

Energy Trust Board of Directors Meeting

November 6, 2013

Agenda	Tab	Purpose
12:15pm 124th Board Meeting—Call to Order (<i>John Reynolds</i>) <ul style="list-style-type: none"> Approve agenda <p>General Public Comment <i>The president may defer specific public comment to the appropriate agenda topic.</i></p>		
12:20pm Consent Agenda <i>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.</i> <ul style="list-style-type: none"> September 25 board meeting minutes 	1	<i>Action</i>
12:25pm President’s Report (<i>John Reynolds</i>)		
12:45pm Draft 2014-2015 Action Plan & Draft 2014 Budget <i>(Margie Harris and Courtney Wilton)</i>	Separate Document	<i>Information</i>
2:15pm Break		
2:45pm Energy Programs <ul style="list-style-type: none"> Authorize Funds for Stone House Solar PV Project—R680 <i>(Thad Roth)</i> 	2	
3:00pm Committee Reports <ul style="list-style-type: none"> Evaluation Committee (<i>Debbie Kitchin</i>) 3 Finance Committee (<i>Dan Enloe</i>) 4 Compensation Committee (<i>Dan Enloe</i>) 		<i>Information</i> <i>Information</i> <i>Information</i>
3:30pm Feature Presentation: Farmers Conservation Alliance <i>(Les Perkins and Julie O’Shea, Farmers Conservation Alliance)</i>		<i>Information</i>
4:00pm Adjourn		

The next meeting of the Energy Trust Board of Directors will be held
Friday, December 13, 2013 at 12:15pm
at Energy Trust of Oregon, 421 SW Oak Street, Suite 300, Portland

Separate Document Draft 2013-2014 Action Plan & Draft 2013 Budget

Tab 1 Consent Agenda

- September 25 meeting minutes

Tab 2 Energy Programs

- Authorize Funds for Stone House Solar PV Project—R680

Tab 3 Evaluation Committee

- October 17 meeting notes

Tab 4 Finance Committee

- Notes on August 2013 financial statements
- August financials and contract summary report
- Notes on September 2013 financial statements
- September financials and contract summary report
- September 20 meeting notes
- October 28 meeting notes
- Financial glossary

Tab 5 Advisory Council Notes

- September 11 RAC notes
- September 11 CAC notes
- October 23 RAC notes—*if notes are available, they will be sent via e-mail prior to board meeting*
- October 23 CAC notes—*if notes are available, they will be sent via e-mail prior to board meeting*

Tab 6 Glossary of Acronyms and Terminology

Board Meeting Minutes—123rd Meeting

September 25, 2013

Board members present: Ken Canon, Julie Brandis (by phone), Dan Enloe, Roger Hamilton, Mark Kendall, Debbie Kitchin, Alan Meyer, John Reynolds, Anne Root (by phone), John Savage (OPUC *ex officio*, by phone)

Board members absent: Rick Applegate, Anne Donnelly, Jeff King, Dave Slavensky, Lisa Schwartz (ODOE special advisor)

Staff attending: Margie Harris, Ana Morel, Hannah Hacker, Debbie Menashe, Amber Cole, Steve Lacey, Peter West, Courtney Wilton, Fred Gordon, Scott Clark, Oliver Kesting, Jessica Rose, Matt Braman, Thad Roth, Cheryle Easton, Diane Ferington

Others attending: Juliet Johnson (OPUC), Kendall Youngblood (PECI), Susan Stratton (NEEA), Dave Backen (Evergreen Consulting), Christina Cabrales (CSG), Lisa Wojicki (PECI), Becky Walker (PECI), Monica Blakeslee-Kish (PECI), Kathryn Hickok (Cascade Policy Institute), Lis Saunders (NEEA)

Business Meeting

President John Reynolds called the meeting to order at 2:02 p.m.

General Public Comments

There were no public comments.

Consent Agenda

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

MOTION: Approve consent agenda

Consent agenda includes:

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

RESOLUTION 678

AUTHORIZING APPROVED BANK SIGNERS

WHEREAS:

1. **Umpqua Bank and Bank of the Cascades provide general banking services to Energy Trust (collectively, the “Banks”).**
2. **Section 7.3 of the Energy Trust bylaws requires that the board of directors authorize officers or agents to sign checks, drafts, or other orders for the payment of money, notes and other evidences of indebtedness (“authorized bank signers”) by way of resolution from time to time.**

3. **Effective September 5, 2013, Susanne Meyer Sample retired from her position as Chief Financial Officer of Energy Trust.**
4. **Effective September 16, 2013 Courtney Wilton was appointed Chief Financial Officer.**
5. **Susanne Meyer Sample is currently an authorized bank signer for Energy Trust's accounts at the Banks.**
6. **In connection with appointment to the chief financial officer position, Courtney Wilton should replace Susanne Meyer Sample as an authorized bank signer for the Banks.**

It is therefore **RESOLVED** that,

1. **Susanne Meyer Sample to be removed from the list of authorized bank signers for the Banks.**
2. **Courtney Wilton to be added to the list of authorized bank signers for the Banks.**
3. **The resulting list of authorized bank signers for the Banks is as follows:**
 - a. **John Reynolds, Board President**
 - b. **Dan Enloe, Board Treasurer**
 - c. **Margie Harris, Executive Director**
 - d. **Courtney Wilton, Chief Financial Officer**
 - e. **Peter West, Director of Programs**
 - f. **Steve Lacey, Director of Operations**
 - g. **Debbie Goldberg Menashe, General Counsel**
4. **The Executive Director is authorized to execute all required documentation to implement this resolution.**

Moved by: Debbie Kitchin

Seconded by: Roger Hamilton

Vote: In favor: 9

Abstained: 0

Opposed: 0

President's Report

John Reynolds presented on the Gresham Wastewater Treatment Plant's recent energy-efficiency, solar electric and biopower projects.

Thad Roth: This video shows what it takes for a project owner to move a project to completion. Gresham executed on big expectations. Energy Trust participated with incentives and the Oregon Department of Energy with tax credits. Energy Trust can't do projects without project developers like this. The Gresham Wastewater Treatment Plant is an example of some of the projects and people we get to work with. Enjoy the video.

The Gresham Wastewater Treatment Plant's video on its road to energy independence was shown, which can be accessed through the city's website: <http://greshamoregon.gov/city/city-departments/environmental-services/wastewater-division/template.aspx?id=4330>.

John R: This is a terrific example of energy efficiency and renewable energy.

Dan: It's going to achieve 100%, and may become one of those net zero buildings.

Mark: You worked with the Oregon Association of Clean Water Agencies on overall membership direction toward energy independence. How many facilities have these economies of scale opportunities?

Thad: There are 10 plants in Oregon generating electricity and utilizing biogas. Another 18 use anaerobic digestion and could conceivably generate electricity. We will be in front of the board soon to talk about a similar project at the Clean Water Services Durham facility. It may not quite achieve 100 percent of energy usage but will get very close and they will utilize fats, oils and greases.

Energy Programs

Authorize New Buildings Program PMC

Oliver Kesting introduced the resolution, which is to authorize a contract with PECl for the New Buildings Program Management Contract. Oliver introduced Jessica Rose, program manager.

Jessica: For the full background on the process we followed, please see your board packets. Briefly, in May 2013, we issued a Request for Proposals for a Program Management Contract to design, develop, manage and implement our program for the new buildings market. That RFP process was a success. It brought in a lot of interest, was competitive, resulted in six intents to respond and four proposals were submitted in the summer. A team of Energy Trust staff and two outside experts from NEEA reviewed and thoroughly vetted all the proposals. The review team thought three proposals warranted oral interviews and presentation. The team interviewed those three, and after reviewing candidate responses to follow-up questions, the review team unanimously selected PECl to provide Program Management Contractor services for New Buildings. Are there any questions on the process?

Mark: On conducting oral interviews and presentations, was that something that emerged from the first evaluation or was it a standard or preplanned part of the selection?

Jessica: It is a standard part of our process.

Mark: This indicates a rigorous process. This is good.

Jessica: This board resolution will authorize a two-year contract term, through December 31, 2015, with an option to renew for up to three additional one-year periods. Jessica reviewed and summarized the budget for this board action.

John R: Roger, did the Policy Committee have any questions?

Roger: Everything got resolved.

Dan: Do we currently operate any other contract with PECl?

Jessica: Yes, PECl is the Program Management Contractor delivering the New Homes & Products program.

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

WHEREAS:

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

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

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

It is therefore RESOLVED:

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

Moved by: Ken Canon

Seconded by: Alan Meyer

Vote: In favor: 9

Abstained: 0

Opposed: 0

PECl New Homes & Products Contract Extension

Matt Braman introduced the discussion to extend the program management contract for PECl delivering the New Homes & Products program for one additional year, consistent with the current

contract terms. The New Homes & Products program helps builders and subcontractors increase energy-efficiency levels, integrate solar and utilize performance testing in new home construction. The Products efforts include customer cash-back incentives for purchasing qualifying ENERGY STAR® clothes washers, refrigerators, freezers and lighting, and for recycling older refrigerators and freezers. On Products, Energy Trust and PMC staff also work with community action agencies, water bureaus and other nonprofit organizations to distribute low-cost, instant energy-saving products and information.

In 2009, a New Homes & Products program rebid was conducted and the incumbent, PECl, was selected to continue providing program management services. At the time, the board authorized a three-year contract with two additional one-year extensions. Last year we exercised the first one-year option. Staff is recommending a second and final one-year extension. The initial contract approved in 2009 was for \$6.4 million for program management and delivery services. Since then, the delivery budget has remained constant, while the volume of projects and participant incentives has increased more than 50 percent. This is because PECl has brought forth efficiencies in program delivery.

Matt reviewed the five criteria used by staff to evaluate PECl program delivery:

1. Cross-program referrals and sorting through single-family and multi-family new construction projects.
2. Building a project pipeline—since 2009, PECl has significantly increased the number of retailers and diversity of products. Currently, Products supports general purpose compact fluorescent light bulbs, specialty light bulbs, showerheads, shower wands and a growing selection of LEDs. PECl has also established and maintained a growing network of approximately 400 trade allies in the new home construction industry.
3. Innovation introducing new technologies and designs, including the energy performance score, an instant incentive pilot with Sears, an air sealing pilot in code-built homes and innovative market campaigns to highlight the benefits of efficient homes and refrigerator recycling.
4. Teamwork, including flexibility in meeting Energy Trust's priorities to provide new initiatives, improving forecasting and working with regional entities to leverage regional programs.
5. Deliverables—while the program just missed the electric conservative savings goal in 2012, in other years PECl has consistently met contract savings goals and often exceeded them. In 2013, PECl is forecasting to exceed the stretch savings goal in three utilities and meet the stretch goal in the other.

Staff is recommending that the board delegate to the Executive Director authority to sign a one-year contract extension, which ends December 31, 2014, also the final year of the contract. Next year, staff will review the program delivery model and engage in a rebid of the program starting in the spring of 2014.

Ken: How do you survey for cross-program referrals?

Matt: It has a lot to do with the call center. For instance, when they call the Products call center, many times the customers have questions for the Existing Homes program. Also, marketing materials incorporate Existing Homes program and incentive information.

Ken: How do you test to know it's attributable to PECl?

Matt: It starts with customers, and we receive very few customer complaints. You have a good question. It's a bit of a subjective metric. In the end, we just do not see a lot of issues.

Diane Ferington: And there's a manifestation of cooperation with the other Program Management Contractors. What it comes down to is serving the customer and cooperation, and navigating them through any confusion on what program they fall under.

Dan: I've seen your materials that PMCs sometimes get performance compensation. Was that the case here with these contracts?

Matt: Yes, a certain level of compensation is negotiated in the contract.

Dan: PECl just missed the 2012 target; did they get their 2012 performance bonus?

Matt: Not very much.

Dan: And they are on track for 2013?

Matt: Yes.

Dan: I propose for your tactics in negotiations, that making-up the shortfall from 2012 be included when you calculate what the 2013 incentive is before you decide to award the contract for 2014 so you're looking at their long-term performance. Otherwise, we're overpaying them and really not holding them accountable to that gap. The total dollars may be small but what I want to do is keep incentivizing good decisions. Maybe they made long-term decisions that helped 2013 while hurting 2012.

Matt: That is an interesting idea and I will look into that with Debbie on what we can explore. I know PECl is forecasting achieving above stretch electric savings.

Dan: It's not a constraint, but an idea. I want to keep incentivizing correct behaviors.

Roger: You would deduct from the next incentive?

Dan: For example, if they were half a megawatt short for 2012, before we pay for 2013, we wait until we get the amount they didn't deliver.

Margie: I don't know that the contract is structured that way currently. We can look at that contract. It may be this tactic only applies to a multi-year contract when you are able to look backward.

Peter: We should come back to this in a different session to discuss. In any contract there are carrots and sticks. And we certainly used sticks in 2012. And then you move forward in the next year and you have to balance that. In any year, we are also allowed to shift budget to meet high demand. There's flexibility created overall to keep in mind. It would be worthwhile to step back and look at the overall design before focusing in on one small part.

Ken: Great idea.

Roger: That makes sense.

Dan: With under-performance there, I'm not averse to following your recommendation. I want to make sure you're looking at the big picture.

Ken: And what we're focused on here is performance incentives but there are sticks too that we are not as aware of.

Mark: In the briefing paper, the third bullet in the New Buildings program gives us a macro look at the cost-benefit of the program. It would be nice to see that detail in the resolution. It would be quicker and helpful.

Peter: Good point, thank you.

John R: There is no resolution attached to this. It's a "no objection" update. And I'm not hearing any objections. Thank you.

Margie: Through the contract, there are a couple of things that improved greatly, like the volume of savings while keeping costs down and strengthening forecasting. Those are things we can look at and potentially apply to other programs. I want staff to follow up on that.

Committee Reports

Audit Committee, Ken Canon

The latest meeting was a few weeks ago by conference call. Courtney Wilton, the new Energy Trust chief financial officer, attended. The committee is starting to work with a CPA firm to get everything ready for the audit that will be starting in the first part of January. There are at least three Audit Committee meetings a year. The majority of the activity is in the first part of the year.

Shirley Cyr, Clean Energy Works Oregon CFO, has left the Audit Committee. The committee is actively searching for someone to fill the external expert seat. It is a requirement that one of the Audit Committee members be a CPA, familiar with nonprofit finance. This search is something Ken will be working on with Courtney and staff. Specifically, the committee would like to replace Shirley with someone who has experience with larger nonprofits. Energy Trust is a large and complex nonprofit. Ken mentioned that given the amount of money Energy Trust deals with in its transactions, the committee wants to focus on the risks the organization may face. The committee is searching for someone who may bring additional ideas and eyes to that issue. It's very important. Any board members who have any suggestions, please let Ken know.

Finance and Compensation Committees, Dan Enloe

Looking at the first graph in the July financial statements, there was a down tick in incentives spent. August results have come in since then and actual incentives spent are a little over \$5 million. The end-of-the-year bump has begun. Though incentives were underspent, there are three areas with significant pick-ups, renewables went from 44 percent to 52 percent over the month, Existing Homes from 61 percent to 64 percent and New Homes & Products from 67 percent to 73 percent. Staff is gearing up for a big year end.

Looking at revenue coming in, all utilities are as expected, though Cascade Natural Gas is behind. Cascade Natural Gas' plan will have them caught up by approximately year end. Dan mentioned Energy Trust is looking okay on the revenue side.

Programs are looking at coming in slightly over conservative goals, maybe stretch goal in some programs. There is a lot of variability in the fourth quarter of each year. Last year, Energy Trust looked lean but came in big in December and exceeded goals. Dan mentioned the committee needs to watch how Energy Trust is performing in these last months of the year.

Dan introduced Courtney Wilton, new CFO, and welcomed him to the team.

Courtney: I'm glad to be here. What you said about seasonality is true.

Dan introduced Resolution 677, and Margie recapped the topic for the board prior to voting on the resolution.

Margie: Relooking at reserve definitions and usage started when we heard comments during the 2013-2014 budget and action plan open comment period in December 2012. We heard annual goal

setting and nomenclature was more confusing than it needed to be. This led to a utility roundtable on May 22; outcomes included a small working group that dug into the details and came back to the board in July for discussion. What was determined at that meeting was a transition to a single goal starting in 2014. The single goal will represent the resource potential for the Integrated Resource Plans (IRP) for each utility. The OPUC will hold Energy Trust accountable for the minimum performance measure of 85 percent of that goal. This did away with the “stretch / conservative” or “stretch / best case” goal setting approach. We are in the process right now of setting the single goal for each utility, with Steve, Peter, Elaine and others working on it with the utilities.

Margie clarified for the board that the OPUC is greatly involved in the annual funding process and Juliet is a great addition to the discussions. It's very helpful to have everyone around the table to discuss the issues and negotiate funding.

Margie continued: The last category for discussion is the definition and usage of reserves. Currently, we have an interest reserve account and a program reserve account. The interest reserve account was set up since 2006, as a contingency fund for any number of purposes, including and especially for programs. In 2005, there was heavy demand for projects in the Production Efficiency program and there was a need for reserve dollars that were then authorized by the board for use in that program. The reserve has been available since that time for a variety of organizational purposes and the board does approve any use of those reserves. Also, after SB 838 passed in 2007, we established a program reserve account. The first full year of that was 2010. Based on a suggestion from OPUC Commissioner John Savage, 5 percent was chosen for program reserves for each utility. As part of the annual calculation and negotiation Peter and Steve have with each utility, Energy Trust has budgeted to the stretch goal, and then added 5 percent on top of that to create the program reserves for each utility. In some cases this reserve amount is sufficient, and in most cases, it's more than sufficient.

After the small working group and the July board meeting discussion, staff further refined how we define and use both reserve accounts. Forecasts from each utility create our revenue stream, savings projections, and ultimately, our budget. We propose taking what has been the interest reserve account and renaming it a contingency reserve account for the organization as a whole. This is in fact how we have used it. Currently, there is approximately \$7.5 million currently in the account. And to a concern Alan raised at the July meeting regarding a cap, we will endeavor to maintain this amount as a target, with a maximum of \$8 million that would be in the account at any time.

We would use the new contingency account in a few ways. Of the amount in the contingency reserve account, we propose \$5 million be set aside and available only if there is an emergency or catastrophic event. This will be named Emergency Contingency Pool. At the present time, \$2.5 million would be remaining and available for an organizational contingency pool above and beyond any amount needed for an emergency or catastrophic event. That amount could address organizational needs such as helping a renewable energy project move forward. We have no other contingency fund for renewables beyond this source.

In case of emergency, staff would have the ability to expend up to \$5 million of the Contingency Reserves Account absent board approval. Staff would then report to the board on what was done after the fact. Board authorization would be required for staff usage of the remaining fund balance, the Organizational Contingency Pool, within contingency reserve account.

Roger: The program reserve account is efficiency only and the contingency is for renewables?

Margie: Yes, that's correct on the program reserves, which would be designated for energy efficiency. We could use the contingency reserve for renewables, given there is no other reserve account for renewables. Historically, the contingency reserve, or the interest reserve as it's called right now, has been used for solar projects.

Anne: Is there an example of an emergency you would use \$5 million for?

Margie: Natural disasters like a flood, earthquake, fire, or other catastrophic event like power failures or something where we would need to restore operations at the Energy Trust offices.

Roger: Hurricane Sandy is an example.

Margie: The amount may be insufficient and it's a start at what we would need to rebuild/restart under those circumstances.

Ken: On the emergency, how closely defined is that? I ask because I want us to have a contingency account, and a lot of nonprofits have a similar type of reserve account. Would one of the things that come out of this fund be a wind-down cost, like if Energy Trust closed, even given how rare that event would be.

Margie: If a wind-down situation occurred, I suspect we would have enough lead time to facilitate a transition that would not be solely dependent on this sort of fund. Our contracts are written in such a way that we can cancel them and loss of funding would be a trigger.

John R: Is this really just for situations where getting the board together would be relatively impossible?

Margie: Correct.

Mark: For the organizational contingency pool of \$2.5-3.0 million approximately, what do staff see that provides the dynamic annual elasticity necessary in meeting program variability and needs?

Margie: It's a last resort pool. Something we would use when opportunity outstrips current budget and we have exhausted other options, including the ability to reallocate funds from underperforming or slower demand program to a "hot" program. I think of this as a hierarchy. We would first use budget within programs, then shift budget across programs, then use the program reserve by utility, and then we would propose using the contingency reserve.

Mark: And this is in-range of historical?

Margie: Yes. For example, Kacia Brockman when she was on staff, approached the board last year with a request to increase the solar electric budget because demand exceeded what we forecasted. At the time, the board approved \$1.7 million.

Margie continued her presentation on the program reserves account. As presented at the July board meeting, we noted the outcome of the small working group recommending Energy Trust staff individually negotiate and tailor the energy efficiency reserve accounts for each utility. This has been part of the funding negotiations currently underway. The reserves would account for any variability in revenue projections by utility due to shifts in weather, load variability driven by economy and a variety of factors including demand specific to each utility.

The program reserve account is for energy efficiency programs only, both electric and gas. We are carrying forward the same convention and applying it across all four utilities. Staff would have permission to utilize one-half the amount in the reserve without prior board approval and would still be

required to come to the board to account for what was spent. This approach is needed to address timing issues when we do not have a board meeting and when timely action is needed. Anything above 50 percent of the account would require board approval. This is all designed to mitigate risk, address anything unanticipated and to allow staff to take advantage of opportunities that exceed available funding.

Staff recommends amending the existing "Using Reserve Accounts" policy, renaming reserves to contingency reserve and program reserve, permitting use of up to \$5 million in the contingency reserve for emergencies or catastrophic events, maintaining and negotiating the individual amount of reserves for programs based on individual utility needs and requiring any use greater than 50 percent of the program reserve to be authorized by the board. Staff will also consistently update the board on use of the two types of reserves, not only through the quarterly report but also by revisiting this annually through the Finance Committee.

Alan: I support this approach and appreciate the addition of the cap. I spent a lot of time trying to understand the way it was worded. My source of confusion under the resolution, itself, is it doesn't clearly differentiate the contingency reserve from the efficiency program reserves. And the way it's numbered contributed to that. In my mind there should be clear numbering and indentation. It gets all muddled.

Ken: Does the presentation we just saw help?

Alan: Yes, the presentation is clear. The resolution and attachment is not clear.

Steve: We tried not to put a number for a cap in the resolution knowing the Finance Committee would be setting it.

Alan: Okay. But it doesn't say it.

Margie: It's under the preamble.

Steve: In the "whereas" section, it gets into actual amounts but doesn't translate into the "therefore" sections.

Margie: We chose not to memorialize the \$8 million to avoid the need for future policy amendments.

Alan: I understand that, but can it be clearer on how the total is established? It doesn't say the committee will set an amount.

Debbie: Under page 5, if that language was expanded to describe the process by which it would be set, does that help?

Ken: Yes, where do you get the funds?

Margie: Historic interest earnings are the origin.

Steve: This is a legacy of the current funds.

Margie: In this moment, should we relook at the resolution and come back to you with proposed wording changes?

John: We do not suffer if we carry it forward, correct?

Margie: No.

Ken: I encourage looking at the information that was presented today. It lays it out very well, and put some of that into the background and put some off the specifics in the resolution.

Ken: I have a technical question. We will eventually end up with \$5 million in the emergency contingency pool. This will just sit there. Where does interest go?

Margie: Back into the fund.

Ken: If it is capped at \$5 million and the other is capped at \$3 million, I wonder about creating interest on something that is capped.

Steve: What we anticipated is that there is an \$8 million target, not looking at it as a cap but a target. If it starts growing beyond \$8 million, the Finance Committee will review it and interest could be reallocated into the budget for the next year, resulting in a reduced reserve balance.

Ken: The reason I ask is we will not always have low interest rates.

Margie: We can add that piece on reallocation.

Steve: The beauty of this process is for that money to go back into programs instead of continuing to accrue in that account.

Margie: In the course of negotiations with utilities, what you will see is a range of different reserve account amounts based on the practice that we will be tailoring those accounts for each utility. Right now, those individual reserve accounts range from ~3 percent to 10 percent for 2014. This is an indication on the importance of this policy shift. What we have learned with each utility is the importance of rate stability. What we, the OPUC and the utilities do not want is for one year the tariff adjustments to go down so much that in the subsequent year rates have to rise again. What you will see in the proposed budget is a preference for holding rates steady over a longer term.

Ken: I understand the variability. Do you think the percentage will be fairly similar?

Margie: Those are the percentages and they reflect the individual situations of each utility for the coming year.

Margie: This is a bit of cultural shift for the organization on how we do our budgeting. If we have those reserve accounts and we want to squeeze them down over time, this shifts thinking with staff as they develop budgets.

Mark: How does this relate to the shift to targets of 85 percent of IRP and the cost of programs?

Margie: There is no real change except the focus on one goal, the IRP goal, with a new name.

Steve: In reviewing this, does anyone see a question or problem with Attachment 1, which modifies the existing policy? If so, we'll address that at the same time we rework the resolution.

Alan: If it were to read that there are two separate funds and one of those funds has two components, then it would be clear.

Mark: As illustrated in the "whereas" section on page 3.

The board chose to hold voting on Resolution 677 until the structure of the resolution was modified. See page 22.

RESOLUTION 677

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

WHEREAS:

- 1. Energy Trust wishes to specifically identify two distinct reserve accounts with specific treatment of each. Representatives of the Board and the strategic utility roundtable have met and agreed upon these accounts and their treatment.**

2. **The two distinct reserve accounts shall be named the (1) Contingency Reserves Account and the (2) Efficiency Program Reserves Account.**
3. **Energy Trust wishes to approve treatment of the reserve accounts consistent with the Roundtable recommendations and outlined as follows:**

Contingency Reserves Account

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

- Energy Trust staff currently proposes dedicating \$5 million of the contingency reserve account to maintain or restore operations during or after an emergency or other catastrophic event; such funds shall be designated as a subset of the contingency reserve account and designated as the "emergency contingency pool." The board authorizes staff to use the emergency contingency pool and to inform the board of such actions. It is expected the amount of the emergency contingency pool may be adjusted in accordance with an annual risk assessment conducted by staff and reviewed by the Finance committee.
- With prior board authority, staff is authorized to allocate the balance in the contingency reserve, to be identified as the "organization contingency pool." Usage of the organization contingency pool would be to address other organizational needs such as:
 - Revenue shortfalls derived from weather or other conditions. Repayment may be specified and required.
 - Renewable energy projects for which other funds are insufficient or unavailable. Repayment may be specified and required.
 - Support for energy efficiency projects in the event utility-specific program reserves are otherwise insufficient or unavailable. Repayment may be specified and required.
- The board Finance Committee will review the contingency reserve balance at its regular meetings. Any changes in the contingency reserve account amount will be reflected in Energy Trust's annual board-approved budget.
- At a Roundtable meeting no less frequently than biennially, staff will present a review of the contingency reserve account to assess the adequacy of the account balance. This is suggested to occur in late spring, after fourth quarter results identifying revenue and carryover amounts are available and before the annual utility funding cycle and negotiations begin in July.

Efficiency Program Reserves Account

Individual utility energy efficiency program reserves will be established as part of the annual funding cycle negotiations initiated each summer between Energy Trust and utilities.

Determination of the amount of each individual utility program reserve will be made collaboratively and based on such factors as:

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

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

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

It is therefore RESOLVED that:

- 1. The Interest Reserve Account shall be renamed the Contingency Reserves Account and shall be divided into two components as follows:**
 - a. An emergency contingency pool and an organization contingency pool.**
 - b. The emergency contingency pool is currently established in the amount of \$5 million and such amount may be adjusted in accordance with an annual risk assessment conducted by staff and reviewed by the board Finance committee.**
 - c. The amount of the organization contingency pool shall be the difference between the total amount in the Contingency Reserve Account and the amount allocated to the emergency contingency pool.**
- 2. Energy Trust staff is permitted to allocate the emergency contingency pool to respond to an emergency and shall inform the board of such actions.**
- 3. Board action shall be required before staff is permitted to utilize the organization contingency pool to respond to unusual circumstances, such as a shortfall in program reserves, advantageous renewable projects requiring funds beyond those available or budgeted and other unanticipated organizational needs consistent with our mission.**
- 4. The Efficiency Program Reserves Account will be established on an individual utility basis as part of the annual funding cycle negotiations between Energy Trust and each of its funding utilities. The amount of the Efficiency Program Reserves Account will reflect the amount of each individual utility reserve requirements depending upon individual utility needs and circumstances.**
- 5. Energy Trust staff is permitted to utilize up to 50% of Efficiency Program Reserves, on an individual utility basis, absent prior board approval, provided such usage is clearly identified in the quarterly report to the board and the OPUC.**
- 6. Board action shall be required before staff is permitted to utilize more than 50% of the Efficiency Program Reserves on an individual utility basis provided such usage is**

clearly identified in the monthly financial statements provided to the board and the OPUC.

7. **Energy Trust's Finance Committee will routinely monitor and report on the balances in both reserve accounts and provide options to prevent excess accumulation in the Contingency Reserves Account .**

It is therefore further **RESOLVED** that:

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

It is therefore further **RESOLVED** that:

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

Moved by:

Seconded by:

Vote:

In favor:

Abstained:

Opposed:

(Vote held on Resolution 677 until the structure of the resolution was modified. See page 22.)

Policy Committee, Roger Hamilton

The last meeting was on September 10. The committee reviewed many items discussed at the board meeting today, including reviewing the New Homes & Products contract extension, reserve account treatment, and the change in membership on the Audit Committee.

Roger mentioned a change in the Conservation Advisory Council roster. Anne Snyder-Grassman, current PGE representative, is assuming a new role at PGE and appointed as replacement Garrett Harris. Staff supports the recommendation and his biography is in the packet.

Roger: For the veto on HB 2322, is that all done?

Margie: Yes, the governor's veto went through.

Roger: Case closed?

Margie: As far as we know for now.

Roger: Just to be clear, I'm referring to Section 31 on HB 2322, which would have transferred public purpose charge funds dedicated to Oregon Housing and Community Services to the Oregon Department of Energy.

Margie: This would have then flowed to Clean Energy Works Oregon. That veto, on line 31, occurred.

The board took a break from 3:14 p.m. to 3:25 p.m.

NEEA Annual Update

Susan Stratton, Executive Director of NEEA, presented an annual update on NEEA activities in the region and on behalf of Energy Trust.

Margie welcomed and introduced Susan: Our two organizations are very well coordinated and have been since Energy Trust's inception. NEEA delivers market transformation activities in the region, and Energy Trust contributes approximately \$10 million a year to NEEA through a five-year funding agreement. NEEA has been very active lately in development of its Strategic and Business Plans.

Susan: Thank you for inviting me, I appreciate the opportunity to speak with all of you and tell you how we work so well with you and our other partners. In the packet I passed around, you'll find our annual report and quarterly activities summaries for Energy Trust from the first and second quarters.

This funders slide shows NEEA's direct funders, which includes Pacific Power and PGE. Pacific Power funds us directly because some of their operations are in Washington. PGE funds us through Energy Trust but asked to be added to our funder listing. They have just requested this. Altogether, NEEA is funded by more than 100 utilities, including those that indirectly fund us through Bonneville Power Administration. Energy Trust pays in about \$10 million per year, and we appreciate the partnership and level of funding Energy Trust brings to us, providing stability and a long-term view so we can work on issues together. All funders are listed on our website.

Recent regional highlights and successes include the Most Efficient TV initiative. I was presenting at an American Council for an Energy-Efficient Economy (ACEEE) conference on Monday and they asked me, of everything that happened in the past year, what I would pick as the biggest highlight. I chose the Most Efficient TV initiative. The initiative blew us away in terms of return for the region. We worked in our region plus California on stocking at retail stores the most efficient televisions, resulting in 10.5 average megawatts of net market effects for 2012. In Energy Trust territory, 27 percent of televisions on display at participating retailers qualify as most efficient or qualify for the upstream incentive we have for them. It's a fast moving market but there was an opportunity as people switched over to digital televisions. It was a great opportunity to capture energy savings quickly in a market that was moving quickly. Together with California, we represented 19 percent of the population in the U.S., and big box retailers covered 84 percent of televisions sold in this region. This was a big success story.

Another highlight is we aggregated resources to accelerate regional heat pump water heater adoption. Risk mitigation is something we do on behalf of the region. It is a huge opportunity given the very high penetration of electric heat in this area. Conversion to heat pump water heaters has an astounding 500 megawatts of potential. We conducted a market test, reduced risk for Energy Trust, and found and fixed a few manufacturing problems. We feel our QC process really helped save this market. And our retail collaboration with Sears increased sales of heat pump water heaters by 600 percent.

We have also started regional commercial lighting strategy and coordination. A collaborative group met for the better part of 2012, included a representative from Energy Trust. It's about a long-term regional commercial lighting strategy. We are going to create an upstream platform targeted toward distributors to make progress in buying down prices and give incentive to move efficient lights. The upstream play will provide a lot of savings in the region.

NEEA presents in all four states we serve. Through research and demonstrations, including the Seattle solid state street lighting test, the Strategic Energy Management effort in Montana, and irrigation and agricultural efforts in Oregon.

Susan played a video of NEEA's Oregon Field Days, accessed through this link on NEEA's website <http://neea.org/initiatives/industrial/agricultural-irrigation>.

Mark: Do you have any interplay with water conservation laws?

Susan: I'm not sure if that's come up as an issue. We're trying to maximize profit for the grower. We're not looking to maximize yield necessarily. We're looking at all inputs, including water, and seeing how we can improve.

Roger: What your question may be driving at, Mark, is water that is free, but power is not. For example, I own an irrigated farm in Eastern Oregon, our water is free because we have an existing water right but our power bill increased 1,000 percent. It's an interesting question. There are water markets that would considerably enhance the incentive to save if you have to pay for the water you use.

Roger: Regarding Idaho, I learned that Idaho Power would not be continuing its participation with NEEA. How will this affect programs in Idaho?

Susan: We still have a contract with them until the end of 2014. Idaho Power informed us last year of their intent not to fund us past that year. We have not yet presented our business and strategic plan to them. Our draft business plan for the next five years takes funding down approximately 10 percent from what it was. We are having conversations with Idaho Power to understand what it would take to keep them as part of the Alliance. Keeping them also helps with connectivity to Montana.

Margie: The jury is still out. There's a lot of dialogue on what it would take to keep them in the fold. And a lot of affirmation for NEEA's core mission.

Susan: We don't have an answer from any of our funders as of yet; we will when we start making our business plan presentations.

Margie: The assumption at this point is everyone who is a funder would remain a funder.

Susan continued her presentation. She showed a chart of NEEA's cumulative savings performance starting in 1997. Investments that partners made in the 1990s and forward are still delivering value. Over time, the dark blue bars on the slide, indicating 1997-2004 funded initiatives will start to move down and the lighter blue bars, indicating 2005-2009 funded initiatives and orange bars, indicating 2010-2014 funded initiatives will become bigger.

A chart showed total regional savings by sector in 2012, which totaled 101 aMW from all investments, and 42 aMW from current investments. Susan said a dollar invested today will bring results over the coming years. NEEA's board and funders have not asked it to have "sector equity" where they match population with their work, but to find the best advantage it can across sectors.

Alan: How does Energy Trust internally allocate budget for NEEA?

Steve: We get invoiced from NEEA and it's broken out by sector so we allocate by sector.

Fred: By current investments. The costs are current investments.

Margie: We true that up on an annual basis after the expenditure is made.

Alan: Do you charge us based on what you spend?

Margie: We have an estimate and then a true up.

Fred: And it's cost based.

Margie: Not savings based.

Susan: We do have specific goals for savings each year. On an annual basis, we create an operations plan for the board to review that show costs and savings by sector. We've been tracking below budget and meeting savings.

Susan showed a chart of 2012 NEEA savings for Energy Trust, which included 20 aMW for residential, 3 aMW for commercial and 1 aMW for industrial. Energy Trust is 20.65 percent of NEEA's funding. Susan mentioned that proportionally on savings to budget, NEEA is delivering more savings for Energy Trust than budgeted, though it strives to come in as close as possible for all funders.

Susan: For highlights specifically in Energy Trust territory, we coordinated with General Electric to promote heat pump water heaters through distribution channels in Energy Trust territory and we have seen a 350 percent increase in sales. We completed a financial and technical analysis for deep energy retrofit for existing buildings, including establishing an implementation plan and receiving owner commitment to demonstrate it for existing building renewal. There is one project in each state to see how we can create a financially viable approach for the owner of a tenant-occupied building. We also conducted 462 store visits in Oregon for the Most Efficient TV initiative and 378 trainings. Of televisions on display in Oregon, 27 percent qualify for the initiative.

Mark: Do we have analysis on how that differs from rest of country?

Susan: We have some baseline evaluations. Oregon is significantly better. We are bringing the higher tier of efficient televisions to market, faster. Small, upstream incentives represent a significant part of the retailers' profit margins. This should result in faster uptake beyond this region. We are able to measure that market movement in savings.

Susan: In addition to those efforts, NEEA is facilitating collaboration with Mitsubishi for in-store promotion of ductless heat pumps with Sears. There have been 115 ductless heat pump installations because of the promotion and we recruited four master installers and conducted six site inspections. We partnered with Energy Trust and the Oregon Home Builder's Association on a project for code evolution over the next 10-15 years. Shifting slightly, here is a chart of all of NEEA's 2013 portfolio savings forecast showing current investment savings targets and all investment savings targets. This measures total regional savings, which includes baseline and co-created savings. Co-created savings measure the effect of NEEA and effect of partners who have local programs aligned with that initiative.

Ken: Do you face the same challenge as Energy Trust in terms of big uptake in programs in the fourth quarter or are you more steady state?

Susan: With televisions, they tend to be a holiday buying item, so the past few years there has been a hockey stick in terms of savings. When a program is heavy in incentives, there does tend to be uptake during holidays. We are working on smoothing that out by lowering incentives and capping retailers if they sell a certain amount of units.

Roger: Do your incentives go to retailers and customers?

Susan: Upstream incentives go to retailers. We can pay a smaller incentive that way.

Roger: How does the ductless heat pump program with Sears work?

Susan: We work on training installers, providing incentives to retailers, and maybe compensation for test homes for the inconvenience and time. Then organizations like Energy Trust can come in and incentivize purchase.

Susan: NEEA's strategic planning process is underway. The strategic plan is a broad overview of vision, mission and goals. It contains a business plan, which shows the details of exactly what we'll do in the next five years to meet the vision, mission and goals. A draft is on the NEEA Conduit website at www.conduitnw.com, which is an online resource for stakeholders to exchange information on energy efficiency around the region. A board workshop on October 14 will review the strategic plan, with approval at the December 3 board meeting. The biggest piece of input from the board, for when we are creating the business plan, is to identify what NEEA can do for the region that individual utilities or organizations cannot do on their own.

