kim: The other thing we'll be doing is continuing to bring SEM to scale and continuing to build it out in the next few years. In the last four years, we have brought 80 companies into SEM. Now there's a big design question: What does it look like to work with companies that are practicing SEM on an ongoing basis? Do they get bored after a few years? How do you sustain the systems? What does that mean for program design? That's our two- to five-year development path. The industrial sector is a long, slow machine so we constantly need to plan for two to three years from now.

Kim: We're having the same challenges as the commercial sector about lighting. We are considering a small change to the custom lighting incentive, an increase, that we will explore in the next month, to bring it in line with incentives in the rest of the region and get market uptick in industrial lighting.

Holly: It's exciting. I love the SEM.
Kim: I think it's the most exciting thing I've encountered in the efficiency field in the last five years. We've been coordinating very closely with NEEA and BPA regarding SEM.

Holly: For future meetings, could we see a presentation from an SEM customer participant?
Kim: Yes, they would love that and so would we. It's very inspiring.

Holly: It seems like it would make this work come more alive if we could connect with customers.
Brent: If time allows, you might have two customers, a single site and one that's part of a multi-site corporation.
Kim: Anecdotally, the multi-sites have many more challenges than the single sites.

Kim: I'm taking notes for potential future agenda items.

Joe: Does anybody talk to data centers about why they don't put part of the building underground to cut down on heating and cooling load? I've asked before and was told that it's because of time constraints for building.
Kim: New Buildings has done tremendous work on this. We could do a presentation on this in the future.
Oliver: We help them with comprehensive design.

Km: Would it be interesting to get an update on what's happening with data centers in Energy Trust territory?
Everyone: Yes.

Joe: We saw numbers about the budget and we had questions about serving data centers that have already pledged nationally to save energy. Are we really getting value for what we pay? Would they do the efficiency stuff anyway?
Warren: The data center problem isn't its relationship to the outside, it's the energy consumption of the heating and cooling.
Joe: But it's hot in Bend.
Warren: The challenge is not the temperature of the outside of the building but the temperature of the actual equipment itself.
Joe: They're taking ratepayer dollars that could be used more efficiently.
Kim: We do get very cost-effective savings from large data centers.
Fred: You're raising an engineering question.
Brent: Because they're not located in urban centers, heat pump technology might help.

Brent: Can I ask about agriculture? What is SI? Is that a name of a vendor?
Kim: SI is the small industrial initiative, and it includes the agricultural initiative. It's one of our trade ally driven tracks. The agriculture initiative is essentially all of our irrigation projects. Agriculture hasn't come up in this concepts presentation because there's not much changing. We'll continue to work the agriculture channel the way we have been. Agriculture really is its own thing, with different market actors and different ways it behaves. We've been serving it effectively through the small industrial initiative for the last four years and we will keep doing that. We'll also keep asking ourselves if there is something more we should do with and for them. We're very engaged with agricultural industry players.

Brent: We had agreements in place with agriculture research and development councils. The Department of Agriculture had been funding these local community-based entities that did soil and water conservation, and we were trying to layer in energy conservation. We will transition to a different model where BPA will support utilities to support agricultural customers.
Kim: We were watching this effort and waited to see how it went.
Brent: We thought we were going to be making an incremental investment on top of the U.S. Department of Agriculture's and ended up carrying almost the whole burden. A localized approach is good because farmers are a community. We've been serving them through existing irrigation vendors. And it's a small number of irrigation vendors that bring us a lot of irrigation savings.

Kim: Any other questions? Any future agenda items? Any public input?
Don: Is the Conservation Advisory Council the ideal forum for inviting people in to speak? We have so many other items to discuss. I'd be open to an additional workshop, like the cost-effectiveness workshop. We could have two types of meetings?
Holly: Business meetings and inspirational meetings. I liked that the cost-effectiveness workshop was only open to Conservation Advisory Council members.
Don: I think there's an opportunity there. Is there interest?

Warren: I think there are a lot of opportunities for deep dive meetings about topics we can't cover here. What about the non-transparency issue?
Kim: We could report back during council meetings. I could see shifting to two extra meetings a year, but more than two would be a lot of work. Stuff like the Pay for Performance pilot would be an interesting topic.

Kim: Maybe these meetings need to be longer? The three-hour meeting we currently have seems long and provides room to have lunch before the meeting. But I'm open if we want to add half an hour.

[People shake heads no.]

Holly: Unless we're thoughtful about adding topics that use a different part of your brain, I don't think it would make sense to extend the meetings unless the extra time was for an exciting presentation.

Kim: Next steps: Please read through the budget concept reports. Direct comments to Peter or the sector leads. I'll be happy to send out Word versions of the budget concept reports to everyone if that helps you.
Warren and Scott: Yes, please.

Kim: We really appreciate your feedback and it's not too late for us to include your feedback.
Holly: By when?
Kim: By July 31.

8. Meeting adjournment
Kim thanked all council members for their participation and adjourned the meeting at 4:20 p.m.

The next full council meeting is September 11, 2013.

Briefing Paper
Integrated Solutions Implementation Project Update
September 25, 2013

Summary
Phase 2 of the Integrated Solutions Implementation (ISI) project will implement process and systems improvements focusing on program management and delivery. This phase will address the major inefficiencies and limitations of FastTrack, the system currently used by Energy Trust for program management and delivery. FastTrack also serves as the system of record for tracking recognized energy savings and generation. In late August 2013, phase 2 was started with an initial focus on needs analysis and solution definition. We anticipate completing this definition work in December 2013 and initiating and completing solution implementation in 2014.

Background
- The ISI project was initiated to achieve several objectives in support of program goals including improvements to our processes, increased data quality and systems improvements that both modernize our systems and strengthen integration among our systems.

- Staff engaged in the project beginning in January 2011 and worked through process analysis and potential solutions through much of 2011.

- A project assessment was initiated in September 2011, leading to a final implementation approach in December 2011. Fundamental to this approach was dividing the project into two phases with phase 1 completed in October 2012 and the projection for phase 2 completion in 2013.

- The project completed preliminary planning for phase 2 at the end of 2012. At that time staff decided that the IT group should focus on other Energy Trust priorities in the first half of 2013 and change the phase 2 target completion to the third quarter of 2014.

- Phase 1 of the project was comprised of five workstreams:

    1. **Process analysis and design** – Identify and document the organization's business processes within an overall process architecture.

    2. **Data modeling** – Create a single Energy Trust data model.

    3. **Great Plains upgrade** – Upgrade Microsoft Dynamics Great Plains financial software to the latest version.

    4. **Planning, budgeting and forecasting solution** – Put new, more consistent budgeting and forecasting processes into place throughout the organization.

    5. **CRM solution** – Address the major inefficiencies and limitations of the Energy Trust customer relationship management (CRM) solution through selection and implementation of Microsoft Dynamics CRM.

Phase 2 Timeline and Stages

Define Stage – Process, data, and system analysis with solution vision
Timeframe: August through December 2013

Build/Buy Stage – Engage solution providers and build out solutions
Timeframe: 5 months; proposed January through May 2014

Deploy Stage – Develop and execute deployment approach
Timeframe: 2 months; proposed June through July 2014

Define Stage completed and planned activities

Completed activities

- Developed Scope & Approach for all of phase 2
- Presented approach to Energy Trust IT Steering Committee
- Completed RFQ process and selected Online Business Systems as vendor to produce Define stage deliverables
- Engaged resources throughout the organization in preparation for the Define stage
- Conducted Define stage team kick-off meeting

Planned activities

- Conduct deep-dive current state process analysis on the Program / Measure Development processes and gather business and technical requirements
- Develop a solution vision and technical architecture
- Assess software product availability and make decision on build vs. buy
- Create data, technology, integration, application, and services designs
- Update process flows to reflect changes as a result of the designed solution

Budget

- In September 2010, the board authorized a budget of $3.7 million in support of the ISI project. Based on initial work in phase 1, staff advised the board in the March 2012 board update that additional funding would likely be required to complete phase 2 and that a request for this additional funding would be presented through the 2013 budget process. $750,000 in additional funding was requested and approved in the 2013 budget. Total ISI project expenditures are expected to be approximately $4.5 million.

- Staff budgeted a total of $1.65 million in 2013 for completion of phase 2 and anticipates spending approximately $450,000 in 2013.

- Staff proposes to carry over the remaining $1.2 million of these funds for the phase 2 build/buy and deploy stages in 2014 and will include this in the 2014 budget process.

Briefing Paper
Market Indicators Quarterly Report

September 13, 2013

The purpose of this report is to track and assess changes in key economic indicators in an attempt to gain a better understanding of how demand for Energy Trust programs will respond to changing market dynamics. By monitoring the behavior of several widely used macro-level indicators we hope to stay closely attuned to any signs of improvement or further worsening of economic conditions, thereby providing Energy Trust program managers with the ability to respond to changes accordingly.

Four years after the great recession, both the Oregon and US economy continue to improve modestly month-to-month by most economic measures. The *All Items Consumer Price Index* (CPI-U) has increased 2 percent over the last 12 months, which is exactly the Federal Open Market Committee's (FOMC) target inflation goal. The US unemployment rate fell from 7.9 to 7.4 percent since January 2013 (on a seasonally adjusted basis), but the labor market is still relatively weak. Long term unemployment[1] is still high and the unemployment rate remains above its historical norm. In the housing market, there have been more tangible improvements so far in 2013;

> "Home sales, house prices, and residential construction have moved up over the past year, supported by low mortgage rates and improved confidence in both the housing market and the economy. Rising housing construction and home sales are adding to job growth, and substantial increases in home prices are bolstering household finances and consumer spending while reducing the number of homeowners with underwater mortgages[2]"- Ben Bernanke, *Semiannual Monetary Policy Report to the Congress, 7/17/13*

Still, the pace of recovery has been much more gradual and sluggish than many had expected. Recent economic outlook reports and speeches by members of the Federal Reserve Board of Governors indicate that the nation's economic recovery over the past few quarters "has continued to gain traction", but there remains a large gap between the nation's actual output (GDP), and its potential output, as measured by the Congressional Budget Office[3]. In light of these challenges, or headwinds, the FOMC will continue to use the tools it has at its disposal to assist ongoing economic recovery;

> "… a highly accommodative monetary policy will remain appropriate for the foreseeable future… The target range for the federal funds rate has been close to zero since late 2008 and cannot be reduced meaningfully further. Instead, we are providing additional policy accommodation… [by] expanding the Federal Reserve's portfolio of longer-term Treasury securities and agency mortgage-backed securities… [and through] forward guidance about the Committee's plans for setting the federal funds rate target over the medium term."- Ben Bernanke, *Semiannual Monetary Policy Report to the Congress, 7/17/13*

