Energy Trust Board of Directors Meeting

May 22, 2013

421 SW Oak Street, Suite 300 Portland, OR 97204 1.866.368.7878 503.546.6862 fax energytrust.org

120th Board Meeting

Wednesday, May 22, 2013, 12:15–4:15pm
421 SW Oak Street, Suite 300
Portland, Oregon

	Agenda	Tab	Purpose
9:00am	**Strategic Utility Roundtable** Energy Trust Goals, Funding and Relationship to Utility Integrated Resource Plans		
11:30am	**Lunch**		
12:15pm	**120th Board Meeting—Call to Order** *(John Reynolds)* • Approve agenda		
12:20pm	**General Public Comment** *The president may defer specific public comment to the appropriate agenda topic.*		
12:25pm	**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.* • April 3 Board meeting minutes • Amend fuel-switching policy—R669	**1**	*Action*
12:30pm	**President's Report** *(John Reynolds)*		
12:50pm	**Energy Programs** • Central Oregon Irrigation District Juniper Ridge Phase II Hydro Project—R667 *(Dave Slavensky)* ..... • Brief: Existing Multifamily contract extension for Lockheed Martin *(Mark Kendall)*.....	**2** **2**	*Action* *Information*
1:30pm	**Committee Reports** • Evaluation Committee *(Debbie Kitchin)*..... • Finance and Compensation Committees *(Dan Enloe)* o Form 990..... o Amend Compensation Committee Charter—R668 ..... • Policy Committee *(Roger Hamilton)*..... o Brief: Financing *(Steve Lacey and Elaine Prause)*.....	**3** **4** **4** **5** **5**	*Information* *Information* *Action* *Information* *Information*
2:45pm	**Break**		
3:00pm	**Staff Report** • Highlights • Feature Presentation: The Edith Green Wendell Wyatt Federal Building • Feature Presentation: Vestas North American Headquarters Building		
4:15pm	**Adjourn**		

The Energy Trust Board of Directors will hold
its annual strategic planning workshop on
Friday, June 7, 2013 at 8:00am–5:00pm
at Reed College, 3203 SE Woodstock Blvd, Portland in the Vollum Lounge

PLEASE NOTE: the second day of the retreat is postponed
to the morning of the July 31 board meeting.

Tab 1 Consent Agenda
- April 3 meeting minutes
- Amend Fuel-switching Policy—R669

Tab 2 Energy Programs
- Central Oregon Irrigation District Juniper Ridge Phase II Hydro Project—R667
- Brief: Existing Multifamily contract extension for Lockheed Martin

Tab 3 Evaluation Committee
- May 3 meeting notes
- 2010-2011 Existing Homes Program process evaluation and staff response

Tab 4 Finance and Compensation Committees
- Finance Committee April 15 meeting notes
- Brief: Savings-Within-Reach loan product
- Notes on March 2013 financial statements
- March financials and contract summary report
- 2013 first quarter dashboards
- Form 990
- Amend Compensation Committee Charter—R668
- Financial glossary

Tab 5 Policy Committee
- May 8 meeting notes
- Brief: Financing

Tab 6 Advisory Council Notes
- March 13 RAC meeting notes
- March 13 CAC meeting notes

Tab 7 Staff Report
- Quarterly market indicators report

Tab 8 Glossary of Acronyms and Terminology

Board Meeting Minutes—119thMeeting

April 3, 2013

Board members present: Rick Applegate (*by phone)*, Julie Brandis *(by phone)*, Ken Canon, Annie Donnelly, Dan Enloe *(by phone)*, Roger Hamilton, Mark Kendall, Jeff King, Debbie Kitchin, Alan Meyer, John Reynolds, Anne Root (*by phone)*, Dave Slavensky, Lisa Schwartz (ODOE ex officio), John Savage (OPUC ex officio, *by phone*)

Staff attending: Margie Harris, Ana Morel, Hannah Hacker, Debbie Menashe, Amber Cole, Steve Lacey, Peter West, Cheryle Easton, Sue Meyer Sample, Elizabeth Fox, Pati Presnail, Alison Ebbott, Michelle Spampinato, Fred Gordon, Scott Clark, Phil Degens, Kevin Havice, Steven Jonas, Karl Whinnery, Wendy Bredemeyer, Adonna Lucas, Jessica Rose, Thad Roth

Others attending: Juliet Johnson (OPUC, *by phone*), Jim Abrahamson (Cascade Natural Gas), Don Jones, Jr. (Pacific Power), Lauren Shapton (Portland General Electric), Bob Stull (PECI), Diane Henkals (Diane Henkals Attorney at Law), Lynn Kingston (Moss Adams), Ashley Osten (Moss Adams)

Business Meeting

President John Reynolds called the meeting to order at 12:15 p.m.

General Public Comments

There were none.

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) February 20 board meeting minutes
2) Amend a contract with Navigant (R665)

RESOLUTION 665
AUTHORIZING THE EXECUTIVE DIRECTOR
TO AMEND A CONTRACT WITH NAVIGANT CONSULTING

WHEREAS:

1. **In December 2011, Navigant Consulting was awarded the contract to conduct an impact evaluation for Energy Trust's Production Efficiency Program, years 2009-2011. The original contract was approved with a budget of $490,000 and approved and signed by Energy Trust's executive director consistent with Energy Trust's board policy on contract signing authority.**
2. **To complete the impact evaluation with additional site visitations and complete analysis, Energy Trust staff recommends an additional $58,000 of contract budget.**
3. **The additional budget will bring the total contract amount to $548,000, which exceeds the executive director's signature authority and requires board of directors' approval.**

It is therefore RESOLVED that the Board of Directors of Energy Trust of Oregon, Inc., hereby authorizes the executive director to sign an amendment to the current contract with Navigant to increase its contract budget by up to $58,000.

Moved by: Alan Meyer		Seconded by: Ken Canon
Vote:	In favor: 12	Abstained: 0
	Opposed: 0	

President's Report

John Reynolds presented on a public building aiming at net-zero energy use. Governor Kitzhaber's 10-Year Energy Action Plan calls for an "energy conservation and efficiency innovation laboratory" to be administered by the Oregon Department of Energy. One example of such an innovation is Lane Community College's Downtown Campus building, a classroom building with attached housing just dedicated in Eugene. In addition to the Eugene Water and Electric Board's support, Energy Trust provided the project, served by NW Natural, with approximately $15,000 in installation and technical assistance incentives for the water heating system. The building is on track for Leadership in Energy and Environmental® Platinum certification. Energy-saving features include daylighting, natural ventilation, solar water heating, groundwater heating and cooling, and rainwater harvesting. Eventually, the aim for the building is net zero. A large portion of the roof area is reserved for more solar electric panels to help the building approach net-zero energy production.

John showed a bar chart displaying the energy consumption of a typical academic building, a code compliant academic building and a net zero energy ready building. The "other" category of energy use stayed similar across the three building types and largely represents behavior-related energy consumption.

Lisa Schwartz joined the meeting at 12:22 p.m.

John showed an image of natural ventilation to illustrate air intake, air exhaust and daylighting strategies. The intake mechanisms are both automatic and manually operated. The cooling cycle is automated.

A chart overlaid modeled energy consumption with three options for solar electric output: existing generation from a 16-kilowatt system, average generation from a 330-kilowatt system and maximum generation from a 587-kilowatt system. To achieve net zero energy performance, the building needs additional solar generation, beyond the existing efficiency features and 16-kilowatt solar electric system. John clarified the building only has a small amount of solar electric installed, seen as the bottom red line of the Modeled Energy Performance chart. Lane Community College is waiting for solar panel prices to decline further before investing in more panels.

John cited the presentation's sources, and listed the project architects, and mechanical and electrical engineers. Lane Community Colleges Energy Management Program is funded in part by Eugene Water & Electric Board and was one of the first in the country.

Photos showed the various energy features, how to operate a transom providing natural ventilation and a series of architectural drawings.

Mark: How many square feet and how many housing units are in the building?
John: I am not sure the size or the housing unit number. It is impressive the housing units are available in downtown Eugene and a community college is providing the housing.

Dave: To add more solar, will architectural changes need to be made?
John: Not likely, as the panels do not add a lot of weight.

Dave: What is the failure rate on solar systems and is it the panel or the module that fails?
John: I am not sure but I have not heard of many failing.
Ken: It does depend on whether the whole solar system is on one inverter or portions are on mini inverters.
Mark: It is as common as your cell phone failing.

John concluded his presentation.

John introduced Resolution 663, 2013 board committee assignments, for board vote.

RESOLUTION 663
BOARD COMMITTEE APPOINTMENTS

WHEREAS:

1. **The Energy Trust of Oregon, Inc. Board of Directors is authorized to appoint by resolution committees to carry out the Board's business.**
2. **The Board President has nominated new directors to serve on the following committees.**

It is therefore RESOLVED:

1. **This resolution supersedes Resolution 636A, adopted by the board at its August 22, 2012, meeting.**
2. **That the Board of Directors hereby appoints the following directors to the following committees for terms that will continue until a subsequent resolution changing committee appointments is adopted:**

Audit Committee	
	Ken Canon, Chair
	Julie Brandis
	Shirley Cyr, CEWO
	Annie Donnelly
	Dave Slavensky
	John Reynolds (ex officio)
Board Nominating Committee	
	Alan Meyer, Chair
	Rick Applegate
	Roger Hamilton
	Anne Root
	John Savage, OPUC (ex officio)
	John Reynolds (ex officio)

Compensation Committee *(formerly 401(k) Committee)*	
	Dan Enloe, Chair
	Annie Donnelly
	Mark Kendall
	Jeff King
	John Reynolds (ex officio)
Executive Director Review Committee	
	Roger Hamilton, Chair
	Julie Brandis
	Annie Donnelly
	Jeff King
	John Reynolds (ex officio)
Finance Committee	
	Dan Enloe, Chair
	Debbie Kitchin
	Anne Root
	Dave Slavensky
	John Reynolds (ex officio)
Policy Committee	
	Roger Hamilton, Chair
	Rick Applegate
	Ken Canon
	Alan Meyer
	John Reynolds (ex officio)
Program Evaluation Committee	
	Debbie Kitchin, Chair
	Tom Eckman, NWPCC
	Ken Keating, expert outside reviewer
	Mark Kendall
	Alan Meyer
	Anne Root
	Dave Slavensky
	John Reynolds (ex officio)
Strategic Planning Committee	
	Rick Applegate, Chair
	Julie Brandis
	Ken Canon
	Mark Kendall
	Jeff King
	Lisa Schwartz, ODOE
	John Savage, OPUC
	John Reynolds (ex officio)

3. The executive director and general counsel are authorized to sign routine 401(k) administrative documents on behalf of the board, or other documents if authorized by the Compensation Committee.

Moved by: Debbie Kitchin Seconded by: Dave Slavensky

Vote: In favor: 12 Abstained: 0

Opposed: 0

Dan Enloe joined the meeting by phone at 1:45pm.

Audit Committee

Ken Canon presented on Resolution 664, acceptance of Energy Trust's audited financial report. Last year, Energy Trust competitively selected Moss Adams as the independent auditor. Previously, Perkins & Company had conducted the independent audit. The Audit Committee includes Ken (chair), Julie, Annie, Dave, John (ex officio) and Shirley Cyr of Clean Energy Works Oregon in an advisory capacity.

Ken said the Audit Committee started meeting with Moss Adams in August 2012 and the transition from Perkins to Moss Adams has been a smooth one. Before commencing, the audit process waits for the annual financials to be completed each year. The audit is now complete and Moss Adams is here to present its findings.

Ken said all board members take their responsibilities seriously and this audit is a very important part of the process. It is also indicative that Energy Trust just completed this audit while the Oregon legislature is considering a bill to have the Department of Administrative Services conduct an annual audit of the organization. It is very important for any business to be audited and especially so for Energy Trust.

Ken introduced Lynn Kingston and Ashley Osten from Moss Adams.

Lynn thanked the board for the opportunity to present their findings. She said it is their first year of completing an audit with Energy Trust and it went very smoothly, more so than any other first-year audit they have done. Lynn appreciated Perkins' cooperativeness during the transition.

Ashley: The audit opinion is the only statement that is directly from Moss Adams. After completing the audit, Moss Adams' gave Energy Trust an unmodified opinion for its financial statements. The only change is that the opinion went from an "unqualified opinion" to an "unmodified opinion", which merely reflects a change in the language adopted by the governing body for financial statement auditors. It was intended to more clearly state what is within the auditor's scope to judge. The term "unmodified" replaces the term "unqualified" which was previously in use.

Lynn described the audit process. Moss Adams met with the Audit Committee prior to the audit to discuss the process. The audit was then planned, and there were no changes in the scope or plan once the process got underway. Moss Adams reviewed Energy Trust's internal controls, looking at how the organization safeguards assets, which is very important to Energy Trust. Then, the auditors completed the required audit procedures, including testing procedures, interviewing staff and seeking external views. Management Team and staff were very well prepared for the audit. It is rare to have such a smooth first year audit. Lynn said she enjoyed working with Energy Trust and looks forward to next year's audit.

Alan: What is the difference between an unmodified and unqualified opinion?
Lynn: There is no real difference. The meaning is exactly the same. There are some additional required headings in the report and other than that is it exactly the same.

Mark: Are there any other categories of opinion?
Lynn: There is a modified opinion, which would highlight any issues in the audit that need to be fixed. And there is a "going concern" opinion. The whole point is to alert the reader to any issues that need to be addressed. Also, when we looked at your internal controls, which are the controls over the assets of the organization, there were no significant deficiencies.

Mark: Your review looked at any manner of policies, such as the way we manage our budget as well as just the accounting?
Lynn: We look at the policies as they relate to financial information, policies on controls, custody of assets, etc.
Ashley: Also fixed assets, investments, and anything that would affect the financial statements.
Lynn: And the whistleblower policies.
Sue MS: They also reviewed the allocation plans to make sure they are reasonable.

Margie: Did you review the IT systems, too?
Lynn: Yes, as part of audit. This is because most clients are dependent on their IT systems to produce financial statements. We provided a couple of recommendations that were not significant. It is important to point out that on a first review, having only these small items is a "kudos" moment for you. We do look at IT every year as part of the audit.

Ken: One of the things we asked Moss Adams to do as their first audit was to give us advice on how to sharpen procedures. They gave us four minor suggestions.
Sue MS: Two of the suggestions are designed to address risks from our use of an outsourced contracting model. The first suggestion is to obtain a copy of the audited financial statements from each Program Management Contractor, PMC, if their business is audited. The second suggestion is to require PMCs to provide certification from the CFO and CEO level attesting the information they provided for the Energy Trust audit was accurate. Moss Adams staff are currently working on specific language for that. Third, in addition to continuing the current practice of reviewing all transactions more than $20,000 prior to issuing a check, Moss Adams suggested selecting an additional, random sample of transactions for further auditing. And fourth, Moss Adams has a software system that tests for duplicate payments. The software is expensive and we are doing some verification with the tools we have available, including Excel. Duplicate payments do occur and you have filter to make sure they are legitimate.
Energy Trust staff appreciated the suggestions and indicated that we are in the process of implementing procedures to address them.

Ken: Next year, we will work with Sue and Moss Adams to come up with additional processes and procedures to test so we can challenge ourselves. To give you an idea of how much activity there is and how many transactions Energy Trust is involved in, over the last four to five years there were between 70,000-71,000 checks cut. There is a tremendous volume that goes through Energy Trust and it is a credit to the staff to prepare for this audit and for their continuous financial work.

Ken called for Sue to recognize the Energy Trust staff largely involved in the audit:

- Pati Presnail, controller, sets the stage for the consistency and accuracy of processes and procedures; she co-manages the audit field work when the auditors are at the office and ensures documentation is completed accurately and on time.

- Michelle Spampinato and Alison Ebbott are responsible for consolidation of information and production of monthly financial statements and reconciliation of account balances. Michelle also co-manages the audit fieldwork with Pati.
- Cheryl Gibson conducts the internal audit to make sure we are following procedures.
- Wendy Bredemeyer prepares all accounts payable checks and helps enforce policies and procedures
- Diana Rockholm conducts check audits to make sure names and addresses are complete and reasonable.
- Adonna Lucas is a finance systems analyst and helps us find the data to analyze and review.
- Greg Stokes ensures hiring practices and employee procedures are in alignment.
- The legal team: Debbie Menashe, Tara Crookshank, Brigid Gormley and John Volkman make sure our contracts are tight and well-documented, meaningful in scope and cognizant of the source of funds being used to do our work.
- Debbie also does double duty as our human resources legal expert.
- IT, including Scott Clark, Karl Whinnery and Nell Werner, manage IT resources and processes while maintaining a strong control perspective.
- Operations analysts Steven Jonas, Kevin Havice and Christian Conkle are the front line of the program team, helping us process all the incentives and making sure all the supporting documents are in place
- Sector leads Diane Ferington, Oliver Kesting, Kim Crossman, Thad Roth and energy programs director Peter West help set the tone with Program Management Contractors and Program Delivery Contractors for our expectations for high quality, accuracy and responsiveness in our work.
- And of course, Margie and the rest of the Management Team, set the right tone at the top to ensure that we can be transparent and ethical in our practices.

Margie: And Peter also helps set the right tone to make sure internal controls are important to the organization. It does take a village to obtain a clean audit opinion.

Ken: It is very important to understand that there is a lot involved to make sure we run efficiently.

The board gave the staff members a round of applause.

Margie: I'd also like to thank you to the Audit Committee, which provides an arms distance oversight in cooperation with the auditors. It is good to have people committed. Thank you, Ken, for your chair role and the rest of the Audit Committee members.

Margie announced that Sue Meyer Sample will be retiring at the end of June, after nearly 10 years working at Energy Trust. Her husband is also retiring and there are some nice plans for traveling. Margie said everyone is grateful for Sue's continued service. Since audits began, we have a 100% track record of unqualified audits every year, including the nine completed under Sue's tenure.

The board thanked Sue.

Sue: I have been so proud and blessed to work with such an intelligent group of people who are motivated to do the right thing for Oregon and Washington. I love my job and I love Energy Trust. I do not think I have worked for a better organization. I know Margie will find the right replacement.

RESOLUTION 664
ACCEPTANCE OF AUDITED FINANCIAL REPORT

BE IT RESOLVED: That Energy Trust of Oregon, Inc., Board of Directors accepts the audited financial statement report, including an unmodified opinion, submitted by Moss Adams LLP for the calendar year ended December 31, 2012.

Moved by: Ken Canon Seconded by: Roger Hamilton

Vote: In favor: 13 Abstained: 0

Opposed: 0

Committee Reports

Evaluation Committee (Debbie Kitchin)

Debbie presented on the recent activity of the Evaluation Committee. Today's board packet includes the minutes from the most recent, February 20 meeting. The meeting included review of the Existing Buildings process evaluation, Existing Buildings impact evaluation and Multifamily process evaluation. The value of these evaluations is to check in on programs, either through a process or impact evaluation, as they go along. Often by the time we are reviewing evaluations at the committee, the program managers already received earlier drafts and are taking action to respond to items we learn from the evaluations. Evaluations are done every year to make sure our numbers are good, and we are approaching the market as it evolves and responding to changes. It is valuable that we get this information and it is so dynamic that by the time we are reviewing it they are already responding to it. The programs seem to be doing a very good job and getting lots of activity. They are dealing with different approaches and doing it in an active learning environment.

John: I am always struck by the acronym forest. Please note in the board packet appendix, the glossary on acronyms and definitions. This is especially useful for newer board members.
Debbie: Please be sure to ask questions on any acronyms or energy terms. Those of us that have been here for a while forget that it is not always transparent for everyone.
Alan: I was impressed by how extensive the glossary is.
Margie: It is ongoing and we will add other terms identified before the packet is complete prior to each board meeting.
John: The Evaluation Committee is also one of the most time intensive committees.

Debbie: The next meeting is May 8. The next board meeting has a utility roundtable so the next evaluation meeting had to move from the usual Wednesday morning time slot. [Note: the next Evaluation Committee meeting was moved to May 3.]

Mark: I have been a member of the Evaluation Committee since September. I am thoroughly impressed with the national standard of practice that is set by our Evaluation staff and the qualifications of the contractor selection. There is a rigor and detail at an extremely nuanced level given to each evaluation I have looked at. It is a sophisticated program. Others look to these process and impact evaluations on our website as a standard. I know this as a part of my national work.

Phil: I do waffle back and forth between too much and too little detail on the evaluation committee notes. Is this a satisfactory amount of detail?

Debbie: It is a valuable resource for board members to hear issues discussed and findings. The amount of detail in the notes is good.
Ken: Agreed.

John reminded board members to return their Conflict of Interest forms, which are needed to prepare the 990.

Policy Committee (Roger Hamilton)
Roger said the last Policy Committee meeting included a presentation by Elaine Prause on Energy Trust's approach to financing. This may be an agenda item for the June workshop and staff is already preparing for the discussion. Energy Trust encourages financing for energy-efficiency projects, and has explored options already, including product development and co-branding efforts with Umpqua Bank, the creation of lender allies, on-bill repayment strategies through Clean Energy Works Oregon and Energy Efficiency and Sustainable Technology Act (EEAST) legislation. Financing efforts with lending institutions also provide outreach opportunities through lender branches located throughout the state. In addition, Multnomah County is piloting a Property Assessed Clean Energy effort. Financing efforts thus far have been developed in connection with specific program offerings. Staff's current work is to identify an overall organizational approach for financing. There are some questions on whether financing provides any greater potential to further Energy Trust goals than current program offerings. Staff is anticipating a scoping exercise to define effective financing opportunities, target markets and metrics to evaluate efforts. Staff will prepare a three to five year vision for the May board meeting and then further discussions could occur at the June workshop.

Debbie: To me, financing is similar to incentives and all the things we do; it addresses barriers to energy efficiency. Incentives help address that barrier of first cost. I see financing as another tool that addresses barriers and helps us achieve results. I like that we are taking a comprehensive look. It is an important part of achieving cost-effective energy efficiency.

Annie: I endorse that financing can be used as an outreach strategy. The more you can integrate into everyone's daily, normal life, the more the program is seen as the norm. And then the more you can advance the program overall.

Roger continued the Policy Committee report out and suggested Debbie Menashe deliver her legislative update at this time instead of later in the meeting.

Debbie M: As a reminder, Energy Trust does not advocate for any specific legislation. We do monitor relevant bills as much as we can. There are well over 30 bills we are monitoring. Some of them have changes since the last update I gave to the board and they have been the subject of discussions at work sessions or in public hearings or are lying dormant. By April 18, bills must have work sessions scheduled. We will report back to the board in mid-April with more information.

Debbie M continued. HB 2801 has seen a lot of activity. When requested, Energy Trust provided information to the House Energy and Environment Committee and the OPUC. In its original form, HB 2801 was one piece of whole house energy-efficiency retrofitting. Since the bill was introduced, two provisions have been added on energy performance scoring and real estate appraisals that recognize the energy-efficiency value of a building. Energy Trust was engaged by the OPUC and the House Energy and Environment Committee to provide program information and technical knowledge on

whole building retrofit provisions. Oliver Kesting is active on that part of the bill. On the energy performance score (EPS) provision, the bill requires the Construction Contractors Board, CCB, to establish an endorsement for residential contractors to permit them to deliver an EPS. It is still considered a voluntary provision and there is language in the bill that we are monitoring. Matt Braman is actively engaged in work sessions on that part of the bill.

Mark: Is there budget associated with it or a standard expected to be met?
Debbie M: I have not seen a budget, at least in the current drafts of the bill.

Debbie M continued: The final provision of bill is the appraisal side. Energy Trust has not been engaged on this. The provision would require the appraisal and licensure board to set up standards for incorporating the value of energy efficiency into appraisals.

Debbie: From my past experience in other areas, the Construction Contractors Board imposes a fee if a contractor pursues a certification. They do this with lead based paint.
Debbie M: There is one draft where I saw a $100 fee for the endorsement. We are monitoring a couple of other legislative proposals, particularly HB 3066 and SB 427 that would affect the public purpose charge. No hearings or work sessions have been scheduled. There is, however, one bill that would affect Energy Trust that has proceeded and has been given a hearing, SB 807. This bill would require an additional level of assessment by an individual third party appointed by Oregon Department of Administrative Services and paid for by the OPUC. It would require an annual assessment as condition of the OPUC's grant agreement with the non-governmental entity identified by SB 1149, currently Energy Trust. The listing of what would be assessed is largely covered in our annual financial audit and other required public reports. The OPUC has been in touch with the Senate Committee on Business and Transportation and the Committee Chair, Senator Lee Beyer. The hearing set for yesterday was postponed to April 4 because other agenda items went long. Other organizations, like the Citizens' Utility Board of Oregon, that understand our processes will be at the hearing. We will be monitoring this closely.

Annie: Does this anticipate having a third party separately assess Energy Trust beyond current audits or does it draw from currently provided information?
Debbie M: The third party would be responsible for the report, and the information would be provided by Energy Trust.

Debbie: Is the rule still in place that Energy Trust is required to complete a management audit every five years?
Margie: Yes, it is part of our contract with the OPUC.
Debbie: This bill is in addition?
Debbie M: It is our understanding it is in addition.
Margie: We also have a report to the legislature that is a requirement. A third party is hired by the OPUC to do this. The report goes to the legislature every other year during their full sessions. This bill is on top of that as well.

Debbie M: There is also a carbon tax report bill, SB 537, we are monitoring from a general interest perspective. The actual carbon tax bills have not yet moved forward. SB 537 would require the Oregon Department of Energy to convene a working group to study a carbon tax. There are rumors

that it is likely to go forward and no hearing has been scheduled yet. A similar bill was recently signed in Washington.

Lisa: If a bill is not scheduled for a hearing by Monday, April 8, it dies. And by April 18 the bill must have had a working session.

Roger: The next item at the last Policy Committee meeting was a review of the OPUC performance measures for Energy Trust. The metrics are a (minimum) threshold and are different from board goals. The 2013 performance measures are on page 3 of tab 6.

Margie: Every year the OPUC revisits and sets minimum performance standards for Energy Trust. Over time, they have become stricter as funding and goals have grown. The metrics are part of the OPUC's oversight role. In 2012, there was no renewable energy performance metric. Instead, we worked closely with the OPUC to come up with a way to assess and measure Energy Trust's contribution to the renewable energy field. The need for new metrics stemmed from reductions in the Oregon Business Energy Tax Credit for renewable energy. Also, there was the Renewable Portfolio Standard and changes in the marketplace due to low cost natural gas. In 2012, we reached agreement with the OPUC and determined the best way to characterize our contribution to the renewable market and to measure it. The other 2013 metrics are largely the same.

Margie said the renewable energy metric measures how we provide development assistance to someone contemplating renewable energy technologies. It is recognition that one of the best ways we support the market is through development assistance. We still have an average megawatt goal for net metered projects. In the past, our 3 average megawatt metric was computed on a three-year rolling average. The new metric looks at generation annually. We also have a cost allocation for per average megawatt hour, aMWh, which is new. It's $40/aMWh for any non-solar project. It is calling out any non-solar projects, which are typically larger scale.

Dave: What is the reason for limiting the cost of those non-solar projects?
Margie: To ensure we are getting reasonable rates of return on investments.
John: And it is a rolling average.
Peter: It is an average. We can go above as long as we meet the average. We look at it as something equivalent to the levelized cost metric on the energy-efficiency side. We were looking for parallel measurements between efficiency and renewable energy.

Margie: The last piece of the renewable energy metric is what criteria we consider when looking at solar projects that are not net metered. These 2013 performance measures were adopted by the OPUC.

Juliet Johnson: We worked closely with Energy Trust on developing the renewable energy metrics. Last year, we did not have one. This year, since there are so many different projects out there, we feel this is a good start at how to prioritize ratepayer dollars, ensuring a systematic approach. The first one is important, using development assistance to remove barriers, such as permits for small wind and other activities that have a lot of leverage. Plus, there is the importance for net metered projects. This is a great place to start, and we will revisit these year by year. We appreciate the coordination with Elaine Prause, Peter West and Thad Roth.

Dave: Someone locally in my area was looking at the feed-in tariff program. Where do I learn more?
Margie: The feed-in tariff is an option for the two electric utilities to sign up over the course of a year, there is open enrollment period, and it is first come, first served for a maximum amount of capacity. The approach is used primarily in Europe, and has been used in Oregon for about two years.
Lisa: There is good information on the OPUC website. For larger systems, it is competitive rather than first come, first served.
John: The major difference is you get paid as you produce versus getting paid up front.
Ken: The other alternative is getting incentives from the Oregon Department of Energy, Energy Trust and the federal government. It is a net metered system and completely different. From the consumer's point of view, it is great to have options.
Mark: And the feed-in tariff is not in addition to Energy Trust incentives. It is either or.

Roger: The Policy Committee is empowered to approve staff nominations for Conservation Advisory Council and Renewable Energy Advisory Council members. This reminds me that all board members are encouraged to attend these meetings, which are highly substantive. Recently, we approved Karen Horkitz who oversees the market transformation program at the Northwest Energy Efficiency Alliance as a new member of the Conservation Advisory Council.

Roger said the last committee meeting also reviewed the additional funding for Navigant Consulting, which the board approved today.
Ken: Was the additional funding needed so they could do more interviews?
Margie: Yes, a higher number of interviews at an overall lower cost.

Roger also said the Lucid small hydro project has submitted a new application. The project is proposed to be located where a Portland water main is being rerouted by the Water Bureau, and the project installation is proposed to coincide.
Margie: We will have a decision made shortly regarding their updated application.

Finance Committee and Compensation Committee (Dan Enloe)
Dan Enloe, presenting for the Finance Committee, directed the board to tab 5, page 1, the "December 2012" column to "Change from Beginning of Year" column. $9 million has been spent of the cash reserves, a good thing as we paid out a lot of incentives in December. Continuing the theme of what is going on with ending cash, on page 3, comparing the End of 2011 "Ending Cash" line to the End of 2012, we went from $20 million to $11.5 million. This is also good as we have less cash not being utilized. On page 4, ending cash for 2013 is generally lower than we have been historically. One comment on this is some of these months get pretty low, like September, October and November. We might give a heads up to the bankers that we might use the line of credit in 2013 depending on what activity looks like, though it is hard to accurately predict.

On page 5, it shows the total revenue was lower than the budget for the year and expenses were low as well. And we still delivered great results. Graphs on page 10 show preliminary data on the end-of-year summary. We finished very strong in 2012 and December was much greater than in historic years.

Dan called out the incentive graph; there was good spending on incentives in December, his favorite type of spending as you get the most average megawatts per dollar. We did a good job of getting

output for the money. We put a lot of projects out in the community and we have a good plan going forward for 2013.
Margie: We do have reserves we would tap in first order before accessing the line of credit.

Margie called out that we took in less revenue than expected, approximately $10 million, and spent less so the preliminary higher volume results are at less cost.

Alan: I looked at current assets in January and they were $63 million but in February we were back up to $75 million. A piece of this is because of changing contractors but it looks like we have $75 million we need to invest.
Margie: That figure does not show committed or dedicated funds. Also we are in conversations with the utilities, and have a meeting with the OPUC, related to reserves, projection of budget, how we characterize savings and the terminology we use.

Mark: On the commitment charts on the last page, what is the source of outsourced commitments for 2013?
Sue: We track commitments in FastTrack and base them on the estimated payment date to avoid any duplication.

Sue directed the board to the page behind the blue page on tab 5: Notes on February 2013 Financial Statements. The document summarizes the data in the financial statements. She said Energy Trust is underspent compared with where we want to be. We pushed through a lot of incentives in March to catch up with the rest of the quarter.

Dave: I read it as the new program management contractors, PMCs, are getting up to speed on how to process the incentives.
Sue: Yes.

The board said the additional notes were helpful.

Dave: Each month there is a contract status report. It shows if there are some things that started later than they anticipated. What are the things that keep us moving forward?
Sue: At the beginning of year we are focused on closing out the prior year. We do produce a contract summary report identifying major status variances and expected resolution for the Finance Committee at the end of each quarter.
Dan: You also put the city where the contractor is headquartered so in our conversations in communities and with community leaders we would have that data available. The great majority of spending is in Oregon and the Northwest. There are a few contractors in other cities but they have very specific expertise. For the most part, we are spending this money locally.

Dan, presenting for the Compensation Committee, said there is a lot of going on in the 401k and compensation philosophy space. The committee will update its charter and will be prepared to come to the board next time. In general, funds are performing well and we are updating and making sure employees are aware of their choices. We are considering some philosophy changes to encourage higher participation in the 401k plan.

The board took a break at 1:46 p.m. and resumed at 1:56 p.m.

Staff Report

Sue completed her acknowledgements of the staff involved in the annual financial audit. She thanked Cheryle Easton and Elizabeth Fox who both work diligently to help us maintain good internal controls. Elizabeth provides conference and travel arrangements within our guidelines, and Cheryle oversees general procurement practices utilizing best practices. The board applauded Cheryle and Elizabeth for their contributions.

Executive Director Staff Report to the Board

Margie delivered her staff report to the board. One recent program participant is Childswork Learning Center in southeast Portland. The nonprofit early childhood education schools conducted an energy audit of its 50-year-old building, and then worked with local trade ally Christensen Electric to install T8s and occupancy sensors. Childswork received a $15,600 Energy Trust incentive, lowered operating costs, and achieved annual savings of 88,000 kilowatt hours and $7,300 on their utility bills.

Energy Trust has been a sponsor of the Better Living Show for the past few years. The show occurs each spring, and is a free opportunity at the Portland Expo Center for people to learn about sustainability. We were a prime sponsor for a number of years and now have a central booth location with interactive displays, including an insulation display. The show provides opportunities to have one-on-one conversations with our customers. The booth primarily provides information on residential offerings. The display is mobile, and can be taken out on the road. The booth was staffed by 26 program management contractor staff and nine Energy Trust staff volunteering their time over the three-day period. It is a nice team building experience, and helps Energy Trust grow awareness among customers. Visitors are encouraged to sign up for a Home Energy Review or to take steps for appliance upgrades like refrigerator recycling or lighting improvements. We also collect referrals to trade allies and deliver consumer workshops.

Ken: How would you compare attendance this year to previous years?
Margie: I do not have the count yet but typically it is in the 10,000 to 20,000 range.
Amber: Anecdotally, attendance looks to be down. We are eager to get the final count and to anticipate how we will participate in the future.
Debbie: A lot of retail shows are down in attendance and I think it is because people are getting their information from the internet. The Better Living Show is a very well-run show but in general, it is getting harder to get people to attend. My company right now is not attending any.
Margie: And Energy Trust is having experiences with call volume going down while web visits are going up.

Margie described an upcoming refrigerator recycling promotion. Starting May 1, those who participate in this recycling offer can elect to donate their $40 incentive to the Oregon Food Bank. The Food Bank then distributes the money where it is needed across the state. We will evaluate this approach and see if there are other similar opportunities to pursue. The result per incentive is energy savings for the individual and 120 meals for people in need. This is testing a social consciousness method.

Ken: When does it end?
Margie: It runs in May and June. Then we will evaluate before looking at expanding to other organizations.

Margie said this was a coordinated effort between the Oregon Food Bank and Energy Trust, including residential team members Matt Braman, Susan Jamison, plus Legal, Finance and Portland Energy Conservation, Inc., PECI.

Margie said Energy Trust has a monthly electronic newsletter and blog, Synergy, which was recently picked up by national industry media. Energy Manager Today featured a blog posting on our Quarter 4 results. Also, Portland-based EarthTechling and the national group Alliance to Save Energy picked it up. Margie showed the blog on the website. This is a way we are using our e-communications to reach markets.
Amber: Hannah Hacker and Sloan Schang developed the blog and deserve our thanks.

Margie: We have been working hard for several months with our utility partners since the data sharing agreements were put in place. In March, we started the cycle of notifying customers who can elect not to have Energy Trust contact them. We have had very few elect not to be contacted, approximately 1,500 so far, which is less than we predicted and only a few are businesses. The IT group is working on the data exchange, which will start May 1. The data sharing gives us access to information that we will use for marketing and evaluation purposes.

The Oregon Business Magazine recently released its 100 Best Companies to Work for in Oregon survey results and two program delivery contractors, PDCs, were ranked. Evergreen Consulting ranked 8th out of 34 small businesses surveyed and Cascade Energy ranked 15th out of 33 medium businesses surveyed. Research Into Action, which completes some of Energy Trust evaluations, was ranked 29th in the small business category. Plus, the magazine ranked Energy Trust among the top 100 green companies to work for in Oregon and we will be notified of the actual standing in May.

Margie pointed out that John Reynolds was featured in a *Wall Street Journal* March 15 article on courtyards. Margie read aloud John's quote in the article. John has also authored a book called *Courtyards: Aesthetic, Social and Thermal Delight.*

Margie thanked Debbie Kitchin, who was featured in the Portland Business Journal for her re-election to the board as vice chair. Sending press releases on board nominations to local media was a new tactic this year and has proven fruitful so far.

The Energy Trust office is a demonstration site and on occasion, we offer tours, around one to two per quarter. Recently, there were 25 seven to eight year olds and six teachers from Emerson School. Margie shared some of the thank you notes from the students.

Margie gave an update on the Integrated Solutions Implementation Project, ISIP. Every quarter, the board receives a status report on the major investment of upgrading and changing the data systems used to interact with customers, track projects and complete finance tracking and transactions. Last year, staff worked on Phase 1. A planning exercise in 2011 led to implementation in 2012 of five key areas:

- Data modeling, used for reporting and analysis
- Process analysis, for efficiency gains and easier access and use of data
- Great Plains financial system upgrade
- Microsoft Dynamics Customer Relationship Management, CRM, implementation, which helps gather customer information and provides account management.

All are in place and were completed on time last year as Phase 1.

Ken: How are they working?
Margie: They are working well. There is more to be done on each of these areas, especially on CRM, and forecasting and budgeting. Data modeling and process analysis are foundational pieces, the building blocks for Phase 2 and project tracking. We also have a Business Intelligence component on how we define measures, enter data and extract data. This is used for developing our quarterly and annual reports.
Amber: The CRM user interface is also much improved over the old one. Staff and program management contractor staff use it more because of the ease.

Margie described Phase 2 of ISIP. It starts in June because the current focus for IT is on data sharing. When the board approved the 2013 budget, $1.7 million was approved for Phase 2. Some of those funds will roll over into next year as we will not finish implementation of Phase 2 in this calendar year, largely due to the implementation of the data sharing. Phase 2 is a much broader analysis. It looks at the heart of our system, FastTrack, our project tracking system used extensively by programs, program management contractor staff and program delivery contractor staff. This is where they enter information on where activity is occurring, right down to individual measures. It is also where we get our factual data on the status of projects, what they are saving, and what they are costing. We will be analyzing what is the architecture available to us that would replace that system and we will be building or buying that system. Phase 2 is the priority for the second half of the year. Implementation is expected to start in 2014. We are also fanning out capabilities of our Microsoft Dynamics Customer Relationship Management, CRM. This functionality will be used once data sharing is kicked off. All our projects, including CRM, are being prioritized and we restarted the IT Steering Committee to help oversee the activity. I also meet with Scott weekly to make sure implementation is going well.

Margie described a lighting upgrade at a 5,000 square foot building in Central Point. The building is owned by a retired CPA, Alvin Woody, who made the decision to upgrade the lighting based on the strong data. One positive is the ability for this project to include de-lamping. Margie also described projects completed by Oregon Iron Works, a metal and steel fabricator. The company first started working with Energy Trust on energy-efficiency projects, and has saved more than over 1 million kilowatt hours, and annual utility bill savings of $63,400. The company then went on to install a 30-kilowatt ground-mounted solar electric system.

Adjourn

The meeting adjourned at 2:27 p.m.

***Next meeting*:** The next regular meeting of the Energy Trust Board of Directors will be held Wednesday, May 22, 2013, at 12:15 p.m. at Energy Trust of Oregon, Inc., 421 SW Oak Street, Suite 300, Portland, Oregon.

_____
Alan Meyer, Secretary

Board Decision
Amending Fuel-switching Policy

May 22, 2013

Summary

Amend the board Fuel-switching Policy to clarify that Energy Trust incentives are not intended to encourage fuel switching, but are allowed so long as any decision to switch fuels to install high efficiency equipment is solely a customer's.

Background

- The board fuel-switching policy was first adopted in 2002. In general terms, it provides that Energy Trust will not promote fuel-switching or compare the cost of using alternative fuels. Staff has interpreted the policy to say that incentives are not intended to encourage fuel-switching, but are allowed as long as the decision to switch fuels is solely the homeowner's, and the homeowner is proposing to use eligible high-efficiency equipment.
- When this policy came up for its regular review in May 2011, NW Natural expressed concerns about fuel-switching in the context of space heating. In 2009, Energy Trust stopped offering incentives for high-efficiency gas furnaces, although it continues to provide incentives for high-efficiency electric heat pumps. Market data indicated that consumers were buying high-efficiency gas furnaces without an incentive. In addition, a new federal standard was expected to require furnaces to be at least 90% efficient beginning in 2013. NW Natural became increasingly concerned that offering incentives for high-efficiency electric heat pumps and not high-efficiency gas furnaces would distort competition and make no economic sense for consumers. NW Natural proposed that incentives be offered for both fuels or not at all.
- Energy Trust did not feel we had a viable way to consider cross-fuel economics in setting incentives, and could not resolve the issue with NW Natural. Board review of the policy was postponed while NW Natural sought review by the OPUC, and a docket was opened in December 2011. In March 2013, after hearing from an array of parties, the OPUC determined:
    - The evidence did not show that Energy Trust incentives are causing fuel-switching.
    - Energy Trust may offer a heat-pump incentive to people who heat with gas.
    - Energy Trust should ensure that its marketing and policies encourage economic investment in high-efficiency equipment and avoid inadvertently promoting fuel-switching.
    - Energy Trust policy should make clear that fuel-switching is a customer decision and incentives are not intended to promote it.
    - The OPUC will revisit the issue in early 2015. In the interim, Energy Trust should work with PUC staff to gather independent survey data on the reasons underlying gas customers' decisions to install heat pumps, and the extent to which they continue to use gas as a back-up resource.

Discussion

- Staff has reviewed Energy Trust marketing materials and web copy to ensure that it encourages high-efficiency equipment and does not inadvertently promote fuel switching.
- Staff has also reviewed the Fuel-switching Policy language to make clear that fuel-switching is a customer decision and incentives are not intended to promote it.
- Current policy language may be ambiguous. It reads: "Energy Trust should not provide financial incentives for converting or replacing electric or gas equipment to another fuel." Staff interpreted this language to mean that financial incentives are not provided with the intent of influencing fuel choice. NW Natural read it to mean that no financial incentive should be paid if a consumer switches fuels.
- Staff proposes amending the current policy language to delete any ambiguous provisions and more clearly express that Energy Trust incentives are not intended to promote fuel switching.
- At their meeting on May 8, 2013, the Policy Committee reviewed the proposed revisions to the Fuel-switching Policy, and recommends the changes as indicated below.

Recommendation

Amend the Fuel-Switching Policy as shown in the attached.

RESOLUTION 669
AMENDING BOARD POLICY ON FUEL SWITCHING

WHEREAS:

1. **The Fuel Switching policy provides generally that Energy Trust will not promote fuel-switching, but may provide fuel-neutral technical information on efficiency options. Incentives are not intended to encourage fuel-switching, but are allowed so long as any decision to switch fuels to install high efficiency equipment is based on customer choice.**
2. **In UM 1565, decided in March 2013, the Oregon Public Utility Commission determined, among other things, that Energy Trust policy should be amended to make clear that Energy Trust incentives are not intended to promote fuel switching.**
3. **Current policy language should more clearly express that fuel-switching is a customer choice and incentives are not intended to promote it.**

It is therefore RESOLVED:

1. **The Energy Trust board policy on Fuel Switching is amended as shown in the attachment.**

Moved by: Seconded by:

Vote: In favor: Abstained:

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

ATTACHMENT: Fuel-switching Policy

4.03.000-P Fuel-switching Policy

History			
Source	Date	Action/Notes	Next Review Date
Board Decision	February 27, 2002	Approved (R84)	February 2005
Board Decision	May 4, 2005	Amended (R331)	May 2008
Policy Committee	December 2, 2008	Reviewed-no changes	May 2011
Board	May, 2013		

~~***Summary:***~~

~~The Energy Trust Board needs to provide guidance to the staff on a number of issues that will be important in designing Trust programs. This decision memo addresses fuel switching. In their discussions, the Conservation Advisory Council and the Energy Policy Committee concluded that these guidelines are consistent with the PUC guidelines and advance Trust objectives.~~

~~***Purpose:***~~

~~Give Trust staff guidance on technical and policy issues as it develops new Energy Trust programs.~~

Policy:

- **This policy applies only to energy efficiency measures, not to solar-thermal, geothermal or other renewable energy systems.**
- **Fuel choice is a consumer decision. While Energy Trust offers incentives to encourage consumers to use high-efficiency equipment for the fuel consumers choose, Energy Trust does not intend its incentives to affect fuel choice.**
- **Energy Trust ~~should~~ will not advocate fuel-switching to non-renewable options, but may provide fuel-neutral technical information on efficiency options. That is, Energy Trust may undertake technical studies to identify efficiency opportunities and make recommendations for making an application more efficient for an energy source specified by the energy user. If the energy user expresses interest in converting to another energy source, Energy Trust may perform analysis showing the economics of alternative systems, including the savings and incentives for installing high-efficiency options for the energy source. This type of assistance should help customers consider the merits of their options.**
- ~~**However, the Energy Trust should not provide financial incentives for converting or replacing electric or gas equipment to another fuel.**~~
- **Energy Trust should work with gas and electricity suppliers who wish to provide efficiency information and/or incentives for conversion, where the customer deems that appropriate.**
- **Energy Trust should revisit the Policy periodically to assess whether the Energy Trust is missing compelling opportunities.**

Board Decision
COID Juniper Ridge Phase II Hydroelectric Project

May 22, 2013

Summary

Authorize up to $1,281,820, paid as a lump sum upon completion of construction, to offset the above-market cost of a second phase penstock extension at the Juniper Ridge hydroelectric facility located on the Central Oregon Irrigation District (COID) main canal near Bend, OR.

Energy Trust Goals

- The Juniper Ridge Phase II project supports Goal 2 of the 2010-2014 Strategic Plan: to accelerate the rate at which renewable energy resources are acquired, helping to achieve Oregon's 2025 goal of meeting at least eight percent of retail electrical load from community-scale renewable energy projects.
- With this project Energy Trust will have supported nine operational hydropower projects representing 5.9 megawatts (MW) of capacity and 2.7 average megawatts (aMW) of generation. Three more projects representing 1.1 MW of capacity and .45 aMW of generation are under construction.

Background

- In January, Energy Trust announced a competitive process to allocate up to $2.5 million in incentives for certain types of renewable energy facilities in PacifiCorp territory. Five projects applied, three geothermal, one wind, and this project. Three projects did not meet Energy Trust's funding criteria. Staff recommends this project for funding. Another project is still under consideration.
- COID diverts water from the Deschutes River and operates more than 450 miles of canals to deliver agricultural and industrial water to 45,000 acres of land in the Bend, Redmond, Terrebonne and Powell Butte areas of Deschutes, Crook and Jefferson Counties.
- In 2006, COID applied to Energy Trust for an incentive related to the first phase of the Juniper Ridge project. The facility was conceived as a two-phase project because of the costs associated with the penstock installation (the pipe that conveys water to the turbine). The timing of the second phase was then unknown.
- Energy Trust provided a $1 million incentive for the first phase, 75% of the above-market cost. At $652,000/aMW, it is the lowest energy cost that Energy Trust has paid for hydro.
- The Phase I facility reached commercial operation in 2010 and has operated for two irrigation seasons. It has operated flawlessly and generated energy at 98% of its estimated output. This is an excellent result for any project and especially for irrigation hydro, where the resource can vary from year to year.
- The Phase I installed a 5-MW turbine/generator set and interconnection, but the Phase I penstock provides water for only 3.5 MW. The second phase of the project would add

4,100 feet of penstock, increasing the available head by 43 feet. ('Head' is the height difference from the top of the penstock to the bottom where the turbine is located.) The additional head will allow the turbine to operate at its full 5 MW nameplate capacity, increasing generation by approximately 3,700 MWh annually – a 27% increase.

- The additional penstock is also expected to prevent the loss of 7.8 cubic feet per second of water due to seepage and evaporation. This water will be restored to the Deschutes and Crooked Rivers.
- The project has been approved for a $500,000 grant from PGE's Pelton Fund, which will pay for the water restored to the Deschutes and Crooked Rivers. The project has applied for an additional $500,000 in funding from the Oregon Watershed Enhancement Board and $1.5 million from the Bureau of Reclamation's WaterSmart program. These funding sources also contributed to the financing of the first phase of the project. The project does not have a BETC.

Technical Analysis

- The proposed facility would:
  - add 43 feet of head by installing 4,100 feet of 10-foot diameter steel penstock;
  - utilize average flows of 500 cubic feet per second during the irrigation season, April through October annually;
  - generate approximately 3,700MWh annually; and
  - be a Qualifying Facility, selling to PacifiCorp under standard rates and terms.

Financial Analysis

- Energy Trust determines project incentives based on a project's above-market cost, i.e., the difference between the cost to produce the power from the project over its life and the market value of the equivalent grid power at standard rates. Above-market costs are calculated as a net present value, which is the sum of the discounted value of the installation costs and the annual operating expenses of the project over its lifetime.

Project Financial Summary - Net Present Value Basis - Evaluated over 20 years		
Revenues		
Power Sales	$	2,729,599
Grants	$	2,500,000
NPV Total Revenues	**$**	**5,229,599**
Costs		
Capitalized Cost	$	6,500,066
Operations Expenses	$	11,353
NPV Total Project Cost	**$**	**6,511,419**
Above Market Cost (Revenues minus Costs)	**$**	**(1,281,820)**

- Staff and an independent contractor reviewed the project design and costs and found them to be standard and reasonable.
- The project's costs are $1.281 million above market over a 20 year period on a present value basis.
- Staff proposes to pay $1,281,820 as a lump sum upon the project re-commencing operations.
- The energy from Phase II would cost Energy Trust $3.01 million/aMW. Considering this phase in isolation, this cost would be in the mid-range of that provided for other hydropower projects. Considering incentives for the first and second phases combined, the cost to Energy Trust would be $1.16 million/aMW, less than any other hydro we have funded except Phase I of this project. Either way, the cost is well below the range of the 2013 Other Renewables budget goal of $7.5 to $14.1 million/aMW.
- Energy Trust will receive 100% of the expected additional Renewable Energy Certificates (RECs) produced by this phase over 20 years (74,000 RECs, total).
- The 100% REC allocation is consistent with board policy requiring Energy Trust to take ownership of RECs in proportion to its contribution to above-market costs (100%). Because we would be paying more for these RECs ($28, levelized) than the market forecast ($6, levelized), we do not need to consider reducing our REC allocation (board policy reduces the allocation if we are paying less than the market price for RECs).
- Staff proposes to negotiate a contract with COID with milestones to allow Energy Trust to withdraw funding if the project is unable to move forward.
- Funds for the project are within the 2013 Other Renewables program budget.

Recommendation

Authorize the executive director to negotiate and sign contracts committing $1,281,820 in funding for the COID Juniper Ridge Phase II project, by adopting resolution 667, below.

RESOLUTION 667

APPROVING FUNDS FOR THE CENTRAL OREGON IRRIGATION DISTRICT JUNIPER RIDGE PHASE II GENERATION PROJECT

WHEREAS:

1. **The Central Oregon Irrigation District proposes to add 4,100 feet of penstock to increase the generation at its Juniper Ridge hydropower facility by 3,700 MWh annually, a 27% increase in generation.**
2. **Staff and an independent contractor reviewed the project design and costs and found them to be standard and reasonable for what is proposed.**
3. **The project's costs are $1.281 million above market over a 20 year period on a present value basis.**
4. **Staff proposes an incentive of $1,281,820 to be paid as a lump sum upon the project re-commencing operations.**
5. **At the proposed payment, the energy from this phase of the project would cost Energy Trust about $3.01 million per average megawatt (aMW). The cost of energy from both phases combined would be $1.16 million/aMW. Calculated either way, the cost is well below the range of the 2013 Other Renewables budget goal of $7.5 to $14.1 million/aMW**.

It is therefore RESOLVED, that the board of directors of Energy Trust of Oregon, Inc. authorizes:

1. **Payment of up to $1,281,820 to be paid to Central Oregon Irrigation District to offset the above-market costs of phase II of the Juniper Ridge hydroelectric plant;**
2. **Energy Trust to take ownership of 74,000 RECs produced by Central Oregon Irrigation District; and**
3. **The executive director to enter into a contract(s) consistent with this resolution.**

Moved by: Seconded by:

Vote: In favor: Abstained:

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

Briefing Paper
Lockheed Martin Existing Multifamily Contract Extension
May 22, 2013

Summary
Energy Trust Staff proposes to extend the Existing Multifamily contract with Lockheed Martin Services, Inc. (Lockheed) for two years, from January 1, 2014 to December 31, 2015. The original contract with Lockheed was for a two-year period from 2011-2012 with the option to extend for up to three additional years. The board previously granted a one-year extension for the 2013 contract period; this proposal will leverage the option to extend the contract for two additional years: 2014 and 2015. The executive director may extend the contract for these additional two years if extension criteria are met and the board does not object.

Background
- The Existing Multifamily contract provides technical assistance and financial incentives for multifamily properties with two or more attached units, assisted and campus-living facilities.

- In November 2010, the board authorized a contract for program management and delivery services through Lockheed. From 2011-2012, Lockheed spent $2.7 million and achieved 28.5 million kWh and 174,199 therms. The budget for 2013 is $2.6 million and the program is expected to achieve 17.9 million kWh and 127,722 therms.

- The 2014 budget is proposed as $2.6 million with a stretch savings goal of 19,124,470 kWh and 136,622 therms.

- A single, two-year extension is recommended as it will:

    - Help mitigate anticipated staffing constraints from other major programs out for rebid in 2014.

    - Provide the ability to integrate services to additional market segments that have been added to the program over the last several contract years.

    - Allow staff to complete several long-term initiatives; MPower Oregon and Memory Care Lighting pilots, custom process redesign improvements, and continued seamless rollout of additional technologies through midstream incentive efforts.

Discussion
- Staff has assessed Lockheed's performance against the following criteria and determined that Lockheed has satisfactorily performed through:

    1. **Cross-program referrals:** Lockheed has done an outstanding job referring project and business contact leads for Energy Trust Existing Building, New Building, Single Family and Solar program participation through the efforts of business development staff.

    2. **Program Results:** Lockheed has continued to deliver exceptional savings results, acquiring 15.3 million kWh and 106,000 therms in 2012 achieving 108% of the stretch goal for electric savings and 120% of stretch the goal for gas savings. These savings

represent a 16% increase in electric savings and 56% increase in gas savings from 2011 to 2012.

3. **Project pipeline:** As of this May 2013 briefing, Existing Multifamily is currently forecast to exceed conservative goals in all four service territories with the pipeline expecting to grow and push past stretch goal. Continued growth of savings potential and increased customer satisfaction is expected in 2014 as extensive business development in all market segments is coupled with midstream incentive efforts in order to yield increased custom and prescriptive project savings.

4. **Innovation:** Lockheed has consistently introduced new technologies and methodologies to the Existing Multifamily program since it began as the program management contractor, such as a custom study and incentive track, new prescriptive gas and electric measures, Ductless Heat Pump pilot, and midstream appliance incentive efforts. In addition, Lockheed's technical expertise has been instrumental in shaping the MPower Oregon and Memory Care Lighting pilot projects. These pilots, scheduled to begin their implementation phase in the second quarter of 2013, are designed to target energy efficiency in affordable housing and memory care facilities.

5. **Teamwork:** Lockheed has been flexible in meeting Energy Trust's priorities to provide new initiatives, incorporate planning and evaluation results, achieve stellar audit results, submit invoices on time, and constantly improve on monthly reports and the accuracy of forecasting. Their collaborative efforts to coordinate Existing Multifamily services and incentives with MPower Oregon's launch have been extremely impressive.

6. **Deliverables:** Lockheed has consistently met deadlines for deliverables in their contract, as well as for information requested on an as-needed basis.

- For these reasons, staff recommends extending the contract with Lockheed to manage and deliver Existing Multifamily for an additional 2 years until December 31, 2015.

Next Steps

Staff recommends that the contract with Lockheed Martin Services, Inc. for delivery of the Existing Multifamily contract be extended to December 31, 2015. If the board does not object, the executive director is authorized to sign a two-year contract extension, as appropriate later in the year.