Mark: The RAC and CAC are an in-road from Energy Trust?

Susan: Those are NEEA's committees, the Commercial Advisory Council and the Residential Advisory Council.

Margie: There's a lot of exchange with NEEA. We are represented on those committees and I represent Energy Trust on the strategic planning committee and board. There have been several internal meetings to provide feedback. Energy Trust will provide formal comments to NEEA on the strategic plan and business plan.

Susan: NEEA's annual stakeholder meeting is on December 2. You are all invited. It's at the Portland Armory Building from 5:00–7:00 p.m.

Roger: There was a report from Margie, maybe at the August Policy Committee that talked about the common challenge for Energy Trust of a flatter load growth in the near future. Is that a challenge for you and how do you plan on meeting that?

Susan: It is an issue all the way around. Part of the flat load growth is a part of our success and some of it is due to the economy. More broadly, utilities are seeing themselves with excess capacity. We have to think about broader value beyond the energy savings we deliver. What are we trying to do in our business plan? We are trying to provide a broader portfolio of benefits and need to make sure our funders appreciate that. This is one of the reasons we have agreed to reduce our budget 10 percent as a start.

Roger: This ties into Regulatory Assistance Project discussions. The "new utility" that rewards investments in efficiency. Decoupling neutralizes, not necessarily rewards it. Currently the new commissioner of the Federal Energy Regulatory Commission is looking into this, reforming business models for utilities. A lot of this is driven by the solar industry.

Alan: I regularly meet with utilities and the discussion now goes beyond energy savings to power efficiency. Does your plan encapsulate that?

Susan: NEEA is asked to measure energy savings but we do record capacity savings. We have also begun discussion on gas efficiency. We have board approval to move forward with gas programs.

Margie: And that includes NW Natural. We have been working with NW Natural for several years to encourage their participation with NEEA.

Dan: Between Susan and Margie, you are the efficiency aMW generators. Boardman is scheduled to close in 2020. Will you give PGE enough in savings to make up for Boardman over the next seven years?

Margie: Boardman is 500 MW of base load that PGE has to replace. There's already expectations that there will be two gas plants they may build.. There are other avenues opening up to talk about efficiency as part of the IRP planning; it's part of what PGE is very committed to organizationally, as a corporation.

Susan: Thank you for inviting me. I would love to come back next year.

Staff Report

Staff report to board, Margie Harris

Margie described a recent project participant, Sulzer Pumps; the photo on the title slide of her presentation showed their factory floor. The company participated in the Production Efficiency program. Faced with a challenge from its corporate headquarters in Switzerland to reduce energy use by 3 percent, Sulzer Pumps worked with Energy Trust and in the end, exceeded the target. Sulzer reduced its energy use by 18 percent through high-performance lighting, occupancy sensors, roof insulation and energy-efficient heating upgrades. The company saved about \$100,000 in annual bill savings last year. Management at the Swiss-based headquarters came to see the project and said they want to replicate this approach globally.

As of the close of the second quarter, staff is confident we will meet or exceed our 2013 conservative goals for all utilities. Programs doing well include Multifamily, which doubled its sites served through quarter two this year as compared to the same time period last year. New Buildings is seeing high participation in its Market Solutions offering, which provides pre-packaged incentives as a suite of offerings and is especially effective serving smaller buildings. The industrial sector is on track overall, Energy Trust is seeing savings from large data centers and industrial Strategic Energy Management, and New Homes programs are on track and we are seeing more effective penetration of our Energy Performance Score (EPS) as awareness increases and the new home construction market rebounds.

Challenges are seen in Products, the lack of large capital for commercial and industrial investment, and residential savings lagging behind as of the end of the second quarter. Reasons for these challenges include the transition to two new major Program Management Contractors in the beginning of the year, impacting the rate at which staff was able to log savings into our data system. There are lessons learned inherent in that transition. There is also a decline in savings in the lighting arena as the market leap frogs from CFLs to LEDs. LEDs are making a strong appearance in the market and the market is adapting and purchasing them. There is also slower than forecasted growth in the Home Performance area, some reductions in savings from lowering reliance on Energy Saver Kits and also a decline in deep retrofit project volume from Clean Energy Works Oregon.

On the commercial retrofit side, the market is mature and the program is seeing fewer large, cost-effective projects. This is a result of saturating that market and realizing the full impact of the loss of the Oregon Business Energy Tax Credit and Energy Trust's temporary bonuses from last year. Customers are getting used to the new normal and this is affecting who Energy Trust can attract.

Staff is working with a variety of players to drive savings up by year end. There is more activity in operations and maintenance on small commercial projects, more retailers stocking LEDs and the program promoting that, and an increase in home energy saver kits, more Home Energy Reviews and more direct-install products by trade allies. In addition, the Existing Homes program just launched bonus incentives for insulation, gas fireplaces and gas water heaters.

The renewable energy sector is facing a challenging market due to the low cost of energy and the loss of the Business Energy Tax Credit for commercial scale projects. This is making commercial solar challenging for Energy Trust. With that market downturn, the Solar program increased incentives and higher project caps in April for commercial solar electric systems. The program is seeing an uptick in projects. There is also a delay of two large renewable energy projects: the Oregon Institute of Technology's geothermal project shifted into mid-2014 and the Revolution Energy Solutions-Coleman biogas project will shift into late 2014 or early 2015.

Programs are emphasizing outreach to rural and underserved markets, working with trade allies to reach into Cascade Natural Gas territory and also promoting fireplace inserts. Staff worked with the Oregon Department of Energy and Southern Oregon Economic Development District in Klamath Falls to expand residential contractor engagement. A New Homes verifier was added in Northeast Oregon for EPS homes. The New Buildings program also reached out to the Oregon Association of Minority Entrepreneurs to increase minority contractor awareness and participation.

Margie showed highlights from page 3 of the second quarter report, which indicates sites served by sector. Highlights include working with trade allies for more cross referral from programs. There are trade allies who are very specialized in HVAC, lighting, etc. and this approach has them learning from each other and working more comprehensively.

Multifamily's Mpower pilot for on-bill repayment to serve residents in affordable housing has gone through program design refinement. The work being done for the pilot actually led to projects being identified for participation in the standard offering.

Production Efficiency launched its Industrial Systems Retro-Commissioning offering, which helps customers identify, investigate and implement lasting operations and maintenance work. The customers receive technical guidance from Energy Trust Allied Technical Assistance Contractors. Ten sites are engaged in the offering; of which, two are in rural areas.

A biogas project in Tillamook began delivering power to Pacific Power.

Last Tuesday, Energy Trust hosted the Pacific Coast Collaborative Symposium, which was organized by Governor Kitzhaber's Energy Policy Advisor, Margi Hoffmann. The Collaborative was formed in 2008 and includes representatives from Alaska, Oregon, Washington, California and British Columbia. It formed to address sustainable activities in the "mega region" and energy efficiency is one of the focal points. About 60 people attended. The day included panels on energy performance scoring, which Margie spoke on, and deep retrofits, which included a presentation from Commissioner Savage.

Staff is working actively on the 2014 budget, which the board will see a draft of at the November 6 board meeting. Margie said she is pleased to have Courtney here to work on this, and benefit from his new eyes on what Energy Trust is doing.

A City Energy Efficiency Scorecard came out last week from ACEEE, ranking 34 of the most populous cities on efforts to reduce energy use and costs. Portland ranked second overall, behind Boston. Portland ranked high in transportation and improving efficiency at local government facilities, and was also recognized for being on track to meet the city's climate action goals.

Margie completed her presentation with details on a recent project at Worthy Brewing in Bend. This customer participated in the New Buildings and Solar programs, and worked with two trade allies. Worthy Brewing received more than \$60,000 in Energy Trust incentives for high-performance building

design, high-efficiency gas boiler, lighting, gas furnace, tankless water heat, solar water heating system and solar electric system.

Mark: Is the solar water heating system flat panel or evacuated tube?

Margie: I can get that information for you.

Integrated Solutions Implementation Project Phase 2 update, Scott Clark

Scott: This project entails three major systems at Energy Trust. The Customer Relationship Management system is where we track all customers, participants, allies and interactions with them. FastTrack is our project tracking system and system of record for all savings and generation. Great Plains is our financial system. All systems were set up initially with the idea that we had a limited window of operation with sunset as of 2012, which was extended to 2026. The goal with this project is to moderate the systems to last until 2026.

In fall 2011, we broke the project into two parts over many years. Phase 1 looked at foundational work and Phase 2 is replacing the larger FastTrack system. In October 2012, we completed Phase 1, which included foundational work of documenting business processes and data modeling to create a flexible Energy Trust data model, systems improvements by upgrading Great Plains to the newest version available, adding flexibility to the existing Excel-based budgeting and forecasting process, and upgrading CRM to a web-based, robust system using Microsoft Dynamics CRM, which was a large effort involving most of the organization. We continue to build out that CRM functionality.

Phase 2 is about replacing FastTrack. It's a central system so it does affect other systems when you replace a core system. Phase 2 is divided into three stages. Stage 1 is to Define, and expected to be completed in December 2013. It involves discussing how we will attack this problem, and what we will use either to replace FastTrack or build something if there isn't anything on the market. Stage 2, from January to May 2014, involves either building the system, purchasing it or a mix of the two. We will decide on this direction at the end of Stage 1. Deploying the solution will be from June through August 2014.

Deeper details on Stage 1, Define, we took a break after Phase 1 was implemented to focus on implementing the data sharing agreements with each utility, which was successfully completed at the end of May, and the two transitions of the new PMCs. We got started again on ISI at the end of July. So far in the process, accomplishments include issuing an RFQ to identify resources to help us with Stage 1. Through that process, we are now working with Online Business Systems. We are also engaging staff at this time. Upcoming activities include completing the analysis of the current process, assessing software availability and options, deciding to build or purchase, and updating the process documentation.

Ken: Is Energy Trust fundamentally different from other utilities doing large energy efficiency programs?

Scott: There are a few differences and a lot of similarities. One is we work with four utilities and another is on the generation side. These are the two biggest differences as I look at the tools to deliver these applications.

Scott: The goal is to complete the Define, Stage 1, in early December and prepare to implement in early 2014.

Mark: Is there any trepidation by contractors or staff on a mid-Quarter 3 deployment?

Scott: It is a fast turnaround. As we figure out what it looks like, we will assess the timeline. If we are moving too deep into the third quarter of 2014, we will delay into the following year as we don't want to risk core work during the fourth quarter.

Scott: The budget for Phase 2 is \$1.65 million, all in the 2013 budget. Given the shift in timing, we won't spend all that in 2013. I estimate we'll spend about \$450,000 in 2013, and as a part of the 2014 budget, we propose to carry forward the \$1.2 million for completion of phase 2.

Revisiting Resolution 677, Steve Lacey (see page 11)

Steve passed out an updated Resolution 677.

Steve: We reformatted based on Alan's suggestions. There were no substantive changes. This reads better in terms of order. There were only changes to structure and we included language on where reserves originated.

Debbie M: Instead of tracking changes from the previous policy, we showed what the policy would look like if approved.

The board agreed it had enough information on the modifications to the resolution and proceeded with a vote on Resolution 677.

RESOLUTION 677 (revised)

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

WHEREAS:

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

Contingency Reserves Account

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

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

with an annual risk assessment conducted by staff and reviewed by the Finance committee.

- With prior board authority, staff is authorized to allocate the balance in the contingency reserve, to be identified as the “organization contingency pool.” Usage of the organization contingency pool would be to address other organizational needs such as:
 - Revenue shortfalls derived from weather or other conditions. Repayment may be specified and required.
 - Renewable energy projects for which other funds are insufficient or unavailable. Repayment may be specified and required.
 - Support for energy efficiency projects in the event utility-specific program reserves are otherwise insufficient or unavailable. Repayment may be specified and required.
- The board Finance Committee will review the contingency reserve balance at its regular meetings. Any changes in the contingency reserve account amount will be reflected in Energy Trust’s annual board-approved budget.
- At a Roundtable meeting no less frequently than biennially, staff will present a review of the contingency reserve account to assess the adequacy of the account balance. This is suggested to occur in late spring, after fourth quarter results identifying revenue and carryover amounts are available and before the annual utility funding cycle and negotiations begin in July.

Efficiency Program Reserves Account

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

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

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

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

It is therefore **RESOLVED** that:

- 1. Energy Trust shall establish two distinct reserve accounts: The Contingency Reserves Account and the Efficiency Program Reserves Account.**

~~1. The Contingency Reserves Account is renamed and established from the Interest Reserve Account and is comprised of the total amount of accrued interest on Energy Trust deposits. The Contingency Reserves Account shall be renamed the Contingency Reserves Account and shall be divided into two components as follows:~~

2. Anpools, an emergency contingency pool and an organization contingency pool.

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

~~i. The amount of Energy Trust staff is permitted to allocate the emergency contingency pool to respond to an emergency and other catastrophic situation, and shall inform the board of such actions.~~

b. The organization contingency pool ~~shall beis established in an amount that is~~ the difference between the total amount in the Contingency Reserve Account and the amount allocated to the emergency contingency pool.

~~3. Energy Trust staff is permitted to allocate the emergency contingency pool to respond to an emergency and shall inform the board of such actions.~~

i. Board action shall be required before staff is permitted to utilize the organization contingency pool to respond to unusual circumstances, such as a shortfall in program reserves, advantageous renewable projects requiring funds beyond those available or budgeted and other unanticipated organizational needs consistent with our mission.

4.3. The Efficiency Program Reserves Account ~~will beis~~ established on an individual utility basis as part of the annual funding cycle negotiations between Energy Trust and each of its funding utilities. The amount of the Efficiency Program Reserves Account ~~will reflect~~reflects the amount of each individual utility reserve requirements depending upon individual utility needs and circumstances.

a. Energy Trust staff is permitted to utilize up to 50% of Efficiency Program Reserves Account, on an individual utility basis, absent prior board approval, provided such usage is clearly identified in the quarterly report to the board and the OPUC.

b. Board action shall be required before staff is permitted to utilize more than 50% of the Efficiency Program Reserves Account on an individual utility basis provided such usage is clearly identified in the monthly financial statements provided to the board and the OPUC.

5.4. Energy Trust's Finance Committee will routinely monitor and report on the balances in both reserve accounts and provide options to prevent excess accumulation in the Contingency Reserves Account-, including, but not limited to allocating excess accumulation to Energy Trust's operating budget.

It is therefore further RESOLVED that:

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

It is therefore further RESOLVED that:

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

Moved by: Alan Meyer

Seconded by: Dan Enloe

Vote: In favor: 7

Abstained: 0

Opposed: 0

Adjourn

The meeting adjourned at 4:56 p.m.

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

Alan Meyer, Secretary

Board Decision

Authorizing Funds for Stone House Solar PV Project

November 6, 2013

Summary

Authorize funding of up to \$520,000 toward the above-market cost of a 5.88 megawatt (MW_{DC}) ground-mounted solar photovoltaic facility near Christmas Valley, developed and owned by Element Power US, LLC (“Element”) and delivering energy to Pacific Power.

Energy Trust Goals

- This 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 small-scale renewable energy projects.

Background

- Pacific Power is obligated under Oregon’s Solar Capacity Standard (the “solar mandate”) to install specific amounts of photovoltaic capacity by 2020. The legislature amended the law in 2010 to allow public-purpose funds to support the above-market costs of such projects.
- In 2013, Pacific Power issued a solar RFP seeking photovoltaic capacity to meet its remaining obligation under the solar mandate. Energy Trust participated in the review of all respondents to this RFP.
- In this RFP process, Pacific Power selected two projects, the Stone House Solar PV Project (“Stone House”) and the Bevans Point Solar PV Project (“Bevans Point”).
- Energy Trust did not budget for any Pacific Power custom solar projects in 2013, but has \$700,000 in unallocated funds for Pacific Power projects available after conducting competitive funding processes for non-solar custom projects. Under Energy Trust funding priorities and OPUC performance measures, Energy Trust may allocate incentive funding for solar mandate projects only if there are no other eligible non-solar custom projects appropriate for Energy Trust incentive funding consideration. There are no such projects.
- This resolution would authorize incentive funds for Stone House which exceeds the executive director’s contract signing authority. Staff is also seeking the executive director’s approval of a \$180,000 funding agreement for Bevans Point.

Discussion

- The nameplate capacity of Stone House will be approximately 5.88 MW_{DC} (megawatt direct current). The project would generate 1.15 average megawatts per year and achieve 57% of Pacific Power's assigned solar mandate goal. The nameplate capacity of Bevans Point will be approximately 2.0 MW_{DC}. The project would generate 0.44 average megawatts per year and achieve 19% of Pacific Power's assigned solar mandate goal.
- Pacific Power has requested Energy Trust funding for each project at \$0.25/watt of rated DC capacity, \$1,470,000 for Stone House and \$500,250 for Bevans Point. At such a per-watt rate, the incentive funding request is substantially less than the incentives provided to support PGE's Outback Solar PV project (\$0.85/watt) and Baldock Solar PV project (\$1.15/watt).
- At 5.88 MW, Stone House will be Pacific Power's largest solar project and one of the two largest solar electric projects Energy Trust has funded. For comparison, the Outback Solar project in Lake County is 5.88 MW, the enXco solar projects in Yamhill County total 3 MW and the Baldock solar highway project is 1.75 MW.
- Stone House will be installed in Christmas Valley, Oregon, interconnect to Midstate Electric, transmit power through Bonneville Power Administration (BPA) and sell power to Pacific Power. This will be the second utility-scale solar project in Oregon to wheel power through a consumer-owned utility and BPA.
- Stone House has several attractions:
 - The project is being developed by Element, an experienced global renewable energy company with North American headquarters in Portland, Oregon. Element will build, own and operate the facility, and will bring investor(s) to the project.
 - The project is designed to use single-axis trackers. Tracking typically boosts the generation approximately 20 percent as compared to a fixed-tilt array. This is a design that Energy Trust supports.
 - The project will not be a Qualified Facility under Pacific Power's standard tariff. Instead, the project will sell power to Pacific Power under a 25-year contract with a negotiated power purchase price reflecting, among other things, the value of an Energy Trust incentive. The negotiated power purchase price will provide lower-cost power to Pacific Power ratepayers.
 - The project has a Business Energy Tax Credit (BETC) pre-certification, received before the BETC program was capped by the legislature. To qualify for its BETC, the project must be commercially operational and receive final certification July 1, 2014.

- Staff reviewed the project designs and found them to be reasonable for a project of this size, type and design.
- Staff's financial summary of the Stone House project is in **Attachment 1**. Staff's analysis led to some capital-cost adjustments based on Energy Trust's knowledge of projects of this type. With these adjustments, staff documented above-market costs.
- Because Energy Trust does not have sufficient funds to meet Pacific Power's full request, Energy Trust staff proposes to allocate the available \$700,000 to the two projects based on nameplate capacity.
- In funding agreements with Element, we propose to require Element to assign 100 percent of the Renewable Energy Certificates ("RECs") arising out of the projects to Pacific Power for compliance with Oregon's renewable energy standard and solar mandate.
- The RAC supports these projects, and Pacific Power supports the proposed incentives.

Recommendation

Authorize up to \$520,000 for the 5.88 MW Stone House Solar PV project.

**RESOLUTION 680
AUTHORIZING FUNDS FOR STONE HOUSE SOLAR PV PROJECT**

Whereas:

1. Pacific Power desires to purchase energy from 5.88 megawatts_{DC} (MW) of solar photovoltaic generating capacity in Christmas Valley, Oregon, to count toward its state Renewable Energy Standard and Solar Capacity Standard mandates.
2. This project has already secured Business Energy Tax Credit pre-certification, a major barrier to renewable energy projects in Oregon.
3. Total project cost is estimated to be \$16,111,238, which Energy Trust staff considers reasonable for a project of this size and design.
4. The above-market cost on a net-present value basis over 25 years is estimated at \$2,630,737.
5. Based on its analysis of above-market cost and available incentive funding for projects of this type, staff recommends an Energy Trust incentive of up to \$520,000. Pacific Power supports this incentive level.
6. In consideration for its incentive funding contribution, Energy Trust will require that the project owner assign 100 percent of the Renewable Energy Certificates (RECs) for the project to Pacific Power for compliance with Oregon’s solar mandate and renewable energy requirements.

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

1. An incentive of \$520,000 for the Stone House ground-mounted solar photovoltaic facility in Christmas Valley, Oregon with minimum capacity of 5.88MW_{DC}.
2. Energy Trust to require the project owner to assign all RECs from this project to Pacific Power for the benefit of its ratepayers and for compliance with Pacific Power’s renewable energy generation and solar capacity obligations to the state.
3. The executive director to negotiate and sign an agreement consistent with this resolution.

Moved by:

Seconded by:

Vote:

In favor:

Abstained:

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

ATTACHMENT 1

Project Financial Summary - NPV Basis

Project Capacity (MWDC)		5.88
Annual Output (MWh)		11,360
Evaluated Resource Life (Years)		25
NPV Revenues		
	Power Sales	\$ 9,353,456
	BETC pass through	\$ N/A
	Tax Benefits	\$ 11,704,869
	Total NPV Revenues	\$ 21,058,325
NPV Costs		
	Capitalized Construction Cost	\$ 16,111,238
	Operations Expense	\$ 1,777,990
	Maintenance Expense	\$ 885,534
	Other Expense	\$ 1,558,023
	Transmission Expense	\$ 2,347,231
	Taxes	\$ 0
	Total NPV Cost	\$ 22,680,016
	Net Above Market Cost	\$ (1,621,691)
	Net Above Market Cost After Tax Adjustment	\$ (2,630,737)

Evaluation Committee Meeting

October 17, 2013, 10:00 am-1:00 pm

Attendees

Evaluation Committee Members

Debbie Kitchin, Board Member – Committee Chair
Alan Meyer, Board Member
Mark Kendall, Board Member
Dave Slavensky, Board Member (phone)
Anne Root, Board Member (phone)
Ken Keating, 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
Ted Light, Planning Sr. Project Manager
Jackie Goss, Planning Engineer
Oliver Kesting, Business Sector Lead
Spencer Moersfelder, Senior Business Sector Program Manager
Jessica Rose, New Business Sector Program Manager
Kathleen Belkhayat, Business Sector Project Manager
Sue Fletcher, Communications and Customer Service Sr. Manager
Tom Beverly, Trade Ally Network Manager
Ashley Prentice, Trade Ally Coordinator

Other Attendees

Jeff Schwartz, ICF Program Manager

1. 2013 Trade Ally Survey

Presented by Dan Rubado

Background: This is the ninth annual trade ally survey. The original goal of the survey was to assess trade ally satisfaction; this year we removed most technology-specific questions and changed the methodology (used a stratified random sample). The contractor was Strategic Research Associates – they fielded the survey and wrote the report.

Objectives: To gain insight into the overall experience trade allies have working with Energy Trust; to get feedback on trainings, workshops, roundtables, and on-demand learning tools; to get feedback on lending allies and loan product; to look at the economic impact experienced by trade allies from Energy Trust; and gauge interest in potential future services for trade allies.

Methodology: A stratified random sample of 248 (of 961 total) trade allies active in Energy Trust programs in 2012 was selected. Stratification was based on total incentives paid, so the most active trade allies were oversampled. The goal was to get responses representing about half of

incentives from 2012 trade ally projects. The survey was fielded through a combination of telephone and web surveys. Key questions from past survey instruments were used with minimal changes to allow comparisons over time. There were 82 questions total, and the average completion time was 23 minutes. One individual from each company was targeted; e-mail invitations included a unique link to limit one response per contractor. Reminder emails and phone calls followed the initial invitations. Interviewers directed trade allies to the web survey, but allies could also complete the survey over the phone on the spot.

Survey Responses: We got 107 completed surveys, which translates to a 43% response rate. Respondents' firms represented 5,578 projects and 33% of incentives paid in 2012. Half of respondents were owners or principals. Most contractors employed staff in the Portland Metro area, although many contractors had staff working in other regions of the state as well.

Results: 93% of trade allies reported being satisfied with Energy Trust, which is up from 82% in 2012. Less than 5% reported dissatisfaction. Debbie asked how much of the difference is because of the way that we did sampling this year - I would assume that people that are more active with programs were more satisfied. Dan responded that this year is more representative of trade ally activity overall, and that the methodology is probably responsible for some of the differences. Steve suggested that we caveat comparisons with last year, noting the change in methodology. Phil added that we wanted to do a stratified random sample so we could say this is representative of the bulk of trade ally activity. Previously, this was a convenience sample. We feel this year is more representative of all activity. Sarah asked if there is a way to look at satisfaction by project volume, or number of years as a trade ally. Debbie noted this information may be helpful in targeting our assistance to allies; one might be able to help move an ally from one that doesn't participate much to one that does. Steve asked if the unsatisfied trade allies are in the top 20% of firms; more active allies have more experience with us so their perspective may carry a bit more weight.

34% of trade allies reported their relationship with Energy Trust has improved in the past year; 11% reported their relationship has gotten worse. 53% anticipated putting more projects through Energy Trust programs in 2013, although this was not uniform. Feedback on the PMC transitions was mixed; some trade allies reported poor service and communication confusion, but others said it was a smooth transition. Dan clarified that these comments were representative of both residential and commercial trade allies.

Over 75% of respondents believe that offering financing options to customers is important to obtaining business. Residential and renewable allies viewed financing as more important to obtaining business than commercial and industrial allies. 35% reported actively promoting Energy Trust's lending allies to customers. Half reported that a lower rate was the most appealing financing feature. 15 trade allies did projects in Washington in 2012. 92% wanted to grow their business in Washington. The top 2 barriers cited by trade allies were the limited number of incentives available in Washington and lack of customer awareness of Energy Trust.

80% of allies were aware of Energy Trainings, and 70% reported attending some type of training in the past two years. In-person workshops and on-demand videos were the most desired training formats. 70% reported that continuing education credit eligibility was important for trainings, particularly CCB.

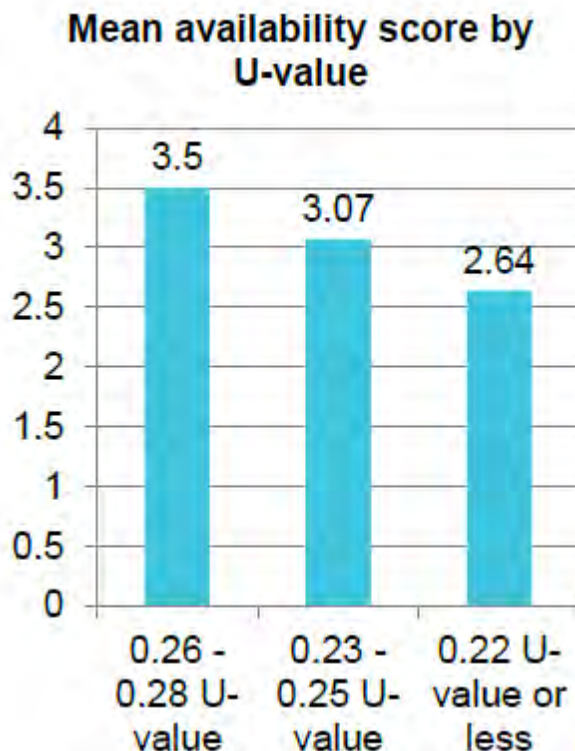
Email from program staff was reported as the most effective way to communicate program information to trade allies. 70% reported that the Insider Newsletter is useful to them. 80% of respondents reported the website is useful to them. 57% of respondents reported visiting the

website monthly and 20% said they visited it weekly. Most respondents reported going to the website to get program information and forms.

30% of respondents reported using Energy Trust marketing funds in 2012, but 35% were not aware of funds. Alan asked, how do we make them aware of the funds? Tom responded that this information is included in orientations to working with us, and we promote it through the website. This information suggests we should probably include it in the Insider Newsletter. Sarah asked if the funds are typically used up in a given year. Ashley responded that solar is quite active, and use of commercial funds has been slightly lower this year. Debbie asked what portion we pay. Tom responded that it is a third. Dan noted that we asked about the star rating system. 60% were aware of the system, and 80% reported that the star ratings are fair.

Solar PV Results: 10% of trade allies installed solar PV in 2012. 63% of them received the majority of their revenue from solar PV jobs in 2012. Respondents reported that they did not have project backlogs in excess of three months, but 36% said customer inquiries increased in the past year. We asked about the average kW capacity installed, broken out by commercial and residential. These are small sample sizes, but we see that the average commercial capacity is much smaller than last year (26 kW versus 168 kW).

Residential Windows Results: We asked about the percentage of windows installed in 2012 by U-value. About a third are still 0.29 and above, and just over a third are 0.23-0.25 and above. We also asked about the availability of product; the chart below shows that as you go down in U-values, there is less product availability.



Note: A score of 4 represents easy availability (u-value available in a variety of window types) and 0 means no availability.

Recommendations: Decrease response times across programs and continue efforts to streamline paperwork (trade allies report this as an ongoing area of frustration). Increase

incentives in SW Washington and increase awareness of Energy Trust programs. Identify training needs and packages to be offered to trade allies, and increase awareness of marketing funds as well as the star rating system.

Mark asked whether the trade ally team will expand trainings that qualify for CCB or continuing education credits. Tom responded that we find some classes are too specific to Energy Trust to qualify for CCB. Debbie noted that there are some classes that are optional and others that are required. Ken noted that there are limits on the types of classes we can offer given our focus on efficiency and renewables. Tom responded that we are looking into collaborating with other groups offering these courses and including information about Energy Trust.

Energy Trust Take: Most trade allies have a good working relationship with Energy Trust, and most trainings and services are seen as useful. Satisfaction with Energy Trust is high, but it appears that some trade allies experienced issues related to program transitions.

Spencer asked whether trade allies find the star rating system valuable. Dan responded that about 20% said they got some increase in business because of their rating. Spencer asked if the administration of the rating system is streamlined; the commercial program is considering something similar. Tom responded that it is pretty automated at this point. Sue noted that the trade ally team has some important lessons learned on the rating system, and commented that the trade allies surveyed here are more likely to have higher ratings, so they may be more likely to say the system is fair.

2. Commercial Strategic Energy Management Pilot

Presented by Dan Rubado

Background: We will be discussing the commercial strategic energy management (SEM) pilot. This is the first evaluation report, and the work was conducted by PWP Inc. (Phil Willems) and Michaels Energy. This evaluation report is focused on year 1 participants of the commercial SEM pilot. The goals of the evaluation are to document the pilot and processes; assess customer satisfaction; assess savings calculation methodology; review monitoring, targeting and reporting (MT&R) tools; assess savings and persistence of savings over time; and provide feedback on program design.

Methods: Document review (customer and project information), review of MT&R workbooks and energy savings calculation methods, and staff and participant interviews.

Pilot Background: The pilot is based on industrial sector SEM concepts. Energy Trust engaged two commercial technical service providers (CTSPs) to deliver SEM trainings. The CTSPs took two approaches to delivering SEM: a cohort approach and an individual approach (single organizations with multiple sites). Participants had to commit staff time and attend workshops, designate an executive sponsor and energy champion, form an energy team and meet regularly, identify savings opportunities, and track energy usage and savings over time.

Savings: CTSPs created MT&R Excel workbooks for each customer. They used a baseline energy usage regression model, usually including weather variables. Workbooks tracked energy use and compared to predicted baseline usage. Deviations from predicted usage comprised the savings. Capital project savings were backed out of the observed savings to get the SEM savings. Savings during last 3 months of the intervention were used to project annual savings; this has a 3 year measure life.

Incentives: Services were provided at no cost to customers, and cash incentives were provided for projected first year savings. If one year after pilot participation initial savings projections are exceeded, additional incentives will be provided. Oliver added that if savings are below what was initially projected, there will not be penalties. Alan commented that the incentives seem low. Oliver responded that these are low cost measures, and there is little to no capital cost for customers to implement these measures. The consulting provided is also a huge incentive to participate. Customers are excited to get incentives, even though they are not large. Peter asked if this is equivalent to what industrial SEM participants reported regarding incentives. Dan responded that both industrial and commercial SEM participants said that the incentive wasn't what was driving them to participate – the incentive was more of a “bonus.” Spencer commented that the incentives provide a good opportunity for operators and facility managers to talk with C-level staff about the benefits of participating (in addition to energy savings).

Pilot Participants: In the cohort approach, 8 participants were recruited in mid-2011, and attended workshops throughout 2012. In the individual approach, two organizations were recruited to participate, a restaurant chain and a college, although the college had not completed their participation at the time of the evaluation. The individual approach involved a kickoff meeting onsite and phone/e-mail follow-up. The cohort approach included a series of workshops and onsite assessments.

Saving and Cost Results: As the chart below shows, year 1 savings from the cohort approach are just over 5.5 million kWh and 100,000 therms; the individual approach resulted in savings of over 100,000 kWh and 11,000 therms.

Cohort Approach:

Participant	Savings from SEM	
	kWh	Therms
P1	796,239	0
P2	1,646,010	43,674
P3	666,284	11,773
P4	1,026,485	28,700
P5	554,531	28,274
P6	446,373	0
P7	528,727	14,521
Total	5,664,649	126,942

Individual Approach:

Participant	Savings from SEM	
	kWh	Therms
Restaurant 1	0	480
Restaurant 2	20,545	131
Restaurant 3	32,770	10,753
Restaurant 4	1,912	0
Restaurant 5	0	0
Restaurant 6	25,786	0
Restaurant 7	20,328	0
Total	101,341	11,364

The cohort approach had a lower cost per unit savings in first year. Something important to note is that delivery costs were several times higher than incentives. Alan commented that the costs are likely related to building type. Phil commented that in other programs, certain firms only want the individual approach and don't want to be involved in a cohort or group. Debbie added that one might offer an individual approach on a limited basis, for example, for sites that have high savings potential.

Savings Calculation Review Results: Savings are not necessarily linked to particular actions. Projected savings are based on 3 months of data, which may be inaccurate if savings are seasonal. Oliver noted that we do not assume that summer savings persist throughout the year. The evaluator found that true-up of savings provides some verification of first year projected savings, and in general works well. Ken asked for clarification about the savings reported in the tables above. Phil clarified that these first year savings are based on the first three months of operations, which will then be true-up after the first year. Kathleen noted that the program

expects to see about 3 million additional kWh and 50,000 additional therms. Oliver commented that the program ensured that engineers were conservative with the initial estimates. Dan noted that a key recommendation is that if major changes are observed in facilities, the program will need to modify their methods to accurately calculate savings for the 1 year true-up using the MT&R model.

Interview Findings: All participants were highly satisfied with the SEM pilot. There were some initial difficulties with securing commitment from all necessary parties within organizations. Energy management teams met monthly and discussed actions and reviewed energy use. Team members actively participated in meetings and attended workshops.

Participants spoke highly about the organizational assessment, and said it was revealing about their organization. CTSPs described this as the “ah ha!” moment when participants really understand what SEM is all about. The evaluator found that energy management plans were often unfinished works in progress.

CTSPs conducted facility audits with each participant. Participants found this to be very useful; the changes recommended during the audit were the most frequently implemented.

For the cohort approach, workshops and meetings were highly rated. The hands-on practice and ability to share experiences with other facility managers were consistently highlighted. Participants said the ability to share experiences with other facility managers and organizations was extremely valuable. For the individual approach, participants reported a high level of satisfaction with the primary workshop. It was difficult to meet in-person due to the dispersion of facilities, so a monthly e-mail exchange related to SEM was instituted.

Participants said that entering data into MT&R workbooks was resource intensive. They wanted automated tools to do this. Participants also reported not fully understanding the savings methodology. Two cohort participants stopped using MT&R workbooks and began using alternative tools.

As discussed previously, incentives were not the primary motivation for participating - rather, it was energy savings. Incentive checks did serve to validate savings and reward participants.

Conclusions and Recommendations: SEM approaches are effective, and should be included in commercial sector offerings. The evaluator recommends employing an individual approach but limiting participation in it to organizations with a large number of facilities or with large loads. Regression analysis is acceptable for estimating savings, but this analysis should employ more datapoints to establish a pre-participation baseline and use higher resolution data (more than monthly data). Additionally, the program should use low-cost data loggers to verify actions and estimate savings. Finally, the program should extrapolate savings to annual totals using at least 6 months of data, and investigate Portfolio Manager or other tools to estimate savings for smaller sites.

An accurate record of SEM actions is essential for understanding analysis results – variance logs should track operational changes and be updated regularly so actions can be tied to savings. Departure of key staff during the pilot created challenges for several projects, so the program should require a separate energy champion and executive sponsor and ensure that both have a good understanding of SEM.

Another recommendation is to require commitment from facilities staff before enrollment and provide participants with realistic estimates of time commitment. Also, focus on tools rather than theory, and employ automated tools when possible. The development of strategic energy plans lagged behind other aspects of SEM; the evaluator recommends presenting this earlier in the workshop series and providing a milestone incentive for adopting a plan. Mark asked, how much architecture do we provide for these plans? Kathleen responded that we provide a template to participants. Finally, participants valued the exchange of ideas between organizations and sites; CTSPs should devote time to allow participants to share successes or failures at each workshop or meeting.

Energy Trust Take: Commercial SEM is successful and should be continued. There are some issues with the regression-based savings estimates. Ken commented that there should be oversight of how regressions are done by contractors to ensure that they are making reasonable decisions, to review what type of modeling is being employed, etc. Oliver commented that the program worked closely with Planning and Evaluation to develop these models. Ken responded that it is important for someone to watch what is going on in the regressions and take ownership of the results. Phil added that regressions may not be an appropriate program tool for everyone – for smaller sites, could do kWh per square foot.

Most of the evaluator's recommendations are sound and some improvements will be made or are already in the works. A second report will look at the first year for year 2 participants and the second year for year 1 participants. The report will investigate the persistence of savings, additional savings from capital projects, the participation process and savings, and overall customer satisfaction with SEM.

Alan asked about specific energy tracking tools that might be used for SEM. Kathleen responded that the program is looking at different tools and features, particularly the ability to load data into a template instead of having participants enter data.

3. 2012 New Buildings Process Evaluation

Presented by Sarah Castor

Background: This is the second report for the New Buildings 2012 process evaluation. The contractor is PWP Inc. (Phil Willems). The purpose of this and all of our process evaluations is to gather feedback on program operations and participant experience and make recommendations to improve the program. The first report covered the document and data review, and staff interviews. This report focuses on the 2012 program year and contains results from additional document review (monthly and annual reports, Fast Feedback surveys, FastTrack data, write-ups of charrettes and early design assistance meetings), as well as site visits and participant and ally interviews.