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[1] 27 weeks or more of unemployment

[2] http://www.federalreserve.gov/newsevents/testimony/bernanke20130717a.htm

[3]

1.1 Energy Trust Programmatic Indicators

Figure 1.1

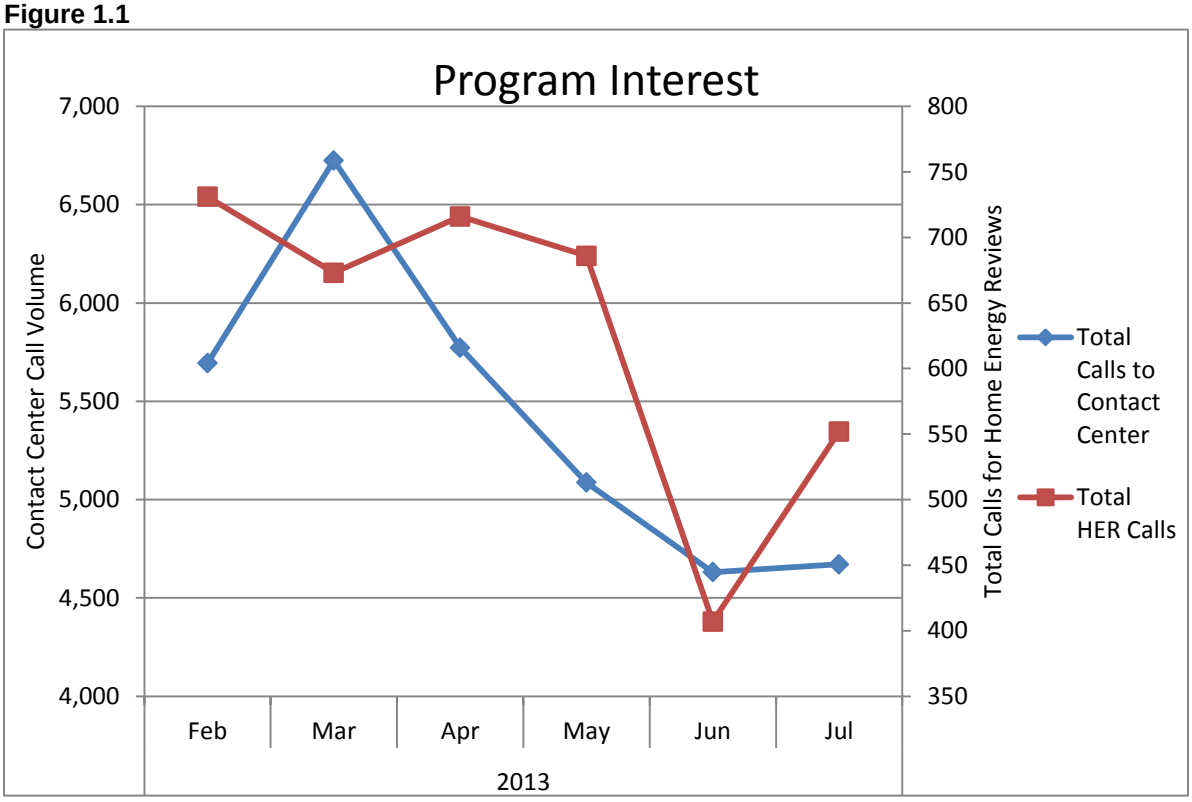
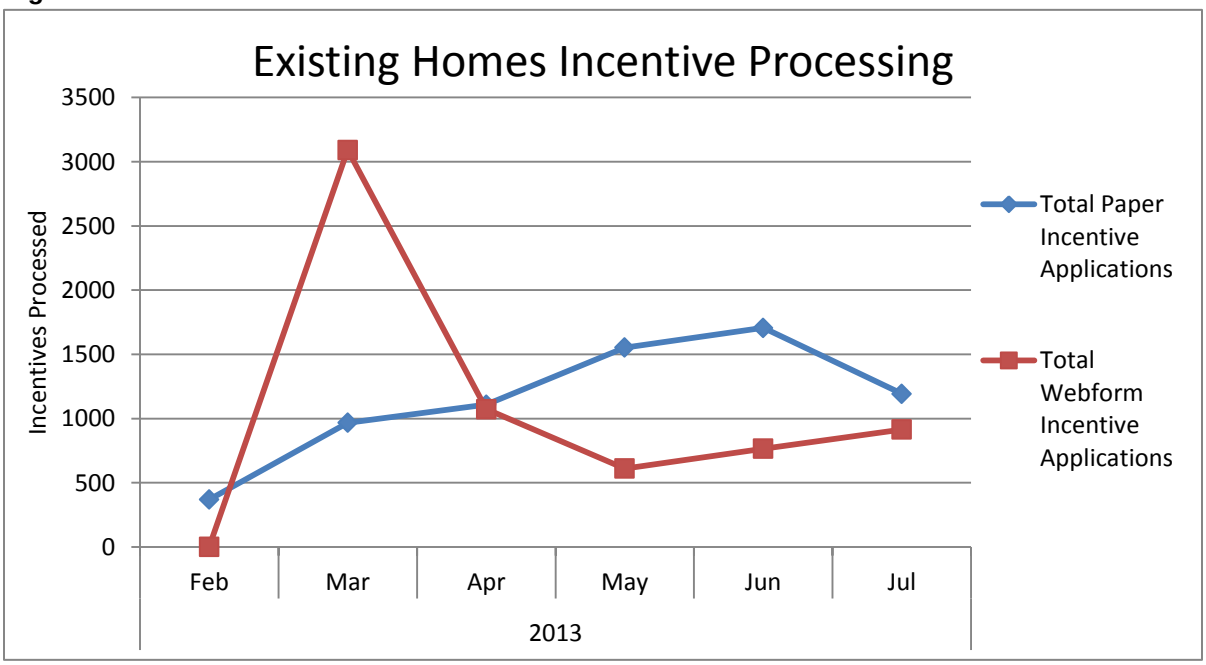


Figure 1.2

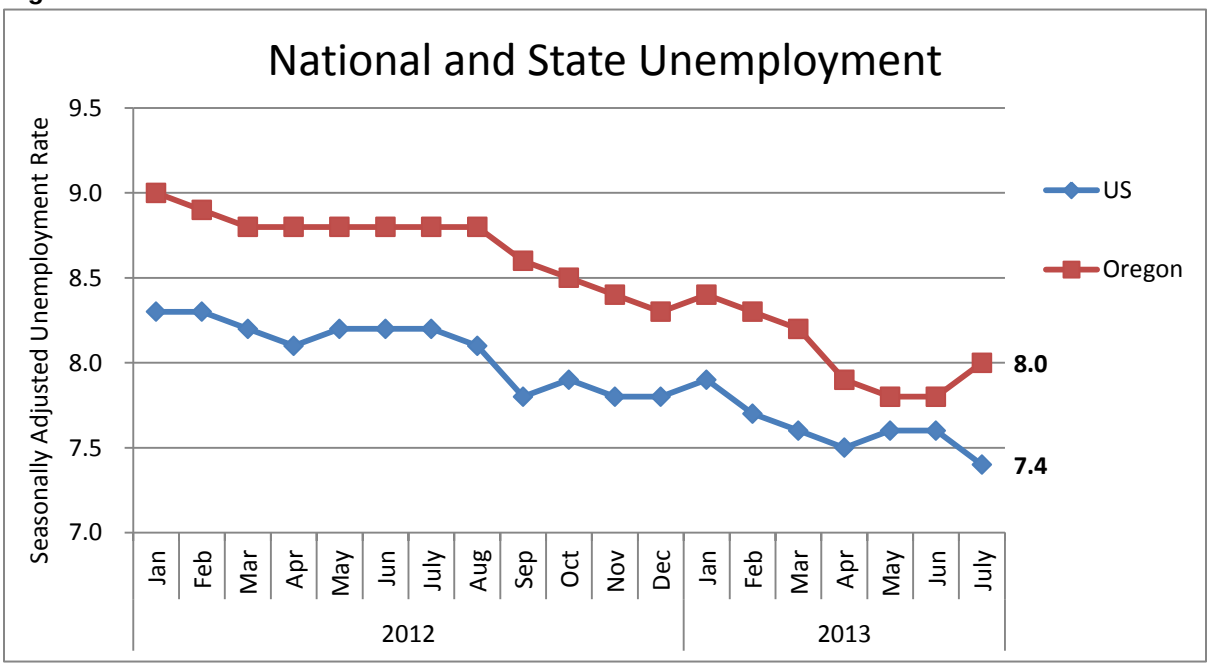


Activity in Energy Trust's Existing Homes program is presented here as general indicator of overall Energy Trust program interest. The transition of the Program Management Contractor for the Existing Homes program from CSG to Fluid Market Strategies resulted in anomalous January contact center data, so that month is not included in the data series featured here.

In the first seven months of 2013, call volume to the Energy Trust Call center has remained consistent with historical program interest patterns, with relatively more calls received in fall and winter months compared to the summer. Year-to-date, 48% of total processed incentive applications in the Existing Homes Program have been submitted via web form. The percentage of web form applications was low in May due to a decrease in Energy Saver Kit applications. Trade Ally outreach and education about online forms began in May and increased the percentage of incentive applications received via web form. Changes to web forms, as well as additional communications to support increased use of web form applications by trade allies and contractors, were launched in September.

2.1 Macroeconomic Indicators

Figure 2.1



The seasonally adjusted unemployment rate in Oregon increased in July for the first time since the beginning of the year. 900 jobs were added in Oregon, but according to the Oregonian, "Private employers hired on thousands more than expected, but public agencies cut far beyond their seasonal norm"[4]. The majority of private sector job gains came from the *leisure and hospitality* industry, followed by *professional and business services*, and then *trade, transportation and utilities*. The construction industry in Oregon lost about 1,100 jobs in July[5]. The Bend/ Central Oregon area continues to suffer from the highest unemployment rate of any region in the state, but encouragingly the unemployment rate has dropped nearly half a percent since January.

[4] http://www.oregonlive.com/money/index.ssf/2013/08/oregon_gains_900_jobs_in_july_as_unemployment_creeps_back_up_to_80_percent.html. The private sector expanded by 4400 jobs but the government sector cut 3500 jobs.