Evaluation Committee Meeting

May 3, 2013, 10:00 am-1:00 pm

Attendees

Evaluation Committee Members
Debbie Kitchin, Board Member – Committee Chair
Mark Kendall, Board Member (phone)
Dave Slavensky, Board Member
Anne Root, Board Member
Ken Keating, Expert Outside Reviewer
Tom Eckman, Expert Outside Reviewer

Energy Trust Staff
Steve Lacey, Director of Operations
Peter West, Energy Programs Director
Fred Gordon, Director of Planning and Evaluation
Phil Degens, Evaluation Manager
Sarah Castor, Evaluation Sr. Project Manager
Dan Rubado, Evaluation Project Manager
Erika Kociolek, Evaluation Project Manager
Elaine Prause, Sr. Manager of Planning
Ted Light, Planning Sr. Project Manager
Andrew Hudson, Planning Project Manager
Adam Shick, Planning Project Manager
Jackie Goss, Planning Engineer
Paul Sklar, Planning Engineer
Kim Crossman, Industry and Agriculture Sector Lead
JP Batmale, Industrial Program Manager (phone)
Amber Cole, Director of Communications and Customer Service
Sue Fletcher, Communications and Customer Service Sr. Manager
Matt Braman, Homes Sr. Program Manager
Andrew Shepard, Homes Project Manager

Outside Attendees
Lance Kaufman, Oregon Public Utilities Commission

Agenda

1. Production Efficiency Program Process Evaluation 2012
2. Sustainable Energy Systems for Wastewater Treatment Plants, Report 2
3. New Homes Air Sealing Pilot Evaluation
4. Heat Pump Baseline Market Update

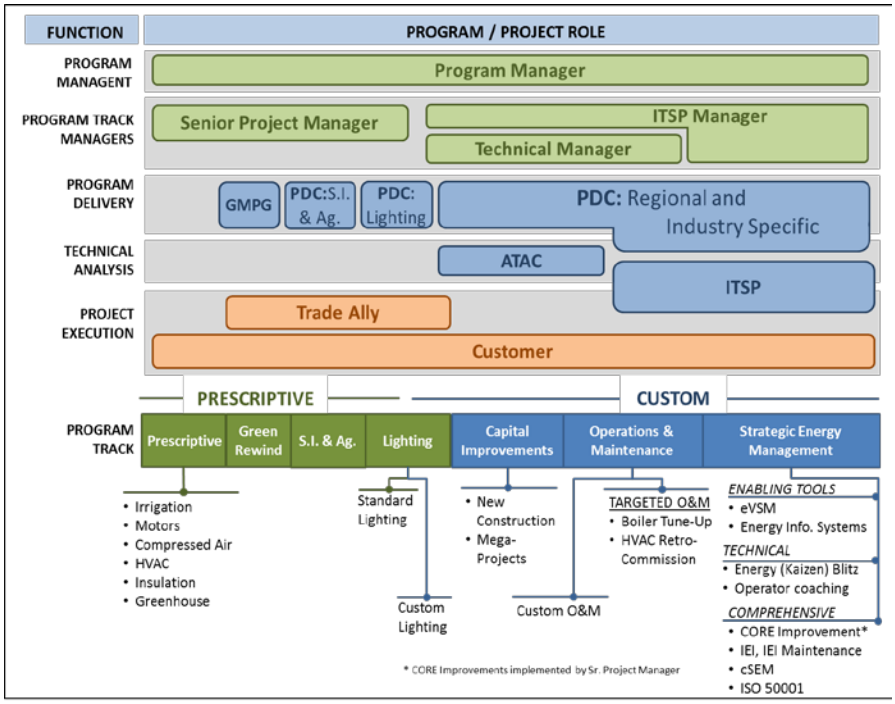
1. Production Efficiency Program Process Evaluation 2012

Presented by Phil Degens

Background and Methods: The study period for this process evaluation of the Production Efficiency (PE) program was 2012. As is noted in the evaluation, the program is continuously changing and making adjustments, so some information in the report may have changed

slightly. Kim Crossman, the Industry and Agriculture sector lead, will be able to identify major changes made to the program. Research into Action was the evaluation contractor for this evaluation. In terms of methodology, Research into Action did many interviews with program staff, Program Delivery Contractors (PDCs), Industrial Technical Service Providers (ITSPs), Allied Technical Assistance Contractors (ATACs), small industrial trade allies, lighting trade allies and motor service centers. The contractor also reviewed documents and data. You may notice we did not do participant interviews as part of this process evaluation. Last year, Susan Jowaiszas, Senior Marketing Manager for the commercial and industrial sectors, undertook a number of in-depth surveys and interviews of industrial, commercial, multifamily and new construction program participants for several market research projects. We did not want to interview participants a second time, so we opted not to include participant interviews in the scope of this process evaluation. Debbie asked if the results of these surveys and interviews are available. Kim responded that there are four separate reports posted on our website. Phil added that Susan Jowaiszas will present the results of this research at the next evaluation committee meeting; we have found the studies to be interesting and useful. The results have led to a number of outcomes, including the creation of the Champion newsletter.

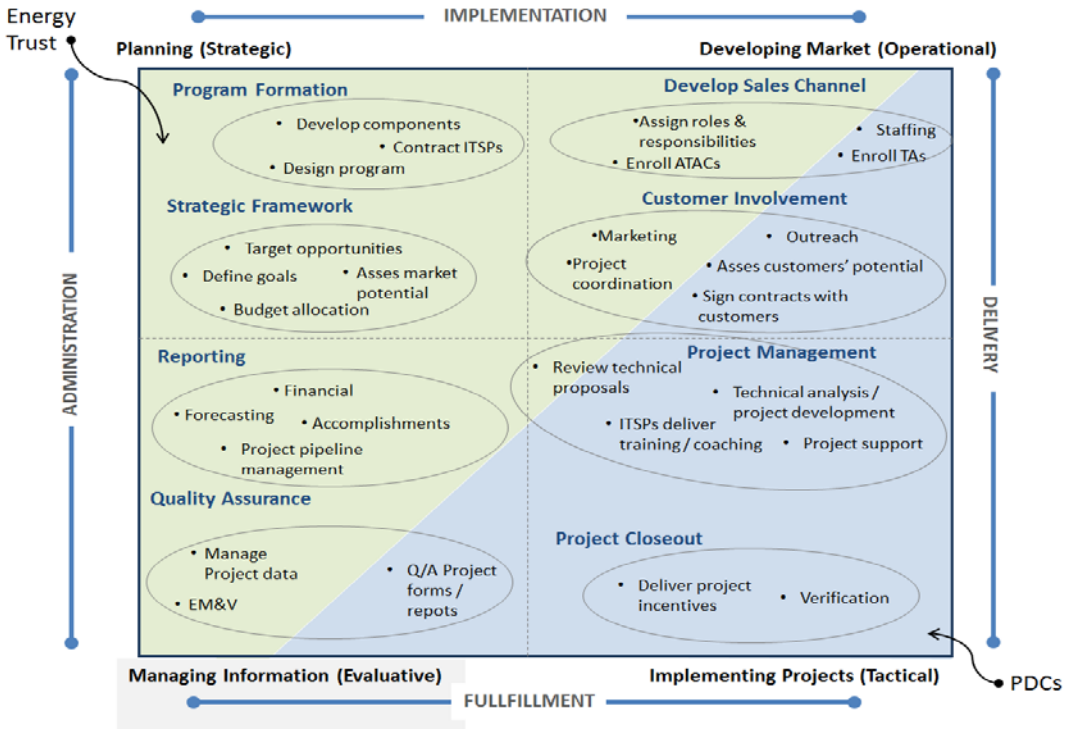
The Production Efficiency (PE) program has been meeting its goals in 2010 and 2011. With the PE program there are always going to be variations over time as megaprojects come and go, which can account for a large portion of savings in a given year. It is hard to do year-to-year comparisons of the program; it is probably best to look at moving averages. The program is doing well and is providing electric savings, as well as gas savings on a more consistent basis.



Program Structure: The image above summarizes the entire program in one picture. The program structure is complex, but not complicated. There are multiple PDCs segmented geographically, by industry and end use. The program has expanded its offerings into Strategic

Energy Management (SEM) and Operations and Maintenance (O&M), increasing the number of Industrial Technical Service Providers (ITSPs) offering different flavors of SEM and increasing the number of offerings, such as boiler tune-ups and HVAC retro-commissioning. The CORE initiative is bringing SEM to smaller customers. Phil clarified that the PE program is focused on sites doing industrial processes and manufacturing. If there is manufacturing at a site, it falls into the industrial sector, which encompasses agriculture, too.

Over time, the program structure has become streamlined. Since the last evaluation, we have removed one layer of management. In the past, Energy Trust managed a Program Management Contractor (PMC) who managed the Program Delivery Contractors (PDCs); now we are doing that in-house. Currently all lighting projects run through the lighting PDC. Debbie asked if a site has a process change and lighting project would there be two PDCs. Kim responded that the lighting PDC coordinates lighting trade allies. A custom PDC would advise a site to look at lighting, but would not deliver the lighting project. Allied Technical Assistance Contractors (ATACs), who do studies are assigned to sites by Energy Trust staff. Custom projects sometimes skip the study phase if a PDC or the Industrial Program Manager or the Industrial Senior Technical Manager sees there is enough information to provide a good estimate of project savings. In that case, they can move to a direct offer. The Small Industrial Initiative is harnessing the vendor network that focuses on smaller-sized projects, either small customers or small projects for large customers, and developing diverse savings calculators. Quarterly PDC meetings allow knowledge to be shared between PDCs; other trade allies are occasionally invited to those events. The program developed uniform procedures and guidelines for technical studies and review of those studies, which have been helpful to those involved in the study process.



The image above shows how the PE program is set up. The process evaluation report details how the program is structured. In this presentation, we focus on outcomes and analysis of the evaluation rather than reviewing all of the information in the report.

Program Marketing: PDCs have a major role in marketing program services. Vendors are engaged through the Small Industrial Initiative, Lighting Contractors Network, and Green Motor Rewind. The SEM program is a way to foster additional capital projects, get firms to think about energy management, and incorporate it into their operating procedures and culture. The program has many marketing efforts, including developing collateral and case studies, the Champion newsletter, and the Oregon Leaders Award, which was implemented by the program last year.

Some PDCs are still classifying customers by project volume. The program seeks to take a context-dependent sales approach: PDCs should assess what the customer is doing at that point in time, identify constraints, and determine which of our offerings are best suited for their interests and constraints. Kim noted that we don't want to communicate the complexity of the program to customers; Phil added that we want PDCs to understand the complexity so they know how to simplify the offerings for customers. ITSPs voiced satisfaction with PDC marketing of their services. Kim added that ITSPs deliver SEM training and services, which include retro-commissioning and technical services focused on O&M. PDCs are pleased with program components and offerings. For some PDCs, the variety of program components helps them reengage customers and tailor their approach.

Dave asked what allows customers to learn from each other, and is there a mechanism to enable that versus having a trade ally or PDC talk with them individually. Phil noted that we have a variety of offerings that allow for this type of interaction, including SEM and CORE, as well as Industrial Energy Improvement (IEI). These offerings group customers into cohorts and, through trainings, they meet and learn from each other. Dave commented that in general, manufacturing companies often don't talk to each other. Debbie suggested working through industrial associations to facilitate discussion of energy and energy savings. Mark asked how many people receive the Champion newsletter, which could be a vehicle to cross-fertilize different industries' experiences. Kim responded that there about 3,000 recipients, and the newsletter has a very high open and click through rate. Mark asked if those 3,000 recipients are mostly prior participants. Kim responded that many of them are, but the list is more than just prior participants. She added that the Northwest Industrial Efficiency Summit, which Energy Trust organizes with others in the region, is an opportunity for cross-fertilization. Additionally, the Northwest Energy Efficiency Alliance (NEEA) funds technical trainings throughout the region.

Dave added that there are other organizations talking with industrial customers on a regular basis that we may be able to engage with. Anne added that she has not seen energy-focused information coming out of the wine board or local wine associations, but this is of interest. Kim responded that Energy Trust staff and sometimes PDCs work with market actors and associations. We are very engaged with the Oregon Manufacturing Extension Partnership and food processors associations; we want to work with groups that can be influencers.

Kim noted that the program is about to propose a shift in how it serves smaller industries in 2014. Our intent is to expand customer services; this is one of two major changes you will see in the 2014 budget. Our intent is to begin to engage with these folks that we have not previously worked with.

There are a variety of ways a project can come in to the program, including a direct offer, if there is sufficient information to provide a good estimate of savings, or a scoping study by PDCs. The Industrial Senior Technical Manager reviews scoping studies and any available information and determines whether a study is needed or if a direct offer can be made.

Allied Technical Assistance Contractors (ATACs): We wanted to interview ATACs about the capital project process. They feel the proposal process has improved over past five years due to better scoping studies and better information. There are some concerns that RFPs for studies make assumptions that constrain potential projects. ATACs suggested a pre-proposal phone conference between ATACs and PDCs, increased scoping report details, and contingency funds to cover additional opportunities. For example, if ATACs see an opportunity when they are at a site, they want the flexibility to ask for approval to increase the scope. ATACs feel that the PDCs shape the way customers are involved in the studies and the speed by which they can complete the site work. ATAC suggestions are to include ATACs in PDC meetings with customers to initiate the study, PDCs could work with customers to gather quotes from vendors in support of ATACs' cost projection work, ATACs would benefit from knowing customers' rate structures and, if ATACs discover additional savings opportunities, they can amend project scope and budget.

Kim noted that it is an intentional program design to not do comprehensive audits. PDCs scope out what the customer is most interested in doing to develop an in-depth study with a narrow scope. This keeps study costs low. Phil noted this might be an opportunity to communicate to ATACs that they can contact the Industrial Senior Technical Manager or the PDC for additional information about opportunities they see at sites.

ATACs were satisfied with study acceptance procedures and invoicing processes. They are concerned about situations where their reports require multiple revisions. Some ATACs would like increased PDC involvement in study drafts, and would like feedback from the program regarding customers' use of study recommendations. Kim noted that this is a very useful recommendation coming from the evaluation. Mark asked how well the program is doing in routinizing analysis and toolsets for measures. Phil noted that the guidelines for studies were developed with ATAC and PDC input. Kim added that the program doesn't have standardized calculation tools for custom projects—it is completely data-driven.

Program Delivery Contractors (PDCs): PDCs voiced minor areas for improvement. Some PDCs expressed concern that they lacked a mechanism to help ATACs finish studies on time. A few PDCs mentioned concern about project tracking paperwork.

Research into Action looked at 87 cancelled projects and the notes field in our project database. 72% of these projects had a reason for cancellation documented in the notes field. Research into Action categorized the reasons for cancellation into two bins: business and project reasons.

62% of projects were cancelled for business reasons. Dave asked if that percentage had changed over time. Phil noted we have not been capturing this long enough to see trends over time. 24% were an appropriate outcome of the study process in that there were no qualified savings, or they were captured by another program component. Evaluation recommends the PE program track the reason for project cancellation on a more consistent basis. The program should also consider standardizing the notes field so it is easier to analyze. Lance suggested including information on what would need to change (if anything) to make a cancelled project move forward in the future. Phil noted we are also recommending that the Existing Buildings program capture the reason for project cancellation. If this information is clearly stated in the notes field, we do not need to bother participants for evaluation purposes.

Industrial Technical Service Provider (ITSP) Projects: PDCs are responsible for identifying ITSP candidates and engaging customers in these components. PDCs reported few challenges in promoting ITSP projects to their customers. Most ITSPs reported no issues with the promotion of their offerings, although one felt PDCs needed to increase gas efficiency expertise.

PDCs help identify key customer staff to participate and set up kickoff meetings. PDCs are also present at the conclusion of ITSP projects. They review project outcomes and work with customers to identify new program opportunities made possible from these outcomes. For Industrial Energy Improvement (IEI) and CORE participants, PDCs can provide capital offerings and ongoing support to maintain SEM efforts. PDCs often supplement ITSP work by providing technical insights about customers' systems and processes. Some PDCs and ITSPs expressed concern about how to budget the technical services provided by PDCs in projects. Kim commented that it is not clear how involved PDCs will be in the technical delivery of SEM services—it depends on the site, the site's relationship with the PDC, and any special knowledge the PDC has of the customer. This is a challenge for both ITSPs and PDCs; Energy Trust staff can work to provide clarity on this.

ITSPs believe market saturation is only a concern for small markets or markets restricted by the component's structure, such as components requiring specific participant characteristics. Refrigerator Operator Coaching and IEI are two such offerings. Debbie noted that there is opportunity for more in-depth offerings for these groups even if we have touched the majority of the market.

Small Industrial Initiative: Most trade allies reported no challenges in working with customers or with the program's method for verifying energy savings. Trade allies reported a high level of satisfaction with PDCs. Trade allies reported only mentioning program incentives once they determine the project will qualify for incentives, which is good. Challenges mentioned by trade allies included: customer concerns over the time that is required to apply for incentives, trade allies working through layers of management for project approval, project payback and customer resistance to change. They mentioned program incentives, reduced utility bills and project payback as factors that help move projects forward.

Lighting: We interviewed 17 lighting trade allies about both commercial and industrial projects. Almost all of them reported positive outcomes from their association with the program. They felt their firm received broader exposure and referrals, and that customers had trust in the firm from

their association with Energy Trust. Respondents noted that challenges to serving this sector include: lighting in locations that are difficult to access, project sites in remote locations and having to work around production schedules. Six lighting trade allies had worked with a sufficient number of PDCs to comment on their interaction with them. Four had positive experiences and two had negative experiences. The respondents that had a negative experience with PDCs felt that the PDCs did not provide accurate cost or equipment information. Lighting trade allies suggested increasing incentives or pay for performance.

Green Motor Rewind: Respondents felt the program is supporting them well. There were mixed reports on whether this service is growing or declining.

Data Service Management: Program staff report the structure and organization of FastTrack, Energy Trust's project tracking system, limits its usefulness. Due to industrial projects' long timelines and multiple program tracks, it can be difficult to track projects in process. Kim noted that when the organization looks into replacing FastTrack, she hopes the needs of the industrial program can be met.

We will discuss industrial participant surveys and interviews in detail at the next meeting.

Market Assessment: The PE program is on track to achieving its 20 year resource potential in 14 years. Ken asked for clarity in a subsequent draft of the report on whether the forecast technical potential is for the whole state, Energy Trust territory or something else. Kim noted that we serve all industrial customers in Energy Trust service territory; the exception is that we do not serve transport gas customers. Phil noted there are some differences in energy efficiency opportunities between the region and Energy Trust's service territory that may lead to divergent priorities between the program and other efforts across the region. For example, technology is a much larger portion of Energy Trust's portfolio compared to the Pacific Northwest, and the region serves more pulp and paper firms than Energy Trust's program does.

The PE program has firms from a wide variety of industries. The uptake of O&M and SEM in many different sectors demonstrates the suitability of low- and no-cost program components to deal with financial barriers posed by economic downturns.

Conclusions and Recommendations: The program is meeting the challenges it faces in its implementation of a program previously implemented by a third-party contractor, its development and delivery of new and innovative program components, and its management of risks posed by cancelled and stalled projects. The program was effective at developing sales-focused program roles and implementing frameworks to oversee program activities. The program should develop additional materials to help PDCs explain the organization of the program's offerings around different program partners' roles, especially as offerings change. PDCs are effective at expanding the program's sales channel by enlisting trade allies and working with utility account managers. The program is effective at involving customers in the initiation of energy projects.

PDCs are satisfied with Custom Capital and O&M tracks' processes, and had several suggestions, including revising their contracts with ATACs to allow PDCs to oversee the

timeliness of ATAC's work. ITSPs are satisfied with the program's support for their activities, and suggested implementing more detailed natural gas scoping procedures and continue restricted PDC technical support of ITSP-led projects to ensure participants are actively engaged in training.

Dave commented that it might be helpful to utilize an e-mail blast or newsletter to remind customers about O&M upkeep, otherwise the practices can erode over time.

Other conclusions and recommendations: The program implements effective quality assurance practices, and is making progress toward moderating risks posed by cancelled projects. Mark asked for additional detail about the cancelled projects and the time period they represent. Phil responded that this is over the past two years, so about 5% of projects. Kim added that the program has a hit rate on studies of 50% within two years, which is by design. The program is trying to show customers the things they can do that are not necessarily the lowest hanging fruit.

Energy Trust Take: The Production Efficiency (PE) program has been proactive in developing pilots and developing new categories of efficiency services. These services address specific customer barriers and help build the pipeline of future projects. The PE program has a set of highly qualified and satisfied partners that are able to provide efficiency services to Oregon's diverse and geographically dispersed industries. Phil noted that the evaluation team is developing our Geographic Information Systems capabilities. We are looking at how dispersed PE projects are across Oregon on a project basis and the program has done projects in all of the areas we serve. Next, we want to look at how to show energy savings at sites in a geographic context. Mark noted that the nuance coming out of this evaluation attests to good program design. Mark also congratulated the Production Efficiency program on their American Council for an Energy-Efficient Economy (ACEEE) award.

2. Sustainable Energy Systems for Wastewater Treatment Plants, Report 2

Presented by Phil Degens

Background: The Sustainable Energy Systems (SES) for Wastewater Treatment Plants pilot evaluation had a study period of October 2012 to January 2013. This evaluation was done by Navigant Consulting, and is the second of two reports. The SES pilot is run by the Oregon Association of Clean Water Agencies (ACWA). It is a collaborative effort involving a number of organizations. The SES goal is for Oregon waste water utilities to become energy independent through energy efficiency and renewable technologies, while achieving excellent environmental and water quality standards. Seven training workshops were held between April 2010 and May 2011; thirteen waste water treatment plant (WWTP) operators participated. Commitment from upper management was required to participate. All participants wrote final reports. No energy savings resulted directly from this program, although capital projects did occur at many of the WWTPs.

Interviews: Navigant interviewed participants from nine WWTPs and one individual at the Department of Environmental Quality. Eight of nine facilities have been able to maintain the changes implemented during the training. Two respondents encountered challenges in

maintaining the Operations and Maintenance (O&M) changes. Seven of nine said they still had a formal energy team in place. The other two respondents said their formal energy team was not meeting, but they regularly discussed energy use and savings in other forums. Three WWTPs had set numeric goals during SES; one achieved five year goals and two thought they were on track to meet their goals. SES spurred them to look at other programs and practices, such as ISO 140001 (an environmental standard), Leadership in Energy and Environmental Design (LEED) and citywide sustainability practices. All participants said they still track energy use at facilities.

Since the last interviews with these participants, three indicated specific O&M improvements. All had implemented efficiency measures on their opportunity register. Five had completed or were implementing renewable energy projects and most could list specific technical and energy management skills learned at SES that were useful. The most common suggestion for follow-up support was facilitating sharing information with other participants. Respondents wanted to see who was successful, what they were doing and how they were doing it.

Conclusions: SES provided a foundation for continued energy improvement. All participants had new O&M initiatives, energy efficiency upgrades or renewable energy projects since participating in SES. Energy Trust should continue to sponsor this training implemented by ACWA. Kim noted there is a second cohort, and a third has been proposed in Southern Oregon if a sufficient number of participants can be recruited.

Energy Trust Take: Sustainable Energy Systems (SES) is a low-cost opportunity that primes customers for Energy Trust offerings. Kim noted that the program has recruited two facilities in the second cohort into Energy Trust offerings. Phil noted that SES is difficult to replicate because it is a niche market, and there are a limited number of customers of the right size. If we do find similar initiatives, we should support them as they arise. NEEA did something similar with food processors, but it is hard to find an organization like ACWA. Fred noted this is almost a feeder mechanism for SEM and capital projects. Fred clarified that we are not measuring O&M savings from this effort. Kim responded that we chose not to build models for each facility as part of this program because it is expensive, and this is an experiment with a much lighter touch. It is similar to what other utilities in the country are doing, which is more marketing and less technical. It is a good test for us. Phil noted that as we reach all the sites that are interested in participating in this program, this may be something we stop doing, and then pick back up again in five years when new personnel are in place.

3. New Homes Air Sealing Pilot Evaluation

Presented by Dan Rubado

Background: PECI, the PMC for the New Homes program, came up with this air sealing initiative and administered it. Conservation Services Group (CSG) assisted with implementation. Fluid Market Strategies (Fluid) was the technical testing lead for the pilot blower door testing. Adam Shick, Planning Project Manager at Energy Trust, ran cost-effectiveness numbers.

Description: This pilot was intended to test an air sealing measure for new residential construction that could be installed cheaply and easily by subcontractors. The measure chosen

was sill sealer, which is attached to the top plate before drywall is installed. The sill sealer was installed by insulation subcontractors and Energy Trust provided a $125 incentive. To evaluate the effectiveness of the measure, blower door tests were conducted post-construction on a sample of treated and untreated (baseline or comparison) homes. Lance asked if the treated and baseline homes were the same. Dan responded that in some cases, there were homes in both the treatment and baseline groups constructed by the same builders. In general it was a smattering of homes of similar sizes that ended up in each group. Ken asked about the sill sealer. Dan responded that the sill sealer is thin, plastic-based foam that is about five inches wide and comes in 50-foot rolls. Contactors roll out sill sealer and staple it to the top plate. Debbie asked about the thickness of the product, and if there were any concerns that it would affect the drywall. Dan responded that the material is compressible and thin. One large drywall and insulation contractor did 95% of the installations for the pilot; they had their own drywall teams trained on how to install this product properly.

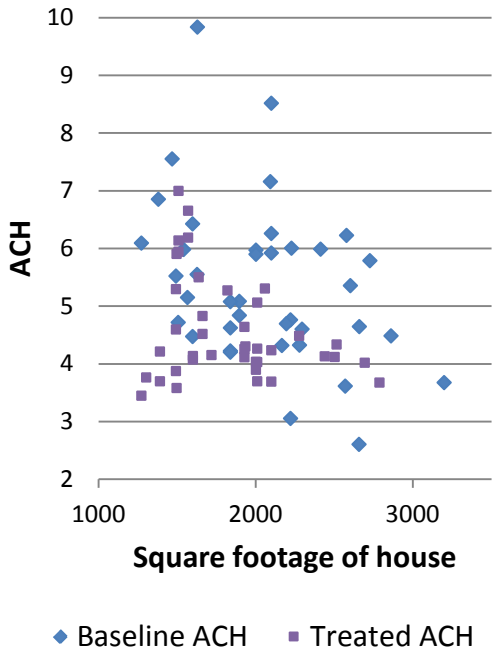
Pilot Goals: To test effectiveness of new measure, test market acceptance, test delivery via subcontractors, reach code-built homes and builders, and treat 1,700 homes. The pilot was focused on code-built construction, not program homes.

Timeline: Initiative planning began January 2012. In May, training for subcontractors began, and the incentive process was developed. In July, the first incentive applications came through the program. In August, the program conducted blower door testing on treated and baseline homes when there were a sufficient number of completed projects. The pilot period ended in December.

Measure Testing Methods: Blower door tests were conducted on 40 treated, code-built homes and 39 baseline homes. Dan compared the reduction of air infiltration between treated and baseline homes, which was then input into multiple energy simulation models to estimate annual energy savings.

Evaluation Methods: Evaluation reviewed the blower door test results and savings from Fluid, analyzed pilot participation data, estimated measure cost-effectiveness, and conducted a series of interviews with pilot staff and subcontractors involved in the pilot.

Pilot Participation Data: 340 new homes were treated as part of the pilot; 95% of them were gas-heated homes. Four subcontractors out of the initial eleven that were trained in workshops went on to install sill sealer in all of these pilot homes. 95% of all sill sealer installations were done by one large drywall and insulation subcontractor. We did quality control inspections on 30 homes; 29 passed inspection and one home did not. In that case, the drywall contractor removed the measure. This proved to be a challenge in other homes, which will be discussed later.



The graph above shows air changes per hour (ACH) measurements plotted against home square footage. The blue dots represent baseline homes, and the purple represent treated homes. On average, treated homes had 0.8 fewer ACH. This is close to our initial assumption that sill sealer would reduce ACH by 1. This is a highly significant reduction in ACH. Matt commented that for Energy Star 3.0, builders need to get to 4 ACH; these results show we can get about half of what we need to with this one measure. Debbie noted that in the report, it looked like many homes moved into the Energy Performance Score (EPS) program because subcontractors involved in this pilot convinced builders to go through the training. That spillover impact is not counted here.

Energy Savings Estimates: We plugged this reduction in ACH into the Simple Energy and Enthalpy Model (SEEM) software and REM/Rate™ software for residential building energy models. Below are the estimated energy savings for typical 2,200 electric and gas heated homes built to code in heating zone 1.

Energy Model	Heating Fuel	Initial Energy Savings Projection	Final Energy Savings Estimate	Energy Unit
SEEM	Electric	--	**141**	kWh
SEEM	Gas	--	**13**	Therms
REM/Rate	Electric	195	**156**	kWh
REM/Rate	Gas	21	**17**	Therms

Our initial energy savings projection was about 20% higher than the final energy savings estimate. Tom asked about the assumed heating system in these models. Dan responded that

for electric homes, the heating system assumption was a code-efficiency heat pump. Dan also noted that in the SEEM model, you can pinpoint where air infiltration is being eliminated; REM/Rate is not as specific in this regard.

Measure Cost-Effectiveness: We used SEEM estimates in our cost-effectiveness estimates because they are more conservative. The total benefit, and therefore the benefit-cost ratio, is influenced by measure life. The typical life of other Energy Trust shell measures is 45 years. If we assume a 45 year measure life, the benefit-cost ratio is just above 1 for gas-heated homes. For electric-heated homes, the measure is cost-effective even if the measure life is reduced to 30 years. Ken noted that the cost of the measure is bound to go down as it becomes more widely used. Dan added that towards the end of the pilot, the subcontractor that installed the measure in 95% of the pilot homes started buying sill sealer in large quantities and got better rates, which drove down cost.

Interviews: Dan conducted interviews with pilot staff, distributed surveys after subcontractor training, and conducted early feedback and post-pilot interviews with subcontractors.

Staff Interviews: Staff reported that they learned a lot about the measure, as well as outreach and communication with builders and subcontractors. They reported that simplifying measure paperwork early in the pilot was successful. Staff felt good about training a large proportion of subcontractors on this measure. Staff reported there were some participation issues, namely getting subcontractors motivated to install the measure. They also reported that the measure gained market awareness; it became standard practice in EPS homes. The number of measure installations through the pilot was lower than the original goal, but staff felt the concept had been proved through the pilot. Dave asked how the measure had gained awareness if only a small number of subcontractors actually installed the measure and some builders were not receptive to it. Dan responded that the subcontractors know about the measure through training, and Matt added that a number of subcontractors are installing the measure in program homes, but these did not qualify for the pilot. Anne asked about drywall contractors removing the measure. Dan responded that we will discuss that in more detail soon.

Staff noted that the incentive was not enough to do installations, and that there was a learning curve for this new service. There was a fair amount of resistance from drywallers and builders, which led to issues with measure removal. Staff reported a few cases of drywall contractors removing the measures. The program did quality control inspections and blower door tests, but for the vast majority of installations done this was not an issue. Tom noted that if the program wants to move forward with this measure, it needs to address this issue head on with drywall contractors. He also suggested checking back in a year or so on the condition of the drywall. Dan responded that the firm that did the majority of measure installations was a drywall and insulation contractor. They figured out how to modify their installation protocol so the sill sealer was not damaged by drywall. Tom suggested making this firm a case study and getting them out in front of other drywallers and builders to share their technique. Dave noted that drywallers are a fractured group; they are competitors so they don't band together well. Builders have to want this to be in their homes. Dan agreed that education and outreach to builders was necessary moving forward. Overall, staff thought the measure should be continued. Debbie

recommended that training and techniques for installing the measure be shared among subcontractors.

Training Workshop Evaluations: Contractors were satisfied with the training workshops, however it did not motivate them to install the measure.

Subcontractor Interviews: Subcontractors that participated in the pilot reported they were motivated by their involvement with Energy Trust, wanted to offer services to builders, and wanted to test the air sealing measure for EPS homes. All subcontractors were interested in future initiatives with Energy Trust. Subcontractors that did not participate in the pilot were more likely to say "the incentive is not worth it." Some also said the costs were too high in larger homes where more material was used. Other barriers reported by subcontractors included: they did not do much work in code-built homes, they encountered a lack of interest from builders, and had no time to handle the administrative burden. Debbie noted that for small firms, they may not have much administrative support in general. Dave said that if you target large builders in the region, educate them about the measure, and get them on board, this might have a spillover effect and reach other builders.

The issue of measure removal came up a lot in interviews with subcontractors. Overall, seventeen homes had the measure removed by drywall contractors. This includes EPS homes and other homes where sill sealer was installed, but the homes did not qualify for the pilot. The measure removal highlighted a need for better communication and outreach with drywall contractors. Debbie asked if there were any issues with drywall not laying flat due to this measure. Dan responded that it did not come up as an issue. Subcontractors provided positive feedback on trainings, although they recommended separate installation and administrative trainings, as well as trainings and outreach to builders and drywall contractors. Dave noted that drywall contractors typically buy supplies from drywall yards, which serve as a resource. The program might want to consider outreach to drywall contractors via this channel.

Subcontractors indicated they thought the measure was effective and will last a long time. It is inexpensive compared to alternatives. They did suggest some alternative products that could avoid issues with drywall, but could not think of anything cheaper.

As part of the interviews, Dan asked about the cost of installing the measure. Respondents indicated they needed nine rolls of sill sealer per house on average, which translates to approximately $50 per house. It takes about two man-hours to install; using the Bureau of Labor Statistics' average hourly wage for construction laborers in Oregon ($17.50) we estimate an average measure installation cost of $85. Debbie noted that the burden rate would make this number higher. We need to account for payroll taxes and workers compensation. Dave asked what happens when contractors are at the end of a roll of sill sealer and need to start another. He noted it would be good to address this issue in subcontractor training.

Conclusions: The measure is simple, inexpensive and effective. Delivery via subcontractors is feasible, but the incentive was insufficient to motivate subcontractors by itself. In general, subcontractors stayed away from large homes due to cost; cost may decrease if project volumes increase. The biggest issue was backlash from drywallers. Some builders were happy

with the measure, but others were resistant. Training workshops could better prepare and motivate subcontractors to sell this measure. Working through subcontractors was an effective strategy for reaching and recruiting new builders. Dave noted that we should consider providing larger incentives for larger homes to offset the increased cost.

Recommendations: The program should continue to offer the air sealing measure as a stand-alone incentive and include the measure as an EPS best-practice. Tom suggested the program should approach sill sealer manufacturers about providing materials, such as brochures or videos, demonstrating proper installation. They should be willing to work with us because they have an incentive to move this product. Debbie noted we could ask if they would be interested in sponsoring trainings. Mark asked if we had considered making “do not remove” stickers in multiple languages. Dan responded that there are stickers, and the stickers were printed in 3 languages: English, Spanish and Russian. These signs did not seem to be a deterrent to removing the measure; in most cases removal was probably intentional.

The program should educate builders about air sealing and offer training workshops for continuing education credit. Debbie noted she thought this was a great recommendation. Mark asked how this relates to the finding that some builders are happy with the measure and others are resistant. Debbie noted it is probably a concern about liability—if they think it might cause problems with drywall and necessitate a callback that is not good for their bottom line. Dan said he thought education could help those builders that currently do not see value in air sealing to recognize that this is a way to make homes better. A recommendation related to that is providing sales tools and materials to help subcontractors sell the measure to builders. Debbie noted that if these materials come from Energy Trust, it lends outside credibility to subcontractors’ message. Another recommendation is to offer a bonus incentive to get subcontractors started. Dave asked if we had thought about engaging architects in this process. Dan noted that getting a preconstruction meeting for code-built homes might be tough. We also recommended offering a tiered incentive based on home size or the amount of material used. The savings are larger for bigger homes, so the measure would likely be cost-effective with a slightly higher incentive. Adam noted that on the gas side, the measure is barely cost-effective, so a larger incentive may not be the best idea. Matt responded that we might provide an upfront bonus incentive for a high volume of measures so that on average, the incentive is roughly the same as it is now. However, changing the structure of the incentive may help subcontractors get over the initial hump.

Another recommendation is to split the training workshop into two parts: an administrative and installation workshop on a job site. The final recommendation is to test the effectiveness of additional air sealing measures such as blown-in blanket insulation, which the program is starting now. Mark asked what type of insulation was being used. Matt responded that it is fiberglass insulation. Dave asked about the trend of getting homes tighter, and what point is too tight. Matt responded that the entire industry is struggling with that question.

4. Heat Pump Baseline Market Update

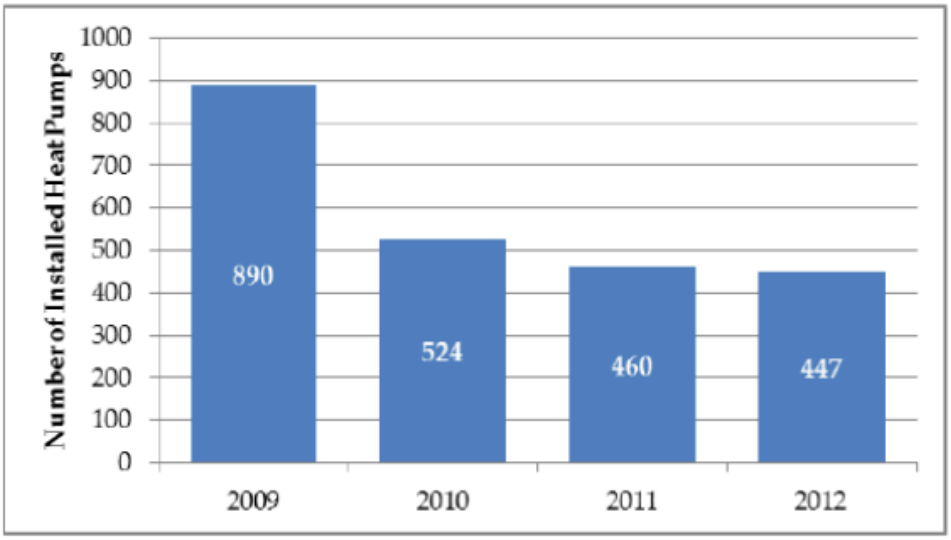
Presented by Ted Light

Background: Energy Trust completed a market study in 2009 of ducted/split system, air source heat pumps, including Oregon and a baseline region, Seattle area. In 2011, we updated research about heat pumps in Oregon, and this 2012 study updates the baseline work. The goal was to identify equipment efficiency levels in a market without program influence to inform heat pump incentive requirements and identify potential market transformation savings. We contracted with Navigant Consulting for this effort.

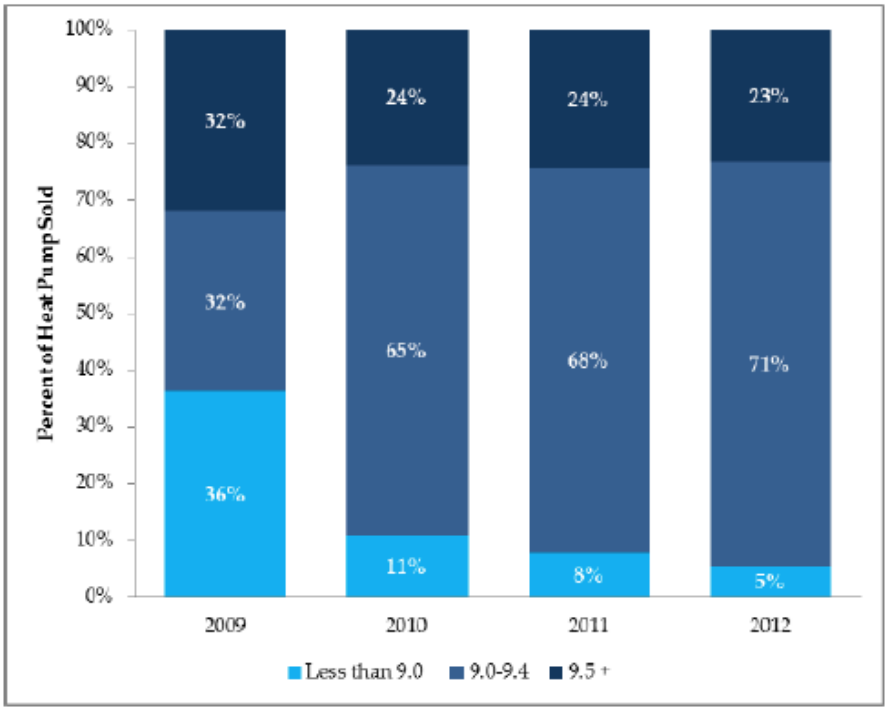
We used Seattle City Light as the baseline market in both studies (2009 and 2012). Seattle City Light doesn't have a split system heat pump incentive, although there are programs in the surrounding areas, through Puget Sound Energy, Snohomish and others. Seattle City Light is probably the best option for a comparison region; we do not have any good alternatives.

The research question at hand is: what is the efficiency level of heat pumps sold in the Seattle City Light service territory in 2009, 2010, 2011 and 2012? Energy Trust's current baseline assumption is a Heating Seasonal Performance Factor (HSPF) of 8.5. Energy Trust and the Oregon Department of Energy (ODOE) require a factor of 9.0 for incentives and tax credits.

Navigant completed interviews with eight installers in Seattle City Light territory, including four from the original study completed in 2009. It was difficult to get responses. As you can see from the two charts below, sales were stagnant from 2009-2012, but there was a clear trend towards higher efficiency levels.

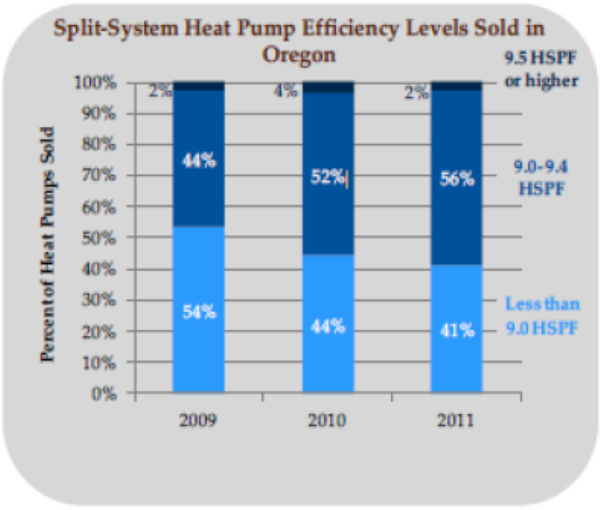


Source: Navigant interviews with ASHP installers in SCL territory.



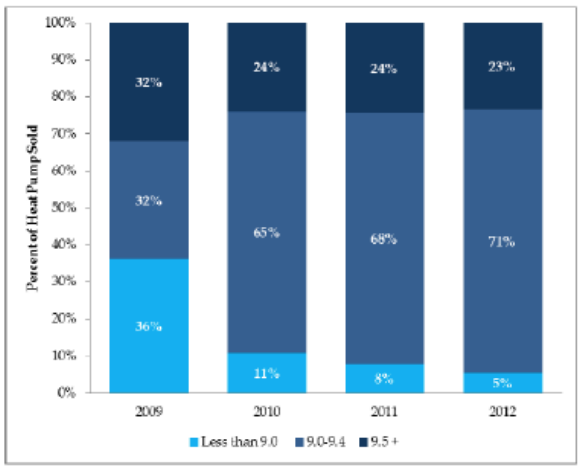
Source: Navigant interviews with ASHP installers in SCL's territory. All percentages weighted by sales. Section 4 includes detailed data tables.

The graph above shows sales-weighted efficiency levels in Seattle City Light territory. The highest efficiency level is fairly steady, the middle level is increasing, and the lowest level is decreasing over time. When we compare this with Oregon data, below, we also see a trend towards higher efficiency in Oregon, but the Seattle area appears to have much higher efficiency levels.



Oregon

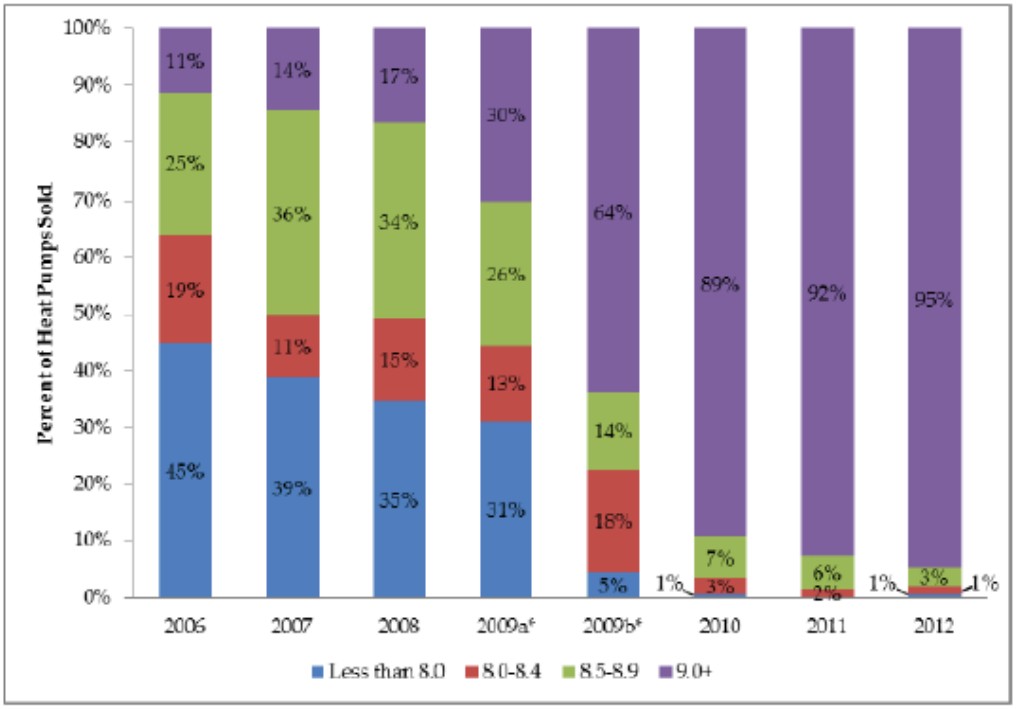
Figure 2 ASHP Heat Pump by HSPF Levels in SCL's Territory



Seattle City Light

Tom stated that we may be seeing the wealth effect. Seattle is wealthier compared to our region. Ken expressed concern about the large proportion of low efficiency units in Oregon. Fred commented that without incentives, the heat pump market has been advancing steadily in efficiency; it appears to have shifted without incentives or marketing.

Debbie noted there is a fundamental question about a comparison group. Seattle is surrounded by investor-owned utilities and the trade allies in the region are serving the entire area, which makes comparison difficult.



Source: Navigant interviews with ASHP installers in SCL's territory. Interviews were conducted in 2009 (2006-2009a) and in 2012/2013 (2009b-2012). All percentages weighted by sales. The 2009 study did not break out anything above 9.0, whereas the 2012 study breaks out for 9.5 and above. For this graphic, we collapsed the 9.0+ and 9.5+ categories to make the comparison to earlier years. Section 3 includes detailed data tables.
**2009a data collected via 2009 study; 2009b data collected via this study.*

The graph above combines the results of the current study with the results of the original baseline study to show the trends in efficiency from 2006-2012. It shows that efficiency has increased dramatically in Seattle City Light territory over that time period. 2009 and 2010 is when the federal tax credit was temporarily increased.

Incentives in Washington State include Puget Sound Energy incentives, which they have for various tiers of efficiency. Pacific Power has an incentive (HSPF of 9.5), and a federal tax credit is available as well. Snohomish also has a credit. There is no statewide credit in Washington.

Conclusions: The two studies show faster market change in Seattle City Light territory than in Oregon. This raises questions about the efficacy of the heat pump incentive, as well as questions about the influence of utilities around Seattle on the market there.

Fred commented that we contacted Puget Sound Energy to get some perspective on these results. Puget staff commented that respondents may have included areas outside of Seattle City Light territory in their responses to questions for this study. They also commented that Puget seems to affect stocking practices of contractors in the Seattle area. This measure has marginal cost-effectiveness and high free riders. We are pursuing it under the assumption that we are transforming the market, but this study provides no evidence of that.

Tom commented that the Regional Technical Forum's heat pump costs have gone down some because metal prices have decreased. Fred noted that this study demonstrates the mystery of causality: the market keeps improving, but we can't find evidence that incentive programs matter. We know from Fast Feedback surveys that a significant share of heat pump respondents say they would have installed the heat pump anyway. Fred said that Energy Trust is trying to build a good case for whether or not we should be involved in the ductless heat pump market. Tom said that there is a federal standard coming soon to ductless heat pumps requiring a HSPF of 9.0. This heat pump standard hasn't gotten docket yet, but it's on its way.

Peter observed that 41% of the Oregon heat pump market is below 9.0. He asked how you shift up to 9.5 when so much of the market is below 9.0. Ted agreed that the difference between Oregon and Seattle is stark. The percent of units with HSPF below 9.0 is 41% here and only 5% there. Peter asked what would happen if Energy Trust jumped all the way to 9.5 for its incentives. Fred responded that the most of efficient equipment sales are not going through our program. We may be at a point where we can jump and fund efficiency at the next level.

Tom noted that when the Regional Technical Forum looked at incentive impacts, they found it takes less money to make the jump as the efficiency level increases. He cautioned that we should corroborate this with other sources.

Mark said that he had a personal experience where an incentive for a HSPF 9.0 unit was a barrier to getting a 9.5 installed. His contractor wouldn't order HSPF 9.5 equipment because the incentive threshold was at 9.0, which meant that the 9.5 wasn't as good of a financial deal for the contractor. Peter responded that every time the efficiency level requirement goes up Energy Trust loses some contractors, but they eventually come back into the program once their competitors start to take business from them. Ken commented that incremental efficiency savings is expensive. Fred wants to know how many of the 9.5 and above units Energy Trust is already funding through the program.

Wrap-Up & Next Steps

June 28 may work for the next evaluation committee meeting. Potential agenda topics include the lighting shelf space survey, some of the commercial and industrial market research conducted by Susan Jowaiszas, and Fast Feedback results for 2012.

There are many evaluations to cover in August. Since there is a board meeting July 31, one option is scheduling the August evaluation committee the morning before the board meeting.

SKUMATZ ECONOMIC RESEARCH ASSOCIATES, INC.
■ Consulting to Government & Utilities

SERA

Boulder Office: 762 Eldorado Drive, Superior, CO 80027
Voice: 303/494-1178 FAX: 303/494-1177
email: skumatz @ serainc.com
Website: www. serainc.com; payt.org

2010-2011 ENERGY TRUST OF OREGON EXISTING HOMES PROGRAM PROCESS EVALUATION

- FINAL REPORT-

Submitted to:
Sarah Castor
Energy Trust of Oregon

Prepared by:
Lisa A. Skumatz, Ph.D., and David Juri Freeman,
Skumatz Economic Research Associates Inc. (SERA)
762 Eldorado Drive
Superior, CO
Ph: 303/494-1178 FAX: 303/494-1177
www.serainc.com

December, 2012

1: CHAPTER 1 - SUMMARY AND RECOMMENDATIONS

1.1: Introduction

The goal of this 2010-2011 process evaluation of the Energy Trust of Oregon Existing Homes Program[1] was to obtain feedback on program design and implementation that can be used to enhance the implementation of the current program. Energy Trust was interested in observations and recommendations to help it more effectively and efficiently deliver the Existing Homes Program. The process evaluation included four main efforts: document and database review, and interviews with staff, participant and non-participant households, and trade allies. Key results are summarized below.

1.2: Data and Document Review Findings and Recommendations

A total of 32,433 homes participated in the single family track of the Existing Homes Program, 58% of the participants were in 2010 and 42% were in 2011. The 32,433 homes installed 47,242 individual measures[2]. The Existing Manufactured Homes track had 7,174 recorded participants who installed a total of 51,071 measures. A total of 82,776 Energy Saver Kits were distributed. Figure 1.1 displays the total participants and measures for each of the three tracks that comprise the Existing Homes Program

Figure 1.1: Total and Annual Program Participants and Measures by Track

	Existing Homes (Single Family)		Existing Manufactured Homes		Energy Saver Kits
	Total homes	*Total measures*	*Total homes*	*Total measures*	*Total homes (kits)*
2010	18,865 (58%)	26,548 (56%)	2,411 (34%)	14,443 (38%)	50,038 (60%)
2011	13,568 (42%)	20,694 (46%)	4,763 (66%)	36,628 (72%)	32,738 (40%)
Total	32,433	47,242	7,174	51,071	82,776

An extensive review of Program communications, quarterly reports, and other documentation informed a number of programmatic and operational recommendations. The Existing Homes Program has a solid base and comprehensive set of offerings, and the relatively high degree of ongoing tracking of metrics and regular reporting allows analysis of progress and results. However, this review

[1] The Home Performance track and Clean Energy Works Portland/Oregon projects were not included in the analysis as these are being evaluated separately.

[2] A home energy review (HER) is included as a measure.

indicates the Program may not be reaching its potential. The recommendations below seek to strengthen the Existing Homes Program to increase customer satisfaction and participation.

- ⇨ **Expand Energy Advisor role**: There are several energy advisor-based programs around the country, and while all programs differ, there are useful comparisons that might be made.[3] Top-performing programs (such as Boulder County's EnergySmart Program and Long Island Green Homes / Babylon, NY) with Energy Advisors have been able to achieve implementation rates of 59% and 60%, respectively, while the Home Energy Review (HER) program appears to report conversion rates no greater than 5.5% based on the documents we reviewed for this study. Energy Trust staff report conversion rates of 40% 2 years after the HER.[4] Based on our assessment, the Energy Trust Energy Advisors have little interaction with the consumer after the HER and should be following up to increase participation. Whether the follow-up is in person or over the phone, interaction targeted at helping homeowners understand and move through subsequent steps in the upgrades process is important in achieving a high conversion rate. Some of the strongest programs increase post-visit engagement to nudge through decision-making related to contractors and measures and post-bid assistance to help uncertain customers compare bids in apples-to-apples fashion with a neutral and knowledgeable party. Tracking projects can also allow programs to follow-up over time if only a few of the potential recommended measures have been implemented. This provides an important way to capitalize and turn partially-involved participants into full participants.

- ⇨ **Improve and tailor Customer Engagement**: Develop different "styles" or content, tailored to the demographic and psychographic group of HER customers (based on information collected at the beginning of the project). The literature suggests that different groups are motivated by different messaging reflecting their demographics; this might increase uptake. In addition, the strong performance of trade allies should be noted and leveraged. Not only are they key implementation and lead generation partners, but they are critical to market transformation.

- ⇨ **Provide expanded sales training**: Trade allies appear to be improving in terms of upselling measures (measures per home is increasing); however, to improve conversions after an HER, trade allies *and the Energy Advisor* could be trained to better address the key barriers to would-be-consumers (lack of knowledge of the products and uncertainties of the benefits).

- ⇨ **Improve the customer reports**: Although space is limited, the custom HER reports and recommendations should be framed differently. For example, show all incentives for a particular measure (not just Energy Trust's, but include State tax credits and other incentives), how financing interacts with the package of selected measures in terms of cash flow, and efficiency or capacity ratings they should be asking the contractor to provide. The presentation

[3] Certainly, there are important differences. For example, These programs are local, not statewide; demographic differences could help explain the high levels of uptake. We are, however, discussing follow-through among those signing up for entry-level services, so the conversions figures are calculated from interested participants.

[4] Note that Boulder County, for instance, reports 59% over 2 years, but notes that the vast majority of the upgrades are made within 2-3 months of seeing an Energy Advisor. Assuming Energy Trust of Oregon staff's figure of 40%, the program would need an increase of about 50% in conversions to match these top tier programs.

of information should be tested (focus groups, possibly pilot tests, or review of successful presentations in other programs, etc.) to maximize uptake percentages.

- **Investigate Three-Star trade ally issues**: Three-star trade allies are responsible for 70% of all trade ally jobs (at least in Q3 2011). Nearly 100 three-star trade allies were recently demoted to two-star allies because they did not attend mandatory webinars. This may indicate one of two problems: either the rankings are unimportant to trade allies, or the perceived value of the trainings is low. This should be investigated and addressed through the annual Trade Ally Survey.

- **Technology and data management needs efficiency improvements**: Combining the limited functions of multiple (silo-type) software applications into a single application with multiple functionality capabilities would save considerable staff resources, reduce opportunity for error, and improve Program management and reporting abilities. Centralized storage of Program information is also a needed improvement, supporting tracking of paths consumers take (and don't take) and being able to dispatch resources and respond accordingly, among many other benefits.

- **Data Tracking:** To improve Energy Advisor efficiency on-site, key data should be populated in the documents referenced by the advisor to avoid re-asking questions like why the participants want assistance, age and size of home and other information, and these data should also be pre-populated into the customers' reports. Re-asking questions wastes time and resources. However, to be efficient, the data need to go beyond just helping the Energy Advisor on-site; data should flow from the on-line sign-up and in-home visit uses, to the on-going customer reporting and tracking systems to maximize the potential of all tracking efforts.

- **Customer Applications:** The Program documents indicate that a significant portion of all incentive applications in 2010 and 2011 were missing critical information; applications are mailed, faxed, or emailed into the Program. An online application form would almost certainly reduce staff time spent on corrections, verification, and data entry. W9s are also repeatedly collected and attached to files. Efficiencies and process improvements are clearly indicated.