In 2012, the program closed 312 projects and enrolled 385 projects. The program exceeded the stretch goals for all utilities. Alan asked why there was such a wide variance in terms of exceeding the stretch goal. Jessica noted that a large data center project came through; these can be extremely difficult to predict. Phil added that moving forward we will evaluate data centers separately.

Document Review Findings: 88% of 2012 projects were subject to the 2010 code, up from 40% in 2011. Prescriptive and standard tracks accounted for the vast majority of projects; custom, LEED, and analysis projects accounted for the majority of kWh savings and slightly less than

half of therm savings. The percentage of savings by measure type and building type fluctuates greatly across years; data centers have large kWh savings for the past two years.

Savings were concentrated in the Portland Metro and Willamette Valley region, although there is good representation throughout the state.

Fast Feedback Findings: The evaluator reviewed 2012 Fast Feedback results. There were 79 respondents, including a mix of owners, design consultants and other respondents. About a third were owners. 81% of 2012 participants were satisfied overall; respondents were most satisfied with the performance of equipment and interaction with program representative, and least satisfied with the incentive amount and turnaround time. We are no longer fielding Fast Feedback surveys for New Buildings because we were having such a hard time connecting with an owner versus an ally. Process evaluations are a better tool to assess satisfaction for this program; the evaluator can invest more time in pursuing the right respondent.

Participant and Ally Interviews: The evaluator talked to a mix of owners and design consultants who were in a variety of project stages. The main reasons for participation were minimizing the building's energy use and the availability of incentives. The main barriers were administrative requirements and uncertainty regarding the incentive amount.

21 respondents received early design assistance (EDA). 87% were satisfied with EDA; we received lots of positive feedback about the effects of EDA. The level of reporting and follow-up vary across projects. Participants were largely unaware of program tracks, and rely on outreach managers to guide them. This aligns with program theory – we don't want to confuse people, and want to help the participant choose best option without them knowing the complexity of the program. Solar participants reported being more motivated by the solar requirement for public buildings than by the New Buildings program.

Alan asked about participants and uncertainty regarding incentive amounts. Sarah commented that this is a big issue for the program – it is a reality for providing incentives for this type of program. Jessica added that the program requires cost data to determine if measures are a cost-effective investment for us. There are some adjustments that are made, but they aren't significant. Mark commented that changing one part of the design can have large consequences in terms of savings. Fred noted that we have good codes, so a lot of money is put into meeting compliance standards. Dan added that owners are not looking at the incremental cost – they are looking at the overall project cost, of which the incentives are a tiny fraction.

Satisfaction Results: 88% of all respondents were satisfied with the New Buildings program. Looking at only owners or owner's representatives, satisfaction is 93%. If we look at satisfaction for owners or owner's representatives that completed their project, all 14 (100%) of them are satisfied with the program. We can see it makes a difference to take the allies out of the equation. Satisfaction was lower with the enrollment process and paperwork, but respondents were highly satisfied with interaction with program representatives (representatives' courtesy and knowledge).

2013 Program: In 2013, the program is offering Market Solutions packages for 6 small commercial building types (restaurant, retail, office, school, grocery, multifamily). The program has a new data center offering (innovative, efficient, and standard measures) as well as increased EDA and technical assistance incentives. The program went through a rebidding process, and PECL was selected again to serve as PMC. The program is on target to meet savings goals.

2014 and Beyond: Jessica provided an overview of plans for 2014. A minor code revision is expected in 2014; the program is not expecting a major code change until 2017. The program is deploying new offerings for small commercial. A pilot in 2009 helped the program better understand the small commercial market. The Market Solutions packages are paid per square foot, which enables quick decisions and keeps efficiency from being value-engineered out. The incentives are tiered; the program wants to help pull projects up the ladder. We are looking at diversifying our offerings (i.e. code assistance). We also want to build a market transformation model and tactics to support that, and use whole building analysis. Ken noted that to build a market transformation model, you need to have a specific goal, look at the barriers and opportunities to get there, and then decide on the tools to employ to get there, instead of just rationalizing what you are already doing.

Recommendations: Continue outreach to smaller projects through Market Solutions offerings. Maintain emphasis on early design assistance for relevant projects, and continue to streamline paperwork and participation processes (refer to forms by name rather than number). Consider and “X ± 10%” incentive guarantee. Finally, consider an innovation incentive for the first 5 or 10 projects that use an emerging efficient technology.

Energy Trust Take: The market is moving forward with 2010 code. The program is doing a good job of meeting its goals and serving a variety of market sectors. Participants, particularly project owners, are very satisfied with the program.

Jessica noted that with the Market Solutions offering we can learn from measures that are currently custom, see how they work out, and maybe incorporate more prescriptive versions in the future.

4. 2011 Existing Buildings Impact Evaluation

Presented by Phil Degens

Background: We previously presented on 2010 results; now we will look at 2011 results for the Existing Buildings program. The contractor for this evaluation was SBW. The methods included project file review, site visits, short-term metering and gathering EMS data, collecting billing data, review of savings algorithms, and re-estimation of savings.

Looking at the number of sites and measures served, and the projected program savings, we see that 2010 and 2011 combined had nearly twice as many sites as the prior two evaluation cycles, and three times as many measures. A key question in this evaluation was how the program dealt with this growth. The program has a wide variety of measures, including lighting, custom controls, custom gas, food services, and HVAC that cover a wide variety of building types, including office buildings, grocery, etc. When sampling, we had to sample from that wide range of buildings. A large portion did come from offices; most building types were represented in the 111 sample sites. The sample is representative for measures and building types.

Results: Looking at measure realization rates, most are close to 1. For the most part, the program is doing a good job at estimating savings for the bulk of measures. There were only a handful of zero savers – a total of 6 sites had zero savings. Three of them had measures removed; a very small percentage of sites had zero savings because the measure was not installed to begin with (less than ½ of a percent of total savings for electric and gas). Reasons for differences between estimated and verified savings were varied and included hours of

operation, control settings, number of measures installed, equipment efficiency and size, and other (which included removals and vacancies).

We will look at point estimates of measure-specific realization rates. These are not statistically valid, but are sign posts. Lighting has been steady (around 90%) and controls have improved since the last evaluation cycle.

Looking at the program as a whole, in 2010 and 2011 the overall realization rates went up relative to last year. The 2008/2009 cycle had realization rates of 90% for electric and 81% for gas; in 2010/2011, the realization rates were 98% for electric and 94% for gas. These are impressive results, especially given the growth of the program. Most of the reasons for differences in savings are not things that could have been caught with program quality control.

Conclusions: Almost all of the measures inspected during site visits were installed. Realization rates have improved for both electric and gas measures as compared to the previous two years at the same time the program has grown. Custom algorithms were found to be reasonable. Major improvements were made in project documentation (though improvements could still be made). It is easy to move electronic files to the evaluator in lieu of paper copies.

Recommendations: Energy Trust should consider gathering more information on factors that influence poor performing measures. Additionally, SBW recommended adding heating and cooling interactive effects in models. Spencer commented that we have discussed doing that a couple of times; in some cases, such as lighting, we don't have detailed models for heating and cooling, and we know the factors vary for different types of building. Spencer added that this has impacts on the overall cost-effectiveness of the program; we try to split the difference on having precise models and keep the program as cost-effective as possible. Ken asked how the program treats interactive factors because the program is treating it as zero if it is not in calculations. Fred noted that the large majority of prescriptive measures are cost-effective by a large margin. Ken responded that the Regional Technical Forum (RTF) and Bonneville Power Administration (BPA) recognize this in their calculations. Jackie noted it is incorporated in the lighting tool. Ken said that this does not come into play in deciding whether or not to pay an incentive due to the way in which the incentive is paid out.

Energy Trust Take: The program is doing well in expanding the program, significantly improving the realization rate. The program has made strides in improving program documentation, including ensuring all electronic files contain the modeling runs on which the measure savings are based and collecting all model inputs and worksheet files. Jackie asked what percentage of Existing Buildings projects involve modeling. Jeff estimated that it is roughly a few hundred out of thousands.

5. Preliminary Rooftop Unit Tune Up Billing Analysis Results

Presented by Dan Rubado

Background: Energy Trust got some billing results regarding rooftop unit (RTU) tune ups from Dave Robison earlier this year. Based on a relatively small sample size, it looked that savings were not very high for this service, so we decided to perform additional analysis. The punch line is that for 2010 tune up sites, we found modest savings (50% realization rate) but in 2011, we found significant increase in usage. Why was this happening? Was it contractors? Program quality control protocols? Something else?

On the gas side, we ended up with 46 sites to analyze in 2010 and 211 in 2011. On the electric side, we had 41 sites in 2010 and 218 in 2011. We performed weather-normalized regression analysis to compare usage one year after the tune up to the usage one year before; we wanted to look at the difference in usage pre- and post- between participants and two comparison groups. The first comparison group consisted of future participants, and the other was a random sample of commercial sites with similar usage profiles. For 2010, you'll see a range in savings and the realization rate because these were slightly different when we used different comparison groups. For 2011, we did not have a sufficient number of future participants to use them as a comparison group, so there is just a single number.

Gas Savings: On the gas side, the realization rate in 2010 was somewhere between 31 and 56%, and in 2011 usage increased by 37%. We investigated possible reasons for this – we first looked at whether there were differences in savings among RTUs with different capacities. We see that in 2010, savings were concentrated in the 5 ton and 6-9 ton unit categories. In 2011, there was no real pattern; usage increased across the board. We then looked at savings by contractor (see table below). There were four contractors responsible for the majority of tune ups in 2010 and 2011. 2010 was the pilot year, and 2011 was the year this offering rolled out program-wide. We see that the majority of tune ups shifted from two contractors (X and Y) to a single contractor (Z) in 2011.

Contractor	2010		2011		2012		2013	
	N	%	N	%	N	%	N	%
"Z"	0	0.0%	204	49.5%	84	20.0%	3	42.9%
"Y"	32	41.6%	17	4.1%	23	5.5%	0	0.0%
"X"	25	32.5%	18	4.4%	0	0.0%	0	0.0%
"W"	7	9.1%	31	7.5%	4	1.0%	0	0.0%
All Contractors	77	100%	412	100%	420	100%	7	100%

When we look at savings by contractor, we see (in the table below) that contractors X and Y had fairly good realization rates in both 2010 and 2011, contractor W had a negative realization rate in 2010 and was near zero in 2011, and contractor Z did not participate in 2010 but had a very large, negative realization rate in 2011 (meaning usage had increased). Since contractor Z performed the majority of tune ups in 2011, the savings were essentially wiped out across the board for that year. Alan asked if contractor Z was still participating in 2012 and 2013. Spencer responded that the program has had no visibility into this data until recently. Debbie asked if contractors selected customers they suspected needed a tune up the most, which might skew savings.

Year	Contractor	N	Annual Usage (Therms)	Adjusted Savings (Therms)	% Savings	Realization Rate
2010	"Z"	0	--	--	--	--
	"Y"	20	4,685	432	9.2%	46%
	"X"	14	9,288	699	7.5%	79%
	"W"	5	7,130	-790	-11.1%	-88%
	All Contractors	46	6,218	275	4.4%	30.8%
2011	"Z"	115	5,087	-498	-9.8%	-54.7%
	"Y"	12	3,025	223	7.4%	13.6%
	"X"	9	19,113	808	4.2%	92.9%
	"W"	18	3,014	64	2.1%	5.9%
	All Contractors	211	5,151	-337	-6.6%	-36.5%

Electric Savings: We see a very similar pattern with electric savings. 2010 savings are high. When we look at savings by RTU capacity, we see that the bigger units had higher realization rates in 2010, and in 2011, they had much lower realization rates.

So the question remains: why did we see negative savings in 2011? It could be differences in the buildings, RTU pre-condition, the contractors, or quality control protocols. It is important to note that in 2010, the pilot had 100% QC and in 2011, the program performed QC on a small percentage of projects. Ken noted that we didn't talk about demand control ventilation (DCV) – we found that you can increase consumption when you increase indoor air quality. DCV measures, either alone or combined, may be one of the issues. Jeff noted that service agreements were required, so contractors may have been marketing this to customers that had units that were not operating at all or well, and the tune up would, in these cases, increase usage. Fred noted that the interaction between the economizer and CO₂ sensor may also play a role in this equation.

Dan noted that we will be investigating the effect of the pre-condition of units, building type, and contractors through additional research, which may involve metering.

Wrap-Up & Next Steps

The committee agreed to meet the morning before the December 13th board meeting, 9 am -12 pm. The topics that will be covered include billing analysis for Clean Energy Works Oregon, the 2009-2011 Production Efficiency impact evaluation, and the 2011 New Buildings impact evaluation.

Notes on August 2013 Financial Statements

September 17, 2013

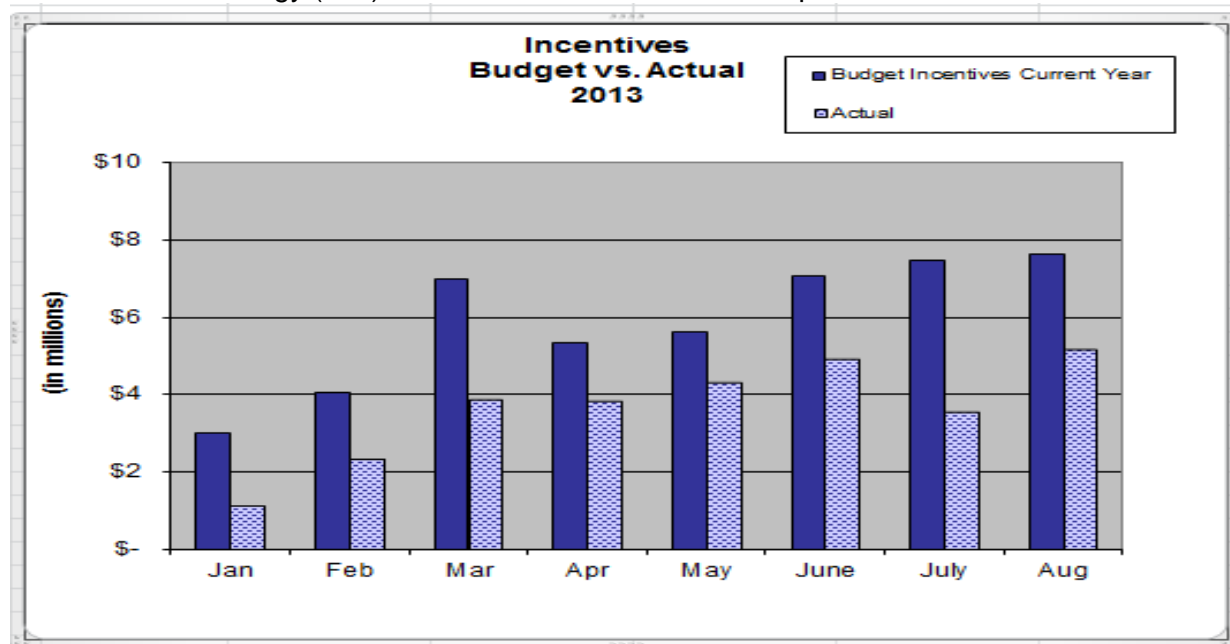
Revenue

Year-To-Date (YTD) Revenues are close to budgeted amounts for all utilities other than Cascade Natural Gas. CNG's funding is expected to ramp up beginning in September to bring it in line with the budgeted revenues for the year. Investment income expectations were reduced by 30% due to low interest rates.

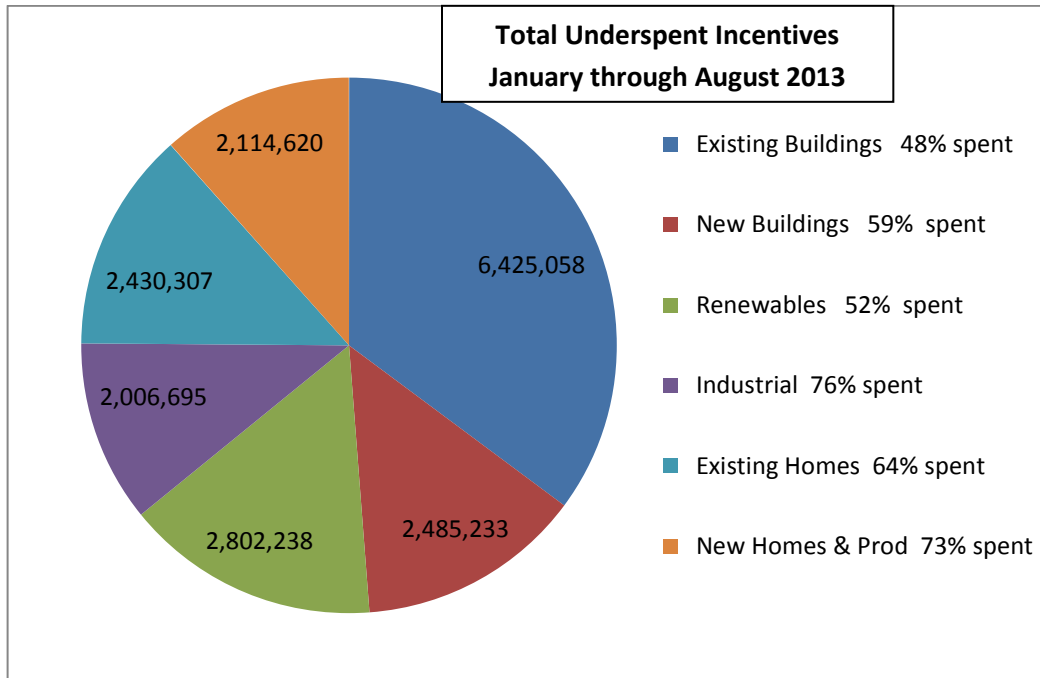
Aug-13	YTD Actual	YTD Budget	YTD Var	YTD %
PGE	56,907,727	56,658,576	249,151	0%
PAC	35,010,454	34,303,300	707,154	2%
NWN	19,991,858	19,057,157	934,701	5%
CNG	1,490,694	2,402,651	(911,957)	-38%
Investment Income	58,236	80,000	(21,764)	-27%
Total	113,458,969	112,501,684	957,285	1%

Expenses

Total company expenses YTD are \$70 million, which is \$25 million less than budgeted spending. Incentive spending makes up \$18.2 million (73%) of the total amount underspent. Incentive spending for Renewables has been impacted by a budgeted \$1.5 million payment for Renewables for Oregon Institute of Technology (OIT) Geothermal that has now been pushed out to 2014.



The following chart shows, by program, the incentive variance (versus budget) for the first eight months. The % next to the program indicates how much of the current year's budgeted incentives have been spent. Industrial, for example, has spent 76% of their January to August incentive budget, the remaining unspent 24% totals \$2,006,695 of incentive spending variance.



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

In the recently completed Forecast for the rest of 2013, the Efficiency programs forecast a reduction of about \$15 million (10%), and Renewables decreased their projection by \$5.9 million (36%). Overall spending is anticipated to drop by \$21 million (12.5%) from the original budget. Overall Efficiency program savings have now been forecasted to decrease by 3.5% overall in electricity and 1.3% in gas. Efficiency program managers believe that we will be able to meet our conservative savings goals for 2013 and, in some cases, our stretch goals as well. The Efficiency programs are focused on meeting these targets by year end and are eagerly getting ready for year-end "hockey stick" time.

	Total Incentives			
Incentives thru Aug 2013	Year-to-Date 2013			
	Actual	Budget	Variance	Var %
Existing Buildings	5,912,207	12,318,137	6,405,930	52%
New Buildings	3,546,142	6,031,375	2,485,233	41%
Production Efficiency	6,243,804	8,250,499	2,006,695	24%
Existing Homes	4,336,140	6,733,824	2,397,684	36%
New Homes & Products	5,720,577	7,792,625	2,072,048	27%
Washington Programs - All	203,819	332,816	128,997	39%
Solar	2,208,126	3,112,730	904,604	29%
Open Solicitation	216,901	1,864,836	1,647,935	88%
Biopower	636,382	886,081	249,699	28%
	-----	-----	-----	-----
Total Incentives	29,024,098	47,322,921	18,298,822	39%
	-----	-----	-----	-----
Energy Efficiency Only	25,962,689	41,459,276	15,496,587	37%
	Total Incentives			
Incentives thru Aug 2012	Year-to-Date (Prior Year)			
	Actual	Budget	Variance	Var %
Existing Buildings	8,867,628	11,533,872	2,666,244	23%
New Buildings	4,461,382	4,980,229	518,847	10%
Production Efficiency	5,140,632	7,506,835	2,366,203	32%
Existing Homes	6,667,976	7,586,413	918,437	12%
New Homes & Products	6,251,734	7,831,104	1,579,370	20%
Washington Programs - All	175,160	337,763	162,603	48%
Solar	9,420,671	3,164,549	(6,256,122)	-198%
Open Solicitation	440,014	1,000,559	560,545	56%
Biopower	614,520	757,416	142,896	19%
	-----	-----	-----	-----
Total Incentives	42,039,717	44,698,736	2,659,019	6%
	-----	-----	-----	-----
Energy Efficiency Only	31,564,512	39,776,216	8,211,704	21%

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

	AUG 2013	JUL 2013	DEC 2012	Change from Prior Month	Change from Beg. of Year
Current Assets					
Cash & Cash Equivalents	86,154,586	87,013,636	64,005,605	(859,051)	22,148,981
Restricted Cash (Escrow Funds)	252,712	252,704	462,692	8	(209,980)
Investments	5,976,013	4,980,363		995,650	5,976,013
Receivables	4,027	8,709	123,795	(4,683)	(119,768)
Prepaid Expenses	696,195	811,770	265,829	(115,574)	430,366
Advances to Vendors	982,447	1,753,938	2,109,014	(771,490)	(1,126,567)
Total Current Assets	94,065,980	94,821,120	66,966,935	(755,140)	27,099,046
Fixed Assets					
Computer Hardware and Software	1,368,867	1,368,867	1,347,388		21,479
Leasehold Improvements	313,333	313,333	287,385		25,948
Office Equipment and Furniture	600,662	600,662	600,662		0
Total Fixed Assets	2,282,863	2,282,863	2,235,435		47,427
Less Depreciation	(1,390,756)	(1,362,779)	(1,183,098)	(27,977)	(207,658)
Net Fixed Assets	892,107	920,083	1,052,337	(27,977)	(160,230)
Other Assets					
Deposits	61,461	64,461	64,461	(3,000)	(3,000)
Deferred Compensation Asset	458,301	449,688	409,369	8,613	48,933
Total Other Assets	519,763	514,149	473,830	5,613	45,933
Total Assets	95,477,850	96,255,353	68,493,102	(777,504)	26,984,748
Current Liabilities					
Accounts Payable and Accruals	4,646,699	6,714,725	21,430,138	(2,068,026)	(16,783,439)
Deposits Held for Others			49,433		(49,433)
Salaries, Taxes, & Benefits Payable	621,463	643,213	585,703	(21,749)	35,761
Total Current Liabilities	5,268,162	7,357,937	22,065,273	(2,089,776)	(16,797,112)
Long Term Liabilities					
Deferred Rent	353,838	350,013	323,237	3,825	30,602
Deferred Compensation Payable	458,301	449,688	409,369	8,613	48,933
Other Long-Term Liabilities	14,164	14,064	13,674	100	490
Total Long-Term Liabilities	826,303	813,765	746,279	12,539	80,024
Total Liabilities	6,094,465	8,171,702	22,811,553	(2,077,237)	(16,717,088)
Net Assets					
Temporarily Restricted Net Assets	252,712	252,704	462,692	8	(209,980)
Unrestricted Net Assets	89,130,673	87,830,947	45,218,858	1,299,726	43,911,815
Total Net Assets	89,383,385	88,083,651	45,681,549	1,299,733	43,701,835
Total Liabilities and Net Assets	95,477,850	96,255,353	68,493,102	(777,504)	26,984,748

BS-Acct-YTD-001

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

	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>Year to Date</u>
Operating Activities:									
Revenue less Expenses	\$ 10,219,705	10,927,972	7,324,090	5,958,617	2,986,589	1,606,211	3,378,918	1,299,733	\$ 43,701,835
<i>Non-cash items:</i>									
Depreciation	27,270	27,452	28,129	27,410	27,977	27,977	27,977	27,977	\$ 222,168
Loss on disposal of assets									\$ -
Receivables	53,256	66,082	35	(5,470)	(0)	0	(0)	5,470	\$ 119,373
Interest Receivable	546	129	(496)	1,647	(518)	465	(590)	(787)	\$ 395
Advances to Vendors	705,543	733,344	(1,456,911)	410,950	709,011	(1,307,397)	560,532	771,490	\$ 1,126,562
Prepaid expenses and other costs	(559,565)	51,323	(82,665)	(46,877)	(9,774)	79,710	21,907	115,575	\$ (430,366)
Accounts payable	(14,214,238)	1,481,611	(2,237,661)	700,669	(1,049,325)	1,129,368	(575,269)	(2,068,026)	\$ (16,832,871)
Payroll and related accruals	16,657	39,359	5,770	21,984	25,790	9,262	(20,993)	(13,137)	\$ 84,692
Deferred rent and other	(271)	(1,101)	(1,829)	(1,217)	(1,318)	(2,289)	(5,128)	(1,689)	\$ (14,842)
Cash rec'd from / (used in) Operating Activities	(3,751,097)	13,326,171	3,578,462	7,067,713	2,688,432	1,543,307	3,387,353	136,609	\$ 27,976,949
Investing Activities:									
Purchase of Investments Held to Maturity (Acquisition)/Disposal of Capital Assets	-	(6,570)	(25,948)	-	(4,980,004) (29,420)	(53) -	(306) -	(995,650) -	\$ (5,976,013) \$ (61,938)
Cash rec'd from / (used in) Investing Activities	-	(6,570)	(25,948)	-	(5,009,424)	(53)	(306)	(995,650)	\$ (6,037,951)
Cash at beginning of Period	64,468,299	60,717,202	74,036,802	77,589,318	84,657,031	82,336,039	83,879,294	87,266,342	\$ 64,468,299
Increase/(Decrease) in Cash	(3,751,097)	13,319,602	3,552,516	7,067,713	(2,320,992)	1,543,255	3,387,048	(859,043)	\$ 21,938,999
Cash at end of period	60,717,202	74,036,802	77,589,318	84,657,031	82,336,039	83,879,294	87,266,342	86,407,298	\$ 86,407,298

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

	Actual								2013 Forecast			
	January	February	March	April	May	June	July	August	September	October	November	December
Cash In:												
Public purpose and Incr funding	15,975,013	18,276,561	16,633,304	14,890,395	12,680,595	11,539,660	11,696,383	11,708,822	11,200,000	12,800,000	12,300,000	16,300,000
From other sources	53,256	66,082	35	(4,540)	(0)	0	(0)	5,470				
Investment Income	7,847	6,746	7,212	9,359	6,368	6,941	7,176	6,980	7,000	7,000	7,000	7,000
Total cash in	16,036,116	18,349,389	16,640,551	14,895,214	12,686,963	11,546,601	11,703,559	11,721,272	11,207,000	12,807,000	12,307,000	16,307,000
Cash Out:	19,787,213	5,029,788	13,088,038	7,827,499	15,007,955	10,003,347	8,316,510	12,580,315	13,300,000	13,600,000	14,600,000	23,200,000
Net cash flow for the month	(3,751,097)	13,319,601	3,552,516	7,067,718	(2,320,989)	1,543,254	3,387,048	(859,044)	(2,093,000)	(793,000)	(2,293,000)	(6,893,000)
Beginning Balance: Cash & MM	64,468,299	60,717,202	74,036,802	77,589,318	84,657,031	82,336,039	83,879,294	87,266,342	86,407,299	84,314,299	83,521,299	81,228,299
Ending cash & MM	60,717,202	74,036,802	77,589,318	84,657,031	82,336,039	83,879,294	87,266,342	86,407,299	84,314,299	83,521,299	81,228,299	74,335,299
Dedicated funds Adjustment	(10,600,000)	(10,600,000)	(7,900,000)	(8,100,000)	(8,400,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)
Committed Funds Adjustment	(37,200,000)	(40,000,000)	(33,900,000)	(46,300,000)	(45,800,000)	(41,200,000)	(39,900,000)	(39,600,000)	(39,600,000)	(38,200,000)	(38,200,000)	(33,200,000)
Cash Reserve	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)
Ending Cash & MM, adj by Above	6,717,202	17,236,802	29,589,318	24,057,031	21,936,047	23,179,294	27,866,342	27,307,299	25,214,299	25,821,299	23,528,299	21,635,299
Escrow Cash Balance												
Beginning Balance	462,692	381,052	381,090	381,118	252,683	252,690	252,697	252,704	252,712	77,975	77,981	77,987
Net Escrow (Payments)/Funding	(81,682)		-	(128,457)					(174,743)			
Interest Paid on Escrow Balances	42	38	28	22	7	7	7	8	6	6	6	0
Ending Escrow Balance¹	381,052	381,090	381,118	252,683	252,690	252,697	252,704	252,712	77,975	77,981	77,987	77,988

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:	24,400,000	9,100,000	11,900,000	11,300,000	11,200,000	15,500,000	14,600,000	12,700,000	16,100,000	14,200,000	14,900,000	23,900,000
Net cash flow for the month	(8,390,000)	8,010,000	5,610,000	4,210,000	2,710,000	(3,290,000)	(2,290,000)	(1,090,000)	(4,290,000)	(290,000)	(1,890,000)	(6,590,000)
Beginning Balance: Cash & MM	74,335,299	65,945,299	73,955,299	79,565,299	83,775,299	86,485,299	83,195,299	80,905,299	79,815,299	75,525,299	75,235,299	73,345,299
Ending cash & MM	65,945,299	73,955,299	79,565,299	83,775,299	86,485,299	83,195,299	80,905,299	79,815,299	75,525,299	75,235,299	73,345,299	66,755,299
Dedicated funds Adjustment	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)	(13,300,000)
Committed Funds Adjustment	(36,200,000)	(37,400,000)	(39,900,000)	(39,900,000)	(39,900,000)	(39,900,000)	(39,900,000)	(39,900,000)	(39,900,000)	(39,900,000)	(39,900,000)	(39,900,000)
Cash Reserve	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)	(6,200,000)
Ending Cash & MM, adj by Above	10,245,299	17,055,299	20,165,299	24,375,299	27,085,299	23,795,299	21,505,299	20,415,299	16,125,299	15,835,299	13,945,299	7,355,299
Escrow Cash Balance												
Beginning Balance	77,988	78,004	78,020	-	-	-	-	-	-	-	-	-
Net Escrow (Payments)/Funding			(78,020)									
Interest Paid on Escrow Balances	16	16	-	-	-	-	-	-	-	-	-	-
Ending Escrow Balance¹	78,004	78,020	-	-	-	-	-	-	-	-	-	-

¹Included in "Ending cash & MM" above

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

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

	<u>August</u>			<u>YTD</u>		
	<u>Actual</u>	<u>Budget</u>	<u>Variance</u>	<u>Actual</u>	<u>Budget</u>	<u>Variance</u>
<u>REVENUES</u>						
Public Purpose Funds-PGE	2,707,871	2,619,305	88,565	23,478,548	23,451,958	26,590
Public Purpose Funds-PacifiCorp	2,130,506	2,120,194	10,312	17,551,922	17,010,184	541,738
Public Purpose Funds-NW Natural	768,343	264,864	503,479	18,194,415	17,614,578	579,836
Public Purpose Funds-Cascade	68,557	75,067	(6,510)	1,490,694	2,402,651	(911,957)
Total Public Purpose Funds	5,675,277	5,079,430	595,847	60,715,578	60,479,371	236,207
Incremental Funds - PGE	3,913,060	3,907,527	5,532	33,429,179	33,206,618	222,561
Incremental Funds - PacifiCorp	2,120,485	2,106,957	13,528	17,458,532	17,293,116	165,416
NW Natural - Industrial DSM	0	0	0	1,151,892	797,028	354,864
NW Natural - Washington	0	0	0	645,551	645,551	0
Contributions	0	0	0	930	0	930
Revenue from Investments	7,767	10,000	(2,233)	58,236	80,000	(21,764)
<u>TOTAL REVENUE</u>	11,716,589	11,103,915	612,674	113,459,899	112,501,684	958,215
<u>EXPENSES</u>						
Program Subcontracts	3,791,092	4,149,739	358,648	29,479,569	30,901,288	1,421,719
Incentives	5,155,383	7,651,266	2,495,884	29,024,097	47,322,921	18,298,824
Salaries and Related Expenses	798,126	900,972	102,847	6,387,482	7,178,241	790,760
Professional Services	446,992	747,806	300,814	3,067,688	6,948,435	3,880,747
Supplies	1,761	10,354	8,592	19,966	82,829	62,863
Telephone	4,580	4,453	(127)	35,014	36,124	1,110
Postage and Shipping Expenses	882	833	(49)	7,113	6,667	(446)
Occupancy Expenses	55,245	58,434	3,189	442,983	467,468	24,485
Noncapitalized Equip. & Depr.	57,062	67,673	10,610	426,316	584,261	157,944
Call Center	43,667	44,917	1,249	437,148	359,333	(77,814)
Printing and Publications	4,880	17,112	12,232	87,827	136,900	49,072
Travel	7,417	14,682	7,265	93,024	137,556	44,532
Conference, Training & Mtng Exp	8,459	29,507	21,049	82,835	266,785	183,950
Interest Expense and Bank Fees	5,000	625	(4,375)	5,443	5,000	(443)
Insurance	8,622	9,167	545	65,688	73,333	7,646
Miscellaneous Expenses	410	225	(185)	1,000	1,800	800
Dues, Licenses and Fees	27,278	10,314	(16,963)	94,871	97,299	2,427
TOTAL EXPENSES	10,416,855	13,718,080	3,301,225	69,758,064	94,606,240	24,848,176
TOTAL REVENUE LESS EXPENSES	1,299,733	(2,614,165)	3,913,899	43,701,835	17,895,444	25,806,392

IS-Acct-YTD-001

Energy Trust of Oregon, Inc
Statement of Functional Expenses
For the Eight Months Ending August 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	55,347,314	3,156,351	58,503,665				58,503,665	78,224,209	19,720,544
Payroll and Related Expenses	1,859,783	551,309	2,411,092	1,254,915	577,632	1,832,547	4,243,639	4,481,275	237,636
Outsourced Services	2,100,580	255,703	2,356,283	100,720	371,774	472,494	2,828,777	5,663,513	2,834,736
Planning and Evaluation	1,231,774	55,615	1,287,389				1,287,389	1,823,016	535,627
Customer Service Management	712,562	14,421	726,983				726,983	694,880	(32,103)
Trade Allies Network	230,887	10,450	241,337				241,337	295,932	54,595
Total Program Expenses	61,482,901	4,043,849	65,526,750	1,355,635	949,405	2,305,040	67,831,790	91,182,825	23,351,035
Program Support Costs									
Supplies	5,346	1,469	6,815	5,482	2,268	7,750	14,565	52,295	37,730
Postage and Shipping Expenses	2,725	593	3,318	1,171	571	1,742	5,060	5,235	175
Telephone	2,056	871	2,927	1,174	492	1,666	4,593	4,076	(517)
Printing and Publications	75,582	3,555	79,137	519	4,799	5,318	84,455	131,718	47,263
Occupancy Expenses	136,269	41,487	177,756	80,903	39,936	120,839	298,595	299,199	604
Insurance	20,295	6,179	26,474	12,049	5,948	17,997	44,471	47,098	2,627
Equipment	15,090	19,333	34,423	3,494	1,725	5,219	39,642	15,952	(23,690)
Travel	30,480	12,785	43,265	13,549	1,775	15,324	58,589	100,823	42,234
Meetings, Trainings & Conferences	17,312	4,131	21,443	19,024	4,010	23,034	44,477	184,884	140,407
Interest Expense and Bank Fees		100	100	5,343		5,343	5,443	5,000	(443)
Depreciation & Amortization	33,613	11,779	45,392	19,956	9,851	29,807	75,199	68,817	(6,382)
Dues, Licenses and Fees	50,013	12,039	62,052	2,824	2,414	5,238	67,290	41,988	(25,302)
Miscellaneous Expenses	982		982	18		18	1,000	1,204	204
IT Services	835,644	98,368	934,012	166,660	82,226	248,886	1,182,898	2,465,125	1,282,227
Total Program Support Costs	1,225,407	212,688	1,438,095	332,165	156,014	488,179	1,926,274	3,423,415	1,497,141
TOTAL EXPENSES	62,708,308	4,256,537	66,964,845	1,687,799	1,105,419	2,793,218	69,758,064	94,606,240	24,848,176
OPUC measure vs. 9%	3.73%								

Exp-Acct-YTD-002

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

	ENERGY EFFICIENCY							Clark PUD	NWN WA	WA Total	ETO Total
	PGE	PacifiCorp	Total	NWN Industrial	NW Natural	Cascade	Oregon Total				
REVENUES											
Public Purpose Funding	\$18,143,177	\$13,642,519	\$31,785,696		\$18,194,415	\$1,490,694	\$51,470,805				\$51,470,805
Incremental Funding Contributions	33,429,179	17,458,532	50,887,711	1,151,892			52,039,603		645,551	645,551	52,685,154
Revenue from Investments											
TOTAL PROGRAM REVENUE	51,572,356	31,101,051	82,673,407	1,151,892	18,194,415	1,490,694	103,510,408		645,551	645,551	104,155,959
EXPENSES											
Program Management (Note 3)	1,606,855	1,067,431	2,674,286	85,191	655,264	45,916	3,460,657	1,428	121,262	122,690	3,583,347
Program Delivery	12,626,287	8,736,295	21,362,582	270,469	3,261,033	244,618	25,138,702	2,099	189,412	191,511	25,330,213
Incentives	13,382,516	7,442,413	20,824,929	918,557	3,750,830	264,554	25,758,870	9,261	194,558	203,819	25,962,689
Program Eval & Planning Svcs.	1,034,230	665,702	1,699,932	33,910	357,124	23,388	2,114,354	613	19,341	19,954	2,134,308
Program Marketing/Outreach	1,370,385	945,978	2,316,363	14,933	719,855	44,963	3,096,114	0	26,193	26,193	3,122,307
Program Quality Assurance	19,547	21,221	40,768	0	25,538	1,028	67,334	0	0	0	67,334
Outsourced Services	145,896	109,807	255,703	2,870	76,957	3,730	339,260	0	0	0	339,260
Trade Allies & Cust. Svc. Mgmt.	232,741	184,120	416,861	2,652	171,539	9,334	600,386	425	16,192	16,617	617,003
IT Services	366,811	251,874	618,685	10,009	173,933	10,117	812,744	554	22,349	22,903	835,647
Other Program Expenses	274,812	215,763	490,575	10,291	184,719	8,987	694,572	493	21,143	21,636	716,208
TOTAL PROGRAM EXPENSES	31,060,079	19,640,604	50,700,683	1,348,883	9,376,791	656,636	62,082,993	14,872	610,451	625,323	62,708,308
ADMINISTRATIVE COSTS											
Management & General (Notes 1 & 2)	782,846	495,027	1,277,873	33,998	236,335	16,550	1,564,756	375	15,386	15,761	1,580,517
Communications & Customer Svc (Notes 1 & 2)	512,723	324,217	836,940	22,267	154,787	10,839	1,024,833	246	10,077	10,323	1,035,156
Total Administrative Costs	1,295,570	819,244	2,114,814	56,264	391,122	27,389	2,589,589	620	25,464	26,084	2,615,673
TOTAL PROG & ADMIN EXPENSES	32,355,643	20,459,844	52,815,487	1,405,147	9,767,911	684,022	64,672,567	15,492	635,913	651,405	65,323,972
TOTAL REVENUE LESS EXPENSES	19,216,713	10,641,207	29,857,920	(253,255)	8,426,504	806,672	38,837,841	(15,492)	9,638	(5,854)	38,831,987
NET ASSETS - RESERVES											
Cumulative Carryover at 12/31/12	12,168,475	3,036,549	15,205,024	1,099,798	3,013,149	(392,281)	18,925,690	50,734	353,174	403,908	19,329,598
Change in net assets this year	19,216,713	10,641,207	29,857,920	(253,255)	8,426,504	806,672	38,837,841	(15,492)	9,638	(5,854)	38,831,987
Interest attributed						392,281	392,281				392,281
Ending Net Assets - Reserves	31,385,188	13,677,756	45,062,944	846,543	11,439,653	806,672	58,155,812	35,242	362,812	398,054	58,553,866
Ending reserve by category											
Program reserves	31,385,188	13,677,756	45,062,944	846,543	11,439,653	414,391	57,763,531	35,242	362,812	398,054	58,161,585
Interest attributed						392,281	392,281				392,281
Contingency available for program use											
Contingency reserve											
Ending Net Assets - reserves	31,385,188	13,677,756	45,062,944	846,543	11,439,653	806,672	58,155,812	35,242	362,812	398,054	58,553,866

Note 1) Both Management & General and Communications & Customer Service Expenses (Administrative) have been allocated based on total expenses.