[5] http://www.qualityinfo.org/olmisj/ArticleReader?itemid=00008766

Figure 2.2

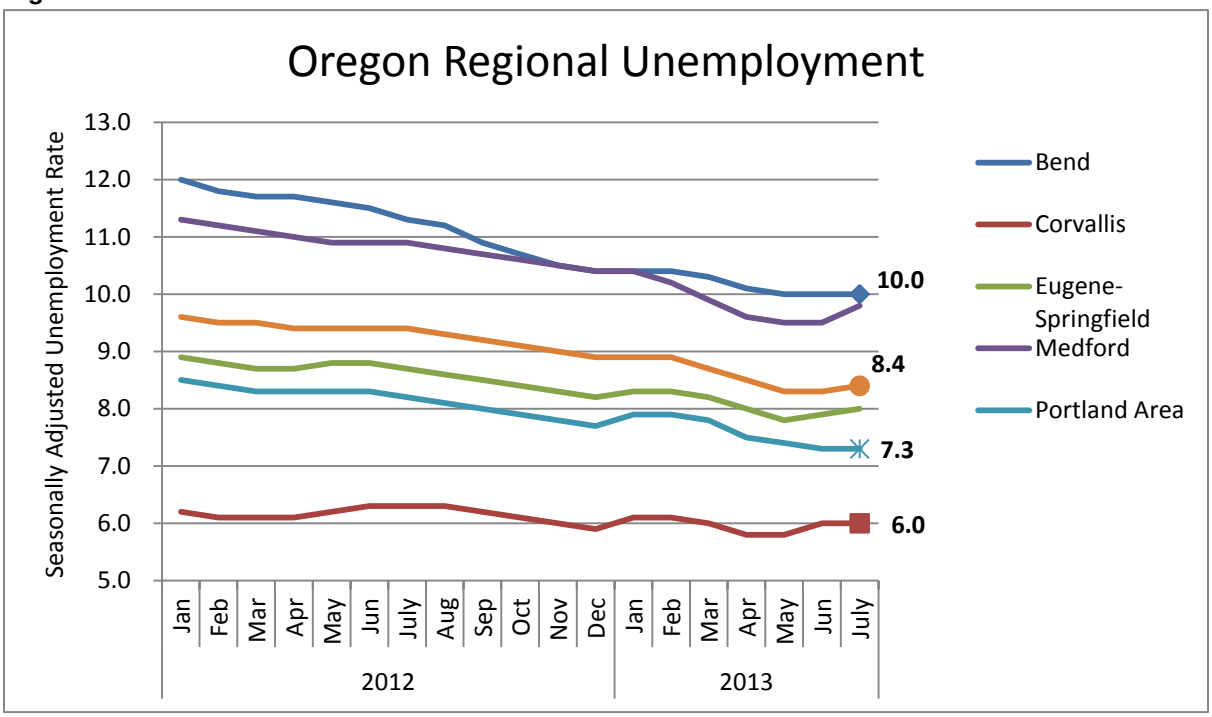
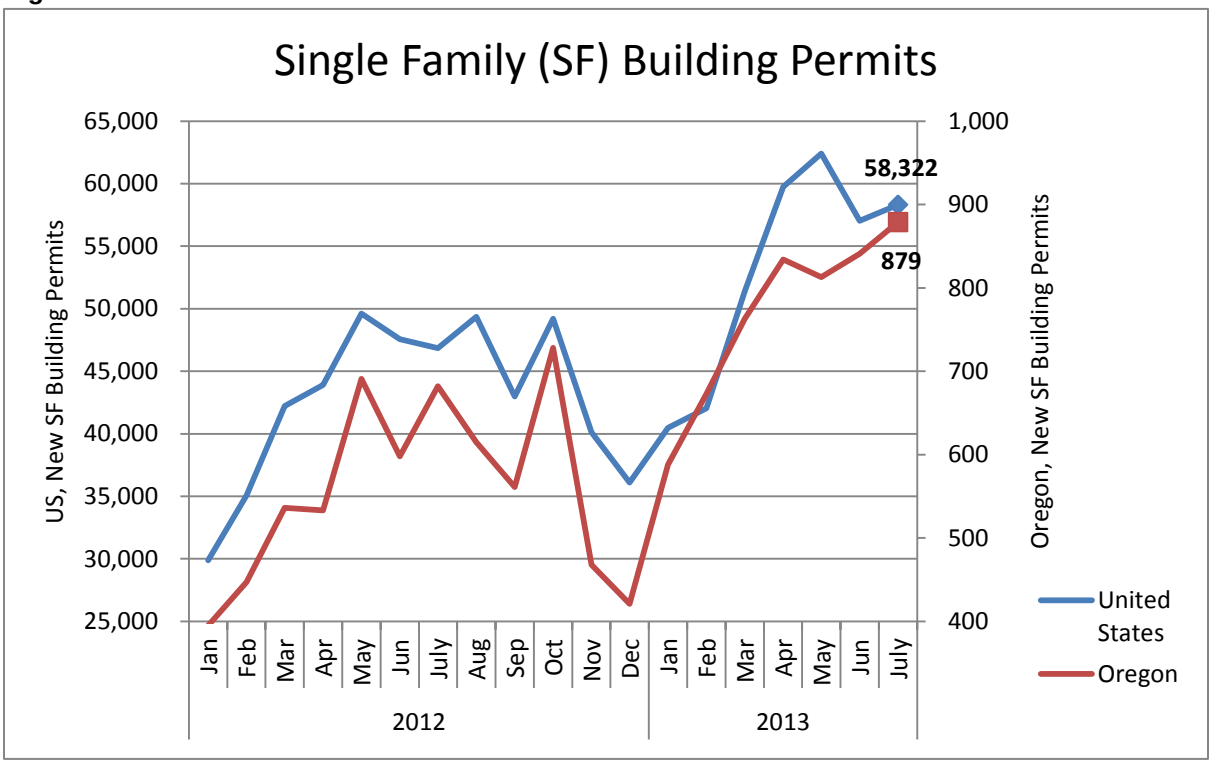


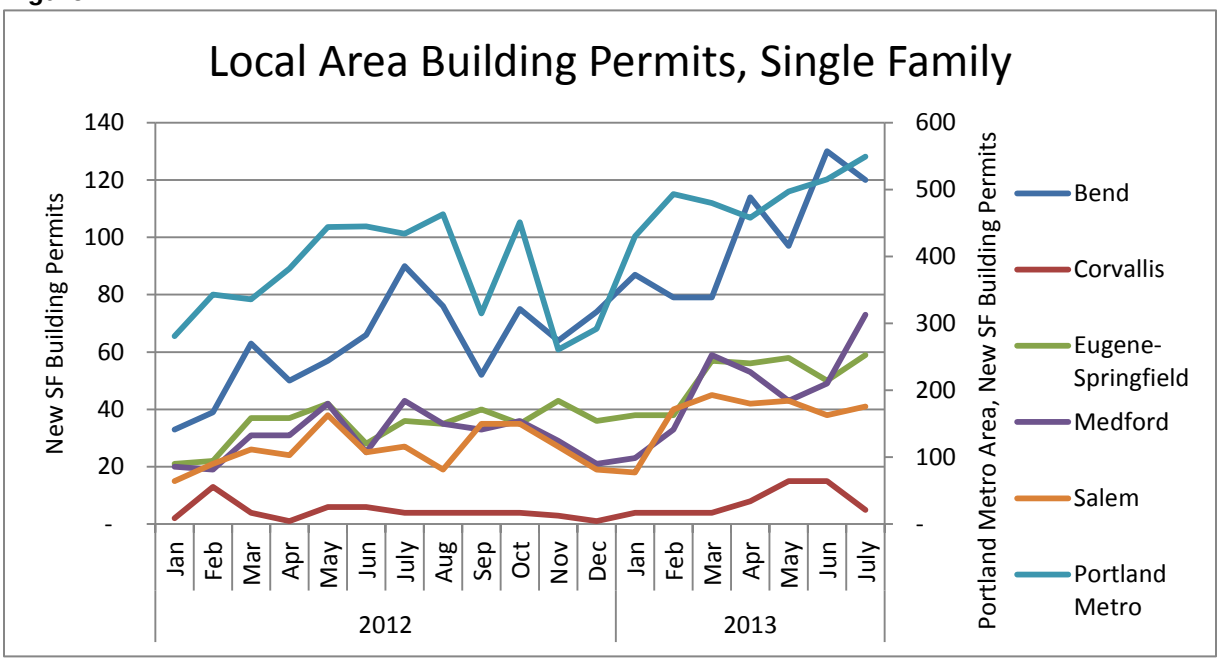
Figure 2.3



Despite the employment setbacks in the Oregon construction industry mentioned above, the number of new single family houses, as measured by building permits, has generally continued to grow across the State since the beginning of 2013. Compared to the same

time period in 2012, the Bend area has experienced the largest growth in single family building starts in the first seven months of 2013, showing a 77% increase in the total number of issued permits. Oregon as a whole has experienced a 38% increase in new single family construction, year-to-date[6].

Figure 2.4



The Oregonian reported recently that the number of "underwater"[7] homes in the Portland Area has fallen from 58,000 to about 39,000 homes since the beginning of 2013. These homes comprise 8.1 percent of all Portland area homes with mortgages, down from 12.2 percent at the beginning of the year[8].