- **Track- and Program-Specific recommendations**

  - *Solar hot water*: Diminished results under the Solar Hot Water program are associated with uptake in solar PV and the economy; however, procedural factors may also contribute. The program's documentation and manual require attendance at a workshop and multiple bids from contractors, although, in practice, multiple bids are recommended, but not required. Given the difficulty of selling solar thermal (including water storage requirements, etc.), the procedural requirements might be revisited to reduce barriers and increase cross-referrals from other programs. Dropping the *requirement* for multiple bids (or possibly motifying it to a suggestion or recommendation) can decrease barriers and increase uptake.
  - *Existing Manufactured Homes and Savings within Reach*: These tracks, focused on moderate income households, are meeting and exceeding goals. Each has a more direct engagement by contractors prepared to do installation work, and this relationship may be

an important factor in higher uptake rates. The direct trade of information (customers given contractor information; contractors given consumer information as a qualified lead) might be tested in other programs to see if they lead to similarly impressive results outside of the moderate income population tracks. The instant savings measures and the enhanced rebate also play important roles in the current success of these efforts and should be retained.

1.3: Staff Interview Findings and Recommendations

We conducted interviews with 15 staff members involved in the Existing Homes Program including Energy Trust Program staff, contractor implementation staff located in the Metro area ("headquarters"), and implementation contractor staff in the regions.

Interviews indicated that expansion to the regions to improve Program access and uptake across the state is a priority. To further process refinements that improve cost-effectiveness and high quality service, we note the following "actionable" changes coming out of these interviews:

- ⇨ **Address regional issues**: Refine and enhance the regional representative process and resources, including access to performance data, additional networking and outreach resources reflecting regional differences in media access; refine the tiered criteria to reflect slower or less robust markets in some areas (e.g. reflecting that some areas are less "green" than the Metro area). and partnering support and empowerment (potentially with faith-based and other organizations relevant to the region).

- ⇨ **Align incentive paperwork with scale of incentives**: Refine incentives to assure paperwork requirements for incentives are not out of line with the incentive value (simple processes for a $50 rebate; incentives that reflect a reasonably high percent of the incremental price increase).

- ⇨ **Expand offerings to new markets**: Move to expand Program options to renters, and possibly senior citizens. Consider education initiatives to youth to provide a more educated "next generation" on energy efficiency. .

1.4: Participant Survey Findings and Recommendations

More than 750 phone surveys were conducted with households that had received measures (600) and those receiving only a Home Energy Review (HER) and no measures (150), referred to as nonparticipants. We summarize the key findings of the survey and recommendations below:

- ⇨ **Alleviate market confusion about Program offerings**: There is some market confusion about the Program offerings. There are two ways to address this. The Energy Trust could further clarify the difference between different Program initiatives, or could use the customer engagement process to obliterate the different names and initiatives and enroll households in whichever programs or offerings are most advantageous, without focusing on the specific names or programs. Either strategy would probably reduce some of the confusion seen in the

market. Additional monitoring and "nudging" may be needed to maintain progress in the adoption of heating, solar, and water measures following a HER.

- ⇨ **Improve uptake of ESK showerheads through testing**: Showerhead removal is high; however, the Energy Saver Kit (ESK) is a "gateway" measure for 1/3 of the Program participants. Investigation of higher quality showerheads might further increase satisfaction, and possibly uptake. It may be an inexpensive element to test in a sample of the next round of kits.

- ⇨ **Collaborate with stakeholders at key decision points to increase measure adoption**: The drivers for adoption are savings, high bills, comfort, and remodeling. Comfort should be part of the outreach package, but the survey results also indicate that finding additional ways to intervene when decisions are being made (purchase, moving, remodeling, etc.) may be productive in getting more measures installed. Leveraging through collaborations with stakeholders that are active at those decision points (realtors, appraisers, and home inspectors) may be well-spent efforts.

- ⇨ **Investigate drivers of spillover**: High spillover to new measures is a strong finding; one-quarter of participants go on to install additional measures. Additional research on these households to identify "why" and how to carry that over to other households may provide an opportunity to further increase the cost-effectiveness of the Program.

- ⇨ **Consider tiered incentives**: Deadlines seem to be a way to keep progress in installation. If slow installation after the HER is perceived as a loss, the Energy Trust might investigate using tiered incentives – higher if installed within a certain period of time, or other variations in the Program model to see if the strategies are effective.[5]

- ⇨ **Introduce materials aimed at lowering the barriers to participation**: The traditional concerns remain – before participation, households worry about cost, whether they will actually save money, and other issues. These and other concerns might be reduced if the Program expands its outreach – mass media and on-line. The on-line portion might be enhanced by adding more case studies on-line, and perhaps offering a blog or question and answer exchange on the web that lets customers that are "thinking about participating" communicate on-line with those that participated. This (and the mass media outreach) could also answer questions like "will they need to get to the messy parts of my house" and other concerns that hold households back from participating.

- ⇨ **Enhance outreach materials for the "next" round as the Program matures**: Based on feedback from the collateral materials review, and the three sets of Non-Energy Benefits (NEBs) research in the project (participant, staff, and trade ally), we also recommend expanding the list of NEBs that are used to "sell" the Program. The existing materials feature

[5] Energy Trust of Oregon staff note that the ongoing Customer Engagement Experiment may provide information about whether additional money or more engagement (mentioned above) will motivate more people to action. However, the outcomes of leading programs imply that more engagement is successful; the program does not necessarily have to choose between the two options, as using both may be even more successful.

comfort, bill savings, and home aesthetics. The NEB results suggest the programs bring value to households,[6] and additional valuable selling points include measure performance, maintenance, and lifetimes, and "the environment". In addition, with only two or three exceptions, the communication materials did not incorporate social marketing messages or tools. Messaging could be crafted to provide more feedback on energy savings and program progress to participants (and non-participants), increased use of social norms, potential introduction of contests, pledges and commitments, and conduct customer focus groups to better tailor outreach to motivations and barriers of specific sub-segments of the market. Finally, the materials might better clarify the roles of the multiple actors whose names are included on the collateral material to reduce customer confusion about program tracks (to both customers and trade allies).

- ⇨ **Maintain high-quality energy advisors**: Keep a focus on strong, qualified, personable advisors. It is a key element of the Program.

- ⇨ **Investigate participant use of Trade Ally Network**: Participants who installed a measure without a previous HER didn't consult the Trade Ally Network list as much as HER participants. It was suggested this may result from customers that come in through an already-selected contractor. This may bear further exploration..

- ⇨ **Direct customers to web resources**: The survey indicates the web resources (e.g. Online Home Energy Profile, etc.) are utilized by a quarter to half of participants,[7] but are highly appreciated and lead to high satisfaction when they are used. Resources dedicated to directing households to this and other web tools would probably be well-spent.

1.5 Trade Ally Interview Findings and Recommendations

The trade ally interviews gathered feedback on the full trade ally experience, including Program benefits, process, impacts on the market, and suggestions for changes or improvements. More than 100 interviews were completed.

- ⇨ **Implement process improvements**: Streamlining the Program's paperwork, and the associated time commitment and cost, will improve attractiveness to trade allies. Minimizing inconsistencies in customer service communication to Energy Trust (through improved training) or inconsistencies in levels of inspections (possibly affected by variation in the quality of inspectors) would also be appreciated by the trade allies. Electronic paper work and signature systems for participants would help both trade allies and participants.

[6] All groups (households, trade allies, and staff) indicate these non-energy benefits are equal to or more valuable than the energy savings. On a scale of 1.67 to -1.67, where a score of 1 means equal to the value of the energy savings, the household responses scored 0.93 (for ESK respondents) to 1.27 (for full participants receiving heat pumps).

[7] The survey showed 2-5% heard of the program through online searches or websites (Table 5.3).Additionally, between 26-46% of the participants used the website or online tools (Figure 5.20);) and); satisfaction levels for on-line resources were 4.3-4.9 (Figure 5.21).

- ⇨ **Tweak the rating system**: The star rating system and criteria should consider focusing more on the quality of work or on training participation or other criteria that allows substitution for quantity, or make refinements to the system that recognize the lower quantity of work available in outlying areas. Better customer outreach on the meaning of the stars would also enhance the value of the rating system.

- ⇨ **Implement measure-specific training**: Enhance the value of training by adding courses on specific measures.

- ⇨ **Target specific marketing materials to underserved groups**: Review the eligibility of and outreach to perceived underserved sectors, including middle and upper incomes (who may not be driven by the same energy saving messages). Craft other collateral for the elderly and mobile home owners, who are also seen as underserved. Improve marketing and outreach, particularly focusing in non-Portland areas.

- ⇨ **Lower barriers to participate through enhanced marketing materials**: Enhance materials, highlighting bill savings and NEBs (including outreach by trade allies) and perhaps a participant network or website tools (map rollovers, case studies, etc.) to reduce the reticence among some customers to complete projects due to an uncertainty surrounding the savings they will actually see. Material should cover incentives, financing options, and explain how the measures can pay for themselves.

- ⇨ **Increase personal interaction with customers**: Increased personal interaction by Energy Trust with customers to help "sell the program" (at events, face-to-face, etc.), higher incentives, and a return to rebates were suggested as ways to bring customers into the Program. Personal interaction can be more cost-effective than less targeted outreach.

- ⇨ **Provide funding for equipment and trainings**: Grants or financing to help with the purchase of testing or other equipment would help attract small firms (and might help some firms in outlying areas). Better communication about the equipment grants and training that are available would be useful. Funding to help travel to trainings would also be helpful – perhaps as a reward for high performing firms.

- ⇨ **Improve and simplify website**: Website improvements could be useful, including better access to trade ally information, and star rating system information may lead to better use of the Program.

- ⇨ **Communicate changes in star rating status**: Energy Trust should notify trade allies *in advance* by email when there will be changes made to the star system, or when changes will be made to a company's star rating.

MEMO

Date: December 18, 2012
To: Board of Directors
From: Sarah Castor, Evaluation Sr. Project Manager,
Marshall Johnson, Residential Program Manager
Subject: Staff Response to the 2010-2011 Existing Homes Program Process Evaluation

Results from the 2010-2011 Process Evaluation of the Existing Homes Program provide a helpful record of the program just before a major event: the transition to a new Program Management Contractor (PMC) in 2013.

Notable accomplishments of the program from the report include:

- High overall satisfaction among program participants and trade allies
- A significant increase in participation among manufactured homes
- An increase in the number of energy saving measures per participating home
- Development of Customer Engagement protocols with the intention of increasing measure installations after Home Energy Reviews (HERs)
- An increase in outreach to non-Portland Metro regions, using dedicated outreach staff, which will help support increased participation in these region in 2012 and beyond
- Expansion of the Cooperative Marketing Fund into the Trade Ally Development Fund, allowing trade allies to use funds for trainings, memberships and conferences

With the shift from Conservation Services Group (CSG) to Fluid Market Strategies as PMC, the program will be employing many new strategies to increase program savings and enhance the customer experience while at the same time decreasing the cost of program implementation, to increase the overall cost-effectiveness of the Existing Homes Program. Areas of focus for 2013 and beyond are:

- A continued focus on Customer Engagement strategies
- Developing additional communication materials and strategies to target high-potential customers and match customers with the right offerings for them
- Providing information to residential customers on the simple payback for various Existing Homes measures to aid in investment decision making
- Encouraging trade ally direct installs of instant savings measures (ISMs) and HER-like audits completed by trade allies
- Promoting market-based trainings of trade allies
- Increased focus on financing and development of lender allies
- Improving the use of technology in the program by emphasizing webforms and HER data collection via tablet PC

While these differ somewhat from the recommendations of the evaluator, we believe that these strategies have the same potential to increase program activities while at the same time controlling program delivery costs.

Finance Committee Meeting Notes

April 15, 2013

The Finance Committee met at 1:05 on April 15, 2013 via teleconference with Dan Enloe, Finance Committee chair; John Reynolds, Board Chair; Dave Slavensky, Board Member; Margie Harris, Executive Director; Pati Presnail, Controller; and Sue Sample, CFO, attending. Adam Bartini, Senior Project Manager joined the group for the first part of the meeting.

Update on Savings-Within-Reach Program (SWR)

The committee had been sent a briefing paper (see attached) describing the Savings-Within-Reach program. They had reviewed the program before (in May of 2012) and were enthusiastic at that time about the potential to reach low to moderate income participants with offers of prescriptive incentives based on participant income and focused on long-term gas and electric efficiency improvements.

From prior notes: To improve uptake and expand participation options for this target audience, staff proposed to add a new loan product to the Savings-Within-Reach program with the following parameters:

- 5.99% interest rate, 10-year term, unsecured loans up to $5,000, repaid on utility bills using the existing Clean Energy Works Oregon (CEWO) model available to NW Natural, PGE and Pacific Power customers.
- $600,000 loan pool with Energy Trust contributing $300,000 and Craft3 (formerly Enterprise Cascadia and Shore Bank Cascadia) the other $300,000.
- Customers would have no-upfront costs and minimal net monthly utility bill impacts. The advent of a loan is expected to enable the program to better reach this underserved market and to acquire additional energy savings.
- The approach would apply the current prescriptive incentive structure and tap the existing Savings-Within-Reach trade allies. The group already knows the needs of this target market and currently drives successful incentive offerings to benefit participants.
- Energy Trust would pay an additional fee to Craft3 to cover loan administrative fees. Other incentives would remain the same as they are now. The additional savings that the program anticipates acquiring justifies this additional expense.
- Cost effectiveness has been analyzed from a program portfolio perspective.
- Heating system loans would only be provided with pre-approval and would be subject to an individual analysis.
- Consistent with the demonstration elements of the Energy Efficiency and Sustainable Technology Act (EEAST), loan product projects must pay living wages, which are 180% of minimum wage.
- Modeling was conducted on projects from inception to date. Such projects averaged approximately $2,000 in net cost; this is the project cost less Energy Trust incentives. Though staff cannot predict exactly what the measure mix will be going forward, it is hoped that projects will maintain a close-to-zero impact on the individual's utility bill with the savings achieved from measure installation.

Circumstances have now changed in that CEWO is no longer interested in participating. Early in the design phase, they were going to contribute the first $30,000 of loan loss reserves with Energy Trust contributing the second portion. Now Energy Trust will be contributing the first $60,000 of loan loss reserves for this participant loans. Beyond that amount, Craft3 will be responsible.

Energy Trust staff will be carefully monitoring activity in this program. Adam described the items program staff will be tracking during the course of this pilot program. Among the items in the pilot program evaluation plan are:

- Participant uptake
- Levelized costs
- Customer bill impact
- Project installation costs
- EEAST adder cost impacts

Because this is a pilot program, several "off ramps" have been designed to re-evaluate at various intervals in order to ensure the program is working as anticipated.

The Finance Committee requested that Margie provide an update in her regular staff reports to the Board about SWR activity, particularly addressing the actual loan losses incurred.

Update on Energy Trust Financing Activities

Continuing forward with the development of an organizational financing strategy, Energy Trust has created an internal team working on various designs, falling into three major categories:

- On-bill repayment financing
- Off-bill repayment through the development of a lender ally network
- Other types of financing activities, including structures like property tax assisted financing

Work is continuing to determine how best to utilize products in each category to achieve Energy Trust goals.

January and February Financial Statement Review

Because the statements had already been reviewed at the most recent Board meeting, there were no additional questions. However, committee members expressed concern about the shortfall in expenditures as compared with budget and interest in understanding how that shortfall will be mitigated in the future.

Recommendation to lift cap of 20% in REPO (repurchase agreement) accounts

Originally, the Finance committee wanted to limit the amount of money held in repurchase agreement accounts (REPOS) to no more than 20% of holdings. With the transition to purchases of brokered certificates of deposit (CDs) as recommended in August 2012, that limit was exceeded upon liquidation of one Certificate of Deposit Account Registry Service (CDARS) investment tranche. Currently, REPO accounts are earning twice what CDARS investments are earning (.10% versus .05%), but unlike CDARS, they are not FDIC insured. They are, however, backed/pledged by investments in government guaranteed Mortgage Backed Securities/Collateralized Mortgage Obligations and by the financial stability of Umpqua Bank.

Staff recommended lifting the cap of 20% in order to provide some flexibility and some additional earning potential at relatively low risk. In the meantime, staff is continuing through Umpqua Investments to acquire brokered CDs with varying maturities of less than one year. Those CDs are FDIC insured and are earning in the range of .20% to .35%.

The committee agreed to lift the cap and report to the full board on the change. Staff will keep the committee and the board informed of interest rate changes and will highlight anything of note. At a minimum, the committee expects another update in six to twelve months.

Update on discussions about reserves, savings targets and nomenclature for goals

Margie described a meeting held last week with OPUC staff about the issues surrounding the annual determination of Integrated Resource Planning (IRP) goals, funding levels and reserves. It was a very positive meeting with the OPUC staff offering to take a more active role in the annual negotiation process. Steve and Margie will be meeting in the next couple of weeks with representatives of each utility to determine receptiveness to various alternatives proposed.

Update on CFO recruiting efforts

Margie has interviewed two of three recruiting firms in the initial stages of the recruitment. One is a large firm, one a single individual and the last is a boutique firm. The job description has been revised. Once the firm is selected, the process will begin in earnest. She invited Finance Committee members who are interested to participate in the interviews. John, Dan and Dave all asked to be included if available at the time those interviews are conducted.

The next finance committee meeting is scheduled for June 24, 2013.

The meeting adjourned at 1:45pm.

Briefing Paper
Savings-Within-Reach Loan Product

May 22, 2013

Summary

Staff has been developing an on-bill loan option to increase participation in the Savings-Within-Reach (SWR) moderate-income program track. Energy Trust would loan $300,000 to help capitalize a loan pool, and Craft3, the lender, would contribute another $300,000. The first $60,000 in loan losses, if any, would be borne by Energy Trust; Craft3 would bear the rest. Energy Trust would use program delivery funds to pay Craft3 a per-loan acquisition fee and would pay a service incentive for each successful loan made, making these loans "fee-free" for this at-risk population. The exact fees will be finalized through an upcoming agreement with Craft3.

Background

- Savings-Within-Reach is three years old, shows strong growth, and has only scraped the surface of the market potential. In 2010, there were 94 SWR projects, 414 in 2011, and 643 in 2012.
- Moderate income is defined as 185%-250% of federal poverty level (66% to 89% of average Oregon income). Income is self-reported by the customer on an affidavit form and is otherwise not validated by Energy Trust.
- The loans made under this pool are intended to be compliant with the Energy Efficiency and Sustainable Technology Act (EEAST) and will be executed directly with Craft3 to be repaid on the participating heating fuel utility's bill. Cascade gas homes would not be involved in this first round of approximately 300 loans.
- The Savings-Within-Reach delivery model is contractor-driven and leaner than the existing Clean Energy Works Oregon (CEWO) process. Savings-Within-Reach involves no energy modeling and emphasizes cost-effective, passive envelope measures.
- To date, Savings-Within-Reach projects have had an average project cost of $2,877 and an average incentive of $1,085, leaving an out-of-pocket customer cost of just under $1,800.

Discussion

- The goals of the loan option:
    - Increase participation in moderate-income energy efficiency upgrades by up to 300 loans in the first 12 months of program delivery.
    - 80-90% of applicants qualify for loan product
    - Demonstrate participation in a fee-free loan product
    - Demonstrate loan-loss reserve pool for a moderate income customer base
    - Utilize on-bill repayment
    - Demonstrate a near net-neutral loan product

- We expect customers to come from Energy Trust trade ally marketing, CEWO referrals, referrals from community organizations and referrals from the Oregon Housing and Community Services first-time homebuyer loan program.
- The loan product is intended for smaller projects ($5,000 or less) for packages of measures that are likely to save as much in energy costs as the debt service to the customer. The program is currently considering offering the loan product for select heating equipment that can meet the near net-neutrality bill payment goal.
- The interest rate would be 5.99% for a term of 10 years, repaid through the utility bill.
- The utility has no obligation to force payment and will not shut off service for failure to pay the loan portion of the utility bill. Consequently, the interest rate on the loan is on par with standard, unsecured credit for those with acceptable credit scores.
- Loans would be offered to PGE, PAC and NWN customers. Cascade Natural Gas does not currently work with CEWO to provide an on-bill option, and the initial roll out of this option is limited to those customers who are eligible to leverage the existing on-bill platform.
- The lending entity would be Craft3, a community development entity (formerly Enterprise Cascadia and Shore Bank Cascadia), which implements loans through CEWO.
- Energy Trust loan would contribute $300,000 to capitalize the initial $600,000 loan pool. Craft3 will also contribute $300,000. Energy Trust would earn 1% on its $300,000. Contributions would be made in three rounds of $100,000 each.
- Energy Trust loan loss risk would be limited. Energy Trust would be responsible for the first $60,000 and Craft3 would cover all other losses. Craft3 has experienced less than .05% in defaults with the CEWO program. After a to-be-negotiated period of time, Craft3 and Energy Trust would review the loan-loss experience and recalibrate exposure to loan losses.
- Staff has analyzed cost-effectiveness of the loan option using historical SWR project costs. The analysis indicated that the loan option should be cost-effective, at near net-neutral cost to the participant on average across fuel types. Actual costs will be monitored carefully during the initial roll-out.

Next Steps

- Execute loan agreement with Craft3.
- Develop program SWR project protocols with Craft3 and program management contractor.
- Discussion with utilities to accept the charges for on-bill for these customers as part of the current on-bill agreements with Craft3.
- Have SWR contractor orientation of the loan product.
    - Sign an addendum to Trade Ally agreement to offer this product.

Notes on March 2013 Financial Statements

April 19, 2013

Revenue

March revenues of $16.6 million were only slightly below the $16.9 million budget. Revenue for all utilities is above budget year to date with the exception of Cascade. Cascade is still 30% below budgeted amounts; we are anticipating additional revenues later this year to make up the shortage. In the meantime, expenditures in the Cascade service territory continue to be below budget, lessening the negative impact of the revenue variance.

	YTD Actual	YTD Budget	YTD Var	YTD %
PGE	24,195,054	22,844,961	1,350,093	5.9%
PAC	14,644,230	14,052,130	592,100	4.2%
NWN	11,090,412	11,043,130	47,282	0.4%
CNG	1,000,182	1,432,505	(432,323)	-30.2%

Expenses

The Efficiency programs have spent a total of $8 million less than budgeted in the first quarter. Expenses for both Commercial and Residential are running at 40% of budgeted amounts. Much of the swing is explained by incentive spending, described in more detail below. Industrial is right on target for the year. Renewables are $1.7 million below budget for the year, also explained by the incentive spending variance below.

Year to date incentive spending for the Efficiency Programs at this time last year was almost $10 million which was 6% less than the budgeted amount. This year the Efficiency Programs have spent only $6.5 million which is 45% less than the $12 million 2013 budget. (See tables below.) The new PMCs for both Existing Buildings and Existing Homes are continuing to get up to speed. Fluid has completed the transition of the call center to Portland and is now focused on application processing. New Homes and Products will record significant incentives once a lighting measure is finalized in Fast Track. Appliance sales are down and expect to remain lower for the rest of the year; strategies to obtain savings in other areas are being developed.

Incentives in the renewables program are $1.3 million under budget. Solar is down significantly in the commercial sector due to weak market conditions. Some solar projects have been cancelled. We anticipate improved numbers going forward due to the increased incentives we will be offering. There is also a $500,000 incentive payment for a bio project from last year that has been pushed out and is expected to be paid in July (3Q).

Management and General is about $279,000 below budget YTD due primarily to lower IT allocations than expected ($109K). IT has not yet spent the amounts budgeted in 2013 for Other Professional Services (for projects such as CRM enhancements and ISIP, Phase 2) so all departments are currently below budget for IT allocations. Management and General also had lower Outsourced Services than expected ($71K below budget) because many of those costs are budgeted on a straight-line basis but are expensed as the work is completed. The initiation

of several projects was delayed to accommodate year end reporting activities. There have been minimal Legal Services recorded to date ($22K below budget).

	Total Incentives Year-to-Date 2013			
Program	Actual	Budget	Variance	Var %
Existing Buildings	876,591	2,376,830	1,500,239	63%
New Buildings	1,329,632	2,457,732	1,128,100	46%
Production Efficiency	2,359,522	2,193,392	(166,130)	-8%
Existing Homes	674,083	2,020,147	1,346,064	67%
New Homes & Products	1,317,328	2,909,734	1,592,406	55%
WA Programs - Combined	31,896	103,870	71,974	69%
			-	
Solar	632,002	1,495,138	863,136	58%
Open Solicitation	96,759	43,501	(53,259)	-122%
Biopower	-	500,000	500,000	100%
Total Incentives	7,317,813	14,100,345	6,782,532	48%

	Total Incentives Year-to-Date (Prior Year)			
Program	Actual	Budget	Variance	Var %
Existing Buildings	3,329,565	2,779,691	(549,874)	-20%
New Buildings	737,529	1,867,586	1,130,057	61%
Production Efficiency	2,010,748	424,086	(1,586,662)	-374%
Existing Homes	1,539,276	2,112,766	573,490	27%
New Homes & Products	2,290,190	3,297,452	1,007,262	31%
WA Programs - Combined	68,953	128,899	59,946	47%
			-	
Solar	4,957,781	1,052,436	(3,905,345)	-371%
Open Solicitation	67,803	37,365	(30,438)	-81%
Biopower	26,233	325,667	299,434	92%
Total Incentives	15,028,078	12,025,948	(3,002,130)	-25%

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

	MAR 2013	FEB 2013	DEC 2012	Change from Prior Month	Change from Beg. of Year
Current Assets					
Cash & Cash Equivalents	77,208,200	73,655,712	64,005,605	3,552,488	13,202,594
Restricted Cash (Escrow Funds)	381,118	381,090	462,692	28	(81,573)
Receivables	4,243	3,782	123,795	460	(119,552)
Prepaid Expenses	856,736	774,071	265,829	82,666	590,907
Advances to Vendors	2,127,038	670,127	2,109,014	1,456,911	18,024
Total Current Assets	**80,577,335**	**75,484,782**	**66,966,935**	**5,092,552**	**13,610,400**
Fixed Assets					
Computer Hardware and Software	1,353,958	1,353,958	1,347,388		6,570
Leasehold Improvements	313,333	287,385	287,385	25,948	25,948
Office Equipment and Furniture	600,662	600,662	600,662		
Total Fixed Assets	**2,267,953**	**2,242,005**	**2,235,435**	25,948	32,518
Less Depreciation	(1,265,950)	(1,237,821)	(1,183,098)	(28,129)	(82,851)
Net Fixed Assets	**1,002,003**	**1,004,184**	**1,052,337**	**(2,181)**	**(50,333)**
Other Assets					
Rental Deposit	64,461	64,461	64,461		
Deferred Compensation Asset	424,234	419,121	409,369	5,113	14,865
Total Other Assets	**488,696**	**483,582**	**473,830**	**5,113**	**14,865**
Total Assets	**82,068,034**	**76,972,549**	**68,493,102**	**5,095,485**	**13,574,932**
Current Liabilities					
Accounts Payable and Accruals	6,502,727	8,704,252	21,430,138	(2,201,525)	(14,927,411)
Deposits Held for Others	6,555	42,691	49,433	(36,136)	(42,877)
Salaries, Taxes, & Benefits Payable	632,624	631,967	585,703	658	46,922
Total Current Liabilities	**7,141,907**	**9,378,910**	**22,065,273**	**(2,237,004)**	**(14,923,367)**
Long Term Liabilities					
Deferred Rent	334,712	330,887	323,237	3,825	11,476
Deferred Compensation Payable	424,234	419,121	409,369	5,113	14,865
Other Long-Term Liabilities	13,864	14,404	13,674	(540)	190
Total Long-Term Liabilities	**772,810**	**764,412**	**746,279**	**8,399**	**26,531**
Total Liabilities	**7,914,717**	**10,143,322**	**22,811,553**	**(2,228,605)**	**(14,896,836)**
Net Assets					
Temporarily Restricted Net Assets	381,118	381,090	462,692	28	(81,573)
Unrestricted Net Assets	73,772,199	66,448,137	45,218,858	7,324,062	28,553,341
Total Net Assets	**74,153,317**	**66,829,227**	**45,681,549**	**7,324,090**	**28,471,768**
Total Liabilities and Net Assets	**82,068,034**	**76,972,549**	**68,493,102**	**5,095,485**	**13,574,932**

BS-Acct-YTD-001

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

	January	February	March	Year to Date
Operating Activities:				
Revenue less Expenses	$ 10,219,705	10,927,972	7,324,090	$ 28,471,767
Non-cash items:				
Depreciation	27,270	27,452	28,129	$ 82,851
Loss on disposal of assets				$ -
Receivables	53,256	66,082	35	$ 119,373
Interest Receivable	546	129	(496)	$ 179
Advances to Vendors	705,543	733,344	(1,456,911)	$ (18,024)
Prepaid expenses and other costs	(559,565)	51,323	(82,665)	$ (590,907)
Accounts payable	(14,214,238)	1,481,611	(2,237,661)	$ (14,970,288)
Payroll and related accruals	16,657	39,359	5,770	$ 61,786
Deferred rent and other	(271)	(1,101)	(1,829)	$ (3,201)
Cash rec'd from / (used in) Operating Activities	(3,751,097)	13,326,171	3,578,462	$ 13,153,536
Investing Activities:				
(Acquisition)/Disposal of Capital Assets	-	(6,570)	(25,948)	$ (32,518)
Cash rec'd from / (used in) Investing Activities	-	(6,570)	(25,948)	$ (32,518)
Cash at beginning of Period	64,468,299	60,717,202	74,036,802	64,468,299
Increase/(Decrease) in Cash	(3,751,097)	13,319,602	3,552,516	13,121,020
Cash at end of period	$ 60,717,202	$ 74,036,802	$ 77,589,318	$ 77,589,318

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	14,900,000	13,300,000	11,600,000	11,500,000	11,000,000	11,100,000	12,700,000	12,200,000	16,100,000
From other sources	53,256	66,082	35									
Investment Income	7,847	6,746	7,212	-	-	-	-	-	-	-	-	-
Total cash in	16,036,116	18,349,389	16,640,551	14,900,000	13,300,000	11,600,000	11,500,000	11,000,000	11,100,000	12,700,000	12,200,000	16,100,000
Cash Out:	19,787,213	5,029,788	13,088,038	8,900,000	11,200,000	14,300,000	13,200,000	13,300,000	16,500,000	14,400,000	14,700,000	23,600,000
Net cash flow for the month	(3,751,097)	13,319,601	3,552,516	6,000,000	2,100,000	(2,700,000)	(1,700,000)	(2,300,000)	(5,400,000)	(1,700,000)	(2,500,000)	(7,500,000)
Beginning Balance: Cash & MM	64,468,297	60,717,200	74,036,802	77,589,318	83,589,318	85,689,318	82,989,318	81,289,318	78,989,318	73,589,318	71,889,318	69,389,318
Ending cash & MM	60,717,200	74,036,802	77,589,318	83,589,318	85,689,318	82,989,318	81,289,318	78,989,318	73,589,318	71,889,318	69,389,318	61,889,318
Dedicated funds Adjustment	(10,600,000)	(10,600,000)	(7,900,000)	(8,100,000)	(8,400,000)	(9,300,000)	(9,300,000)	(9,300,000)	(9,300,000)	(9,300,000)	(9,300,000)	(9,300,000)
Committed Funds Adjustment	(37,200,000)	(40,000,000)	(33,900,000)	(46,300,000)	(45,800,000)	(45,400,000)	(45,400,000)	(45,400,000)	(45,400,000)	(45,400,000)	(45,400,000)	(45,400,000)
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	**6,717,200**	**17,236,802**	**29,589,318**	**22,989,318**	**25,289,318**	**22,089,318**	**20,389,318**	**18,089,318**	**12,689,318**	**10,989,318**	**8,489,318**	**989,318**

Escrow Cash Balance

Beginning Balance	462,692	381,052	381,090	381,118	77,926	77,934	77,942	77,950	77,958	77,966	77,974	77,982
Net Escrow (Payments)/Funding	(81,682)		-	(303,200)								
Interest Paid on Escrow Balances	42	38	28	8	8	8	8	8	8	8	8	0
Ending Escrow Balance1	381,052	381,090	381,118	77,926	77,934	77,942	77,950	77,958	77,966	77,974	77,982	77,983

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:	24,800,000	8,800,000	11,900,000	11,200,000	11,200,000	15,500,000	14,500,000	12,600,000	16,000,000	14,200,000	14,900,000	23,800,000
Net cash flow for the month	(8,790,000)	8,310,000	5,610,000	4,310,000	2,710,000	(3,290,000)	(2,190,000)	(990,000)	(4,190,000)	(290,000)	(1,890,000)	(6,490,000)
Beginning Balance: Cash & MM	61,889,318	53,099,318	61,409,318	67,019,318	71,329,318	74,039,318	70,749,318	68,559,318	67,569,318	63,379,318	63,089,318	61,199,318
Ending cash & MM	53,099,318	61,409,318	67,019,318	71,329,318	74,039,318	70,749,318	68,559,318	67,569,318	63,379,318	63,089,318	61,199,318	54,709,318
Dedicated funds Adjustment	(9,300,000)	(9,300,000)	(9,300,000)	(9,300,000)	(9,300,000)	(9,300,000)	(9,300,000)	(9,300,000)	(9,300,000)	(9,300,000)	(9,300,000)	(9,300,000)
Committed Funds Adjustment	(45,400,000)	(45,400,000)	(45,400,000)	(45,400,000)	(45,400,000)	(45,400,000)	(45,400,000)	(45,400,000)	(45,400,000)	(45,400,000)	(45,400,000)	(45,400,000)
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	**-**	**509,318**	**6,119,318**	**10,429,318**	**13,139,318**	**9,849,318**	**7,659,318**	**6,669,318**	**2,479,318**	**2,189,318**	**299,318**	**-**

Escrow Cash Balance

Beginning Balance	77,983	77,999	78,015	12	12	12	12	12	12	12	12	12
Net Escrow (Payments)/Funding			(78,003)									
Interest Paid on Escrow Balances	16	16	-	-	-	-	-	-	-	-	-	0
Ending Escrow Balance1	77,999	78,015	12	12	12	12	12	12	12	12	12	12

1Included in "Ending cash & MM" above

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

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

	March			YTD		
	Actual	**Budget**	**Variance**	**Actual**	**Budget**	**Variance**
REVENUES						
Public Purpose Funds-PGE	3,059,265	3,175,167	(115,902)	9,983,661	9,984,493	(832)
Public Purpose Funds-PacifiCorp	2,333,037	2,233,731	99,306	7,327,869	6,889,995	437,874
Public Purpose Funds-NW Natural	3,363,290	3,208,113	155,177	10,444,861	10,397,579	47,282
Public Purpose Funds-Cascade	205,820	366,002	(160,182)	955,182	1,432,505	(477,323)
Total Public Purpose Funds	**8,961,413**	**8,983,013**	**(21,601)**	**28,711,573**	**28,704,572**	**7,001**
Incremental Funds - PGE	4,631,065	4,972,147	(341,081)	14,211,393	12,860,468	1,350,924
Incremental Funds - PacifiCorp	2,395,275	2,296,920	98,355	7,316,361	7,162,136	154,226
NW Natural - Washington	645,551	645,551	0	645,551	645,551	0
Revenue from Investments	7,709	10,000	(2,291)	21,629	30,000	(8,371)
TOTAL REVENUE	**16,641,013**	**16,907,631**	**(266,618)**	**50,906,507**	**49,402,726**	**1,503,780**
EXPENSES						
Program Subcontracts	3,932,459	3,893,190	(39,268)	10,717,065	11,319,385	602,320
Incentives	3,843,691	7,001,976	3,158,285	7,317,812	14,100,343	6,782,531
Salaries and Related Expenses	771,964	895,423	123,460	2,382,935	2,676,200	293,265
Professional Services	520,166	1,052,609	532,443	1,339,588	2,888,778	1,549,190
Supplies	2,204	10,354	8,149	7,361	31,061	23,700
Telephone	4,259	4,703	444	12,617	13,609	992
Postage and Shipping Expenses	413	833	421	2,041	2,500	459
Occupancy Expenses	56,533	58,434	1,901	164,571	175,301	10,729
Noncapitalized Equip. & Depr.	54,139	51,476	(2,663)	152,581	301,907	149,326
Call Center	74,663	44,917	(29,746)	185,418	134,750	(50,668)
Printing and Publications	6,474	17,112	10,639	48,837	51,337	2,500
Travel	16,005	24,399	8,393	27,154	52,096	24,942
Conference, Training & Mtng Exp	16,654	39,357	22,703	29,590	107,247	77,657
Interest Expense and Bank Fees	112	625	513	366	1,875	1,509
Insurance	7,800	9,167	1,367	23,400	27,500	4,100
Miscellaneous Expenses	0	225	225	0	675	675
Dues, Licenses and Fees	9,388	14,197	4,809	23,403	38,465	15,062
TOTAL EXPENSES	**9,316,923**	**13,118,997**	**3,802,075**	**22,434,739**	**31,923,028**	**9,488,289**
TOTAL REVENUE LESS EXPENSES	**7,324,090**	**3,788,633**	**3,535,457**	**28,471,768**	**17,479,698**	**10,992,069**

IS-Acct-YTD-001

Energy Trust of Oregon, Inc
Statement of Functional Expenses
For the Three Months Ending March 31, 2013

	Energy Efficiency	Renewable Energy	Total Program Expenses	Management & General	Communications & Customer Service	Total Admin Expenses	Total	Budget	Variance
Program Expenses									
Incentives/ Program Management & Deliver	17,272,938	761,939	18,034,877				18,034,877	25,419,727	7,384,850
Payroll and Related Expenses	691,660	213,112	904,772	463,048	212,364	675,412	1,580,184	1,662,370	82,186
Outsourced Services	878,195	108,088	986,283	40,197	205,797	245,994	1,232,277	2,105,245	872,968
Planning and Evaluation	433,015	19,551	452,566				452,566	740,700	288,134
Customer Service Management	291,872	6,085	297,957				297,957	268,769	(29,188)
Trade Allies Network	87,637	3,966	91,603				91,603	117,595	25,992
Total Program Expenses	**19,655,316**	**1,112,741**	**20,768,057**	**503,246**	**418,161**	**921,407**	**21,689,464**	**30,314,405**	8,624,941
Program Support Costs									
Supplies	2,188	487	2,675	2,623	446	3,069	5,744	19,611	13,867
Postage and Shipping Expenses	652	198	850	391	171	562	1,412	1,963	551
Telephone	704	297	1,001	271	133	404	1,405	1,590	185
Printing and Publications	44,171	2,951	47,122	125	680	805	47,927	49,393	1,466
Occupancy Expenses	52,318	15,883	68,201	31,382	13,726	45,108	113,309	112,199	(1,110)
Insurance	7,474	2,269	9,743	4,483	1,961	6,444	16,187	17,662	1,475
Equipment	11,428	675	12,103	1,333	583	1,916	14,019	5,982	(8,037)
Travel	10,069	3,066	13,135	3,412	620	4,032	17,167	38,321	21,154
Meetings, Trainings & Conferences	6,545	1,857	8,402	3,902	1,009	4,911	13,313	71,222	57,909
Interest Expense and Bank Fees		100	100	266		266	366	1,875	1,509
Depreciation & Amortization	13,031	4,535	17,566	7,816	3,419	11,235	28,801	25,683	(3,118)
Dues, Licenses and Fees	7,885	4,639	12,524	1,284	1,421	2,705	15,229	17,725	2,496
Miscellaneous Expenses								451	451
IT Services	332,306	39,117	371,423	66,275	32,698	98,973	470,396	1,244,943	774,547
Total Program Support Costs	**488,771**	**76,074**	**564,845**	**123,562**	**56,868**	**180,430**	**745,275**	**1,608,620**	**863,345**
TOTAL EXPENSES	**20,144,087**	**1,188,815**	**21,332,902**	**626,807**	**475,029**	**1,101,836**	**22,434,739**	**31,923,028**	**9,488,289**
OPUC measure vs. 9%	**3.27%**								

Exp-Acct-YTD-002

Energy Trust of Oregon, Inc
Year to Date by Program/Service Territory - joint costs allocated at program level
For the Three Months Ending March 31, 2013
(Unaudited)

	ENERGY EFFICIENCY											RENEWABLE ENERGY				TOTAL		
	PGE	PacifiCorp	Total	NWN Industrial	NW Natural	Cascade	Oregon Total	Clark PUD WA	NWN WA	Total WA	ETO Total	PGE	PacifiCorp	Total	Other	All Programs	Approved budget	Change
REVENUES																		
Public Purpose Funding	$7,721,347	$5,693,743	$13,415,090		$10,444,861	$955,182	$24,815,133				$24,815,133	$2,262,314	$1,634,126	$3,896,440		$28,711,573	$28,704,572	($7,001)
Incremental Funding	14,211,393	7,316,361	21,527,754				21,527,754		645,551	645,551	22,173,305					22,173,305	20,668,155	(1,505,150)
Revenue from Investments															21,629	21,629	30,000	8,371
TOTAL PROGRAM REVENUE	**21,932,740**	**13,010,104**	**34,942,844**		**10,444,861**	**955,182**	**46,342,887**		**645,551**	**645,551**	**46,988,438**	**2,262,314**	**1,634,126**	**3,896,440**	**21,629**	**50,906,507**	**49,402,727**	**(1,503,780)**
EXPENSES																		
Program Management (Note 3)	642,685	389,529	1,032,214	13,910	262,800	19,368	1,328,291	196	58,545	58,741	1,387,032	104,809	108,303	213,112		1,600,144	1,485,935	(114,209)
Program Delivery	4,818,924	3,222,071	8,040,995	90,871	1,001,633	83,044	9,216,543	246	55,801	56,047	9,272,590	15,515	17,664	33,179		9,305,769	9,932,927	627,158
Incentives	4,101,652	1,433,889	5,535,541	48,930	915,528	57,157	6,557,156		31,896	31,896	6,589,052	476,302	252,459	728,761		7,317,813	14,100,345	6,782,532
Program Eval & Planning Svcs.	462,604	242,056	704,660	7,123	113,483	7,653	832,920	36	6,979	7,015	839,935	10,177	9,374	19,551		859,486	1,422,970	563,484
Program Marketing/Outreach	500,414	315,915	816,329	2,109	246,936	16,633	1,082,007		5,194	5,194	1,087,201	12,161	6,675	18,836		1,106,037	1,293,880	187,843
Program Quality Assurance	7,732	7,406	15,138	0	8,771	466	24,375				24,375	725	0	725		25,100	63,750	38,650
Outsourced Services	34,510	25,592	60,102	109	14,692	721	75,624				75,624	43,303	45,225	88,528		164,152	567,763	403,611
Trade Allies & Cust. Svc. Mgmt.	94,246	65,314	159,560	309	62,933	4,064	226,866	27	6,470	6,497	233,363	5,532	3,163	8,695		242,058	286,614	44,556
IT Services	158,860	93,618	252,478	1,260	65,278	4,182	323,198	37	9,071	9,108	332,306	20,139	18,978	39,117		371,423	983,158	611,735
Other Program Expenses	127,047	86,615	213,662	1,266	75,545	4,453	294,926	32	7,654	7,686	302,612	20,578	17,736	38,314		340,926	304,359	(36,567)
TOTAL PROGRAM EXPENSES	**10,948,674**	**5,882,005**	**16,830,679**	**165,887**	**2,767,598**	**197,742**	**19,961,906**	**574**	**181,610**	**182,184**	**20,144,087**	**709,241**	**479,577**	**1,188,815**		**21,332,902**	**30,441,701**	**9,108,793**
ADMINISTRATIVE COSTS																		
Management & General (Notes 1 & 2)	322,582	172,996	495,578	4,923	80,687	5,777	586,965	16	5,178	5,194	592,159	19,707	14,940	34,647		626,807	905,698	278,892
Communications & Customer Svc (Notes 1 & 2)	244,471	131,106	375,577	3,731	61,149	4,378	444,835	12	3,925	3,937	448,772	14,936	11,323	26,259		475,029	575,636	100,605
Total Administrative Costs	**567,053**	**304,102**	**871,155**	**8,653**	**141,836**	**10,156**	**1,031,800**	**28**	**9,103**	**9,131**	**1,040,931**	**34,643**	**26,263**	**60,906**		**1,101,836**	**1,481,334**	**379,497**
TOTAL PROG & ADMIN EXPENSES	**11,515,722**	**6,186,110**	**17,701,832**	**174,541**	**2,909,433**	**207,898**	**20,993,704**	**603**	**190,711**	**191,314**	**21,185,018**	**743,885**	**505,836**	**1,249,721**		**22,434,739**	**31,923,028**	**9,488,289**
TOTAL REVENUE LESS EXPENSES	**10,417,013**	**6,823,997**	**17,241,010**	**(174,541)**	**7,535,426**	**747,285**	**25,349,181**	**(603)**	**454,839**	**454,236**	**25,803,417**	**1,518,430**	**1,128,286**	**2,646,716**	**21,629**	**28,471,768**	**17,479,692**	**(10,992,070)**
Cumulative Carryover at 12/31/12 (Note 4)	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	8,211,384	7,461,615	15,672,999	10,678,953	45,681,550	37,070,557	(8,610,993)
Interest attributed	1,740,000	1,160,000	2,900,000		5,000,000	392,281	8,292,281				8,292,281	585,000	2,235,000	2,820,000	(11,112,281)		7,900,000	7,900,000
Interest re-attributed	(1,740,000)	(1,160,000)	(2,900,000)		(5,000,000)		(7,900,000)				(7,900,000)				7,900,000		(7,900,000)	(7,900,000)
TOTAL NET ASSETS CUMULATIVE	**22,585,488**	**9,860,546**	**32,446,034**	**925,258**	**10,548,575**	**747,285**	**44,667,152**	**50,131**	**808,013**	**858,144**	**45,525,296**	**10,314,814**	**10,824,901**	**21,139,715**	**7,488,301**	**74,153,317**	**54,550,249**	**(19,603,063)**

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.
Note 4) Cumulative carryover at 12/31/2012 reflects audited results.

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

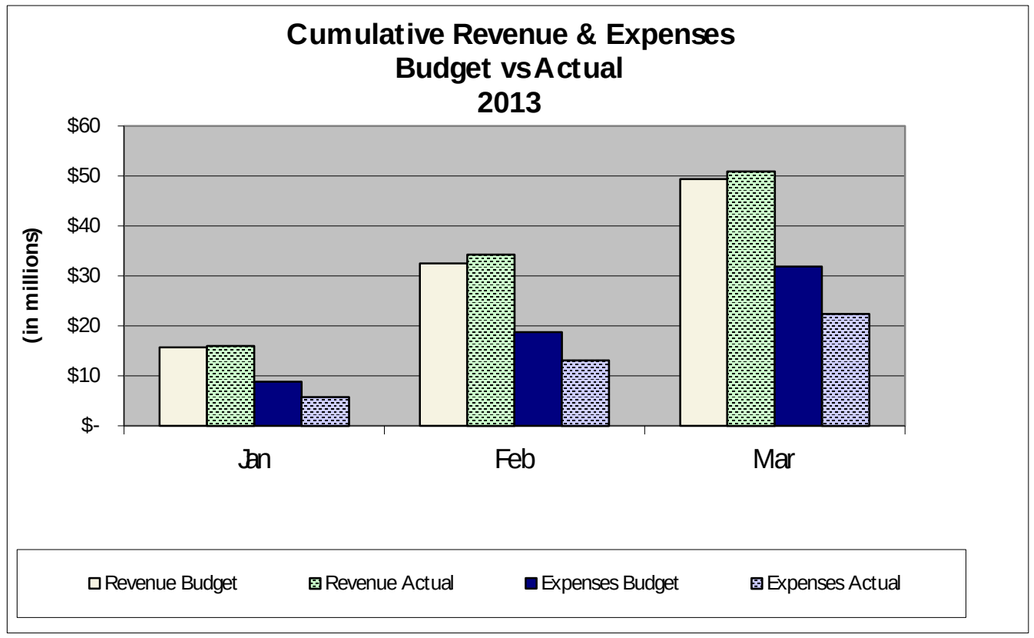
	PGE	Pacific Power	Subtotal Elec	NWN Industrial	NW Natural Gas	Cascade	Subtotal Gas	Oregon Total	Clark PUD WA	NWN WA	Total WA	ETO Total	YTD Budget	Variance
Energy Efficiency														
Commercial														
Existing Buildings	2,374,325	1,561,345	3,935,670	15,349	346,951	10,059	372,359	4,308,029	603	57,297	57,900	4,365,929	6,379,644	2,013,715
New Buildings	2,087,250	397,976	2,485,226	681	91,787	22,781	115,249	2,600,475				2,600,475	4,313,089	1,712,614
NEEA	347,860	262,422	610,282					610,282				610,282	709,447	99,165
Total Commercial	**4,809,435**	**2,221,743**	**7,031,178**	**16,030**	**438,738**	**32,840**	**487,608**	**7,518,786**	**603**	**57,297**	**57,900**	**7,576,686**	**11,402,180**	**3,825,494**
Industrial														
Production Efficiency	3,140,769	1,391,661	4,532,430	158,511	375,094	23,109	556,714	5,089,144				5,089,144	5,093,764	4,620
NEEA	215,179	162,329	377,508					377,508				377,508	364,583	(12,925)
Total Industrial	**3,355,948**	**1,553,990**	**4,909,938**	**158,511**	**375,094**	**23,109**	**556,714**	**5,466,652**				**5,466,652**	**5,458,347**	**(8,305)**
Residential														
Existing Homes	1,121,781	1,074,525	2,196,306		1,272,171	67,596	1,339,767	3,536,073		81,961	81,961	3,618,034	5,770,980	2,152,946
New Homes/Products	1,468,656	762,591	2,231,247		823,430	84,353	907,783	3,139,030		51,453	51,453	3,190,483	5,443,579	2,253,096
NEEA	759,902	573,261	1,333,163					1,333,163				1,333,163	949,282	(383,881)
Total Residential	**3,350,339**	**2,410,377**	**5,760,716**		**2,095,601**	**151,949**	**2,247,550**	**8,008,266**		**133,414**	**133,414**	**8,141,680**	**12,163,841**	**4,022,161**
Energy Efficiency Program Cos	**11,515,722**	**6,186,110**	**17,701,832**	**174,541**	**2,909,433**	**207,898**	**3,291,872**	**20,993,704**	**603**	**190,711**	**191,314**	**21,185,018**	**29,024,368**	**7,839,350**
Renewables														
Biopower	49,234	23,949	73,183					73,183				73,183	645,280	572,097
Solar Electric (Photovoltaic)	591,545	316,188	907,733					907,733				907,733	1,973,086	1,065,353
Other Renewable	103,106	165,699	268,805					268,805				268,805	280,295	11,490
Renewables Program Costs	**743,885**	**505,836**	**1,249,721**					**1,249,721**				**1,249,721**	**2,898,661**	**1,648,940**
Cost Grand Total	**12,259,607**	**6,691,946**	**18,951,553**	**174,541**	**2,909,433**	**207,898**	**3,291,872**	**22,243,425**	**603**	**190,711**	**191,314**	**22,434,739**	**31,923,029**	**9,488,290**

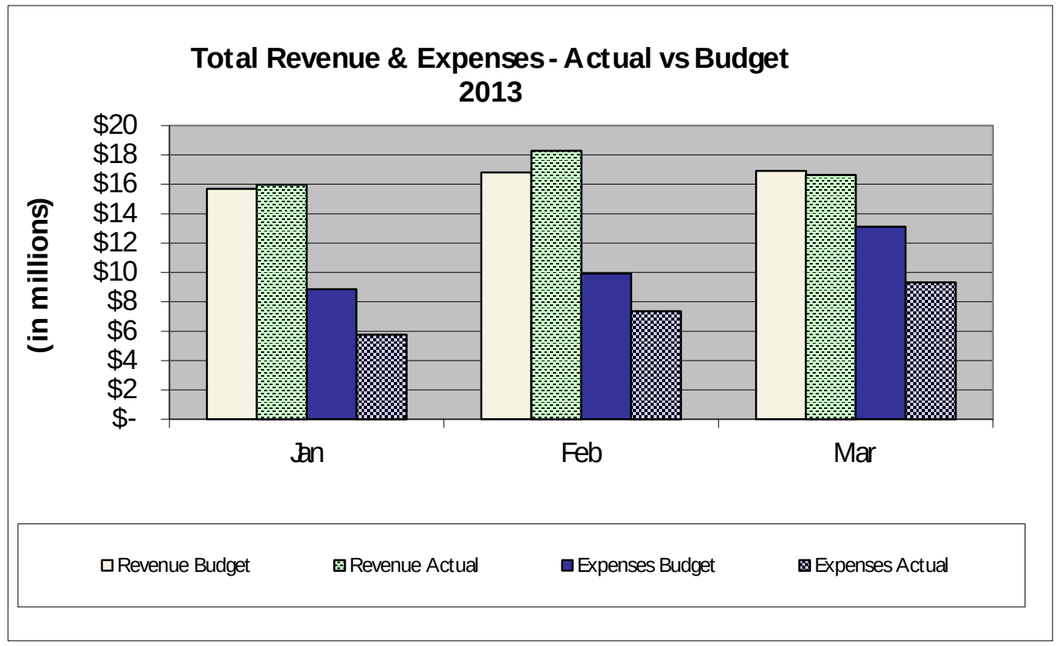
PUC-Proj-ST-07-C

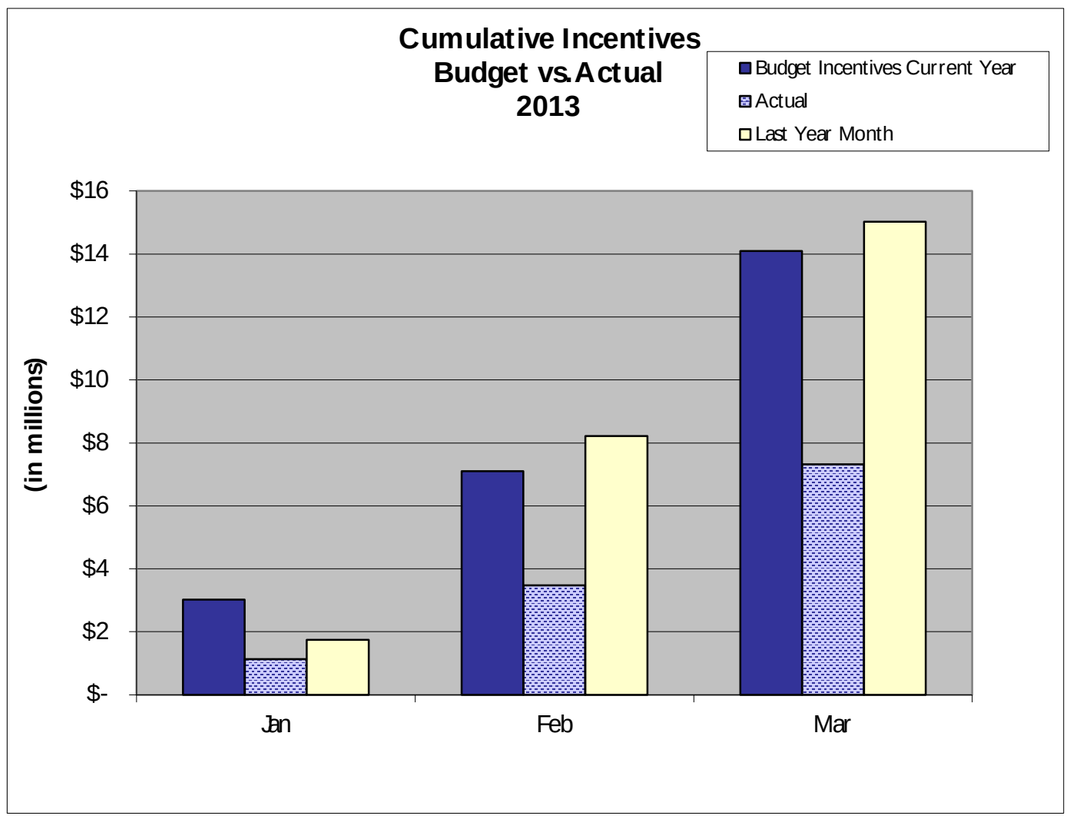
Energy Trust of Oregon, Inc.
ADMINISTRATIVE EXPENSES
For the Three Months and Year to Date Ended March 31, 2013
(Unaudited)