Note 2) Administrative costs are allocated for management reporting only. GAAP for Not for Profit organizations does not allow allocation of administrative costs to program expenses.

Note 3) Program Management costs include both outsourced and internal staff.

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

	RENEWABLE ENERGY			Other	TOTAL	Approved budget	Change
	PGE	PacifiCorp	Total		All Programs		
REVENUES							
Public Purpose Funding	\$5,335,370	\$3,909,403	\$9,244,773		\$60,715,578	\$60,479,371	\$236,207
Incremental Funding					52,685,155	51,942,313	742,841
Contributions				930	930		930
Revenue from Investments				58,236	58,236	80,000	(21,764)
TOTAL PROGRAM REVENUE	5,335,370	3,909,403	9,244,773	59,166	113,459,899	112,501,684	958,214
EXPENSES							
Program Management (Note 3)	187,182	364,127	551,309		4,134,656	3,995,479	(139,177)
Program Delivery	44,684	50,260	94,944		25,425,157	27,181,092	1,755,935
Incentives	1,555,657	1,505,752	3,061,409		29,024,098	47,322,922	18,298,824
Program Eval & Planning Svcs.	20,045	35,570	55,615		2,189,923	3,644,068	1,454,145
Program Marketing/Outreach	42,452	22,615	65,067		3,187,374	3,439,229	251,855
Program Quality Assurance	1,621	0	1,621		68,955	170,000	101,045
Outsourced Services	89,599	99,417	189,016		528,276	1,544,673	1,016,397
Trade Allies & Cust. Svc. Mgmt.	15,877	8,952	24,829		641,832	724,810	82,978
IT Services	38,968	59,400	98,368		934,015	1,946,761	1,012,746
Other Program Expenses	53,741	60,619	114,360		830,568	798,241	(32,327)
TOTAL PROGRAM EXPENSES	2,049,825	2,206,713	4,256,537		66,964,845	90,767,275	23,802,421
ADMINISTRATIVE COSTS							
Management & General (Notes 1 & 2)	50,191	57,092	107,283		1,687,799	2,362,529	674,729
Communications & Customer Svc (Notes 1 & 2)	32,873	37,392	70,265		1,105,419	1,476,435	371,014
Total Administrative Costs	83,064	94,484	177,548		2,793,218	3,838,964	1,045,743
TOTAL PROG & ADMIN EXPENSES	2,132,890	2,301,197	4,434,087		69,758,064	94,606,239	24,848,176
TOTAL REVENUE LESS EXPENSES	3,202,480	1,608,206	4,810,686	59,166	43,701,835	17,895,445	(25,806,378)
NET ASSETS - RESERVES							
Cumulative Carryover at 12/31/12	8,211,384	7,461,615	15,672,999	10,678,953	45,681,550	37,070,557	(8,610,993)
Change in net assets this year	3,202,480	1,608,206	4,810,686	59,166	43,701,835	17,895,445	(25,806,378)
Interest attributed	585,000	2,235,000	2,820,000	(3,212,281)			
Ending Net Assets - Reserves	11,998,864	11,304,821	23,303,685	7,525,838	89,383,385	54,966,002	(34,417,371)
Ending reserve by category							
Program reserves	11,413,864	9,069,821	20,483,685		78,645,266	54,966,002	(34,417,371)
Interest attributed	585,000	2,235,000	2,820,000		3,212,281		
Contingency available for program use				2,525,838	2,525,838		
Contingency reserve				5,000,000	5,000,000		
Ending Net Assets - reserves	11,998,864	11,304,821	23,303,685	7,525,838	89,383,385	54,966,002	(34,417,371)

Note 1) Both Management & General and Communications & Customer Service Expenses (Administrative) have been allocated based on total expenses.

Note 2) Administrative costs are allocated for management reporting only. GAAP for Not for Profit organizations does not allow allocation of administrative costs to program expenses.

Note 3) Program Management costs include both outsourced and internal staff.

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

	<u>PGE</u>	<u>Pacific Power</u>	<u>Subtotal Elec.</u>	<u>NWN Industrial</u>	<u>NW Natural Gas</u>	<u>Cascade</u>	<u>Subtotal Gas</u>	<u>Oregon Total</u>	<u>Clark PUD WA</u>	<u>NWN WA</u>	<u>Total WA</u>	<u>ETO Total</u>	<u>YTD Budget</u>	<u>Variance</u>
Energy Efficiency														
Commercial														
Existing Buildings	7,893,140	4,939,562	12,832,702	153,595	2,034,496	86,584	2,274,675	15,107,377	15,492	235,153	250,645	15,358,022	23,294,329	7,936,307
New Buildings	4,668,914	2,232,489	6,901,403	59,917	366,402	91,713	518,032	7,419,435				7,419,435	10,830,396	3,410,961
NEEA	1,126,828	850,064	1,976,892					1,976,892				1,976,892	1,953,878	(23,014)
Total Commercial	13,688,882	8,022,115	21,710,997	213,512	2,400,898	178,297	2,792,707	24,503,704	15,492	235,153	250,645	24,754,349	36,078,603	11,324,254
Industrial														
Production Efficiency	7,589,388	3,906,226	11,495,614	1,191,635	267,274	44,851	1,503,760	12,999,374				12,999,374	15,875,028	2,875,654
NEEA	496,192	374,321	870,513					870,513				870,513	963,346	92,833
Total Industrial	8,085,580	4,280,547	12,366,127	1,191,635	267,274	44,851	1,503,760	13,869,887				13,869,887	16,838,374	2,968,487
Residential														
Existing Homes	3,599,617	3,907,792	7,507,409		4,702,277	189,310	4,891,587	12,398,996		245,074	245,074	12,644,070	16,419,263	3,775,193
New Homes/Products	5,379,399	3,040,740	8,420,139		2,397,462	271,564	2,669,026	11,089,165		155,686	155,686	11,244,851	14,317,104	3,072,253
NEEA	1,602,165	1,208,650	2,810,815					2,810,815				2,810,815	2,865,676	54,861
Total Residential	10,581,181	8,157,182	18,738,363		7,099,739	460,874	7,560,613	26,298,976		400,760	400,760	26,699,736	33,602,043	6,902,307
Energy Efficiency Program Cos	32,355,643	20,459,844	52,815,487	1,405,147	9,767,911	684,022	11,857,080	64,672,567	15,492	635,913	651,405	65,323,972	86,519,020	21,195,048
Renewables														
Biopower	24,611	814,759	839,370					839,370				839,370	1,209,562	370,192
Solar Electric (Photovoltaic)	1,938,326	1,012,653	2,950,979					2,950,979				2,950,979	4,357,654	1,406,675
Other Renewable	169,953	473,785	643,738					643,738				643,738	2,520,005	1,876,267
Renewables Program Costs	2,132,890	2,301,197	4,434,087					4,434,087				4,434,087	8,087,221	3,653,134
Cost Grand Total	34,488,533	22,761,041	57,249,574	1,405,147	9,767,911	684,022	11,857,080	69,106,654	15,492	635,913	651,405	69,758,064	94,606,241	24,848,182

PUC-Proj-ST-07-C

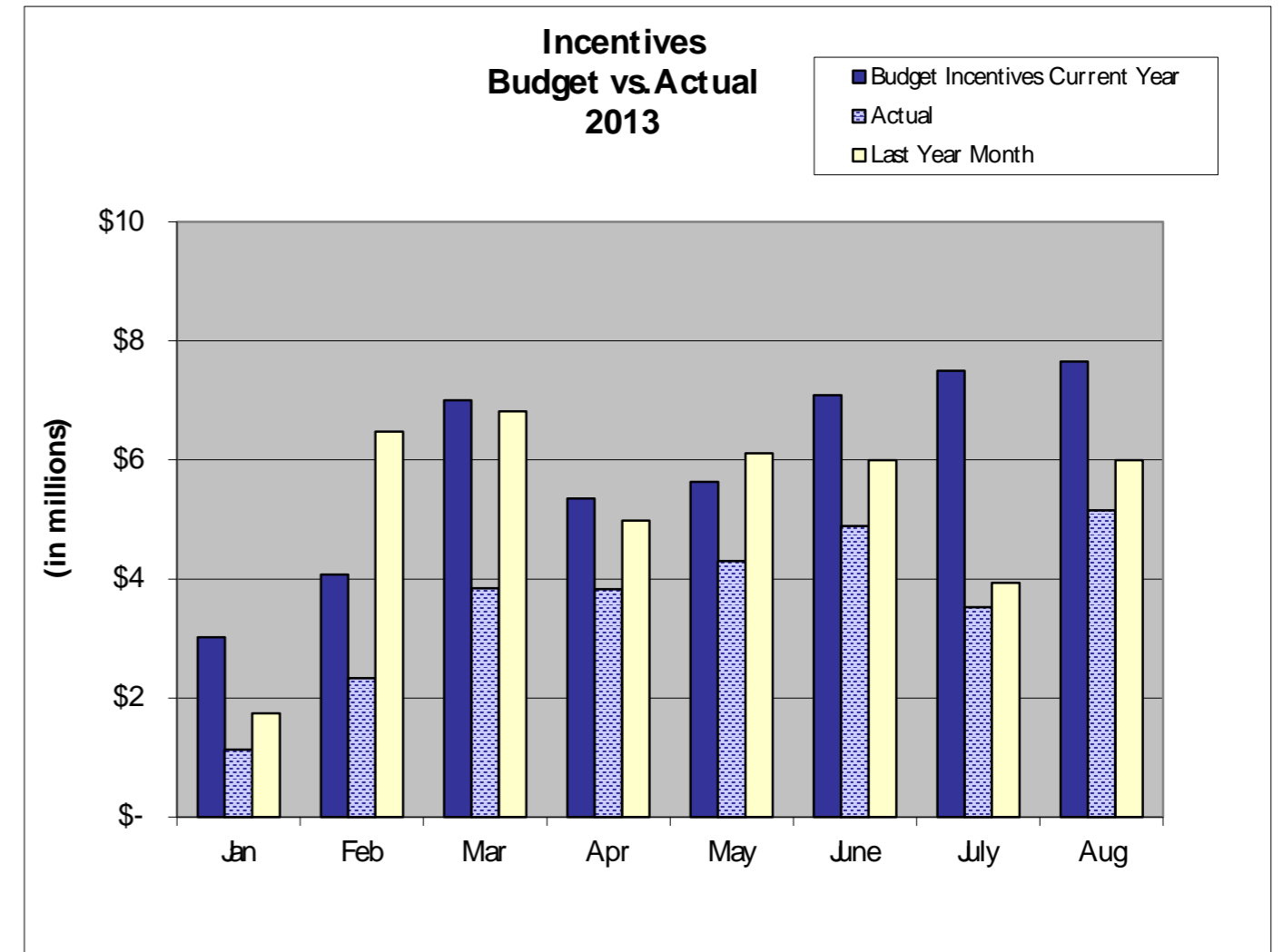
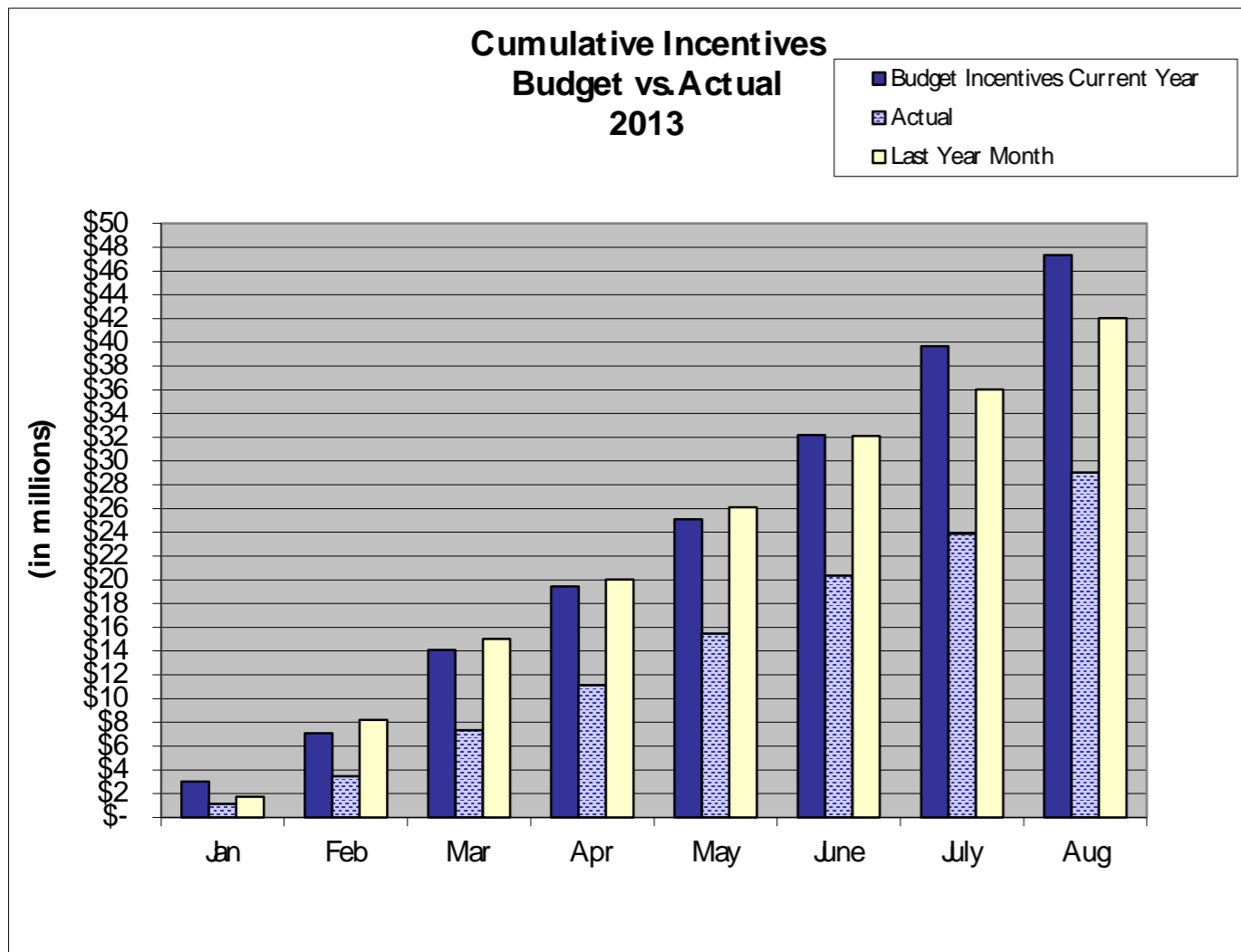
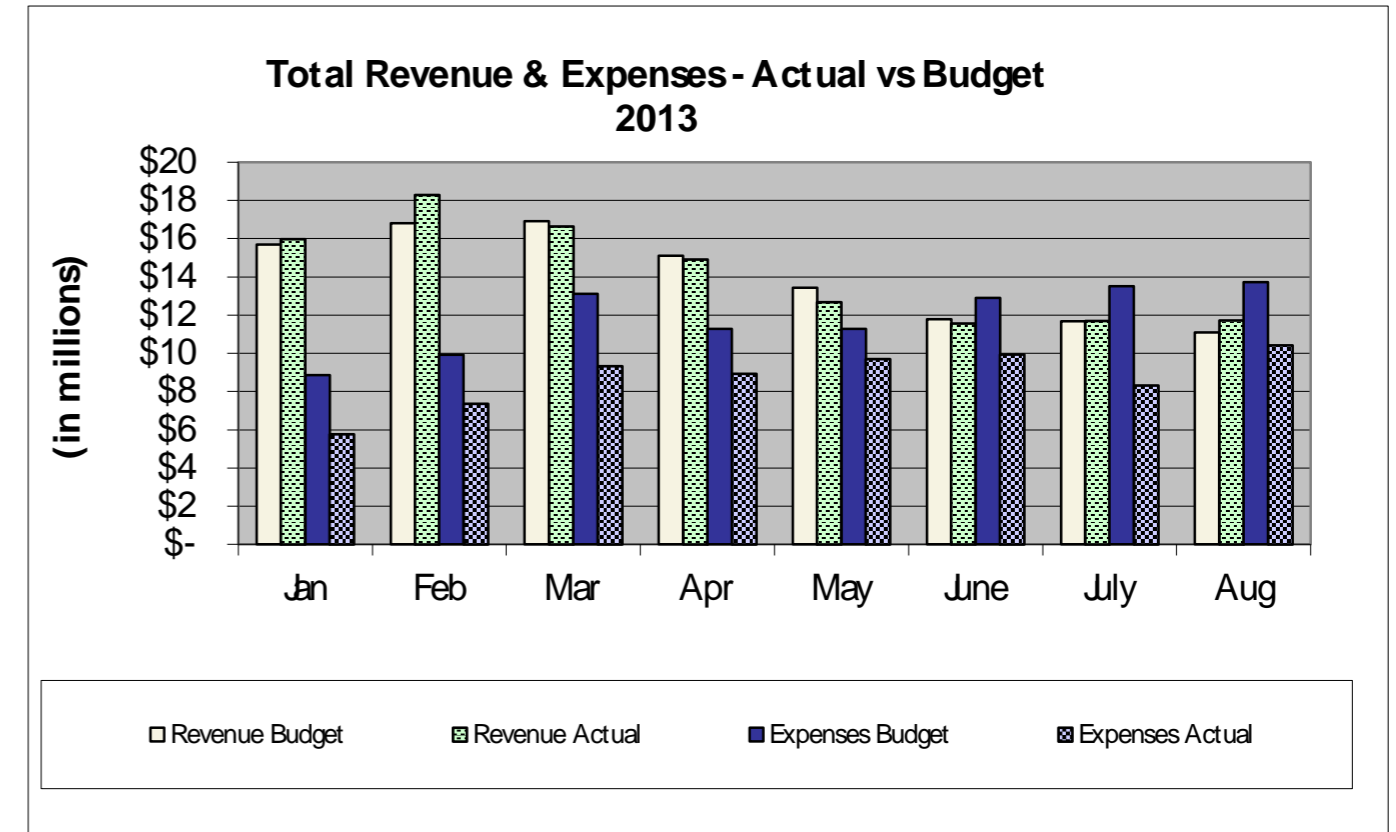
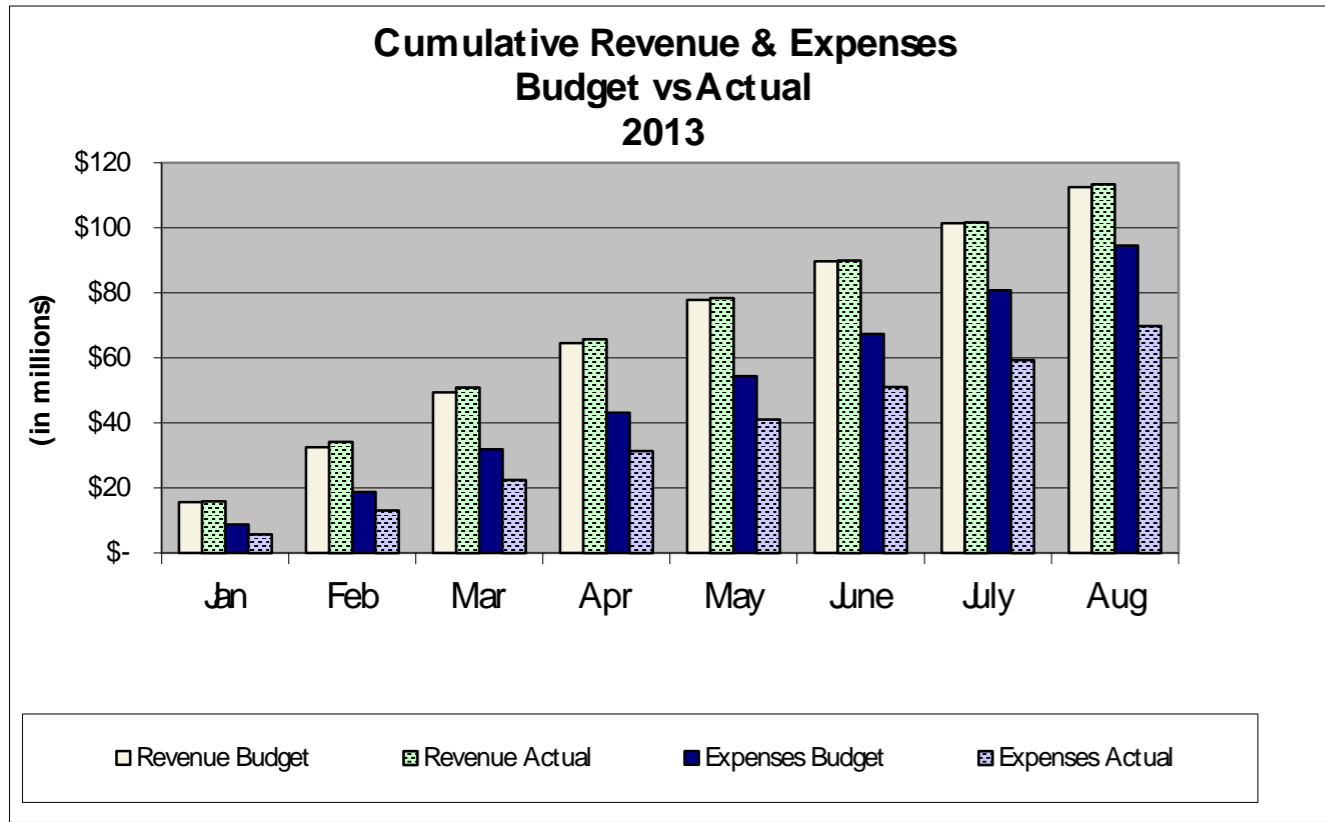
Energy Trust of Oregon, Inc.
ADMINISTRATIVE EXPENSES
For the Two Months and Year to Date Ended August 31, 2013
(Unaudited)

	MANAGEMENT & GENERAL						COMMUNICATIONS & CUSTOMER SERVICE					
	QTD ACTUAL	QUARTERLY BUDGET	QUARTER REMAINING	YTD			QTD ACTUAL	QUARTERLY BUDGET	QUARTER REMAINING	YTD		
				ACTUAL	BUDGET	VARIANCE				ACTUAL	BUDGET	VARIANCE
EXPENSES												
Outsourced Services	\$30,584	\$127,046	\$96,462	\$97,718	\$320,456	\$222,738	\$62,776	\$232,500	\$169,724	\$371,774	\$620,000	\$248,226
Legal Services		22,500	22,500	3,002	60,000	56,999						
Salaries and Related Expenses	335,526	511,750	176,223	1,254,915	1,339,001	84,086	138,674	208,331	69,657	577,632	555,096	(22,536)
Supplies	10	1,575	1,565	2,695	4,200	1,505	244	250	6	892	667	(225)
Telephone	210	710	500	352	933	581	27		(27)	87		(87)
Postage and Shipping Expenses	14		(14)	14		(14)		1,000	1,000		2,667	2,667
Noncapitalized Equipment								250	250		667	667
Printing and Publications	20	150	130	80	400	320	3,286	13,750	10,464	4,582	36,667	32,084
Travel	1,620	11,833	10,214	13,549	31,556	18,007	27	1,750	1,723	1,775	4,667	2,892
Conference, Training & Mtngs	6,162	41,147	34,986	19,024	117,951	98,927	1,405	7,125	5,720	4,010	19,000	14,990
Interest Expense and Bank Fees	4,965	1,875	(3,090)	5,343	5,000	(343)						
Miscellaneous Expenses		50	50	18	133	115						
Dues, Licenses and Fees	3,920	1,380	(2,540)	2,824	5,300	2,476	442	500	58	2,414	1,333	(1,081)
Shared Allocation (Note 1)	29,455	48,964	19,509	121,606	130,518	8,912	16,252	24,156	7,904	60,028	64,390	4,362
IT Service Allocation (Note 2)	38,282	111,224	72,942	166,660	347,080	180,421	18,887	54,889	36,001	82,226	171,283	89,057
TOTAL EXPENSES	450,768	880,204	429,436	1,687,799	2,362,529	674,730	242,019	544,501	302,481	1,105,419	1,476,436	371,016

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

Administrative Expenses 2nd Month of Quarter

Exp-Prog-YTD-002



For contracts with costs
through: 9/1/2013

Contractor	Description	*City	Est Cost	Actual TTD	Remaining	Start	End
Administration							
Administration Total:			6,771,315	1,859,510	4,911,805		
Communications & Outreach							
Communications & Outreach Total:			2,672,136	1,784,187	887,949		
Energy Efficiency Programs							
Northwest Energy Efficiency Alliance	Regional Energy Eff Initiative	Portland	39,138,680	26,349,406	12,789,274	1/1/10	7/1/15
ICF Resources, LLC	PMC BE 2013	Fairfax	7,745,851	4,739,510	3,006,341	1/1/13	12/31/13
Fluid Market Strategies LLC	2013 HES PMC	Portland	7,338,775	4,617,590	2,721,185	1/1/13	12/31/13
Portland Energy Conservation, Inc.	PMC NHP 2013	Portland	6,315,684	3,891,658	2,424,026	1/1/13	12/31/13
Portland Energy Conservation, Inc.	2013 NBE PMC	Portland	4,736,060	2,629,509	2,106,551	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	2,816,996	1,710,488	1,106,508	1/1/13	12/31/13
OPOWER, Inc.	OPOWER Agreement	Arlington	2,092,200	2,047,420	44,780	3/2/10	2/28/14
Oregon State University	CHP Project - OSU	Corvallis	2,024,263	1,920,000	104,263	12/20/10	1/31/16
Portland General Electric	PDC - PE 2013		1,871,000	1,167,868	703,132	1/1/13	12/31/13
Cascade Energy, Inc.	PDC - PE 2013	Walla Walla	1,725,055	1,163,367	561,688	1/1/13	12/31/13
RHT Energy Solutions	PDC - PE 2013	Medford	1,278,651	819,723	458,928	1/1/13	12/31/13
Cascade Energy, Inc.	PDC - PE 2013 Small Industrial	Walla Walla	1,147,500	799,757	347,743	1/1/13	12/31/13
Evergreen Consulting Group, LLC	PE Lighting PDC 2013	Tigard	1,071,000	672,884	398,116	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	402,475	423,343	1/1/13	12/31/13
Navigant Consulting Inc	PE Program Impact Evaluation	Boulder	548,000	548,000	0	12/15/11	10/30/13
Ecova Inc	Plug Load Solutions Funding	Spokane	499,950	293,565	206,385	1/1/13	12/31/13
SBW Consulting, Inc.	BE Program Impact Evaluation	Bellevue	489,000	425,433	63,567	1/15/12	6/30/13
Evoworx Inc.	EnergySavvy Online Audit Tool	Seattle	472,500	298,634	173,866	1/1/12	12/31/13
Clean Energy Works Oregon Inc	Clean Energy Works	Portland	448,500	300,000	148,500	1/1/10	7/31/13
OPOWER, Inc.	OPower Personal Energy Reports	Arlington	425,850	155,760	270,090	8/1/13	7/31/15
Navigant Consulting Inc	Analytical Model & Study	Boulder	412,052	0	412,052	8/12/13	4/30/14
The Cadmus Group Inc.	NB Impact Eval 2010-2011	Watertown	295,000	262,801	32,199	1/13/12	12/31/13
Fluid Market Strategies LLC	2013 HES WA PMC	Portland	265,000	189,239	75,761	1/1/13	12/31/13
ICF Resources, LLC	NWN WA BE 2013	Fairfax	191,538	85,268	106,270	1/1/13	12/31/13
Research Into Action, Inc.	PE Evaluation	Portland	170,000	127,096	42,904	2/1/12	7/31/13
Home Performance Contractors Guild of Oregon	Existing Homes Program Support	Portland	155,000	107,343	47,657	1/1/12	3/31/14
D&R International LTD	Market Lift Program	Silver Spring	150,000	0	150,000	1/1/13	9/30/13
ICF Resources, LLC	CHP Performance	Fairfax	116,320	80,968	35,352	8/5/09	6/30/13
ICF Resources, LLC	NWN DSM Initiative 2013	Fairfax	110,000	59,161	50,839	1/1/13	12/31/13
J. Hruska Global	Quality Assurance Services	Columbia City	100,000	57,748	42,253	1/1/13	12/31/14
PWP, Inc.	NBE Process Evaluation	Gaithersburg	100,000	90,291	9,709	1/6/12	12/31/13
Vitesse LLC	Vitesse Data Center	Menlo Park	100,000	0	100,000	10/18/12	10/30/13
Evergreen Economics	New Homes Process Eval - 2013	Portland	70,000	18,633	51,367	6/24/13	3/31/14

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For contracts with costs
through: 9/1/2013

Contractor	Description	*City	Est Cost	Actual TTD	Remaining	Start	End
Portland Energy Conservation, Inc.	EE Consultant Services	Portland	54,170	50,758	3,412	6/1/11	12/31/13
Research Into Action, Inc.	Products Process Evaluation	Portland	52,800	6,880	45,920	7/1/13	4/1/14
The Cadmus Group Inc.	Commercial Op Pilot Eval	Watertown	50,000	35,252	14,749	7/1/11	12/31/13
Benenson Strategy Group	Residential Awareness 2013	Santa Monica	45,000	45,000	0	4/15/13	12/31/13
PWP, Inc.	Comm SEM Initiative Evaluation	Gaithersburg	45,000	32,933	12,067	7/1/12	6/30/14
KEMA Incorporated	Shelf Space Survey	Oakland	42,750	21,375	21,375	12/1/12	9/30/13
Portland General Electric	Utility Data Payment - OPOWER	Portland	40,000	19,928	20,072	8/1/10	2/28/14
NW Natural	Info Transfer & Reimbursement	Portland	35,000	21,263	13,737	7/12/10	2/28/14
The Cadmus Group Inc.	Lighting Pilot Evaluation	Watertown	35,000	15,093	19,907	4/1/12	12/31/13
WegoWise Inc	Wegowise Benchmarking License	Boston	35,000	35,000	0	5/14/12	5/14/14
Navigant Consulting Inc	CORE Improvement Pilot Eval	Boulder	34,000	15,483	18,517	9/1/12	8/30/14
MetaResource Group	Data Center Evaluation	Portland	30,000	2,246	27,754	5/1/13	12/31/14
Seattle City Light	Lighting Design Lab	Seattle	30,000	30,000	0	1/1/13	12/31/13
Stellar Processes, Inc.	BE Measure Evaluation	Portland	25,250	19,125	6,125	10/24/12	10/24/14
Northwest Food Processors Association	NW Industrial EE Summit 2014	Portland	25,000	0	25,000	7/16/13	1/15/14
Triple Point Energy Inc.	SEM Workshops	Portland	24,240	9,114	15,126	4/29/13	1/15/14
Michael Blasnick & Associated	Billing Analysis Process	Boston	20,000	3,938	16,063	1/1/10	12/31/13
Oregon Assoc. of Clean Water Agencies	SEM Training - Round III		19,920	8,000	11,920	5/23/13	6/15/14
Northwest Food Processors Association	NW Industrial EE Summit 2013	Portland	17,500	17,500	0	12/10/12	12/31/13
Lane Community College, NEEI Science Division	2013 Scholarship Grant	Eugene	16,600	0	16,600	1/1/13	12/31/13
Consortium for Energy Efficiency	Membership Dues - 2013		15,551	15,551	0	1/1/13	12/31/13
Oregon Department of Energy	Oregon Leaders Project	Salem	15,000	15,000	0	9/19/11	1/31/14
Consumer Opinion Services Inc	Residential Phone Surveys	Seattle	12,000	0	12,000	9/1/13	10/31/14
Portland State University Foundation	Green Modular Classroom Proj	Portland	10,500	10,500	0	6/13/12	7/31/14
Consumer Opinion Services Inc	Customer Engagement Survey	Seattle	8,200	5,939	2,261	3/15/13	9/30/13
American Council for and Energy Efficient Economy	Utility Behavior Landscape		7,500	7,500	0	2/1/13	10/31/13
American Council for and Energy Efficient Economy	Case Studies		7,500	7,500	0	2/1/13	10/31/13
American Council for and Energy Efficient Economy	Opportunities for Scaling Up		7,500	7,500	0	2/1/13	10/31/13
Future Energy Conference	Future Energy Conference 2012	Portland	6,500	6,500	0	12/10/12	12/31/13
Social Enterprises Inc.	GoGreen Sponsorship - 2013	Portland	5,000	5,000	0	6/17/13	10/31/13
Energy Efficiency Programs Total:			90,893,376	59,592,211	31,301,165		
Joint Programs							
D&R International LTD	Better Data Better Design	Silver Spring	133,500	25,000	108,500	4/30/13	4/30/14
Abt SRBI Inc.	Fast Feedback Survey	New York	65,000	31,569	33,431	3/1/13	2/28/14
Portland State University	Technology Forecasting		57,674	49,311	8,363	11/7/11	12/31/13
Glumac Inc	Planning Technical Analysis	Portland	15,000	15,000	0	10/17/12	10/17/14
The Cadmus Group Inc.	Evaluation Consultant	Watertown	14,940	13,845	1,095	6/20/13	2/28/15

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For contracts with costs
through: 9/1/2013

Contractor	Description	*City	Est Cost	Actual TTD	Remaining	Start	End
Strategic Research Associates LLC	Trade Ally Survey	Spokane	14,000	11,596	2,405	5/1/13	12/31/13
CoStar Realty Information Inc	Property Data	Baltimore	12,668	13,260	-592	6/1/11	1/31/14
KRH Consulting	Work Load Mangement	Portland	12,000	7,922	4,078	4/23/13	10/1/13
American Council for and Energy Efficient Economy	ACEEE Sponsorship - 2013		10,000	10,000	0	1/1/13	12/31/13
Joint Programs Total:			334,782	177,503	157,279		
Renewable Energy Program							
Outback Solar LLC	Outback Solar	Portland	5,000,000	4,950,000	50,000	5/9/12	5/9/37
Sunway 3, LLC	Prologis PV installation		3,405,000	3,396,044	8,956	9/30/08	9/30/28
JC-Biomethane LLC	Biogas Plant Project Funding	Eugene	2,000,000	0	2,000,000	10/18/12	10/18/32
Rough & Ready Lumber Company	Biopower Funding Agreement	Cave Junction	1,685,088	1,685,088	0	7/21/06	7/21/26
Oregon Institute of Technology	Geothermal Resource Funding	Klamath Falls	1,550,000	750	1,549,250	9/11/12	9/11/32
Central Oregon Irrigation District	COID Juniper Phase 2	Redmond	1,281,820	0	1,281,820	7/19/13	7/19/33
Alder Solar LLC	Habilitation Center PV	Portland	1,236,750	1,224,244	12,506	1/18/08	12/31/28
Central Oregon Irrigation District	Juniper Ridge Hydroelectric	Redmond	1,000,000	1,000,000	0	10/31/08	6/30/31
Farm Power Misty Meadows LLC	Misty Meadows Biogas Facility	Mount Vernon	1,000,000	250,000	750,000	10/25/12	10/25/27
Three Sisters Irrigation District	TSID Hydro	Sisters	1,000,000	0	1,000,000	4/25/12	4/25/32
RES - Ag FGO LLC	Biogas Manure Digester Project	Washington	883,320	331,245	552,075	10/27/10	10/27/25
Stahlbush Island Farms, Inc.	Funding Assistance Agreement	Corvallis	827,000	827,000	0	6/24/09	6/24/29
RBS Asset Finance Inc	Black Cap Solar PV Funding	Chicago	600,000	600,000	0	10/1/12	10/1/37
Tioga Solar VI, LLC	Photovoltaic Project Agreement	San Mateo	570,760	497,399	73,361	2/1/09	2/1/30
C Drop Hydro LLC	C Drop Project - Klamath Irrig	Idaho Falls	490,000	490,000	0	11/1/11	11/1/31
Oregon Institute of Technology	Geothermal Resource Funding	Klamath Falls	487,000	487,000	0	3/2/10	3/2/30
City of Medford	750kW Combined Heat & Power	Medford	450,000	225,000	225,000	10/20/11	10/20/31
City of Pendleton	Pendleton Microturbines	Pendleton	450,000	150,000	300,000	4/20/12	4/20/32
K2A Properties, LLC	Doerfler Wind Farm Project	Aumsville	230,000	174,667	55,333	5/20/10	5/20/30
Confederated Tribes of the Umatilla Indian Reservation	Small Wind Project Funding	Pendleton	170,992	0	170,992	7/25/13	12/31/28
Farmers Irrigation District	Low Line Canal Pressurization	Hood River	150,000	95,000	55,000	9/26/12	11/30/32
Farmers Irrigation District	Indian Creek Corridor Project	Hood River	100,000	100,000	0	1/5/10	1/4/29
Wallowa Resources Community Solutions, Inc.	Upfront Hydroelectric Project		100,000	11,850	88,150	10/1/11	10/1/15
Stoller Vineyards, Inc.	Stoller Vineyards PV	Dayton	79,815	77,390	2,425	12/1/05	12/1/26
Bloomberg LP	Insight Services	San Francisco	79,200	59,283	19,917	4/1/11	1/1/14
Wallowa Resources Community Solutions Inc	Integrated Biomass Energy Camp	Enterprise	70,000	70,000	0	2/1/12	1/31/27
Deschutes Valley Water District	Early Development Assistance	Madras	68,373	0	68,373	7/23/13	12/31/14
City of Portland Water Bureau	Vernon Hydro	Portland	65,000	65,000	0	11/15/10	11/15/30
University of Oregon	UO SMRL Contribution - 2013	Eugene	45,000	45,000	0	3/9/13	3/9/14
MC Energy LLC	Small Wind Incentive	Spokane	43,250	43,250	0	9/21/10	9/21/25
Clean Energy States Alliance	CESA Year 11 (2014)		39,500	39,500	0	7/1/13	6/30/14
Wind Products Inc	Wind Consultant	Brooklyn	37,500	27,500	10,000	2/6/12	12/31/13

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For contracts with costs
through: 9/1/2013

Contractor	Description	*City	Est Cost	Actual TTD	Remaining	Start	End
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
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	11,641	12,484	4/11/07	1/31/24
Solar Oregon	Outreach Services	Portland	24,000	14,000	10,000	1/1/13	12/31/13
Wind Products Inc	Web Portal Tool	Brooklyn	24,000	25,000	-1,000	6/25/12	9/20/13
Solar Oregon	Energy Education Sponsor 2013	Portland	16,000	16,000	0	1/1/13	12/31/13
Warren Griffin	Griffin Wind Project	Salem	13,150	9,255	3,895	10/1/05	10/1/20
Corbett Water District	Corbett Water District Hydro	Corbett	12,000	4,559	7,441	4/16/12	6/30/32
Clean Energy States Alliance	CESA ITAC		10,000	10,000	0	1/1/13	12/31/13
Garrad Hassan America Inc	RE Consulting Services	San Diego	6,840	0	6,840	6/11/13	2/28/15
Northwest Food Processors Association	PNNL Project	Portland	6,000	6,000	0	8/5/13	9/5/13
American Wind Group LLC	Anemometer Incentive Funding	Oasis	4,031	4,031	0	7/22/11	2/15/14
eFormative Options LLC	RE Evaluation Consultant	Vashon	3,000	3,000	0	3/1/13	2/28/15
Renewable Energy Program Total:			25,426,014	17,112,081	8,313,933		
Grand Totals:			126,097,623	80,525,492	45,572,131		

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Notes on September 2013 Financial Statements

October 24, 2013

Revenue

Year-To-Date (YTD) Revenues remains close to budgeted amounts for all utilities other than Cascade Natural Gas. They have increased their revenues and should catch up to some extent by year end.