[6] Year-to-date through July 2013, compared to year-to-date through July 2012
[7] Homes that are worse less than their mortgage.
[8] http://www.oregonlive.com/front-porch/index.ssf/2013/09/corelogic_underwater_mortgage.html

Figure 2.5

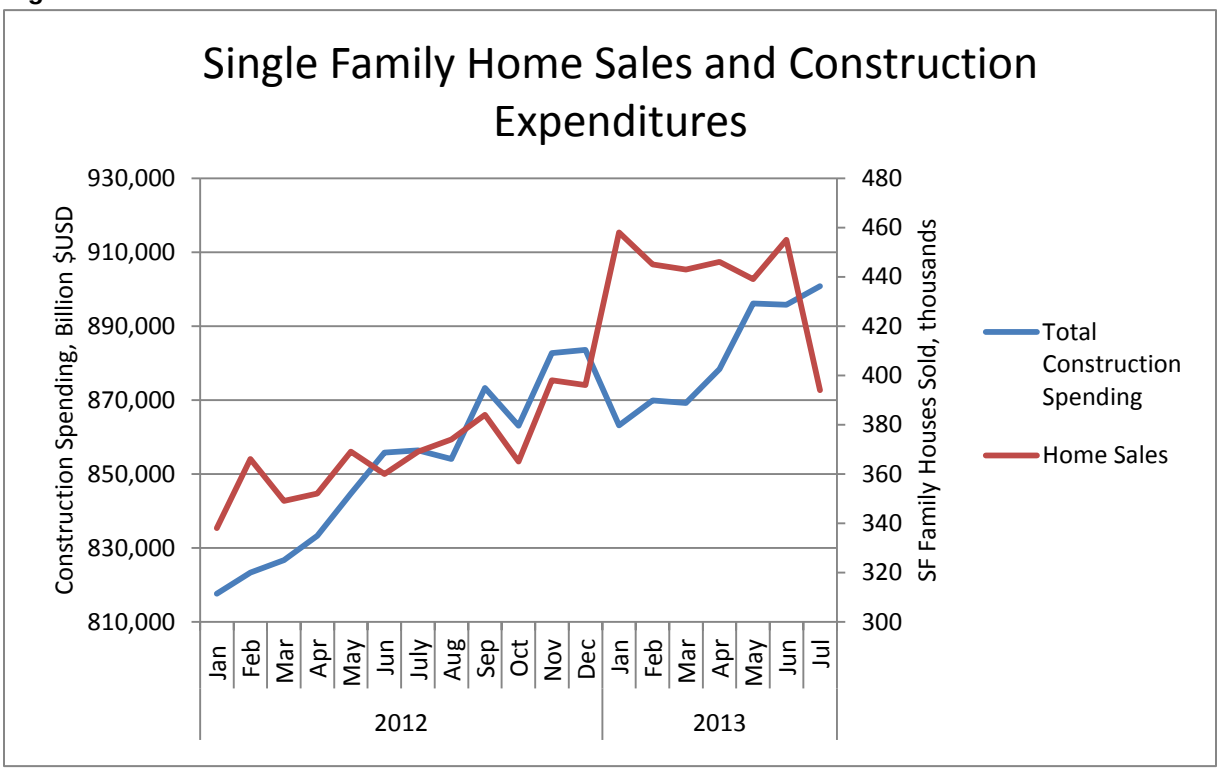


Figure 2.6

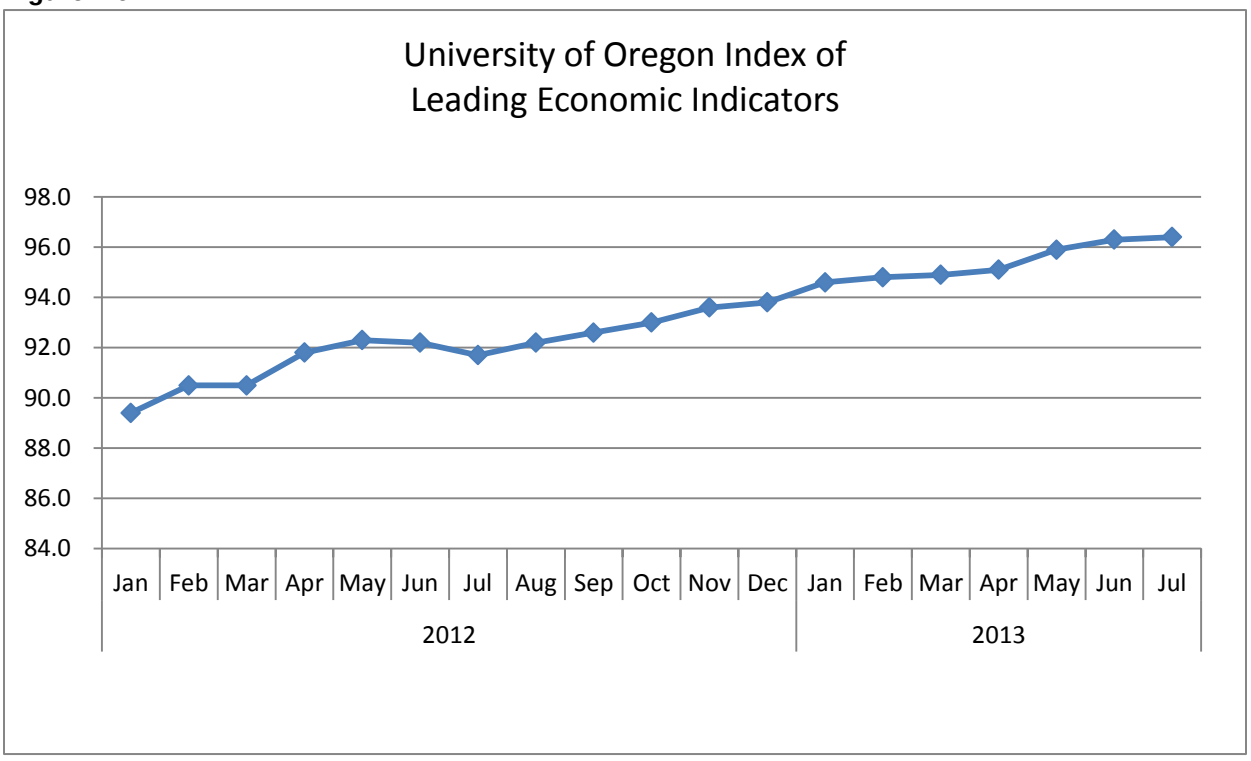
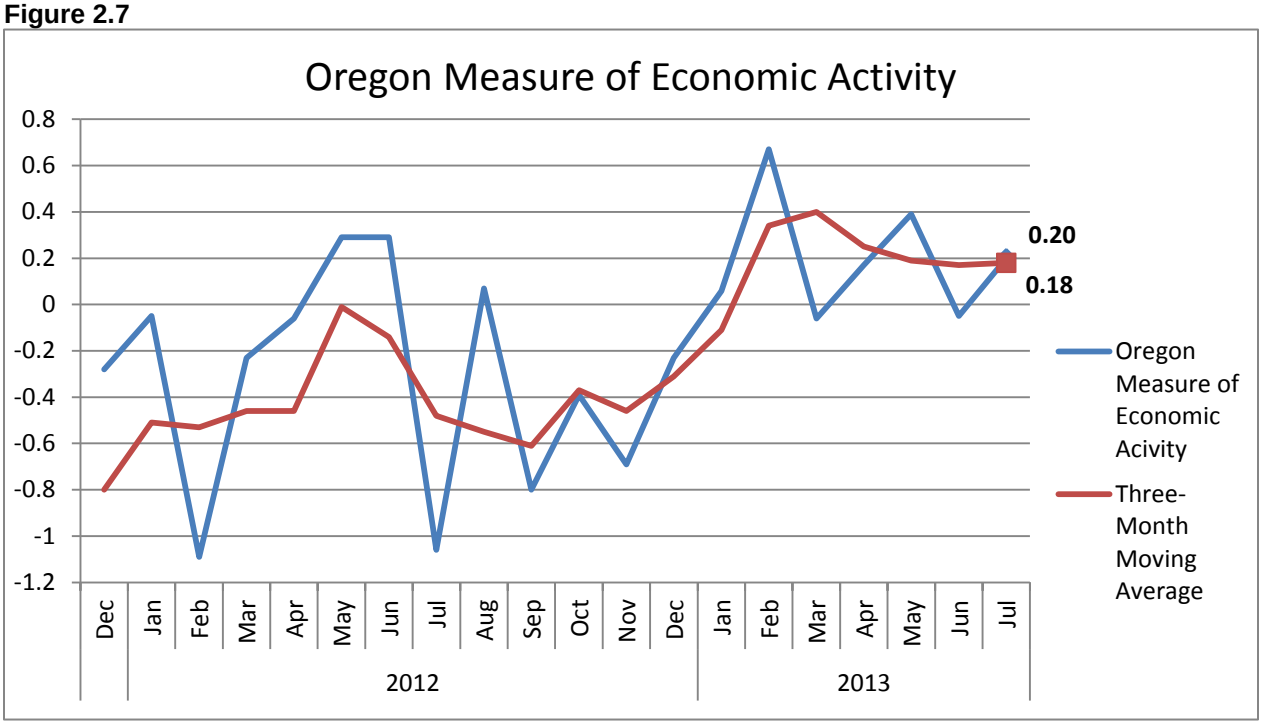


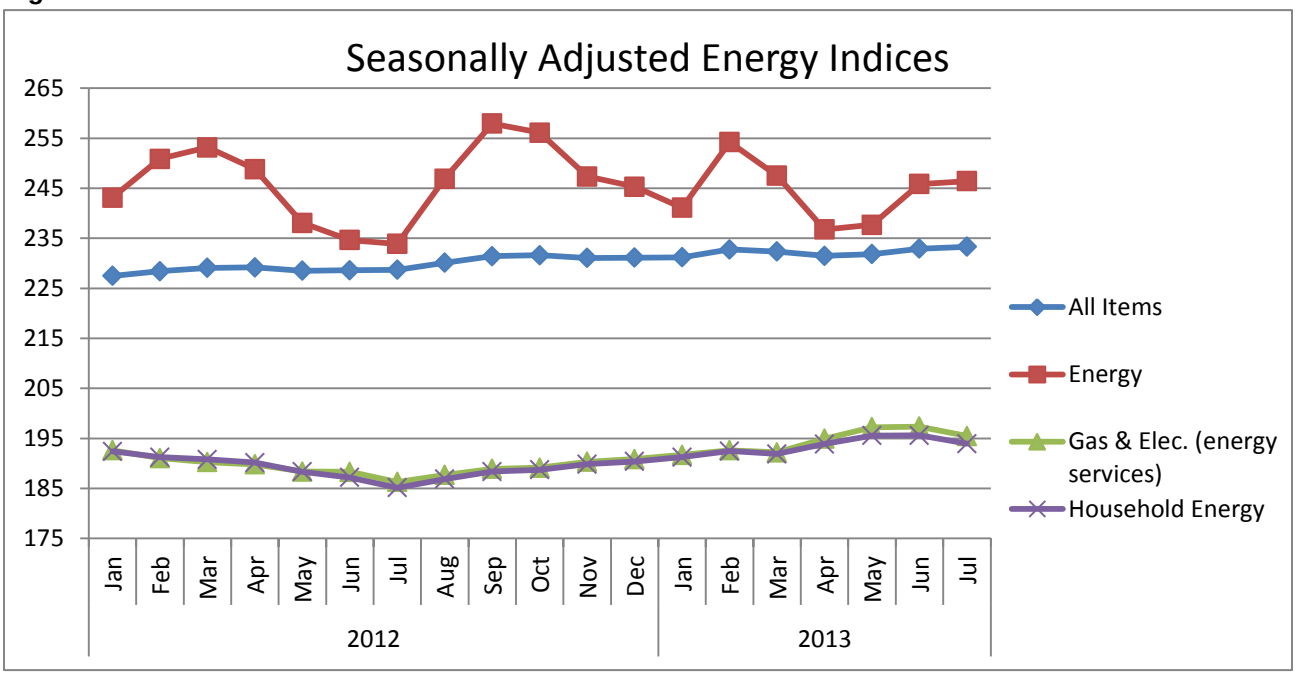
Figure 2.7



The three month moving average of the Oregon Measure of Economic Activity was 0.18 in July, indicating stronger growth from May to July of this year relative to the 1990-present average growth rate. The UO Index was essentially flat in July[9] and has not decreased since September 2012[10].