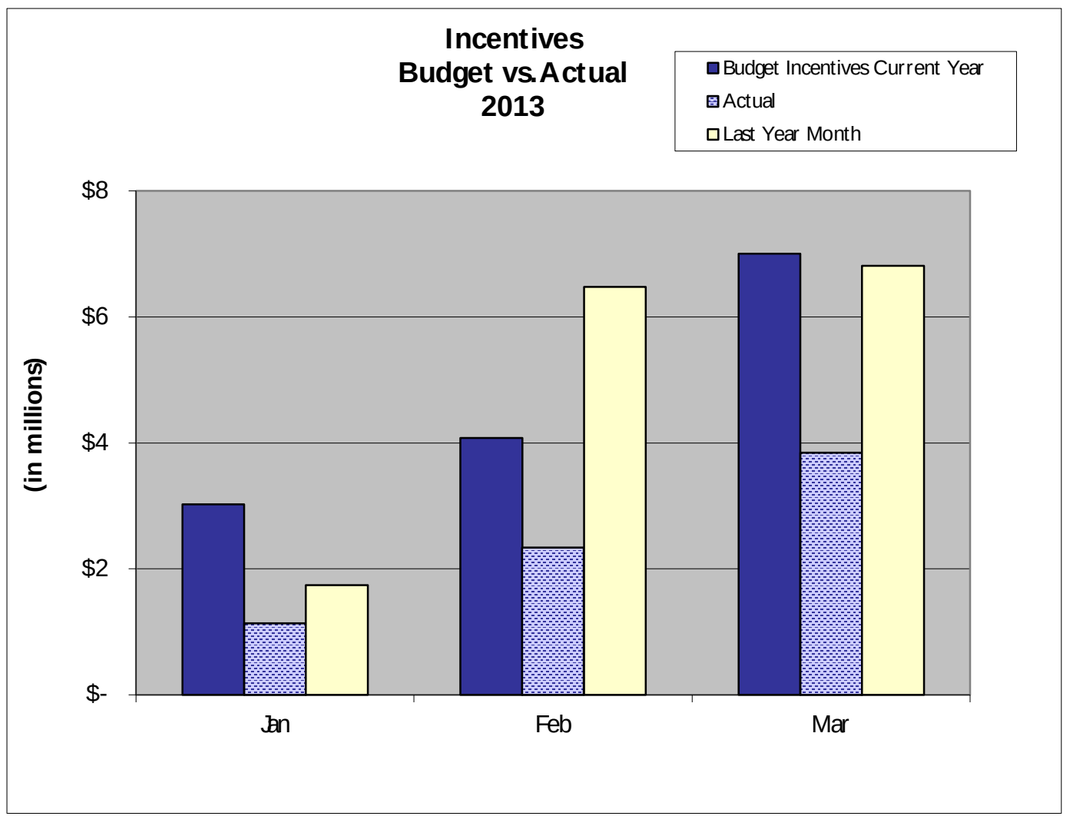
	MANAGEMENT & GENERAL						COMMUNICATIONS & CUSTOMER SERVICE					
	QUARTER			YTD			QUARTER			YTD		
	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	VARIANCE
EXPENSES												
Outsourced Services	$40,037	$111,213	$71,175	$40,037	$111,213	$71,175	$205,797	$232,500	$26,703	$205,797	$232,500	$26,703
Legal Services	160	22,500	22,340	160	22,500	22,340						
Salaries and Related Expenses	463,048	486,386	23,337	463,048	486,385	23,337	212,364	207,877	(4,486)	212,364	207,877	(4,486)
Supplies	1,662	1,575	(87)	1,662	1,575	(87)	26	250	224	26	250	224
Telephone		350	350		350	350	15		(15)	15		(15)
Postage and Shipping Expenses								1,000	1,000		1,000	1,000
Noncapitalized Equipment								250	250		250	250
Printing and Publications	10	150	140	10	150	140	630	13,750	13,120	630	13,750	13,120
Travel	3,412	11,833	8,422	3,412	11,833	8,422	620	1,750	1,130	620	1,750	1,130
Conference, Training & Mtngs	3,902	44,372	40,471	3,902	44,372	40,471	1,009	7,125	6,116	1,009	7,125	6,116
Interest Expense and Bank Fees	266	1,875	1,609	266	1,875	1,609						
Miscellaneous Expenses		50	50		50	50						
Dues, Licenses and Fees	1,284	1,200	(83)	1,284	1,200	(83)	1,421	500	(921)	1,421	500	(921)
Shared Allocation (Note 1)	46,753	48,911	2,158	46,753	48,911	2,158	20,449	24,130	3,680	20,449	24,130	3,680
IT Service Allocation (Note 2)	66,275	175,283	109,009	66,275	175,283	109,009	32,698	86,502	53,804	32,698	86,502	53,804
TOTAL EXPENSES	**626,807**	**905,698**	**278,891**	**626,807**	**905,698**	**278,891**	**475,029**	**575,634**	**100,604**	**475,029**	**575,634**	**100,604**

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


Cumulative Revenue & Expenses
Budget vs Actual
2013
(in millions)
$60
$50
$40
$30
$20
$10
$-
Jan
Feb
Mar
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
Revenue Budget
Revenue Actual
Expenses Budget
Expenses Actual


Cumulative Incentives
Budget vs. Actual
2013
Budget Incentives Current Year
Actual
Last Year Month
(in millions)
$16
$14
$12
$10
$8
$6
$4
$2
$-
Jan
Feb
Mar


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

R00407

For contracts with costs through: 4/1/2013

Energy Trust of Oregon
Contract Status Summary Report

Report Date: 4/17/2013

Contractor	Description	*City	Est Cost	Actual TTD	Remaining	Start	End
Administration							
		Administration Total:	**7,577,371**	**2,598,633**	**4,978,738**		
Communications & Outreach							
		Communications & Outreach Total:	**3,244,670**	**1,791,686**	**1,452,984**		
Energy Efficiency Programs							
Northwest Energy Efficiency Alliance	Regional Energy Eff Initiative	Portland	39,138,680	23,188,406	15,950,274	1/1/10	7/1/15
ICF Resources, LLC	PMC BE 2013	Fairfax	7,731,351	1,660,358	6,070,993	1/1/13	12/31/13
Fluid Market Strategies LLC	2013 HES PMC	Portland	7,338,775	1,589,994	5,748,781	1/1/13	12/31/13
Portland Energy Conservation, Inc.	PMC NHP 2013	Portland	6,315,684	1,252,502	5,063,182	1/1/13	12/31/13
Portland Energy Conservation, Inc.	2013 NBE PMC	Portland	4,736,060	827,316	3,908,744	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	544,445	2,128,896	1/1/13	12/31/13
OPOWER, Inc.	OPOWER Agreement	Arlington	2,092,200	2,009,920	82,280	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	378,066	1,492,934	1/1/13	12/31/13
Cascade Energy, Inc.	PDC - PE 2013	Walla Walla	1,725,055	485,845	1,239,210	1/1/13	12/31/13
RHT Energy Solutions	PDC - PE 2013	Medford	1,278,651	317,785	960,866	1/1/13	12/31/13
Cascade Energy, Inc.	PDC - PE 2013 Small Industrial	Walla Walla	1,147,500	301,786	845,714	1/1/13	12/31/13
Evergreen Consulting Group, LLC	PE Lighting PDC 2013	Tigard	1,071,000	272,193	798,807	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	164,392	661,426	1/1/13	12/31/13
Ecova Inc	Plug Load Solutions Funding	Spokane	499,950	55,900	444,050	1/1/13	12/31/13
Navigant Consulting Inc	PE Program Impact Evaluation	Boulder	490,000	470,340	19,660	12/15/11	6/30/13
Evoworx Inc.	EnergySavvy Online Audit Tool	Seattle	472,500	231,309	241,191	1/1/12	12/31/13
Clean Energy Works Oregon Inc	Clean Energy Works	Portland	448,500	300,000	148,500	1/1/10	6/30/13
OPOWER, Inc.	OPower Personal Energy Reports	Arlington	425,850	155,760	270,090	8/1/13	7/31/15
Lockheed Martin Services, Inc.	PMC BE Transition - 2013	Cherry Hill	400,000	315,476	84,524	1/1/13	3/15/13
SBW Consulting, Inc.	BE Program Impact Evaluation	Bellevue	400,000	329,861	70,139	1/15/12	6/30/13
The Cadmus Group Inc.	NB Impact Eval 2010-2011	Watertown	295,000	192,466	102,534	1/13/12	12/31/13
Conservation Services Group, Inc.	2013 HES PMC Final Transition	Boston	273,000	219,624	53,376	1/1/13	3/31/13
Fluid Market Strategies LLC	2013 HES WA PMC	Portland	265,000	66,907	198,093	1/1/13	12/31/13
Research Into Action, Inc.	EB Evaluation	Portland	210,000	210,000	0	1/1/12	4/30/13
ICF Resources, LLC	NWN WA BE 2013	Fairfax	191,538	18,870	172,668	1/1/13	12/31/13
Research Into Action, Inc.	PE Evaluation	Portland	170,000	121,173	48,827	2/1/12	5/30/13
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	1,899	108,101	1/1/13	12/31/13
J. Hruska Global	Quality Assurance Services	Columbia City	100,000	18,609	81,391	1/1/13	12/31/14
PWP, Inc.	NBE Process Evaluation	Gaithersburg	100,000	66,488	33,512	1/6/12	12/31/13
Skumatz Economic Research Associates Inc	Existing Homes Study	Superior	100,000	86,179	13,821	7/15/11	5/1/13

*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
Vitesse LLC	Vitesse Data Center	Menlo Park	100,000	0	100,000	10/18/12	10/30/13
Energy Efficiency Funding Group Inc	Training Classes/Workshops	San Francisco	75,000	67,590	7,410	6/1/11	5/31/13
Pollinate Inc	Web Application Development	Portland	67,000	64,394	2,606	1/1/12	3/31/13
Glumac Inc	Data Center Analysis	Portland	64,525	51,424	13,101	6/7/12	4/30/13
Home Performance Contractors Guild of Oregon	Existing Homes Program Support	Portland	60,000	60,000	0	1/1/12	12/31/12
Portland Energy Conservation, Inc.	EE Consultant Services	Portland	54,170	50,758	3,412	6/1/11	12/31/13
The Cadmus Group Inc.	Commercial Op Pilot Eval	Watertown	50,000	33,141	16,859	7/1/11	12/31/13
PWP, Inc.	Comm SEM Initiative Evaluation	Gaithersburg	45,000	19,678	25,322	7/1/12	6/30/14
KEMA Incorporated	Shelf Space Survey	Oakland	42,750	21,375	21,375	12/1/12	9/30/13
Fluid Market Strategies LLC	New Homes QA Assurance	Portland	42,250	27,130	15,120	3/1/12	12/31/12
Portland General Electric	Utility Data Payment - OPOWER	Portland	40,000	19,928	20,072	8/1/10	2/28/14
Pollinate Inc	Energy Savings Estimate	Portland	39,250	36,870	2,380	11/1/12	4/1/13
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	5,178	29,823	4/1/12	12/31/13
WegoWise Inc	Wegowise Benchmarking License	Boston	35,000	20,000	15,000	5/14/12	5/14/14
Navigant Consulting Inc	CORE Improvement Pilot Eval	Boulder	34,000	5,007	28,994	9/1/12	8/30/14
Navigant Consulting Inc	Sustainable Energy Syst Pilot	Boulder	30,000	18,811	11,189	2/15/11	6/30/13
Stellar Processes, Inc.	BE Measure Evaluation	Portland	25,000	12,875	12,125	10/24/12	10/24/14
Michael Blasnick & Associated	Billing Analysis Process	Boston	20,000	3,938	16,063	1/1/10	12/31/13
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	5,500	5,000	6/13/12	7/31/14
Conservation Services Group, Inc.	Technical Equipment	Boston	9,205	9,205	0	3/13/13	4/13/13
Consumer Opinion Services Inc	Customer Engagement Survey	Seattle	8,200	0	8,200	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
Hood River County School District	Energy Model Recalibration	Hood River	6,000	0	6,000	12/5/12	3/31/13
	Energy Efficiency Programs Total:		**91,083,189**	**41,573,645**	**49,509,544**		
Joint Programs							
Gilmore Research	Fast Feedback Survey	Seattle	104,000	19,500	84,500	10/1/12	6/30/14
Abt SRBI Inc.	Fast Feedback Survey	New York	65,000	0	65,000	3/1/13	2/28/14
ICF Resources, LLC	Planning Consultant Services	Fairfax	64,700	63,840	860	6/16/11	5/31/13
Portland State University	Technology Forecasting		57,674	34,458	23,216	11/7/11	12/31/13

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

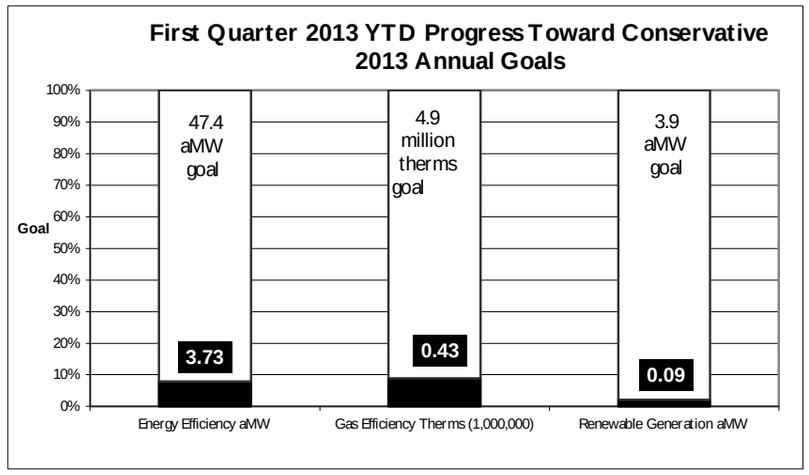
Contractor	Description	*City	Est Cost	Actual TTD	Remaining	Start	End
Navigant Consulting Inc	P&E Consultant Services	Boulder	22,040	22,040	0	6/30/11	7/1/13
Glumac Inc	Planning Technical Analysis	Portland	15,000	15,000	0	10/17/12	10/17/14
CoStar Realty Information Inc	Property Data	Baltimore	12,668	10,601	2,068	6/1/11	1/31/14
Gilmore Research	Customer Engagement Survey	Seattle	12,500	2,500	10,000	10/1/12	12/31/13
American Council for and Energy Efficient Economy	ACEEE Sponsorship - 2013		10,000	10,000	0	1/1/13	12/31/13
		Joint Programs Total:	**363,582**	**177,938**	**185,644**		
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	1,684,787	301	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	0	1,000,000	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	220,830	662,490	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	156,486	73,514	5/20/10	5/20/30
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	6,300	93,700	10/1/11	10/1/13
Stoller Vineyards, Inc.	Stoller Vineyards PV	Dayton	79,815	77,390	2,425	12/1/05	12/1/26
Construct Inc	RE Consultant Services	Portland	70,600	43,359	27,241	1/1/11	3/31/13
Wallowa Resources Community Solutions Inc	Integrated Biomass Energy Camp	Enterprise	70,000	70,000	0	2/1/12	1/31/27
City of Portland Water Bureau	Vernon Hydro	Portland	65,000	65,000	0	11/15/10	11/15/30
Bloomberg LP	Insight Services	San Francisco	45,600	41,700	3,900	4/1/11	1/1/14
University of Oregon	UO SRML Contribution	Eugene	45,000	45,000	0	3/9/12	3/9/13
MC Energy LLC	Small Wind Incentive	Spokane	43,250	43,250	0	9/21/10	9/21/25
Clean Energy States Alliance	CESA Year 10 (2013)		39,543	39,543	0	7/1/12	6/30/13
Wind Products Inc	Wind Consultant	Brooklyn	37,500	17,500	20,000	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
Northwest SEED	Grant Agreement	Seattle	30,000	30,000	0	10/3/11	12/31/13

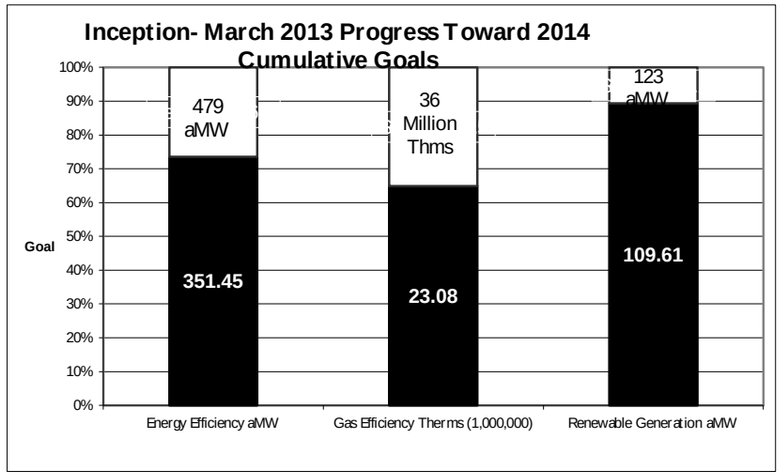
*The city indicated is the contractor's mailing address, not necessarily the location where work was performed.

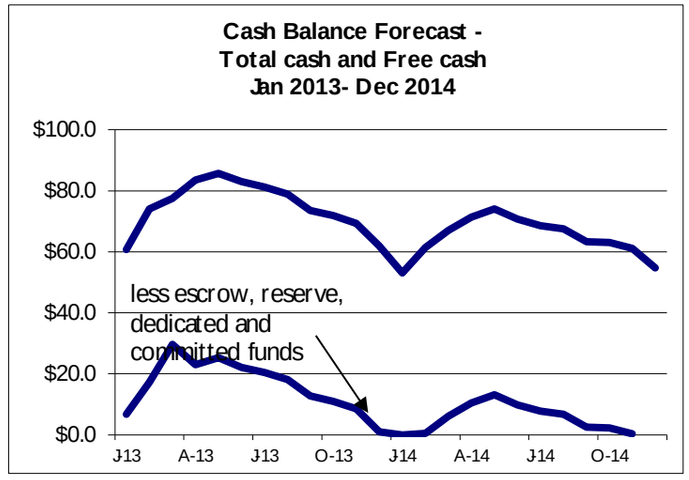
Contractor	Description	*City	Est Cost	Actual TTD	Remaining	Start	End
SPS of Oregon Inc	Spaur Microhydro	Wallowa	25,000	25,000	0	7/23/10	7/23/30
Robert Migliori	42kW wind energy system	Newberg	24,125	8,561	15,564	4/11/07	1/31/24
Solar Oregon	Outreach Services	Portland	24,000	6,000	18,000	1/1/13	12/31/13
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	3/29/13
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	0	12,000	4/16/12	6/30/32
Clean Energy States Alliance	CESA ITAC		10,000	10,000	0	1/1/13	12/31/13
American Wind Group LLC	Anemometer Incentive Funding	Oasis	4,031	4,031	0	7/22/11	2/15/14
Blue Tree Strategies Inc	RE Consulting Services	Portland	3,600	3,555	45	6/14/11	5/31/13
eFormative Options LLC	RE Evaluation Consultant	Vashon	3,000	0	3,000	3/1/13	2/28/15
	Renewable Energy Program Total:		**23,952,632**	**16,446,704**	**7,505,928**		
	Grand Totals:		**126,221,444**	**62,588,605**	**63,632,839**		

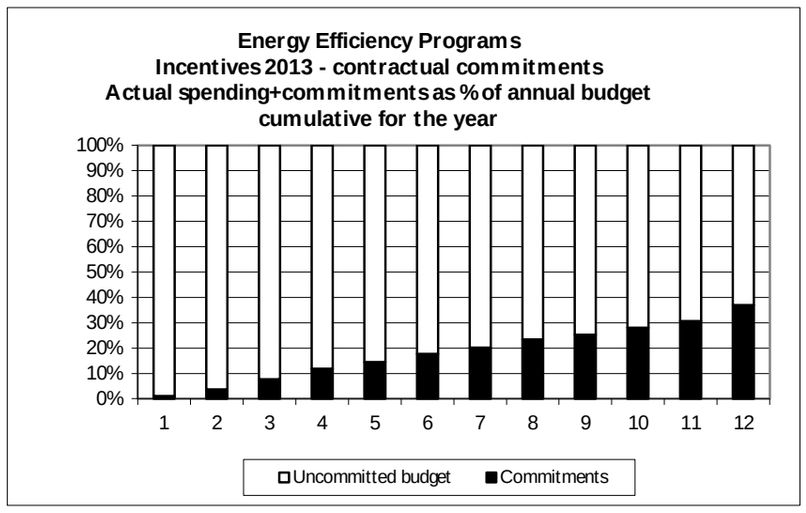
*The city indicated is the contractor's mailing address, not necessarily the location where work was performed.

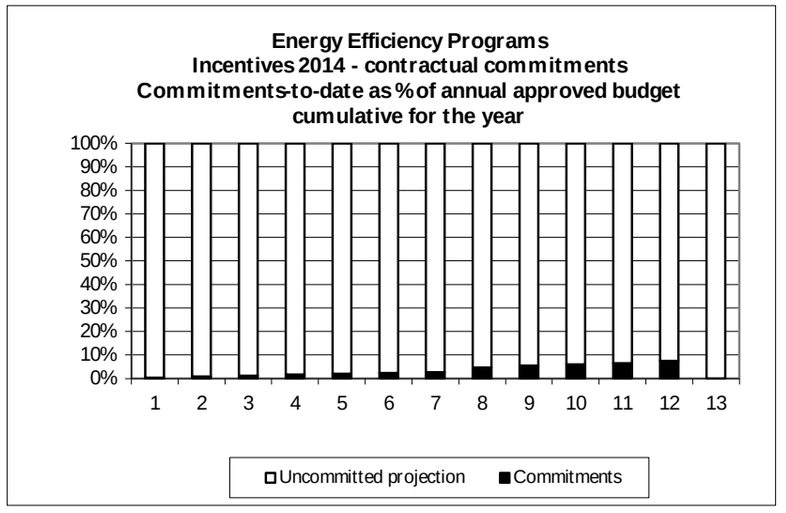
Energy Trust of Oregon, Inc.
Quarterly Dashboard-First Quarter 2013 (UNAUDITED)







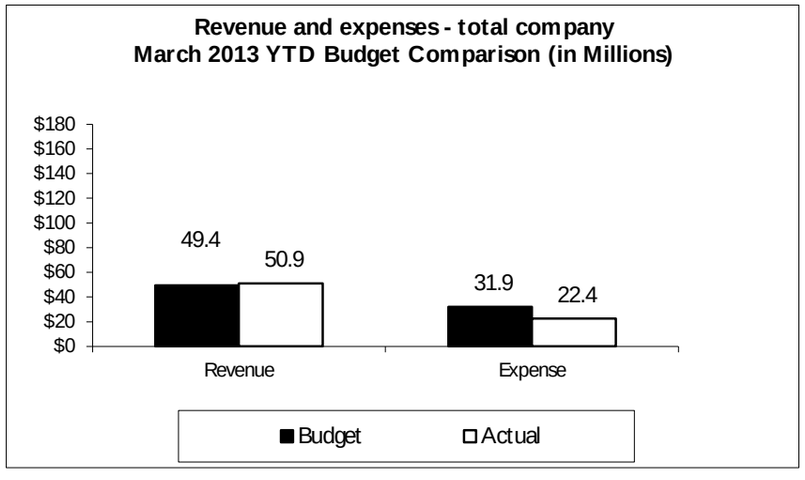


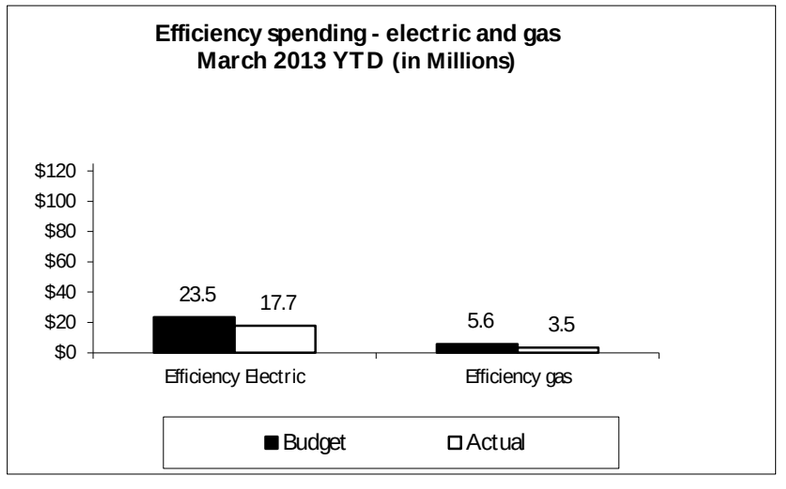


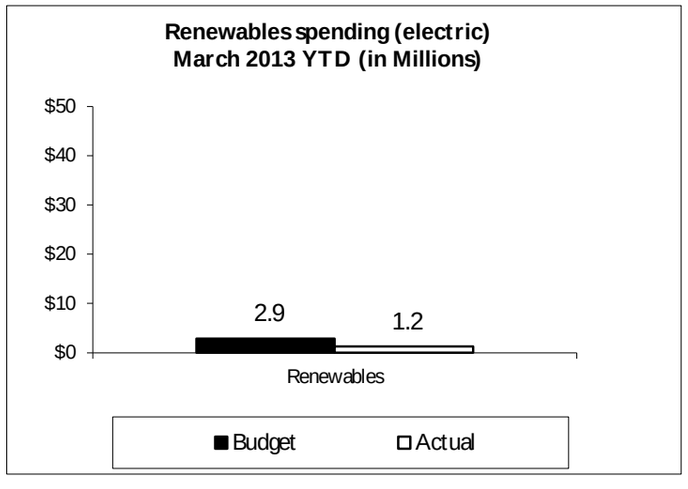
Renewable Energy Programs

Commitments for Current and Future Years

	2013	2014+
BioPower	$ 1.9	$ 4.6
Other renewables	$ 0.7	$ 3.0
Solar PV	$ 1.3	$ 0.1
PROJECTS	$ 3.9	$ 7.7







Form **990**

Department of the Treasury
Internal Revenue Service

Return of Organization Exempt From Income Tax

Under section 501(c), 527, or 4947(a)(1) of the Internal Revenue Code (except black lung benefit trust or private foundation)

▶ The organization may have to use a copy of this return to satisfy state reporting requirements.

OMB No. 1545-0047

2012

Open to Public Inspection

A For the 2012 calendar year, or tax year beginning **and ending**

B Check if applicable:
- ☐ Address change
- ☐ Name change
- ☐ Initial return
- ☐ Termin-ated
- ☐ Amended return
- ☐ Applica-tion pending

C Name of organization
ENERGY TRUST OF OREGON INC

Doing Business As

Number and street (or P.O. box if mail is not delivered to street address) | Room/suite
421 SW OAK STREET | 300

City, town, or post office, state, and ZIP code
PORTLAND, OR 97204

F Name and address of principal officer: MARGIE HARRIS
SAME AS C ABOVE

D Employer identification number
93-1313663

E Telephone number
503-493-8888

G Gross receipts $ 146,491,880.

H(a) Is this a group return for affiliates? ☐ Yes ☒ No

H(b) Are all affiliates included? ☐ Yes ☐ No
If "No," attach a list. (see instructions)

H(c) Group exemption number ▶

I Tax-exempt status: ☒ 501(c)(3) ☐ 501(c) ( ) ◀ (insert no.) ☐ 4947(a)(1) or ☐ 527

J Website: ▶ WWW.ENERGYTRUST.ORG

K Form of organization: ☒ Corporation ☐ Trust ☐ Association ☐ Other ▶

L Year of formation: 2002 **M** State of legal domicile: OR

Part I Summary

Activities & Governance

1 Briefly describe the organization's mission or most significant activities: SEE SCHEDULE O

2 Check this box ▶ ☐ if the organization discontinued its operations or disposed of more than 25% of its net assets.

3	Number of voting members of the governing body (Part VI, line 1a)	3	13
4	Number of independent voting members of the governing body (Part VI, line 1b)	4	13
5	Total number of individuals employed in calendar year 2012 (Part V, line 2a)	5	105
6	Total number of volunteers (estimate if necessary)	6	13
7a	Total unrelated business revenue from Part VIII, column (C), line 12	7a	0.
b	Net unrelated business taxable income from Form 990-T, line 34	7b	0.

Revenue

		Prior Year	Current Year
8	Contributions and grants (Part VIII, line 1h)	133,085,140.	146,235,452.
9	Program service revenue (Part VIII, line 2g)	0.	0.
10	Investment income (Part VIII, column (A), lines 3, 4, and 7d)	194,050.	-611,819.
11	Other revenue (Part VIII, column (A), lines 5, 6d, 8c, 9c, 10c, and 11e)	0.	3,055.
12	Total revenue - add lines 8 through 11 (must equal Part VIII, column (A), line 12)	133,279,190.	145,626,688.

Expenses

13	Grants and similar amounts paid (Part IX, column (A), lines 1-3)	0.	0.
14	Benefits paid to or for members (Part IX, column (A), line 4)	0.	0.
15	Salaries, other compensation, employee benefits (Part IX, column (A), lines 5-10)	7,527,629.	8,178,984.
16a	Professional fundraising fees (Part IX, column (A), line 11e)	0.	0.
b	Total fundraising expenses (Part IX, column (D), line 25) ▶ 0.		
17	Other expenses (Part IX, column (A), lines 11a-11d, 11f-24e)	132,118,880.	146,431,368.
18	Total expenses. Add lines 13-17 (must equal Part IX, column (A), line 25)	139,646,509.	154,610,352.
19	Revenue less expenses. Subtract line 18 from line 12	-6,367,319.	-8,983,664.

Net Assets or Fund Balances

		Beginning of Current Year	End of Year
20	Total assets (Part X, line 16)	78,996,105.	68,493,106.
21	Total liabilities (Part X, line 26)	24,330,889.	22,811,554.
22	Net assets or fund balances. Subtract line 21 from line 20	54,665,216.	45,681,552.

Part II Signature Block

Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete. Declaration of preparer (other than officer) is based on all information of which preparer has any knowledge.

Sign Here

▶ Signature of officer — Date

▶ MARGIE HARRIS, EXECUTIVE DIRECTOR
Type or print name and title

Paid Preparer Use Only

Print/Type preparer's name	Preparer's signature	Date	Check if self-employed	PTIN
WENDY CAMPOS			☐	P00448102

Firm's name ▶ MOSS ADAMS LLP — Firm's EIN ▶ 91-0189318

Firm's address ▶ 805 SW BROADWAY, #1200
PORTLAND, OR 97205 — Phone no. (503)242-1447

May the IRS discuss this return with the preparer shown above? (see instructions) ☒ Yes ☐ No

Part III Statement of Program Service Accomplishments

Check if Schedule O contains a response to any question in this Part III X

1 Briefly describe the organization's mission:
ENERGY TRUST PROVIDES COMPREHENSIVE, SUSTAINABLE ENERGY EFFICIENCY, CONSERVATION AND RENEWABLE ENERGY SOLUTIONS TO THOSE WE SERVE.

SEE SCHEDULE O FOR ENERGY TRUST'S FULL BACKGROUND, MISSION AND GOALS.

2 Did the organization undertake any significant program services during the year which were not listed on the prior Form 990 or 990-EZ? ..... Yes X No
If "Yes," describe these new services on Schedule O.

3 Did the organization cease conducting, or make significant changes in how it conducts, any program services? ..... Yes X No
If "Yes," describe these changes on Schedule O.

4 Describe the organization's program service accomplishments for each of its three largest program services, as measured by expenses. Section 501(c)(3) and 501(c)(4) organizations are required to report the amount of grants and allocations to others, the total expenses, and revenue, if any, for each program service reported.

4a (Code: _____) (Expenses $ 128,359,243. including grants of $ _____) (Revenue $ _____)
EFFICIENCY PROGRAMS

SEE SCHEDULE O FOR INFORMATION ON ENERGY EFFICIENCY PROGRAMS.

4b (Code: _____) (Expenses $ 21,804,072. including grants of $ _____) (Revenue $ _____)
RENEWABLES PROGRAMS

SEE SCHEDULE O FOR INFORMATION ON RENEWABLES PROGRAMS.

4c (Code: _____) (Expenses $ 1,806,628. including grants of $ _____) (Revenue $ _____)
COMMUNICATIONS AND OUTREACH

THE COMMUNICATIONS AND OUTREACH PROGRAM SUPPORTS GENERAL AND CROSS-PROGRAM OUTREACH TO KEY CITIZENS AND PROGRAM STAKEHOLDERS, COORDINATES PROGRAM MESSAGE AND IMAGE, AND OVERSEES CUSTOMER SERVICE, WEB SITE DEVELOPMENT AND OTHER CREATIVE SERVICES IN SUPPORT OF OVERALL EFFICIENCY AND RENEWABLE PROGRAM GOALS.

4d Other program services (Describe in Schedule O.)
(Expenses $ _____ including grants of $ _____) (Revenue $ _____)

4e **Total program service expenses** ▶ 151,969,943.

Part IV Checklist of Required Schedules

			Yes	No
1	Is the organization described in section 501(c)(3) or 4947(a)(1) (other than a private foundation)? *If "Yes," complete Schedule A*	1	X	
2	Is the organization required to complete *Schedule B, Schedule of Contributors*?	2	X	
3	Did the organization engage in direct or indirect political campaign activities on behalf of or in opposition to candidates for public office? *If "Yes," complete Schedule C, Part I*	3		X
4	**Section 501(c)(3) organizations.** Did the organization engage in lobbying activities, or have a section 501(h) election in effect during the tax year? *If "Yes," complete Schedule C, Part II*	4		X
5	Is the organization a section 501(c)(4), 501(c)(5), or 501(c)(6) organization that receives membership dues, assessments, or similar amounts as defined in Revenue Procedure 98-19? *If "Yes," complete Schedule C, Part III*	5		X
6	Did the organization maintain any donor advised funds or any similar funds or accounts for which donors have the right to provide advice on the distribution or investment of amounts in such funds or accounts? *If "Yes," complete Schedule D, Part I*	6		X
7	Did the organization receive or hold a conservation easement, including easements to preserve open space, the environment, historic land areas, or historic structures? *If "Yes," complete Schedule D, Part II*	7		X
8	Did the organization maintain collections of works of art, historical treasures, or other similar assets? *If "Yes," complete Schedule D, Part III*	8		X
9	Did the organization report an amount in Part X, line 21, for escrow or custodial account liability; serve as a custodian for amounts not listed in Part X; or provide credit counseling, debt management, credit repair, or debt negotiation services? *If "Yes," complete Schedule D, Part IV*	9		X
10	Did the organization, directly or through a related organization, hold assets in temporarily restricted endowments, permanent endowments, or quasi-endowments? *If "Yes," complete Schedule D, Part V*	10		X
11	If the organization's answer to any of the following questions is "Yes," then complete Schedule D, Parts VI, VII, VIII, IX, or X as applicable.			
a	Did the organization report an amount for land, buildings, and equipment in Part X, line 10? *If "Yes," complete Schedule D, Part VI*	11a	X	
b	Did the organization report an amount for investments - other securities in Part X, line 12 that is 5% or more of its total assets reported in Part X, line 16? *If "Yes," complete Schedule D, Part VII*	11b		X
c	Did the organization report an amount for investments - program related in Part X, line 13 that is 5% or more of its total assets reported in Part X, line 16? *If "Yes," complete Schedule D, Part VIII*	11c		X
d	Did the organization report an amount for other assets in Part X, line 15 that is 5% or more of its total assets reported in Part X, line 16? *If "Yes," complete Schedule D, Part IX*	11d		X
e	Did the organization report an amount for other liabilities in Part X, line 25? *If "Yes," complete Schedule D, Part X*	11e	X	
f	Did the organization's separate or consolidated financial statements for the tax year include a footnote that addresses the organization's liability for uncertain tax positions under FIN 48 (ASC 740)? *If "Yes," complete Schedule D, Part X*	11f	X	
12a	Did the organization obtain separate, independent audited financial statements for the tax year? *If "Yes," complete Schedule D, Parts XI and XII*	12a	X	
b	Was the organization included in consolidated, independent audited financial statements for the tax year? *If "Yes," and if the organization answered "No" to line 12a, then completing Schedule D, Parts XI and XII is optional*	12b		X
13	Is the organization a school described in section 170(b)(1)(A)(ii)? *If "Yes," complete Schedule E*	13		X
14a	Did the organization maintain an office, employees, or agents outside of the United States?	14a		X
b	Did the organization have aggregate revenues or expenses of more than $10,000 from grantmaking, fundraising, business, investment, and program service activities outside the United States, or aggregate foreign investments valued at $100,000 or more? *If "Yes," complete Schedule F, Parts I and IV*	14b		X
15	Did the organization report on Part IX, column (A), line 3, more than $5,000 of grants or assistance to any organization or entity located outside the United States? *If "Yes," complete Schedule F, Parts II and IV*	15		X
16	Did the organization report on Part IX, column (A), line 3, more than $5,000 of aggregate grants or assistance to individuals located outside the United States? *If "Yes," complete Schedule F, Parts III and IV*	16		X
17	Did the organization report a total of more than $15,000 of expenses for professional fundraising services on Part IX, column (A), lines 6 and 11e? *If "Yes," complete Schedule G, Part I*	17		X
18	Did the organization report more than $15,000 total of fundraising event gross income and contributions on Part VIII, lines 1c and 8a? *If "Yes," complete Schedule G, Part II*	18		X
19	Did the organization report more than $15,000 of gross income from gaming activities on Part VIII, line 9a? *If "Yes," complete Schedule G, Part III*	19		X
20a	Did the organization operate one or more hospital facilities? *If "Yes," complete Schedule H*	20a		X
b	If "Yes" to line 20a, did the organization attach a copy of its audited financial statements to this return?	20b		

Part IV Checklist of Required Schedules *(continued)*

			Yes	No
21	Did the organization report more than $5,000 of grants and other assistance to any government or organization in the United States on Part IX, column (A), line 1? *If "Yes," complete Schedule I, Parts I and II*	21		X
22	Did the organization report more than $5,000 of grants and other assistance to individuals in the United States on Part IX, column (A), line 2? *If "Yes," complete Schedule I, Parts I and III*	22		X
23	Did the organization answer "Yes" to Part VII, Section A, line 3, 4, or 5 about compensation of the organization's current and former officers, directors, trustees, key employees, and highest compensated employees? *If "Yes," complete Schedule J*	23	X	
24a	Did the organization have a tax-exempt bond issue with an outstanding principal amount of more than $100,000 as of the last day of the year, that was issued after December 31, 2002? *If "Yes," answer lines 24b through 24d and complete Schedule K. If "No", go to line 25*	24a		X
b	Did the organization invest any proceeds of tax-exempt bonds beyond a temporary period exception?	24b		
c	Did the organization maintain an escrow account other than a refunding escrow at any time during the year to defease any tax-exempt bonds?	24c		
d	Did the organization act as an "on behalf of" issuer for bonds outstanding at any time during the year?	24d		
25a	**Section 501(c)(3) and 501(c)(4) organizations.** Did the organization engage in an excess benefit transaction with a disqualified person during the year? *If "Yes," complete Schedule L, Part I*	25a		X
b	Is the organization aware that it engaged in an excess benefit transaction with a disqualified person in a prior year, and that the transaction has not been reported on any of the organization's prior Forms 990 or 990-EZ? *If "Yes," complete Schedule L, Part I*	25b		X
26	Was a loan to or by a current or former officer, director, trustee, key employee, highest compensated employee, or disqualified person outstanding as of the end of the organization's tax year? *If "Yes," complete Schedule L, Part II*	26		X
27	Did the organization provide a grant or other assistance to an officer, director, trustee, key employee, substantial contributor or employee thereof, a grant selection committee member, or to a 35% controlled entity or family member of any of these persons? *If "Yes," complete Schedule L, Part III*	27		X
28	Was the organization a party to a business transaction with one of the following parties (see Schedule L, Part IV instructions for applicable filing thresholds, conditions, and exceptions):			
a	A current or former officer, director, trustee, or key employee? *If "Yes," complete Schedule L, Part IV*	28a		X
b	A family member of a current or former officer, director, trustee, or key employee? *If "Yes," complete Schedule L, Part IV*	28b		X
c	An entity of which a current or former officer, director, trustee, or key employee (or a family member thereof) was an officer, director, trustee, or direct or indirect owner? *If "Yes," complete Schedule L, Part IV*	28c		X
29	Did the organization receive more than $25,000 in non-cash contributions? *If "Yes," complete Schedule M*	29		X
30	Did the organization receive contributions of art, historical treasures, or other similar assets, or qualified conservation contributions? *If "Yes," complete Schedule M*	30		X
31	Did the organization liquidate, terminate, or dissolve and cease operations? *If "Yes," complete Schedule N, Part I*	31		X
32	Did the organization sell, exchange, dispose of, or transfer more than 25% of its net assets? *If "Yes," complete Schedule N, Part II*	32		X
33	Did the organization own 100% of an entity disregarded as separate from the organization under Regulations sections 301.7701-2 and 301.7701-3? *If "Yes," complete Schedule R, Part I*	33		X
34	Was the organization related to any tax-exempt or taxable entity? *If "Yes," complete Schedule R, Part II, III, or IV, and Part V, line 1*	34		X
35a	Did the organization have a controlled entity within the meaning of section 512(b)(13)?	35a		X
b	If "Yes" to line 35a, did the organization receive any payment from or engage in any transaction with a controlled entity within the meaning of section 512(b)(13)? *If "Yes," complete Schedule R, Part V, line 2*	35b		
36	**Section 501(c)(3) organizations.** Did the organization make any transfers to an exempt non-charitable related organization? *If "Yes," complete Schedule R, Part V, line 2*	36		X
37	Did the organization conduct more than 5% of its activities through an entity that is not a related organization and that is treated as a partnership for federal income tax purposes? *If "Yes," complete Schedule R, Part VI*	37		X
38	Did the organization complete Schedule O and provide explanations in Schedule O for Part VI, lines 11b and 19? **Note.** All Form 990 filers are required to complete Schedule O	38	X	

Part V Statements Regarding Other IRS Filings and Tax Compliance

Check if Schedule O contains a response to any question in this Part V ☐

				Yes	No
1a	Enter the number reported in Box 3 of Form 1096. Enter -0- if not applicable	1a	1167		
b	Enter the number of Forms W-2G included in line 1a. Enter -0- if not applicable	1b	0		
c	Did the organization comply with backup withholding rules for reportable payments to vendors and reportable gaming (gambling) winnings to prize winners?	1c		X	
2a	Enter the number of employees reported on Form W-3, Transmittal of Wage and Tax Statements, filed for the calendar year ending with or within the year covered by this return	2a	105		
b	If at least one is reported on line 2a, did the organization file all required federal employment tax returns?	2b		X	
	Note. If the sum of lines 1a and 2a is greater than 250, you may be required to *e-file* (see instructions)				
3a	Did the organization have unrelated business gross income of $1,000 or more during the year?	3a			X
b	If "Yes," has it filed a Form 990-T for this year? *If "No," provide an explanation in Schedule O*	3b			
4a	At any time during the calendar year, did the organization have an interest in, or a signature or other authority over, a financial account in a foreign country (such as a bank account, securities account, or other financial account)?	4a			X
b	If "Yes," enter the name of the foreign country: ▶ _____ See instructions for filing requirements for Form TD F 90-22.1, Report of Foreign Bank and Financial Accounts.				
5a	Was the organization a party to a prohibited tax shelter transaction at any time during the tax year?	5a			X
b	Did any taxable party notify the organization that it was or is a party to a prohibited tax shelter transaction?	5b			X
c	If "Yes," to line 5a or 5b, did the organization file Form 8886-T?	5c			
6a	Does the organization have annual gross receipts that are normally greater than $100,000, and did the organization solicit any contributions that were not tax deductible as charitable contributions?	6a			X
b	If "Yes," did the organization include with every solicitation an express statement that such contributions or gifts were not tax deductible?	6b			
7	**Organizations that may receive deductible contributions under section 170(c).**				
a	Did the organization receive a payment in excess of $75 made partly as a contribution and partly for goods and services provided to the payor?	7a			X
b	If "Yes," did the organization notify the donor of the value of the goods or services provided?	7b			
c	Did the organization sell, exchange, or otherwise dispose of tangible personal property for which it was required to file Form 8282?	7c			X
d	If "Yes," indicate the number of Forms 8282 filed during the year	7d			
e	Did the organization receive any funds, directly or indirectly, to pay premiums on a personal benefit contract?	7e			X
f	Did the organization, during the year, pay premiums, directly or indirectly, on a personal benefit contract?	7f			X
g	If the organization received a contribution of qualified intellectual property, did the organization file Form 8899 as required?	7g			
h	If the organization received a contribution of cars, boats, airplanes, or other vehicles, did the organization file a Form 1098-C?	7h			
8	**Sponsoring organizations maintaining donor advised funds and section 509(a)(3) supporting organizations.** Did the supporting organization, or a donor advised fund maintained by a sponsoring organization, have excess business holdings at any time during the year?	8			
9	**Sponsoring organizations maintaining donor advised funds.**				
a	Did the organization make any taxable distributions under section 4966?	9a			
b	Did the organization make a distribution to a donor, donor advisor, or related person?	9b			
10	**Section 501(c)(7) organizations.** Enter:				
a	Initiation fees and capital contributions included on Part VIII, line 12	10a			
b	Gross receipts, included on Form 990, Part VIII, line 12, for public use of club facilities	10b			
11	**Section 501(c)(12) organizations.** Enter:				
a	Gross income from members or shareholders	11a			
b	Gross income from other sources (Do not net amounts due or paid to other sources against amounts due or received from them.)	11b			
12a	**Section 4947(a)(1) non-exempt charitable trusts.** Is the organization filing Form 990 in lieu of Form 1041?	12a			
b	If "Yes," enter the amount of tax-exempt interest received or accrued during the year	12b			
13	**Section 501(c)(29) qualified nonprofit health insurance issuers.**				
a	Is the organization licensed to issue qualified health plans in more than one state?	13a			
	Note. See the instructions for additional information the organization must report on Schedule O.				
b	Enter the amount of reserves the organization is required to maintain by the states in which the organization is licensed to issue qualified health plans	13b			
c	Enter the amount of reserves on hand	13c			
14a	Did the organization receive any payments for indoor tanning services during the tax year?	14a			X
b	If "Yes," has it filed a Form 720 to report these payments? *If "No," provide an explanation in Schedule O*	14b			

Part VI Governance, Management, and Disclosure *For each "Yes" response to lines 2 through 7b below, and for a "No" response to line 8a, 8b, or 10b below, describe the circumstances, processes, or changes in Schedule O. See instructions.*

Check if Schedule O contains a response to any question in this Part VI X

Section A. Governing Body and Management

				Yes	No
1a	Enter the number of voting members of the governing body at the end of the tax year	1a	13		
	If there are material differences in voting rights among members of the governing body, or if the governing body delegated broad authority to an executive committee or similar committee, explain in Schedule O.				
b	Enter the number of voting members included in line 1a, above, who are independent	1b	13		
2	Did any officer, director, trustee, or key employee have a family relationship or a business relationship with any other officer, director, trustee, or key employee?	2			X
3	Did the organization delegate control over management duties customarily performed by or under the direct supervision of officers, directors, or trustees, or key employees to a management company or other person?	3			X
4	Did the organization make any significant changes to its governing documents since the prior Form 990 was filed?	4			X
5	Did the organization become aware during the year of a significant diversion of the organization's assets?	5			X
6	Did the organization have members or stockholders?	6			X
7a	Did the organization have members, stockholders, or other persons who had the power to elect or appoint one or more members of the governing body?	7a			X
b	Are any governance decisions of the organization reserved to (or subject to approval by) members, stockholders, or persons other than the governing body?	7b			X
8	Did the organization contemporaneously document the meetings held or written actions undertaken during the year by the following:				
a	The governing body?	8a		X	
b	Each committee with authority to act on behalf of the governing body?	8b		X	
9	Is there any officer, director, trustee, or key employee listed in Part VII, Section A, who cannot be reached at the organization's mailing address? *If "Yes," provide the names and addresses in Schedule O*	9			X

Section B. Policies *(This Section B requests information about policies not required by the Internal Revenue Code.)*

			Yes	No
10a	Did the organization have local chapters, branches, or affiliates?	10a		X
b	If "Yes," did the organization have written policies and procedures governing the activities of such chapters, affiliates, and branches to ensure their operations are consistent with the organization's exempt purposes?	10b		
11a	Has the organization provided a complete copy of this Form 990 to all members of its governing body before filing the form?	11a	X	
b	Describe in Schedule O the process, if any, used by the organization to review this Form 990.			
12a	Did the organization have a written conflict of interest policy? *If "No," go to line 13*	12a	X	
b	Were officers, directors, or trustees, and key employees required to disclose annually interests that could give rise to conflicts?	12b	X	
c	Did the organization regularly and consistently monitor and enforce compliance with the policy? *If "Yes," describe in Schedule O how this was done*	12c	X	
13	Did the organization have a written whistleblower policy?	13	X	
14	Did the organization have a written document retention and destruction policy?	14	X	
15	Did the process for determining compensation of the following persons include a review and approval by independent persons, comparability data, and contemporaneous substantiation of the deliberation and decision?			
a	The organization's CEO, Executive Director, or top management official	15a	X	
b	Other officers or key employees of the organization	15b	X	
	If "Yes" to line 15a or 15b, describe the process in Schedule O (see instructions).			
16a	Did the organization invest in, contribute assets to, or participate in a joint venture or similar arrangement with a taxable entity during the year?	16a		X
b	If "Yes," did the organization follow a written policy or procedure requiring the organization to evaluate its participation in joint venture arrangements under applicable federal tax law, and take steps to safeguard the organization's exempt status with respect to such arrangements?	16b		

Section C. Disclosure

17 List the states with which a copy of this Form 990 is required to be filed ▶ OR

18 Section 6104 requires an organization to make its Forms 1023 (or 1024 if applicable), 990, and 990-T (Section 501(c)(3)s only) available for public inspection. Indicate how you made these available. Check all that apply.

☐ Own website ☐ Another's website ☒ Upon request ☐ Other *(explain in Schedule O)*

19 Describe in Schedule O whether (and if so, how), the organization made its governing documents, conflict of interest policy, and financial statements available to the public during the tax year.

20 State the name, physical address, and telephone number of the person who possesses the books and records of the organization: ▶

SUSANNE MEYER SAMPLE, CFO - 503-493-8888

421 SW OAK STREET, SUITE 300, PORTLAND, OR 97204

Part VII Compensation of Officers, Directors, Trustees, Key Employees, Highest Compensated Employees, and Independent Contractors

Check if Schedule O contains a response to any question in this Part VII ☐

Section A. Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees

1a Complete this table for all persons required to be listed. Report compensation for the calendar year ending with or within the organization's tax year.

- List all of the organization's **current** officers, directors, trustees (whether individuals or organizations), regardless of amount of compensation. Enter -0- in columns (D), (E), and (F) if no compensation was paid.
- List all of the organization's **current** key employees, if any. See instructions for definition of "key employee."
- List the organization's five **current** highest compensated employees (other than an officer, director, trustee, or key employee) who received reportable compensation (Box 5 of Form W-2 and/or Box 7 of Form 1099-MISC) of more than $100,000 from the organization and any related organizations.
- List all of the organization's **former** officers, key employees, and highest compensated employees who received more than $100,000 of reportable compensation from the organization and any related organizations.
- List all of the organization's **former directors or trustees** that received, in the capacity as a former director or trustee of the organization, more than $10,000 of reportable compensation from the organization and any related organizations.

List persons in the following order: individual trustees or directors; institutional trustees; officers; key employees; highest compensated employees; and former such persons.

☐ Check this box if neither the organization nor any related organization compensated any current officer, director, or trustee.

(A) Name and Title	(B) Average hours per week (list any hours for related organizations below line)	(C) Position (do not check more than one box, unless person is both an officer and a director/trustee)						(D) Reportable compensation from the organization (W-2/1099-MISC)	(E) Reportable compensation from related organizations (W-2/1099-MISC)	(F) Estimated amount of other compensation from the organization and related organizations
		Individual trustee or director	Institutional trustee	Officer	Key employee	Highest compensated employee	Former			
(1) JOHN REYNOLDS	10.00									
PRESIDENT		X		X				0.	0.	0.
(2) DEBBIE KITCHIN	5.00									
VICE PRESIDENT		X		X				0.	0.	0.
(3) RICK APPLEGATE	3.00									
SECRETARY		X		X				0.	0.	0.
(4) DAN ENLOE	4.00									
TREASURER		X		X				0.	0.	0.
(5) JOE BENETTI	3.00									
BOARD MEMBER		X						0.	0.	0.
(6) JULIE BRANDIS	3.00									
BOARD MEMBER		X						0.	0.	0.
(7) KEN CANON	4.00									
BOARD MEMBER		X						0.	0.	0.
(8) JASON EISDORFER	4.00									
BOARD MEMBER		X						0.	0.	0.
(9) ROGER HAMILTON	3.00									
BOARD MEMBER		X						0.	0.	0.
(10) MARK KENDALL	3.00									
BOARD MEMBER		X						0.	0.	0.
(11) JEFF KING	3.00									
BOARD MEMBER		X						0.	0.	0.
(12) ALAN MEYER	4.00									
BOARD MEMBER		X						0.	0.	0.
(13) ANNE ROOT	2.00									
BOARD MEMBER		X						0.	0.	0.
(14) DAVE SLAVENSKY	3.00									
BOARD MEMBER		X						0.	0.	0.
(15) MARGIE HARRIS	40.00									
EXECUTIVE DIRECTOR				X				175,288.	0.	18,543.
(16) SUSANNE MEYER SAMPLE	40.00									
CHIEF FINANCIAL OFFICER				X				144,250.	0.	10,257.
(17) PETER WEST	40.00									
ENERGY PROGRAMS DIRECTOR						X		137,525.	0.	26,717.

Part VII Section A. Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees *(continued)*

(A) Name and title	(B) Average hours per week (list any hours for related organizations below line)	(C) Position (do not check more than one box, unless person is both an officer and a director/trustee)						(D) Reportable compensation from the organization (W-2/1099-MISC)	(E) Reportable compensation from related organizations (W-2/1099-MISC)	(F) Estimated amount of other compensation from the organization and related organizations
		Individual trustee or director	Institutional trustee	Officer	Key employee	Highest compensated employee	Former			
(18) STEVE LACEY DIRECTOR OF OPERATIONS	40.00					X		133,793.	0.	22,793.
(19) FRED GORDON DIRECTOR OF PLANNING & EVALUATION	40.00					X		130,065.	0.	26,332.
(20) JOHN VOLKMAN GENERAL COUNSEL	40.00					X		133,079.	0.	21,687.
(21) OLIVER KESTING BUSINESS SECTOR LEAD	40.00					X		116,040.	0.	25,712.
1b Sub-total ▶								970,040.	0.	152,041.
c Total from continuation sheets to Part VII, Section A ▶								0.	0.	0.
d Total (add lines 1b and 1c) ▶								970,040.	0.	152,041.

2 Total number of individuals (including but not limited to those listed above) who received more than $100,000 of reportable compensation from the organization ▶ 12

		Yes	No
3 Did the organization list any **former** officer, director, or trustee, key employee, or highest compensated employee on line 1a? *If "Yes," complete Schedule J for such individual*	3		X
4 For any individual listed on line 1a, is the sum of reportable compensation and other compensation from the organization and related organizations greater than $150,000? *If "Yes," complete Schedule J for such individual*	4	X	
5 Did any person listed on line 1a receive or accrue compensation from any unrelated organization or individual for services rendered to the organization? *If "Yes," complete Schedule J for such person*	5		X

Section B. Independent Contractors

1 Complete this table for your five highest compensated independent contractors that received more than $100,000 of compensation from the organization. Report compensation for the calendar year ending with or within the organization's tax year.

(A) Name and business address	(B) Description of services	(C) Compensation
PORTLAND ENERGY CONSERVATION INC, 100 SW MAIN ST, STE 1600, PORTLAND, OR 97204	PROGRAM DELIVERY	13,931,693.
CONSERVATION SERVICES GROUP INC 208 SW 5TH ST, STE 700, PORTLAND, OR 97204	PROGRAM DELIVERY & COMPUTER PROGRAMMING	10,403,653.
LOCKHEED MARTIN SERVICES INC 620 SW 5TH AVE, STE 400, PORTLAND, OR 97204	PROGRAM DELIVERY	9,711,125.
NORTHWEST ENERGY EFFICIENCY ALLIANCE 529 SW 3RD AVE, STE 600, PORTLAND, OR 97204	PROGRAM DELIVERY	8,082,493.
CASCADE ENERGY INC 19 E CHERRY ST, WALLA WALLA, WA 99362	PROGRAM DELIVERY	2,872,769.