Sep-13	<u>YTD Actual</u>	<u>YTD Budget</u>	<u>YTD Var</u>	<u>YTD %</u>
PGE	63,607,154	63,374,190	232,964	0%
PAC	39,326,109	38,060,828	1,265,281	3%
NWN	20,725,995	19,728,571	997,424	5%
CNG	1,585,921	2,512,962	(927,041)	-37%
Investment Income	66,406	90,000	(23,594)	-26%
Total	125,311,585	123,766,551	1,545,034	1%

Reserves

Efficiency Reserves at the end of September for the four major utilities are indicated below. Most of the spending for each utility comes during the last quarter.

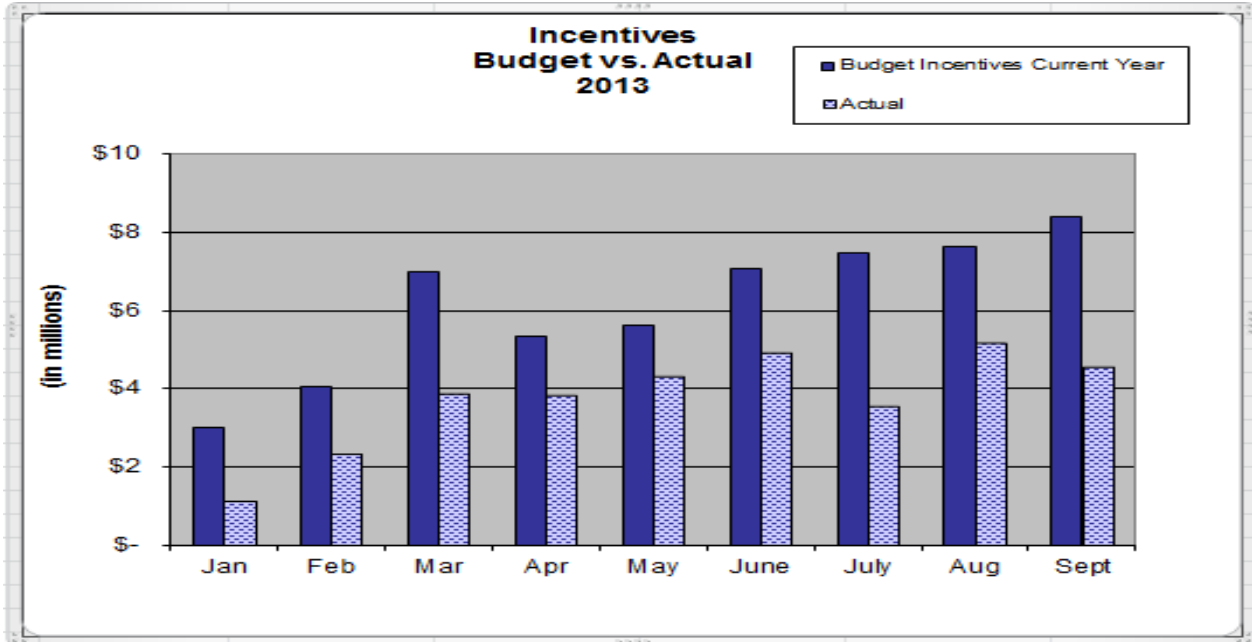
Reserves

	<u>Amount</u>	<u>Anticipated Amount at Year End *</u>
PGE	32,515,551	17,043,968
PacifiCorp	14,611,166	8,084,843
NW Natural	11,050,635	6,457,378
Cascade	807,599	920,517
NWN Industrial	712,161	0
NWN Washington	275,941	337,435
Clark PUD	32,646	0
PGE Renewables	12,263,927	11,146,829
PAC Renewables	11,604,942	10,790,511
Contingency Reserve	5,000,000	5,000,000
Contingency Available	2,534,008	2,828,277
Total	91,408,576	62,609,758

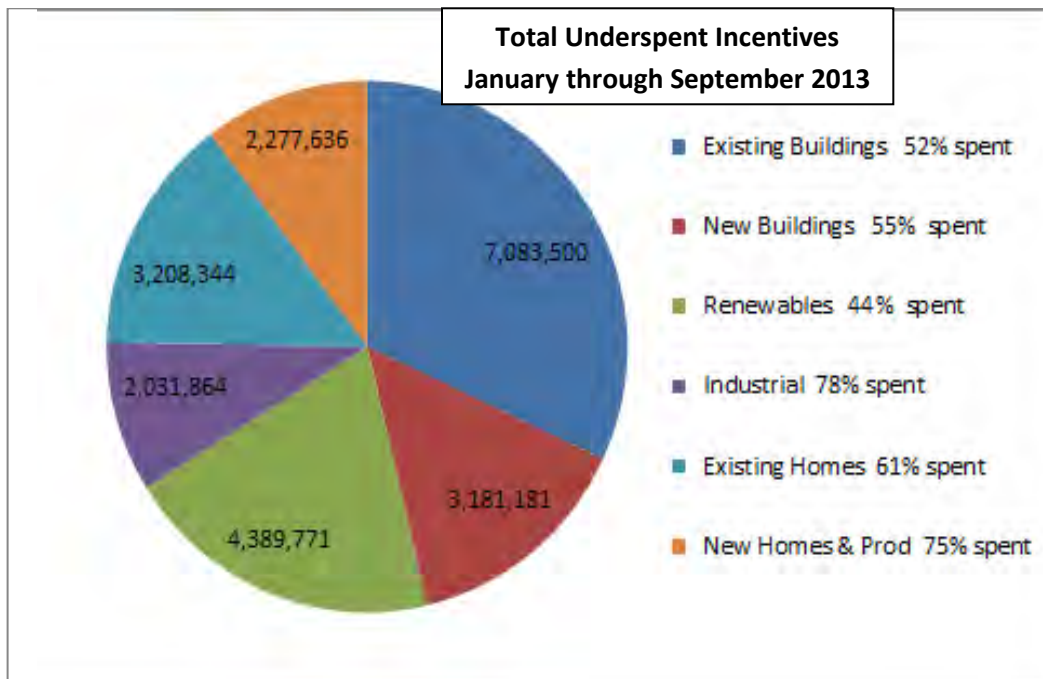
* From 2013 Forecast

Expenses

Total company expenses YTD are \$80 million, which is \$30 million less than budgeted spending. Incentive spending makes up \$22 million (74%) of the total amount underspent. \$18 million of the \$22 million underspent is from Efficiency programs.



The following chart shows, by program, the incentive variance (versus budget) for the first nine months. The % next to the program indicates how much of the current year's budgeted incentives have been spent. Existing Buildings, for example, has spent 52% of their January to September incentive budget, the remaining unspent 48% totals \$7,083,500 of incentive spending variance.



Incentives thru Sept 2013	Total Incentives			
	Actual	Budget	Variance	Var %
Existing Buildings	7,506,369	14,522,329	7,015,960	48%
New Buildings	3,838,744	7,019,925	3,181,181	45%
Production Efficiency	7,129,403	9,161,267	2,031,864	22%
Existing Homes	4,910,519	8,080,589	3,170,070	39%
New Homes & Products	6,569,836	8,779,203	2,209,367	25%
Washington Programs - All	213,081	387,167	174,086	45%
Solar	2,537,334	4,516,355	1,979,021	44%
Open Solicitation	226,001	1,887,052	1,661,051	88%
Biopower	636,382	1,386,081	749,699	54%
Total Incentives	33,567,669	55,739,966	22,172,296	40%
Energy Efficiency Only	30,167,952	47,950,480	17,782,528	37%

Incentives thru Aug 2012	Total Incentives			
	Actual	Budget	Variance	Var %
Existing Buildings	9,938,846	15,141,901	5,203,055	34%
New Buildings	5,167,324	5,602,758	435,434	8%
Production Efficiency	5,806,374	9,126,891	3,320,517	36%
Existing Homes	7,271,751	8,568,815	1,297,064	15%
New Homes & Products	6,896,670	8,825,918	1,929,248	22%
Washington Programs - All	198,617	388,749	190,132	49%
Solar	10,091,161	3,739,043	(6,352,118)	-170%
Open Solicitation	537,020	1,597,289	1,060,269	66%
Biopower	614,520	884,497	269,977	31%
Total Incentives	46,522,283	53,875,857	7,353,574	14%
Energy Efficiency Only	35,279,582	47,655,032	12,375,450	26%

Energy Trust of Oregon, Inc
BALANCE SHEET
September 30, 2013
(Unaudited)

	SEP 2013	AUG 2013	DEC 2012	Change from Prior Month	Change from Beg. of Year
Current Assets					
Cash & Cash Equivalents	89,463,097	86,154,586	64,005,605	3,308,511	25,457,492
Restricted Cash (Escrow Funds)	252,720	252,712	462,692	8	(209,972)
Investments	5,976,151	5,976,013	0	137	5,976,151
Receivables	4,728	4,027	123,795	702	(119,066)
Prepaid Expenses	623,994	696,195	265,829	(72,202)	358,164
Advances to Vendors	2,439,851	982,447	2,109,014	1,457,404	330,837
Total Current Assets	98,760,540	94,065,980	66,966,935	4,694,560	31,793,606
Fixed Assets					
Computer Hardware and Software	1,377,967	1,368,867	1,347,388	9,100	30,579
Leasehold Improvements	313,333	313,333	287,385	0	25,948
Office Equipment and Furniture	600,662	600,662	600,662	0	0
Total Fixed Assets	2,291,962	2,282,863	2,235,435	9,100	56,527
Less Depreciation	(1,417,980)	(1,390,756)	(1,183,098)	(27,224)	(234,881)
Net Fixed Assets	873,983	892,107	1,052,337	(18,124)	(178,354)
Other Assets					
Rental Deposit	61,461	61,461	64,461	0	(3,000)
Deferred Compensation Asset	468,265	458,301	409,369	9,963	58,896
Total Other Assets	529,726	519,763	473,830	9,963	55,896
Total Assets	100,164,249	95,477,850	68,493,102	4,686,400	31,671,148
Current Liabilities					
Accounts Payable and Accruals	7,312,091	4,646,699	21,430,138	2,665,393	(14,118,046)
Deposits Held for Others	(0)	(0)	49,433	0	(49,433)
Salaries, Taxes, & Benefits Payable	611,023	621,463	585,703	(10,440)	25,321
Total Current Liabilities	7,923,115	5,268,162	22,065,273	2,654,953	(14,142,159)
Long Term Liabilities					
Deferred Rent	357,664	353,838	323,237	3,825	34,427
Deferred Compensation Payable	468,265	458,301	409,369	9,963	58,896
Other Long-Term Liabilities	6,620	14,164	13,674	(7,544)	(7,054)
Total Long-Term Liabilities	832,548	826,303	746,279	6,245	86,269
Total Liabilities	8,755,663	6,094,465	22,811,553	2,661,198	(14,055,890)
Net Assets					
Temporarily Restricted Net Assets	252,720	252,712	462,692	8	(209,972)
Unrestricted Net Assets	91,155,867	89,130,673	45,218,858	2,025,195	45,937,009
Total Net Assets	91,408,587	89,383,385	45,681,549	2,025,202	45,727,037
Total Liabilities and Net Assets	100,164,249	95,477,850	68,493,102	4,686,400	31,671,148

BS-Acct-YTD-001

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

	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>Year to Date</u>
Operating Activities:										
Revenue less Expenses	\$ 10,219,705	10,927,972	7,324,090	5,958,617	2,986,589	1,606,211	3,378,918	1,299,737	2,025,203	\$ 45,727,041
<i>Non-cash items:</i>										
Depreciation	27,270	27,452	28,129	27,410	27,977	27,977	27,977	27,977	27,224	\$ 249,392
Loss on disposal of assets										\$ -
Receivables	53,256	66,082	35	(5,470)	(0)	0	(0)	5,470	-	\$ 119,373
Interest Receivable	546	129	(496)	1,647	(518)	465	(590)	(787)	(701)	\$ (306)
Advances to Vendors	705,543	733,344	(1,456,911)	410,950	709,011	(1,307,397)	560,532	771,490	(1,457,405)	\$ (330,843)
Prepaid expenses and other costs	(559,565)	51,323	(82,665)	(46,877)	(9,774)	79,710	21,907	115,575	72,201	\$ (358,165)
Accounts payable	(14,214,238)	1,481,611	(2,237,661)	700,669	(1,049,325)	1,129,368	(575,269)	(2,068,026)	2,665,392	\$ (14,167,479)
Payroll and related accruals	16,657	39,359	5,770	21,984	25,790	9,262	(20,993)	(13,137)	(476)	\$ 84,216
Deferred rent and other	(271)	(1,101)	(1,829)	(1,217)	(1,318)	(2,289)	(5,128)	(1,689)	(13,681)	\$ (28,523)
Cash rec'd from / (used in) Operating Activities	(3,751,097)	13,326,171	3,578,462	7,067,713	2,688,432	1,543,307	3,387,353	136,609	3,317,756	\$ 31,294,706
Investing Activities:										
Purchase of Investments Held to Maturity					(4,980,004)	(53)	(306)	(995,650)	(138)	\$ (5,976,151)
(Acquisition)/Disposal of Capital Assets	-	(6,570)	(25,948)	-	(29,420)		-	-	(9,100)	\$ (71,038)
Cash rec'd from / (used in) Investing Activities	-	(6,570)	(25,948)	-	(5,009,424)	(53)	(306)	(995,650)	(9,238)	\$ (6,047,189)
Cash at beginning of Period	64,468,299	60,717,202	74,036,802	77,589,318	84,657,031	82,336,039	83,879,294	87,266,342	86,407,301	\$ 64,468,299
Increase/(Decrease) in Cash	(3,751,097)	13,319,602	3,552,516	7,067,713	(2,320,992)	1,543,255	3,387,048	(859,040)	3,308,520	\$ 25,247,523
Cash at end of period	60,717,202	74,036,802	77,589,318	84,657,031	82,336,039	83,879,294	87,266,342	86,407,301	89,715,817	\$ 89,715,817

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

	Actual									2013 Forecast		
	January	February	March	April	May	June	July	August	September	October	November	December
Cash In:												
Public purpose and Incr funding	15,975,013	18,276,561	16,633,304	14,890,395	12,680,595	11,539,660	11,696,383	11,708,822	11,844,446	12,600,000	12,100,000	16,000,000
From other sources	53,256	66,082	35	(4,540)	(0)	0	(0)	5,470	-			
Investment Income	7,847	6,746	7,212	9,359	6,368	6,941	7,176	6,980	7,469	6,000	6,000	6,000
Total cash in	16,036,116	18,349,389	16,640,551	14,895,214	12,686,963	11,546,601	11,703,559	11,721,272	11,851,915	12,606,000	12,106,000	16,006,000
Cash Out:	19,787,213	5,029,788	13,088,038	7,827,499	15,007,955	10,003,347	8,316,510	12,580,315	8,543,395	10,500,000	14,900,000	25,300,000
Net cash flow for the month	(3,751,097)	13,319,601	3,552,516	7,067,718	(2,320,989)	1,543,254	3,387,048	(859,044)	3,308,520	2,106,000	(2,794,000)	(9,294,000)
Beginning Balance: Cash & MM	64,468,299	60,717,202	74,036,802	77,589,318	84,657,031	82,336,039	83,879,294	87,266,342	86,407,299	89,715,819	91,821,819	89,027,819
Ending cash & MM	60,717,202	74,036,802	77,589,318	84,657,031	82,336,039	83,879,294	87,266,342	86,407,299	89,715,819	91,821,819	89,027,819	79,733,819
Dedicated funds Adjustment	(10,600,000)	(10,600,000)	(7,900,000)	(8,100,000)	(8,400,000)	(13,300,000)	(13,300,000)	(13,300,000)	(9,000,000)	(9,000,000)	(9,000,000)	(9,000,000)
Committed Funds Adjustment	(37,200,000)	(40,000,000)	(33,900,000)	(46,300,000)	(45,800,000)	(41,200,000)	(39,900,000)	(39,600,000)	(45,200,000)	(43,500,000)	(42,300,000)	(34,300,000)
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)	(5,000,000)	(5,000,000)	(5,000,000)	(5,000,000)
Ending Cash & MM, adj by Above	6,717,202	17,236,802	29,589,318	24,057,031	21,936,047	23,179,294	27,866,342	27,307,299	30,515,819	34,321,819	32,727,819	31,433,819
Escrow Cash Balance												
Beginning Balance	462,692	381,052	381,090	381,118	252,683	252,690	252,697	252,704	252,712	252,720	77,983	77,989
Net Escrow (Payments)/Funding	(81,682)		-	(128,457)						(174,743)		
Interest Paid on Escrow Balances	42	38	28	22	7	7	7	8	8	6	6	0
Ending Escrow Balance¹	381,052	381,090	381,118	252,683	252,690	252,697	252,704	252,712	252,720	77,983	77,989	77,990

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 Round 1 Draft Budget												
	January	February	March	April	May	June	July	August	September	October	November	December
Cash In:												
Public purpose and Incr funding	16,000,000	16,500,000	15,800,000	14,800,000	12,300,000	11,400,000	12,600,000	11,600,000	11,200,000	13,300,000	12,300,000	15,000,000
From other sources												
Investment Income	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
Total cash in	16,007,000	16,507,000	15,807,000	14,807,000	12,307,000	11,407,000	12,607,000	11,607,000	11,207,000	13,307,000	12,307,000	15,007,000
Cash Out:	26,100,000	8,700,000	12,000,000	11,700,000	10,800,000	13,600,000	12,500,000	10,700,000	14,900,000	14,000,000	14,000,000	27,700,000
Net cash flow for the month	(10,093,000)	7,807,000	3,807,000	3,107,000	1,507,000	(2,193,000)	107,000	907,000	(3,693,000)	(693,000)	(1,693,000)	(12,693,000)
Beginning Balance: Cash & MM	79,733,819	69,640,819	77,447,819	81,254,819	84,361,819	85,868,819	83,675,819	83,782,819	84,689,819	80,996,819	80,303,819	78,610,819
Ending cash & MM	69,640,819	77,447,819	81,254,819	84,361,819	85,868,819	83,675,819	83,782,819	84,689,819	80,996,819	80,303,819	78,610,819	65,917,819
Dedicated funds Adjustment	(9,000,000)	(9,000,000)	(9,000,000)	(9,000,000)	(9,000,000)	(9,000,000)	(9,000,000)	(9,000,000)	(9,000,000)	(9,000,000)	(9,000,000)	(9,000,000)
Committed Funds Adjustment	(35,500,000)	(36,900,000)	(37,000,000)	(37,000,000)	(37,000,000)	(37,000,000)	(37,000,000)	(37,000,000)	(37,000,000)	(37,000,000)	(37,000,000)	(37,000,000)
Cash Reserve	(5,000,000)	(5,000,000)	(5,000,000)	(5,000,000)	(5,000,000)	(5,000,000)	(5,000,000)	(5,000,000)	(5,000,000)	(5,000,000)	(5,000,000)	(5,000,000)
Ending Cash & MM, adj by Above	20,140,819	26,547,819	30,254,819	33,361,819	34,868,819	32,675,819	32,782,819	33,689,819	29,996,819	29,303,819	27,610,819	14,917,819
Escrow Cash Balance												
Beginning Balance	77,990	78,006	78,022	-	-	-	-	-	-	-	-	-
Net Escrow (Payments)/Funding			(78,020)									
Interest Paid on Escrow Balances	16	16	-	-	-	-	-	-	-	-	-	-
Ending Escrow Balance¹	78,006	78,022	2	-	-	-	-	-	-	-	-	-

¹Included in "Ending cash & MM" above

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

Energy Trust of Oregon, Inc
INCOME STATEMENT - ACTUAL AND YTD COMPARISON
For the Nine Months Ending September 30, 2013
(Unaudited)

	September			YTD		
	Actual	Budget	Variance	Actual	Budget	Variance
<u>REVENUES</u>						
Public Purpose Funds-PGE	2,673,715	2,642,271	31,444	26,152,263	26,094,229	58,033
Public Purpose Funds-PacifiCorp	2,126,157	1,889,380	236,777	19,678,079	18,899,564	778,515
Public Purpose Funds-NW Natural	734,137	671,415	62,723	18,928,552	18,285,993	642,559
Public Purpose Funds-Cascade	95,226	110,311	(15,084)	1,585,921	2,512,962	(927,041)
Total Public Purpose Funds	5,629,236	5,313,377	315,859	66,344,814	65,792,748	552,066
Incremental Funds - PGE	4,025,713	4,073,343	(47,630)	37,454,892	37,279,961	174,931
Incremental Funds - PacifiCorp	2,189,498	1,868,147	321,351	19,648,030	19,161,263	486,767
NW Natural - Industrial DSM	0	0	0	1,151,892	797,028	354,864
NW Natural - Washington	0	0	0	645,551	645,551	0
Contributions	0	0	0	930	0	930
Revenue from Investments	8,169	10,000	(1,831)	66,406	90,000	(23,594)
<u>TOTAL REVENUE</u>	11,852,616	11,264,867	587,748	125,312,515	123,766,551	1,545,964
<u>EXPENSES</u>						
Program Subcontracts	3,814,900	4,177,841	362,940	33,294,469	35,079,129	1,784,660
Incentives	4,553,967	8,417,047	3,863,080	33,578,063	55,739,967	22,161,904
Salaries and Related Expenses	836,260	902,472	66,212	7,223,742	8,080,714	856,972
Professional Services	421,678	964,431	542,754	3,489,365	7,912,866	4,423,501
Supplies	2,799	10,354	7,555	22,765	93,183	70,418
Telephone	4,681	5,063	382	39,696	41,187	1,491
Postage and Shipping Expenses	604	833	229	7,717	7,500	(217)
Occupancy Expenses	55,993	58,434	2,441	498,976	525,902	26,926
Noncapitalized Equip. & Depr.	56,558	106,667	50,108	482,875	690,927	208,052
Call Center	37,750	44,917	7,167	474,898	404,250	(70,648)
Printing and Publications	474	17,112	16,638	88,301	154,012	65,711
Travel	12,053	25,232	13,179	105,077	162,788	57,711
Conference, Training & Mtng Exp	12,672	36,507	23,835	95,507	303,292	207,786
Interest Expense and Bank Fees	0	625	625	5,443	5,625	182
Insurance	8,622	9,167	545	74,310	82,500	8,190
Miscellaneous Expenses	90	225	135	1,090	2,025	935
Dues, Licenses and Fees	8,313	14,197	5,884	103,184	111,495	8,311
<u>TOTAL EXPENSES</u>	9,827,413	14,791,123	4,963,710	79,585,477	109,397,363	29,811,886
TOTAL REVENUE LESS EXPENSES	2,025,202	(3,526,256)	5,551,458	45,727,037	14,369,188	31,357,850

IS-Acct-YTD-001

Energy Trust of Oregon, Inc
Statement of Functional Expenses
For the Nine Months Ending September 30, 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	63,361,365	3,511,167	66,872,532				66,872,532	90,819,096	23,946,564
Payroll and Related Expenses	2,096,384	620,883	2,717,267	1,442,923	652,233	2,095,156	4,812,423	5,046,117	233,694
Outsourced Services	2,396,365	285,110	2,681,475	108,774	395,904	504,678	3,186,153	6,542,266	3,356,113
Planning and Evaluation	1,376,633	62,156	1,438,789				1,438,789	2,036,929	598,140
Customer Service Management	784,180	16,446	800,626				800,626	781,089	(19,537)
Trade Allies Network	261,651	11,842	273,493				273,493	332,379	58,886
Total Program Expenses	70,276,578	4,507,604	74,784,182	1,551,697	1,048,137	2,599,834	77,384,016	105,557,876	28,173,860
Program Support Costs									
Supplies	5,822	1,628	7,450	7,027	2,417	9,444	16,894	58,831	41,937
Postage and Shipping Expenses	2,919	658	3,577	1,266	632	1,898	5,475	5,890	415
Telephone	2,378	1,050	3,428	1,334	595	1,929	5,357	5,133	(224)
Printing and Publications	75,838	3,582	79,420	579	4,851	5,430	84,850	148,182	63,332
Occupancy Expenses	153,993	47,320	201,313	89,989	45,420	135,409	336,722	336,600	(122)
Insurance	23,031	7,077	30,108	13,459	6,793	20,252	50,360	52,985	2,625
Equipment	15,849	23,092	38,941	3,883	1,960	5,843	44,784	17,946	(26,838)
Travel	35,124	14,396	49,520	15,254	1,892	17,146	66,666	121,463	54,797
Meetings, Trainings & Conferences	20,706	7,017	27,723	20,547	4,144	24,691	52,414	212,217	159,803
Interest Expense and Bank Fees		100	100	5,343		5,343	5,443	5,625	182
Depreciation & Amortization	37,934	13,395	51,329	22,168	11,189	33,357	84,686	77,443	(7,243)
Dues, Licenses and Fees	56,409	13,039	69,448	3,024	2,414	5,438	74,886	49,271	(25,615)
Miscellaneous Expenses	1,072		1,072	18		18	1,090	1,355	265
IT Services	969,118	114,080	1,083,198	193,280	95,360	288,640	1,371,838	2,746,544	1,374,706
Total Program Support Costs	1,400,192	246,433	1,646,625	377,170	177,667	554,837	2,201,462	3,839,486	1,638,024
TOTAL EXPENSES	71,676,769	4,754,037	76,430,806	1,928,866	1,225,804	3,154,670	79,585,477	109,397,363	29,811,886

OPUC measure vs. 9% 3.83%

Exp-Acct-YTD-002

Energy Trust of Oregon, Inc
Year to Date by Program/Service Territory
For the Nine Months Ending September 30, 2013
(Unaudited)

	ENERGY EFFICIENCY							Clark PUD WA	NWN WA	WA Total	ETO Total
	PGE	PacifiCorp	Total	NWN Industrial	NW Natural	Cascade	Oregon Total				
REVENUES											
Public Purpose Funding	\$20,208,565	\$15,295,643	\$35,504,208		\$18,928,552	\$1,585,921	\$56,018,681				\$56,018,681
Incremental Funding Contributions	37,454,892	19,648,030	57,102,922	1,151,892			58,254,814		645,551	645,551	58,900,365
Revenue from Investments											
TOTAL PROGRAM REVENUE	57,663,457	34,943,673	92,607,130	1,151,892	18,928,552	1,585,921	114,273,495		645,551	645,551	114,919,046
EXPENSES											
Program Management (Note 3)	1,828,703	1,180,728	3,009,431	95,174	695,789	59,362	3,859,756	1,560	135,174	136,734	3,996,490
Program Delivery	14,456,367	9,827,419	24,283,786	340,499	3,562,530	266,575	28,453,390	3,153	223,009	226,162	28,679,552
Incentives	15,626,163	8,750,973	24,377,136	961,809	4,305,291	310,636	29,954,872	10,395	213,081	223,476	30,178,348
Program Eval & Planning Svcs.	1,162,665	735,673	1,898,338	35,451	390,805	25,814	2,350,409	666	21,636	22,302	2,372,711
Program Marketing/Outreach	1,574,696	1,065,629	2,640,325	17,505	803,876	48,585	3,510,291	0	34,462	34,462	3,544,753
Program Quality Assurance	22,451	24,584	47,036	0	29,128	1,119	77,283	0	0	0	77,283
Outsourced Services	166,683	122,669	289,353	2,769	85,202	4,294	381,618	0	0	0	381,618
Trade Allies & Cust. Svc. Mgmt.	265,304	207,984	473,288	3,008	191,681	10,122	678,099	468	18,317	18,785	696,884
IT Services	431,291	290,288	721,579	11,452	198,074	11,453	942,558	625	25,935	26,560	969,118
Other Program Expenses	302,882	236,787	539,669	10,837	196,981	9,510	756,997	503	22,521	23,024	780,021
TOTAL PROGRAM EXPENSES	35,837,205	22,442,735	58,279,941	1,478,504	10,459,358	747,470	70,965,273	17,371	694,134	711,505	71,676,769
ADMINISTRATIVE COSTS											
Management & General (Notes 1 & 2)	904,415	566,382	1,470,797	37,313	263,960	18,864	1,790,934	438	17,518	17,956	1,808,890
Communications & Customer Svc (Notes 1 & 2)	574,760	359,938	934,699	23,712	167,748	11,988	1,138,147	279	11,132	11,411	1,149,558
Total Administrative Costs	1,479,175	926,321	2,405,496	61,025	431,708	30,852	2,929,081	717	28,650	29,367	2,958,448
TOTAL PROG & ADMIN EXPENSES	37,316,377	23,369,054	60,685,431	1,539,529	10,891,063	778,323	73,894,346	18,088	722,780	740,868	74,635,214
TOTAL REVENUE LESS EXPENSES	20,347,076	11,574,617	31,921,693	(387,637)	8,037,486	807,599	40,379,141	(18,088)	(77,233)	(95,321)	40,283,820
NET ASSETS - RESERVES											
Cumulative Carryover at 12/31/12	12,168,475	3,036,549	15,205,024	1,099,798	3,013,149	(392,281)	18,925,690	50,734	353,174	403,908	19,329,598
Change in net assets this year	20,347,076	11,574,617	31,921,693	(387,637)	8,037,486	807,599	40,379,141	(18,088)	(77,233)	(95,321)	40,283,820
Interest Attributed						392,281	392,281				392,281
Ending Net Assets - Reserves	32,515,551	14,611,166	47,126,717	712,161	11,050,635	807,599	59,697,112	32,646	275,941	308,587	60,005,699
Ending Reserve by Category											
Program Reserves	32,515,551	14,611,166	47,126,717	712,161	11,050,635	415,318	59,304,831	32,646	275,941	308,587	59,613,418
Interest Attributed						392,281	392,281				392,281
Contingency available for program use											
Contingency Reserve											
TOTAL NET ASSETS CUMULATIVE	32,515,551	14,611,166	47,126,717	712,161	11,050,635	807,599	59,697,112	32,646	275,941	308,587	60,005,699

Note 1) Both Management & General and Communications & Customer Service Expenses (Administrative) have been allocated based on total expenses.

Note 2) Administrative costs are allocated for management reporting only. GAAP for Not for Profit organizations does not allow allocation of administrative costs to program expenses.

Note 3) Program Management costs include both outsourced and internal staff.

Energy Trust of Oregon, Inc
Year to Date by Program/Service Territory
For the Nine Months Ending September 30, 20
(Unaudited)

	RENEWABLE ENERGY			Other	TOTAL	Approved budget	Change
	PGE	PacifiCorp	Total		All Programs		
REVENUES							
Public Purpose Funding	\$5,943,697	\$4,382,436	\$10,326,133		\$66,344,814	\$65,792,748	\$552,066
Incremental Funding					58,900,365	57,883,803	1,016,562
Contributions				930	930		930
Revenue from Investments				66,406	66,406	90,000	(23,594)
TOTAL PROGRAM REVENUE	5,943,697	4,382,436	10,326,133	67,336	125,312,515	123,766,551	1,545,964
EXPENSES							
Program Management (Note 3)	221,745	399,138	620,883		4,617,373	4,497,675	(119,698)
Program Delivery	52,544	58,907	111,451		28,791,003	30,891,666	2,100,663
Incentives	1,798,283	1,601,434	3,399,717		33,578,065	55,739,968	22,161,903
Program Eval & Planning Svcs.	23,378	38,778	62,156		2,434,867	4,098,735	1,663,868
Program Marketing/Outreach	51,740	27,333	79,073		3,623,826	3,876,531	252,705
Program Quality Assurance	1,621	0	1,621		78,904	191,250	112,346
Outsourced Services	101,375	103,042	204,417		586,035	1,885,655	1,299,620
Trade Allies & Cust. Svc. Mgmt.	18,286	9,961	28,247		725,131	814,220	89,089
IT Services	47,009	67,071	114,080		1,083,198	2,169,004	1,085,806
Other Program Expenses	64,179	68,216	132,395		912,416	913,807	1,391
TOTAL PROGRAM EXPENSES	2,380,160	2,373,880	4,754,037		76,430,806	105,078,511	28,647,693
ADMINISTRATIVE COSTS							
Management & General (Notes 1 & 2)	58,694	61,283	119,977		1,928,866	2,659,659	730,792
Communications & Customer Svc (Notes 1 & 2)	37,300	38,946	76,246		1,225,804	1,659,194	433,390
Total Administrative Costs	95,994	100,229	196,223		3,154,670	4,318,853	1,164,182
TOTAL PROG & ADMIN EXPENSES	2,476,154	2,474,107	4,950,261		79,585,477	109,397,363	29,811,875
TOTAL REVENUE LESS EXPENSES	3,467,543	1,908,327	5,375,870	67,336	45,727,037	14,369,187	31,357,839
NET ASSETS - RESERVES							
Cumulative Carryover at 12/31/12	8,796,384	9,696,615	18,492,999	7,858,953	45,681,550	37,070,557	8,610,993
Change in net assets this year	3,467,543	1,908,327	5,375,870	67,336	45,727,026	14,369,190	31,357,839
Interest Attributed				(392,281)			
Ending Net Assets - Reserves	12,263,927	11,604,942	23,868,869	7,534,008	91,408,587	51,439,747	39,968,832
Ending Reserve by Category							
Program Reserves	12,263,927	11,604,942	23,868,869		83,482,287	51,439,747	32,042,540
Interest Attributed					392,281		392,281
Contingency available for program use				2,534,008	2,534,008		2534008
Contingency Reserve				5,000,000	5,000,000		5000000
TOTAL NET ASSETS CUMULATIVE	12,263,927	11,604,942	23,868,869	7,534,008	91,408,587	51,439,747	39,968,829

Note 1) Both Management & General and Communications & Customer Service Expenses (Administrative) have been allocated based on total expenses.

Note 2) Administrative costs are allocated for management reporting only. GAAP for Not for Profit organizations does not allow allocation of administrative costs to program expenses.

Note 3) Program Management costs include both outsourced and internal staff.