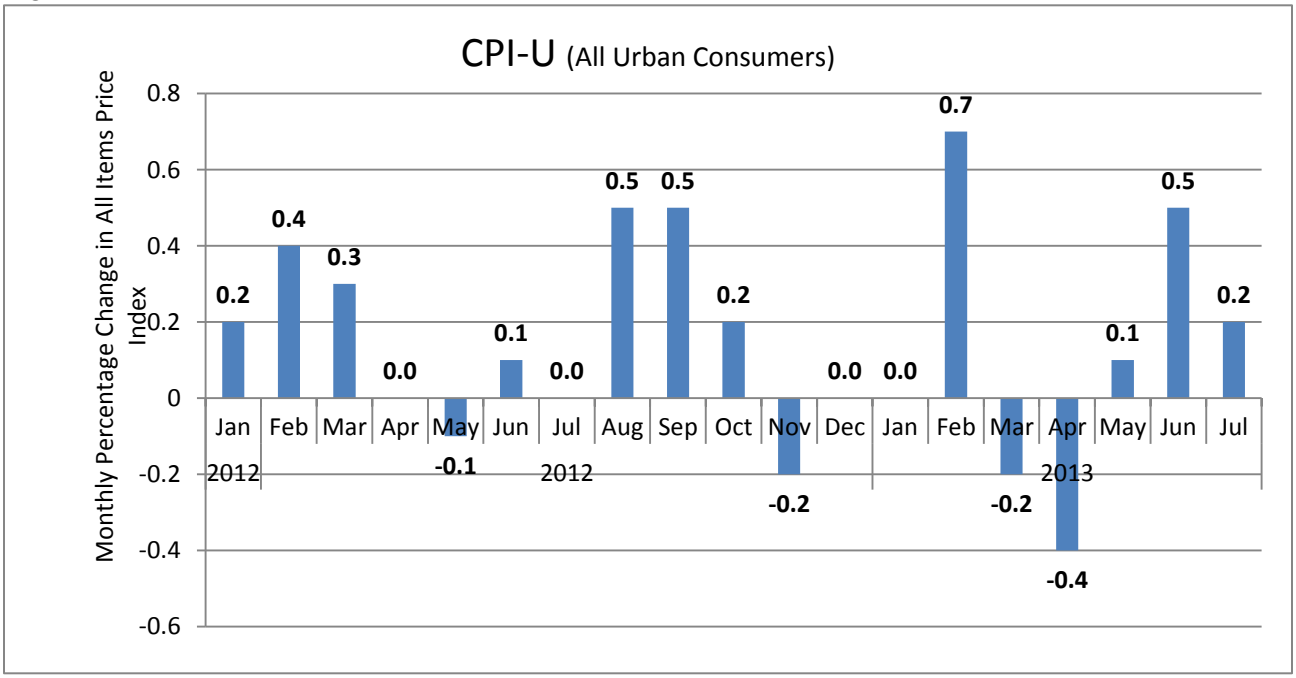
[9] 0.1 percent increase from 96.3 to 96.4
[10] http://econforum.uoregon.edu/indexes.html

Figure 2.8



The All Items Consumer Price Index (CPI-U) increased in May, June, and July, after falling -0.4 percent in April. The CPI-U has increased 2.0 percent over the last year. July's 0.2 percent increase in the CPI-U was driven by increases in the indices for shelter, gasoline, and apparel. The indices for natural gas & electricity, as well as for household energy, both decreased in July, indicating that the July gain in the overall 'energy' index was driven by increases in gasoline prices. The energy index has increased 4.7 percent since July last year[11].

Figure 2.9



[11] http://www.bls.gov/cpi/cpid1307.pdf

ISM Report on Business-

According to August's *Manufacturing Report on Business* from the Institute of Supply Management, economic activity in the nation's manufacturing sector grew for the 3rd consecutive month, and the overall economy grew for the 51st consecutive month. 15 of 18 manufacturing industries reported growth in August 2013, while only one industry, miscellaneous manufacturing, reported declines.[12]

Rate Cases

PacifiCorp and Portland General Electric both filed for overall increases to their base electric rates in early 2013, which are currently being heard by the OPUC. PacifiCorp requested a 3.7-4.6 percent rate increase[13] was which was primarily driven by revised depreciation rates proposed in UM 1647. Portland General Electric requested a 6.2 percent rate increase as a result of increased projected net variable power costs[14]. If approved, both rate increases would take effect January 1st, 2014.

Around the State-

- Marshall's, a national retailer of family apparel and accessories, opened at the Roseburg Valley Mall. It employs 60 people. *The News-Review, 9/9/2013*
- Oregon Shakespeare Festival will open a new, $7-million theater production building in Talent next month. The facility will consolidate operations at various locations in Ashland and a paint shop in Phoenix. *Ashland Daily Tidings, 9/3/2013*
- Tofurky will open a $12-million plant in Hood River by January. It will employ about 30 people. *KGW, 9/5/2013*
- Klamath Family Head Start program in Chiloquin will close due to cuts from federal sequestration. *Herald and News, 8/29/2013*
- Gramor Development will break ground this month on Timberland Town Center, a 90,000-squarefoot, $30-million center in Beaverton that will open in the fall of 2014. Tenants will include Market of Choice, Ava Roasteria, Zucari Home & Garden, La Belle Nail Salon, and B'Tan Sun Studio. *The Oregonian, 9/10/2013*

[12] http://www.ism.ws/news/NewsReleaseDetail.cfm?ItemNumber=23810

[13] "…if the Transmission Investment Adjustment for the Mona-to-Oquirrh transmission project approved by the Commission in the 2012 Rate Case becomes effective while this proceeding is pending, the overall price increase in this case would be reduced by approximately $11.4 million, to $44.6 million or 3.7 percent"- Direct Testimony of Richard P. Reiten, CEO of Pacific Power (http://www.pacificpower.net/content/dam/pacific_power/doc/About_Us/Rates_Regulation/Oregon/Regulatory_Filings/Advice_13_006_Docket_UE_263/03-01-13_Direct_Testimony_and_Exhibits/Richard_P_Reiten/2_Richard_P_Reiten.pdf).

[14] http://www.portlandgeneral.com/our_company/corporate_info/regulatory_documents/filings/docketed_filings/UE-262/docs/UE_262___Executive_Summary.pdf

- VillaSport Athletic Club and Spa will open a 130,000-square-foot complex next to Nike's Washington County campus in Beaverton next spring. *Portland Business Journal, 9/4/2013*

- First Call Resolution will open a call center in Veneta next year. It will employ 180 people. *The Register-Guard, 9/5/2013*

- JC Biomethane LLC plans to complete construction of a Green Lane Energy biogas facility in Junction City by the end of October. It will compost organic waste to generate methane gas for the production of energy. *The Register-Guard, 8/26/2013*

- As many as two dozen employees were laid off at Heinz Frozen Foods in Ontario. *Argus Observer, 8/18/2013*

- Campus Acquisitions will build more than 100 student apartments in Eugene. The first phase is expected to be completed by the fall of 2014. *The Register-Guard, 8/10/2013.*

- A Walgreens drug store will be built in Bend on the current site of Murray and Holt Motors auto dealership, which will be moving to a new location. *The Bulletin, 8/24/2013*

- Materne, a French applesauce maker, plans to build a factory in Coburg by next summer and have it running at full capacity within three years. It will employ 220 to 240 people when fully operational. *The Register-Guard, 8/14/2013*

- Vancouver-based hospital system PeaceHealth will cut 500 jobs as a service contract with Kaiser Permanente comes to an end. Most of the layoffs will be in southwest Washington, but it also has hospitals in Eugene, Springfield, Cottage Grove, and Florence. *The Oregonian, 8/27/2013*

Glossary of Energy Industry Terms

Glossary provided to the Energy Trust Board of Directors for general use. Definitions and acronyms are compiled from a variety of resources. Energy Trust policies on topics related to any definitions listed below should be referenced for the most up-to-date and comprehensive information. Last updated May 2013.

Above-Market Costs of New Renewable Energy Resources
The portion of the net present value cost of producing power (including fixed and operating costs, delivery, overhead and profit) from a new renewable energy resource that exceeds the market value of an equivalent quantity and distribution (across peak and off-peak periods and seasonally) of power from a non-differentiated source, with the same term of contract. Energy Trust board policy specified the methodology for calculating above-market costs.

Aggregate
Combining retail electricity consumers into a buying group for the purchase of electricity and related services. “Aggregator” is an entity that aggregates.

Air Sealing (Infiltration Control)
Conservation measures, such as caulking, better windows and weatherstripping, which reduce the amount of cold air entering or warm air escaping from a building.

Ampere (Amp)
The unit of measure that tells how much electricity flows through a conductor. It is like using cubic feet per second to measure the flow of water. For example, a 1,200 watt, 120-volt hair dryer pulls 10 amperes of electric current (watts divided by volts).

Anaerobic Digestion
A biochemical process by which organic matter is decomposed by bacteria in the absence of oxygen, producing methane and other byproducts.

Average Megawatt (aMW)
One megawatt of capacity produced continuously over a period of one year. 1 aMW equals 1 megawatt multiplied by the 8,760 hours in a year. 1 aMW equals 8,760 MWh or 8,760,000 kWh.

Avoided Cost
(Regulatory) The amount of money that an electric utility would need to spend for the next increment of electric generation they would need to either produce or purchase if not for the reduction in demand due to energy-efficiency savings or the energy that a co-generator or small-power producer provides. Federal law establishes broad guidelines for determining how much a qualifying facility (QF) gets paid for power sold to the utility.

Base Load
The minimum amount of electric power delivered or required over a given period of time at a steady rate.

Benefit/Cost Ratios
By law, Oregon public purpose funds may be invested only in cost-effective energy-efficiency measures—that is, efficiency measures must cost less than acquiring the energy from conventional sources, unless exempted by the OPUC.

Energy Trust calculates Benefit/Cost ratios (BCR) on a prospective and retrospective basis. Looking forward, all prescriptive measures and custom projects must have a total resource cost test BCR > 1.0 unless the OPUC has approved an exception. As required in the OPUC grant agreement, Energy Trust reports annually how cost effective programs were by comparing total costs to benefits, which also need to exceed 1.0.