2 Total number of independent contractors (including but not limited to those listed above) who received more than $100,000 of compensation from the organization ▶ 79

Part VIII Statement of Revenue

Check if Schedule O contains a response to any question in this Part VIII ☐

		(A) Total revenue	(B) Related or exempt function revenue	(C) Unrelated business revenue	(D) Revenue excluded from tax under sections 512, 513, or 514
Contributions, Gifts, Grants and Other Similar Amounts	1a Federated campaigns 1a				
	b Membership dues 1b				
	c Fundraising events 1c				
	d Related organizations 1d				
	e Government grants (contributions) 1e 146,204,937.				
	f All other contributions, gifts, grants, and similar amounts not included above 1f 30,515.				
	g Noncash contributions included in lines 1a-1f: $				
	h **Total.** Add lines 1a-1f ▶	146,235,452.			
Program Service Revenue		Business Code			
	2a				
	b				
	c				
	d				
	e				
	f All other program service revenue				
	g **Total.** Add lines 2a-2f ▶				
Other Revenue	3 Investment income (including dividends, interest, and other similar amounts) ▶	133,373.			133,373.
	4 Income from investment of tax-exempt bond proceeds ▶				
	5 Royalties ▶				
		(i) Real / (ii) Personal			
	6a Gross rents				
	b Less: rental expenses				
	c Rental income or (loss)				
	d Net rental income or (loss) ▶				
		(i) Securities / (ii) Other			
	7a Gross amount from sales of assets other than inventory 120,000.				
	b Less: cost or other basis and sales expenses 865,192.				
	c Gain or (loss) -745,192.				
	d Net gain or (loss) ▶	-745,192.			-745,192.
	8a Gross income from fundraising events (not including $ ____ of contributions reported on line 1c). See Part IV, line 18 a				
	b Less: direct expenses b				
	c Net income or (loss) from fundraising events ▶				
	9a Gross income from gaming activities. See Part IV, line 19 a				
	b Less: direct expenses b				
	c Net income or (loss) from gaming activities ▶				
	10a Gross sales of inventory, less returns and allowances a				
	b Less: cost of goods sold b				
	c Net income or (loss) from sales of inventory ▶				
	Miscellaneous Revenue	Business Code			
	11a CONSULTING REVENUE	900099	3,055.		3,055.
	b				
	c				
	d All other revenue				
	e **Total.** Add lines 11a-11d ▶	3,055.			
	12 **Total revenue.** See instructions. ▶	145,626,688.	0.	0.	-608,764.

Part IX Statement of Functional Expenses

Section 501(c)(3) and 501(c)(4) organizations must complete all columns. All other organizations must complete column (A).

Check if Schedule O contains a response to any question in this Part IX ☐

Do not include amounts reported on lines 6b, 7b, 8b, 9b, and 10b of Part VIII.	(A) Total expenses	(B) Program service expenses	(C) Management and general expenses	(D) Fundraising expenses
1 Grants and other assistance to governments and organizations in the United States. See Part IV, line 21				
2 Grants and other assistance to individuals in the United States. See Part IV, line 22				
3 Grants and other assistance to governments, organizations, and individuals outside the United States. See Part IV, lines 15 and 16				
4 Benefits paid to or for members				
5 Compensation of current officers, directors, trustees, and key employees	348,338.		348,338.	
6 Compensation not included above, to disqualified persons (as defined under section 4958(f)(1)) and persons described in section 4958(c)(3)(B)				
7 Other salaries and wages	5,920,188.	4,764,458.	1,155,730.	
8 Pension plan accruals and contributions (include section 401(k) and 403(b) employer contributions)	360,686.	300,386.	60,300.	
9 Other employee benefits	1,007,448.	791,904.	215,544.	
10 Payroll taxes	542,324.	419,708.	122,616.	
11 Fees for services (non-employees):				
a Management				
b Legal	27,622.		27,622.	
c Accounting	47,495.		47,495.	
d Lobbying				
e Professional fundraising services. See Part IV, line 17				
f Investment management fees				
g Other. (If line 11g amount exceeds 10% of line 25, column (A) amount, list line 11g expenses on Sch O.)	5,573,243.	5,238,310.	334,933.	
12 Advertising and promotion	1,585,006.	1,585,006.		
13 Office expenses	80,750.	65,422.	15,328.	
14 Information technology	271,882.	238,546.	33,336.	
15 Royalties				
16 Occupancy	426,605.	307,481.	119,124.	
17 Travel	96,940.	67,147.	29,793.	
18 Payments of travel or entertainment expenses for any federal, state, or local public officials				
19 Conferences, conventions, and meetings	79,518.	37,552.	41,966.	
20 Interest	5,030.		5,030.	
21 Payments to affiliates				
22 Depreciation, depletion, and amortization	114,654.	84,332.	30,322.	
23 Insurance	62,814.	45,274.	17,540.	
24 Other expenses. Itemize expenses not covered above. (List miscellaneous expenses in line 24e. If line 24e amount exceeds 10% of line 25, column (A) amount, list line 24e expenses on Schedule O.)				
a INCENTIVES	91,294,586.	91,294,586.		
b PROGRAM MGMT & DELIVERY	45,666,608.	45,666,608.		
c PLANNING & EVALUATION	383,864.	380,192.	3,672.	
d CUSTOMER SERVICE MGMT	284,182.	284,182.		
e All other expenses	430,569.	398,849.	31,720.	
25 **Total functional expenses.** Add lines 1 through 24e	154,610,352.	151,969,943.	2,640,409.	0.
26 **Joint costs.** Complete this line only if the organization reported in column (B) joint costs from a combined educational campaign and fundraising solicitation. Check here ▶ ☐ if following SOP 98-2 (ASC 958-720)				

Part X Balance Sheet

Check if Schedule O contains a response to any question in this Part X ☐

			(A) Beginning of year		(B) End of year
Assets	1	Cash - non-interest-bearing	300.	1	300.
	2	Savings and temporary cash investments	74,066,666.	2	64,468,001.
	3	Pledges and grants receivable, net		3	
	4	Accounts receivable, net	7,599.	4	123,795.
	5	Loans and other receivables from current and former officers, directors, trustees, key employees, and highest compensated employees. Complete Part II of Schedule L		5	
	6	Loans and other receivables from other disqualified persons (as defined under section 4958(f)(1)), persons described in section 4958(c)(3)(B), and contributing employers and sponsoring organizations of section 501(c)(9) voluntary employees' beneficiary organizations (see instr). Complete Part II of Sch L		6	
	7	Notes and loans receivable, net		7	
	8	Inventories for sale or use		8	
	9	Prepaid expenses and deferred charges	2,732,426.	9	2,374,843.
	10a	Land, buildings, and equipment: cost or other basis. Complete Part VI of Schedule D — 10a: 2,235,435.			
	b	Less: accumulated depreciation — 10b: 1,183,098.	1,825,317.	10c	1,052,337.
	11	Investments - publicly traded securities		11	
	12	Investments - other securities. See Part IV, line 11		12	
	13	Investments - program-related. See Part IV, line 11		13	
	14	Intangible assets		14	
	15	Other assets. See Part IV, line 11	363,797.	15	473,830.
	16	**Total assets.** Add lines 1 through 15 (must equal line 34)	78,996,105.	16	68,493,106.
Liabilities	17	Accounts payable and accrued expenses	24,299,799.	17	22,488,317.
	18	Grants payable		18	
	19	Deferred revenue		19	
	20	Tax-exempt bond liabilities		20	
	21	Escrow or custodial account liability. Complete Part IV of Schedule D		21	
	22	Loans and other payables to current and former officers, directors, trustees, key employees, highest compensated employees, and disqualified persons. Complete Part II of Schedule L		22	
	23	Secured mortgages and notes payable to unrelated third parties		23	
	24	Unsecured notes and loans payable to unrelated third parties		24	
	25	Other liabilities (including federal income tax, payables to related third parties, and other liabilities not included on lines 17-24). Complete Part X of Schedule D	31,090.	25	323,237.
	26	**Total liabilities.** Add lines 17 through 25	24,330,889.	26	22,811,554.
Net Assets or Fund Balances		**Organizations that follow SFAS 117 (ASC 958), check here ▶ ☒ and complete lines 27 through 29, and lines 33 and 34.**			
	27	Unrestricted net assets	54,665,216.	27	45,681,552.
	28	Temporarily restricted net assets		28	
	29	Permanently restricted net assets		29	
		Organizations that do not follow SFAS 117 (ASC 958), check here ▶ ☐ and complete lines 30 through 34.			
	30	Capital stock or trust principal, or current funds		30	
	31	Paid-in or capital surplus, or land, building, or equipment fund		31	
	32	Retained earnings, endowment, accumulated income, or other funds		32	
	33	Total net assets or fund balances	54,665,216.	33	45,681,552.
	34	Total liabilities and net assets/fund balances	78,996,105.	34	68,493,106.

Part XI Reconciliation of Net Assets

Check if Schedule O contains a response to any question in this Part XI ☐

1	Total revenue (must equal Part VIII, column (A), line 12)	1	145,626,688.
2	Total expenses (must equal Part IX, column (A), line 25)	2	154,610,352.
3	Revenue less expenses. Subtract line 2 from line 1	3	-8,983,664.
4	Net assets or fund balances at beginning of year (must equal Part X, line 33, column (A))	4	54,665,216.
5	Net unrealized gains (losses) on investments	5	
6	Donated services and use of facilities	6	
7	Investment expenses	7	
8	Prior period adjustments	8	
9	Other changes in net assets or fund balances (explain in Schedule O)	9	0.
10	Net assets or fund balances at end of year. Combine lines 3 through 9 (must equal Part X, line 33, column (B))	10	45,681,552.

Part XII Financial Statements and Reporting

Check if Schedule O contains a response to any question in this Part XII ☐

			Yes	No
1	Accounting method used to prepare the Form 990: ☐ Cash ☒ Accrual ☐ Other _____ If the organization changed its method of accounting from a prior year or checked "Other," explain in Schedule O.			
2a	Were the organization's financial statements compiled or reviewed by an independent accountant?	2a		X
	If "Yes," check a box below to indicate whether the financial statements for the year were compiled or reviewed on a separate basis, consolidated basis, or both: ☐ Separate basis ☐ Consolidated basis ☐ Both consolidated and separate basis			
b	Were the organization's financial statements audited by an independent accountant?	2b	X	
	If "Yes," check a box below to indicate whether the financial statements for the year were audited on a separate basis, consolidated basis, or both: ☒ Separate basis ☐ Consolidated basis ☐ Both consolidated and separate basis			
c	If "Yes" to line 2a or 2b, does the organization have a committee that assumes responsibility for oversight of the audit, review, or compilation of its financial statements and selection of an independent accountant?	2c	X	
	If the organization changed either its oversight process or selection process during the tax year, explain in Schedule O.			
3a	As a result of a federal award, was the organization required to undergo an audit or audits as set forth in the Single Audit Act and OMB Circular A-133?	3a		X
b	If "Yes," did the organization undergo the required audit or audits? If the organization did not undergo the required audit or audits, explain why in Schedule O and describe any steps taken to undergo such audits	3b		

SCHEDULE A
(Form 990 or 990-EZ)

Department of the Treasury
Internal Revenue Service

Public Charity Status and Public Support

Complete if the organization is a section 501(c)(3) organization or a section 4947(a)(1) nonexempt charitable trust.

▶ **Attach to Form 990 or Form 990-EZ.** ▶ **See separate instructions.**

OMB No. 1545-0047

2012

Open to Public Inspection

Name of the organization	**Employer identification number**
ENERGY TRUST OF OREGON INC	93-1313663

Part I **Reason for Public Charity Status** (All organizations must complete this part.) See instructions.

The organization is not a private foundation because it is: (For lines 1 through 11, check only one box.)

1 ☐ A church, convention of churches, or association of churches described in **section 170(b)(1)(A)(i).**

2 ☐ A school described in **section 170(b)(1)(A)(ii).** (Attach Schedule E.)

3 ☐ A hospital or a cooperative hospital service organization described in **section 170(b)(1)(A)(iii).**

4 ☐ A medical research organization operated in conjunction with a hospital described in **section 170(b)(1)(A)(iii).** Enter the hospital's name, city, and state: _____

5 ☐ An organization operated for the benefit of a college or university owned or operated by a governmental unit described in **section 170(b)(1)(A)(iv).** (Complete Part II.)

6 ☐ A federal, state, or local government or governmental unit described in **section 170(b)(1)(A)(v).**

7 ☒ An organization that normally receives a substantial part of its support from a governmental unit or from the general public described in **section 170(b)(1)(A)(vi).** (Complete Part II.)

8 ☐ A community trust described in **section 170(b)(1)(A)(vi).** (Complete Part II.)

9 ☐ An organization that normally receives: (1) more than 33 1/3% of its support from contributions, membership fees, and gross receipts from activities related to its exempt functions - subject to certain exceptions, and (2) no more than 33 1/3% of its support from gross investment income and unrelated business taxable income (less section 511 tax) from businesses acquired by the organization after June 30, 1975. See **section 509(a)(2).** (Complete Part III.)

10 ☐ An organization organized and operated exclusively to test for public safety. See **section 509(a)(4).**

11 ☐ An organization organized and operated exclusively for the benefit of, to perform the functions of, or to carry out the purposes of one or more publicly supported organizations described in section 509(a)(1) or section 509(a)(2). See **section 509(a)(3).** Check the box that describes the type of supporting organization and complete lines 11e through 11h.

a ☐ Type I **b** ☐ Type II **c** ☐ Type III - Functionally integrated **d** ☐ Type III - Non-functionally integrated

e ☐ By checking this box, I certify that the organization is not controlled directly or indirectly by one or more disqualified persons other than foundation managers and other than one or more publicly supported organizations described in section 509(a)(1) or section 509(a)(2).

f If the organization received a written determination from the IRS that it is a Type I, Type II, or Type III supporting organization, check this box ☐

g Since August 17, 2006, has the organization accepted any gift or contribution from any of the following persons?

		Yes	No
(i)	A person who directly or indirectly controls, either alone or together with persons described in (ii) and (iii) below, the governing body of the supported organization?	**11g(i)**	
(ii)	A family member of a person described in (i) above?	**11g(ii)**	
(iii)	A 35% controlled entity of a person described in (i) or (ii) above?	**11g(iii)**	

h Provide the following information about the supported organization(s).

(i) Name of supported organization	(ii) EIN	(iii) Type of organization (described on lines 1-9 above or IRC section (see instructions))	(iv) Is the organization in col. (i) listed in your governing document?		(v) Did you notify the organization in col. (i) of your support?		(vi) Is the organization in col. (i) organized in the U.S.?		(vii) Amount of monetary support
			Yes	No	Yes	No	Yes	No	
Total									

Part II Support Schedule for Organizations Described in Sections 170(b)(1)(A)(iv) and 170(b)(1)(A)(vi)

(Complete only if you checked the box on line 5, 7, or 8 of Part I or if the organization failed to qualify under Part III. If the organization fails to qualify under the tests listed below, please complete Part III.)

Section A. Public Support

Calendar year (or fiscal year beginning in) ▶	(a) 2008	(b) 2009	(c) 2010	(d) 2011	(e) 2012	(f) Total
1 Gifts, grants, contributions, and membership fees received. (Do not include any "unusual grants.")	77,570,232.	91,303,373.	124,930,851.	133,085,140.	146,235,452.	573,125,048.
2 Tax revenues levied for the organization's benefit and either paid to or expended on its behalf						
3 The value of services or facilities furnished by a governmental unit to the organization without charge						
4 **Total.** Add lines 1 through 3	77,570,232.	91,303,373.	124,930,851.	133,085,140.	146,235,452.	573,125,048.
5 The portion of total contributions by each person (other than a governmental unit or publicly supported organization) included on line 1 that exceeds 2% of the amount shown on line 11, column (f)						
6 **Public support.** Subtract line 5 from line 4.						573,125,048.

Section B. Total Support

Calendar year (or fiscal year beginning in) ▶	(a) 2008	(b) 2009	(c) 2010	(d) 2011	(e) 2012	(f) Total
7 Amounts from line 4	77,570,232.	91,303,373.	124,930,851.	133,085,140.	146,235,452.	573,125,048.
8 Gross income from interest, dividends, payments received on securities loans, rents, royalties and income from similar sources	1,766,864.	588,192.	417,905.	194,050.	133,373.	3,100,384.
9 Net income from unrelated business activities, whether or not the business is regularly carried on						
10 Other income. Do not include gain or loss from the sale of capital assets (Explain in Part IV.)					3,055.	3,055.
11 **Total support.** Add lines 7 through 10						576,228,487.
12 Gross receipts from related activities, etc. (see instructions)					12	292,714.

13 **First five years.** If the Form 990 is for the organization's first, second, third, fourth, or fifth tax year as a section 501(c)(3) organization, check this box and **stop here** ▶ ☐

Section C. Computation of Public Support Percentage

14 Public support percentage for 2012 (line 6, column (f) divided by line 11, column (f))	14	99.46 %
15 Public support percentage from 2011 Schedule A, Part II, line 14	15	98.76 %

16a **33 1/3% support test - 2012.** If the organization did not check the box on line 13, and line 14 is 33 1/3% or more, check this box and **stop here.** The organization qualifies as a publicly supported organization ▶ ☒

b **33 1/3% support test - 2011.** If the organization did not check a box on line 13 or 16a, and line 15 is 33 1/3% or more, check this box and **stop here.** The organization qualifies as a publicly supported organization ▶ ☐

17a **10% -facts-and-circumstances test - 2012.** If the organization did not check a box on line 13, 16a, or 16b, and line 14 is 10% or more, and if the organization meets the "facts-and-circumstances" test, check this box and **stop here.** Explain in Part IV how the organization meets the "facts-and-circumstances" test. The organization qualifies as a publicly supported organization ▶ ☐

b **10% -facts-and-circumstances test - 2011.** If the organization did not check a box on line 13, 16a, 16b, or 17a, and line 15 is 10% or more, and if the organization meets the "facts-and-circumstances" test, check this box and **stop here.** Explain in Part IV how the organization meets the "facts-and-circumstances" test. The organization qualifies as a publicly supported organization ▶ ☐

18 **Private foundation.** If the organization did not check a box on line 13, 16a, 16b, 17a, or 17b, check this box and see instructions ▶ ☐

Part III Support Schedule for Organizations Described in Section 509(a)(2)

(Complete only if you checked the box on line 9 of Part I or if the organization failed to qualify under Part II. If the organization fails to qualify under the tests listed below, please complete Part II.)

Section A. Public Support

Calendar year (or fiscal year beginning in) ▶	(a) 2008	(b) 2009	(c) 2010	(d) 2011	(e) 2012	(f) Total
1 Gifts, grants, contributions, and membership fees received. (Do not include any "unusual grants.")						
2 Gross receipts from admissions, merchandise sold or services performed, or facilities furnished in any activity that is related to the organization's tax-exempt purpose						
3 Gross receipts from activities that are not an unrelated trade or business under section 513						
4 Tax revenues levied for the organization's benefit and either paid to or expended on its behalf						
5 The value of services or facilities furnished by a governmental unit to the organization without charge						
6 **Total.** Add lines 1 through 5						
7a Amounts included on lines 1, 2, and 3 received from disqualified persons						
b Amounts included on lines 2 and 3 received from other than disqualified persons that exceed the greater of $5,000 or 1% of the amount on line 13 for the year						
c Add lines 7a and 7b						
8 **Public support** (Subtract line 7c from line 6.)						

Section B. Total Support

Calendar year (or fiscal year beginning in) ▶	(a) 2008	(b) 2009	(c) 2010	(d) 2011	(e) 2012	(f) Total
9 Amounts from line 6						
10a Gross income from interest, dividends, payments received on securities loans, rents, royalties and income from similar sources						
b Unrelated business taxable income (less section 511 taxes) from businesses acquired after June 30, 1975						
c Add lines 10a and 10b						
11 Net income from unrelated business activities not included in line 10b, whether or not the business is regularly carried on						
12 Other income. Do not include gain or loss from the sale of capital assets (Explain in Part IV.)						
13 **Total support.** (Add lines 9, 10c, 11, and 12.)						

14 **First five years.** If the Form 990 is for the organization's first, second, third, fourth, or fifth tax year as a section 501(c)(3) organization, check this box and **stop here** ▶ ☐

Section C. Computation of Public Support Percentage

15 Public support percentage for 2012 (line 8, column (f) divided by line 13, column (f))	15	%
16 Public support percentage from 2011 Schedule A, Part III, line 15	16	%

Section D. Computation of Investment Income Percentage

17 Investment income percentage for **2012** (line 10c, column (f) divided by line 13, column (f))	17	%
18 Investment income percentage from **2011** Schedule A, Part III, line 17	18	%

19a **33 1/3% support tests - 2012.** If the organization did not check the box on line 14, and line 15 is more than 33 1/3%, and line 17 is not more than 33 1/3%, check this box and **stop here.** The organization qualifies as a publicly supported organization ▶ ☐

b **33 1/3% support tests - 2011.** If the organization did not check a box on line 14 or line 19a, and line 16 is more than 33 1/3%, and line 18 is not more than 33 1/3%, check this box and **stop here.** The organization qualifies as a publicly supported organization ▶ ☐

20 **Private foundation.** If the organization did not check a box on line 14, 19a, or 19b, check this box and see instructions ▶ ☐

Schedule B
(Form 990, 990-EZ, or 990-PF)
Department of the Treasury
Internal Revenue Service

Schedule of Contributors

▶ **Attach to Form 990, Form 990-EZ, or Form 990-PF.**

OMB No. 1545-0047

2012

Name of the organization	**Employer identification number**
ENERGY TRUST OF OREGON INC	93-1313663

Organization type (check one):

Filers of:	**Section:**
Form 990 or 990-EZ	☒ 501(c)(3) (enter number) organization
	☐ 4947(a)(1) nonexempt charitable trust **not** treated as a private foundation
	☐ 527 political organization
Form 990-PF	☐ 501(c)(3) exempt private foundation
	☐ 4947(a)(1) nonexempt charitable trust treated as a private foundation
	☐ 501(c)(3) taxable private foundation

Check if your organization is covered by the **General Rule** or a **Special Rule.**
Note. Only a section 501(c)(7), (8), or (10) organization can check boxes for both the General Rule and a Special Rule. See instructions.

General Rule

☐ For an organization filing Form 990, 990-EZ, or 990-PF that received, during the year, $5,000 or more (in money or property) from any one contributor. Complete Parts I and II.

Special Rules

☒ For a section 501(c)(3) organization filing Form 990 or 990-EZ that met the 33 1/3% support test of the regulations under sections 509(a)(1) and 170(b)(1)(A)(vi) and received from any one contributor, during the year, a contribution of the greater of **(1)** $5,000 or **(2)** 2% of the amount on (i) Form 990, Part VIII, line 1h, or (ii) Form 990-EZ, line 1. Complete Parts I and II.

☐ For a section 501(c)(7), (8), or (10) organization filing Form 990 or 990-EZ that received from any one contributor, during the year, total contributions of more than $1,000 for use *exclusively* for religious, charitable, scientific, literary, or educational purposes, or the prevention of cruelty to children or animals. Complete Parts I, II, and III.

☐ For a section 501(c)(7), (8), or (10) organization filing Form 990 or 990-EZ that received from any one contributor, during the year, contributions for use *exclusively* for religious, charitable, etc., purposes, but these contributions did not total to more than $1,000. If this box is checked, enter here the total contributions that were received during the year for an *exclusively* religious, charitable, etc., purpose. Do not complete any of the parts unless the **General Rule** applies to this organization because it received nonexclusively religious, charitable, etc., contributions of $5,000 or more during the year ..... ▶ $ _____

Caution. An organization that is not covered by the General Rule and/or the Special Rules does not file Schedule B (Form 990, 990-EZ, or 990-PF), but it **must** answer "No" on Part IV, line 2, of its Form 990; or check the box on line H of its Form 990-EZ or on Part I, line 2 of its Form 990-PF, to certify that it does not meet the filing requirements of Schedule B (Form 990, 990-EZ, or 990-PF).

Name of organization	Employer identification number
ENERGY TRUST OF OREGON INC	93-1313663

Part I **Contributors** (see instructions). Use duplicate copies of Part I if additional space is needed.

(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
1	OREGON PUBLIC UTILITY COMMISSION 550 CAPITOL STREET NE #215 SALEM, OR 97308-2148	$ 146,204,737.	Person [X] Payroll [ ] Noncash [ ] (Complete Part II if there is a noncash contribution.)
		$	Person [ ] Payroll [ ] Noncash [ ] (Complete Part II if there is a noncash contribution.)
		$	Person [ ] Payroll [ ] Noncash [ ] (Complete Part II if there is a noncash contribution.)
		$	Person [ ] Payroll [ ] Noncash [ ] (Complete Part II if there is a noncash contribution.)
		$	Person [ ] Payroll [ ] Noncash [ ] (Complete Part II if there is a noncash contribution.)
		$	Person [ ] Payroll [ ] Noncash [ ] (Complete Part II if there is a noncash contribution.)

Name of organization: ENERGY TRUST OF OREGON INC

Employer identification number: 93-1313663

Part II Noncash Property (see instructions). Use duplicate copies of Part II if additional space is needed.

(a) No. from Part I	(b) Description of noncash property given	(c) FMV (or estimate) (see instructions)	(d) Date received
		$	
(a) No. from Part I	(b) Description of noncash property given	(c) FMV (or estimate) (see instructions)	(d) Date received
		$	
(a) No. from Part I	(b) Description of noncash property given	(c) FMV (or estimate) (see instructions)	(d) Date received
		$	
(a) No. from Part I	(b) Description of noncash property given	(c) FMV (or estimate) (see instructions)	(d) Date received
		$	
(a) No. from Part I	(b) Description of noncash property given	(c) FMV (or estimate) (see instructions)	(d) Date received
		$	
(a) No. from Part I	(b) Description of noncash property given	(c) FMV (or estimate) (see instructions)	(d) Date received
		$	

Name of organization	Employer identification number
ENERGY TRUST OF OREGON INC	93-1313663

Part III *Exclusively* **religious, charitable, etc., individual contributions to section 501(c)(7), (8), or (10) organizations that total more than $1,000 for the year.** Complete columns **(a)** through **(e) and** the following line entry. For organizations completing Part III, enter the total of *exclusively* religious, charitable, etc., contributions of **$1,000 or less** for the year. (Enter this information once.) ▶ $

Use duplicate copies of Part III if additional space is needed.

(a) No. from Part I	(b) Purpose of gift	(c) Use of gift	(d) Description of how gift is held

(e) Transfer of gift

Transferee's name, address, and ZIP + 4	Relationship of transferor to transferee

(a) No. from Part I	(b) Purpose of gift	(c) Use of gift	(d) Description of how gift is held

(e) Transfer of gift

Transferee's name, address, and ZIP + 4	Relationship of transferor to transferee

(a) No. from Part I	(b) Purpose of gift	(c) Use of gift	(d) Description of how gift is held

(e) Transfer of gift

Transferee's name, address, and ZIP + 4	Relationship of transferor to transferee

(a) No. from Part I	(b) Purpose of gift	(c) Use of gift	(d) Description of how gift is held

(e) Transfer of gift

Transferee's name, address, and ZIP + 4	Relationship of transferor to transferee

SCHEDULE D (Form 990)

Department of the Treasury
Internal Revenue Service

Supplemental Financial Statements

▶ Complete if the organization answered "Yes," to Form 990, Part IV, line 6, 7, 8, 9, 10, 11a, 11b, 11c, 11d, 11e, 11f, 12a, or 12b.
▶ Attach to Form 990. ▶ See separate instructions.

OMB No. 1545-0047

2012

Open to Public Inspection

Name of the organization
ENERGY TRUST OF OREGON INC

Employer identification number
93-1313663

Part I Organizations Maintaining Donor Advised Funds or Other Similar Funds or Accounts. Complete if the organization answered "Yes" to Form 990, Part IV, line 6.

		(a) Donor advised funds	(b) Funds and other accounts
1	Total number at end of year		
2	Aggregate contributions to (during year)		
3	Aggregate grants from (during year)		
4	Aggregate value at end of year		

5 Did the organization inform all donors and donor advisors in writing that the assets held in donor advised funds are the organization's property, subject to the organization's exclusive legal control? ☐ Yes ☐ No

6 Did the organization inform all grantees, donors, and donor advisors in writing that grant funds can be used only for charitable purposes and not for the benefit of the donor or donor advisor, or for any other purpose conferring impermissible private benefit? ☐ Yes ☐ No

Part II Conservation Easements. Complete if the organization answered "Yes" to Form 990, Part IV, line 7.

1 Purpose(s) of conservation easements held by the organization (check all that apply).
- ☐ Preservation of land for public use (e.g., recreation or education)
- ☐ Preservation of an historically important land area
- ☐ Protection of natural habitat
- ☐ Preservation of a certified historic structure
- ☐ Preservation of open space

2 Complete lines 2a through 2d if the organization held a qualified conservation contribution in the form of a conservation easement on the last day of the tax year.

		Held at the End of the Tax Year
a	Total number of conservation easements	2a
b	Total acreage restricted by conservation easements	2b
c	Number of conservation easements on a certified historic structure included in (a)	2c
d	Number of conservation easements included in (c) acquired after 8/17/06, and not on a historic structure listed in the National Register	2d

3 Number of conservation easements modified, transferred, released, extinguished, or terminated by the organization during the tax year ▶ _____

4 Number of states where property subject to conservation easement is located ▶ _____

5 Does the organization have a written policy regarding the periodic monitoring, inspection, handling of violations, and enforcement of the conservation easements it holds? ☐ Yes ☐ No

6 Staff and volunteer hours devoted to monitoring, inspecting, and enforcing conservation easements during the year ▶ _____

7 Amount of expenses incurred in monitoring, inspecting, and enforcing conservation easements during the year ▶ $ _____

8 Does each conservation easement reported on line 2(d) above satisfy the requirements of section 170(h)(4)(B)(i) and section 170(h)(4)(B)(ii)? ☐ Yes ☐ No

9 In Part XIII, describe how the organization reports conservation easements in its revenue and expense statement, and balance sheet, and include, if applicable, the text of the footnote to the organization's financial statements that describes the organization's accounting for conservation easements.

Part III Organizations Maintaining Collections of Art, Historical Treasures, or Other Similar Assets.

Complete if the organization answered "Yes" to Form 990, Part IV, line 8.

1a If the organization elected, as permitted under SFAS 116 (ASC 958), not to report in its revenue statement and balance sheet works of art, historical treasures, or other similar assets held for public exhibition, education, or research in furtherance of public service, provide, in Part XIII, the text of the footnote to its financial statements that describes these items.

b If the organization elected, as permitted under SFAS 116 (ASC 958), to report in its revenue statement and balance sheet works of art, historical treasures, or other similar assets held for public exhibition, education, or research in furtherance of public service, provide the following amounts relating to these items:

(i) Revenues included in Form 990, Part VIII, line 1 ▶ $ _____

(ii) Assets included in Form 990, Part X ▶ $ _____

2 If the organization received or held works of art, historical treasures, or other similar assets for financial gain, provide the following amounts required to be reported under SFAS 116 (ASC 958) relating to these items:

a Revenues included in Form 990, Part VIII, line 1 ▶ $ _____

b Assets included in Form 990, Part X ▶ $ _____

Part III Organizations Maintaining Collections of Art, Historical Treasures, or Other Similar Assets *(continued)*

3 Using the organization's acquisition, accession, and other records, check any of the following that are a significant use of its collection items (check all that apply):

a ☐ Public exhibition
b ☐ Scholarly research
c ☐ Preservation for future generations
d ☐ Loan or exchange programs
e ☐ Other _____

4 Provide a description of the organization's collections and explain how they further the organization's exempt purpose in Part XIII.

5 During the year, did the organization solicit or receive donations of art, historical treasures, or other similar assets to be sold to raise funds rather than to be maintained as part of the organization's collection? ☐ Yes ☐ No

Part IV Escrow and Custodial Arrangements. Complete if the organization answered "Yes" to Form 990, Part IV, line 9, or reported an amount on Form 990, Part X, line 21.

1a Is the organization an agent, trustee, custodian or other intermediary for contributions or other assets not included on Form 990, Part X? ☐ Yes ☐ No

b If "Yes," explain the arrangement in Part XIII and complete the following table:

		Amount
c Beginning balance	1c	
d Additions during the year	1d	
e Distributions during the year	1e	
f Ending balance	1f	

2a Did the organization include an amount on Form 990, Part X, line 21? ☐ Yes ☐ No

b If "Yes," explain the arrangement in Part XIII. Check here if the explanation has been provided in Part XIII ☐

Part V Endowment Funds. Complete if the organization answered "Yes" to Form 990, Part IV, line 10.

	(a) Current year	(b) Prior year	(c) Two years back	(d) Three years back	(e) Four years back
1a Beginning of year balance					
b Contributions					
c Net investment earnings, gains, and losses					
d Grants or scholarships					
e Other expenditures for facilities and programs					
f Administrative expenses					
g End of year balance					

2 Provide the estimated percentage of the current year end balance (line 1g, column (a)) held as:

a Board designated or quasi-endowment ▶ _____ %
b Permanent endowment ▶ _____ %
c Temporarily restricted endowment ▶ _____ %

The percentages in lines 2a, 2b, and 2c should equal 100%.

3a Are there endowment funds not in the possession of the organization that are held and administered for the organization by:

		Yes	No
(i) unrelated organizations	3a(i)		
(ii) related organizations	3a(ii)		
b If "Yes" to 3a(ii), are the related organizations listed as required on Schedule R?	3b		

4 Describe in Part XIII the intended uses of the organization's endowment funds.

Part VI Land, Buildings, and Equipment. See Form 990, Part X, line 10.

Description of property	(a) Cost or other basis (investment)	(b) Cost or other basis (other)	(c) Accumulated depreciation	(d) Book value
1a Land				
b Buildings				
c Leasehold improvements		287,385.	47,897.	239,488.
d Equipment		1,948,050.	1,135,201.	812,849.
e Other				
Total. Add lines 1a through 1e. *(Column (d) must equal Form 990, Part X, column (B), line 10(c).)* ▶				1,052,337.

Schedule D (Form 990) 2012

Part VII Investments - Other Securities. See Form 990, Part X, line 12.

(a) Description of security or category (including name of security)	(b) Book value	(c) Method of valuation: Cost or end-of-year market value
(1) Financial derivatives		
(2) Closely-held equity interests		
(3) Other		
(A)		
(B)		
(C)		
(D)		
(E)		
(F)		
(G)		
(H)		
(I)		
Total. (Col. (b) must equal Form 990, Part X, col. (B) line 12.) ▶		

Part VIII Investments - Program Related. See Form 990, Part X, line 13.

(a) Description of investment type	(b) Book value	(c) Method of valuation: Cost or end-of-year market value
(1)		
(2)		
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
(10)		
Total. (Col. (b) must equal Form 990, Part X, col. (B) line 13.) ▶		

Part IX Other Assets. See Form 990, Part X, line 15.

(a) Description	(b) Book value
(1)	
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
Total. *(Column (b) must equal Form 990, Part X, col. (B) line 15.)* ▶	

Part X Other Liabilities. See Form 990, Part X, line 25.

1. (a) Description of liability	(b) Book value
(1) Federal income taxes	
(2) DEFERRED RENT	323,237.
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
Total. *(Column (b) must equal Form 990, Part X, col. (B) line 25.)* ▶	323,237.

2. FIN 48 (ASC 740) Footnote. In Part XIII, provide the text of the footnote to the organization's financial statements that reports the organization's liability for uncertain tax positions under FIN 48 (ASC 740). Check here if the text of the footnote has been provided in Part XIII X

Part XI Reconciliation of Revenue per Audited Financial Statements With Revenue per Return

1	Total revenue, gains, and other support per audited financial statements			1	146,371,880.
2	Amounts included on line 1 but not on Form 990, Part VIII, line 12:				
a	Net unrealized gains on investments	2a			
b	Donated services and use of facilities	2b			
c	Recoveries of prior year grants	2c			
d	Other (Describe in Part XIII.)	2d			
e	Add lines **2a** through **2d**			2e	0.
3	Subtract line **2e** from line **1**			3	146,371,880.
4	Amounts included on Form 990, Part VIII, line 12, but not on line **1**:				
a	Investment expenses not included on Form 990, Part VIII, line 7b	4a			
b	Other (Describe in Part XIII.)	4b	-745,192.		
c	Add lines **4a** and **4b**			4c	-745,192.
5	Total revenue. Add lines **3** and **4c.** *(This must equal Form 990, Part I, line 12.)*			5	145,626,688.

Part XII Reconciliation of Expenses per Audited Financial Statements With Expenses per Return

1	Total expenses and losses per audited financial statements			1	155,355,544.
2	Amounts included on line 1 but not on Form 990, Part IX, line 25:				
a	Donated services and use of facilities	2a			
b	Prior year adjustments	2b			
c	Other losses	2c			
d	Other (Describe in Part XIII.)	2d	745,192.		
e	Add lines **2a** through **2d**			2e	745,192.
3	Subtract line **2e** from line **1**			3	154,610,352.
4	Amounts included on Form 990, Part IX, line 25, but not on line **1**:				
a	Investment expenses not included on Form 990, Part VIII, line 7b	4a			
b	Other (Describe in Part XIII.)	4b			
c	Add lines **4a** and **4b**			4c	0.
5	Total expenses. Add lines **3** and **4c.** *(This must equal Form 990, Part I, line 18.)*			5	154,610,352.

Part XIII Supplemental Information

Complete this part to provide the descriptions required for Part II, lines 3, 5, and 9; Part III, lines 1a and 4; Part IV, lines 1b and 2b; Part V, line 4; Part X, line 2; Part XI, lines 2d and 4b; and Part XII, lines 2d and 4b. Also complete this part to provide any additional information.

PART X, LINE 2: FIN 48 (ASC 740) FOOTNOTE - ENERGY TRUST RECOGNIZES THE TAX BENEFIT FROM UNCERTAIN TAX POSITIONS ONLY IF IT IS MORE LIKELY THAN NOT THAT THE TAX POSITIONS WILL BE SUSTAINED ON EXAMINATION BY THE TAX AUTHORITIES, BASED ON THE TECHNICAL MERITS OF THE POSITION. THE TAX BENEFIT IS MEASURED BASED ON THE LARGEST BENEFIT THAT HAS A GREATER THAN 50% LIKELIHOOD OF BEING REALIZED UPON ULTIMATE SETTLEMENT. ENERGY TRUST RECOGNIZES INTEREST AND PENALTIES RELATED TO INCOME TAX MATTERS, IF ANY, IN ADMINISTRATIVE EXPENSE.

Part XIII Supplemental Information *(continued)*

ENERGY TRUST HAD NO UNRECOGNIZED TAX BENEFITS AT DECEMBER 31, 2012 OR 2011. NO INTEREST AND PENALTIES WERE ACCRUED FOR THE YEARS ENDED DECEMBER 31, 2012 OR 2011. ENERGY TRUST FILES AN EXEMPT ORGANIZATION RETURN IN THE U.S. FEDERAL JURISDICTION AND WITH THE OREGON CHARITIES DIVISION AND IS NO LONGER SUBJECT TO INCOME TAX EXAMINATIONS BY TAXING AUTHORITIES FOR YEARS BEFORE 2009 FOR ITS FEDERAL AND STATE FILINGS.

PART XI, LINE 4B - OTHER ADJUSTMENTS:

LOSS ON DISPOSAL OF ASSETS NETTED WITH EXPENSES ON FINANCIAL STATEMENTS -745,192.

PART XII, LINE 2D - OTHER ADJUSTMENTS:

LOSS ON DISPOSAL OF ASSETS NETTED WITH EXPENSES ON FINANCIAL STATEMENTS 745,192.

SCHEDULE J (Form 990)

Department of the Treasury
Internal Revenue Service

Compensation Information

For certain Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees

▶ **Complete if the organization answered "Yes" to Form 990, Part IV, line 23.**

▶ **Attach to Form 990.** ▶ **See separate instructions.**

OMB No. 1545-0047

2012

Open to Public Inspection

Name of the organization

ENERGY TRUST OF OREGON INC

Employer identification number

93-1313663

Part I Questions Regarding Compensation

		Yes	No
1a	Check the appropriate box(es) if the organization provided any of the following to or for a person listed in Form 990, Part VII, Section A, line 1a. Complete Part III to provide any relevant information regarding these items. ☐ First-class or charter travel ☐ Housing allowance or residence for personal use ☐ Travel for companions ☐ Payments for business use of personal residence ☐ Tax indemnification and gross-up payments ☐ Health or social club dues or initiation fees ☐ Discretionary spending account ☐ Personal services (e.g., maid, chauffeur, chef)		
b	If any of the boxes on line 1a are checked, did the organization follow a written policy regarding payment or reimbursement or provision of all of the expenses described above? If "No," complete Part III to explain **1b**		
2	Did the organization require substantiation prior to reimbursing or allowing expenses incurred by all officers, directors, trustees, and the CEO/Executive Director, regarding the items checked in line 1a? **2**		
3	Indicate which, if any, of the following the filing organization used to establish the compensation of the organization's CEO/Executive Director. Check all that apply. Do not check any boxes for methods used by a related organization to establish compensation of the CEO/Executive Director, but explain in Part III. ☐ Compensation committee ☐ Written employment contract ☒ Independent compensation consultant ☒ Compensation survey or study ☐ Form 990 of other organizations ☒ Approval by the board or compensation committee		
4	During the year, did any person listed in Form 990, Part VII, Section A, line 1a, with respect to the filing organization or a related organization:		
a	Receive a severance payment or change-of-control payment? **4a**		X
b	Participate in, or receive payment from, a supplemental nonqualified retirement plan? **4b**	X	
c	Participate in, or receive payment from, an equity-based compensation arrangement? **4c**		X
	If "Yes" to any of lines 4a-c, list the persons and provide the applicable amounts for each item in Part III.		
	Only section 501(c)(3) and 501(c)(4) organizations must complete lines 5-9.		
5	For persons listed in Form 990, Part VII, Section A, line 1a, did the organization pay or accrue any compensation contingent on the revenues of:		
a	The organization? **5a**		X
b	Any related organization? **5b**		X
	If "Yes" to line 5a or 5b, describe in Part III.		
6	For persons listed in Form 990, Part VII, Section A, line 1a, did the organization pay or accrue any compensation contingent on the net earnings of:		
a	The organization? **6a**		X
b	Any related organization? **6b**		X
	If "Yes" to line 6a or 6b, describe in Part III.		
7	For persons listed in Form 990, Part VII, Section A, line 1a, did the organization provide any non-fixed payments not described in lines 5 and 6? If "Yes," describe in Part III **7**		X
8	Were any amounts reported in Form 990, Part VII, paid or accrued pursuant to a contract that was subject to the initial contract exception described in Regulations section 53.4958-4(a)(3)? If "Yes," describe in Part III **8**		X
9	If "Yes" to line 8, did the organization also follow the rebuttable presumption procedure described in Regulations section 53.4958-6(c)? **9**		

Part II **Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees.** Use duplicate copies if additional space is needed.

For each individual whose compensation must be reported in Schedule J, report compensation from the organization on row (i) and from related organizations, described in the instructions, on row (ii). Do not list any individuals that are not listed on Form 990, Part VII.

Note. The sum of columns (B)(i)-(iii) for each listed individual must equal the total amount of Form 990, Part VII, Section A, line 1a, applicable column (D) and (E) amounts for that individual.

(A) Name and Title		(B) Breakdown of W-2 and/or 1099-MISC compensation			(C) Retirement and other deferred compensation	(D) Nontaxable benefits	(E) Total of columns (B)(i)-(D)	(F) Compensation reported as deferred in prior Form 990
		(i) Base compensation	(ii) Bonus & incentive compensation	(iii) Other reportable compensation				
(1) MARGIE HARRIS	(i)	150,994.	0.	24,294.	10,111.	8,432.	193,831.	0.
EXECUTIVE DIRECTOR	(ii)	0.	0.	0.	0.	0.	0.	0.
(2) SUSANNE MEYER SAMPLE	(i)	135,450.	200.	8,600.	8,690.	1,567.	154,507.	0.
CHIEF FINANCIAL OFFICER	(ii)	0.	0.	0.	0.	0.	0.	0.
(3) PETER WEST	(i)	114,888.	200.	22,437.	8,424.	18,293.	164,242.	0.
ENERGY PROGRAMS DIRECTOR	(ii)	0.	0.	0.	0.	0.	0.	0.
(4) STEVE LACEY	(i)	128,593.	200.	5,000.	8,292.	14,501.	156,586.	0.
DIRECTOR OF OPERATIONS	(ii)	0.	0.	0.	0.	0.	0.	0.
(5) FRED GORDON	(i)	126,979.	200.	2,886.	8,089.	18,243.	156,397.	0.
DIRECTOR OF PLANNING & EVALUATION	(ii)	0.	0.	0.	0.	0.	0.	0.
(6) JOHN VOLKMAN	(i)	132,879.	200.	0.	8,066.	13,621.	154,766.	0.
GENERAL COUNSEL	(ii)	0.	0.	0.	0.	0.	0.	0.
	(i)							
	(ii)							
	(i)							
	(ii)							
	(i)							
	(ii)							
	(i)							
	(ii)							
	(i)							
	(ii)							
	(i)							
	(ii)							
	(i)							
	(ii)							
	(i)							
	(ii)							
	(i)							
	(ii)							

Part III Supplemental Information

Complete this part to provide the information, explanation, or descriptions required for Part I, lines 1a, 1b, 3, 4a, 4b, 4c, 5a, 5b, 6a, 6b, 7, and 8, and for Part II. Also complete this part for any additional information.

PART I, LINE 4B: ENERGY TRUST SPONSORS A NON-QUALIFED DEFERRED COMPENSATION PLAN FOR SELECTED EMPLOYEES. CONTRIBUTIONS TO THE PLAN WERE MADE DURING THE TAX YEAR FOR THE FOLLOWING LISTED PERSONS:

MARGIE HARRIS 17,000

SUSANNE MEYER SAMPLE 5,000

FRED GORDON 2,886

STEVE LACEY 5,000

PETER WEST 22,437

SCHEDULE O
(Form 990 or 990-EZ)

Department of the Treasury
Internal Revenue Service

Supplemental Information to Form 990 or 990-EZ

Complete to provide information for responses to specific questions on Form 990 or 990-EZ or to provide any additional information.
▶ Attach to Form 990 or 990-EZ.

OMB No. 1545-0047

2012

Open to Public Inspection

Name of the organization
ENERGY TRUST OF OREGON INC

Employer identification number
93-1313663

FORM 990, PART I, LINE 1, DESCRIPTION OF ORGANIZATION MISSION:

ENERGY TRUST PROVIDES COMPREHENSIVE, SUSTAINABLE ENERGY EFFICIENCY, CONSERVATION AND RENEWABLE ENERGY SOLUTIONS TO THOSE WE SERVE.

FORM 990, PART III, LINE 1, BACKGROUND, MISSION AND GOALS:

A. BACKGROUND

SINCE MARCH 2002, ENERGY TRUST HAS INVESTED PUBLIC PURPOSE FUNDS FROM UTILITY CUSTOMERS TO HELP OREGONIANS BENEFIT FROM ENERGY-EFFICIENCY IMPROVEMENTS AND RENEWABLE ENERGY GENERATION. WE ARE FUNDED BY AND PROVIDE SERVICES TO OREGON CUSTOMERS OF PORTLAND GENERAL ELECTRIC, PACIFIC POWER, NW NATURAL AND CASCADE NATURAL GAS, AND TO NW NATURAL CUSTOMERS IN SOUTHWEST WASHINGTON.

AN INDEPENDENT 501(C)(3) NONPROFIT ORGANIZATION, ENERGY TRUST SERVES THE RESIDENTIAL CUSTOMERS AND MOST COMMERCIAL AND INDUSTRIAL CUSTOMERS OF OUR AFFILIATED UTILITIES. WE OFFER TECHNICAL AND OTHER ASSISTANCE AND FINANCIAL INCENTIVES, HELPING CUSTOMERS DERIVE DIRECT BENEFITS FROM CLEAN ENERGY INVESTMENTS. FOUR OF OUR EIGHT PROGRAMS ARE MANAGED INTERNALLY, WHILE FOUR, TWO EACH IN THE RESIDENTIAL AND THE COMMERCIAL EFFICIENCY PROGRAMS, ARE COMPETITIVELY BID AND MANAGED BY CONTRACTORS. FOR MOST PROGRAMS, ENERGY TRUST SERVICES ARE PROVIDED BY SPECIALIZED LOCAL BUSINESSES LINKED IN A NETWORK OF MORE THAN 2,400 TRADE ALLY CONTRACTORS, OTHER ALLIED PROFESSIONALS AND PARTICIPATING RETAILERS FROM THROUGHOUT THE STATE.

Name of the organization: ENERGY TRUST OF OREGON INC

Employer identification number: 93-1313663

OUR WORK IS SHAPED BY TWO ADVISORY COUNCILS COMPRISED OF STAKEHOLDERS AND IS LED BY AN INDEPENDENT, DIVERSE BOARD OF DIRECTORS WHOSE MEMBERS VOLUNTEER THEIR TIME AND EXPERTISE. VIA CONTRACT WITH THE OREGON PUBLIC UTILITY COMMISSION, WE COMPLY WITH MINIMUM PERFORMANCE MEASURES, REPORTING AND OTHER REQUIREMENTS IT ESTABLISHES TO GUIDE OUR OPERATIONS AND RESULTS. OUR INCLUSIVE AND TRANSPARENT APPROACH INCLUDES OPEN MEETINGS AND PUBLISHED AGENDAS, MINUTES, EVALUATIONS, BUDGETS AND FINANCIAL STATEMENTS.

EACH YEAR, AS PART OF DEVELOPING THE NEXT YEAR'S BUDGET AND ACTION PLAN, WE ESTABLISH GOALS FOR ELECTRIC AND NATURAL GAS ENERGY SAVINGS AND FOR RENEWABLE ENERGY GENERATION. THESE GOALS ARE EXPRESSED AS A RANGE BOUNDED BY A CONSERVATIVE GOAL AND A STRETCH GOAL FOR OVERALL ENERGY EFFICIENCY AND RENEWABLE GENERATION RESULTS AND FOR SPECIFIC PROGRAMS. OUR GOALS ALIGN WITH THE INTEGRATED RESOURCE PLANS, OR IRPS, ESTABLISHED BY EACH OF OUR COLLABORATING UTILITIES AND ACKNOWLEDGED BY THE OPUC.

B. PURPOSE STATEMENT

ENERGY TRUST PROVIDES COMPREHENSIVE, SUSTAINABLE ENERGY EFFICIENCY, CONSERVATION AND RENEWABLE ENERGY SOLUTIONS TO THOSE WE SERVE.

C. VISION STATEMENT

ENERGY TRUST ENVISIONS A HIGH QUALITY OF LIFE, A VIBRANT ECONOMY AND A HEALTHY ENVIRONMENT AND CLIMATE FOR GENERATIONS TO COME, BUILT WITH RENEWABLE ENERGY, EFFICIENT ENERGY USE AND CONSERVATION.

D. 2014 STRATEGIC PLAN GOALS

Name of the organization: ENERGY TRUST OF OREGON INC

Employer identification number: 93-1313663

1. SAVE 479 AVERAGE MEGAWATTS OF ELECTRICITY.

2. SAVE 34.7 MILLION ANNUAL THERMS OF NATURAL GAS.

3. PRODUCE 124 AVERAGE MEGAWATTS OF ELECTRICITY FROM NEW RENEWABLE GENERATION.

FORM 990, PART III, LINE 4A, PROGRAM SERVICE ACCOMPLISHMENTS:

EFFICIENCY PROGRAMS BRING ENERGY SAVINGS OPPORTUNITIES TO RESIDENTIAL, COMMERCIAL AND INDUSTRIAL CUSTOMERS THROUGHOUT OREGON, AND TO RESIDENTIAL AND COMMERCIAL CUSTOMERS IN PARTS OF SW WASHINGTON STATE. IN 2012, ELECTRIC EFFICIENCY PROJECTS SAVED 52.9 AMW OF ELECTRICITY, UP 12 PERCENT OVER 2011. GAS EFFICIENCY PROJECTS COMPLETED IN 2012 SAVED MORE THAN 5.9 MILLION ANNUAL THERMS OF NATURAL GAS, UP 22 PERCENT OVER 2011.

EXISTING BUILDINGS. HELPING THE WIDE RANGE OF BUSINESSES IN EXISTING COMMERCIAL BUILDINGS MANAGE THEIR ENERGY COSTS REQUIRES AN EQUALLY BROAD SELECTION OF TECHNICAL SERVICES AND FINANCIAL INCENTIVES. EXISTING BUILDINGS OFFERS INCENTIVES FOR IMPROVEMENTS INCLUDING LIGHTING, HVAC, CONTROLS, BOILERS, SOLAR WATER HEATING, FOODSERVICE EQUIPMENT AND INSULATION, AS WELL AS CUSTOMIZED SOLUTIONS AND OPERATIONS AND MAINTENANCE IMPROVEMENTS. TECHNICAL SERVICES INCLUDE ENERGY SURVEYS, PROJECT PLANNING AND TECHNICAL ANALYSIS, CONTRACTOR REFERRALS, PROJECT FACILITATION AND POST-INSTALLATION ASSISTANCE. PORTIONS OF THE PROGRAM ARE OFFERED TO NW NATURAL CUSTOMERS IN WASHINGTON. EXISTING BUILDINGS BEGAN IN 2003 AND WAS IMPLEMENTED IN 2012 BY LOCKHEED MARTIN SERVICES, INC.

MULTIFAMILY PROPERTY MANAGERS HAVE A MENU OF OFFERINGS FOR FINANCIAL AND SERVICE INCENTIVES FOR BOTH IN-UNIT AND COMMON-AREA IMPROVEMENTS.

Name of the organization: ENERGY TRUST OF OREGON INC

Employer identification number: 93-1313663

TECHNICAL SERVICES INCLUDE DIRECT-INSTALLS OF COMPACT FLUORESCENT LIGHT BULBS AND FAUCET AERATORS IN THE TENANT SPACES, ENERGY SURVEYS AND CUSTOM INCENTIVE SOLUTIONS, AS WELL AS CASH INCENTIVES FOR COMMON-AREA LIGHTING, APPLIANCES, INSULATION, WINDOWS AND HVAC. MULTIFAMILY MOVED TO THE COMMERCIAL SECTOR IN 2010 AND WAS IMPLEMENTED IN 2012 BY LOCKHEED MARTIN SERVICES, INC.

NEW BUILDINGS. THIS PROGRAM PROVIDES INCENTIVES FOR ENERGY-EFFICIENT DESIGN AND EQUIPMENT TO SUPPORT CONSTRUCTION OF HIGH-PERFORMANCE COMMERCIAL NEW BUILDINGS AND MAJOR RENOVATIONS OF ALL SIZES AND TYPES OF BUILDINGS. PARTICIPANTS CAN LEVERAGE A COMPREHENSIVE SET OF SERVICES AND INCENTIVES. THESE INCLUDE EARLY DESIGN AND ENERGY MODELING ASSISTANCE AND A WIDE ARRAY OF STANDARD AND CUSTOMIZED EQUIPMENT INCENTIVES, INCLUDING MODELED SAVINGS INCENTIVES FOR WHOLE-BUILDING APPROACHES. INCENTIVES ARE OFFERED FOR PROJECTS THAT ACHIEVE LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED) CERTIFICATION OR SAVE ENERGY IN EXCESS OF THE 2010 OREGON ENERGY EFFICIENCY SPECIALTY CODE REQUIREMENTS. PILOT EFFORTS IN 2012 SUPPORTED NET-ZERO ENERGY DESIGN AND SMALL COMMERCIAL PROJECTS, AND LED TO DEVELOPING SIMPLE, STREAMLINED "GOOD, BETTER, BEST" INCENTIVE PACKAGES FOR SMALL RETAIL SPACES, OFFICES, SCHOOLS, MULTIFAMILY PROPERTIES, GROCERIES AND RESTAURANTS. POST CONSTRUCTION, ENERGY TRUST CAN HELP COVER COSTS OF EARNING ENERGY STAR CERTIFICATION. NEW BUILDINGS BEGAN IN 2003 AND IS IMPLEMENTED BY PORTLAND ENERGY CONSERVATION, INC.

EXISTING HOMES. HOMEOWNERS AND RENTERS CAN TAKE ADVANTAGE OF ENERGY-SAVING RECOMMENDATIONS, REFERRALS TO QUALIFIED TRADE ALLY CONTRACTORS AND CASH INCENTIVES FOR QUALIFIED IMPROVEMENTS INCLUDING

Name of the organization: ENERGY TRUST OF OREGON INC

Employer identification number: 93-1313663

WEATHERIZATION; ELECTRIC, GAS AND SOLAR WATER HEATERS; AND HEATING EQUIPMENT. THE PROGRAM SUPPORTS MARKET-BASED HOME PERFORMANCE WITH ENERGY STAR, A DIAGNOSTIC ASSESSMENT CONDUCTED BY BUILDING PERFORMANCE INSTITUTE-CERTIFIED CONTRACTORS, AND SAVINGS WITHIN REACH, DESIGNED TO PROVIDE GREATER ASSISTANCE FOR MODERATE-INCOME HOMEOWNERS. THE PROGRAM OFFERS A WEB-BASED HOME ENERGY PROFILE FOR RESIDENTIAL CUSTOMERS, AS WELL AS PHONE-BASED AND IN-HOME ENERGY REVIEWS. CUSTOMIZED ENERGY SAVER KITS MAY BE ORDERED ONLINE. THE PROGRAM IS TESTING BEHAVIOR CHANGE STRATEGIES THROUGH A PILOT SENDING QUARTERLY PERSONAL ENERGY REPORTS TO A SAMPLE OF CUSTOMERS. EXISTING HOMES SUPPORTS REFERRALS TO CLEAN ENERGY WORKS OREGON, AN INITIATIVE OFFERING FINANCING AND REPAYMENT OPTIONS FOR COMPREHENSIVE HOME RETROFIT PROJECTS. PORTIONS OF THE PROGRAM ARE OFFERED TO NW NATURAL CUSTOMERS IN WASHINGTON. EXISTING HOMES HAS BEEN OFFERED SINCE 2003. THE PROGRAM WAS IMPLEMENTED IN 2012 BY CONSERVATION SERVICES GROUP.