Energy Trust of Oregon, Inc
Program Expense by Service Territory
For the Nine Months Ending September 30, 2013
(Unaudited)

	<u>PGE</u>	<u>Pacific Power</u>	<u>Subtotal Elec.</u>	<u>NWN Industrial</u>	<u>NW Natural Gas</u>	<u>Cascade</u>	<u>Subtotal Gas</u>	<u>Oregon Total</u>	<u>Clark PUD WA</u>	<u>NWN WA</u>	<u>Total WA</u>	<u>ETO Total</u>	<u>YTD Budget</u>	<u>Variance</u>
Energy Efficiency														
Commercial														
Existing Buildings	9,754,517	5,597,254	15,351,771	214,152	2,240,090	104,666	2,558,908	17,910,679	18,088	282,739	300,827	18,211,506	26,896,184	8,684,678
New Buildings	5,177,289	2,434,783	7,612,072	59,899	414,369	94,139	568,407	8,180,479			0	8,180,479	12,425,588	4,245,109
NEEA	1,314,738	991,818	2,306,556				0	2,306,556			0	2,306,556	2,222,327	(84,229)
Total Commercial	16,246,544	9,023,855	25,270,399	274,051	2,654,459	198,805	3,127,315	28,397,714	18,088	282,739	300,827	28,698,541	41,544,099	12,845,558
Industrial														
Production Efficiency	8,449,237	4,668,044	13,117,281	1,265,478	300,256	78,502	1,644,236	14,761,517			0	14,761,517	17,726,930	2,965,413
NEEA	561,549	423,625	985,174				0	985,174			0	985,174	1,099,143	113,969
Total Industrial	9,010,786	5,091,669	14,102,455	1,265,478	300,256	78,502	1,644,236	15,746,691			0	15,746,691	18,826,073	3,079,382
Residential														
Existing Homes	4,058,546	4,444,163	8,502,709		5,265,075	202,301	5,467,376	13,970,085		267,819	267,819	14,237,904	19,119,668	4,881,764
New Homes/Products	6,187,820	3,441,905	9,629,725		2,671,273	298,715	2,969,988	12,599,713		172,222	172,222	12,771,935	16,093,348	3,321,413
NEEA	1,812,681	1,367,462	3,180,143					3,180,143				3,180,143	3,310,892	130,749
Total Residential	12,059,047	9,253,530	21,312,577		7,936,348	501,016	8,437,364	29,749,941		440,041	440,041	30,189,982	38,523,908	8,333,926
Energy Efficiency Program Cos	37,316,377	23,369,054	60,685,431	1,539,529	10,891,063	778,323	13,208,915	73,894,346	18,088	722,780	740,868	74,635,214	98,894,080	24,258,866
Renewables														
Biopower	31,783	830,003	861,786					861,786				861,786	1,799,038	937,252
Solar Electric (Photovoltaic)	2,244,875	1,137,090	3,381,965					3,381,965				3,381,965	6,026,375	2,644,410
Other Renewable	199,496	507,014	706,510					706,510				706,510	2,677,871	1,971,361
Renewables Program Costs	2,476,154	2,474,107	4,950,261					4,950,261				4,950,261	10,503,284	5,553,023
Cost Grand Total	39,792,531	25,843,161	65,635,692	1,539,529	10,891,063	778,323	13,208,915	78,844,607	18,088	722,780	740,868	79,585,477	109,397,364	29,811,889

PUC-Proj-ST-07-C

Energy Trust of Oregon, Inc.
ADMINISTRATIVE EXPENSES
For the Three Months and Year to Date Ended September 30, 2013
(Unaudited)

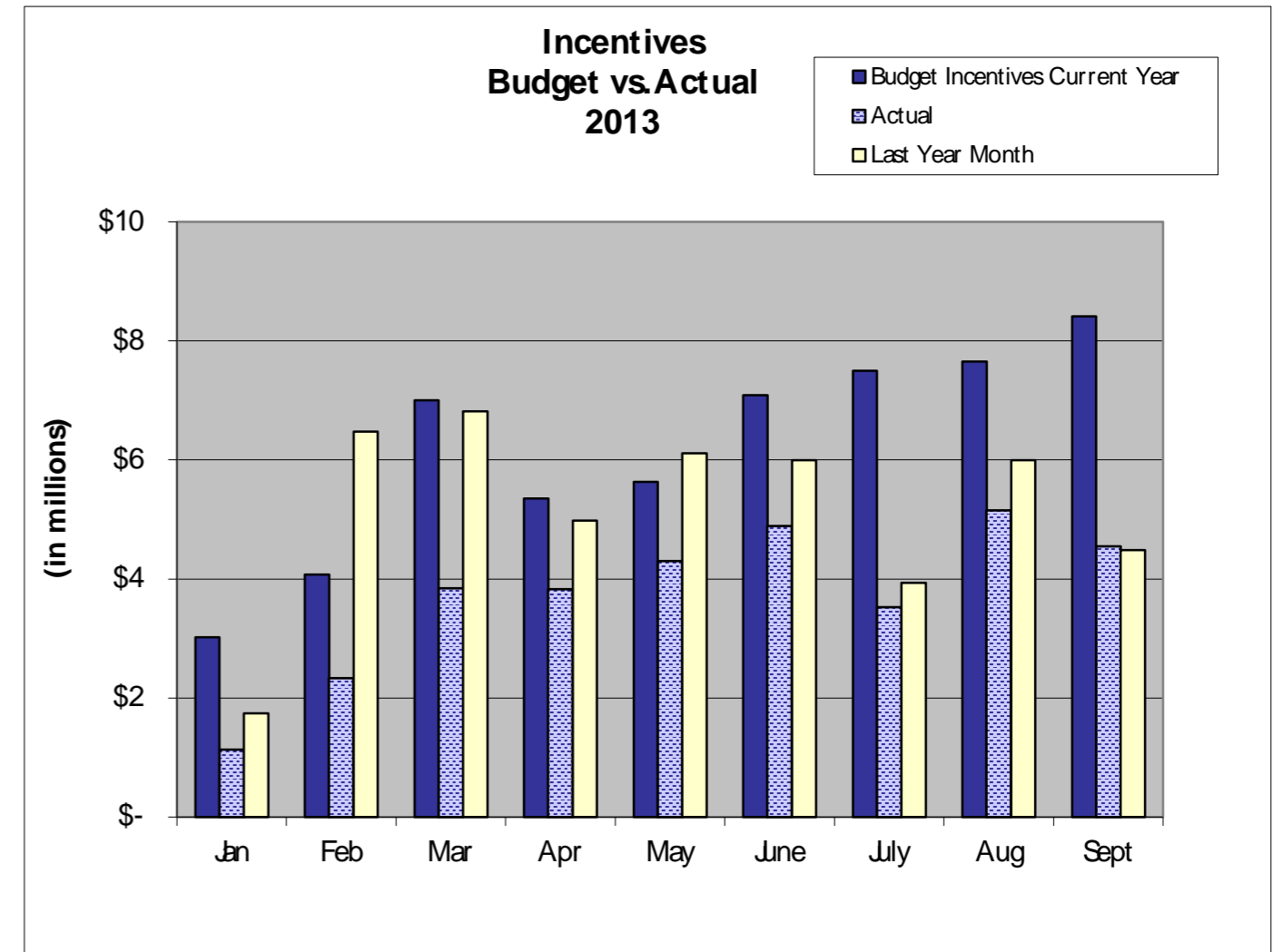
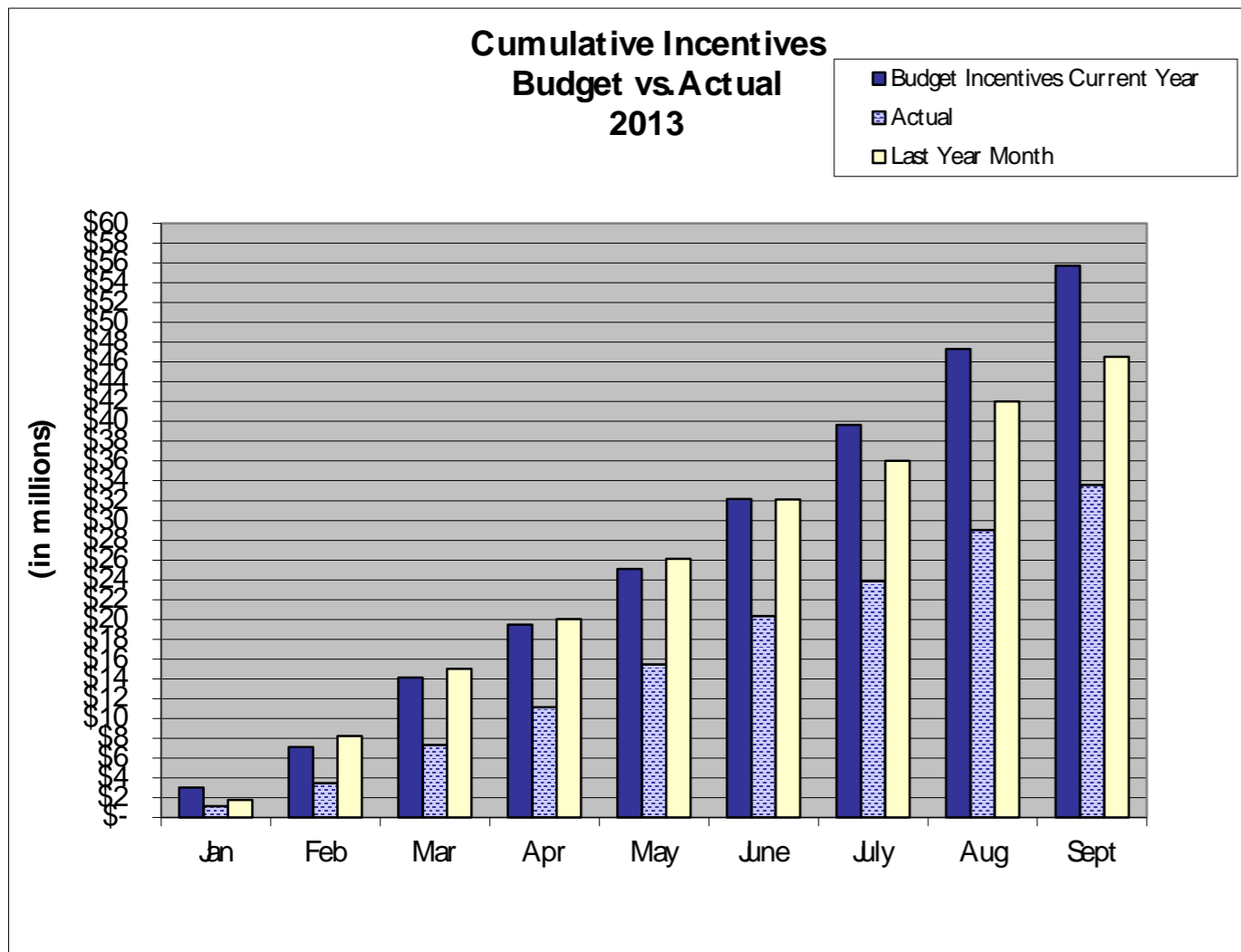
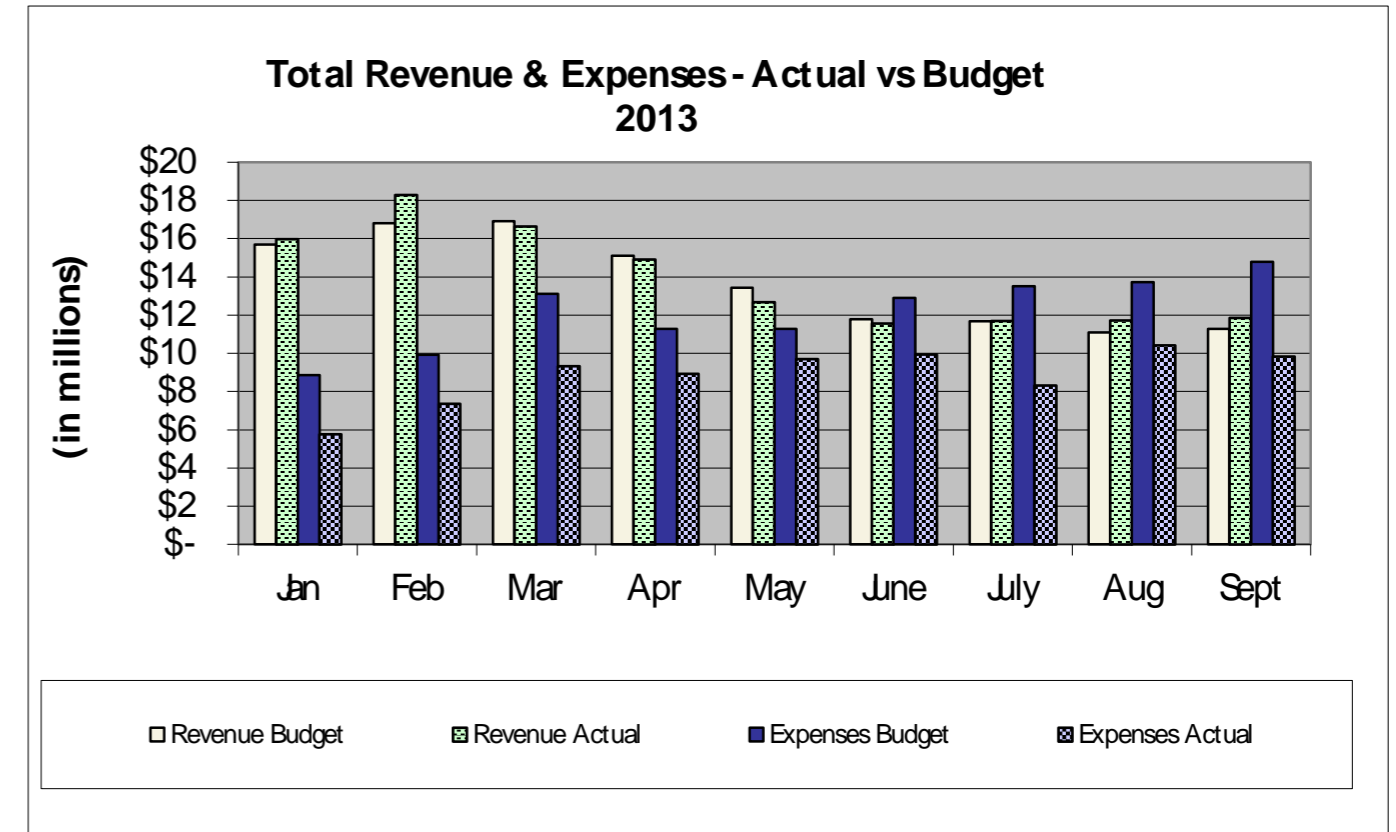
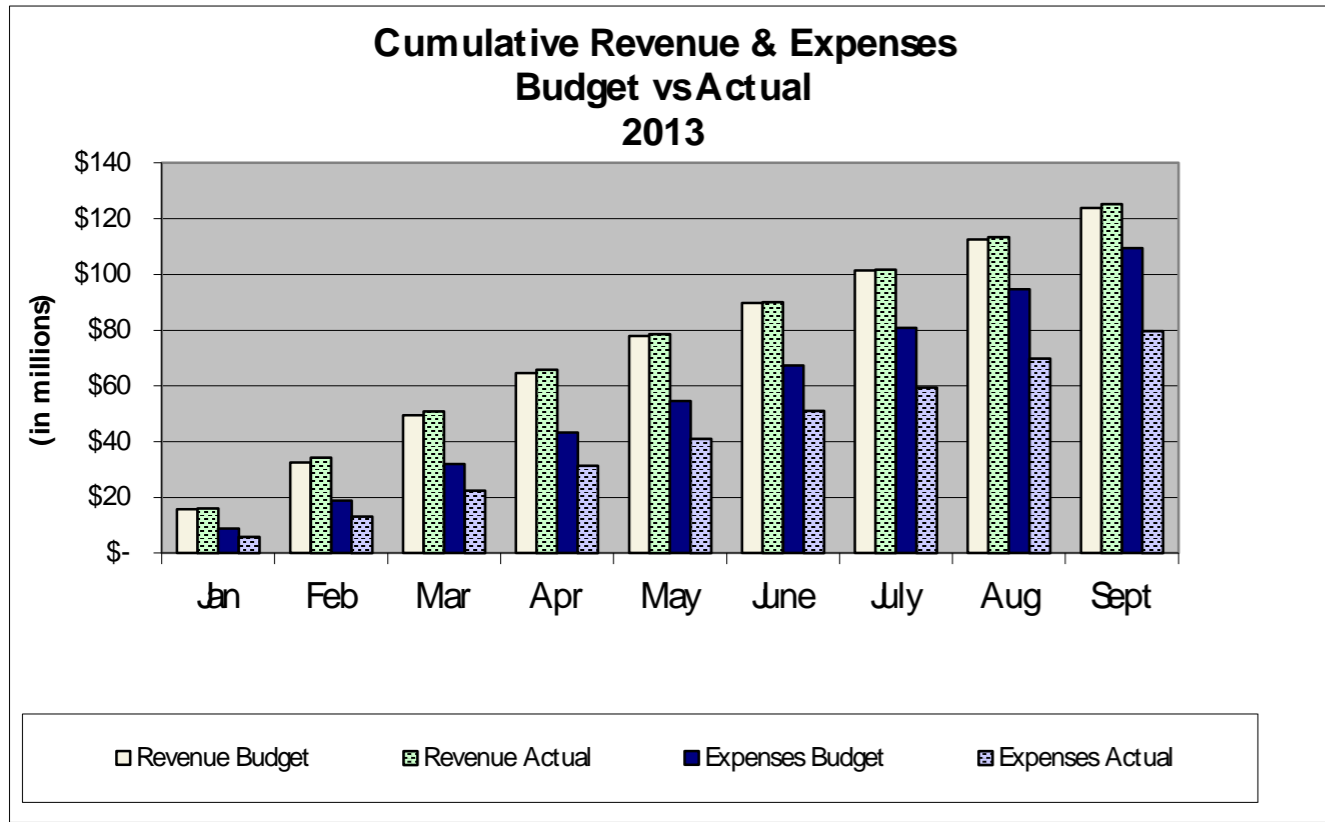
EXPENSES	MANAGEMENT & GENERAL						COMMUNICATIONS & CUSTOMER SERVICE					
	QUARTER			YTD			QUARTER			YTD		
	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	VARIANCE
Outsourced Services	\$38,638	\$127,046	\$88,408	\$105,772	\$362,804	\$257,032	\$86,906	\$232,500	\$145,594	\$395,904	\$697,500	\$301,596
Legal Services		22,500	22,500	3,002	67,500	64,499						
Salaries and Related Expenses	523,534	511,750	(11,785)	1,442,923	1,510,585	67,661	213,275	208,331	(4,944)	652,233	624,540	(27,694)
Supplies	1,321	1,575	254	4,006	4,725	719	244	250	6	892	750	(142)
Telephone	210	710	500	352	1,410	1,058	40		(40)	100		(100)
Postage and Shipping Expenses	14		(14)	14		(14)		1,000	1,000		3,000	3,000
Noncapitalized Equipment								250	250		750	750
Printing and Publications	40	150	110	100	450	350	3,313	13,750	10,437	4,610	41,250	36,640
Travel	3,325	11,833	8,509	15,254	35,500	20,247	144	1,750	1,606	1,892	5,250	3,358
Conference, Training & Mtngs	7,685	41,147	33,462	20,547	131,667	111,120	1,539	7,125	5,586	4,144	21,375	17,231
Interest Expense and Bank Fees	4,965	1,875	(3,090)	5,343	5,625	282						
Miscellaneous Expenses		50	50	18	150	132						
Dues, Licenses and Fees	4,120	1,380	(2,740)	3,024	5,700	2,676	442	500	58	2,414	1,500	(914)
Shared Allocation (Note 1)	43,082	48,964	5,883	135,232	146,839	11,607	24,480	24,156	(324)	68,256	72,442	4,186
IT Service Allocation (Note 2)	64,902	111,224	46,322	193,280	386,703	193,424	32,021	54,889	22,868	95,360	190,837	95,477
TOTAL EXPENSES	691,835	880,204	188,369	1,928,866	2,659,659	730,793	362,404	544,501	182,097	1,225,804	1,659,193	433,390

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

Note 2) Represents allocation of Shared IT Costs

Administrative Expenses 3rd Month of Quarter

Exp-Prog-YTD-003



For contracts with costs
through: 10/1/2013

Contractor	Description	*City	Est Cost	Actual TTD	Remaining	Start	End
Administration							
Administration Total:			6,840,215	2,035,727	4,804,488		
Communications & Outreach							
Communications & Outreach Total:			2,746,333	1,990,889	755,444		
Energy Efficiency Programs							
Northwest Energy Efficiency Alliance	Regional Energy Eff Initiative	Portland	39,138,680	27,120,896	12,017,784	1/1/10	7/1/15
ICF Resources, LLC	PMC BE 2013	Fairfax	7,745,851	5,341,695	2,404,156	1/1/13	12/31/13
Fluid Market Strategies LLC	2013 HES PMC	Portland	7,416,843	5,169,262	2,247,581	1/1/13	12/31/13
Portland Energy Conservation, Inc.	PMC NHP 2013	Portland	6,315,684	4,309,188	2,006,496	1/1/13	12/31/13
Portland Energy Conservation, Inc.	2013 NBE PMC	Portland	4,736,060	2,969,881	1,766,179	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	2,816,996	1,967,711	849,285	1/1/13	12/31/13
OPOWER, Inc.	OPOWER Agreement	Arlington	2,092,200	2,084,920	7,280	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	1,354,645	516,355	1/1/13	12/31/13
Cascade Energy, Inc.	PDC - PE 2013	Walla Walla	1,775,055	1,292,116	482,939	1/1/13	12/31/13
RHT Energy Solutions	PDC - PE 2013	Medford	1,278,651	925,225	353,426	1/1/13	12/31/13
Cascade Energy, Inc.	PDC - PE 2013 Small Industrial	Walla Walla	1,147,500	894,792	252,708	1/1/13	12/31/13
Evergreen Consulting Group, LLC	PE Lighting PDC 2013	Tigard	1,071,000	751,649	319,351	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	469,072	356,746	1/1/13	12/31/13
Navigant Consulting Inc	PE Program Impact Evaluation	Boulder	548,000	548,000	0	12/15/11	10/30/13
Ecova Inc	Plug Load Solutions Funding	Spokane	499,950	328,618	171,332	1/1/13	12/31/13
SBW Consulting, Inc.	BE Program Impact Evaluation	Bellevue	489,000	451,173	37,827	1/15/12	10/30/13
Evoworx Inc.	EnergySavvy Online Audit Tool	Seattle	472,500	301,146	171,354	1/1/12	12/31/13
Clean Energy Works Oregon Inc	Clean Energy Works	Portland	448,500	300,000	148,500	1/1/10	7/31/13
OPOWER, Inc.	OPower Personal Energy Reports	Arlington	425,850	177,608	248,242	8/1/13	7/31/15
Navigant Consulting Inc	Analytical Model & Study	Boulder	412,052	0	412,052	8/12/13	4/30/14
The Cadmus Group Inc.	NB Impact Eval 2010-2011	Watertown	295,000	262,801	32,199	1/13/12	12/31/13
Fluid Market Strategies LLC	2013 HES WA PMC	Portland	265,000	199,761	65,239	1/1/13	12/31/13
Energy 350 Inc	PDC Transition Agreement	Portland	200,000	20,016	179,984	9/1/13	12/31/13
ICF Resources, LLC	NWN WA BE 2013	Fairfax	191,538	122,045	69,493	1/1/13	12/31/13
Home Performance Contractors Guild of Oregon	Existing Homes Program Support	Portland	155,000	107,343	47,657	1/1/12	3/31/14
D&R International LTD	Market Lift Program	Silver Spring	150,000	0	150,000	1/1/13	9/30/13
ICF Resources, LLC	CHP Performance	Fairfax	116,320	80,968	35,352	8/5/09	6/30/13
ICF Resources, LLC	NWN DSM Initiative 2013	Fairfax	110,000	84,694	25,306	1/1/13	12/31/13
J. Hruska Global	Quality Assurance Services	Columbia City	100,000	67,334	32,666	1/1/13	12/31/14
PWP, Inc.	NBE Process Evaluation	Gaithersburg	100,000	94,316	5,684	1/6/12	12/31/13
Vitesse LLC	Vitesse Data Center	Menlo Park	100,000	0	100,000	10/18/12	10/30/13
Research Into Action, Inc.	Existing Homes Process Eval	Portland	94,000	2,748	91,253	9/9/13	2/28/14

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

For contracts with costs
through: 10/1/2013

Contractor	Description	*City	Est Cost	Actual TTD	Remaining	Start	End
Evergreen Economics	New Homes Process Eval - 2013	Portland	70,000	25,768	44,232	6/24/13	3/31/14
Pivotal Energy Solutions LLC	New Homes Database	Gilbert	60,000	0	60,000	10/1/13	3/1/14
Portland Energy Conservation, Inc.	EE Consultant Services	Portland	54,170	50,758	3,412	6/1/11	12/31/13
Research Into Action, Inc.	Products Process Evaluation	Portland	52,800	23,335	29,465	7/1/13	4/1/14
The Cadmus Group Inc.	Commercial Op Pilot Eval	Watertown	50,000	39,833	10,168	7/1/11	12/31/13
Benenson Strategy Group	Residential Awareness 2013	Santa Monica	45,000	45,000	0	4/15/13	12/31/13
PWP, Inc.	Comm SEM Initiative Evaluation	Gaithersburg	45,000	33,983	11,017	7/1/12	6/30/14
KEMA Incorporated	Shelf Space Survey	Oakland	42,750	42,750	0	12/1/12	9/30/13
Portland General Electric	Utility Data Payment - OPOWER	Portland	40,000	19,928	20,072	8/1/10	2/28/14
NW Natural	Info Transfer & Reimbursement	Portland	35,000	21,263	13,737	7/12/10	2/28/14
The Cadmus Group Inc.	Lighting Pilot Evaluation	Watertown	35,000	17,193	17,807	4/1/12	12/31/13
WegoWise Inc	Wegowise	Boston	35,000	35,000	0	5/14/12	5/14/14
Navigant Consulting Inc	Benchmarking License CORE Improvement Pilot Eval	Boulder	34,000	16,800	17,200	9/1/12	8/30/14
MetaResource Group	Data Center Evaluation	Portland	30,000	2,246	27,754	5/1/13	12/31/14
Seattle City Light	Lighting Design Lab	Seattle	30,000	30,000	0	1/1/13	12/31/13
Pivotal Energy Solutions LLC	License Agreement	Gilbert	29,500	0	29,500	3/1/14	12/31/14
Stellar Processes, Inc.	BE Measure Evaluation	Portland	25,250	19,125	6,125	10/24/12	10/24/14
Northwest Food Processors Association	NW Industrial EE Summit 2014	Portland	25,000	0	25,000	7/16/13	1/15/14
Triple Point Energy Inc.	SEM Workshops	Portland	24,240	9,114	15,126	4/29/13	1/15/14
Forrest Marketing	Commerical Financing Study	Portland	24,000	0	24,000	8/30/13	3/1/14
Michael Blasnick & Associated	Billing Analysis Process	Boston	20,000	3,938	16,063	1/1/10	12/31/13
Oregon Assoc. of Clean Water Agencies	SEM Training - Round III		19,920	8,000	11,920	5/23/13	6/15/14
Northwest Food Processors Association	NW Industrial EE Summit 2013	Portland	17,500	17,500	0	12/10/12	12/31/13
Lane Community College, NEEI Science Division	2013 Scholarship Grant	Eugene	16,600	4,800	11,800	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
G. Curtis Consulting	Residential Windows Market	Salem	14,750	0	14,750	9/15/13	1/31/14
MetaResource Group	Energy Performance Score Eval	Portland	13,000	1,425	11,575	9/1/13	1/31/14
Consumer Opinion Services Inc	Residential Phone Surveys	Seattle	12,000	923	11,077	9/1/13	10/31/14
Portland State University Foundation	Green Modular Classroom Proj	Portland	10,500	10,500	0	6/13/12	7/31/14
Future Energy Conference	Future Energy Conference 2012	Portland	6,500	6,500	0	12/10/12	12/31/13
Social Enterprises Inc.	GoGreen Sponsorship - 2013	Portland	5,000	5,000	0	6/17/13	10/31/13
Portland General Electric	Energy Monitoring Tool		1,190	0	1,190	10/3/13	11/30/13
Energy Efficiency Programs Total:			91,257,184	63,331,595	27,925,589		
Joint Programs							
D&R International LTD	Better Data Better Design	Silver Spring	133,500	25,000	108,500	4/30/13	4/30/14
Abt SRBI Inc.	Fast Feedback Survey	New York	65,000	42,681	22,319	3/1/13	2/28/14
Portland State University	Technology Forecasting		57,674	49,311	8,363	11/7/11	12/31/13

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For contracts with costs
through: 10/1/2013

Contractor	Description	*City	Est Cost	Actual TTD	Remaining	Start	End
KRH Consulting	Work Load Mangement	Portland	16,500	9,852	6,648	4/23/13	10/1/14
Glumac Inc	Planning Technical Analysis	Portland	15,000	15,000	0	10/17/12	10/17/14
The Cadmus Group Inc.	Evaluation Consultant	Watertown	14,940	13,845	1,095	6/20/13	2/28/15
Strategic Research Associates LLC	Trade Ally Survey	Spokane	14,000	11,596	2,405	5/1/13	12/31/13
CoStar Realty Information Inc	Property Data	Baltimore	12,668	13,260	-592	6/1/11	1/31/14
American Council for and Energy Efficient Economy	ACEEE Sponsorship - 2013		10,000	10,000	0	1/1/13	12/31/13
Joint Programs Total:			339,282	190,545	148,737		
Renewable Energy Program							
Outback Solar LLC	Outback Solar	Portland	5,000,000	4,950,000	50,000	5/9/12	5/9/37
Sunway 3, LLC	Prologis PV installation		3,405,000	3,396,044	8,956	9/30/08	9/30/28
JC-Biomethane LLC	Biogas Plant Project Funding	Eugene	2,000,000	0	2,000,000	10/18/12	10/18/32
Rough & Ready Lumber Company	Biopower Funding Agreement	Cave Junction	1,685,088	1,685,088	0	7/21/06	7/21/26
Oregon Institute of Technology	Geothermal Resource Funding	Klamath Falls	1,550,000	750	1,549,250	9/11/12	9/11/32
Central Oregon Irrigation District	COID Juniper Phase 2	Redmond	1,281,820	0	1,281,820	7/19/13	7/19/33
Alder Solar LLC	Habilitation Center PV	Portland	1,236,750	1,224,244	12,506	1/18/08	12/31/28
Central Oregon Irrigation District	Juniper Ridge Hydroelectric	Redmond	1,000,000	1,000,000	0	10/31/08	6/30/31
Farm Power Misty Meadows LLC	Misty Meadows Biogas Facility	Mount Vernon	1,000,000	250,000	750,000	10/25/12	10/25/27
Three Sisters Irrigation District	TSID Hydro	Sisters	1,000,000	0	1,000,000	4/25/12	4/25/32
RES - Ag FGO LLC	Biogas Manure Digester Project	Washington	883,320	331,245	552,075	10/27/10	10/27/25
Stahlbush Island Farms, Inc.	Funding Assistance Agreement	Corvallis	827,000	827,000	0	6/24/09	6/24/29
RBS Asset Finance Inc	Black Cap Solar PV Funding	Chicago	600,000	600,000	0	10/1/12	10/1/37
Tioga Solar VI, LLC	Photovoltaic Project Agreement	San Mateo	570,760	497,399	73,361	2/1/09	2/1/30
C Drop Hydro LLC	C Drop Project - Klamath Irrig	Idaho Falls	490,000	490,000	0	11/1/11	11/1/31
Oregon Institute of Technology	Geothermal Resource Funding	Klamath Falls	487,000	487,000	0	3/2/10	3/2/30
City of Medford	750kW Combined Heat & Power	Medford	450,000	225,000	225,000	10/20/11	10/20/31
City of Pendleton	Pendleton Microturbines	Pendleton	450,000	150,000	300,000	4/20/12	4/20/32
K2A Properties, LLC	Doerfler Wind Farm Project	Aumsville	230,000	174,667	55,333	5/20/10	5/20/30
Confederated Tribes of the Umatilla Indian Reservation	Small Wind Project Funding	Pendleton	170,992	0	170,992	7/25/13	12/31/28
Farmers Irrigation District	Low Line Canal Pressurization	Hood River	150,000	95,000	55,000	9/26/12	11/30/32
Farmers Irrigation District	Indian Creek Corridor Project	Hood River	100,000	100,000	0	1/5/10	1/4/29
Wallowa Resources Community Solutions, Inc.	Upfront Hydroelectric Project		100,000	11,850	88,150	10/1/11	10/1/15
Stoller Vineyards, Inc.	Stoller Vineyards PV	Dayton	79,815	77,390	2,425	12/1/05	12/1/26
Bloomberg LP	Insight Services	San Francisco	79,200	59,283	19,917	4/1/11	1/1/14
Wallowa Resources Community Solutions Inc	Integrated Biomass Energy Camp	Enterprise	70,000	70,000	0	2/1/12	1/31/27
Deschutes Valley Water District	Early Development Assistance	Madras	68,373	0	68,373	7/23/13	12/31/14
City of Portland Water Bureau	Vernon Hydro	Portland	65,000	65,000	0	11/15/10	11/15/30
University of Oregon	UO SMRL Contribution - 2013	Eugene	45,000	45,000	0	3/9/13	3/9/14

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

For contracts with costs
through: 10/1/2013

Contractor	Description	*City	Est Cost	Actual TTD	Remaining	Start	End
MC Energy LLC	Small Wind Incentive	Spokane	43,250	43,250	0	9/21/10	9/21/25
Clean Energy States Alliance	CESA Year 11 (2014)		39,500	39,500	0	7/1/13	6/30/14
Wind Products Inc	Wind Consultant	Brooklyn	37,500	27,500	10,000	2/6/12	12/31/13
Harold Hartman dba Lynhart Farms	17.5 kW PV project	Malin	32,500	31,386	1,114	5/25/07	5/25/27
Northwest SEED	Grant Agreement	Seattle	30,000	30,000	0	10/3/11	12/31/13
SPS of Oregon Inc	Spaur Microhydro	Wallowa	25,000	25,000	0	7/23/10	7/23/30
Robert Migliori	42kW wind energy system	Newberg	24,125	11,641	12,484	4/11/07	1/31/24
Solar Oregon	Outreach Services	Portland	24,000	16,000	8,000	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
Solar Oregon	Energy Education Sponsor 2013	Portland	16,000	16,000	0	1/1/13	12/31/13
Warren Griffin	Griffin Wind Project	Salem	13,150	9,255	3,895	10/1/05	10/1/20
Corbett Water District	Corbett Water District Hydro	Corbett	12,000	4,559	7,441	4/16/12	6/30/32
Clean Energy States Alliance	CESA ITAC		10,000	10,000	0	1/1/13	12/31/13
Garrad Hassan America Inc	RE Consulting Services	San Diego	6,840	0	6,840	6/11/13	2/28/15
Northwest Food Processors Association	PNNL Project	Portland	6,000	6,000	0	8/5/13	9/5/13
American Wind Group LLC	Anemometer Incentive Funding	Oasis	4,031	4,031	0	7/22/11	2/15/14
eFormative Options LLC	RE Evaluation Consultant	Vashon	3,000	3,000	0	3/1/13	2/28/15
Renewable Energy Program Total:			25,426,014	17,114,081	8,311,933		
Grand Totals:			126,609,029	84,662,837	41,946,191		

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

Meeting Notes

Finance Committee

September 20, 2013

1. Review of June/July/August financial statements

Statements reviewed. Noted revenues tracking very close to budget. Some discussion regarding project delays – specifically OIT geothermal project. Also questions asked regarding Rough n Ready mill operating status and possibility of additional mill demand for savings measures if certain proposed O+C land legislation passes. Programs are looking at coming in slightly over conservative goals, maybe stretch goal in some programs. There is a lot of variability in the fourth quarter of each year as so much spending occurs then – i.e. the hockey stick effect. Last year, Energy Trust looked lean but came in big in December and exceeded goals. This year's spending pattern will be similar, though overall levels are expected to be behind the prior year.

2. Review of budget calendar / key dates

Went over key dates and plans. Will review first draft of budget with finance committee at next meeting.

3. Update of utility negotiations

Elaine and Peter discussed status of negotiations. In essence, utilities are supportive of drawing down excess reserves over multi-year period. Funding is adequate to meet next year's IRP and renewable generation goals.

4. Reserve policy discussion

Margie reviewed proposed new policy separating reserves into program and unrestricted (emergency and contingency) components. Staff recommends amending the existing "Using Reserve Accounts" policy, renaming reserves to contingency reserve and program reserve, permitting use of up to \$5 million in the contingency reserve for emergencies or catastrophic events, maintaining and negotiating the individual amount of reserves for programs based on individual utility needs and requiring any use greater than 50 percent of the program reserve to be authorized by the board. Staff will also consistently update the board on use of the two types of reserves, not only through the quarterly report but also through the Finance Committee. Policy will be presented to board for their action at September meeting.

5. Schedule next meeting

Will need to change date of next meeting so that committee is able to review and give feedback on first draft of the budget before it goes out to the full board on 10/31. Courtney and Ana will follow up.

Meeting Notes

Finance Committee

October 29, 2013

Board members attending by phone: Dan Enloe (*Committee Chair*), John Reynolds, Anne Root, Dave Slavensky

Staff members attending: Courtney Wilton, Pati Presnail, Margie Harris, Amber Cole

1. Approved September meeting notes

2. Review of September financial statements

No big changes to report. Revenues are tracking almost exactly on budget. Cascade is the one exception, yet they instituted a rate increase and should catch-up to a large extent by year end. NWN's industrial component (related revenue and expense) may be overspent at year end by a relatively minor amount—around \$115k. If so, we will ask for board approval to cover with unrestricted reserves and then receive repayment in 2014. Some project completions are expected to lag past year end vs. what was last officially forecasted in August. This isn't uncommon, though what that means is we will likely start the year with higher program reserves than budgeted. 2013 savings may also lag what was previously forecasted.

The Committee discussed the difficulty of forecasting given so much activity falls into the fourth quarter. The Committee also discussed the potential for changing the fiscal year to a September 30th year end to facilitate forecasting. This is difficult given we need to align with the utilities. Other ways to incentivize earlier expenditure were discussed, both with regard to incentives and PMC management.

3. Review of 2014 budget

Courtney provided a numbers overview. Revenue in 2014 is expected to be very similar to current year totals; PGE and PacifiCorp maintained current rates. The gas companies lowered their rates slightly such that overall revenue next year will go from \$165.3m to \$163.0m—a reduction of 1.4%. Spending is budgeted to increase from \$170.3m to \$178.8m—an increase of 5%. Some drawdown of program reserves (budgeted to start the year at \$54.7m) is expected as a result, though it likely won't be significant. We generally budget and plan for some "turn-back" for both project and internal operating costs. Therefore, actual costs will likely be less than budgeted next year. Our utility partners are supportive of drawing excess program reserves down over a multi-year period vs. in a single year for rate stabilization purposes.

Margie provided key budget takeaways and new program innovations and focus areas. She also discussed new position requests. Total staffing FTE is expected to increase next year by 5.5 FTE from 94.5 to 100.0. New positions proposed are as follows:

1. Southern Oregon Outreach Manager
2. Commercial and Industrial Marketing Coordinator (currently agency contractor)
3. Senior Outreach Manager

- 4. Residential Marketing Coordinator (currently agency contractor)
- 5. Senior Project Manager
- 6. Web Project Manager (converting existing .5 FTE to full time)

Budgeted savings on the electric and gas side are both expected to increase slightly from current year stretch goals (electric from 55.8 to 58aMW / gas from 5.7 to 5.8m therms) and levelized costs remain the same if slightly lower. As you know, we are no longer expressing goals in terms of “conservative” or “stretch” but simply budgeting for one number.