Biomass
Solid organic wastes from wood, forest or field residues which can be heated to produce energy to power an electric generator.

Biomass Gas
A medium Btu gas containing methane and carbon dioxide, resulting from the action of microorganisms on organic materials such as a landfill.

Blower Door
Home Performance test conducted by a contractor (or energy auditor) to evaluate a home's air tightness. During this test a powerful fan mounts into the frame of an exterior door and pulls air out of the house to lower the inside air pressure. While the fan operates, the contractor can determine the house's air infiltration rate and better identify specific leaks around the house.

British Thermal Unit
The standard measure of heat energy. The quantity of heat required to raise the temperature of 1 pound of liquid water by 1 degree Fahrenheit at the temperature at which water has its greatest density (approximately 39 degrees Fahrenheit).

Cogeneration (Combined Heat & Power or CHP)
The sequential production of electricity and useful thermal energy, often by the recovery of reject heat from an electric generating plant for use in industrial processes, space or water heating applications. Conversely, may occur by using reject heat from industrial processes to power an electricity generator.

Compact Fluorescent Light Bulbs (CFL)
CFLs combine the efficiency of fluorescent lighting with the convenience of a standard incandescent bulb. There are many styles of compact fluorescent, including exit light fixtures and floodlights (lamps containing reflectors). Many screw into a standard light socket, and most produce a similar color of light as a standard incandescent bulb.

CFLs come with ballasts that are electronic (lightweight, instant, no-flicker starting, and 10–15 percent more efficient) or magnetic (much heavier and slower starting).Other types of CFLs include adaptive circulation and PL and SL lamps and ballasts. CFLs are designed for residential uses; they are also used in table lamps, wall sconces, and hall and ceiling fixtures of hotels, motels, hospitals and other types of commercial buildings with residential-type applications.

Conservation
While not specifically defined in the law or OPUC rules on direct access regulation, "conservation" is defined in the OPUC rule 860-027-0310(1)(a) as follows: Conservation means any reduction in electric power or natural gas consumption as the result of increases in efficiency of energy use, production or distribution. Conservation also includes cost-effective fuel switching.

Although fuel switching is part of the definition, this aspect of the rule has not been operationalized as of March 2013.

Cost Effective
Not specifically defined in SB 1149. The OPUC has a definition which refers to a definition from ORS 469.631 (4) stating that an energy resource, facility or conservation measure during its life cycle results in delivered power costs to the ultimate consumer no greater than the comparable incremental cost of the least-cost alternative new energy resource, facility or conservation measure. Cost comparison under this definition shall include but not be limited to: (a) cost escalations and future availability of fuels; (b) waste disposal and decommissioning cost; (c) transmission and distribution costs; (d) geographic, climatic and other differences in the state; and (e) environmental impact. ORS 757.612 (4) (SB 1149) exempts utilities from the requirements of ORS 469.631 to 469.645 when the public purpose charge is implemented.

By law, Oregon public purpose funds may be invested only in cost-effective energy-efficiency measures—that is, efficiency measures must cost less than acquiring the energy from conventional sources, unless exempted by the OPUC.

Cumulative Savings
Sum of the total annual energy savings over a certain time frame while accounting for measure savings "lives." (For example, if a measure is installed for each of two years, the cumulative savings would be the sum of the measure installed in the first year, plus the incremental savings from the savings installed in the second year plus the savings in the second year from the measure installed in the first year.)

Decoupling
A rate provision which reduces or eliminates the degree to which utility profits are driven by the volume of electricity or gas sold. Decoupling is thought by its proponents to reduce utility disincentives to support efficiency. There are many specific variants employed in different states and with different utilities.

Direct Access
The ability of a retail electricity consumer to purchase electricity and certain ancillary services from an entity other than the distribution utility.

Economizer Air
A ducting arrangement and automatic control system that allows a heating, ventilation and air conditioning (HVAC) system to supply up to 100 percent outside air to satisfy cooling demands, even if additional mechanical cooling is required.

Energy Management System (EMS)
A system designed to monitor and control building equipment. An EMS can often be used to monitor energy use in a facility, track the performance of various building systems and control the operations of equipment.

ENERGY STAR®
ENERGY STAR is a joint Environmental Protection Agency and Department of Energy program that encourages energy conservation by improving the energy efficiency of a wide range of consumer and commercial products, enhancing energy efficiency in buildings and promoting energy management planning for businesses and other organizations.

Energy Use Intensity (EUI)
A metric that describes a building's energy use relative to its size. It is the total annual energy consumption (kBtu) divided by the total floor space of the building. EUI varies significantly by building type and by the efficiency of the building.

Environmental Protection Agency (EPA)
Founded in 1970, this independent agency was designed to "protect human health and safeguard the natural environment." It regulates a variety of different types of emissions, including the greenhouse gases emitted in energy use. It runs several national end-use programs, like ENERGY STAR, SmartWay, Smart Growth programs and green communities programs.

Evaluation
After-the-fact analysis of the effectiveness and results of programs. *Process and Market Evaluations* study the markets to be addressed and the effectiveness of the program strategy, design and implementation. They are used primarily to improve programs. *Impact evaluations* use post-installation data to improve estimates of energy savings and renewable energy generated.

Feed-in Tariff
A renewable energy policy that typically offers a guarantee of payments to project owners for the total amount of renewable electricity they produce; access to the grid; and stable, long-term contracts.

Footcandle
A unit of illuminance on a surface that is one foot from a uniform point source of light of one candle and is equal to one lumen per square foot

Free Rider
This evaluation term describes energy efficiency program participants who would have taken the recommended actions on their own, even if the program did not exist. Process evaluations include participant survey questions, which lead to the quantification of the level of free rider impacts on programs that is applied as a discounting factor to Energy Trust reported results.

Geothermal
Useful energy derived from the natural heat of the earth as manifested by hot rocks, hot water, hot brines or steam.

Green Tags (Renewable Energy Credits or RECs)
A Green Tag is a tradable commodity that represents the contractual rights to claim the environmental attributes of a certain quantity of renewable electricity. For wind farms, the environmental attributes include the reductions in emissions of pollutants and greenhouse gases that result from the delivery of the wind-generated electricity to the grid.

Here's how emission reductions occur: When wind farms generate electricity, the grid operators allow that electricity to flow into the grid because it is less expensive to operate, once it has been built, than generators that burn fossil fuels. But the electricity grid cannot have more electricity flowing into it than is flowing out to electricity users, so the grid operators have to turn down other generators to compensate. They generally turn down those that burn fossil fuels. By forcing the fossil fuel generators to generate less electricity, wind farms cause them to generate

fewer emissions of pollutants and greenhouse gases. These reductions in emissions are the primary component of Green Tags.

Green Tags were developed as a separate commodity by the energy industry to boost construction of new wind, solar, landfill gas and other renewable energy power plants. Green Tags allow owners of these power plants to receive the full value of the environmental benefits their plants generate. They also allow consumers to create the same environmental benefits as buying green electricity, or to neutralize the pollution from their consumption of fossil fuels.

Green Tags are bought and sold every day in the electricity market. Tens of millions of dollars in Green Tags are under contract today. They are measured in units, like electricity. Each kilowatt hour of electricity that a wind farm produces also creates a one-kilowatt hour Green Tag. Wind farm owners may sell Green Tags to other purchasers, remote or local, to obtain the extra revenues they need for their wind farms to be economically viable.

Gross Savings
Savings that are unadjusted for evaluation factors of free riders, spillover, and savings realization rates. Energy Trust reports all savings in net terms, not gross terms, unless otherwise stated in the publication.

Heat Pump
An HVAC system that works as a two-way air conditioner, moving heat outside in the summer and scavenging heat from the cold outdoors with an electrical system in the winter. Most use forced warm-air delivery systems to move heated air throughout the house.

Heating, Ventilation and Air Conditioning (HVAC)
The mechanical systems that provide thermal comfort and air quality in an indoor space are often grouped together because they are generally interconnected. HVAC systems include: central air conditioners, heat pumps, furnaces, boilers, rooftop units, chillers and packaged systems.

Hydroelectric Power (Hydropower)
The generation of electricity using falling water to turn turbo-electric generators.

Incremental Annual Savings
Energy savings in one year corresponding to the energy-efficiency measures implemented in that same year.

Incremental Cost
The difference in cost relative to a base case, including equipment and labor cost.

Instant-savings Measure (ISM)
Inexpensive energy-efficiency products installed at no charge, such as CFLs, low-flow showerheads and high-performance faucet aerators. Predominately used by the Existing Homes program and multifamily track to provide homeowners and renters with easy-to-install, energy-saving products.

Integrated Resources Planning (Least-Cost Planning)
A power-planning strategy that takes into account all available and reliable resources to meet current and future loads. This strategy is employed by each of the utilities served by Energy Trust, and for the region's electric system by the Northwest Power and Conservation Council.

The term “least-cost” refers to all costs, including capital, labor, fuel, maintenance, decommissioning, known environmental impacts and difficult to quantify ramifications of selecting one resource over another.

Interconnection
For all distributed generation—solar, wind, CHP, fuel cells, etc.—interconnection with the local electric grid provides back-up power and an opportunity to participate in net-metering and sell-back schemes when they are available. It’s important to most distributed generation projects to be interconnected with the grid, but adding small generators at spots along an electric grid can produce a number of safety concerns and other operational issues for a utility. Utilities, then, generally work with their state-level regulatory bodies to develop interconnection standards that clearly delineate the manner in which distributed generation systems may be interconnected.

Joule
A unit of work or energy equal to the amount of work done when the point of application of force of 1 newton is displaced 1 meter in the direction of the force. It takes 1,055 joules to equal a British thermal unit. It takes about 1 million joules to make a pot of coffee.

Kilowatt
One thousand (1,000) watts. A unit of measure of the amount of electricity needed to operate given equipment.

Large Customers (with reference to SB 838)
Customers using more than 1 aMW of electricity a year are not required to pay electric conservation charges under SB 838. Additionally, Energy Trust may not provide them with services funded under SB 838 provisions.

Least Cost
The term “least-cost” refers to all costs, including capital, labor, fuel, maintenance, decommissioning, known environmental impacts and difficult to quantify ramifications of selecting one resource over another.

Levelized Cost
The level of payment necessary each year to recover the total investment and interest payments (at a specified interest rate) over the life of the measure.

Local Energy Conservation
Conservation measures, projects or programs that are installed or implemented within the service territory of an electric company.