NEW HOMES AND PRODUCTS. NEW HOMES SEEKS TO EXPAND THE MARKET SHARE OF ENERGY-EFFICIENT HOMES IN OREGON BY CREATING HOMEBUYER DEMAND AND TRAINING THE CONTRACTORS WHO BUILD THEM. QUALIFIED NEW HOMES ENERGY TRUST SUPPORTS RECEIVE AN EPS(TM) RATING. EPS IS AN ENERGY PERFORMANCE SCORE USEFUL IN GUIDING HOMEBUYERS, JUST AS A MILES-PER-GALLON RATING HELPS CONSUMERS SHOP FOR CARS. NEW HOMES PROVIDES BUILDERS WITH TIERED INCENTIVES TIED TO INCREASED EFFICIENCY LEVELS AND INCENTIVES FOR INTEGRATING SOLAR. IN ADDITION TO BUILDERS, THE PROGRAM WORKS WITH ARCHITECTS AND REAL ESTATE PROFESSIONALS, AND ENCOURAGES THE SALE OF ENERGY-EFFICIENT MANUFACTURED HOMES BY LOCAL RETAILERS. **PRODUCT OFFERS** INCLUDE CASH INCENTIVES FOR PURCHASE OF ENERGY STAR QUALIFIED CLOTHES WASHERS, REFRIGERATORS, FREEZERS, LIGHTING AND SHOWERHEADS, AND FOR THE

Name of the organization: ENERGY TRUST OF OREGON INC

Employer identification number: 93-1313663

RECYCLING OF OLD REFRIGERATORS AND FREEZERS. THE PROGRAM ALSO PROMOTES THE CHANGE A LIGHT, CHANGE THE WORLD CFL FUNDRAISER FOR SCHOOLS AND NONPROFITS, PROVIDES ENERGY-SAVING KITS TO FOOD PANTRIES TO DELIVER TO THEIR CLIENTS, AND DISTRIBUTES SHOWERHEADS THROUGH WATER BUREAUS AND DISTRICTS THROUGHOUT THE STATE. PORTIONS OF THE PROGRAM ARE OFFERED TO NW NATURAL CUSTOMERS IN WASHINGTON. NEW HOMES AND PRODUCTS BEGAN IN 2004 AND IS IMPLEMENTED BY PORTLAND ENERGY CONSERVATION, INC.

PRODUCTION EFFICIENCY. INDUSTRIAL AND AGRICULTURAL BUSINESSES OF ALL TYPES AND SIZES LOOK TO PRODUCTION EFFICIENCY FOR TECHNICAL SERVICES AND CASH INCENTIVES TO HELP THEM IDENTIFY AND IMPLEMENT ELECTRIC AND NATURAL GAS ENERGY-EFFICIENCY PROJECTS AND PRACTICES. ENERGY TRUST ENGAGES HIGHLY SKILLED INDUSTRIAL ENERGY ENGINEERS TO ADVISE OREGON BUSINESSES ON HOW TO MAKE THE MOST OF OPPORTUNITIES TO REDUCE ENERGY-RELATED OPERATING COSTS WHILE IMPROVING PRODUCTIVITY, PRODUCT QUALITY AND ENVIRONMENTAL PERFORMANCE. THE PROGRAM WORKS CLOSELY AND CONSULTATIVELY WITH INDUSTRIES LONG-TERM, HELPING THESE BUSINESSES EMPLOY BEST PRACTICES AND CONTINUOUSLY IMPROVE THEIR ENERGY PERFORMANCE. PRODUCTION EFFICIENCY BEGAN IN 2003 AND IS MANAGED INTERNALLY.

NORTHWEST ENERGY EFFICIENCY ALLIANCE. NEEA IS A NONPROFIT ORGANIZATION WORKING TO MAXIMIZE ENERGY EFFICIENCY TO MEET OUR FUTURE ENERGY NEEDS. IN 2012, MARGIE HARRIS, ENERGY TRUST EXECUTIVE DIRECTOR, SERVED AS VICE CHAIR OF THE NEEA BOARD OF DIRECTORS. BEGINNING MID-YEAR, SHE STEPPED IN AS ACTING CHAIR TO FILL A VACANCY. NEEA IS SUPPORTED BY AND WORKS IN PARTNERSHIP WITH BONNEVILLE POWER ADMINISTRATION, ENERGY TRUST AND MORE THAN 100 NORTHWEST UTILITIES FOR THE BENEFIT OF MORE THAN 12 MILLION

Name of the organization: ENERGY TRUST OF OREGON INC

Employer identification number: 93-1313663

ENERGY CONSUMERS. NEEA USES THE MARKET POWER OF THE REGION TO ACCELERATE INNOVATION AND ADOPTION OF ENERGY-EFFICIENT PRODUCTS, SERVICES AND PRACTICES. NEEA HAS DELIVERED MARKET TRANSFORMATION SAVINGS UNDER CONTRACT TO ENERGY TRUST SINCE 2002.

FORM 990, PART III, LINE 4B, PROGRAM SERVICE ACCOMPLISHMENTS:

RENEWABLES PROGRAMS BRING ENERGY GENERATION OPPORTUNITIES TO RESIDENTIAL AND BUSINESS CUSTOMERS THROUGHOUT OREGON. IN 2012, RENEWABLE ENERGY PROJECTS ACHIEVED 5.05 AMW IN NEW GENERATION, 3.4 TIMES HIGHER THAN 2011. A RECORD 3.3 AMW CAME FROM SOLAR ELECTRIC PROJECTS.

SOLAR ELECTRIC. THIS PROGRAM HELPS HOMEOWNERS, BUSINESSES AND GOVERNMENTS SUPPLEMENT THEIR ELECTRICITY NEEDS WITH ON-SITE SOLAR GENERATION. THE PROGRAM PROVIDES CASH INCENTIVES FOR NET-METERED SOLAR ELECTRIC INSTALLATIONS, EDUCATES CONSUMERS ABOUT SOLAR PURCHASING AND FINANCING OPTIONS AND ENSURES HIGH-QUALITY INSTALLATIONS THROUGH DESIGN REVIEW AND VERIFICATION. WHEN ADDITIONAL FUNDS ARE AVAILABLE, THE PROGRAM ALSO SUPPORTS CUSTOM, LARGE-SCALE SOLAR PROJECTS. THE PROGRAM AIMS TO DEVELOP A LONG-TERM, STABLE MARKET FOR SOLAR IN OREGON BY BUILDING CONSUMER AWARENESS, SPONSORING TECHNICAL TRAINING FOR THE TRADES AND SUPPORTING STATE AND LOCAL EFFORTS TO REDUCE COSTS AND STREAMLINE PERMITTING PRACTICES FOR SOLAR. SOLAR ELECTRIC BEGAN IN 2003 AND IS MANAGED INTERNALLY.

BIOPOWER. THE BIOPOWER PROGRAM PROVIDES FINANCIAL INCENTIVES, COST-SHARED GRANTS FOR FEASIBILITY STUDIES, TECHNICAL ASSISTANCE AND OTHER SUPPORT FOR PROJECTS THAT GENERATE ELECTRIC POWER FROM ORGANIC

Name of the organization: ENERGY TRUST OF OREGON INC

Employer identification number: 93-1313663

RESIDUES. ELIGIBLE FUELS INCLUDE BIOGAS FROM SEWAGE TREATMENT FACILITIES, FOOD PROCESSING AND AGRICULTURE, AND THE ORGANIC FRACTION OF MUNICIPAL SOLID WASTE; SOLID ORGANIC FUELS FROM MILL WASTE, FOREST AND FIELD RESIDUES, AND URBAN WOOD WASTE; LANDFILL GAS; AND DEDICATED ENERGY CROPS AVAILABLE ON A RENEWABLE BASIS. THE GOAL OF THE PROGRAM IS TO EXPAND ENERGY TRUST'S PORTFOLIO OF BIOPOWER PROJECTS AND TO IMPROVE MARKET CONDITIONS FOR THE DEVELOPMENT OF THESE PROJECTS. BIOPOWER BEGAN IN 2005 AND IS MANAGED INTERNALLY.

OTHER RENEWABLES. THIS PROGRAM PROVIDES SUPPORT FOR RENEWABLE ENERGY PROJECTS THAT GENERATE ELECTRICITY USING WIND, HYDROPOWER AND GEOTHERMAL TECHNOLOGIES. THE PROGRAM PROVIDES CUSTOM INCENTIVES FOR PROJECTS WITH GENERATING CAPACITIES OF 20 MEGAWATTS OR LESS AND A STANDARD INCENTIVE PROGRAM FOR SMALL WIND SYSTEMS UP TO 50 KILOWATTS IN CAPACITY. CUSTOM INCENTIVES ARE CALCULATED AFTER A THOROUGH, MULTI-DISCIPLINARY TECHNICAL AND FINANCIAL REVIEW OF PROJECT APPLICATIONS. TO ENSURE PROJECTS ARE WELL EXECUTED, INCENTIVES ARE PAID UPON SUCCESSFUL PROJECT COMPLETION AND INSPECTION. IN ADDITION TO INCENTIVES, THE PROGRAM OFFERS VARIOUS KINDS OF PROJECT DEVELOPMENT ASSISTANCE FOR THE EARLY STAGES OF PROJECTS. THIS INCLUDES FINANCIAL AND TECHNICAL ASSISTANCE FOR FEASIBILITY STUDIES, RESOURCE CHARACTERIZATION, SITE ASSESSMENTS, ANEMOMETERS, GRANT-WRITING, INITIAL DESIGN, PERMITTING AND INTERCONNECTION COST DEVELOPMENT. THE GOAL OF THE PROGRAM IS TO EXPAND ENERGY TRUST'S RENEWABLE ENERGY PORTFOLIO ACROSS A RANGE OF TECHNOLOGIES AND TO IMPROVE MARKET CONDITIONS. OTHER RENEWABLES STARTED IN 2003 AND IS MANAGED INTERNALLY.

FORM 990, PART VI, SECTION B, LINE 11: THE FORM 990 FINANCIAL INFORMATION

Name of the organization: ENERGY TRUST OF OREGON INC

Employer identification number: 93-1313663

IS DEVELOPED BY ACCOUNTING PERSONNEL AND REVIEWED BY THE CFO. THE REST OF THE CONTENT IS PROVIDED BY THE CFO AND IS REVIEWED IN FULL WHEN A DRAFT IS AVAILABLE FROM OUTSIDE ACCOUNTANTS. A COPY OF THE DRAFT FORM 990 IS DISTRIBUTED TO THE ENTIRE BOARD OF DIRECTORS FOR THEIR REVIEW AND DISCUSSION BEFORE FILING.

FORM 990, PART VI, SECTION B, LINE 12C: ANNUALLY, ALL DIRECTORS AND MANAGEMENT TEAM MEMBERS DISCLOSE IN WRITING TO THE PRESIDENT, THE OTHER DIRECTORS AND THE OPUC (OREGON PUBLIC UTILITY COMMISSION), ON SUCH FORMS AND IN SUCH FORMATS ESTABLISHED BY THE DIRECTORS AND THE OPUC, ANY RELATIONSHIPS THAT MAY BE DEEMED A "DIRECT OR INDIRECT CONFLICT OF INTEREST," AS DEFINED IN OUR CONFLICT OF INTEREST POLICY AND AS MAY BE AMENDED AND INTERPRETED FROM TIME TO TIME. ANY SUCH DISCLOSURE SHALL BE DULY RECORDED IN THE MINUTES. IF THE MEMBER MAKES FULL DISCLOSURE OF THE NATURE AND DETAILS OF THE CONFLICT, THE MEMBER MAY THEREAFTER ENGAGE IN ANY DISCUSSION ON THE MATTER AND MAY VOTE, UNLESS THE BOARD OF DIRECTORS BELIEVES THAT THE NATURE AND EXTENT OF THE CONFLICT OF INTEREST WARRANTS THE DIRECTOR'S EXCLUSION FROM EITHER OR BOTH THE DISCUSSION AND VOTE. IF THE MEMBER DOES NOT MAKE FULL DISCLOSURE, HE OR SHE THEREAFTER MUST LEAVE THE MEETING ROOM DURING ANY DISCUSSION OR VOTE ON THE MATTER.

THE ORGANIZATION ENSURES THAT EACH DIRECTOR AND EMPLOYEE HAS FILED A DISCLOSURE FORM ANNUALLY. ANY DIRECTOR WHO FAILS TO COMPLY WITH DISCLOSURE REQUIREMENTS MAY BE REMOVED BY THE OREGON PUBLIC UTILITY COMMISSION.

FORM 990, PART VI, SECTION B, LINE 15:

COMPENSATION PROGRAM SUMMARY. ENERGY TRUST WILL TARGET A MARKET POSITION THAT PROVIDES A COMPETITIVE ADVANTAGE IN ATTRACTING AND RETAINING

Name of the organization: ENERGY TRUST OF OREGON INC

Employer identification number: 93-1313663

EXTRAORDINARILY TALENTED INDIVIDUALS. ENERGY TRUST ENCOURAGES AND REWARDS HIGH-PERFORMING INDIVIDUALS WHO EXCEL IN THEIR POSITION AND THEREFORE CONTRIBUTE TO THE COMPANY'S SUCCESS. TO KEEP THE COMPENSATION PROGRAM TARGETED TO THE MARKET TREND, THE COMPENSATION COMMITTEE ANNUALLY REVIEWS THE COMPENSATION PROGRAM.

BASE SALARY. AN EMPLOYEE'S BASE COMPENSATION IS DETERMINED BY VARIOUS COMPONENTS: JOB SKILLS, EXPERIENCE, PERFORMANCE IN THE JOB, COMPARABLE WORTH OF THE POSITION WITHIN THE COMPANY, AND GEOGRAPHIC LOCATION. THE COMPENSATION STRUCTURE HAS SALARY GRADES AND THE EMPLOYEE'S POSITION IS SLOTTED TO THE APPROPRIATE SALARY GRADE. BASE COMPENSATION FOR EMPLOYEES GENERALLY TARGETS THE MIDPOINT OR BELOW OF ENERGY TRUST'S SALARY GRADE THAT CORRESPONDS WITH THE MARKET AVERAGE.

JOB DESCRIPTIONS MUST BE KEPT CURRENT TO TRULY REFLECT THE LEVEL OF RESPONSIBILITY AND ACCURATE REQUIREMENTS OF EVERY POSITION. THE PRIMARY RESPONSIBILITY FOR THIS RESTS WITH THE MANAGER. JOB DESCRIPTIONS SHOULD BE REVIEWED AT LEAST ANNUALLY, TYPICALLY AT THE TIME OF EMPLOYEE PERFORMANCE APPRAISALS AND WORK-PLAN DEVELOPMENT.

SALARY SURVEYS. A NECESSARY STEP IN THE DEVELOPMENT AND MAINTENANCE OF A SALARY ADMINISTRATION PROGRAM IS THE DETERMINATION OF ACTUAL SALARY LEVELS FOUND IN THE LABOR MARKET IN WHICH THE ENERGY TRUST COMPETES. THIS IS ESSENTIAL TO ENSURE ENERGY TRUST IS ADEQUATELY COMPENSATING AND CONTINUING TO ATTRACT AND RETAIN QUALIFIED INDIVIDUALS. ACCURATE JOB DESCRIPTIONS ARE A KEY TO OBTAINING VALUABLE RESULTS IN THE SURVEY PROCESS. SALARY SURVEY DATA, WHICH IS UPDATED AT LEAST BIENNIALLY, IS EXTREMELY HELPFUL IN MAINTAINING OUR POLICIES. WE WILL CONTINUE TO EXERCISE CONSIDERABLE

Name of the organization: ENERGY TRUST OF OREGON INC

Employer identification number: 93-1313663

JUDGMENT AND INTERPRETATION IN OUR USE OF THIS DATA. WE CURRENTLY UTILIZE THE SERVICES OF A COMPENSATION CONSULTANT WHO HAS ACCESS TO SEVERAL VERY DETAILED, PROFESSIONALLY PREPARED SURVEYS TO SERVE AS OUR BENCHMARK SURVEYS, SUCH AS MILLIMAN, ABBOTT-LANGER, MERCER, PAYSCALE.COM, COMPDATA, AND OTHER RELATED APPLICABLE SURVEYS. IN ADDITION, WE OBTAIN CUSTOM SURVEY DATA FROM ORGANIZATIONS SIMILAR TO ENERGY TRUST AT LEAST BIENNIALLY.

SALARY STRUCTURE. OUR SALARY STRUCTURE HAS BEEN DESIGNED THROUGH THE USE OF LOGICAL MATHEMATICAL TECHNIQUES, WHICH ARE LONG RECOGNIZED AS SOUND IN THE FIELD OF SALARY ADMINISTRATION. THERE IS EQUITY/PARITY BETWEEN THE RANGES FROM THE MINIMUM TO THE MAXIMUM.

OUR SALARY STRUCTURES CONTAIN A NUMBER OF SALARY RANGES THAT ARE REPRESENTED BY A MINIMUM AND MAXIMUM DOLLAR AMOUNT. THE MINIMUM OF THE SALARY RANGE IS THE LEAST AMOUNT GENERALLY WE WILL PAY AN INDIVIDUAL WHO IS QUALIFIED FOR A POSITION SLOTTED IN THIS RANGE. THE MAXIMUM OF THE RANGE IS THE TOP SALARY AN INDIVIDUAL CAN USUALLY RECEIVE REGARDLESS OF LEVEL OF PERFORMANCE.

THE MIDPOINT OF THE SALARY RANGE USUALLY REPRESENTS A COMPETITIVE SALARY LEVEL FOR A FULLY EXPERIENCED AND QUALIFIED INDIVIDUAL WHO CAN PERFORM ALL ASPECTS OF THE POSITION. PROGRESSION THROUGH THE SALARY STRUCTURE WILL USUALLY, BUT NOT NECESSARILY, OCCUR IN CONJUNCTION WITH THE EMPLOYEE'S LEVEL OF PERFORMANCE. ALL SALARY ADJUSTMENTS ARE BASED ON THE SALARY STRUCTURE AND PERCENTAGE INCREASE GUIDELINES IN PLACE AT THE TIME OF THE CHANGE.

ANNUAL REVIEW AND MERIT PROGRAM. ENERGY TRUST GENERALLY HAS AN ANNUAL

Name of the organization: ENERGY TRUST OF OREGON INC

Employer identification number: 93-1313663

REVIEW AND MERIT PROCESS FOR PERFORMANCE EVALUATION AND SALARY PLANNING. IT IS THE MECHANISM USED BY MANAGEMENT TO ALLOCATE MERIT INCREASES TO BASE SALARY TO APPROPRIATELY REWARD EMPLOYEES FOR THEIR OUTSTANDING JOB PERFORMANCE WITH THE COMPANY. EMPLOYEES HIRED PRIOR TO SEPTEMBER 1 OF THE YEAR ARE ELIGIBLE TO PARTICIPATE IN THE ANNUAL REVIEW PROGRAM BUT ARE GENERALLY NOT ELIGIBLE TO PARTICIPATE IN THE MERIT INCREASE PROGRAM. WHEN AWARDED, MERIT INCREASES ARE TYPICALLY EFFECTIVE FEBRUARY 1ST.

A PERFORMANCE APPRAISAL FORM MUST BE COMPLETED BY THE EMPLOYEE AND THE SUPERVISOR. ONCE THE RESULTS OF THAT APPRAISAL HAVE BEEN DISCUSSED WITH THE APPROPRIATE MANAGEMENT TEAM MEMBER, THE MANAGEMENT TEAM WILL MEET AND REVIEW ALL PROPOSED MERIT INCREASES. THE PURPOSE OF THIS REVIEW IS TO MAINTAIN EQUITY ACROSS THE ENTIRE ORGANIZATION. FOLLOWING THE RETURN OF THE SIGNED REVIEW TO THE SUPERVISOR, A PERFORMANCE APPRAISAL SESSION IS SCHEDULED AND COMPLETED WITH THE INDIVIDUAL. THE EMPLOYEE SIGNS THE PERFORMANCE APPRAISAL FORM INDICATING THEY HAVE COVERED THE INFORMATION. THE FORM IS THEN PLACED IN THE EMPLOYEE'S PERSONNEL FILE.

THE HUMAN RESOURCES MANAGER WILL REVIEW ALL INCREASES FOR CONFORMANCE TO ORGANIZATIONAL GUIDELINES. ALL SALARY INCREASES OUTSIDE THE GUIDELINES REQUIRE FORMAL CONSULTATION WITH THE HUMAN RESOURCES MANAGER, CHIEF FINANCIAL OFFICER, AND EXECUTIVE DIRECTOR. THE HUMAN RESOURCES MANAGER WILL THEN PREPARE A PAYROLL ACTION FORM FOR THE MANAGER'S APPROVAL AND SUBSEQUENT PAYROLL PROCESSING.

EXECUTIVE DIRECTOR REVIEW. THE BOARD OF DIRECTORS OF ENERGY TRUST ANNUALLY APPOINTS AN EXECUTIVE DIRECTOR REVIEW COMMITTEE, WHO ARE CHARGED WITH THE RESPONSIBILITY OF REVIEWING THE PERFORMANCE OF THE EXECUTIVE DIRECTOR AND

Name of the organization: ENERGY TRUST OF OREGON INC

Employer identification number: 93-1313663

RECOMMENDING ANY MERIT INCREASE. THIS COMMITTEE IS COMPOSED ENTIRELY OF INDIVIDUALS WHO DO NOT HAVE A CONFLICT OF INTEREST WITH RESPECT TO THE COMPENSATION ARRANGEMENT.

WHEN THE EXECUTIVE DIRECTOR REVIEW COMMITTEE IS CONSIDERING COMPENSATION TO THE EXECUTIVE DIRECTOR, IT ALSO RELIES ON THE COMPARABILITY DATA DESCRIBED ABOVE THAT DEMONSTRATES THE FAIR MARKET VALUE OF THE COMPENSATION IN QUESTION.

THE EXECUTIVE DIRECTOR REVIEW COMMITTEE MUST DOCUMENT HOW IT REACHED ITS DECISIONS, INCLUDING THE DATA UPON WHICH IT RELIED. WRITTEN OR ELECTRONIC RECORDS OF THE COMMITTEE WILL NOTE:

1. THE TERMS OF THE COMPENSATION AND THE DATE IT WAS APPROVED;
2. THE MEMBERS OF THE EXECUTIVE DIRECTOR REVIEW COMMITTEE WHO WERE PRESENT DURING THE DEBATE ON THE COMPENSATION THAT WAS APPROVED AND WHO VOTED ON IT;
3. THE COMPARABILITY DATA OBTAINED AND RELIED UPON AND HOW THE DATA WERE OBTAINED;
4. ANY ACTIONS TAKEN WITH RESPECT TO CONSIDERATION OF THE COMPENSATION BY ANYONE WHO IS OTHERWISE A MEMBER OF THE EXECUTIVE DIRECTOR REVIEW COMMITTEE BUT WHO HAD A CONFLICT OF INTEREST WITH RESPECT TO THE DECISION ON THE COMPENSATION.

RESULTS OF THE PERFORMANCE EVALUATION ARE DISCUSSED BY THE EXECUTIVE DIRECTOR REVIEW COMMITTEE AND ARE REVIEWED AT EXECUTIVE SESSION OF THE BOARD TO MAINTAIN CONFIDENTIALITY.

MERIT INCREASES FOR THE EXECUTIVE DIRECTOR ARE APPROVED BY RESOLUTION OF

Name of the organization: ENERGY TRUST OF OREGON INC

Employer identification number: 93-1313663

THE FULL BOARD AND TYPICALLY TAKE EFFECT ON JANUARY 1ST.

FORM 990, PART VI, SECTION C, LINE 19: ENERGY TRUST MAKES ITS GOVERNING DOCUMENTS, CONFLICT OF INTEREST POLICY AND FINANCIAL STATEMENTS AVAILABLE TO THE PUBLIC UPON REQUEST AND ON ITS WEBSITE: WWW.ENERGYTRUST.ORG.

Board Decision
Amending Compensation Committee Charter

May 22, 2013

RESOLUTION 668
AMENDING COMPENSATION COMMITTEE CHARTER

WHEREAS:

1. **The environment in which Energy Trust operates has changed considerably since the Compensation Committee's charter was first adopted in 2006.**

2. **Upon review of the prior charter, the Committee believes its work would be facilitated with the establishment of the following goals for both compensation and benefits, primarily including Energy Trust's retirement plans, for which the Committee has fiduciary responsibility.**

It is therefore RESOLVED:

The Board approves the following revised Compensation Committee Charter:

Compensation Goals

The Compensation Committee recommends policies and processes to Management and to the Board for the regular and orderly review of the organization's compensation and benefits programs to ensure reasonableness and to accomplish the following goals:

- Attract, retain and motivate employees through the structure and offerings of the total compensation package
- Provide a total compensation package taking into account comparable positions at regional non-profits and energy-related organizations for most positions, and at the national level for senior leadership jobs not well represented in Oregon or the region
- Assess and compare turnover rates among employee positions with other non- and for-profit positions in the Oregon, regional or national markets as a possible indicator of compensation sufficiency
- Review employee engagement surveys of perceptions, interests and needs regarding elements of the total compensation package.
- Encourage and support employees in their planning, actions and ownership of their future health and economic well-being
- Provide transparency of compensation goals, objectives and procedures to provide clear understanding for employees, constituents, regulators and the public

Benefit and Retirement Plan Goals

The Committee also oversees the investment portfolio of Energy Trust's Retirement 401(k) and Supplemental Executive Retirement Plan (SERP) Plans. In addition, the Committee has general responsibility with regard to administrative and other non-investment aspects of the Energy

Trust Retirement Plans as a “named fiduciary” within the meaning of Sections 402(a)(2) and 402(c)(3) of the Employee Retirement Income Security Act of 1974, as amended ("ERISA").

The Compensation Committee is Energy Trust’s agent to administer the Energy Trust retirement plans as the committee deems appropriate, including the adoption of rules, regulations, interpretations, computations or other actions. Among the goals for this portion of the committee’s work:

- Provide data and educational opportunities to enable employees to make informed decisions regarding their selection and management of retirement savings accounts and deferred income opportunities
- Ensure Energy Trust’s retirement plans contain high quality investment vehicles
- Provide employees with the tools to create retirement income adequacy
- Provide a range of risk/return and asset class investment options, including one or more socially-responsible options, to give employees choices for market-competitive fund management and return
- Provide retirement plan governance consistent with industry best practice
- Encourage high retirement plan participation rates

Within Energy Trust’s overall salary and benefit structure, the salaries, health and welfare benefits and other compensation of individual employees are decided by the Executive Director, who makes those decisions in a reasonable process which is discussed annually with the Committee.

Membership

The Committee shall consist of those directors or officers of the Company appointed by the Board of Directors under the provisions of the by-laws of the Energy Trust.

Meetings

The Committee shall meet at such intervals as it chooses, but not less than annually. The Chair of the Committee may call meetings upon consultation with the Executive Director or the Committee staff liaison.

Rules and Procedures

Presence of a majority of the membership of the Committee shall be necessary to constitute a quorum. The affirmative vote of a majority of the members present shall be necessary for the recommendation of any resolution.

Meeting agendas are developed by the Committee Chair in consultation with the Energy Trust staff liaison. Committee members may suggest agenda items by communicating with the Chair or the liaison. Agendas are circulated to Committee members prior to meetings.

The Compensation Committee may make recommendations to the Executive Director Review Committee regarding the Executive Director’s compensation.

The Executive Director and the Chief Financial Officer are authorized to sign routine 401(k) administrative documents on behalf of the Board and other retirement plan documents as authorized by the Compensation Committee.

Roles and Responsibilities

At least annually the Compensation Committee will review Energy Trust's salary and benefit structure to ensure that it is reasonable in light of the organization's revenues, performance, non-exempt purpose, and market comparables in accordance with Compensation Committee goals. In carrying out this review, the Committee shall:

- Review the results of a survey of compensation (and benefits) at comparable organizations which shall be conducted or updated at least every other year
- Ensure that employer costs for benefits as described in Energy Trust's employee handbook are consistent with Board-approved guidelines
- Appoint, review the performance of and, if appropriate, replace the trustee of Energy Trust's retirement trust and the investment managers responsible for managing the holdings of the retirement plans
- Review and approve the selection of investment funds offered to employees for the investment of contributions under Energy Trust's 401(k) and SERP Plans
- Review the quarterly investment results of Energy Trust's retirement plans and assess particular fund viability
- Periodically review Energy Trust's investment policy statement (IPS) to determine compliance between investments and the statement
- Keep notes or minutes documenting its decisions
- Periodically review this charter and make recommendations to the Board of Directors with regard to any changes to the charter the Committee believes desirable

Moved by: Seconded by:

Vote: In favor: Abstained:

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

PREVIOUS CHARTER:

RESOLUTION 397
ADOPTING COMPENSATION COMMITTEE CHARTER

WHEREAS:

1. **The Energy Trust board wishes to ensure that employee compensation at Energy Trust continues to be reasonable, and insulate Energy Trust from compensation controversies that have arisen in non-profit organizations nationally and in Oregon.**

It is therefore RESOLVED:

1. **The board approves the following charter for the Energy Trust Compensation Committee:**
    a. **Purpose: The board of directors of the Energy Trust of Oregon, Inc., wishes to ensure that: (a) Energy Trust has in place appropriate compensation policies and procedures; (b) the board is apprised of Energy Trust's salary and benefit structure; and (c) that compensation is reasonable. Accordingly, the board has created a Compensation Committee to operate in accordance with this charter.**
    b. **Compensation Committee functions:**
        1. **The Compensation Committee will meet at such intervals as it chooses, but not less than annually.**
        2. **At least annually, the Compensation Committee will review Energy Trust's salary and benefit structure to ensure that it is reasonable and not excessive in light of the organization's revenues, performance, and non-profit purposes. In carrying out this review, the Committee shall:**
            a. **Review a survey(s) of compensation at comparable organizations, which shall be conducted or updated at least every other year; and**
            b. **ensure that annual employer costs for employee benefits outlined in the Energy Trust Employee Handbook do not exceed board-approved levels.**
2. **The Compensation Committee may adopt such compensation policies as it deems appropriate to guide its review.**
3. **Within the organization's overall salary and benefit structure, the salaries, benefits and other compensation of individual employees shall be decided by the executive director, who shall make such decisions in a reasonable process that will be discussed annually with the Compensation Committee.**
4. **The Compensation Committee shall be Energy Trust's agent to take such action to administer the Energy Trust 401(k) plan as the Committee may deem appropriate in its sole discretion, including the adoption of rules, regulations, interpretations, computations or other actions. The executive director and general counsel are authorized to sign routine 401(k) administrative documents on behalf of the board, or other 401(k) documents if authorized by the Compensation Committee.**
5. **The Compensation Committee may make recommendations to the Executive Director Review Committee regarding the executive director's compensation.**
6. **The Compensation Committee shall keep notes or minutes documenting its decisions.**

Moved by: Alan Meyer Seconded by: John Reynolds

Vote: In favor: 10 Abstained: 0

Opposed: 0

Adopted on August 23, 2006, by the Energy Trust Board of Directors

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

May 8, 2013, 8:30–10:15 am

Attendees: Roger Hamilton, John Reynolds, Rick Applegate, Alan Meyer (phone), Ken Canon (phone), Margie Harris, Steve Lacey, Peter West, Fred Gordon, Amber Cole, Sue Meyer Sample, Debbie Menashe, Thad Roth, Elaine Prause, Jed Jorgensen, Scott Swearingen

Energy Trust Approach to Financing

Following up on a presentation to the Policy Committee at its March meeting, Elaine Prause described Energy Trust's staff current consensus on how to move forward in the financing arena. Staff has compiled conclusions into a three year action plan. Objectives for Energy Trust's financing initiatives are as follows:

a. Increase savings or generation through projects that would not have happened without our involvement in the financing process and non-traditional financing will fill a gap or broaden the field of participants;
b. Encourage participants to do more now versus waiting;
c. Expand upon and integrate with existing, cost-effective delivery methods for energy efficiency and renewable generation.

Committee members discussed whether the third objective, as currently described, is more tactical than strategic. Staff explained that the focus on integration is to ensure that Energy Trust resources are not unduly tapped for support of financing initiative ideas that are generated outside of, and inconsistent with, Energy Trust energy efficiency or program development priorities. While it is important to leverage external opportunities, staff and committee members agreed that Energy Trust must manage involvement in financing initiatives to ensure that resources are available for the financing and non-financing innovation opportunities that are likeliest to meet Energy Trust mission and goals and support customers. Staff will revise the language of the third objective to make its strategic focus on coordinated management and customer service more apparent.

Elaine and Fred answered questions regarding the market analysis that is planned for commercial market appetite for financing, and evaluation plans and techniques. Committee members expressed interest in supporting the local banks and lenders as outreach and financing opportunities.

The Committee recommends a full financing initiative presentation by staff at the next board meeting. The full board presentation should provide information, but also clearly set out Energy Trust vision for this initiative and how that vision can be expected to be implemented.

Annual Goals and Funding Nomenclature

During the last utility funding negotiations and open comment period on our draft budget and action plan for this year, several stakeholders suggested Energy Trust clarify how we define and set our annual goals, the relationship of our goals to utility Integrated Resource Plan (IRP) targets and individual utility funding agreements. We agree that this process should be revisited and have been working with the OPUC, utilities and CUB and ICNU to provide background and explore different options. Margie reported that staff will be bringing a proposal to the May 22nd strategic utility roundtable, and that given the outreach already undertaken, staff believes that there is general consensus around Energy Trust's proposed approach. The outreach meetings also resulted in a lot of good clarification regarding terminology. Fundamentally, the proposal for the roundtable is intended to clarify and address what have been competing objectives, namely:

- Acknowledging that IRP represents capturing all cost-effective energy savings over a 20 year time period;
- Utilities need 100% certainty of ETO achieving IRP efficiency targets every year instead of over several years;
- All parties are committed to collecting just enough revenues to achieve targets while also serving market demand;
- Revisiting and reaffirming reserve accounts and access to them.

Though not yet final, we anticipate that the preferred option will likely include the following elements:

- Establish an annual utility IRP target as a low-to-high 15% range representing the optimistic resource potential;
- Set Energy Trust's annual goal to be this IRP range; use of "stretch" and "conservative" or other descriptive terminology would no longer be used;
- Utilities would seek Energy Trust funding to achieve the upper end of the savings range as is done now;
- Energy Trust would commit to deliver annual savings within the IRP range;
- Energy Trust performance would be judged against the IRP target range;
- The 5% program reserve currently included in utility funding agreements would be negotiated annually and would likely be lowered;
- Should additional funds be required to meet program demand, Energy Trust would first shift unspent/available funds within or across programs, where possible. When necessary, staff would approach the board to tap our interest reserve account. Utilities would agree to replenish reserves in the subsequent year through an adjusted tariff.

Preview of Board Meeting Presentations

Lockheed Martin Existing Multifamily Contract Extension
At the next full board meeting, staff will recommend a two-year extension of the Existing Multifamily contract with Lockheed Martin Services, Inc. (Lockheed) for two years, from January 1, 2014 to December 31, 2015. Scott Swearingen, Senior Project Manager previewed the presentation with the Policy Committee. The original contract with Lockheed was for a two-year period from 2011 and 2012 with the option to extend for up to three additional years. The board previously granted a one-year extension for the 2013 contract period; this proposal will leverage the option to extend the contract for two additional years: 2014 and 2015. The executive director may extend the contract for these additional two years if extension criteria are met and the board does not object. Staff intends to present this extension at the board meeting.

The committee briefly discussed the implications of this proposed longer extension on the competitiveness of an ultimate rebid of this contract. Staff described how the recent rebid processes for the Existing Homes and Existing Buildings programs resulted in two new program management contractors. RFPs for these contracts were designed to elicit good response, and staff was pleased with the number of responses and the results. Engaging two new major contractors has been received positively by the market as a clear sign that Energy Trust is open to new contractors. The rebid process and transition to new contractors are, however, resource intensive. Margie explained that Energy Trust has engaged Hitachi Consulting to review the efforts. Staff will return to the Policy Committee at a future meeting to report on Hitachi's findings.

Central Oregon Irrigation District: Juniper Ridge Phase II Hydroelectric Project Funding Agreement
At the next full board meeting, staff will recommend approval of a lump sum $1,281,820 incentive payment for above-market costs associated with the second phase of the Central Oregon Irrigation District (COID) Juniper Ridge hydroelectric facility located near Bend, Oregon. Energy Trust provided funding for the first phase of this COID project in 2010. Jed Jorgensen, Renewable Energy Program Manager previewed the presentation with the Policy Committee. Committee members raised a small number of clarifying questions around water restoration impact which Jed will address in his presentation to the full board.

Policies for Review

Fuel Switching Policy: Proposed Revisions
The board fuel-switching policy was first adopted in 2002. In general terms, it provides that Energy Trust will not promote fuel-switching or compare the cost of using alternative fuels. Staff has interpreted the policy to say that incentives are not intended to encourage fuel-switching, but are allowed as long as the decision to switch fuels is solely the homeowner's, and the homeowner is proposing to use eligible high-efficiency equipment. The policy came up for regular, three-year review in May 2011, but NW Natural expressed some concerns about the policy at that time; ultimately an OPUC docket was opened. Review of the policy has been on hold during the pendency of the docket process.

The policy has an ambiguity: "Energy Trust should not provide financial incentives for converting or replacing electric or gas equipment to another fuel." Staff interpreted this language to mean that financial incentives are not provided with the intent of influencing fuel choice. NW Natural read it to mean that no financial incentive should be paid if a consumer switches fuels.

NW Natural was particularly concerned about fuel-switching in the context of space heating. In 2009, Energy Trust stopped offering incentives for high-efficiency gas furnaces, although it continues to provide incentives for high-efficiency electric heat pumps. At that time, market data indicated that consumers were buying high-efficiency gas furnaces without an incentive. About two-thirds of the customers choosing high-efficiency models had taken no Energy Trust incentive, and those who took Energy Trust incentives reported high free-rider rates. In addition, a new federal standard was expected to require furnaces to be at least 90% efficient beginning in 2013. NW Natural did not dispute this data, but became increasingly concerned that offering incentives for high-efficiency electric heat pumps and not high-efficiency gas furnaces would distort competition and make no economic sense for consumers. NW Natural proposed that incentives be offered for both fuels or not at all.

Energy Trust did not feel we had a viable way to consider cross-fuel economics in setting incentives, and could not resolve the issue with NW Natural. NW Natural sought review by the OPUC, and docket no.1565 was opened in December, 2011. In March, 2013, after hearing from an array of parties, the OPUC determined:

- The evidence did not show that Energy Trust incentives are causing fuel-switching.
- Energy Trust may offer a heat-pump incentive to people who heat with gas.
- Energy Trust should ensure that its marketing and policies encourage economic investment in high-efficiency equipment and avoid inadvertently promoting fuel-switching.
- Energy Trust policy should make clear that fuel-switching is a customer decision and incentives are not intended to promote it.

- The OPUC will revisit the issue in early 2015. In the interim, Energy Trust should work with PUC staff to gather independent survey data on the reasons underlying gas customers' decisions to install heat pumps, and the extent to which they continue to use gas as a back-up resource.

Staff has reviewed Energy Trust marketing to ensure that it encourages high-efficiency equipment and does not inadvertently promote fuel-switching. The Policy Committee approved staff's recommended changes to the board's fuel-switching policy, suggested an additional change to the third bullet of the policy, and recommends that the revised policy be presented to the full board at its next meeting.

Public Interest Policy: Three Year Review
This policy is up for routine, three-year review. Staff proposes no changes. The Policy Committee agrees, and the policy will continue in place until its next three year review.

Consent to Appointment of New Member to the Conservation Advisory Committee (CAC)
ODOE Director Schwartz has recommended the appointment of Warren Cook to serve as ODOE's representative on CAC, and staff supports this recommendation. Pursuant to board policy, Energy Trust staff will appoint CAC members after obtaining consent from the Policy Committee. Margie described to the Policy Committee her strong support for representation of ODOE on the CAC. Warren Cook would represent ODOE and also has extensive and relevant experience in the energy efficiency industry, having most recently worked as a Senior Engineering Manager with PECI. Warren recently started working with ODOE, serving as the Planning, Policy and Technical Analysis conservation team manager. Warren's energy efficiency career began in 1983, and includes service at public utilities (Clark), private electric and gas utilities (Avista, PacifiCorp), consulting, program implementation and energy code work with regional municipalities and BPA. He has hands-on experience with residential and light commercial energy audits and retrofits. Warren's other qualifications include a Home Energy Rating System "rater", InterNACHI home inspector, ASHRAE associate, and corresponding member of the Regional Technical Forum. He has managed multi-million dollar conservation programs and taught energy practice to students from elementary to technical college. The Policy Committee unanimously consented to the Warren Cook's appointment to the CAC.

Short Updates

Legislative Update
Margie and Debbie did brief updates on the current Oregon legislative session. Margie explained that proposed bills that would directly affect Energy Trust activities or funding appear to be stalling out, but we continue to monitor developments. Margie also reported that the Ways and Means Committee, in working with the OPUC on its biennial budget, also discussed the PUC's oversight of Energy Trust. The outcome of this discussion included incorporation of some of Energy Trust's existing OPUC performance measures into the OPUC's key performance measures. Both Energy Trust and OPUC staffs view this as a positive development. It memorializes the OPUC's oversight function and makes that role more transparent to the legislature.

Debbie reported on continued staff engaged, on request, in certain bills. Jed Jorgensen has provided technical advice and testimony regarding SB 837, regarding fish passage mitigation strategies in hydroelectric installation permitting processes. Efficiency staff continue to provide technical information for HB 2801 regarding whole building energy efficiency, energy

performance scoring contractor certification, and energy efficiency training for real estate appraisers. Updated reports will continue to be provided to the board.

Update on Planning for the Board Strategic Planning Workshop
The Energy Trust Board of Directors Annual Strategic Planning Workshop is scheduled for June 7-8 at Reed College. Staff reported that the next meeting of the Board's Strategic Planning Committee will be occurring immediately following the Policy Committee meeting.
[Note: the Strategic Planning Committee later decided that the Annual Strategic Planning Workshop will be a one-day meeting, rather than two days—June 7 only.]

Next Policy Committee Meeting
Roger will not be available for the next scheduled Policy Committee meeting date. Committee members reviewed their calendars and expressed interest in changing the date of the next meeting to either June 25 or July 2, 2013. Debbie will work with Ana Morel on the date change and meeting logistics.

Briefing Paper: Energy Trust Approach to Financing for Efficiency and On-Site Renewable Resources

May 22, 2013, 10:00 am-1:00 pm

Over the past six months, Energy Trust staff from across the organization worked to define a coordinated approach to financing. This exercise has helped us articulate our objectives so that we are better equipped to decide where financing can provide the most value for clean energy projects.

Executive Summary

Energy Trust has more than five years' experience with a range of financing initiatives, ranging from EEAST/Clean Energy Works, to a "Lending Allies" program with commercial lenders, to innovative work targeting hard-to-reach markets (MPower and Savings Within Reach). This experience has demonstrated that Energy Trust's involvement in innovative financing can increase participation in energy programs, but only in particular circumstances. Financing innovations have not had broad or deep impacts. Nevertheless, they can be useful and we believe Energy Trust can strengthen its programs by linking them with practical, seamless financing options.

This paper proposes that Energy Trust engage financing efforts with three objectives: (1) Increase savings or generation through projects that would not have happened without our involvement in financing; (2) encourage participants to act now rather than later; and (3) enhance customer experience by integrating financing instruments into existing energy programs. We also propose three- and five-year visions to guide our short term actions.

The paper proposes to use three basic tools to drive towards the visions: on-bill repayment; third-party, off-bill lending allies; and custom programs. In section 3.B of this paper, we deploy these strategies in relationship to the proposed objectives (Figures 1 and 2), and in relationship to certain markets (Table 1). In section 4, we crystalize these elements into a three-year action plan to guide Energy Trust engagement with financing. Finally, section 5 discusses questions that we do not attempt to resolve in this paper, and which may require future thought as we gain further experience from implementing this strategy.

1. History and Purpose

Energy Trust has been engaged in a variety of financing-related activities for several years. We have dedicated considerable staff resources and budget to these activities, with limited payoff in savings and generation and valuable lessons learned.

- As part of a Clean Energy Works EEAST pilot,[1] Energy Trust provided project incentives, marketing, information, and logistical program support and coordination to Clean Energy Works Oregon (CEWO), and ensured that the program fit with our residential program portfolio.

[1] EEAST and Clean Energy Works were based on an Energy Trust-City of Portland pilot called Clean Energy Works Portland, which tested community-based outreach, assistance in coordination, and on-bill repayment of clean energy home improvement loans. With funding from 2009 federal stimulus programs, Clean Energy Works expanded beyond Portland, and became the subject of Oregon legislation. The 2009 Energy Efficiency and Sustainable Technology Act, or EEAST, sought to offer this model state-wide under the direction of the Oregon Department of Energy, with Energy Trust acting as project manager in investor-owned utility territory. EEAST authorized the Oregon Public Utility Commission to evaluate the model and recommend whether and to what extent it should be continued after a pilot phase. In December 2012, the Commission approved an order proposing technical adjustments to the EEAST legislation, ordering an evaluation of the costs and benefits of on-bill financing, and directing full implementation of EEAST after July 2013 (http://apps.puc.state.or.us/orders/2012ords/12-497.pdf).

- MPower, another EEAST pilot, focuses on multifamily affordable housing. We provide standard project incentives plus technical support and program design assistance and outreach.
- Energy Trust has grown its alliance with lenders from a single lending ally, Umpqua Bank's Green Street program, to several third party lenders. As these allies demonstrate their understanding of our projects, they are provided referrals from our program trade allies.
- Energy Trust engaged extensively with the OPUC in its legislatively-mandated evaluation of a new financing model called the Energy Efficiency Power Purchase Agreement, which would use third-party energy services contracting for deep retrofits. This has led to efforts by Northwest Energy Efficiency Alliance (NEEA), funded by Energy Trust and others, to validate simplified verification tools that could make the model more feasible. At the OPUC's request we are currently engaged in discussions of pay–for-performance, another scheme under which Energy Trust would pay third parties based on measured savings in commercial buildings.
- Cool Schools, created by 2011 legislation, allows schools to implement efficiency projects with a state managed Clean Energy Deployment Fund. Our program management contractors work directly with schools to provide scoping, audits and studies. ODOE 1149 is the first line of funding for implementation of projects.
- In 2010, the board authorized a pilot project to extend renewable energy project construction loans, to test whether earlier Energy Trust financial assistance would spur project development. Other project development issues proved to be more critical and we saw little interest.
- Energy Trust helped guide Multnomah County's development of a Property Assessed Clean Energy (PACE) financing program targeting commercial properties. This effort needs our additional assistance in identifying projects and evaluating savings. Energy Trust receives requests from other cities and organizations who are in the process of securing financing to promote efficiency and find they need our time.

This fall, we plan to launch an on-bill repayment program for moderate-income homes within our Savings Within Reach initiative. Energy Trust will help fund a loan pool and a loan-loss reserve, with comparable contributions from an organization called Craft 3. This model test the feasibility of providing loans through a voluntary On-bill Repayment (OBR) agreement with investor owned utilities.

With the exception of Savings Within Reach, our efforts have primarily been reactive. We have responded to legislative mandates and to needs or inquiries of other organizations that need help with program design advice, technical and financial support. We draw several lessons based on our five years of playing various roles across market sectors: financing can help participants who are not investing in energy projects because they cannot make the initial investment. Participants may be unable to find financing because they are unaware of existing financing options. They may need only advice or education to secure a traditional financing package that meets their needs. They may be unable to find a loan at a reasonable rate due to their credit rating, relegated to secured, high-rate loan options. They may need loans that lenders are hesitant to offer, such as projects less than $5,000. Lenders may not know that efficiency projects entail little risk.

After five years of playing various roles across market sectors, we realize it's time to define a thoughtful understanding of the best value Energy Trust can bring to the financing market so that we may be able to both articulate that value and actively engage in the initiatives that are most likely to help us meet savings and generation goals and diversify our mix of participants at

the lowest possible cost. This plan will also help us better understand where we need to limit our commitment of resources and communicate that decision consistently to others.

This paper creates a coordinated vision and plan of action for Energy Trust role in supporting financing for efficiency and on-site, small-scale renewables, optimizing limited staff and financial resources, and promoting products that are most likely to promote clean energy.

2. Objectives and Vision for Financing

Energy Trust can provide most value for ratepayers by supporting financing that serves these objectives: a. Increase savings or generation through projects that would not have happened without our involvement in the financing process and non-traditional financing will fill a gap or broaden the field of participants

a. Increase savings or generation through projects that would not have happened without our involvement in the financing process and non-traditional financing will fill a gap or broaden the field of participants;
b. Encourage participants to do more now versus waiting;
c. Enhances customer experience with seamless integration with existing, cost-effective delivery methods for energy efficiency and renewable generation.

In pursuit of these objectives, we offer our three- and five-year visions for the role financing activities can play to cost-effectively acquire more generation and energy savings in the longer term:

In 3 years

- Every participant in Energy Trust programs who needs financing to pursue efficiency measures has access to it, and is aware of on-bill repayment, third-party lending allies, and conventional financing means.
- Banks compete to extend loans for small-scale efficiency projects using our trade allies, at reasonable rates for participants.
- Hard-to-reach participants have access to on-bill repayment.
- Off-bill, third-party lending grows, covering more standard project types. Third-party lending allies develop 1-3 standard offerings.
- Energy Trust has focused resources developing both off-bill and on-bill options.

In 5 years

- For each market that is currently under-served for financing, we determine whether on-bill repayment or third party off-bill lending is the best available approach to best meet customer's project financing needs.
- As we learn, we focus on supporting the approaches which have had the most success, and end support for others.

In our three-year vision, we would like to see an array of options for all the market segments and project types we work with. At five years, the options may narrow to those that have proven most cost-effective for us, and effective for participants and the lending industry.

3. Tools and Strategies for Financing

A. Tools

There are three main categories of financing tools used for clean energy projects. We have played roles in each of the three categories to date and have theories regarding the strengths of each and the role they may play in the three-year vision and our objectives.

- **On-bill repayment**

On-bill repayment is one of the foundations of Energy Efficiency and Sustainable Technology Act (EEAST) legislation which required utilities to offer repayment of efficiency and renewable project loans funded by a pool of funds managed by ODOE on residential and commercial utility bills. Clean Energy Work Oregon (CEWO) was a pilot program under EEAST that worked closely with utilities and Energy Trust to leverage the use of on-bill repayment of loans managed by Craft 3 and seeded with capital through the American Recovery and Reinvestment Act of 2009 (ARRA) and state funds.[2] On-bill repayment has multiple strengths as a financing mechanism for clean energy projects.

- Extremely low default rates, as shown from similar programs across the country (NYSERDA, PA Keystone HELP, California IOUs, Northeast Utilities) and locally, the CEWO experience
- Low default means low risk for lenders making it attractive to private funds and provides the opportunity for lenders to make money at lower interest rates
- Opens opportunity for hard to reach participants unable to access financing
- More feasible to offer small scale loans, since on-bill repayment can work with a dedicated pool of capital funds and streamlined servicing
- Ease of use for participants, just one bill to pay
- Creates one efficient framework for repayment of multiple approaches

On-bill repayment is also feasible outside of the EEAST framework, as a voluntary utility program. This may provide a simpler and lower-cost transaction path, but does not provide potential lenders the same assurance that the tool will be in place for an extended period of time.

Downsides to on-bill repayment include:

- Limited project experience to date beyond residential whole home retrofit concept.
- Perceived high cost due to other requirements within EEAST and design of pilot programs currently offered.
- Commercial on-bill repayment offerings have yet to be fully tested for whether this model would cost-effectively make a difference for that market.
- Utilities see high cost of compliance in making this billing available for a relatively small number of transactions to date. Volume is needed to make it sustainable.
- Uncertainty associated with future roles. With EEAST, ODOE manages the fund pool, approves pilots for specific markets, and contributes state or federal funds.
- Limited lender diversity. To date, only one lender, Craft 3, has been the intermediary between the utility who collects funds from bill payments and the fund that is repaid.
- There are procedural limitations to implementation of on-bill repayment that have been addressed in this legislative session. More are envisioned as new pilots bring operational issues to light.

These downsides are related to the time and resources required for the start-up phase of on-bill repayment. We see much opportunity for on-bill repayment in supporting clean energy projects in the future, and support continuing to work through current inefficiencies so that Oregon ends up with a robust, low cost, easily accessible financing tool. The most effective way in which we may support on-bill repayment is through promoting a high volume program so that the fixed

[2] CEWO continues as part of the full implementation phase of EEAST. Craft3 is a non-profit community development financial institution.

costs of delivery are more broadly shared and utilities are able to see additional service opportunities to be administered via on-bill repayment. Specific program ideas follow under Opportunities and are within our Plan.

- **Third-party, off-bill lending allies**

Residents and businesses have always been able to go to their local bank or credit union, or to other lenders, and seek financing for their projects. While we know that, since Energy Trust rarely pays the full cost of measures, past use of some form of financing has likely been at least $100M/year. However, we do not know how much has been in the form of "efficiency loans" as compared to home equity lines, business lines of credit, borrowing from internal capital, and other sources. Our vision of the role of the lending ally is to develop financing products that are tailored to the project type so that those participants who need financing to participate, and see banks and credit unions as their primary source have an option. Also, by working with lenders who understand the projects we support, we've leveraged the financer's marketing resources to expand our outreach. Strengths of the off-bill lending ally approach include:

- Once trained and set up, limited time is needed from Energy Trust staff to support, since lenders manage their relationships with participants and program trade allies.
- Lenders drive competition in product terms between lenders.
- Program trade allies have a financing option that they can point to help drive their sale.
- Lenders are in every town, outreach opportunities in rural areas can be expanded in collaboration with local lending allies.
- Sometimes local lenders will consider small efficiency loans a "loss leader" to help build their customer base, and so will offer loans that are marginally profitable due to their size.

For these reasons, we see lender-based financing as an important part of the three- and five-year vision, but we do see some limitations.

- It is not reasonable to expect commercial lenders to offer rates well below market rates for loans, or other favorable terms, nor to offer loans to people who do not meet their risk profile, without financial subsidy or clear market benefits. However, where we can show lenders that risks are low or there are ancillary benefits to their business, they may expand offerings.
- Although we're making it easier for participants to find lenders who understand their projects, we're not expanding the pool of participants who can secure financing. Underwriting criteria limits eligibility.
- Care in design of the lender ally requirements is needed so that we don't end up crafting individual products with each lender, a very time-consuming prospect without commensurate added savings.

The most effective ways we may support third-party, off-bill lending is through training lenders in our programs and training trade allies in lending products. Making streamlined connections between projects and lending products may help participants move ahead with a project or go deeper than they otherwise would have.