Amber discussed the new budget format and planned budget outreach. This includes meetings with utilities, the general public and the OPUC as follows:

Draft budget online	by Nov. 1
Board of Directors	Nov. 6
OPUC workshop	Nov. 13
Utility presentations	Nov. 11-15, 22
Live Webinar	Nov 15
RAC/CAC updates	Nov. 20
OPUC public meeting	Nov. 26

The budget should be finalized at the December board meeting.

4. Investment Strategy

Courtney recapped current policy and holdings. Our current investment policy allows us to invest in a number of very safe vehicles including US treasuries, federal agencies, corporate bonds of a certain rating, commercial paper of certain rating, collateralized repurchase agreements, certificate of deposits in banks of a certain rating or in denominations under the FDIC limit and money market funds. The policy also allows us to invest out to sixty months depending on the tier of assets. We currently are limiting our investments to certificates of deposit under the FDIC limit (what’s known as CDARS) and our overnight repurchase agreement with Umpqua Bank. About 90% of the total is invested in maturities of twenty-six weeks and under. Rates on these investments range from 0.06 of one percent to 0.40 of one percent. The Committee was comfortable divesting investment holdings and maturities within parameters of current policy.

5. Schedule next meeting

Cancel meeting tentatively scheduled for November 18 and plan on meeting Monday, December 2nd, 3:00-4:30 p.m.

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

Renewable Energy Advisory Council Meeting Notes

September 11, 2013

Attending from the council:

Juliet Johnson, Oregon Public Utility
Commission
Vijay Satyal, Oregon Department of Energy
Dick Wanderscheid, Bonneville
Environmental Foundation
Tashiana Wangler, PacifiCorp
Suzanne Leta-Liou, Atkins
Craig Ernst, Oregon Solar Energy Industries
Association

Gayle Roughton
Dave Moldal
Dave McClelland
Chris Dearth
Peter West
Elaine Prause
Lizzie Rubado
Susan Badger-Jones
Tara Crookshank

Attending from Energy Trust:

Betsy Kauffman
Jed Jorgensen
Thad Roth

Others attending:

Bill Eddy, One Energy
Les Perkins, Farmers Conservation Alliance
Julie O'Shea, Farmers Conservation Alliance
Theresa Gibney, Citizens Utility League

1. Welcome and introductions

Betsy Kauffman called the meeting to order at 9:30 a.m. and reviewed the agenda. The minutes from the July meeting were approved. The agenda, notes and presented materials are available on Energy Trust's website at www.energytrust.org/About/public:meetings/REACouncil.aspx.

Betsy gave an update on staffing and introduced Gayle Roughton as the renewable team's new operations analyst. Prior to joining the renewables team, Gayle worked in the Planning group as a data analyst and was recently hired to take on some of the reporting for the Solar and Other Renewables programs. She will also be completing process improvements and streamlining. Dave McClelland commented that they are very happy to have Gayle and that her position was designed to help the group put more focus on process improvement and data quality.

Dave mentioned that Rob Del Mar has left Energy Trust and is now with the Oregon Department of Energy in a field position in Bend. Rob's old position is now open and they are looking for someone with solar expertise and industry knowledge. This position is open until filled.

2. Budget themes

Staff presented on the themes and activities that will be reflected in the 2014 budget for the Solar and Other Renewables programs

Thad Roth: In this presentation, the team will be covering the themes of our budget and what initiatives are going to be driving program activities in 2014. We will also cover what we see as the key opportunities and challenges. We'll start with a quick update on what's happened to date.

At its July meeting, the board approved the merger of the Biopower program with the Other Renewables program into one program to be called Other Renewables. The name can create a little confusion. We had originally proposed the program name Custom but the board found the name could cause confusion and requested it be changed to Other

Renewables. This means the sector is now comprised of two programs: Solar and Other Renewables.

Juliet Johnson: Can you clarify what the categories and names are now?

Thad: The first thing we want to do is create two program tracks, one that includes solar and one that includes all other technologies. The way we were operating before this change, particularly with competitive processes, meant that a specific Biopower budget would imply that those dollars would be spent on Biopower projects. But with the competitive processes we have implemented, we don't know if those dollars will necessarily go toward biopower projects; it could go to hydro projects or one of the other technologies. This change is to better reflect the way we are operating. The board found the term "custom" to be somewhat confusing with the way we allocate incentives, since we have standard incentives and custom incentives. They requested a different name and were comfortable using Other Renewables.

Craig Ernst: So you have two tracks, one is solar and the other is all of the others?

Thad: Yes.

Tashiana Wangler: In the Solar program, is that all solar or just standard?

Thad: All solar.

Thad: At the next council meeting, when we get into the actual budget numbers, you'll see us start to use these terms.

Lizzie Rubado: It is worth pointing out that this name change is internal facing only and has no effect on how we present to the public, other than in the budget presentations.

Tashiana: Have you thought about the term "non-solar" programs?

Thad: The board discussed this phrase, too, and felt it reflected, even if unintentionally, a negative perception of technologies not solar. We would be happy to take any other suggestions into consideration.

Betsy: In terms of budgeting, you've seen three sets of numbers in the past. Now you will only see two sets of numbers, Solar and Other.

Thad: We will continue to approach the market by technology.

Craig: So biopower was so significant that it had its own category in the past but is no longer significant?

Betsy: No, this is not an indication of significance. Our budgets have been reduced and we've started allocating money on a competitive process. Creating a separate biopower budget when we really are pooling money in these competitive processes was becoming too much additional work. Biopower is very significant. The program and budget merger is a reflection of the fact that we are pooling incentives.

Betsy presented on the budget themes and current year progress for the Other Renewables program.

Betsy: This is a high level summary of the year that is only project and project development assistance focused. There may be some changes as the year progresses. When we give you a final summary in January, it may look a little different than this.

There are currently two biopower projects under construction that we expect to complete before the end of the year and one that is delayed until next year. There will be a ribbon cutting in October for one of those projects.

There is one hydropower project that was funded this year and 10 that have received project development assistance. The bulk of these are projects that received smaller amounts of project development assistance, below \$40,000.

There is one geothermal project that is under construction but is delayed until next year. There is one other that received project development assistance

There were three small wind projects completed this year and one project under construction. Two projects have received project development assistance.

The vast majority of project development assistance incentive dollars are given in small amounts, under \$40,000 per project. Those really are a key part of our pipeline building and an important piece of our work.

We had several competitive processes this year. We did an RFP in the first quarter, for which we received five applications. One project was funded while another turned down our offer. The other three were rejected.

There is one RFP out now and it closes on the September 16. We also had an RFP for larger project development allocations. This was the first time an RFP was done for this. We are currently working with two projects to refine their proposals.

We are still learning how to work with projects. One of the things we are learning is that we are starting to hear from people who weren't on our radar. This may indicate that we need to provide more direction on how to work with us, if they aren't familiar with our processes.

Dick Wandersheid: So the three that were rejected, do you expect they will be revised and come back or were they not feasible?

Betsy: I don't expect to see one of them again unless there is a substantial change in qualifying facility prices. For the other two, I haven't been in touch with them since the RFP. I think it's possible but they were very large and our incentive wasn't a huge part of their budget so I'm not sure they would find it useful to work with us.

Thad: We need better terminology about how we disqualify a project. We continue to work with these projects to offer other services, such as project development assistance, to the extent that they are interested. We do have other tools to help even if they don't make it through our RFP evaluation. The term "rejection" is probably technically accurate but we continue to make an effort to support these projects in other ways if we aren't able to support with an incentive at this time.

Betsy: It's more of a "no for now".

Betsy: We are currently facing some challenges in the market. The fundamentals are difficult right now. QF rates are very low and there is uncertainty in the availability of federal incentives. I think the market is still adjusting to the loss of the Oregon Business Energy Tax Credit. It's a challenging world for the big projects. Small wind also has its own challenges: There are not that many installers, and manufacturers are having difficulty building market share. We aren't Oklahoma or North Dakota, in terms of wind resource.

Juliet: When you say the federal opportunities are uncertain, is that the Production Tax Credit?

Betsy: In general we never know how long the tax credits are going to be extended, but yes I was referring to that.

Betsy: This is one of the really important reasons we do project development assistance, to keep projects moving along so they are ready to take advantage of other funding opportunities when they become available.

Betsy continued: In addition to the challenges I mentioned, there are some opportunities. Legislation has drastically improved the market for conduit hydro and our biopower work aligns well with the Governor's 10-year energy plan. So that's where we are at for the year to date, and next I'll cover the budget themes, the kind of things that are going to be reflected in numbers next month. This is how we are approaching our work for the next year.

Suzanne Leta-Liou: Can you first walk us through the primary types of project development assistance?

Betsy: The main thing is feasibility studies. We provide a lot of assistance related to interconnection and as well as help with permitting.

Jed Jorgenson: It's really the whole development process. We try to help the project move through the whole thing. We ask, "What do you need to do to move this project forward?" Then we ask for a scope of work.

Thad: As I recall one of your projects was successful in the competitive allocation of project development assistance; what was in the scope?

Jed: It's a public agency so I can speak to it a little bit. Deschutes Valley Water District is working on the Opal Springs Dam which is on the Crooked River. They are looking at raising the dam a few feet to increase production and help with fish passage. We've been working with them for a few years and they are at the stage of finishing permitting and other steps. If I'm remembering correctly, its mainly permitting and studies, working with agencies on a very specific wetland delineation, and we've previously helped with some of the design work and figuring out how to finance this project. It's expensive and there are a lot of partners and we can help them figure out how to package the financing.

Betsy: We require a scope of work, a budget, information on who's going to be doing the work and a timeline showing when it's going to be done. Then they pay for the whole thing and we reimburse them 50 percent or another amount if previously agreed upon.

Betsy: The first budget theme is that our primary focus is building the pipeline. This means finding projects that are able to take advantage of project development assistance and to try to move them along. This is a critical piece of what we do. We do this through project development assistance funds in both small and large amount, but mostly small, under \$40,000 per project. We provide assistance to developers so we can get projects later on that are able to apply for incentives. This includes a lot of outreach.

The second theme is leveraging other incentives. When there are other opportunities and incentives out there for these projects, we want to use our dollars to work with them, because that may be the difference between a project that can complete or not complete. Sometimes there are water conservation dollars or Oregon Department of Energy dollars. We are also looking at projects that can use electricity on-site because they are offsetting retail prices rather than wholesale, which are significantly lower. A lot of biopower projects fall into that category. We are looking heavily for biopower projects

next year, because the economics for these projects can be much better than other technologies and the projects serve other purposes such as management of a waste stream. There will be a lot of outreach next year. It's harder to make projects work than it was four years ago so we have to turn over more rocks to find more.

Juliet: Using energy on-site for those projects, are they tied into the grid?

Betsy: Yes.

Thad: Also, there are some projects that exceed the net-metering rules and are partial requirements customers.

Betsy: We will continue to offer project development assistance, both larger and smaller. We will likely be doing some developer education as well, sharing best practices regarding things like operations and maintenance for projects and applying for our incentives. We may potentially provide assistance on project planning. For a lot of developers, this is not their core business so there is a learning curve and we need to look at if we can assist in that.

Juliet: In the past, we've talked about summarizing what you are learning. Are you explicitly doing that this year and planning on doing that next year?

Thad: Yes, I think that will be part of this. As part of our OPUC performance measures, we'll be providing that information to the OPUC. This is a learning year for us in terms of what we can expect for a mature development plan. It is a bit of a balancing act and we'll have to take it in strides. We've seen sophisticated and less sophisticated proposals, and we're going to look at supporting the sophisticated ones. But at the same time look at perhaps dividing the development process into smaller bits, to accommodate differing needs. This will be part of what we provide to the OPUC and board, what we've learned and how we plan to move ahead, during annual reporting next year.

Juliet: I think that sounds great. If you could specifically say in your presentation to the OPUC what was learned about projects to be developed or that were developed, I think that would go a long way.

Dave Mc. presented on the Solar program's budget themes.

Dave Mc.: For the purposes of this, we are going to be focusing on standard solar. For 2014, we don't see that we have funds available for custom projects.

Craig: What do you mean by standard?

Dave Mc.: These are for projects receiving published standard incentive rates available on a first come, first served basis.

Suzanne: Is that a strategic decision? Clearly if you shifted the non-solar funds differently, you could have some money for custom solar projects. What is the strategy there?

Dave: This is reflection of the new OPUC benchmarks. We have four benchmarks and as I understand it, they are in ranked order. The first being project development assistance, then standard projects, then custom non-solar if there are free funds and fourth is custom solar. There could be an opportunity if we end up with additional free funds.

Juliet: This is largely a function of the state mandated solar requirements. Utilities are already going after solar because they are state mandated so Energy Trust's dollars are better spent elsewhere.

Thad: We support a portfolio of projects. To do that, we have to create budgets that make sure we can support a range of technologies. This group and the board had reviewed an option of

doing just large solar projects because they are cheaper as opposed to many smaller projects and the decision was to support many technologies instead.

Betsy: There is a value on the width of support.

Thad: We want to have these services available to a wide variety of market opportunities. Not just utility-scale projects.

Suzanne: So the challenge will be whether you can capture the same level of average megawatts, which we'll just have to see.

Dave Mc. presented a slide on the number of residential and commercial solar applications from 2011 to Quarter 3 2013.

Dave Mc.: Looking back at where we've been, there were a few factors driving growth. Halfway through 2011, third-party options came into the market for residential.

You can see that in Quarter 2 and Quarter 3 in 2011 there was a huge jump in the number of residential projects. Third-party options really expand the base of customers that can take advantage of solar. There are several commercial factors that were really driving expansion in 2011. At the end of 2011 the 1603 grant expired, so the ability to take the federal Investment Tax Credit as a grant instead of a tax credit went away. There were also some recovery act projects that came at the end of 2011; in particular, low income and multifamily projects. This all caused a huge spike in Quarter 4 of 2011. This was tough timing as it was right after we had completed our forecast and budget. It meant that we started 2012 in a much worse position that we thought we were going to be, with a much smaller budget. We reacted to that by implementing a stepped down incentive. This had a big impact on the market. 2012 was a great year for installations and the biggest year yet in terms of capacity. It was a tough year for installers though, because we were stepping down incentives.

When we hit 2013, our pipeline was the smallest it had been in six years. It was a slow start to the year in terms of installations and new reservations. Because we conserved in 2012 and hit our budget right on, we have dollars to work with this year. We are in a better position this year and better next year. We've gone from reacting to a shortage to where we can actually support some growth and target stability. This year has been about rebuilding the pipeline and the growth we've seen has been much more manageable.

In Quarter 2 of 2013, we reacted to no commercial solar projects in the pipeline by bumping up our incentives. In Quarter 1, there had been a net negative number of reservations but after the new incentives, there was 1.3 megawatts. This was a good response to those new incentives and put us back on track.

In residential, we've seen steady growth. This year we've been able to keep things steady and in Quarter 3, we've got 1.1 MW of new reservations to date. This is the strongest quarter since Quarter 2 of 2012 and we just received our 5,000 home incentive application this week. We are working on identifying the customer and will look to publicize the milestone this fall.

Craig: That's for the history of the program?

Dave Mc.: Yes.

Dave Mc. continued. We are on track to meet the OPUC goal and exceed our conservative goal. We are also on track to commit 100 percent of the Pacific Power budget and 80 percent of

the Portland General Electric budget. This includes the \$1,000,000 RFP for PGE custom projects; of which, only one project was approved that got about 30 percent of the available funds. We may consider another change to the PGE incentive or we may decide to hold back and let the growth happen naturally.

There are many challenges in the market. Module costs, after falling dramatically from 2009 to 2012, have stabilized or started to go back up. Not all of our contractors break out itemized costs on their applications, including the modules and their markup, but we can get a good sense from the ones that do. We don't expect modules to be a major area of driving down costs.

Also, direct purchase residential solar contractors are having trouble competing with the third-party option. It's compelling to offer a zero down option to a customer and they haven't found an offer that is as attractive. There is also insufficient activity to attract new players. It's a small market for these third-party options. In California, there are eight or 10 and we only have two.

We are still hearing from customers that they are waiting around for the Business Energy Tax Credit replacement. We have the sense that even if customers are getting as good a deal as they were a few years ago, they think they are missing out on those higher incentives.

Juliet: I wonder how customers are getting this information. I had a friend who mentioned they heard the utilities might change the rates. I wonder how he heard that and how others get this information.

Dave Mc.: Partially there's just been some bad press about solar. This doesn't really impact our customers but it makes them nervous about solar.

Dave Mc.: There are opportunities in the market as well. Prices have come down dramatically, about half the cost of a system in 2008. To me that means maybe you don't need a 50 percent Business Energy Tax Credit anymore. We also see an opportunity for cost reduction in non-hardware, soft cost and I'll get into that in a minute.

Our areas of focus for 2014 are our incentives and market transformation. We're back to a point where we have a little bit of room for growth. We're going to work on better forecasting, better long-term planning and to get those incentive levels right. We want to be better at reacting to the market. With the addition of Gayle to the team, we're looking to be data driven and do some great forecasting.

Our market transformation efforts are going to be around soft cost. We used a study produced by Lawrence Berkley National Laboratory¹, that's about a year or two old, not an exact reflection but a pretty good proxy. There are three categories of soft costs: permitting, inspection, and incentives (PII), labor and customer acquisition. PII is 24 cents in U.S. vs. 3 cents in Germany. Germany's building market is very different, they essentially don't have inspections. They make this work by having 30 years of liability for architects and builders, which is something we can't address. Labor is 59 cents in the U.S. vs. 23 cents in Germany. We aren't able to drive down labor rates and we probably wouldn't want to but the less hours you spend on a system and can move on to a next,

¹ [LBNL, Seel, Barbose & Wiser. Why Are Residential PV Costs in Germany So Much Lower Than in the United States?](#)

costs can decrease for the customer. Customer acquisition is 10 times in the U.S. what it is in Germany. So what can be trimmed?

The ways we think we can help is marketing and customer outreach, and then once the customer has signed, what the process is like. To address these, we are going to continue to improve our processes. Gayle will be doing process mapping and looking for ways to streamline. We're also looking for better ways to coordinate with the Oregon Department of Energy and other players. We're looking to have the new hire be someone who can reach out to utilities and different jurisdictions, and build those relationships.

I'd like to shift from a reactive quality management, as well. About 80 percent of site visits are passing. We still have 20 percent of projects that are failing first site verification. That's a lot of time for call backs and having contractors go back and fix things. I'd like to shift to a proactive quality management approach. The energy efficiency sector has taken some great steps to be proactive in this area and I think we can learn from them. We are going to be working more heavily with contractors on the front end. Making sure our checklists are adding value rather than something that is taking more time. For customer acquisition, we're also looking to do marketing support, and developing some toolkits that they can pick up. We want to have some of our own tools that do a better job of educating customers. We've had a calculator online for a number of years that gives an idea of incentives and it is starting to look a little outdated. We'd like to update the calculator; providing better ways to educate customers on the web, turn them into a lead and pass them to the contractor.

We also need to do a better job of engaging our efficiency programs. We need to turn them into our solar sales force and improve our coordination with them.

Suzanne: One of the challenges in engaging with Program Management Contractors is that they are not incentivized to sell solar. How are you going to address that?

Dave Mc.: We are aware of this and are thinking about how we can address this. Our new customer relationship management system gives us a way to track those early customer engagements and may help for improving this.

Vijay Satyal: What specifically are you trying to forecast? What are you looking for?

Dave Mc.: I'd like to be looking at forecasting system cost. We have a lot of good data; it's making sure we are doing a little more long-term planning.

Bill Eddy: So it's true there is not a budget for utility-scale solar?

Dave Mc.: Our PGE incentives go up to a 500-kW system and I don't see us going higher than that.

Bill: The only way a larger project would get funded is with excess funds?

Lizzie: Yes and that's how it's always been.

Thad: In the last five years, we've had funding that we could carryover and had more funding available to the program, so it made those larger scale projects possible for us. Those carryover funds are almost spent so now we are living on our annual revenues, which is about \$4 million versus \$14 million in past years.

Bill: Why don't you let larger solar projects compete in the all resource solicitations?

Thad: It gets back to portfolio. We are carving out funds for a variety of technologies. The way the budgeting process is established is that we carve out dollars available to a range of

technologies and we want to make sure we have dollars for a suite of technologies. They get first shot at the opportunity to do those projects. If those projects don't materialize, then we are in a position to make those dollars available. In the past, with the cost of solar, they probably wouldn't have competed that well.

Bill: You are excluding the larger solar projects unless others fall apart but if you set up \$2 million for non-solar, I'm not going to apply and you would have missed the larger solar.

Thad: But in that scenario, we did get other projects.

Bill: But mine was better.

Thad: We have a range of technologies we can support. The board has decided to support a range of technologies and this is how we want to support it. We are happy to engage if you have other thoughts.

Peter West: We have a board approved strategic plan that directs staff to go after a range of technologies. The strategic plan is being revised next June and we encourage comments during that process.

Tashiana: In the shift in 2014 to the two budgeting areas, does that change how the large solar is viewed, understanding it's your last funding priority? Does that mean that it only competes for the standard solar dollars assuming those aren't used or is it also going to be competing for unused custom dollars?

Thad: The second option. If we have \$1 million unused in the Other Renewables program, we would entertain the opportunity to do a larger solar project. The constraint on the budget availability has drawn this more into relief now than it has in the past.

Tashiana: The change in the budget buckets doesn't change the way you are looking at funding larger solar?

Thad: That is correct.

Thad: We'll be back to talk about this all again, with numbers. We are in the process of determining if we will have carryover dollars and we'll give you a better sense of this all next time.

Betsy covered the budget schedule and the opportunities for input.

Betsy: Energy Trust is committed to an open and transparent budget process and we invite input. We will present draft budget numbers in October at the next Renewable Energy Advisory Council meeting. In early November, the board will see a draft budget. A final budget presentation will be brought to the Renewable Energy Advisory Council in late November and the board will review and approve the final budget in December.

Suzanne: The October 23 Renewable Energy Advisory Council meeting is right in the middle of Solar Power International, you might want to change the date.

Betsy: We'll see if that's possible

Betsy: The full budget and action plan will be posted online for public comment a week before the November 6 board meeting. The OPUC will have a public hearing in late November and public comments are due November 27 and should be submitted through the email address info@energytrust.org. Any comments we receive will be considered and all comments are shared in summary form along with the project and draft action plan to the board.

Peter: Any comments would be most helpful during the October 23 draft presentation of the budget, and within the two weeks following, as that gives us the most time to make larger changes if needed.

3. Farmer's Conservation Alliance research on the benefits of hydro for irrigation districts

Les Perkins from the Farmers Conservation Alliance, FCA, presented the results of research on the benefits to the local watershed and irrigation districts in Hood River County resulting from the installation of hydropower projects. The research was co-funded by Energy Trust and Bonneville Environmental Foundation. Jed introduced Les.

Jed: Les is from Farmers Conservation Alliance in Hood River. It holds the license to the "farmer's screen," a fish screen developed by Farmer's Irrigation District. The alliance has been working to spread the use of this technology and has also worked to help irrigators and irrigation districts move forward with hydro projects. In December 2012, they asked to take a look at Hood River as a watershed to explore the costs and benefits that irrigation hydro brings. Hood River basin is a good model of Oregon in a lot of ways. The goal was to create a tool for other irrigation districts that are thinking about hydropower projects and also something to be able to show to policymakers about why these projects are important. The study was completed this summer and Les is here to talk about it.

Les: Thank you for having us and for funding the study. I'll be covering this on a high level but there is a lot of information in the report, which can be found on the Energy Trust website at www.energytrust.org/library/case-studies/CS_Hydro_FCA_2013.pdf.

At FCA we get to meet a lot of irrigation district folks and hear their stories and how they view conservation and restoration. Having a decade of experience in the Hood River basin and working closely and getting involved there, it's clear that it's different in that there is a lot of collaboration between irrigators and the natural resource agencies. Other basins can be very disjointed. Why is Hood River different? As I learned the history it came apparent that hydro had a lot to do with that. From my perspective this story needed be told to differentiate hydro projects located within existing water delivery systems from other types of hydropower projects.

The Hood River basin is small and agriculture is a huge portion of the economy. It is dominated by three irrigation districts. Two have had hydro systems for 30 years. The basin also has the highest concentration of threatened and endangered fish species in the State of Oregon. Irrigated agriculture started in the 1830s and irrigation diversions were established. The basin is a tough place to transport water from one place to the other due to topography and soil types. Most diversions were established around 1900.

The three major economic components of the Hood River basin are agriculture, logging and salmon. These three components are really a recipe for conflict but this conflict is very low compared to other basins.

I'll give some information on Farmer's Irrigation District now. It serves farmland on the west side of the basin and into the City of Hood River. Historically, it established diversions on the Hood River and its main tributaries. It developed a complex system of flumes and open canals, which lost a lot of water and were prone to flooding. By the late 1970s they knew they needed to make some changes, but there was no way they could fund them. So they started to think about how they could finance things and hydro became the primary opportunity. In 1985 they constructed two plants with a combined

capacity of 4.85 MW. They borrowed \$12 million to do this, built the plants and then realized they didn't have the correct water rights.

Dave Moldal: Is the basin over-allocated and are there in-stream water rights?

Les: Yes, there are in-stream allocations but irrigation rights supersede them. However, there are agreements in place now and the irrigation districts curtail their use during dry periods and put their farmers on rotations. The basin is cooperative and makes sure that the water doesn't run dry.

Dave Mo.: On paper is it over-allocated?

Les: Yes.

Les: Jerry Bryan became the new Manager of Farmers Irrigation District and found to get the water rights they needed to screen all their diversions and needed to be open and honest with the regulatory agencies. They implemented these changes and made some headway into improving system efficiencies through pipe installation and improvements. In the 1990s, the district adopted the first Water Management and Conservation Plan and also wrote a Sustainability Vision document.

Over the 30 years, the hydro revenues have enabled capital investments of \$45 million. Reinvesting in the system allowed the district to improve so much that by the end of 2015, all canals will be piped. Energy Trust helped with some of the piping projects. Today, the system delivers 13,000 acre feet less while meeting the needs of customers. The district has also provided micro-sprinklers to growers, which use as much as 1/10 the water as conventional sprinklers and provide adequate water. The district also invented and patented a fish screen, which is unusual for an irrigation district. Farmer's Irrigation District is regarded as one of the most progressive irrigation districts in the county, this and the improvements are largely due to hydro.

Middle Fork Irrigation District serves the upper Hood River valley and its diversions are in the national forest. They started conservation much earlier than Farmers and installed the first pressurized main line in 1948. They had a conservation statement in the 1940s, which was unusual at the time. In 1986, they built three hydroelectric powerhouses. The Middle Fork hydro system is set up differently and more efficiently than Farmers due to the topography in the service territory, which allows for a lot more fall. The powerhouses are set up in sequence, which allows them to generate power as they deliver water. This is different than Farmer's Irrigation District, which can only generate power or deliver water, not do both at the same time.

A lot of Middle Fork's work is in managing sediment. All the water is white from July to late September, due to glacial sediment. They've done a lot of diversion rebuilds and a lot of studies and plans on sediment management as well as piping and re-piping. Their cumulative capital investments are close to \$40 million. All of their pipes are fully enclosed. They've also eliminated end spills. This effort has saved about 30 percent of the water that used to be diverted. They also eliminated water transfers between streams, installed two horizontal fish screens and removed eight fish passage barriers. Middle Fork has become one of the most efficient irrigation districts in the country.

East Fork, the third irrigation district in the Hood River basin, doesn't have hydropower. The district was established around the same time and serves more acres than the other two. They still have 60 miles of open canals. They recently did a piping project where they piped four miles, which cost them \$2.4 million a mile. It would cost \$42 million to pipe all canals and without hydro, the likelihood of getting this done is almost zero. East

Fork diverts 37,300 acre feet of water per year. This is almost three times the amount of water that the other two districts divert and they serve less land than the other two combined.

At the end of the study, we looked at all the possible negatives of hydropower. The only negative that is truly attributable to hydropower is reduced winter time flows. All other issues would exist whether there was a hydro system or not and could even be worse without hydro. The benefits for the whole basin over a 30-year period include an increased collaborative environment. There is not a lot of contention. Hydropower is a big piece of this as it brings complexity and cooperation. It also keeps agriculture resilient. Between the two districts with hydropower, there is production of enough power to supply 4,120 homes each year or nearly half the population of Hood River County.

We reached a few conclusions. There is work to be done as far as how conduit hydro is perceived and there are some barriers to implementation. One major barrier is that irrigation districts don't have the ability or desire to take on something more. It's scary. There needs to be some level of help early on in the process, especially regarding operations and maintenance. Farmer's Irrigation District and East Fork had a decade-long learning curve.

There also needs to be some give and take on winter water diversions. Right now, you will always be opposed if you try to get winter water rights. When we asked why, we found the tribes were only concerned about a specific period of time from late November through the end of December for steelhead. Maybe there is a way to curtail diversion during this time, but we need to have the conversation. Without winter flows it is very hard to make these hydro projects pencil out.

Chris Dearth: What prevents an agreement about timing in winter water flows?

Les: Being willing to have the conversation in the first place. To discuss hydro is to automatically bring in anger and we need to get past that to discuss what it can really mean. We recognize that irrigated agriculture is not going away. We have to put infrastructure in the ground to make agriculture more efficient and we can do that with hydro and help the watershed at the same time. But it's a tough conversation to start. Hydro can be a bad word.

Suzanne: We've talked about permitting issues before here at the Renewable Energy Advisory Council. It's nice to see a study that hones in on the broader benefits of hydro and I think it's a very useful advocacy tool.

Julie O'Shea: One thing that adds to the elegance of this is that the laws restrict irrigation districts on what they can spend their money on. Through hydro, they can generate a ton of money and can only spend it on their system, water restoration and restoration of the habitat. The ones with hydro are able to do a whole lot more work.

Betsy: Why did East Fork make the decision to not do hydro?

Les: I've approached them and there's great opportunity there. The main issue is fear of complexity, of adding a lot more work. It takes everything they've got to manage 60 miles of open canals. We're trying to help them move forward but they've been told flat out they won't get a winter water right.

Chris: Have you explored a regional solutions project through the Governor's office?

Les: The district has to get further down the road first; they have other projects happening now. They are moving in that direction and we'll keep moving that conversation forward. It could be at a certain point soon.

Jed: What this illustrates is that the long-term plan has to be part of the sale. The plan could be 10, 15, 20, even 30 years. Having this to show what can be done over 30 years can help a lot of districts. This helps the advocacy community and shows the whole suite of things that have been able to move forward.

Julie: It is also a great illustration of how the narrative is changing. It used to be farmers versus fish and farmers versus agency but now hydro is good for farmers, fish and everyone. But we had to talk. This was so interesting to talk through this with people who may have that old narrative and show people how hydro has saved fish rather than damage them.

Jed thanked Les for his presentation.

4. Public comment

No public comment.

5. Meeting adjournment

Betsy thanked the council members for their participation and adjourned the meeting at 11:33 a.m. The next full council meeting is October 23, 2013.



2014 Budget Themes

RAC meeting

September 11, 2013



Agenda

- Program Activity for 2013
- Budget Themes for 2014
- Budget Calendar

Other Renewables



2013 Other Renewables summary

- Biopower
 - 2 projects to complete
 - 1 project delayed
- Hydro
 - One project funded
 - 10 projects receiving project development assistance



2013 summary (cont.)

- Geothermal
 - One project delayed
 - One project receiving project development assistance
- Wind
 - 3 projects completed
 - One project under construction
 - 2 projects receiving project development assistance



2013 Competitive Processes

- Q1 RFP
 - Five applications
 - One project funded
 - One turned down our offer
 - Three rejected
- Q3 RFP still open
- RFP for larger PDA allocations
 - Four applications
 - Two awards, still in conversation with the other two
 - Opportunity for learning



Current market dynamics

- Challenges
 - Difficult fundamentals
 - Challenges for small wind
- Opportunities
 - Occasional federal and state funding opportunities that can be leveraged
 - Improved regulatory environment for conduit hydro
 - Biopower work aligns with Governor's energy plan



Key actions and initiatives for 2014

- Primary focus on pipeline-building
- Leverage other incentives and opportunities (CHP incentives, water conservation \$, direct-use, net-metered projects)
- Top priority on bio, followed by hydro
- Outreach, outreach, outreach – Identify and assist potential projects
- Continue RFPs in Pacific Power territory and expand competitive solicitations to PGE



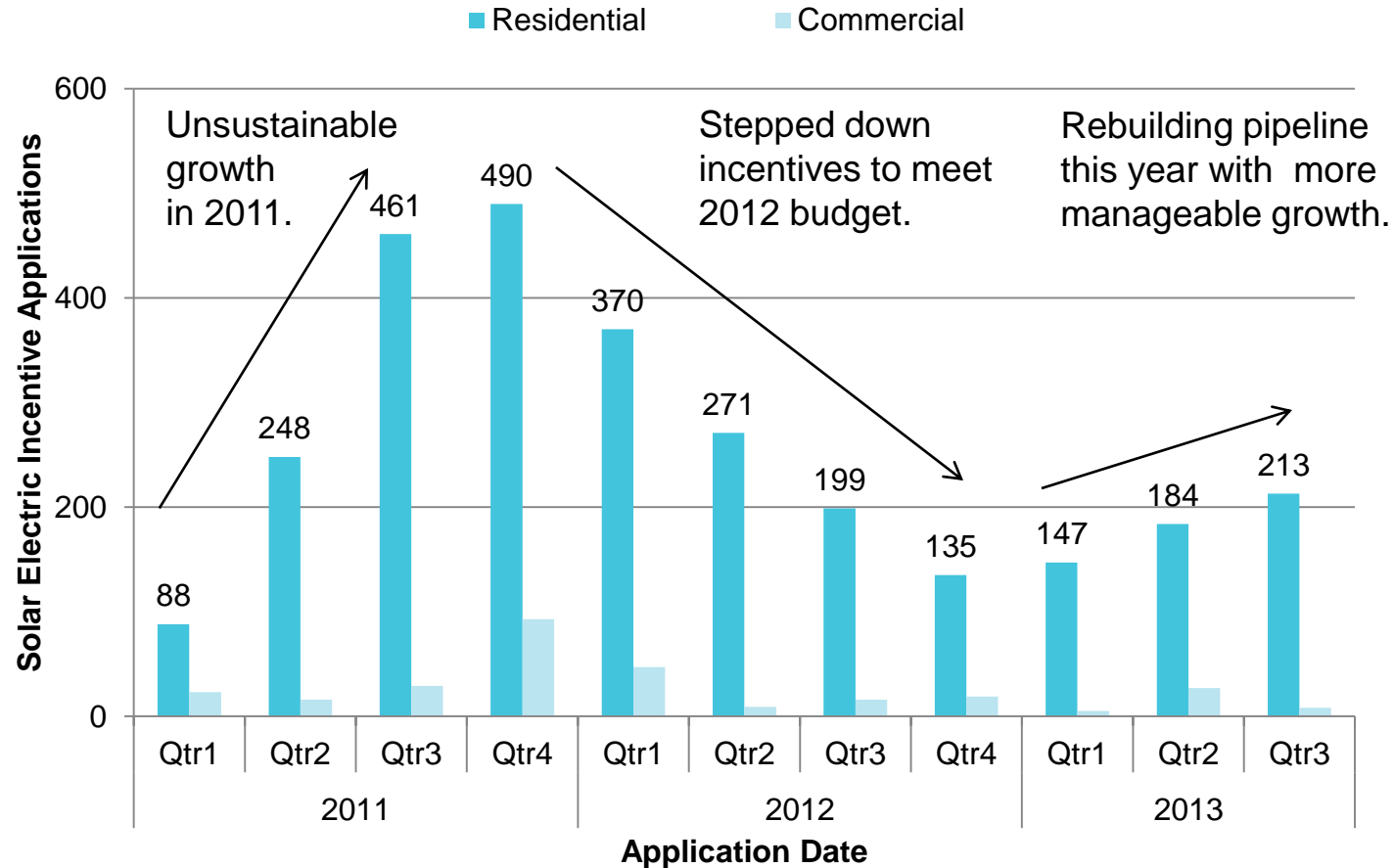
Key actions and initiatives for 2014

- Continue offering both larger and smaller amounts of PDA – utilize lessons learned to modify
- Developer education – best practices, what we're looking for
- Expand developer capacity

Solar



Energy Trust Solar Activity, 2011-13





2013 Summary - Solar

- Rebuilding pipeline:
 - Commercial
 - Q1: 62 kW new of reservations
 - Q2: 1.3 MW after new incentives
 - Residential
 - Q3: 1.1 MW of new reservations to date
 - Strongest quarter since Q2, 2012
- On track to meet OPUC goal and commit 100% of Pacific Power and 80% of PGE budget



Current solar market dynamics

- Challenges
 - Module costs have stabilized or gone back up
 - Direct-purchase residential contractors having trouble competing with third-party options
 - Insufficient activity to attract new players
 - Customer perception that they missed out on a good deal or should wait around for a better deal
- Opportunities
 - Prices are about 50% lower than 2008
 - Non-hardware soft cost reduction can be addressed at the regional and local level