Low-income Weatherization
Repairs, weatherization and installation of energy-efficient appliances and fixtures for low-income residences for the purpose of enhancing energy efficiency. In Oregon, SB 1149 directs a portion of public purpose funds to Oregon Housing and Community Services to serve low-income customers. Energy Trust coordinates with low-income agencies and refers eligible customers.

Lumen
A measure of the amount of light available from a light source equivalent to the light emitted by one candle.

Lumens/Watt
A measure of the efficacy of a light fixture; the number of lumens output per watt of power consumed.

Market Transformation
Lasting structural or behavioral change in the marketplace and/or changes to energy codes and equipment standards that increases the adoption of energy-efficient technologies and practices. Market transformation is defined in the Oregon Administrative Rules.

Megawatt
The electrical unit of power that equals one million watts (1,000 kW).

Megawatt Hour
One-thousand kilowatt hours, or an amount of electrical energy that would supply 1,370 typical homes in the Western U.S. for one month. (This is a rounding up to 8,760 kWh/year per home based on an average of 8,549 kWh used per household per year [U.S. DOE EIA, 1997 annual per capita electricity consumption figures]).

Methane
A light hydrocarbon that is the main component of natural gas and marsh gas. It is the product of the anaerobic decomposition of organic matter, enteric fermentation in animals and is one of the greenhouse gases.

Monitoring, Targeting and Reporting (MT&R)
A systematic approach to measure and track energy consumption data by establishing a baseline in order to establish reduction targets, identify opportunities for energy savings and report results.

Municipal Solid Waste
Refuse offering the potential for energy recovery. Technically, residential, institutional and commercial discards. Does not include combustible wood by-products included in the term “mill residue.”

Net Metering
An electricity policy for consumers who own (generally small) renewable energy facilities (such as wind, solar power or home fuel cells). "Net," in this context, is used in the sense of meaning "what remains after deductions.” In this case, the deduction of any energy outflows from metered energy inflows. Under net metering, a system owner receives retail credit for at least a portion of the electricity they generate.

Net-to-Gross
Net-to-gross ratios are important in determining the actual energy savings attributable to a particular program, as distinct from energy efficiency occurring naturally (in the absence of a program). The net-to-gross ratio equals the net program load impact divided by the gross program load impact. This factor is applied to gross program savings to determine the program's net impact.

Net Savings
Savings that are adjusted for evaluation factors of free riders, spillover and savings realization rates. Energy Trust reports all savings in net terms, not gross terms, unless otherwise stated in the publication.

Nondifferentiated Source (Undifferentiated Source)
Power available from the wholesale market or delivered to retail customers.

Non-energy Benefit (NEB)
The additional benefits created by an energy-efficiency or renewable energy project beyond the energy savings or production of the project. Non-energy benefits often include things like water and sewer savings (e.g. clothes washers, dishwashers), improved comfort (e.g. air sealing, windows), sound deadening (e.g. insulation, windows), property value increase (e.g. windows, solar electric), improved health and productivity and enhanced brand.

Path to Net Zero Pilot (PTNZ)
The Path to Net Zero pilot was launched in 2009 by Energy Trust's New Buildings program to provide increased design, technical assistance, construction, and measurement and reporting incentives to commercial building projects that aimed to achieve exceptional energy performance. Approximately 13 buildings worked with New Buildings to develop strategies to save 60 percent more energy than Oregon's already stringent code through a combination of 50 percent energy efficiency and 10 percent renewable power. The pilot demonstrates that a wide range of buildings can achieve aggressive energy goals using currently available construction methods and technology, as well as by testing innovative design strategies.

Photovoltaic
Direct conversion of sunlight to electric energy through the effects of solar radiation on semi-conductor materials. Photovoltaic systems are one type of solar system eligible for Energy Trust incentives.

Public Utility Commissions
State agencies that regulate, among others, investor-owned utilities operating in the state with a protected monopoly to supply power in assigned service territories.

Public Utility Regulatory Act of 1978 (PURPA)
Federal legislation that requires utilities to purchase electricity from qualified independent power producers at a price that reflects what the utilities would have to pay for the construction of new generating resources. The Act was designed to encourage the development of small-scale cogeneration and renewable resources.

Qualifying Facility (QF)
A power production facility that generates its own power using cogeneration, biomass waste, geothermal energy, or renewable resources, such as solar and wind. Under PURPA, a utility is required to purchase power from a QF at a price equal to that which the utility would otherwise pay to another source, or equivalent to the cost if it were to build its own power plant.

Renewable Energy Resources
a) Electricity-generation facilities fueled by wind, waste, solar or geothermal power or by low-emission nontoxic biomass based on solid organic fuels from wood, forest and field residues
b) Dedicated energy crops available on a renewable basis
c) Landfill gas and digester gas
d) Hydroelectric facilities located outside protected areas as defined by federal law in effect on July 23, 1999

Renewable Portfolio Standard
A legislative requirement for utilities to meet specified percentages of their electric load with renewable resources by specified dates, or a similar requirement. May be referred to as Renewable Energy Standard.

Retrofit
A retrofit involves the installation of new, usually more efficient equipment into an existing building or process prior to the existing equipment's failure or end of its economic life. In buildings, retrofits may involve either structural enhancements to increase strength, or replacing major equipment central to the building's functions, such as HVAC or water heating systems. In industrial applications, retrofits involve the replacement of functioning equipment with new equipment.

Roof-top Units (RTU)
Packaged heating, ventilating and air conditioning unit that generally provides air conditioning and ventilating services for zones in low-rise buildings. Roof-top units often include a heating section, either resistance electric, heat pump or non-condensing gas (the latter are called “gas-paks”). Roof-top units are the most prevalent comfort conditioning systems for smaller commercial buildings. Generally small (<10 ton) commodity products, but very sophisticated high-efficiency versions are available, as are units larger than 50 tons.

R-Value
A unit of thermal resistance used for comparing insulating values of different material. It is basically a measure of the effectiveness of insulation in stopping heat flow. The higher the R-Value number, a material, the greater its insulating properties and the slower the heat flow through it. The specific value needed to insulate a home depends on climate, type of heating system and other factors.

SB 1149
The Oregon legislation enacted in 1999 allowing for the creation of a third party, nonprofit organization to receive approximately 74 percent of a 3 percent utility surcharge (public purpose charge) and deliver energy-efficiency and renewable energy programs to the funding Oregon ratepayers of Portland General Electric and Pacific Power. Energy Trust was approved by the OPUC to deliver the services. The rest of the surcharge is distributed to school districts and Oregon Housing and Community Services.

SB 838
SB 838, enacted in 2007, augmented Energy Trust’s mission in many ways. Most prominently, it provided a vehicle for additional electric efficiency funding for customers under 1 aMW in load, and restructured the renewable energy role to focus on generation plants that produce less than 20 aMW. SB 838 is also the legislation creating the state’s Renewable Portfolio Standard and extended Energy Trust’s sunset year from 2012 to 2026.

SBW Consulting, Inc
A consulting firm based in Bellevue, WA, with expertise in facility energy assessments, utility conservation programs and program evaluations.

Sectors
For energy planning purposes, the economy is divided into four sectors: residential, commercial, industrial and irrigation.

Self-Directing Consumers
A retail electricity consumer that has used more than one average megawatt of electricity at any one site in the prior calendar year or an aluminum plant that averages more than 100 average megawatts of electricity use in the prior calendar year, that has received final certification from the Oregon Department of Energy for expenditures for new energy conservation or new renewable energy resources and that has notified the electric company that it will pay the public purpose charge, net of credits, directly to the electric company in accordance with the terms of the electric company's tariff regarding public purpose credits.

Societal Cost
Similar to the total resource cost as including the full cost to install a measure including equipment, labor and Energy Trust cost to administer and deliver the program, societal cost also includes any costs beyond those realized by the participant and Energy Trust associated with the energy-saving project. Typically additional societal benefits are seen with energy-efficiency projects that can be difficult to quantify and include in the Societal Cost Test for cost effectiveness.

Solar Power
Using energy from the sun to make electricity through the use of photovoltaic cells.

Solar Thermal
The process of concentrating sunlight on a relatively small area to create the high temperatures needed to vaporize water or other fluids to drive a turbine for generation of electric power.

Spillover
Additional measures that were implemented by the program participant for which the participant did not receive an incentive. They undertook the project on their own, influenced by prior program participation.

Therm
One hundred thousand (100,000) British thermal units (1 therm = 100,000 Btu).

Total Resource Cost
The OPUC has used the "total resource cost" (TRC) test as the primary basis for determining conservation cost-effectiveness as determined in Order No. 94-590 (docket UM 551). SB 1149 allows the "self-directing consumers" to use a simple payback of one to 10 years as the cost-effectiveness criterion.

Tidal Energy
Energy captured from tidal movements of water.

U-Value (U-Factor)
A measure of how well heat is transferred by the entire window—the frame, sash and glass—either into or out of the building. U-Value is the opposite of R-Value. The lower the U-Value number, the better the window will keep heat inside a home on a cold day.

Wave Energy
Energy captured by the cyclical movement of waves in the ocean or large bodies of water.

Watt
A unit of measure of electric power at a point in time, as capacity or demand. One watt of power maintained over time is equal to one joule per second.

Wind Power
Harnessing the energy stored in wind via turbines, which then convert the energy into electricity. Mechanical power of wind can also be used directly.

Weatherization
The activity of making a building (generally a residential structure) more energy efficient by reducing air infiltration, improving insulation and taking other actions to reduce the energy consumption required to heat or cool the building. In practice, “weatherization programs” may also include other measures to reduce energy used for water heating, lighting and other end uses.