- **Custom programs and business models**

This has been the wildcard category for roles Energy Trust has played. Examples include Multnomah County PACE, pay for performance/deep retrofit state pilots, other market focused, grant funded projects that want to tie to project financing. Each one has turned into a significant commitment of labor. We have seen some potential in each program idea but have realized

that collaboration is effective for ratepayers to a point but not beyond that point. Through this process, we've defined our rules for engagement with external financing collaborations as such:

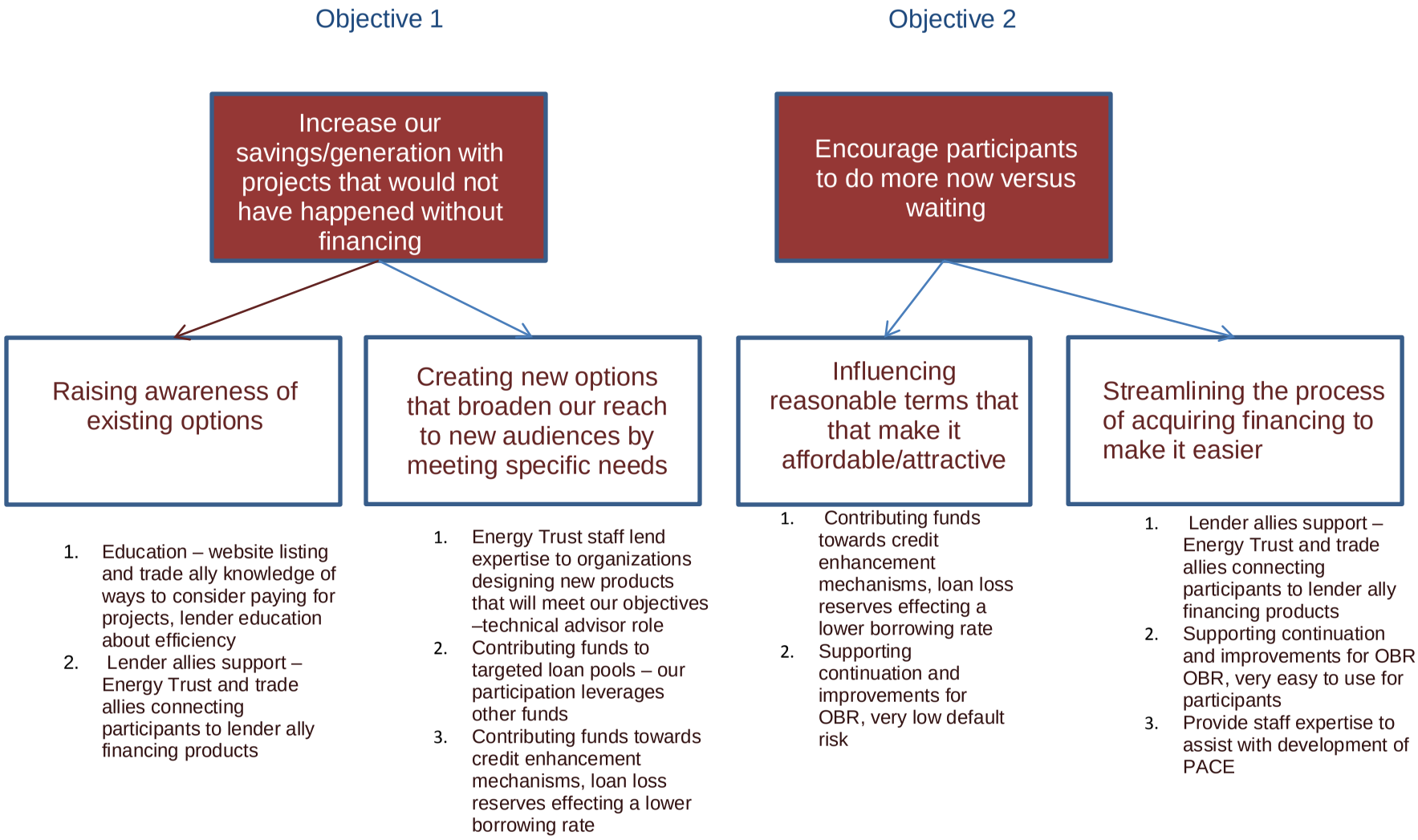
- Where others are developing such initiatives, Energy Trust cannot be a primary funder or actor in program or institutional design.
- To minimize cost and market confusion, new program offerings should align with our current program service offerings and requirements.
- Opportunities should be focused on expanding participation, not existing high-participation markets.
- Energy Trust should commit staff time and funding in proportion to the magnitude and likelihood of additional savings or generation.
- We provide no special preferences to individual financial entities at the expense of rate payers.
- Support for each new financing initiative will be prioritized against other financing and non-financing innovation opportunities, with a focus on Energy Trust's mission and goals.

B. Strategies

Figures 1 and 2 show how we could link these tools to our objectives and vision. This is not intended to be an all-encompassing list, but it illustrates how our skills and funds can be used to advance financing without becoming a lender.

Table 1 shows how these strategies are organized by market segment.

Figure 1. Linking tools to objectives 1,2



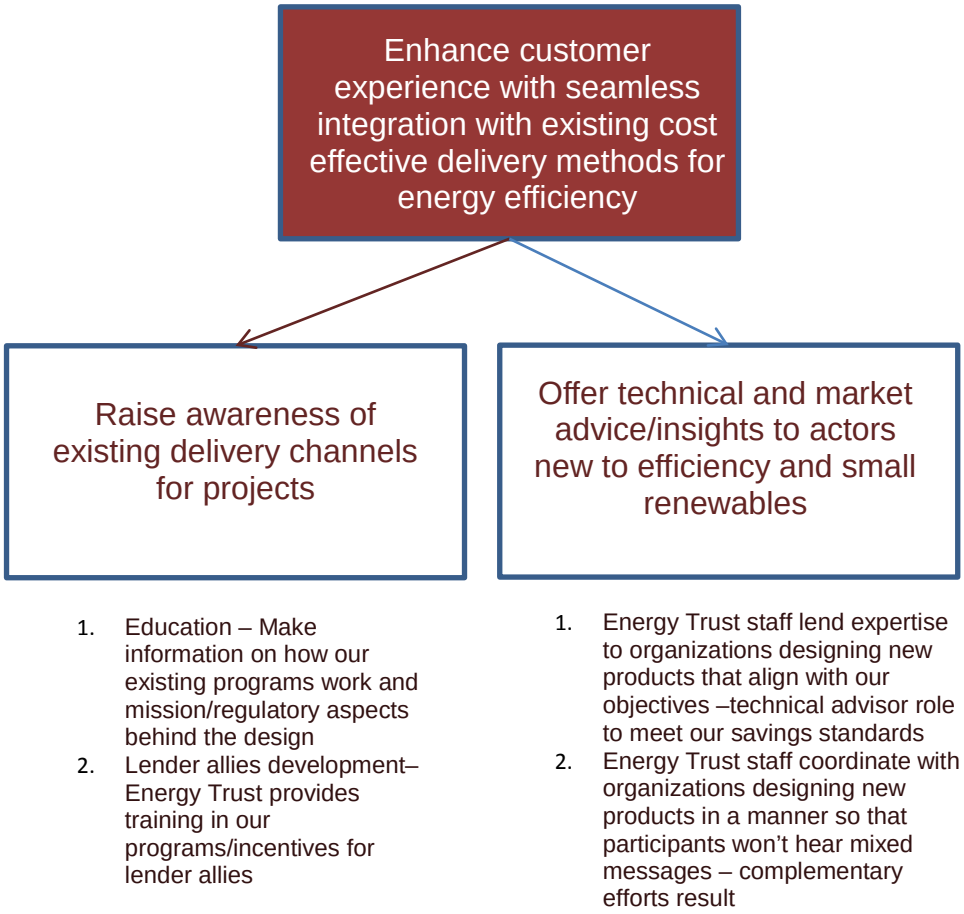


Figure 2. Linking tools to objective 3

Sector	Target	Opportunity	Current impact	Incremental Transaction & Savings Potential
Residential	**SF Moderate income**	Hard to reach market, on-bill repayment provides access to $, test through **Savings Within Reach loan (SWR)** pilot	In development - ~400 projects/yr. projected	Moderate increase to SWR segment transactions and savings, small overall
	SF Mid- Upper income	**CEWO** - Whole Home retrofit	2,000+ projects?	Increasing energy saved/home, reach some additional homes.
	Multifamily affordable housing	Light touch retrofit demand for OBR tested through **MPower Oregon**	1 Phase 1 project in implementation phase, ~5 to go?	Small increase to transactions and savings, addresses inclusion goals
	Equipment only – broad reach	On-bill repayment potential with utility support – e.g. ductless heat pumps	na	Moderate increase to transactions and savings
Residential & Commercial	**Rural 3rd Party**	Local bank relationships provide outreach, drive participation, meet first cost barrier reduction need	na	Moderate increase in transactions and savings, addresses inclusion and utility-specific goals
	Packaged measures – broad reach	Lending allies focused on specific products	Umpqua's Greenstreet to start, growth in past few years	Moderate increase with streamlined approach and accessibility, esp. solar
Commercial	**Small commercial**	Long standing On-bill repayment programs in other regions – would it work here?	na	High transaction volume, possible moderate increase in volume

Table 1: Target Opportunities for Financing

4. Action Plan

The above discussion suggests the following three-year action plan for financing involvement:

a. Provide support to prove out on-bill repayment as an efficient tool for future financing products.
   - As the designated EEAST project manager, continue to provide support for CEWO and MPower Oregon EEAST pilots
   - Gain additional on-bill repayment experience with launching the Savings Within Reach loan product by fall 2013. This is also a test of the effectiveness of loan loss reserve contribution.
   - Gauge interest among stakeholders in building another on-bill repayment product with high transaction volume potential such as small commercial or residential equipment loans with short terms (<7 years). Although the level of increased participation is unknown, this would be a true test of the function of on-bill repayment, leading to expansion of the tool for more underserved markets.
   - Any new on-bill repayment initiative we support must meet our objectives

b. Grow our lending ally network.
   - Develop a small network of actively engaged and motivated lenders
   - Leverage the lending ally network to enhance the work of trade allies
   - Capitalize on existing relationships, identify gaps (such as location, project type preferences) and establish priorities for expansion based on resources.
   - Through experience, refine the concept of packaged products for energy efficiency lending.

c. Be responsive to collaborative inquiries for custom programs and be clear about the level of engagement we are able to offer and where we see opportunities for increased savings. Those are the program types we're most interested in collaborating upon.
   - To help inform our identification of areas of interest, we are undertaking a market analysis of commercial prospects. The goal is to identify gaps where a focused custom program may have most opportunity to be successful.

5. Remaining Questions

This process has shown us that we need to make deliberate choices in where we focus our support of financing efforts. By having a shared vision and objectives, we have defined some concrete next steps, but we are also aware of how little information is available for analysis of program impacts. For example, we have one survey of commercial customers that says they are not interested in financing and yet we have seen more than three states run successful high volume commercial financing programs for years.

- The future of on-bill repayment is highly dependent on factors outside our control. To what extent do we encourage creation of additional high volume programs to test on-bill repayment that require utility and other stakeholder cooperation?
- Lending allies may provide a key outreach arm for us in rural areas but expansion of the network may prove to be a time consuming task. Is limiting participation with favorable product term requirements sustainable?
- Custom financing programs are typically driven by highly motivated persons from different industries. Energy Trust has always been a collaborative team player but often on the reactive side, pulling resources from other priorities. To what extent do we define where we see gaps and articulate these needs to the market so that they may create programs around those needs? How do we carry our message to a variety of stakeholders?

RENEWABLE ENERGY ADVISORY COUNCIL
Notes from meeting on March 13, 2013

Attending from the council:
Thor Hinckley, Portland General Electric
Glenn Montgomery, Oregon Solar Energy Industries Association
Vijay Satyal, Oregon Department of Energy
Tashiana Wangler, Pacific Power
Robert Grott, Northwest Environmental Business Council
Frank Vignola, Oregon State University
Suzanne Leta Liou, Atkins
Juliet Johnson, Oregon Public Utility Commission
Jackie Cameron
Betsy Kauffman
Jed Jorgensen
Thad Roth
Lizzie Rubado
Fred Gordon
Rob Del Mar
Dave McClelland
Dave Moldal

Attending from Energy Trust:
Chris Dearth
Sue Fletcher

Others attending:
John Reynolds, Energy Trust Board of Directors
Jess Kincaid, Oregon Department of Energy
Caitlin Peel, Renewable Northwest Project
James Campbell, Pacific Power

1. Welcome and introductions
Betsy Kauffman called the meeting to order at 9:30 a.m. No adjustments to the minutes were suggested. The minutes were approved.

Robert Grott provided information on the upcoming Future of Energy Conference.

Betsy announced staffing changes. Dave Moldal is now managing the Biopower program. His past experience includes pre-construction commercial wind energy development in the Midwest and Southwest. Lizzie Rubado has joined Energy Trust again and will be managing commercial solar. Kacia Brockman is now with the Oregon Department of Energy.

Vijay Satyal announced that for the last 11 years, the Oregon Department of Energy has been hosting the geothermal working group meeting. This year it will be held in Portland on May 15 or 16 after the American Ground Water Trust event. Bonneville Power Administration's energy-efficiency summit will be at the same time. The geothermal working group meeting is free and will include known speakers on geothermal focusing on direct use.

2. Oregon Public Utility Commission Performance Measures
Thad provided context on renewable performance measures for 2013. The performance measures are established by the OPUC and set a threshold by which regulators can look at the health of Energy Trust programs. They are a signal that intervention may be required to meet performance measures, and create clarity between the OPUC, staff and board. If there are any challenges in meeting performance measures, Energy Trust will be aware of those challenges throughout the year, not just on an annual basis. These measures are a floor for performance and Energy Trust is pushed for higher performance through stretch goals. Energy Trust reports annually on progress to achieve these measures.

The performance measures are outlined in the Energy Trust grant agreement with the OPUC. In 2012, renewable energy program measures were suspended for the sector with the expectation that new measures for 2013 would be established. The measures were suspended because of

changes to state tax credits and an early understanding of declining budget availability. These two factors in combination meant that it would be difficult to meet the previously established goal of 3 average megawatts of new generation on a rolling average over three years.

For 2013, four performance measures were established and are classified by funding priority. Since mid-2012, Energy Trust worked with Juliet Johnson from the OPUC in developing these measures and values the work that all parties put into the process. Energy Trust believes these performance measures support existing strategies:

> Performance measure 1—Market and Project Development Assistance. Energy Trust has offered this support for the last five years. This funding priority includes cost share funding of feasibility studies and other project development activities. The performance measure for this priority is a summary report of the annual results in this area. It will include information on market barriers that were addressed with these funds.
>
> Performance measure 2—Standard Program Projects, including solar electric and small wind. The goal is to maintain a budget that allows these programs to be viable on an annual basis. The performance measure for this priority is 90 percent of the conservative generation goal. This equates to 0.66 aMW in generation for 2013. This is for installed projects operational in the calendar year.

Glenn: Is the performance measure 90 percent of total generation for all programs?
Thad: No, it is just for standard programs. Ninety percent of conservative generation goal is derived from standard solar and small wind.
Dave McClelland: By comparison, last year the total generation from the Solar program was 3.2 aMW. Large-scale custom projects accounted for approximately 50 percent of that total.

Glenn: Why is it set at 90 percent of the conservative goal?
Thad: This is similar to the approach on the energy efficiency side. The purpose of these measures is to serve as an early warning signal. We expect to achieve results beyond this measure.

> Performance measure 3—Custom Program Projects. This includes larger projects, qualifying facilities and net-metered projects, such as agricultural biogas projects and hydropower projects. The performance measure is an average of $40 per allocated MWh of generation. Not all projects need to be $40; this is the average. This approach allows us to pursue a range of projects.

Tashiana: What do you mean by allocated? And if they received development assistance, is that included in the $40?
Thad: This is essentially the Renewable Energy Certificate, REC, allocation that Energy Trust asks for over the term for which we are contracting with a project. When we provide an incentive for a project, we claim all the generation but we only ask for a share of RECs related to the percentage of the above-market costs that we are paying, which is typically less than the total generation. Yes, development assistance is included in the allocated project cost.

> Performance measure 4—Innovative Projects and Custom Solar Projects. If Energy Trust is unable to allocate dollars to certain technologies, dollars can be allocated to pursue innovative and custom projects. The recent Black Cap solar project would be an example, as well as the current Request for Proposal for solar projects in Portland General Electric territory. The performance measure is a report on the source of the funding and the criteria for selection. These fall outside of the standard Solar program.

Suzanne: What is the cap for the standard size?
Dave: Currently is it up to a $75,000 incentive in PGE territory for a 75-kW project and $30,000 in Pacific Power territory for a 40-kW project. We are finding that those caps are not generating sufficient interest for commercial solar. We are considering increasing the caps this year.

Frank: How will that last performance measure be measured?
Thad: Our requirement is that we report on the source and criteria.

Tashiana: Would that performance measure be an end-of-year look?
Thad: It can occur throughout the year. It would take an event to make funds available. We could also hold the funds until the next year. It is when we see a gap in our pipeline.

Glenn: Some of the performance measures have quantitative measures and some are reports. How do they roll up into your overarching metrics? Do they roll up into other metrics that are quantifiable?
Thad: We have goals related to our annual budget to achieve. Those goals are part of what we have said we will accomplish in budget process. We will also look to see if we meet generation goals from RFP processes. These OPUC performance measures are an early warning system that provide an alert that there are management challenges or structural changes in the market that impact program delivery and execution.

Glenn: Some of these will work better than others as a warning tool.
Juliet: Some are more qualitative. We see these performance measures as a good direction. We also see this as a first point that we are iterating from. As we see the reports we will learn based on the content.

Robert: Were the utilities party to the development of these measures?
Juliet: We shared the memo with the utilities. We did get some feedback. We will likely get more feedback through the year. We want to get the wisdom of this group as well.

Vijay: We cannot fund all custom projects. What are the criteria for how you will say no to projects?
Thad: The RFP process is the tool that we use.

Vijay: There are barriers identified through the project development assistance. What barriers are you conceptualizing there?
Thad: We are providing more comprehensive assistance this year. We will offer more comprehensive assistance for fewer projects. The goal is to get those projects to the place where they can go out and look for financing.

Thad said staff will be keeping an eye on several questions this year in relation to these new measures, including the amount of funds projected to be provided to mandated solar projects and whether the $40 per allocated MWh for use with non-solar custom projects is appropriate or whether it should be reduced.

3. Wrap up and report on 2012; 2013 plans for all technologies

Wind
Chris Dearth presented this topic. Energy Trust moved to an estimated production-based incentive for small wind utilizing a report from Wind Analytics, a New York-based company. Energy Trust bases the incentive on the production to motivate customers to capture best wind potential. The early experience is that this approach is working.

Wind Analytics also developed a wind map that is on Energy Trust's website. Customers can enter their address and get a sense of their rough wind potential. If they have good or excellent potential, Energy Trust will refer them to a trade ally contractor.

Energy Trust also joined the Interstate Turbine Advisory Council that developed a list of turbines authorized by members. The list aligns with Energy Trust's incentives and helps to promote and incentivize the turbines that are certified by an accredited testing agency and have a proven business track record.

Chris has met with Energy Trust trade ally contractors around the state. Three projects completed in 2012. The projection for 2013 is that the industry nationwide is stressed. The U.S. business climate hasn't been good for small wind companies, and some U.S. companies are focusing their efforts abroad because of high feed-in tariffs in some countries. Energy Trust is seeing greater interest in midsize 50-kW machines at larger farm operations.

Energy Trust is currently working on a project with the Umatilla Tribe. In addition to the project's generation, it will be an educational demonstration site for school children. There is also a 10-MW community wind project under development in southern Oregon.

Suzanne: Did Energy Trust support the Patu wind project?
Betsy: No, the project developers did not request an incentive, because the developer wanted to retain the RECs.
Suzanne: Is that a challenge for Energy Trust when working with some developers?
Betsy: Generically speaking the fact that we take RECs can create challenges. Customers want to be able to make green claims and sometimes want to acquire revenue from the sale of RECs. In these cases they see that they are giving up something to get our incentive. Some project owners do walk away.
Thad: There have been a number of community-scale wind projects installed since 2007 that never talked to us. Those projects can find investors other ways.
Frank: You didn't provide project development assistance to Patu?
Betsy: No we didn't provide any assistance except for agreeing to give an incentive.
Vijay: They were getting a loan as well. They were good at finding resources.
James: The REC market has changed, too.

John: Who assists with certification?
Chris: We work with the Small Wind Certification Council and Inter-tech, which are testing organizations. Once they are certified we know that they are technically reliable. We also look to see the business practices of the manufacturers. The council has been in existence for over a year.

Roger: Who is going to own the 10-MW community wind project?
Chris: It will be privately owned.

Robert: Do you work with the U.S. Department of Agriculture?
Chris: We do, with Rural Energy for America Program grant coordination. I hear that they have fewer grants this year and less money. We encourage project owners to submit applications.

Chris continued: For 2013 strategies, Energy Trust will continue marketing with trade allies. Trade allies are installers but not necessarily marketers. Energy Trust will look to collaborate with distributors from out of state as well, and explore midsize turbines 50 kW for larger farm operations.

Juliet: Is there a target for generation this year?
Chris: We are looking to place as many projects as we can. The generation goal is small.

Suzanne: What is the target market?
Chris: They are primarily family-run farms with available wind resources. Some have larger energy demands than a 10- or 20-kW size system would fulfill.

Hydropower

Jed Jorgensen presented this topic. Most hydropower projects occur where water is being used for another purpose. There has only been one Energy Trust hydro project on a natural stream in the last five years.

Four projects were completed last year and they differed in terms of size. All of the projects were in Pacific Power territory. The projects totaled 1.17 MW of capacity and Energy Trust incentives were $675,000. In 2012, Energy Trust also made commitments to two new projects that when complete will bring in 260 kW in capacity. Committed incentives for those projects total $472,000. In 2012, Energy Trust also worked on project development assistance for eight sites.

Hydro projects still face challenging fundamentals, such as low power prices and dwindling federal tax incentives. Hydro projects also offer advantages, such as higher capacity factors, 24/7 running times, grants for projects providing water savings to benefit in-stream flows, and some projects can be net-metered.

Fish passage issues continue to be a concern. The fish passage issue doesn't usually come at the site of the hydro project but at the original place where the water is diverted. These projects can be required to address the fish passage issues before moving forward. There is a Governor Kitzhaber working group considering this issue and potential for legislation. Resolving this issue could allow some projects to move forward. Energy Trust is also looking at county permitting regulations to see if there is an Energy Trust role to assist with permitting barriers. There are new technologies and opportunities with low head and municipal applications. These will take more analysis and will require costs to come down.

Robert: Which companies are developing these new technologies?
Jed: Lucid, Natel and Hydro Volts are examples.

Vijay: What is Energy Trust's experience in county permitting issues?
Jed: We provide an understanding of the landscape, and can offer education for counties.

Geothermal

Betsy Kauffman presented this topic. Energy Trust committed resources to one project last year, Oregon Institute of Technology's second geothermal project. The Energy Trust incentive is $1.55 million for this project that is 1.5 MW in capacity.

Geothermal challenges are similar to hydro, but there are some additional challenges unique to geothermal. Geothermal projects require greater upfront resources for testing and drilling to assess the resource. This translates to greater risk at the project start. Another issue is there is no benefit given to the developers in recognition of the fact that geothermal provides base load. Geothermal technology costs have also not dropped significantly.

Geothermal has several strategic advantages for Energy Trust. It has a high capacity factor; these projects put out a lot of power. Oregon has geothermal resources and it makes sense to

take advantage of them. In addition, there are funding opportunities to promote geothermal and some projects can take advantage of these opportunities.

In 2013, Energy Trust will deploy project development assistance to these projects to be ready for medium-term opportunities. Technology advancements are likely to impact the market as well. One is the Kalina Cycle technology, which uses a different working fluid that works well with the lower temperature resources we find in Oregon. Another technology development is the use of solar thermal to boost the heat of geothermal water. Energy Trust would like to promote the sharing of information between project owners although that can be difficult in a competitive marketplace.

Frank: Does transmission cost affect project viability?
Betsy: No more so than any other resource. Wind is similar. In terms of market barriers this isn't a primary issue. They do look for proximity to transmission.

Juliet: Do well drillers ever happen upon hot water?
Betsy: We are working with a project now where that happened, but the water resource only exists in certain locations.

Juliet: Is there a dry hole risk?
Betsy: Yes, but the general area that the resource is located in is known.

Robert: Alta Rock is researching the new technology known as Enhanced Geothermal Systems, EGS, looking for hot rock where water can be injected and heated up.
Betsy: There is only one I know of in Oregon. Alta Rock received a $25 million U.S. Department of Energy grant to develop the technology. It is a fascinating technology. It is not where we need it to be in its development cycle yet for Energy Trust to get involved.

Biopower

Dave Moldal presented this topic. Six Energy Trust biopower projects were highlighted as projects that achieved commercial operation in late 2012 and early 2013. These projects included: Wallowa Integrated Biomass Energy Project, Revolution Energy Solutions – Forest Glen Oaks, Farm Power Misty Meadows, Pendleton Wastewater Treatment Plant and Medford Wastewater Treatment Plant. JC Biomethane is expected to achieve commercial operation this year. It is a 1.55-MW qualifying facility biogas project that will receive a $2 million Energy Trust incentive. The project is on track to complete construction in June.

Robert: What is the fuel source for the JC Biomethane project?
Thad: It is dairy and agricultural waste and organic processing waste.

Dave continued: Energy Trust is being contacted by many wastewater treatment plants in Oregon about their interest in potential biogas projects. Of the 28 wastewater treatment plants in Oregon with anaerobic digesters, 10 are currently generating electricity from biogas. Energy Trust is expecting applications this year from some wastewater treatment plants pursuing development of biogas-powered cogeneration units. Calls have also been coming in from industrial sites dealing with liquid and solid waste streams. There is also interest in woody biomass projects, particularly in Central Oregon.

Energy Trust directed a survey to wastewater treatment plants in Oregon with anaerobic digesters. The survey will close on March 18 and is being conducted in coordination with Oregon Association of Clean Water Agencies, ACWA.

Juliet: Will the survey results be made available?

Dave: Yes. The results will be posted on ACWA's website.

Dave continued: Energy Trust's biopower objectives for 2013 include characterizing key components of successful project development for wastewater treatment plants and agriculture sectors, funding studies to highlight the business case for biogas development at food processors, and participating in the state Forest Products Energy Program to support the development of small scale combined heat and power, CHP, systems.

A research report was published last year by the Water Environment Research Foundation titled "Barriers to Biogas Use for Renewable Energy." This report found that less than 10 percent of wastewater treatment plants nationally have installed equipment needed to generate electrical or thermal energy using biogas. The research found that the barriers are economic and not based on technological feasibility, and that decision-makers perceive that it takes too long to obtain a return on investment and there are higher priority demands for limited capital.

Frank: What is happening in improvements in technology?
Dave and Thad: Combined heat and power units are becoming smaller and more viable. There are more engines and choices available. In Oregon we have good experience with internal combustion engines. This will likely expand the projects that are viable for us.

Solar
Dave McClelland presented and introduced the team of Rob Del Mar and Lizzie Rubado. He said 2012 was a big year in term of paid projects. It was a small year for solar water and pool projects but the program broke a few milestones last year.

Suzanne: What are the aMW of solar generation in 2012?
Dave: This translates into 3.28 aMW. The OPUC performance measure for 2013 is considerably lower, 0.66 aMW, equivalent to approximately 5-6 MW of capacity.

Dave presented a graph, 10 years of Solar at Energy Trust. The last three years have been very big in residential and commercial. Part of the reason for last year's large capacity was three utility-scale projects. Two of the utility scale projects were in Lake County, an area that is proving to be a good solar resource. The projects have great tracking systems and exceptional production for that capacity.

The biggest trend in residential solar is a shift to a third-party model, in which a third party owns the system and leases it to the homeowner. Energy Trust funded a similar capacity as 2011 but did see numbers start to fall back because Energy Trust dropped its incentives dramatically for both utilities. There was a good pipeline and a large number of projects were installed but as the year went on, we saw fewer and fewer applications. Another note is that 60 percent of projects coming in were third-party applications in which the system is leased to the homeowner. So far in 2013, the percentage of third-party applications has gone up even higher.

Energy Trust continues to see the cost of solar come down. The first half of the year was a competitive time in the market and there was almost a dollar/watt drop in prices at this time. Prices stabilized in the second half of the year, and the market was less competitive because Energy Trust incentives dropped. As Energy Trust shifted to smaller projects in commercial, staff started to see signs of lower cost systems coming in as well. RFP submissions are coming in as low as $2.50 per watt.

In December 2011, Energy Trust implemented stepped incentive for Pacific Power and did the same for PGE in March 2012. The market was running too hot and as costs came down, Energy Trust incentives were too high. Third-party vendors came into the market in 2011. In the first

quarter of 2012, 400 projects came through, which is two to three times as many as previous first quarters. Energy Trust reacted by lowering incentives. Stepped incentives proved a powerful tool in managing budget but it meant the program cleared out its pipeline.

Juliet: What is a stepped incentive?
Dave: We announced ahead of time we were offering our current incentive for a certain allocation of funding. Once we hit that funding level, it automatically triggered a step down in the incentive rate. We are looking at extending those steps now that things have slowed.

Dave continued his presentation on solar water heating: Cost reductions in solar electric caused a large shift from solar water heating to solar electric. Costs of solar water haeting have gone up while costs of solar electric went down. State and Energy Trust incentives are weighted toward solar electric, so last year was a slow year in solar water heating.

To help, Energy Trust implemented some changes in the solar water heating offer including a simplified application process and a simplified flat incentive. Energy Trust is making efforts to make incentives a more standardized process, similar to a rebate. Staff found that solar water heating numbers were considerably lower than the state Residential Energy Tax Credit solar water heating applications, which signifies that the Energy Trust incentive wasn't worth the hassle.

Rob: I'd like to mention that in 2013 we are in a situation where we have to reduce the incentive even more because of gas cost-effectiveness. We are trying to trim administrative costs for trade allies but also unfortunately have to reduce incentives as well. We are also starting to see the third-party model in commercial solar water heating so it will be interesting to see if that works.

Vijay: Is that an approach learned from solar electric?
Dave: Yes, it is a commercial solar electric vendor who is going back to solar electric customers and offering solar water heating as well.

Dave continued his presentation on 2013 strategies: We've talked here before about the renewable energy fiscal cliff. We peaked at a $17 million budget and our budget is now lower than $10 million. This graph makes it look like this is going to hurt this year, but really this already happened. 2012 was the year that it hit, which indicates how much there is a difference between profit and loss and an actual activity budget. Each year can be broken out by previously dedicated versus dedicated and paid the same year. In 2012 a large amount of incentives were dedicated the year before in 2011. The majority of those were custom projects. Fiscal cliff was really 2012 and we reacted by lowering our incentives and we made it work. What it means for this year is that our pipeline is much smaller.

Suzanne: Is that like a couple million of previously dedicated projects carried over from 2012 to 2013?
Dave: Yes, about $2 million.

Dave: 2012 was a great year in terms of installations and payments but tough in terms of new projects for solar contractors. Because of that, this year we have a small increase in available funds. We have a small pipeline at this point but we are set up for a little bit of growth this year versus last year. We have $1 million set aside for an RFP and we have the flexibility to switch funds between residential and commercial as we see opportunity.

James: Do you have an estimate of what you anticipate the MW to be for that?

Dave: All together, part will be dedicated and paid or part will be dedicated then paid next year, it's hard to know the split. Our goal is about 5-6 MW and we think we have the funding to support that goal.

Juliet: What are the non-incentive dollars that will be spent?
Dave: The budget here is our incentive budget but we also have program costs and a small amount of funding is allocated for those other costs.

Commercial Solar

Dave: In the first quarter of 2013, the non-residential solar electric market has been incredibly slow. We had to shift down the incentive last year and are finding that this is not enough to move projects at this point. In quarter one there are only three commercial projects so far. For Pacific Power, this will most likely extend beyond the first quarter as there is almost no take at current levels.

> However, we have solutions to getting things moving again. There are plenty of above-market costs that we are not covering at this point. We are looking at possibly increasing the caps per customer to allow for larger systems than we presently do or shifting up the incentive rates for smaller projects with more above-market costs. It's easier to ratchet incentives down than it is to shift them back up. Questions are: Would customers drop out and come back at new rate? Is there a perception issue?
>
> We do think that if we are going to meet the OPUC measure this year, unless we shift to all residential, we are going to have to consider increases in commercial incentives.

Tashiana: When you look at historical trends, is this drop-off directly correlated to when we reduced our incentives?
Dave: Yes, although there were other factors in the market, in terms of the Business Energy Tax Credit, etc. From a new applications standpoint, 2012 was the lowest year we've seen in a long time. We had difficulty in securing funding. We saw all this hit in 2012 and that trend is carrying this forward in addition to us having to ratchet back the incentive.

Vijay: Do you think your stepped incentive rate created an additional hold back and created a steeper decline in applications that you thought? Did dropping the rate impact the market?
Lizzie: Absolutely.

Dave: In the first half of the year, our incentive drops were smaller than the price reductions. For the rest of the year, the incentive drops were bigger than what we were seeing in terms of price drops.

Robert: Was it an option to just shut the program down?
Lizzie: There's always that option but we've heard from our trade allies and contractors consistently to not shut the program down. We would not want to put the message out there that there is no help from Energy Trust.

Dave: At a particular incentive offering, there are customers out there that are willing to take it. The more you ratchet your incentive up, the more customers you'll catch.

Suzanne: Do you structure the rates such that you are intentionally not thinking there will be any wiggle room for more custom projects or do you structure to allow wiggle room?
Dave: In terms of custom projects, that's not just a solar question, but a renewable energy-wide question. There are some particular circumstances where other non-solar projects dropped out

in PGE that allowed the RFP to happen. We're not sure when those circumstances will come up.

Suzanne: So the answer is to assume there will not be room left for custom projects?
Dave: We look to our performance metrics to answer that. The second piece of the renewable energy performance measure is the standard program and the fourth piece is whatever is left over, which indicates a clear priority.
Thad: This strategy is not a change for us. The only time we've allocated dollars to custom is when we have unexpectedly free dollars. It's always been overarching policy that we make sure we fund the standard programs first. We've heard from the board and stakeholders that they would rather see us do many standard projects rather than a handful of custom projects. It's tougher for us to do large custom solar projects.

Tashiana: When you're talking about non-residential, what size are the projects?
Dave: Standard offer goes up to 40 kW in Pacific Power territory and 75 kW in PGE territory.

Tashiana: Before you adjusted incentives in 2012, what was that range?
Dave: We used to support projects up to 200 kW before we adjusted. We are considering changing current caps to once again support larger projects. We're considering a higher rate than the current offer for smaller projects and a lower incentive rate for larger projects, and a cap that supports larger projects than we currently do.

Dave: The flat incentive is simple and nice to talk to customers about, but there really are economies of scale. Above-market costs vary based on large versus small projects so we are considering an incentive that starts high and goes low.

Tashiana: What's your process for determining these changes?
Dave: We are discussing this internally and then a proposal would be developed that will go to Thad and Peter. We are hoping to act soon or we are going to end up with no commercial projects this year.
Lizzie: There's a substantial amount of internal analysis that's happening. We have been soliciting information from trade allies about up-to-date pricing. Looking at the financials, what will it take to stimulate the right amount of activity? What's the right amount of the above-market cost to cover? Who is our target market? We'll be soliciting additional input from the trade ally roundtables next week, and giving the contractors a heads up that there may be changes coming. If possible, we would hope to make a change sometime in mid-to-late April.

Tashiana: If customer questions about solar would be helpful, we can provide that information.
Lizzie: That would be great.

Dave: We've learned a lot from our RFP process and it's possible we could have a large project installed this year, but not likely. Currently we are pretty comfortable with our rate of acquisition with residential projects and want to provide stability in that program.

Vijay: I wonder if during the RFP, you'll be able to adjust for size. Any premonitions about how a larger project might show a better plan? Do you have ways to offset the size advantage?
Dave: About half of our scoring is cost based, either the cost of our incentive or the actual cost of the systems on a generation basis. The proposed projects, which are from 440 kW to 10 MW, have similar installation costs, but other costs are different. The other half of the criteria is the quality of the project.

Thad: I want to make a general comment that in past meetings, I might have made it seem as if the world was ending for renewables. I just wanted to give a heads up that I may not have had it

quite right. Currently, we have eight other applications for custom projects in PGE and Pacific Power territories, and a total 12 projects we are reviewing right now. We are back to where we might have a pipeline and the progress is encouraging. The projects that do get funded will likely be funded. These projects will come to the May Renewable Energy Advisory Council meeting.

4. Public comment
No public comment.

5. Meeting adjournment
Betsy thanked council members for their participation and adjourned the meeting at noon. The next full council meeting is May 1, 2013.

CONSERVATION ADVISORY COUNCIL
Notes from meeting on March 13, 2013

Attending from the council:
Lauren Shapton (for Anne), Portland General Electric
Juliet Johnson, Oregon Public Utility Commission
Don Jones, Jr., Pacific Power
Scott Inman, Oregon Remodelers Association
Andria Jacob, City of Portland
Karen Horkitz, Northwest Energy Efficiency Alliance
Jess Kincaid, Oregon Department of Energy
Jon Belmont, Oregon Department of Energy
Joe Esmonde, International Brotherhood of Electrical Workers

Attending from Energy Trust:
Kim Crossman
Oliver Kesting
Elaine Prause
Tom Beverly
Scott Swearingen
Phil Degens
Amber Cole
Spencer Moersfelder
Dan Rubado
Kathleen Belkhayat
Paul Sklar
Fred Gordon

Others attending:
Jeff King, Energy Trust Board of Directors
Mark Kendall, Energy Trust Board of Directors
Tracy Scott, Lockheed Martin
Curt Nichols, ICF
Dan Reese, PECI
Jeremy Anderson, Weatherization Industries Save Energy
Alex Inman, ICF
Whitney Rideout, Evergreen Consulting

1. Welcome and introductions
Kim Crossman called the meeting to order 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.

2. Old business/updates
Kim: There were some old business items to revisit from the last Conservation Advisory Council meeting. Scott Swearingen has additional information about multifamily weatherization to cover.

Scott Swearingen: At the last meeting, we talked about the possible elimination of some multifamily gas measures. We wanted to give insight into where the program is finding savings. Most multifamily savings are coming from the custom track and direct installs, which are mostly water-saving devices. We've found that the smaller the property, the more likely they have natural gas service. Larger ones are usually electric. There are new prescriptive measures for gas, and we now have three distributors for high-efficiency clothes washers and more buy-downs planned for high-efficiency water heaters.

Jeff King: What types of water heaters are we talking about? Gas tankless or more advanced conventional ones?
Paul Sklar: These are tank 0.67 Energy Factor water heaters.

Mark Kendall: So these have no pilot light and higher insulation.
Paul: These are the ones without pilot lights and with dampers.

Fred Gordon explained that the 0.67 EF is a rating, not exactly a percentage.

Scott S: The OPUC approved these weatherization measures under our existing exception under UM551, so we'll continue with ceiling and floor insulation. Multifamily will still include ceiling and floor insulation for all multifamily properties with gas space heat. Small multifamily will continue offering incentives for wall, knee wall and rim joist insulation.

Paul: We ended up lowering the maximum existing insulation levels for which we'd pay for additional insulation to help with cost-effectiveness.

Scott S: Where the cavity allows, we're going to align ceiling insulation with Oregon Department of Energy requirements at R-49. We will move ceiling insulation to incentives of $0.25 per square foot. Previous incentive levels will be honored at old rates if submitted within 90 days.

Kim: For those who weren't here at the last meeting, we had planned to end some multifamily gas weatherization measures when we covered this at that last meeting. After hearing your feedback and speaking with the OPUC, it turns out that we are able to continue them under the OPUC approved exception. We are coming back to the council to let you know about the change in plans.

Jeff: If the cost of natural gas is going down, it seems like more insulation would do less for you; basically adding more cost for less return. Is that accurate?
Paul: Yes. However, the change to R-49 will align our requirements with the tax credit. For the societal test, we're allowed to remove the dollar amount of the tax credit for cost-effectiveness testing.

Jeff: So increasing the tax credit can solve the cost-effectiveness issues?
Paul: Technically, it can diminish the cost-effectiveness issue.
Fred: The societal test compares the cost of measures to the forecast market cost of power or gas, which is a forecast that already incorporates tax credits as a deduction. Therefore, the OPUC has determined that it is appropriate to also deduct tax credits from the total cost of efficiency measures prior to comparing the two.

3. OPUC performance metrics
Elaine Prause covered the approved OPUC 2013 performance metrics for Energy Trust.

Elaine: Our annual performance measures were approved by the OPUC two weeks ago. They are a way for the OPUC to see how we're doing, to essentially take the temperature at any point. Poor performance is a signal that some type of intervention should happen to keep things on track. These are the floor requirements, and our board-approved stretch goals push us to go beyond the OPUC performance measures and each utility's Integrated Resource Plan. The need for these OPUC performance measures is outlined in our grant agreement with the OPUC. They come out of the budget process that happens each fall. Renewables are considered separately. This April, we will submit to the OPUC our annual report detailing last year's progress to the 2012 performance measures.

Mark: How do things look so far?
Elaine: They look great, but it's early. Results will be officially available in April.

Charlie Grist: How involved are the OPUC commissioners with these measures?
Juliet Johnson: We get stakeholder input and the commissioners get involved in portions of the discussion. They looked at the measures this year, but had more involvement in the efficiency metrics last year because we were designing a new format and process. This year, we had a discussion about whether goals should be 10 percent below utility IRPs or set at IRPs. This year we also need Energy Trust to report on some status updates at six months.

Elaine: This year, our goals end up at 47 average megawatts for electric at a levelized cost of 3.9 cents per kWh, and 4.6 million therms of natural gas at a levelized cost of 57 cents per annual therm.

Charlie: Looking at the slides, does this mean that conservative levelized costs of measures were at 3.7 cents?
Elaine: We do have a bit of a cushion with the 3.9 cents on the slides.

Jeff: How does this compare with 2012?
Elaine: Savings are going up and levelized costs are going down from 2012. We don't have our cost report yet, but our carryover is higher than we projected. Taken together, it seems like the costs would be down.

Charlie: What is carryover?
Elaine: Carryover funds are any extra funds budgeted for that we didn't use in that budget year.

Scott Inman: So how does that fit with 2013 costs?
Kim: Spending was lower than we expected for the savings we achieved, so it's good news. Carryover lowers the amount of revenues we would need for 2013.

Mark: On the market barriers for renewable energy, were those established prior to this?
Elaine: We identify needs under each technology and tie them to our action plans, so we can be proactive.

Jeff: How is the standard program conservative generation goal established? It's probably not in the IRPs?
Elaine: In our budget we can use the previous year's cost trends to plan for the coming year.

Jeff: Where do the customer satisfaction numbers come from?
Elaine: Fast feedback results help us determine customer satisfaction.

Scott I: Who are the customers for satisfaction?
Elaine: These are actual participants.

Scott I: It seems awfully low.
Elaine: It's measured on a 1 – 5 scale, but only looks at the fours and fives.

Fred: There is no single definitive methodology for measuring satisfaction and different people get really different results as a consequence. Also, not every program comes in the same. For example, multifamily customers may want higher incentives for windows in situations where we can't cost-effectively provide them. So they aren't going to be completely satisfied.

Kim: It's a five-point scale, and if someone answers three, which is basically satisfied, they aren't really counted as satisfied. If you include the middle group, it's a bigger number.

Scott I: The most important way to measure satisfaction is: "Would you refer us to others?"

Kim: Would all of you like to see the surveys? They are short because they're meant to be a five minute phone call.

Scott I: So these are phone surveys? I wouldn't be satisfied right away, if I was bugged by a phone call.

Kim: Most people do have glowing things to say. Of course, we're calling after they receive their incentive check, so that helps.
Juliet: I've seen it as percentage of customers saying satisfied or very satisfied. This used to be less stringent for the OPUC, but they changed it on us. The commissioners didn't like 75 percent for that measure, but they may not have understood how we measure it.
Mark: We may want to classify threes some other way, to help.
Andria Jacob: In my experience, it's standard to use the top two boxes.
Jeff: The nomenclature may be a problem.
Lauren Shapton: A good example is a typical restaurant survey. You may say you're basically satisfied because it met your expectations, but that doesn't mean you'll go back.

Elaine: There were a few follow-up requests from the OPUC for later on. One request was about whether the 10 percent difference between the conservative budget case and the levelized cost metric should be 15 percent. Another was state mandated solar projects. The last was whether the $40 per allocated MWh for non-solar custom projects is appropriate or too high.

Charlie: Is the 10 percent difference for efficiency or renewable energy?
Elaine: That's just for efficiency.

Fred: Going back to the customer satisfaction discussion, I just confirmed things with Phil. On the rating scale, one is very unsatisfied and five is very satisfied. The middle points are customer defined, we don't give them names. Threes are not counted for customer satisfaction.

Juliet: So the middle isn't reported to the OPUC, just the fours and fives.
Fred: Yes.

Kim: This topic of performance metrics gets addressed at the board level quite often, but it's good to have some visibility here at Conservation Advisory Council.

4. Commercial sector trends
Kim: Oliver will present our commercial sector deep dive using data from 2012. It's a chance for us to look back before we start working on our 2014 action plans in just a couple of months. Industrial will present at the next meeting, and the residential deep dive will be presented in June. Commercial might be the toughest one to do because it includes Existing Buildings, New Buildings, multifamily and many complexities.

Oliver Kesting: Thank you to Kevin Havice, Jessica Rose, Scott Swearingen and Spencer Moersfelder for helping pull this together. The commercial sector is made up of multifamily, Existing Buildings and New Buildings, all with Program Management Contractors, PMCs. There are also non-PMC initiatives, like Strategic Energy Management, SEM, and more than 80 Building Operator Certifications, BOCs.

Oliver continued: We went back four years to look at trends. Today we'll talk about how those trends impact us going forward. The contract for Existing Buildings was recently bid out and ICF won the bid. PECI has New Buildings, including major renovations. Multifamily includes existing multifamily properties, and new multifamily properties are handled in the New Buildings program. Our trends use working savings, so they aren't thrown off by evaluation factors from year-to-year. Our 2012 reportable savings were incredible. We were challenged by a struggling economy, but the biggest challenge was the Existing Buildings rebid. That was a huge effort. Lockheed Martin went through the rebid and delivered great savings at the same time. Spencer had to deal with running the program and the rebid. Overall, we met or exceeded stretch goals for every utility.

Don Jones: Are data centers in this sector?
Kim: Yes, unless they are sited at industrial sites. Stand-alone data centers, including the big new data centers, are in commercial.

Oliver: The slide about sites served shows projects that are closed, so it doesn't include outreach efforts or studies that haven't yet resulted in savings. Since 2009, we have more than doubled the number of sites we serve. Existing Buildings doubled, New Buildings is up by 50 percent and multifamily has increased five-fold.

Mark: Do you track savings per site to give insight into whether data centers make up the change?
Oliver: We do look at that, and savings per site are going down, sometimes dramatically. We are seeing more, smaller projects across programs.

Oliver continued: 2010 on the chart includes a megaproject, and if you pull that out, it would be a straight line trend over the four years. On the therm side, we're seeing steady growth. 2009 was the first year of the new PMC for New Buildings, and new construction projects have a long lead time. They had an empty pipeline in 2009 for New Buildings, so many came through in 2010 on the gas side.

Charlie: On sites served, savings are going up. Sites are going up, but savings per site are going down. There's probably some exponential growth. Is that increasing your administrative costs?
Oliver: Delivery costs are definitely going up, because there's more outreach required. But we are also employing different strategies to keep costs down. We're leveraging trade allies more, for example.

Mark: If levelized costs are going down from previous years, it may mean something else is making up the difference.

Kim: Strategic Energy Management is an example of bending the cost curve and offsetting other programs on the industrial side.

Charlie: As you tap the market more, you have to squeeze more out of it, and many of us would be interested in seeing those trends.

Kim: Our industry has this philosophy that the higher up the tree you go, the more expensive the savings become. We consider ourselves lucky that we still went for the higher things, but didn't see our costs go up in the short term. It's exciting news for us.

Fred Gordon: We still think long-term costs will go up, unless there are newer, cheaper technologies, which seldom is true. Many of our new technologies are cost-effective but high-cost. We have to go after savings however we can. We know that trends in overall cost don't happen suddenly.

Oliver: To manage costs, we've taken a multi-pronged approach, including internal streamlining, balancing our approaches between high- and low-cost measures and trying to create more cost-competitive market conditions for contractors. We're going to look at the gas measure mix in the next six months, for example, to see if all the measures stand a good chance of being cost-effective, either now or in the near future.

Scott I: As you get further into the life of your measures, and you get more actual savings numbers, are you adjusting things using the real numbers?

Fred: We do. Our reporting on the past is trued up based on evaluation. Also our going-forward estimates of savings in the budget and our working savings are influenced by prior evaluations.

Kim: Many commercial projects are custom. Can you explain how that works for custom?
Fred: Yes, for custom measures, the working savings estimates are based on the individual studies. For prescriptive measures, the deemed estimates are what is reported in working savings, and are influenced by prior evaluations. Commercial and industrial are a mix of the two.

Mark: The differences between working and reportable savings are part of it.

Oliver: The reportable savings take into account our realization rates and customer behavior. As we get feedback from evaluations we adjust our anticipated savings based on those factors.

Kim: For this presentation, we use working savings estimates. If we used reportable numbers, we wouldn't see trends in the market, because the evaluation factor numbers bounce around from year to year.

Oliver: One major shift is that lighting went down significantly. It's currently at 25 percent of savings, and was about 33 percent last year. Data centers filled part of the gap.

Charlie: You have to be careful when you measure those shares since the savings differ from year to year. Did overall lighting go down?
Oliver: Yes.

Oliver: The lighting change was due to the fall bonus in 2011, which was very aggressive and drove future savings forward into 2011. We anticipated that the new federal standards on lighting would reduce our potential, but there hasn't been as much of an impact as we expected. Less efficient lamps have been made to meet the standard, and they don't shift the baseline. The standard change for ballasts in 2014 will likely have an impact. The Northwest Energy Efficiency Alliance's lighting design pilot will push customers to know how to do more complete upgrades. We're also pushing outdoor light emitting diode, LED, lighting; and see big potential there. Also, operations and maintenance, O&M, has grown significantly, which is primarily rooftop unit tune-ups and SEM.

Mark: Do you have any idea what the shares are between rooftop units and SEM?
Oliver: I don't have that for electric, but you'll see that on the gas side as a big jump in rooftop units.

Oliver: We've talked a lot about building the business case, and we're continuing those efforts. We're contracting for a tool that will help energy champions make the business case to internal decision-makers. It will help them sell projects internally. We're also expanding key account management, especially for larger customers, to help them plan. SEM is geared toward O&M, and also is a good roadmap to help identify capital projects and revisit customers with those ideas. We've seen a lot of challenges around the Resource Conservation Management Pilot because of the costs. We're shifting those efforts toward a light version of SEM, to provide an option to customers who don't qualify for SEM because they are not organizationally ready or don't have enough savings potential.

Mark: What do we learn from Building Operator Certification that informs SEM or resource conservation management about cost and benefits?
Oliver: There are so many resources we can pull in, like Kilowatt Crackdown and Building Operator Certification training. We are coordinating with other folks to see what we can pull together for the light version of SEM.

Mark: It might call for a look, not by track, but by behavioral and maintenance. Where are those growing? Building Operator Certification is mixed in with solar on the presentation slide.
Oliver: Building Operator Certification is not PMC-managed, so we categorized it with the other non-PMC efforts in the slide. Building Operator Certification really should be included as O&M if you want to look at O&M savings as a whole.

Don: Have you looked at funding for energy performance managers? With that, you would focus on electrical usage versus gas, garbage and water savings. You probably should keep looking long term.
Kim: Considering funding staff at customer sites to tackle energy is a cross-cutting topic across our business programs. In a lot of ways, the commercial sector SEM is aligned with industrial, but about two years after us. We considered going with Energy Project Management, EPM, but decided to invest in small industrial offerings and scale them out as far as they can go. It seemed nearer-term than the EPM strategy, which is pretty expensive. We are anticipating an American Council for an Energy-Efficient Economy paper about other programs that have an energy project manager element, such as the Bonneville Power Administration offerings, and we are trying to get more information. We're reluctant to just jump in because of the costs, and aren't sure we would get more benefits than we already get through SEM.

Don: Pacific Power has rolled out Resource Conservation Management, RCM, in a couple of states, so it will be interesting to see the results.
Oliver: The champions within SEM really see the benefits in O&M. For those who aren't organizationally ready, they would get value from an RCM offering, but we're finding it much more cost-effective to get the customers to see the value and change in how they invest their resources.

Oliver continued his presentation: In New Buildings, we developed the small commercial offering to help customers with more of a prescriptive approach. It's a simpler way to apply for the program. With New Buildings we have a very involved, early design approach, and small customers sometimes dropped out.

Charlie: Are you having any early feedback? The small building market is a tough nut to crack.
Oliver: Not yet. We're also offering design assistance for new data centers. Multifamily is expanding its custom approach and midstream buy-downs.

Charlie: On the presentation slide, is the New Buildings custom wedge all from data centers?
Oliver: About one-third of that is from data centers.

Charlie: We've had a couple of years without much building, but we're still seeing good savings. Also, in 2014 the ballast standards are going to have a big impact, correct?

Juliet: In lighting, the baseline didn't go up this year. Why was that, again?
Oliver: The federal standards aren't as rigorous as we expected.
Spencer: Manufacturers are producing some T12s that meet standards set by law. Manufacturers also received waivers from the federal government to keep manufacturing 700 series T8s that would otherwise no longer be allowed under the law

Juliet: So the baseline hasn't changed, but how do you decide that?
Fred: We thought that the federal standard for T8 bulbs would have a big impact on the market, saving energy but also increasing our baseline; when people purchased bulbs, they would need to go to T8 fixtures and save a lot of energy. So we raised our baseline to a higher level, which decreased the program savings per bulb and ballast. However, there's a loophole in the

standard that allows less efficient high-color rendition index bulbs, basically high-quality visibility bulbs. They were very expensive but manufacturers came up with a cheap version of the high CRI bulb for a T12. So we've adjusted the baseline to this less efficient product. Since it's the cheapest product that's compatible with existing fixtures, it seems that most folks will put this in. After the standard for ballasts, as opposed to bulbs, hits in 2014, if the federal government keep the standard at the planned level, then we think most people will get to the more efficient T8s when their ballasts need replacing.

Mark: They're minimally legally compliant.

Charlie: We know we're going to continue dealing with this because of implementation delays and other things.

Juliet: I would like you to continue being conservative on this.
Fred: We are basically trying to anticipate what will happen. We were too conservative at first and are now adjusting to where we think, with new information, the market will go. When we get data on actual sales, we'll know with more confidence.

Mark: So that's about how much of the game?
Fred: It's about 20 percent, so it's significant.

Oliver: On the gas side, New Buildings custom savings have dropped, and that is due to code changes in 2010. Interest in Leadership in Energy and Environmental Design, LEED, has also dropped. Large buildings tend to be interested in LEED. O&M has grown significantly, with SEM, the controls pilot and rooftop unit tune-ups. Seventy-five percent of that wedge is from rooftop unit tune-ups.

Charlie: That's our heating savings.

Kim: Phil will be presenting information on the controls pilot, also.

Oliver: The steady growth in Existing Buildings leveled off in 2011 and 2012, when fall bonuses drove lighting savings forward. Gas savings have had a pretty constant ramp. We're looking at program design, reaching out to small and hard-to-reach customers through trade allies, and more outreach services in outlying regions. As for market conditions: the 2011 Business Energy Tax Credit changes were a shock to the system, but customers have moved on. Folks have also come back to capital investments.

Mark: Are there plans to look at the additionality of the Business Energy Tax Credit? Are there methods to determine additional impact of the state incentives?
Fred: We've not been successful in measuring that. We ask customers, but find that if we're offering consistent money, that's what works best. Where the tax credit is converted to cash via use of a pass-through partner, it's definitely more influential. It's difficult for customers to distinguish the influence of tax credits versus incentives when they're receiving both.

Andria: Do you know where the segments are, based on building size?
Oliver: We recently looked at that, and I was surprised at how many small ones were coming in. Many were under 10,000 square feet.
Fred: Out of our sample of one third, I think we had 1,500 projects under 20,000 square feet.

Andria: It would be interesting to look at that geographically.
Kim: I wonder if we could consider some analysis and charts for the commercial sector trends report, which may be interesting.

Fred: We may not have the data geographically though. We may not have enough data to support it.

Charlie: Indicators of how the Trade Ally Network is tapping into large and small projects, by region, would be interesting.

Oliver: Savings trends for gas are pretty straight-lined. NW Natural DSM is lumpy, and goes up and down based on who participates in a given year on each of two rate schedules, both of which cover commercial customers. Some commercial customers are on an industrial rate. These customers land on the industrial rate, and we should look at NW Natural overall. Cascade Natural Gas is lumpy, too, because of small and large projects.

Kim: Let me explain Integrated Demand Side Management, IDSM, while we're on the topic. One of our revenue streams from NW Natural is the public purpose charge, but other customers who were not subject to the public purpose charge or eligible for programs came on in 2009. They are contributing through a special rate adjustment. They are usually the largest customers who buy their gas from NW Natural, not other sources, and some of them are commercial customers.

Charlie: How does cost-effectiveness look on the gas side?
Kim: We haven't done the financial analysis for these trends; we are focused on savings to inform future program strategies.

Scott I: Are all the incentives paid to building owners, or are they also trade allies and others?
Oliver: All incentives are paid to the customer, but sometimes they assign their incentive over to a trade ally. On Existing Buildings we have also fees paid to the engineers who do studies for us. New Buildings has design incentives to support analysis.

Scott I: There aren't any lighting distributor incentives, for example?
Oliver: On multifamily, we have clothes washer and refrigerator buy-downs.