Energy Industry Acronyms

AAMA	American Architectural Manufacturers Association	Trade group for window, door manufacturers
A/C	Air Conditioning	
ACEEE	American Council for an Energy-Efficient Economy	Environmental Advocacy, Researcher
AEE	Association of Energy Engineers	
AEO	Annual Energy Outlook	
AESP	Association of Energy Services Professionals	Energy services and energy efficiency trade org
A+E	Architecture + Energy	Outreach program for architects
AFUE	Annual Fuel Utilization Efficiency	The measure of seasonal or annual efficiency of a furnace or boiler
AgriMet	Agricultural Meteorology	Program for soil moisture data
AIA	American Institute of Architects	Trade organization
AIC	Association of Idaho Cities	Local government organization
aMW	Average Megawatt	A way to equally distribute annual energy over all the hours in one year; there are 8,760 hours in a year
AOI	Associated Oregon Industries	
APEM	Association of Professional Energy Managers	
ARI	Air-Conditioning and Refrigeration Institute	AC trade association
ASE	Alliance to Save Energy	Environmental advocacy organization
ASERTTI	Assocation of State Energy Research and Technology Transfer Institutions, Inc.	
ASHRAE	American Society of Heating, Refrigeration, and Air Conditioning Engineers	Technical (engineers) association
ASME	American Society of Mechanical Engineers	Professional organization
ASiMi	Advanced Silicon Materials LLC	Manufacturer of polysilicon with plants in Moses Lake and Butte Mountain
AWC	Association of Washington Cities	Local government trade organization
BACT	Best Achievable Control Technology	
BCR	Benefit/Cost ratio	See definition in text
BEF	Bonneville Environmental Foundation	Nonprofit that funds renewable energy projects
BETC	Business Energy Tax Credit	Oregon tax credit
BOC	Building Operator Certification	Alliance funded project that trains and certifies building operators
BOMA	Building Owners and Managers Association	
BPA	Bonneville Power Administration	Federal power authority
C&RD	Conservation & Renewable Discount	BPA program
CAC	Conservation Advisory Council	

CARES	Conservation and Renewable Energy System	Defunct consortium of Pacific Northwest PUDs
CCS	Communications and Customer Service	A group within Energy Trust
CCCT	Combined Cycle Combustion Turbine	
CEE	Consortium for Energy Efficiency	National energy efficiency group
CEWO	Clean Energy Works Oregon	
CFL	Compact Fluorescent Light bulb	
CHP	Combined Heat and Power	
CNG	Cascade Natural Gas	Investor-owned utility
ConAug	Conservation Augmentation Program	BPA program
CHT	Coefficient of Heat Transmission (U-Value)	A value that describes the ability of a material to conduct heat. The number of Btu that flow through 1 square foot of material, in one hour. It is the reciprocal of the R-Value (U-Value = 1/R-Value.
COU	Consumer-Owned Utility	
COP	Coefficient of Performance	The Coefficient of Performance is the ratio of heat output to electrical energy input for a heat pump
CT	Combustion Turbine	
CUB	Citizens' Utility Board of Oregon	Public interest group
Cx	Commissioning	
DG	Distributed Generation	
DSI	Direct Service Industries	Direct Access customers to BPA
DOE	Department of Energy	Federal agency
DSM	Demand Side Management	
EA	Environmental Assessment	
EASA	Electrical Apparatus Service Association	Trade association
ECM	Electrically Commutation Motor	An Electrically Commutation Motor, also known as a variable-speed blower motor, can vary the blower speed in accordance with the needs of the system
EE	Energy Efficiency	
EER	Energy Efficiency Ratio	The cooling capacity of the unit (in Btu/hour) divided by its electrical input (in watts) at standard peak rating conditions
EF	Energy Factor	An efficiency ratio of the energy supplied in heated water divided by the energy input to the water heater
EIA	Energy Information Administration	
EIC	Energy Ideas Clearinghouse	Washington State University program that provides energy-efficiency information, Alliance funded project
EMS	Energy Management System	See definition in text

EPA	Environmental Protection Agency	Federal agency
EPRI	Electric Power Resource Institute	Utility organization
EPS	Energy Performance Score	Brand name used by Energy Trust for the rating that assesses a newly built or existing home's energy use, carbon impact and estimated monthly utility costs
EQIP	Environmental Quality Incentive Program	
EREN	Energy Efficiency and Renewable Energy Network	DOE program
ESS	Energy Services Supplier	
EUI	Energy Use Intensity	See definition in text
EWEB	Eugene Water & Electric Board	Utility organization
FCEC	Fair and Clean Energy Coalition	Environmental advocacy organization
FEMP	Federal Energy Management Program	
FERC	Federal Energy Regulatory Commission	Federal regulator
GHG	Greenhouse gas	
HER	Home Energy Review	A free visit to a customer's home by an Energy Trust energy advisor to assess efficiency and provide personalized recommendations for improvement
HSPF	Heating Season Performance Factor	
HVAC	Heating, Ventilation and Air Conditioning	
ICNU	Industrial Consumers of Northwest Utilities	Trade interest group
ICF	ICF International	Existing Buildings Program Management Contractor
ICL	Institute for Conservation Leadership	
IDWR	Idaho Department of Water Resources	State agency
IEEE	Institute of Electrical and Electronic Engineers	Professional association
IESNA	Illuminating Engineering Society of America	
IOU	Investor-Owned Utility	
IRP	Integrated Resource Plan	
ISIP	Integrated Solutions Implementation Project	
ISM	Instant-Savings Measure	See definition in text
kW	Kilowatt	
kWh	Kilowatt Hours	8,760,000 kWh = 1 aMW
LBL	Lawrence Berkeley Laboratory	
LED	Lighting Emitting Diode	Solid state lighting technology
LEED	Leadership in Energy & Environmental Design	Building rating system from the U.S. Green Building Council
LIHEAP	Low Income Housing Energy Assistance Program	
LIWA	Low Income Weatherization Assistance	
LOC	League of Oregon Cities	Local government organization

MEEA	Midwest Energy Efficiency Alliance	Midwest Market Transformation organization, Alliance counterpart
MLCT	Montana League of Cities and Towns	Local government organization
MLGEO	Montana Local Government Energy Office	Local government organization
MT&R	Monitoring, Targeting and Reporting	See definition in text
MW	Megawatt	Unit of electric power equal to one thousand kilowatts
MWh	Megawatt Hour	Unit of electric energy, which is equivalent to one megawatt of power used for one hour
NAHB	National Association of Home Builders	Trade association
NCBC	National Conference on Building Commissioning	
NEB	Non-Energy Benefit	See definition in text
NEEA	Northwest Energy Efficiency Alliance	
NEEC	Northwest Energy Efficiency Council	Trade organization
NEEI	Northwest Energy Education Institute	Training organization
NEEP	Northeast Energy Efficiency Partnership	Northwest market transformation organization, Alliance counterpart
NEMA	National Electrical Manufacturer's Association	Trade organization
NERC	North American Electricity Reliability Council	
NFRC	National Fenestration Rating Council	
NRC	National Regulatory Council	Federal regulator
NRCS	Natural Resources Conservation Service	
NRDC	Natural Resources Defense Council	
NREL	National Renewable Energy Lab	
NRTA	Northwest Regional Transmission Authority	
NWEC	Northwest Energy Coalition	Environmental advocacy organization
NWBOA	Northwest Building Operators Association	Trade organization
NWFPA	Northwest Food Processors Association	Trade organization
NWN	NW Natural	Investor-owned utility
NWPPA	Northwest Public Power Association	Trade organization
NWPCC	Northwest Power and Conservation Council	Regional energy planning organization, "the council"
NYSERDA	New York State Energy Research & Development Authority	New York public purpose organization
OBA	Oregon Business Association	Business lobby group
OEFSC	Oregon Energy Facility Siting Council	Authority to site energy facilities in Oregon
ODOE	Oregon Department of Energy	Oregon state energy agency
OPUC	Oregon Public Utility Commission	
OPUDA	Oregon Public Utility District Association	Utility trade organization
OPEC	Organization of Petroleum Exporting Countries	

ORECA	Oregon Rural Electric Cooperative Association	Utility trade organization
OSD	Office of Sustainable Development	
OSEIA	Solar Energy Industries Association of Oregon	Volunteer nonprofit organization dedicated to education/promotion
OTED	Office of Trade & Economic Development	Washington State agency
P&E	Planning and Evaluation	A group within Energy Trust
PDC	Program Delivery Contractor	Company contracted with Energy Trust to identify and deliver industrial and agricultural services to Energy Trust customers
PEA	Pacific Energy Associates	
PECI	Portland Energy Conservation, Inc.	Energy Trust Program Management Contractor
PGE	Portland General Electric	Investor-owned utility
PG&E	Pacific Gas & Electric	California investor-owned utility
PMC	Program Management Contractor	Company contracted with Energy Trust to deliver a program
PNGC	Pacific Northwest Generating Cooperatives	
PNUCC	Pacific Northwest Utilities Conference Committee	
PPC	Public Power Council	National trade group
PPL	Pacific Power	
PSE	Puget Sound Energy	Investor-owned utility
PTC	Production Tax Credit	
PTCS	Performance Tested Comfort Systems	Alliance project that promotes the efficiency of air-systems in residential homes
PTNZ	Path to Net Zero pilot	See definition in text
PUC	Public Utility Commission	Oregon and Idaho PUCs
PUD	Public Utility District	
PURPA	Public Utility Regulatory Policies Act	See definition in text
QF	Qualifying Facility	
RAC	Renewable Energy Advisory Council	
RE	Renewable Energy	
REIT	Real Estate Investment Trust	
RETC	Residential Energy Tax Credit	Oregon tax credit
RFI	Request for Information	
RFP	Request for Proposal	
RFQ	Request for Qualification	
RNP	Renewable Northwest Project	Renewable energy advocacy group
RSES	Refrigeration Service Engineers Society	Trade association
RTF	Regional Technical Forum	BPA funded research group
RTU	Rooftop HVAC Unit Tune Up	Rooftop HVAC unit tune up, an Existing Buildings incentive offering

SCCT	Single Cycle Combustion Turbine	
SCL	Seattle City Light	Public utility
SEED	State Energy Efficient Design	Established in 1991, requires all state facilities to exceed the Oregon Energy Code by 20 percent or more
SEER	Seasonal Energy Efficiency Ratio	A measure of cooling efficiency for air conditioners; the higher the SEER, the more energy efficient the unit
SGC	Super Good Cents	Alliance project & legacy BPA & utility program that promotes the sales of SGC homes
SIS	Scientific Irrigation Scheduling	Agricultural information program
SNOPUD	Snohomish Public Utility District	Washington State PUD
SEIA	Solar Energy Industries Association	Volunteer nonprofit organization dedicated to education/promotion
SWEEP	Southwest Energy Efficiency Partnership	Southwest market transformation group, Alliance counterpart
T&D	Transmission & Distribution	
TNS	The Natural Step	
TRC	Total Resource Cost	See definition in text
TXV	Thermal Expansion Valve	
	University of Oregon Solar Monitoring Laboratory	Solar resource database
U-Value		The reciprocal of R-Value; the lower the number, the greater the heat transfer resistance (insulating) characteristics of the material
USGBC	U.S. Green Building Council	Sustainability advocacy organization responsible for LEED
VFD	Variable Frequency Drive	An electronic control to adjust motion
WAPUDA	Washington Public Utility District Association	Utility trade organization
WNP	Washington Nuclear Power Plant	
WPPSS	Washington Public Power Supply System	Also called "whoops"
WUTC	Washington Utilities and Transportation Commission	
Wx	Weatherization	
W	Watt	