Spencer: For the first part of 2013, the lighting team negotiated with distributors to get reduced pricing for customers for low-wattage T8s. The distributors are seeing an opportunity to sell more products with these reduced pricing, because Energy Trust is promoting that type of lighting so we will not need to provide additional incentives to get increased uptake on these measures.

Oliver: The key measures may or may not show trends. Overall we see an increase in lighting and building controls; HVAC tune-ups are probably the biggest increase. Some of the bubbles are based on program adjustments to activity.

Scott I: For gas weatherization, is the insulation change due to the Business Energy Tax Credit?
Spencer: With insulation it's difficult to establish a baseline for those who have any existing insulation already. We're working to gather more data to get a better understanding of common baseline conditions in the market. A combination of previously served customers that were interested in insulation coupled with a reduced push on the measure in order to manage gas budget has reduced the amount of gas savings that have come in from insulation.

Mark: For gas savings, a commercial facility has to have no insulation to be eligible?
Spencer: Yes. It's a small subset, but it's tough to tell where to draw the line. I don't know of any great data that gives us a sense of the baseline condition for insulation in Oregon. There is definitely such data for the measure in the small buildings market. We just don't yet have data to justify cost-effectiveness for projects that already have any existing insulation.

Oliver: In New Buildings key markets, warehouse and education have dropped out of the top five for electric savings. We have more hospital and auto services instead. Most of this was driven by SEM and our auto dealer lighting push in 2012. On the gas side, faith-based organizations dropped off and government popped in, again due to SEM. New Buildings expanded design assistance to include more early involvement. More program allies are included and solar designers help us make more buildings solar ready.

Jeff King: What do you mean by solar ready?
Oliver: Solar design allies look at the structure, look at roof space, chase-ways for wiring, and prevent concerns for later solar installations.

Oliver continued: We also did support for code compliance. It looks like folks are getting up to speed with code, and 2010 code was a big jump, so there is less room for efficiency improvements. There were some large buildings, but an increase in smaller ones. In 2010, we also had the Oregon State University combined heat and power megaproject.

Mark: It looks like code is the difference in 2011 and 2012.
Oliver: We saw a baseline shift in 2011 and it really shifted in 2012. A lot of the gas drop is due to code.

Oliver continued: There were more small projects; data centers were also significant, and they are really savvy about energy efficiency. They ratchet up their standards for design, and there's a shifting baseline. There are big savings from data centers in savings by track. Code assistance and market transformation savings also had big trends.

Kim: We may want to dig into market transformation and how we work with it as a future topic.

Oliver: On gas, multifamily just popped into the top five for new construction.

> Multifamily is shifting toward long-term customer relationship development. We have historically low vacancy rates, so there are fewer opportunities for major renovations. 2011 was the first year of the new PMC with a different approach. They leverage more trade allies, and worked to increase awareness and build relationships. They also have more small projects.
>
> On the gas side we had more activity in custom, with deeper relationships and building larger projects. There was more push on instant-savings measures for lower income. Custom is mostly made up of boilers.
>
> Multifamily served a lot more sites, nearly double since 2011. We are seeing instant-savings measures counted and also appliance buy-downs. There were more customers, but smaller savings compared to windows and insulation.

Kim: There is a lot to the commercial sector, and the reality is that we have a lot to cover and only so much time to do it with this group. We'll try to create some momentum along annual processes, and will continue with the sector deep dives when we come back next time.

5. Commercial pilot evaluation results
Kim: Phil is doing an overview of a pilot on energy management systems, and also has a schedule of planned evaluations.

Phil Degens: The building performance tracking and control systems pilot is an intersection between people and systems. It's been going on since 2011, with three systems and services: EMS, AIS and AOS. These were not just systems but also offered services with real-time feedback. We started in 2011, and when we first started, we planned to recruit everyone within two months, but it didn't quite happen. We had an initial goal, and changed to the current goal. AOS is more costly, and focused on a small subset of buildings in Oregon.

Mark: Could the utilities have helped find people?
Lauren: We can help you locate the right customers when you have this kind of problem.

Joe: Also, have you talked to any contractors' associations?
Phil: I haven't. The expectation was that the folks in the field trying to sell these things would do it. The low uptake was due to a slow economy, subscription fees and unfamiliarity with the systems. EMS was about $15,000, AIS about $20,000 and AOS about $50,000. People installing needed to consider the costs. It was offered in Washington with a higher incentive, but there was low uptake there, too.

Phil continued: We have an evaluation team, Cadmus, and will interview people right after systems are installed and training is done. One year of experience with the system is needed. We are only doing EIS and AIS, since they have already sold systems. We preferred ones with more marketing support, and maybe the utilities could have helped, also.

Karen: How did you set the pilot up? What were the qualifications to consider something to be a pilot site? Are you looking at just the systems or other factors, too?
Phil: If they are doing the systems, we won't do other capital projects with them. That was one of the requirements.

Karen: Are you looking to identify buildings where there's no SEM? We've worked on this for a while, and a repeated question is that SEM has a set of changes, and if you don't have a feedback system it's difficult to maintain. How does it interact and what is the impact of SEM with a great vs. not so great tracking system?
Phil: We are looking at a "just-the-facts" model vs. one where we have to tell people what to do.

Fred: We're running this through heating, ventilation and air conditioning, HVAC, contractors and targeting smaller buildings that may not have as much onsite staff. SEM works when there is onsite staffing and a management commitment to dedicate resources to manage and track energy use. We convince them to invest in their staff.

Kim: We've been testing competing strategies for making O&M changes, not solely SEM. This mimics work done in the industrial sector, where the Kaizen Blitz focused more on feedback and technical opportunities, nuts and bolts, but there's no focus on cultural change involved.

Phil: With this pilot, a lot of the expertise is outsourced.

Mark: In the 15,000-square-foot range, they may not even have a building operator.

Phil: The ideal customer is described as active. They don't want someone who ignores their email, and the like. They are actively improving their building operations. There was high satisfaction with vendors, support and monitoring systems. Training was seen as great. One had an odd reason for installing it, which was to prove how bad their existing building was so they could build a new one. Customers with tenants used it to better manage their tenants. The constraints were the typical ones. The recommendations are included in the meeting packet.

Mark: Were there demand changes?
Phil: We found that information on demand changes might not be as important here in the Northwest, but if you want to go elsewhere, you need to have that information.

Phil: This handout today covers our evaluation schedule for the year. The dates on the schedule are approximate, and that should be taken into consideration. If you have specific interests about evaluations, you can always ask me. I welcome the questions, and am always happy to talk about evaluations. In the schedule, you'll see a large number of pilot evaluations for all sectors.

Juliet: When you do a pilot like you just described, you don't attribute it to the measures you're testing, but where do the costs show up?
Phil: They show up in program costs. Estimated savings from the pilots go into the programs, also. We don't want the program to have 30 percent of its costs based on pilots. There are lots of questions and uncertainties on those. We use previous projects from engineers with experience to build our estimates, but we don't want to burden single measures with the cost of a pilot.

Kim: With SEM, we were pretty sure there would be enough savings to cover the costs, but often times pilots are new and innovative, so we don't know if they'll pan out. There may be inside delivery, contractors, staff time or sometimes we can leverage a free sales force. We often face time constraints; there isn't enough staff time. The opportunity costs are a big thing.

Juliet: Labor is a critical resource, and how you use it would be a good discussion for us to have.

Fred: How do we get our arms around all of it, because pilots are about many things? Some other things we do are just initiatives, not pilots, because they don't have the necessary research elements. The board is engaged in risk and innovation policy. Most of your spending should be about delivery instead of innovation. They decided that the delivery side is the area where we should focus.

Charlie: It may be good to tell the Conservation Advisory Council about pilots. The board has already covered it and limited things.
Fred: Regarding an overall review of pilots, it might be good to take it on, one sector at a time, and in a controlled way. Otherwise, it's too much to cover.
Kim: Last year, all the sectors brought their pilots and innovations to the Conservation Advisory Council in the spring, so you've heard about many of these before. The information is out there, probably about 80 percent of it.

Juliet: I would be interested in how you decide what's a pilot and what's not, just the process.
Kim: We can look at that, and Fred has a lot of that information.
Charlie: NEEA does a lot of that, and RPAC covers it.
Kim: There are similarities, but not enough.

Charlie: Okay, so what is memory care?
Phil: These are care facilities for people with Alzheimer's or other memory problems. We've seen an opportunity here because code for higher level memory care facilities, defined as licensed by the Oregon Department of Human Services, requires lighting upgrades. If they are already doing it, why not assist with lighting templates? There could be as many as 450 facilities.
Dan Rubado: We are working with three of them for the pilot.

6. Serving on the Conservation Advisory Council in 2013, part two

Kim: Since we have so many council members out today, I would like to have the rest of the discussion and not make a recommendation. We can do that at the next meeting when we have everyone here. Last time, I mostly just listened, and people communicated a lot of positive intent, commitment, good questions and a little bit of feedback. I wanted to start today by at least bringing up things we had answers to.

> One question received at the last meeting asked what is the purpose of the Conservation Advisory Council. The purpose of the advisory councils are to review and discuss selected energy-efficiency and renewable energy issues prior to board of director decisions, so staff and the board have the best available information. It's also to help identify alternative resolutions of those issues, and help staff identify matters for board consideration. So, we are an advisory committee. We also want to improve the way we operate together, which is why we're looking at our operating principles.

Mark: The council helps us gain an understanding of program performance from the perspective of all parts of the market. The board needs that market-intuitive, finger-on-the-pulse information. A lot of our effectiveness comes from these things that can't easily be measured. It's not just about data. Are the criteria or metrics being applied to make decisions on program design or scope informed by not only the OPUC's math, but also by the market? It's about considering market intelligence, like where PGE can step in to give us a list of people with small chillers for a pilot. This group may provide that advice, and how it relates to board policy decisions.

Kim: Your perspective is very close to what we heard last time from all the council members. We also haven't had any program crises lately, and it's possible that has starved the coucnil for things to focus on.

Mark: Another role might be mining the knowledge we gain from RVSA or CVSA.

Jeff King: What's the percentage of strategic thinking, as an agenda item for the board, that passes through the Conservation Advisory Council? What things should come here for discussion?
Kim: We haven't had the Conservation Advisory Council proactively develop items itself, and it has more often been staff-generated items where we want advice. It's one level of strategy, but from the board perspective, it's viewed more as market input. In reality, this is a diverse group, one that is more representative of nonprofits and utilities.

Kim continued: The board receives and reads the Conservation Advisory Council minutes. Last year, we revamped the process to put the most current minutes into the board's hands before their meetings. The board members read them and regularly reference things they read in council notes. Our feeling is that we have a knowledgeable, active and engaged board. Board processes often drive Conservation Advisory Council agenda items, also. Budget items in July are an example of this situation. The board also sends representatives to sit at the table and participate in council meetings. They don't make recommendations, because they get to do that as board members.

Andria: In the time I've been here, there is usually one board member at the meetings. A meet and greet with the board would be helpful, because we don't necessarily know all of the board members.

Fred: Historically, there have sometimes been two board members here. That's fine, but even one is great.

Jeff: This isn't like an appointment, so whoever wants to come from the board just shows up.

Kim: That's a good point to make for the Conservation Advisory Council. It's not formal, but it's a good connection. The minutes are a primary way things get to the board. The types of things the board tackles are not the same as what the council tackles. You may weigh in on something, but it's really for the staff, and then the staff will make decisions on what is presented to the board. You are expected to have more of the on-the-ground experience. It could be called tactical, but it's a higher level than that.

Kim continued: Staff wants your best thinking, advice, expert opinions and external perspective. We don't want anyone to take off their other organizational hats. We want those perspectives, as long as you're telling us the perspective you're coming from. This could be made clear by saying, "I'm just speaking on my own perspective." Our programs are often out on the cutting edge and sometimes we feel like we're hanging out there. We'd like you to be with us. You represent the other organizations in the environment we work in. That understanding helps us a lot. So, these are the program staff perspectives and needs. All of these things we work on that are listed are risky.

Charlie: This is good information. You went around and talked to staff as we asked, and this is what they gave us.

Don: These are great guiding principles, but the board always expects the Conservation Advisory Council to weigh in on the budget, and staff has their own collection of things. At the end of the day, we're advisory and you are paid staff. We could meet every day and help you run your business, but that's what you're here to do as paid staff. We should always do budgets, look at course changes and the collection of regular items staff wants. Other items should just be nice to have. Maybe a list of things and priorities would help.

Kim: I've developed a draft annual schedule of things that we know we need from the Conservation Advisory Council, plus ones that we know we need when they come up and also unexpected items. I would like to take the next step and draft an annual schedule to discuss together, so we can decide on the priorities. In the end, the Conservation Advisory Council serves the staff and the board.

Karen: I would be curious to see how the board, and this group, judges our success. It might provide some guidance for us.
Fred: When we've gone back and asked the board, it's not been every minute where the council has helped. It's been many bright spots where the staff felt we were out ahead of ourselves and needed some guidance and consensus on how to proceed. A lot of what we bring here are situations where we might be persuaded to change our minds.

Kim: It seems to me like this group is great at problem solving and providing solid input when we are struggling with a particular issue. It gets more challenging when we do our normal processes like planning, budgets and initiatives.

Charlie: How do you know if the group is valuable at all in identifying things that need to go to the board? Staff has been great at catching these things, but if I were on the board, I would want to be sure you were bringing the right things, or not missing something. There may be something that's harder to measure.

Andria: "Reactive to problems" sticks in my mind. It may not be appropriate for us to do that proactively. It's more about reactive program design. We have few chances to talk about things like: "We're planning this new program design. What do you think?"

Kim: I agree, and plan to do some of that during the industrial deep dive at the next meeting.

Scott I: We do seem to spend a lot of time on reports about how we did. Having the expertise around this table is amazing. I definitely bring a different perspective as well. I heard yesterday in a trade ally technical forum group about potential changes in window incentives, and we may look at U-Value requirements mid-year. That type of thing is bigger to the industry, more than staff might realize. Bringing that to the Conservation Advisory Council before you are going to make the changes is helpful. The tankless water heater discussions happened when I first started, and that kind of thing is helpful.

Don: You guys are running things, and the best and brightest are doing it. We have to think about the hats we need to put on, and who should decide upon it. We do rely on your judgment to bring them up when you think more big brains should be focused on them.

Kim: The Conservation Advisory Council has traditionally had far more residential trade allies involved in it. Program changes and questions from residential programs show up far more often, and with good reason.

Andria: Are trade allies allowed to be on the Conservation Advisory Council?
Kim: The charter doesn't exclude them, but there hasn't been a lot of outreach to individual end users or trade allies to participate. Peter has focused more on bringing representatives of groups or organizations onto the Conservation Advisory Council. Maybe the question of who's at the table would bubble up as we talk more about specific items we bring to the council.
Andria: I agree with that approach.

Fred: We've evolved toward having more trade ally engagement outside of the Conservation Advisory Council, trying to help the messages bubble up so we can get more information that way, and decide what belongs at the council.

Kim: Trade allies and market actors primarily engage through other groups. When they come to CAC they are trying to make a statement to all of you about the specific topic. It goes into the minutes and gets to the board. This isn't where we are trying to work these things out; we already have. They mainly want to be heard.

Karen: When you do the agenda with public involvement, how do you handle it?
Kim: If we have hot topics, I set time limits for comment. We constrain it so it doesn't turn into a free-for-all, but they get to air their opinions.

Karen: Do you regularly include a comment about what you are trying to get out of each agenda item?
Kim: We haven't, but that doesn't mean we wouldn't. That said, we're not looking to massively expand the effort of the Conservation Advisory Council, while still getting the best outcomes.

Karen: If you're clear about what you're looking for, it's helpful to us.

Don: That's sort of the Regional Technical Forum lexicon, where we're clear on what types of outcomes should be coming from each item.

Kim: We don't actually vote. We look for recommendations and feedback; your best thinking in the moment. Not everyone here will have input on every topic.

Jeff: If you're looking for our best thinking, using today's agenda as an example, the only ones that encourage best thinking and engagement are the ones that call for it. The agenda balance, with too many informational items, doesn't encourage best thinking.

Kim: We are at a point in our cycle of the year where most things are informational. However, we are in this process of looking at what should be brought to the Conservation Advisory Council. One of the main feedback items from our last meeting was that the council provides information and is a primary way for all of you to hear what we are doing.

Charlie: There haven't been many items for recommendations, lately.
Fred: We'll have more needs for recommendations. The lull is only temporary.

Joe: I would like to know how the Conservation Advisory Council gets to see what happens at the trade ally roundtables.

Scott I: There is also a trade ally advisory group to look at technical and trade ally issues, and it may offer some helpful information and notes.

Charlie: You know which issues are important to trade allies, and get plenty of trade ally input, when you see a full room and people lined up out the door.

Tom Beverly: We post presentations and notes from the trade ally roundtables on the website. The notes are not as extensive as the Conservation Advisory Council notes, but we include main points and the presentations show what we covered in the meetings.

Mark: As a final note, I don't agree that these are operating principles, maybe more procedural documentation instead. We can take that up with the board, though.

Kim: I will develop a redlined version of the principles based on this input, and bring it to the next meeting. Thank you for all your feedback.

7. Meeting adjournment
Kim thanked all council members for their participation and adjourned the meeting at 4:45 p.m. The next full council meeting is May 1, 2013.

Briefing Paper
Market Indicators Quarterly Report

May 6, 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.

In the first quarter of 2013, the US economy experienced gradual improvements in labor markets, reflected in both unemployment rate declines and employment increases, which were seen in both Oregon and the nation as a whole. In addition, US output, measured by GDP, continues to expand but at an uneven pace. Still, unemployment rates remain high by historical standards, and as Federal Reserve Chairman Ben Bernanke recently noted in his Semiannual Monetary Policy report to the Congress;

> "Unemployment is costly because it is associated with reduced output, reduced government revenues but increased spending, leading to larger deficits and higher levels of debt"[1] *-Ben Bernanke, 2/26/13*

In the national housing market, home prices have been on the rebound says Elizabeth A Duke of the Federal Reserve Board;

> "National house prices have increased for 13 consecutive months and are now 10 percent higher than at their trough in December 2011."[2] *- Elizabeth A. Duke, 3/8/13*

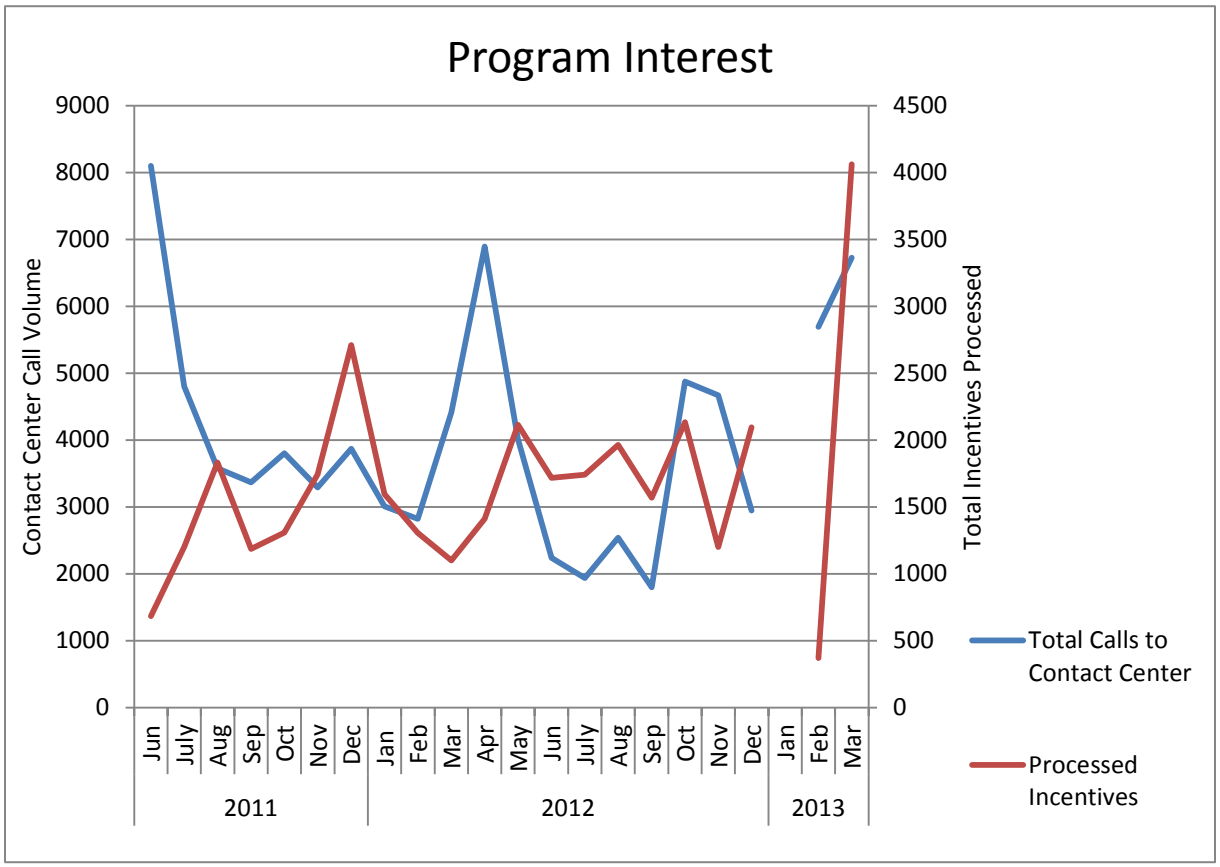
Expectations are that housing prices will continue to rise since the supply of existing homes on the market will remain constrained, which will help reduce the impact of underwater mortgages.

> "House price increases of 10 percent or less would be sufficient for about 40 percent of underwater homeowners to regain positive equity"[3] *- Elizabeth A. Duke, 3/8/13*

[1] http://www.federalreserve.gov/newsevents/testimony/bernanke20130226a.htm
[2] http://www.federalreserve.gov/newsevents/speech/duke20130308a.htm
[3] http://www.federalreserve.gov/newsevents/speech/duke20130308a.htm

1.1 Energy Trust Programmatic Indicators

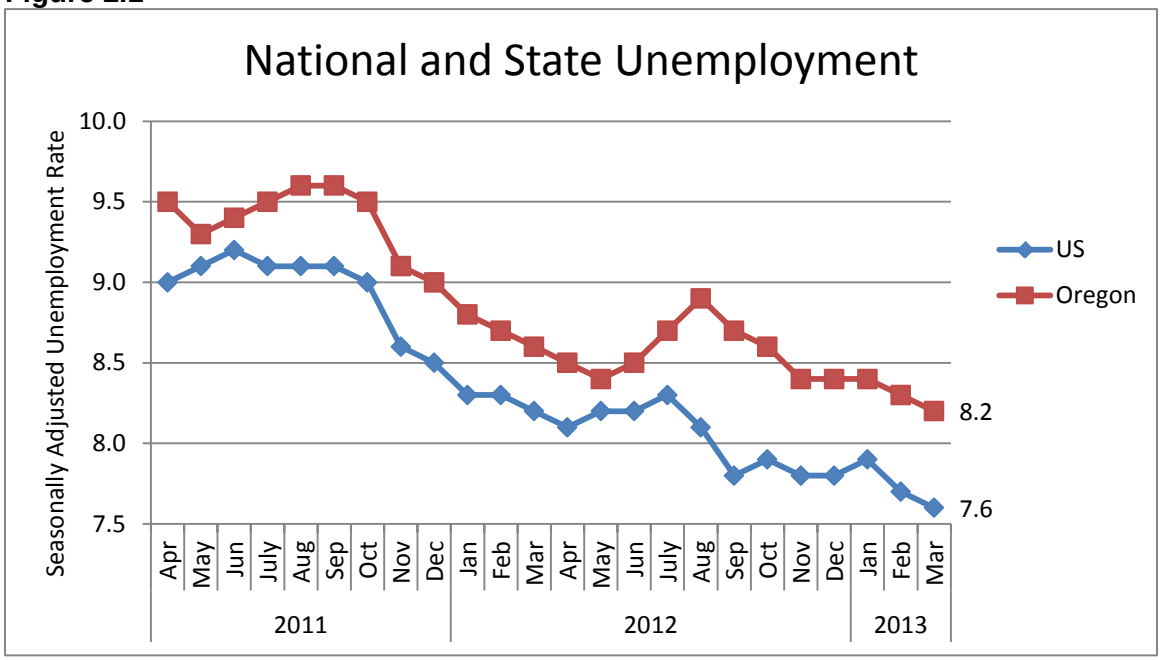
Figure 1. 1



The break in the data series' in the above graphs is intentional, and reflects the Existing Homes PMC transition during January and February of this year. During these transition months responsibilities were handed off from CSG to Fluid, and new employees were being trained on taking calls and processing incentives. As a result, data for calls to the contact center and incentives processed in January 2013 were not available. This also contributed to the large observed drop, then subsequent spike, in the incentive processing data from February to March 2013.

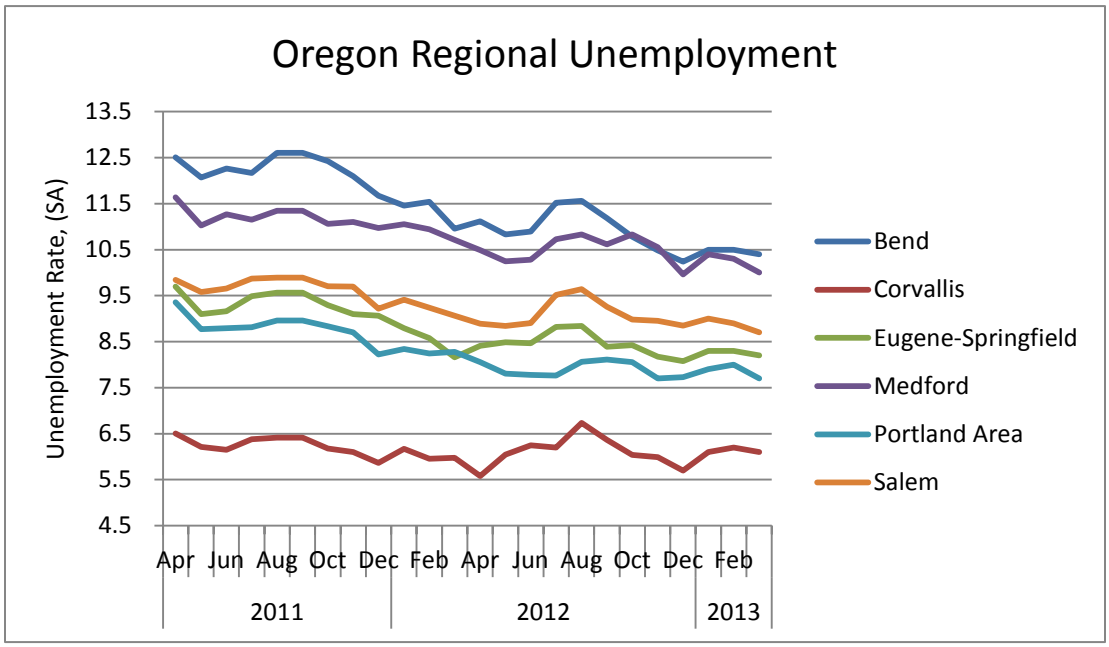
2.1 Macroeconomic Indicators

Figure 2.1



Oregon's unemployment rate fell to 8.2 percent in March, on a seasonally adjusted basis, which is its lowest level since October 2008 when the unemployment rate was 7.7 percent (seasonally adjusted). Nationally, both the unemployment rate (7.6%) and the number of unemployed persons (11.7 million) were down in March slightly from February.

Figure 2.2

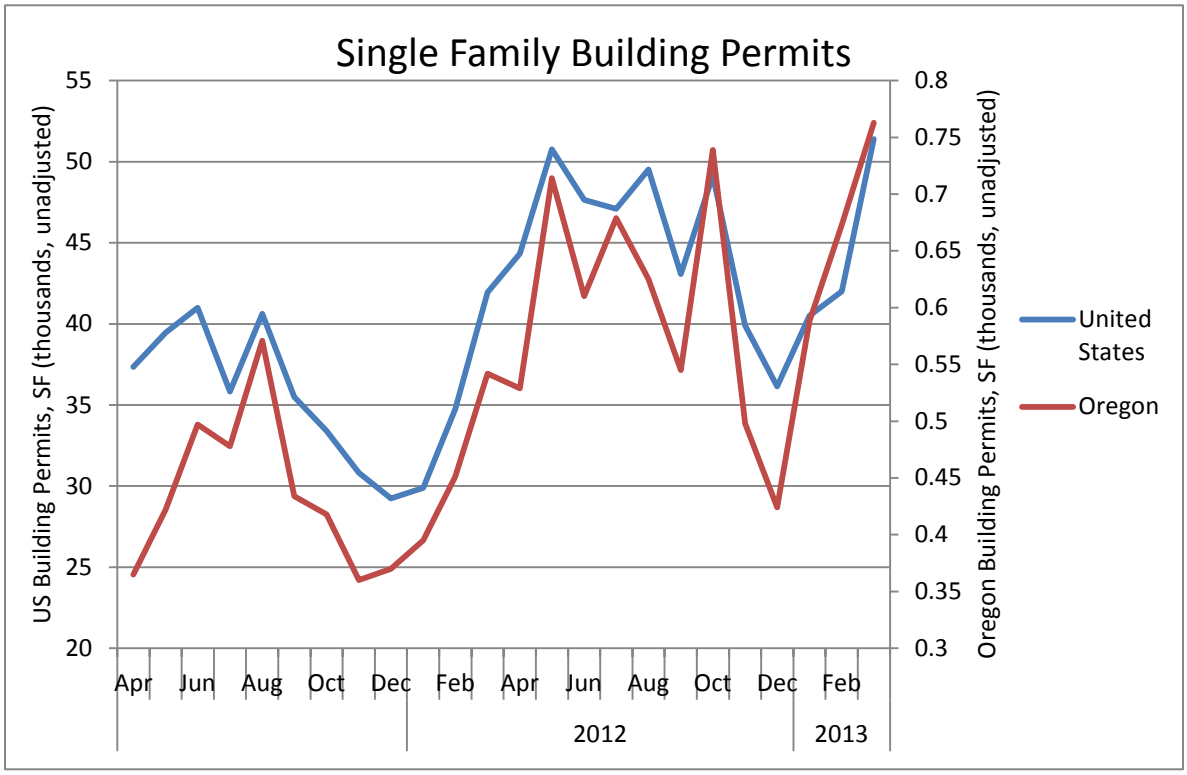


According to the Oregon Employment Department, the State added an average of 3,800 jobs per month since December. The average wage in Oregon was $22.30/hr in March, which is down 11 cents/ hour from February[4].

[4] http://www.olmis.org/pubs/pressrel/0413.pdf

New Homes Report

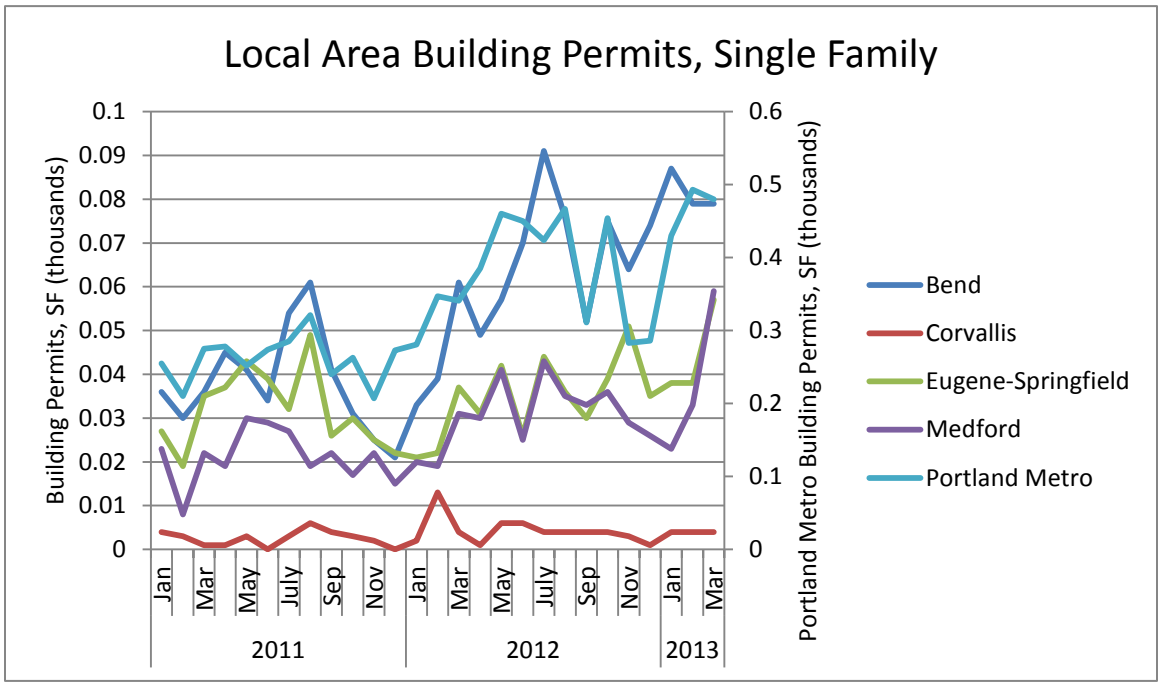
Figure 2.3



Across the US, the number of new residential housing starts in March 2013, measured by new building permits, was 17.3 percent higher than March 2012, on a seasonally adjusted basis[5].

[5] http://www.census.gov/construction/nrc/pdf/newresconst.pdf

Figure 2.4

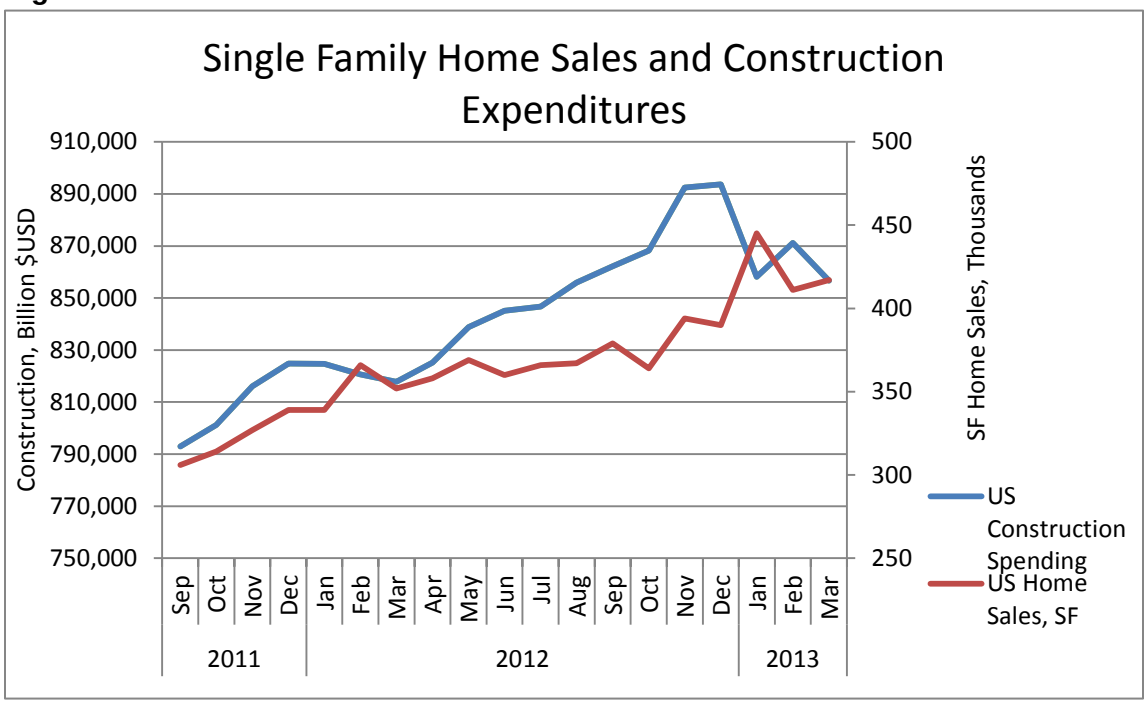


The Oregonian reported last month that the US homeownership rate has fallen to its lowest level since 1995, according to the US Census Bureau[6] (65% on a seasonally adjusted basis). In Oregon, the homeownership rate is even lower than the national average, at only 62.3 percent in the first three months of 2013, down 4 percent from the first quarter of 2012. In the Portland area, the rental market is extremely tight by national standards, with only 3.3 percent vacancy in the first quarter of 2013, compared to 8.6 percent for the US as a whole, leaving Portland in a first place tie for tightest rental market in the country[7].

[6] http://www.oregonlive.com/front-porch/index.ssf/2013/04/us_homeownership_rate_falls_to_1.html
[7] Tied with Grand Rapid's Michigan for tightest rental market across the nation's 75 largest metro areas.

National Construction Expenditures

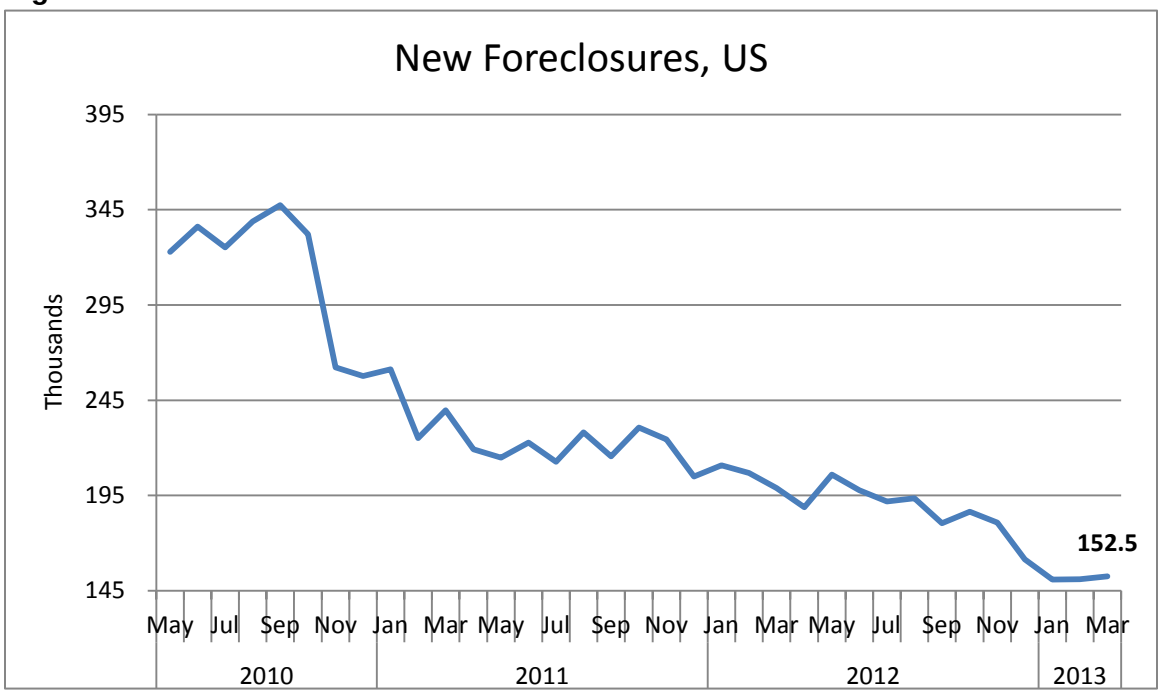
Figure 2.5



New residential construction spending is up 1.6 percent so far in 2013 compared to the same period in 2012, but spending also fell in March to its lowest level since August 2012. New home sales increased 1.5 percent in March from the previous month.

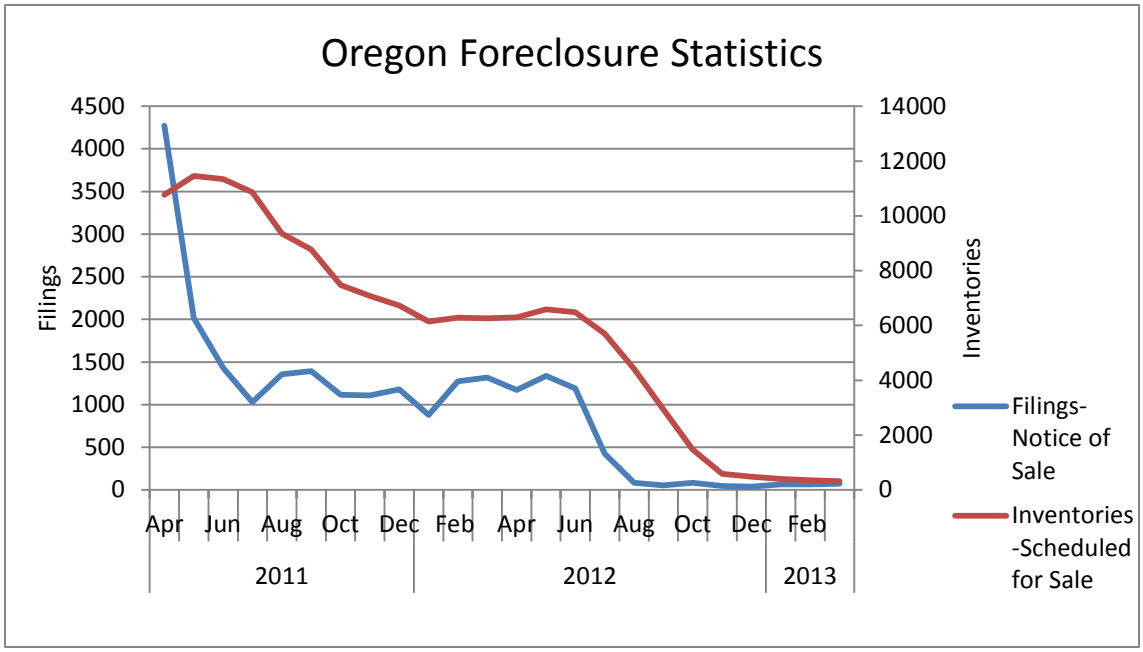
Foreclosures

Figure 2.6



"In Oregon, lenders have foreclosed on 5,300 homes in the last 12 months, or one in every 111 mortgaged homes. About 2.9 percent of mortgaged homes are in some stage of foreclosure, a number that's declined 0.2 percentage points from a year ago." The Oregonian, 4/30/2013[8]

Figure 2.7



[8] http://www.oregonlive.com/front-porch/index.ssf/2013/04/fewer_homes_in_foreclosure_in.html

Figure 2.8

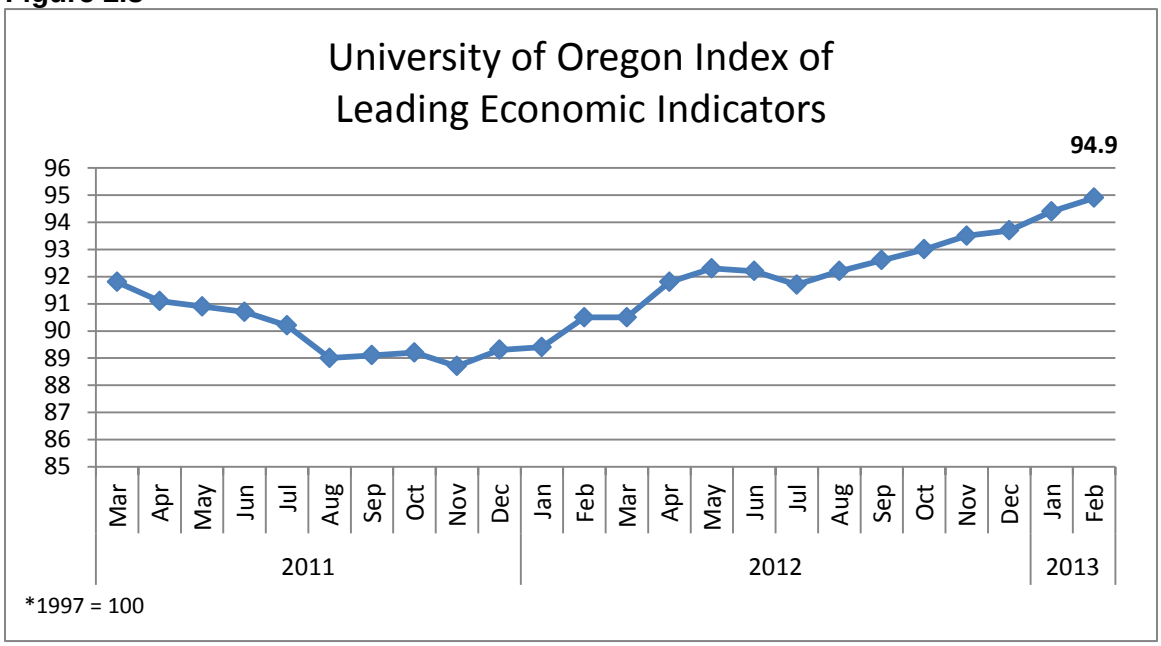
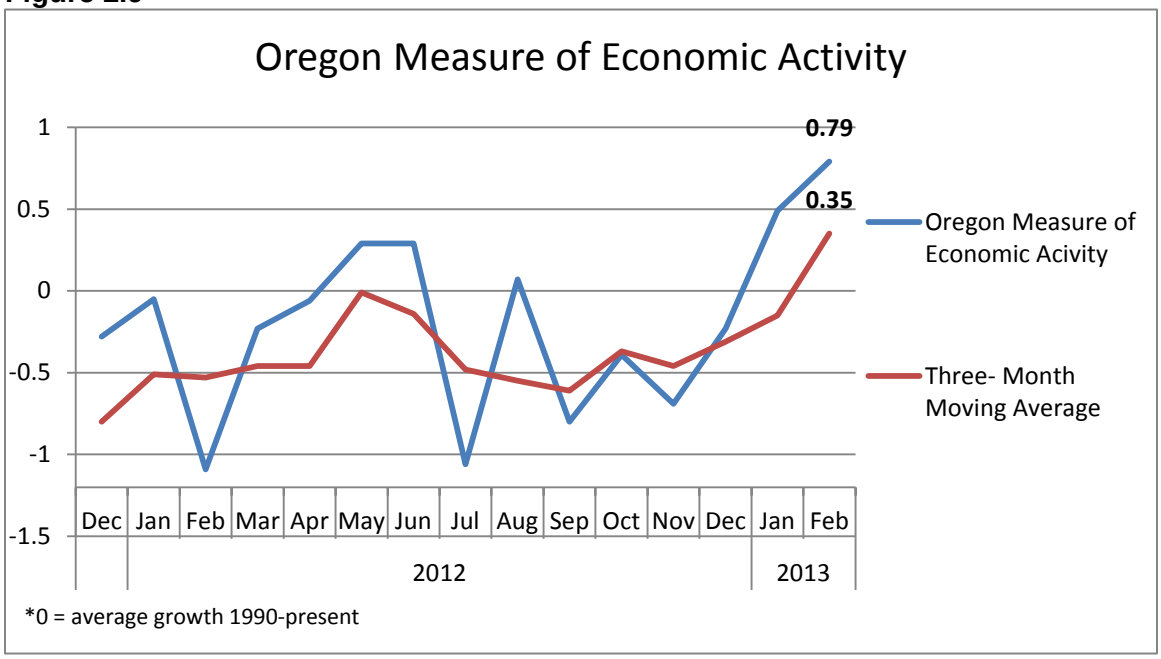


Figure 2.9

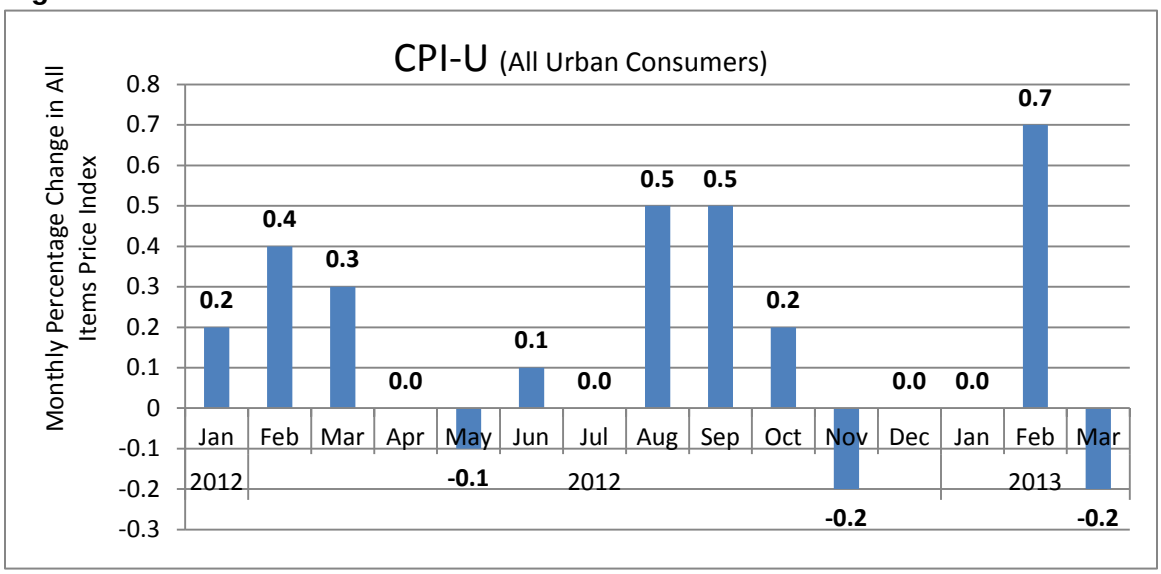


The UO Index of Economic Activity and the newer Oregon Measure of Economic activity both showed positive movement in February, indicating a strengthening economy and increased growth over historical trends. Manufacturing, construction, and service sectors were strong contributors to the Oregon economy in February, but the household sector continues to be affected by high unemployment and a declining labor force[9].

[9] http://econforum.uoregon.edu/indexes.html

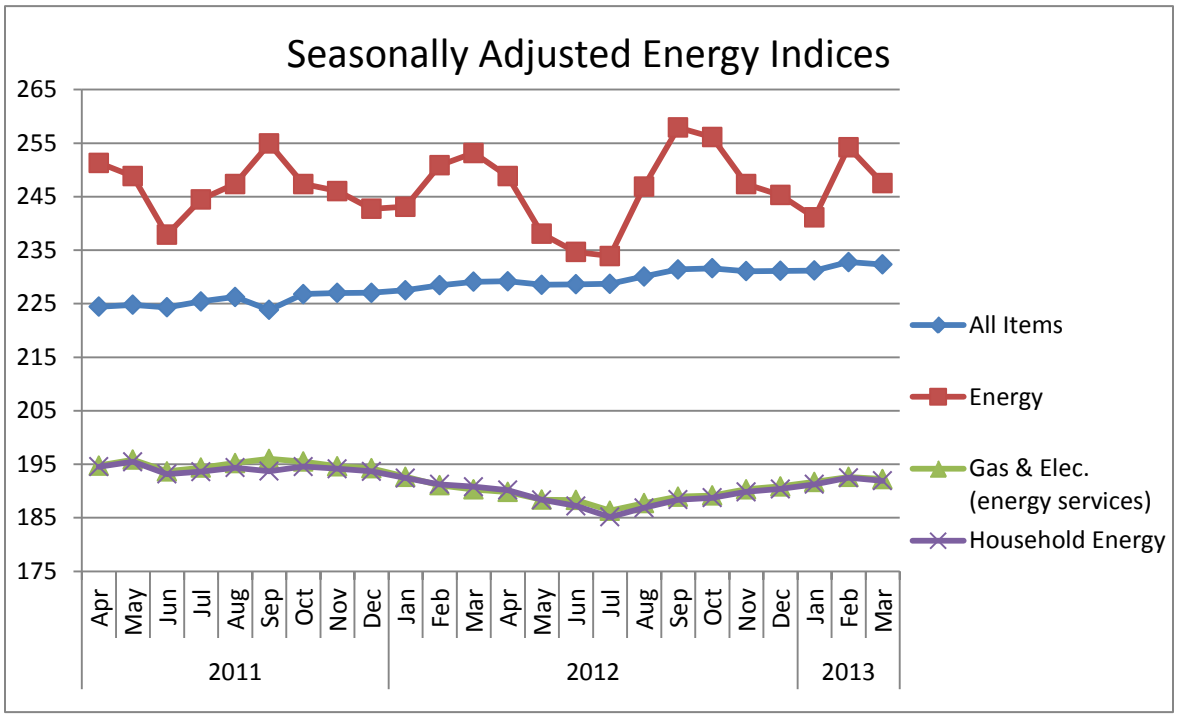
Price Indices

Figure 2.10



The consumer price index fell 0.2 percent in March, driven in large part by lower gasoline prices, which fell 4.4 percent in March from the previous month. February's 0.7 percent improvement in the all-items consumer price index was also largely the result of gas price increases, which rose 9.1 percent over the month. The energy price index (shown below) was down 2.6 percent in March after increasing 5.4 percent in February. Consumer prices have fallen in four of the last five months.

Figure 2.11



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[10] 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[11]. If approved, both rate increases would take effect January 1, 2014.

ISM Report on Business

According to April's Manufacturing Report on Business from the Institute of Supply Management, economic activity in the nation's manufacturing sector grew for the fifth consecutive month, and the overall economy grew for the 47th month in a row. In that report, 14 of 18 manufacturing industries reported growth in April[12].

[10] "…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).

[11] http://www.portlandgeneral.com/our_company/corporate_info/regulatory_documents/filings/docketed_filings/UE-262/docs/UE_262___Executive_Summary.pdf

[12] http://www.ism.ws/ISMReport/MfgROB.cfm?navItemNumber=12942

Around the State

Central Oregon/ Columbia Gorge

- Construction began on a new 50 room hotel at Tetherow Resort and Golf Course near Bend. *The Bulletin, 4/13/2013*

- Consumer Cellular, a cell phone service provider, hosted a job fair for their Redmond Contact Center. It plans to increase its workforce by several hundred over the next couple years. *Cascade Business News, 4/11/2013*

- The Crook County Planning Commission granted Crook County Solar 1 approval to build the first solar farm in Central Oregon. The 500-kilowatt project will be built on a 12 acre lot in Powell Butte with future phases expected. *Central Oregonian, 3/4/2013*

Portland and Surrounding Areas

- SoloPower, the startup pitched as the most innovative player in Oregon solar manufacturing, will suspend its Portland operations in June and lay off 29 people. *The Oregonian, 4/22/2013*

- Nike plans to begin construction on two new buildings at its Beaverton campus later this year. The expansion will add at least 500 new jobs. *The Oregonian, 4/19/2013*

- The Greenbrier Cos. plans to lay off 200 workers at its Gunderson plant in northwest Portland by the end of August. *The Oregonian, 4/19/2013*

- Treehouse, a technology training startup headquartered in Portland, plans to add about 200 jobs as soon as next year. *KATU, 4/9/2013*

- The Portland Development Commission plans to cut 40 positions before July 2014. *The Oregonian, 4/5/2013*

- Hillsboro-based fuel cell manufacturer ClearEdge Power laid off 39 percent of its workers last week following its recent acquisition of Connecticut-based rival UTC Power. *Hillsboro Argus, 3/21/2013*

Willamette Valley

- Lantz Cabinets, a cabinet manufacturer, broke ground on an 18,000-square-foot addition to its facility in Eugene. It plans to add 40 workers by the end of the year. *The Register-Guard, 4/21/2013*

- Oregon State University and Samaritan Health Services plan to build a sports medicine facility on the OSU campus in Corvallis. It is scheduled to be completed by the fall of 2014 and will serve patients from the university and the local community. *Portland Business Journal, 3/1/2013*

- NORPAC Foods Inc. and Hillsboro-based Henningsen Cold Storage plan to build a 260,000-square-foot cold storage warehouse in southeast Salem. NORPAC will move its corporate headquarters from Stayton and relocate staff from Lake Oswego to a new office in southeast Salem. Henningsen will employ about 35 workers in Salem. *Statesman Journal, 4/3/2013*

- Florida-based Sykes Enterprises will open a call center in downtown Eugene in April. It will employ 350 to 400 people. *The Register-Guard, 3/7/2013*

- Developer Brian Obie and the Housing and Community Services Agency of Lane County are planning a development in downtown Eugene that will include 160 to 170 market-rate apartments, a cinema, a grocery store, and other retail space. *The Register-Guard, 2/27/2013*

- The U.S. Department of Veterans Affairs chose a site in Eugene for a new medical clinic that could employ up to 235 people when it opens in February 2015. *The Register-Guard, 3/1/2013*

Southern Oregon

- Rough & Ready Lumber will close its 90-year-old lumber mill in Cave Junction. The shutdown will cost the community 85 jobs. *Statesman Journal, 4/17/2013*

- The Windmill Inn, a hotel complex in Ashland that closed in 2007, will be remodeled and reopen by spring 2014. It will employ 100 people to work in management, food and banquet service, housekeeping, and grounds keeping. *Mail Tribune, 4/6/2013*

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 nondifferentiated 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	