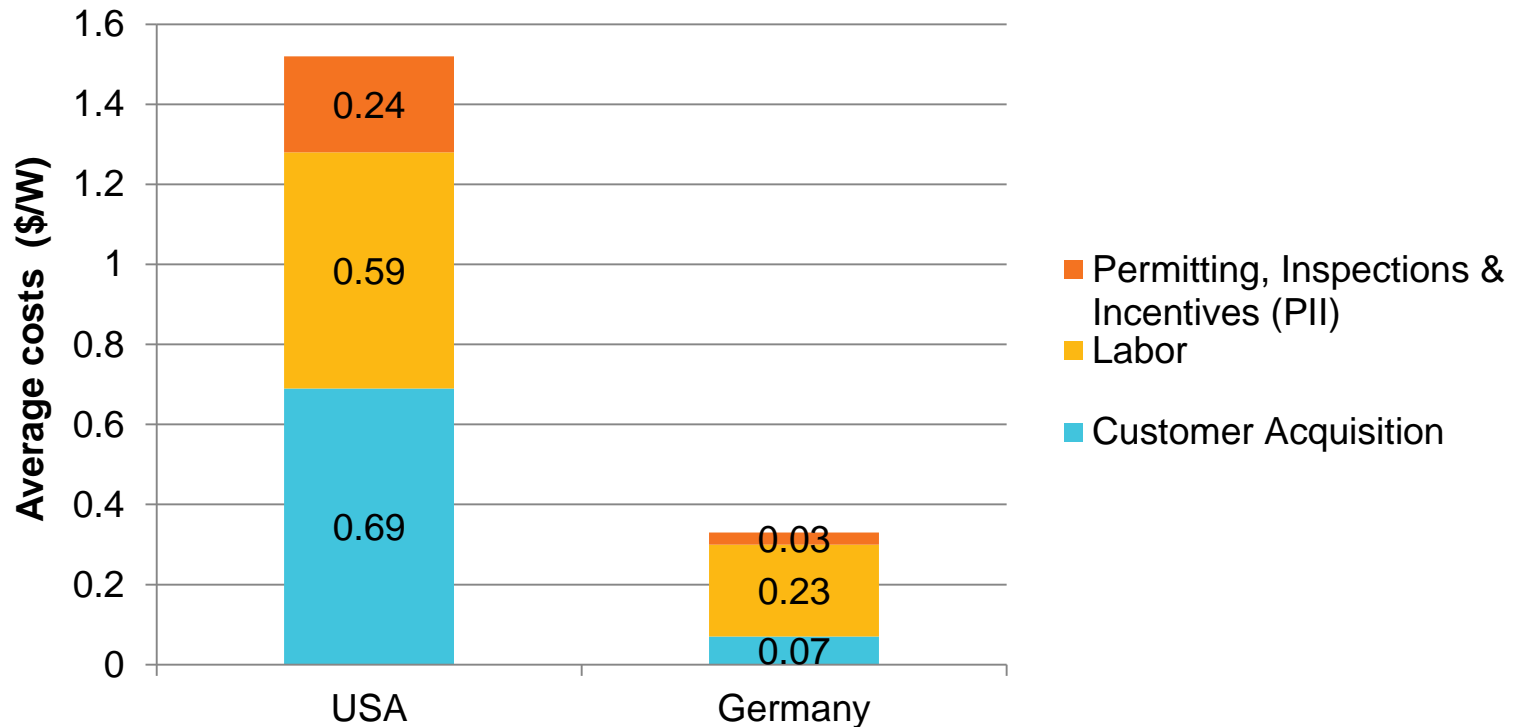


Areas of Focus for 2014

- Incentives
 - Targeting predictability with smaller adjustments to respond to the market
 - Develop improved forecasting & longer-term planning
- Market transformation
 - Focus on the next area of price reduction: “soft” costs (non-hardware balance of system costs)



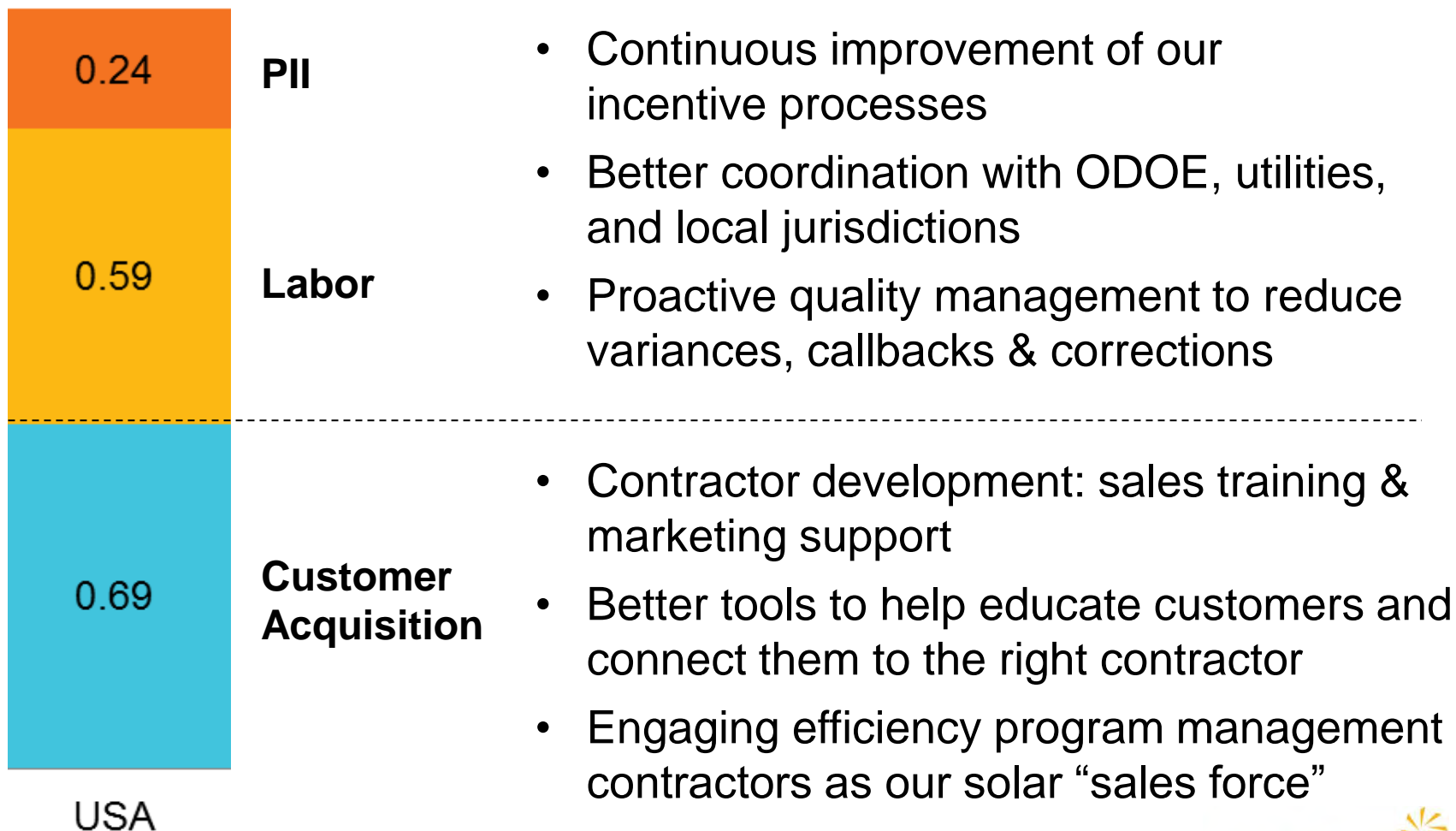
Addressing solar soft costs



Soft costs are now a larger percentage of the installed cost than modules, and are a primary difference between our market and Germany's more mature market. Source: [LBNL, Seel, Barbose & Wiser. Why Are Residential PV Costs in Germany So Much Lower Than in the United States?](#)



Addressing solar soft costs



Schedule



2014-15 Budget Calendar

- Oct. 23 - RAC Meeting
Draft Budget Presentation
- Nov. 6 – Board meeting
Draft budget presentation
- Nov. 20 - RAC Meeting
Final Budget Presentation
- Dec. 13 Board Meeting
Budget Approval



More budget information

- Budget and action plan materials will be posted online a week before the Nov. 6 board meeting
 - Email to RAC/CAC
- Public hearing – OPUC – Nov. 26
- Written comments due by Nov. 27
 - info@energytrust.org

Conservation Advisory Council Meeting Notes

September 11, 2013

Attending from the Council:

Brent Barclay, Bonneville Power Administration
Warren Cook, Oregon Department of Energy
Garrett Harris, Portland General Electric
Karen Horkitz, Northwest Energy Efficiency Alliance
Wendy Gerlitz, Northwest Energy Coalition
Charlie Grist, NW Power and Conservation Council
Scott Inman, Oregon Remodelers Association
Andria Jacob, City of Portland
Juliet Johnson, Oregon Public Utility Commission
Don Jones, Jr., Pacific Power
Don MacOdrum, Home Performance Guild Council

Attending from Energy Trust:

Susan Badger-Jones
Matt Braman
Amber Cole
Tara Crookshank
Kim Crossman
Brian DiGiorgio
Diane Ferington
Jackie Goss

Andrew Hudson
Susan Jamison
Susan Jowaiszas
Oliver Kesting
Elaine Prause
Jessica Rose
Scott Swearingen
Julianne Thacher
Peter West
Mark Wyman

Others attending:

Mark Kendall, Energy Trust board of directors
Christina Cabrales, Conservation Services Group
Scott Davidson, Clean Energy Works Oregon
Tim Davis, Conservation Services Group
Carolyn Farrar, NW Natural
Kari Greer, Pacific Power
Theresa Gibney, Citizens Utility League
Joanna King, Portland Hospital Service Corporation
Pat Lydon, Legacy Health Systems
Marshall Runkell, Clean Energy Works Oregon
Lisa Sanders, Northwest Energy Efficiency Alliance
Jim Volkman, Strategic Energy Group
Becky Walker, PECl

1. Welcome and introductions

Kim Crossman convened the meeting at 1:35 p.m. and reviewed the agenda. The agenda, notes and presentation materials are available on Energy Trust's website at www.energytrust.org/About/public-meetings/CACMeetings.aspx.

Kim: Welcome. Garrett Harris is new on the Conservation Advisory Council from Portland General Electric, replacing Anne Snyder-Grassman. Garrett's background includes a variety of energy efficiency roles at PGE. He was briefly a Program Delivery Contractor for the Energy Trust Production Efficiency program. At PGE, Garrett is responsible for promoting energy efficiency and non-energy related services. Garrett is a graduate of Linfield College and the Lane Community College Northwest Energy Education Institute.

2. Residential sector 2013 fall bonus

Diane Ferington: Marshall Johnson manages this program. He's at another meeting and I will present on his behalf.

Diane: Existing Homes is pleased to bring a fall bonus to the marketplace to capture potential savings and add an extra tool for contractors promoting insulation. The bonus is \$100 for Existing Homes wall, floor and attic insulation measures. Projects must be completed and applications submitted by December 31, 2013. The bonus will use dollars in the Existing Homes budget that have not been spent because some activity has been lower than expected in 2013. Extra budget is not needed.

Diane: The program will also offer a fireplace bonus of \$100 split between market actors, with a \$25 sales spiff and \$75 bonus to the consumer. There is also a water heater bonus that is a \$25 sales spiff only for gas 0.70 EF water heaters.

Don Jones, Jr.: The bonuses are for electrically heated homes?

Diane: Yes, the insulation bonuses are for all fuel sources. The water heater spiff is specifically for gas water heaters.

Diane: The fall bonus is being announced at trade ally roundtables this week. Collateral is expected on October first and will have a code for trade ally contractors to use. The bonus is intended to be a trade ally tool, and we are not doing broad consumer marketing. The bonus will be driven by trade allies to encourage customer projects to complete in this calendar year.

Juliet Johnson: So the standard incentive is standard, and the bonus is added? (Referencing the table in the PowerPoint)

Diane: Yes.

Peter West: There is a minimum amount of insulation required to qualify for a bonus.

Juliet: How do the bonuses impact cost-effectiveness?

Diane: The measures are all operating under cost-effectiveness standards, although the gas measures are operating under cost-effectiveness exceptions. Insulation measures are the most cost-effective gas measures.

Juliet: They'll still pass the utility test?

Peter: Yes, these are well within the utility test. The bonuses don't change the Total Resource Cost test.

Kim: Jim Abrahamson emailed me a question in advance. He asked about the budgetary impact, and Diane answered the question by saying the bonuses will use the current budget.

Charlie Grist: How often do you use these end-of-year bonuses?

Kim: Energy Trust has used Energy Saver Kits as levers to achieve quick-turn savings for many years. But we've been under pressure to have fewer kits and more long-term measures. So these bonuses are a shift away from the kits.

Peter: It changes from year to year. There are always things we can lever up and down. Last year we did an extra fridge campaign in Portland General Electric territory and ratcheted back on fridge recycling for Pacific Power territory. In Quarter 4, we are always looking to do something to book savings if needed, whether it's ratcheting savings up or down. Traditionally we've done a lot more Energy Saver Kits, and this year we're trying to do fewer kits and promote more long-life measures. We could do kits again this year but that's not part of our long-term strategy. We are focusing on longer-life shell measures. The dollar investment up front is higher and savings continue over time.

Kim: We have fewer levers to pull for Production Efficiency. There's not much we can do for large customers. Lighting can be quick. Energy Trust's nimbleness as an organization is in the residential sector.

Mark Kendall: How big is the toggle as a percent of residential savings?

Peter: Roughly in the neighborhood of 10-12 percent of residential savings, but I'll have to get back to you with a better number.

Charlie: With the same spiff every year, people will wait for the sale. But it sounds like you use different mechanisms at different times, so you avoid that problem.

Kim: Yes, we pay close attention to not repeating bonuses, keeping these fresh. If our incentives aren't at the right level, we should be changing our base incentive. For example, you'll see next month that our custom lighting incentive is proposed to be raised. We're seeing a slowing in savings at the base level. It's time to stop running lighting bonuses and increase the incentive.

Scott: Insulation is seasonal, so it makes sense to put it on sale in the high season.

Peter: Those first few fall heating bills sell insulation and we can't change that.

Kim: Great point, timing is important. The market is doing various things: we don't run a bonus for farmers during harvest season. We can also use bonuses as a tool to tune our outcomes. To address the "hockey stick" savings effect and try to get more savings in the beginning of the year, we ran a 90 by 90 bonus in industrial for the first six months of the year. It didn't solve the hockey stick, but it did get us other savings. The last thing I'll say about bonuses is that they can be highly disruptive to the program.

3. Customer panel: Strategic Energy Management

Kim: Welcome Pat and Joanna. Joanna King is the executive assistant and energy champion at Portland Hospital Service Corporation. Deborah Lark, the executive director, spoke at our 10-anniversary celebration last year. Joanna will talk about the work her company has been doing in CORE, which is Energy Trust's small industrial Strategic Energy Management, SEM, pilot. Pat Wyden is sustainability and strategic resource program manager at Legacy Health System and has been participating in the commercial SEM pilot.

We talk about SEM as behavioral savings, and that can be confusing. You will hear about some very technical, very concrete ways these companies are saving energy. So, by behavior, we don't mean that the savings are "soft" or less quantifiable. We mean that savings are achieved by interacting with people who interact with other people at their facilities. SEM is the most human way to save energy, and it is powerful. I'm excited to expose you to what SEM really is by hearing from these speakers.

Joanna: SEM helped us be more aware of our energy use and how it impacts our financials. Portland Hospital Service Corporation is a cooperative healthcare laundry owned by Legacy, Kaiser and Providence. We've been around for 40 years, and we provide all textiles and laundry for 15 local hospitals. We process 24 million pounds of linens every year, so water is big for us. This project focuses on electric and gas use. Portland Hospital Service has 145 employees. The organization is unique in that that we provide 100 percent of health benefits for employees and their family members. We operate six days per week for 10 hours per day. We made the choice to have longer shifts to save energy. There are 400 other similar facilities in the U.S.

Before participating in CORE, we completed a lighting project in 2009. That's when our relationship started with Energy Trust. Then we got new compressors in 2009. We upgraded boiler controls and saved 10 percent on natural gas use. This work allows us to look at our baseline differently.

Some tangible accomplishments since participating in CORE include moving hospitals to 100 percent polyester fabrics for sheets and apparel. This reduces natural gas and water use because polyester fabrics take less dry time. They also last longer.

Portland Hospital Service maintains an extensive preventative maintenance program. A night crew does work on machines every night.

We review utility information along with financial statements every month. Our work with CORE helps us identify numbers on bills and ask why.

We have used data tools provided by Energy Trust. We pulled a lot of historical data to identify usage trends. We have achieved greater savings on the natural gas side than on the electricity side. (See presentation)

Energy efficiency relates to the way linens are used in our facility and hospitals. We expected a 3 percent increase in linen volume last year, but we actually experienced a 3 percent volume decrease due to the way linens are used in facilities. We have two new customers this year: Providence Willamette Falls and Kaiser West. When linens don't come back to us, where do they go? Are we using linens better or not?

Energy Trust helped us create a project list that we review and update quarterly.

We learned to use data loggers. Now, when we look at capital decisions, we present real potential energy savings based on data. This is more impactful for management. We put potential energy savings into purchase agreement contracts. This challenges our providers to follow through with energy promises, and we've been encouraged to do this by Energy Trust.

Kim: Do you use the tools we provided or did you get more?

Joanna: No, we've used what you've given us. We have plans to purchase bigger data loggers because our current loggers have limited memory. This helps us be aware of our fixed costs. This helps our employees see how they can make an impact on the organization's financials through energy use. We have been posting our utility bills. Employees are asking questions and getting engaged.

Joanna continued: We created a monthly production report that looks at energy costs per pound of laundry. We also created a timeline of events parallel to energy data. This is the best tool we got from Energy Trust. It shows how our actions impact energy use. If there are spikes in our energy use, it forces us to go back and ask why.

For example, from looking at the timeline to diagnose a spike in energy use, we realized that in the past year, we added a piece of equipment we hadn't taken into consideration: a vacuum system in our soil sort that sucks out plastic bags. The vacuum explained the spike and now we monitor it on an ongoing basis.

What's next? This is a time of growth and strategic planning for us. We are training our customers to encourage reuse of products, to reuse a bedsheet instead of throwing it away. We are increasing our quality standards.

A future project we're planning is from an employee suggestion about parking lot lighting. Pursuing this project has been great for employee morale. We are also increasing water recycling. We have a local detergent company that helps us use water

more efficiently. By manipulating temperature and chemicals, you can lower water use. We turn off idle equipment and computers during breaks and lunch. We also started a leak tag program. There are big orange tags that people put in places where they hear or see a leak. Leak tags are examined nightly. We're looking holistically at all aspects of our business. For example, we have a "going green initiative" to encourage paperless paychecks and W2 forms.

Our biggest challenge has been to get commitment from our maintenance staff. Moving forward, we are trying to secure leadership from our maintenance team, people who assess and maintain machines. They know more about energy use than we can learn from financial statements. We also want a leader from every department within the organization on the energy team.

What we've learned is to actively engage employees. In the beginning, we wanted to present something polished to our colleagues. We learned that letting people in early was best, even when it was messy. Input from everyone in the organization at the beginning of the process is helpful.

We also learned to schedule energy team meetings regularly and not let them slide. We learned that awareness is a powerful tool. Energy use is sent to management and posted in the lunchroom. To encourage employee participation, we asked employees to bring three months of home electric bills to work. We looked at electric use and measured it against their next three months of electric use. The company paid the past three months of energy bills for the employee who showed the biggest reduction in energy use.

Pat: Did you find any good benchmarking data for laundry services?

Joanna: We use an international healthcare laundry association group to create a pilot of similar laundries to compare energy use. Comparison has been challenging, but we are moving forward and have generated some interest in the industry.

Kim: Industrial SEM rarely has good benchmarking, but commercial SEM often does.

Pat: How many different utility bills do you use to track?

Joanna: We just read from meters, including water use.

Don J.: On your fabric change out, did you do that when the fabric reached the end of its useful life?

Joanne: We didn't replace it early. We went to vendors and said, prove to us the new fabric will live longer. We included our chemist. We made a decision based on industry data about wash cycles. We've had most success with patient gowns and sheets.

Don: Were your data loggers from Energy Trust?

Joanna: Yes, but we want to purchase bigger data loggers. Energy Trust also gave us sonar air leak detectors. We played with those for a week and tagged all leaks. We are hoping to invest in one.

Kim: We provide a starter data logger kit as part of CORE and train the energy teams on how to use it.

Andria: Where's your facility?

Joanna: It's at 185th and Sandy, in Portland but bordering Gresham.

Andria: The city has a program to support green teams, Sustainability at Work. It might be a resource for you.

Joanna: Thanks. We serve three different health systems and aligning needs and standards is difficult.

Pat: Providence and Kaiser are also strong sustainability supporters. We should all get together and talk.

Charlie: How long have you been tracking kilowatts per pound?

Joanna: For a very long time. But now we're looking at daily trends and mechanical failure. Our processes are pretty tight and we're looking at finer detail.

Charlie: How do you get help from Energy Trust on metrics? It seems like there's a wealth of technical information in those models that would be really useful to the energy community.

Kim: Building complex models and training people to use them is a significant part of all of our SEM initiatives. Our contractor for CORE is Triple Point. We work with a few different contractors on SEM. There is a lot of business sensitive information in these models because they're tied to production.

Charlie: On the linen utilization, are you saying you send 1,000 pounds to Legacy and 800 pounds come back?

Joanna: That's what we're saying. Hospitals are throwing linen in the garbage instead of the soiled linens basket.

Pat: Is there a cost impact?

Joanna: We do quarterly true ups of linen utilization. Hospitals get debits and credits based on how much linen they return.

Pat: Can you take linens with biohazard materials?

Joanna: No.

Kim: The SEM toolset applies beyond energy to water, fuel, etc. By and large, our customers take it and apply it broadly. We focus on energy but it's a very flexible toolset.

Joanna: We've learned to make these numbers transparent and explain them. It holds us accountable to our employees and customers.

Brent: How about the sustainability of this energy savings effort? It's working great now but looking forward, what will it take to make this part of the company culture?

Joanna: It takes active participation from all departments. We need to make this a common conversation and a company value. We have not yet secured leadership from all departments, and we could be doing more to engage the maintenance team. This year has been an opportunity to prove ourselves as an energy team. We also present at board meetings. We have articles in staff newsletters. I take pride in our energy team. I've sold the idea to our Human Resources manager because sustainable practices can be consistent with safety practices. We need buy-in from everyone, especially maintenance and facilities. We need their help with our preventative maintenance program.

Pat: It's crucial to automate collection mechanisms for information and make them visible. The process of keeping data current is very labor intensive. It's worth investing in automation.

Joanna: We have made data collection part of staff assignments.

Kim: Now I'll turn the floor over to Pat Lydon from Legacy Health Systems.

Pat: My position came out of the Northwest Energy Efficiency Alliance, NEEA, Better Bricks program back in 2004. Prior to that, my career was in purchasing management. I joined Legacy in 2002 as a purchasing manager and was assigned to make choices about energy commodities. Finance did not understand how we were buying energy.

In 2004, Legacy was asked to participate in the NEEA Better Bricks program. It got us thinking about how we could use less of the commodity and made us focus on energy efficiency. In 2007, we got a strategic resource management plan approved. This was a shift from supply side management to conservation management. It led to a full-time energy and resource management position for our entire system, which is five campuses and 4.3 million square feet total.

Hospitals are interesting examples of commercial buildings because we represent multiple customer types. We have food services and lodging, so there are similarities to the hospitality industry. Hospitals are also highly regulated.

In 2012 and 2013, Energy Trust approached us about joining the Commercial Energy Improvement program. It seemed like what we were already doing, but then I realized this could be a next step to evolve our work even further. That's what it turned out to do for us.

The Commercial Energy Improvement program helped us improve our processes. It started with an energy management assessment interview, which is an in-depth process and included interviewing the vice president of operations. This helped us understand the current state of our energy management program. For example, what don't we have? We don't have an energy management policy in place.

The Commercial Energy Improvement program prompted us to put an energy management team in place with system-wide representation. We didn't have consistent participation. The assessment really prompted us to get internal support. It was very beneficial. After putting a team together, we conducted site assessments at the five hospital sites, plus patient billing services and lab and research institute buildings. We adopted Energy Trust's Commercial Energy Improvement monitoring, tracking and reporting tools.

Out of our five hospitals, two of them have Energy Expert. It's an energy information system that reads meters, looks at temperatures and evaluates and compares energy use from day to day. Energy Expert tells you if you used more or less energy than you should have. Even though it's not expensive, we only got approval to use it at two sites. The only reason we got approval for those two sites is because installation was funded by NEEA Better Bricks. It took that incentive to get Energy Expert in and it's still used. Some of the other sites have good sub-metering that gives huge amounts of data, but it doesn't display the data in a useful way for energy management. Sub-metering is intended as a power quality management tool.

For other sites, Energy Trust provided measure tracking and reporting spreadsheets. These are a very useful tool to track savings and see progress, but it's a very manual process. We probably have 75 different electric bills, 35-40 natural gas bills and who knows how many water accounts. There's a lot of information I can get to but there's

very little automation. I also use ENERGY STAR® Portfolio Manager and use that data to update spreadsheets

Oliver Kesting: I want to introduce Jim Volkman with Strategic Energy Group. Energy Trust hired Jim, and his engineering services are a big part of what we bring to customers through SEM.

Pat: Here are some examples of opportunities discovered and measures implemented. Scheduling was an area for improvement. Hospitals operate 24/7, but there are opportunities for scheduling adjustments in medical office buildings. There are opportunities for controls calibration, including making sure controls are tuned correctly, reporting accurately and set properly. We optimized variable frequency drive settings and performance.

We are investigating possibilities to reduce air change rates. These are regulated by the Joint Commission of Hospital Accreditation, but the right rates are in dispute. There are equipment upgrade possibilities, including lots of lighting opportunities. We still have a lot of T12s in our hospitals. There are opportunities to upgrade occupancy controls for HVAC or lighting in certain spaces. We can address elevator pressurization fan isolation dampers and other damper repairs to fix dampers that are open that shouldn't be open. When you have an outside expert looking at these things, you discover all kinds of things; like that sensors are not working properly.

Kim: On annual projected energy savings, the SEM section is what you can directly attribute to actions taken? And gross savings includes capital? (Referencing table in presentation)

Pat: Gross savings includes savings where we couldn't find evidence to prove they are a result of SEM.

Kim: We take a rigorous approach to verifying savings. We track specific actions and corresponding energy savings.

Mark: What are gross versus SEM savings? Is that relationship interactive? (Referencing table in presentation)

Jim: Yes.

Pat: Our next steps are to finalize, approve and implement policy. Our last chief financial officer was amenable to setting up a fund dedicated for additional energy-efficiency investment, and the fund would be equal to money saved from energy-efficiency savings. This is challenging because of generally accepted accounting principles and Medicare accounting requirements. We now have new leadership.

We have integrated ongoing monitoring into building management routines, which is reviewed in monthly conference calls with site facility teams. We have one call for each of our five sites, so five calls total. We plan to implement a regular reporting cycle for leadership and a regular update schedule for our resource management plan.

We have also had challenges, such as the persistence of savings question: how can we ensure that monitoring remains a priority? Even though we identified scheduling as an opportunity and implemented it, it just takes a complaint from one high-profile building occupant to change things. Persistence can be challenging. If we have the right measurement systems, we can at least make a better argument for cost impacts.

We have to maintain discipline to regularly conduct operations assessments. We need to figure out how to continue to benefit from an outside, third-party view of our operations;

that's Jim. I know our relationship with Jim won't last forever. So when it's gone, we need to figure out how to replace it. We may need to budget for additional periodic outside review to provide an unbiased opinion.

It's challenging to keep the team together and focused on resource conservation. Competing needs bump resource conservation to the back burner. In addition, lower natural gas prices may tempt us to reduce our focus on opportunities related to this fuel. Prices vary from month to month and year to year, so we need to focus on the right units of energy use. We need to continue to educate finance on what units to look at.

Mark: Is there an industry knowledge base? Is it collaborative? Competitive? Do you collaborate with the energy professional from Providence, Richard Beam?

Pat: We don't collaborate often. Richard is responsible for the design side and management side.

Peter: When you pitch capital projects to the chief financial officer, is there a minimum hurdle break?

Pat: No. I've asked that question of our finance folks. Their answer is always: if it makes sense, we'll do it. Our last chief financial officer said that if a project has less than a year of simple payback, we'll do it. Now he's gone. We talked with the vice president of finance about the policy. She made the point that she will fast track quick payback projects that are less than one or two years through our approval process. This was in lieu of the fund idea. But that has to be tested. We do have a good financial analysis tool to calculate rate of return that is blessed by our finance department.

Scott: Have you developed any internal team competitions?

Pat: No. It's a great idea.

Charlie: I appreciate your historical context about the NEEA connection. It's a good story. How long are you going to have a job doing this? Is there a lot left to do?

Pat: You can say I should be working myself out of a job and that my role should transition to facilities staff. But my role includes all of sustainability program management, so this is just one small piece of my job. We had cuts a few years ago, including a sustainability coordinator, and my position was cut back to part time. My position was increased last year to full time by the vice president of operations. We have not been able to make the case to hire an additional coordinator.

Charlie: This question is for Joanna, too. How do you decide what is an energy management initiative and what is a capital project? In some cases, it seems like energy management work is finding capital projects to do. There's a fuzzy line.

Pat: Right now, we're still reactive, seeing problems and responding to them. In order to be more thoughtful about that, we need to be proactive and set targets and goals. We're just not that proactive yet.

Joanna: I agree with Pat. We're looking at what problems we're having and how we can best solve them. We're not looking at long-term sustainability yet. That takes time and long-term commitment.

Pat: A shift from treatment to prevention is a theme in healthcare. When someone becomes willing to pay for prevention, we'll have a much greater ability to influence sustainability choices. Nobody will pay for prevention activities now. There's a parallel between healthcare and sustainability.

Kim: From an Energy Trust perspective, SEM is defined as a holistic approach. We are claiming direct savings from operations and maintenance and other measures that are not capital measures. But we always say there are two sources of SEM savings, there are direct savings and capital savings from an increase in future capital projects. Nobody does SEM who isn't already doing capital projects. That's more of a macro view. In the moment, we can only measure operations and maintenance savings. The idea is that it's all part of SEM.

Charlie: Glad to hear you're looking at that. It's hard to test incremental benefit of finding more projects because you're looking for them.

Kim: Industrial SEM launched in 2009. Preliminary results are showing that we've doubled capital project volume, that's number of projects, not savings, for SEM customers.

4. Commercial Pay for Performance pilot

Oliver: We recruited Brian DiGiorgio to implement financing related offers. One of the things he's working on is Pay for Performance, as well as developing commercial lending allies and building the business case for energy efficiency. Brian came from Pacific Gas and Electric, where he launched an off-bill financing pilot and developed an on-bill financing pilot program for commercial and government customers. Brian will give you an overview of Pay for Performance, but first I want to ask Juliet to give background on how we got here.

Juliet: In 2011, the Oregon legislature passed a bill requiring the Oregon Public Utility Commission, OPUC, to do a report on energy-efficiency power purchase agreements. We worked on it quite a bit last year and brought in experts to talk about the potential for paying energy costs over time.

In the late 1990s and early 2000s, a lot of Pay for Performance was tried. There were disagreements about baselines. These programs were difficult to manage and most of them eventually converted into the programs we see today.

With new monitoring tools and in the large commercial sector, commissioners are interested in trying an energy-efficiency power purchase agreements pilot. It may help with persistence of savings. Seattle City Light is doing a Pay for Performance pilot.

Brian: What is a Pay for Performance initiative? Let's define the term. Energy Trust pays for savings over time, which may include evaluation, measurement and verification over multiple years. We want to shift the risk to the building owners and operators rather than Energy Trust. If savings persist, Energy Trust pays. If savings don't persist, Energy Trust doesn't pay.

There's a long history of varying success with Pay for Performance. Right now there are five programs in the country. Most of them are on the East Coast. There's also the Savings by Design program in California, which is not analogous because it's for new construction.

The East Coast programs are run by TRC, including the New York State Energy Research and Development Authority multifamily program and New Jersey and New Hampshire Pay for Performance programs. These programs only pay part of the incentives on a performance basis. There are three steps: they pay money up front to develop a building energy plan, pay on installation and then pay again after 12 months. These programs aggregate as many measures as possible. They try to verify the energy savings. Projects must save 10-15 percent of energy, otherwise they are not eligible and can participate in other existing programs. Although service providers are trained to do

whole-building modeling, it is truly more evaluation, measurement and verification modeling of installed measures.

The Rocky Mountain Workshop resulted in the decision to launch the Seattle City Light pilot. Seattle City Light revised and rereleased a more flexible request for proposals in January 2013. They let the service provider determine what they need to make based on proposed measures. This will be complicated to implement. The customer gets the option to integrate operations and maintenance and behavior modification with capital measures, or can separate them out. This adds complexity. They do measure against a fixed baseline. There are a lot of new elements here. Contracts are being negotiated through September. Risk is shifting to the customer. They have three different service providers for three different buildings.

Regarding incentive payment calculations, Seattle City Light feels that all measures will be cost-effective. Service providers must agree on a baseline. Once installation is complete, the clock starts ticking for the first 12 month measurement period. If use drops 35 percent, the customer will get incentives based on that 35 percent. Incentives can go up or down each year based on energy use. All energy reductions will be reflected in incentive payments. The hard part is agreeing on incentive payment rates on the front end.

Seattle City Light's supporting rationale is that by looking at whole building, they are capturing and paying for all savings. Also, contractors have the ability to tweak and optimize the building to get interaction between systems. One of the service providers for Seattle has a strong behavioral component.

Seattle City Light's pilot presents a number of challenges that Energy Trust's pilot will also face. The program administrator and the service provider must agree on the completion date of the projects, which has been surprisingly difficult to determine. At what point do we start measuring the first 12 months of usage? We can't let the contractor spend years optimizing the building. We are pushing for a six to nine month window from agreement to project completion. Also, in order to scale this to a full-size program, we will need to put a number on the incentive level so we're not negotiating individually with every customer.

Oliver: It's difficult to define a mix of capital and operations and maintenance measures in determining incentive levels. How do you predetermine that you're getting enough savings from capital projects?

Brent: How do you determine the average measure life of these savings? Is that the crux?

Oliver: Yes.

Don J.: Incentives are custom and ongoing. Are they tied to measure length? For how long do incentives get paid?

Brian: We're talking about a three-year pilot. So if the measure life is 10 years, we need to calculate that into the three-year incentive stream.

Kim: For example, we currently pay \$0.25 per kilowatt hour for a custom incentive in one year, based on a 15-year measure life. You'd take that and calculate a three-year incentive stream.

Juliet: So you really can't calculate payback based on total energy savings. You need to base it on specific measure savings. It's very complicated.

Brian: Energy Trust's Pay for Performance pilot will have two to three service providers and two to three office buildings. Buildings must be fairly large, from 50,000-500,000 square feet. Like

Seattle City Light, the service provider will determine project scope and incentive savings, and calculate the baseline for the building. Energy Trust's vendor will review protocols and savings estimates. The timeline for Pay for Performance is to send out a request for proposals in Quarter 4 2013 or Quarter 1 2014. Construction will begin in Quarter 1 or Quarter 2 2014.

Oliver: Brian talked a lot about challenges. I want to talk about the upside to the Pay for Performance pilot. You saw the SEM presentations earlier, and what we're talking about here is very similar to SEM. But not every customer is ready to implement Strategic Energy Management. A customer has to be fairly sophisticated to run an SEM program. There is an opportunity here for customers who wouldn't be ready for SEM otherwise. There's a different market here.

Mark: So you don't see this building on SEM?

Oliver: It's a pilot, so let's run it as a pilot and use the learning to potentially tweak how we're offering SEM and come up with a new offering for this other set of customers.

Karen Horkitz: I don't understand the design of the pilot to make sure that measures occur in a fixed period. This sounds like a fixed intervention. Another question is, if it's a pilot, are you piloting what you will ultimately be shooting for?

Oliver: It's a fixed period because there are challenges with ongoing payments. First, we can't commit funds in perpetuity. We need a time limit. Second, at some point the baseline changes, so at some point you need to reassess. If you hadn't had this intervention, the baseline will have changed for other reasons.

Karen: The part I'm confused about is do you want ongoing improvements, whatever they might be, like capital and operations and maintenance?

Brian: Yes, but how we pay for ongoing improvements is complicated. It would be simpler to pay for operations and maintenance separately from capital projects. If a customer wants to combine operations and maintenance and capital investments, how do we account for that? If a customer wants x, y and z, and then they decide to add w, how do we account for that?

Juliet: If you're not doing what you're suggesting, you're losing the point of the pilot. If you're just doing one three-year intervention, then that's no different than just paying an incentive. It would be nice to just see what the savings are each year and pay for those savings over time.

Kim: That's similar to what we do in Strategic Energy Management.

Brian: The difference between SEM and Pay for Performance is a payment stream over time. It's been argued that payments over time are more appealing to businesses. Seattle's Bullitt Center building is a 20-year pilot for avoided energy. Seattle City Light is paying for avoided energy for 20 years as if they're buying power.

Kim: Oliver said earlier that we're shifting risk from us to the customer. It seems the risk being addressed is persistence of operations and maintenance savings. Many organizations don't provide incentives for operations and maintenance savings, so a big part of this is a way to feel confident we'll get at least a three-year measure life out of operations and maintenance. So it's less about continuous improvement and more about doing operations and maintenance at all in a commercial building.

Oliver: In the commercial programs, we can only pay for operations and maintenance through the SEM program. We have limited vendors who deliver this, Jim at Strategic Energy Group and Ecova. This approach does potentially open up operations and maintenance savings to other vendors.

Juliet: I like the question, what are we learning from this pilot? Are we learning whether operations and maintenance savings will persist for three years?

Brian: Yes. I would add that even capital measures are installed and not maintained. So can we maintain savings by maintaining systems properly?

Charlie: The longer the window, the more likely businesses will want to invest in expensive measures.

Oliver: But the incentives can be higher if we pay over a shorter time period.

Charlie: Payment negotiation seems to be at the heart of the question. What do you really want to test and what will you learn? So if a longer term deal is not possible because you can't guarantee a payment stream, maybe there's a way to set the money aside now to overcome that barrier?

Brian: Let's stipulate that we're going to do three years.

Oliver: There are disadvantages to limiting the pilot to three years, but we currently can't commit ourselves to pay incentives for a longer period until we learn more from the pilot.

Mark: How does this build on business as usual for capital projects? You put in a chiller and achieve savings based on an agreed upon baseline. Then over the next two years, you adjust and balance and actually get the controls and scheduling right. And that optimizes savings. This is an example of hybridizing and providing incentive over design.

Don: I have a request. Presumably you'll wind up with three participants. Presumably you'll have adjustment terms to the contract. What resets the baseline? Will we see those before the end of the pilot? The reopen clause is critical. It needs to be very simple. It needs to include what you are going to pay, what you're going to get and what are the reopen terms. Re-evaluating the baseline can lead to a war of attrition. Also if both parties contractually agree on a certain incentive for a given capital and operations and maintenance mix, how do you adapt to a change in the actual installed measures, for example, if fewer capital measures are installed?

Juliet: This is different than other Energy Trust pilots because a request for proposals will go to commission staff and be presented at a public meeting. Stakeholders will give input on the request for proposals and there will be a period where we solicit comments.

Don: I'm asking for something after the request for proposals. the three deal sheets you get when you're done. Everything will flow from the deal sheets. The deal sheets are what you'll live with. We did a PacifiCorp military installation near Salt Lake. It was a nine-year, \$20 million deal that paid for savings over time. It kicked off in the early 1990s. SEMBRA was the contract deliverer. The art is in the detail. The reopen clause is most important. How often will we sit down and what will we talk about?

Brent: What are the true transaction costs in administering this?

Oliver: There's a higher level of engineering required for this on our side and on the customer side.

Kim: And legal time.

Don: The shorter the contract, the better it is.

Oliver: To be clear, we're thinking about asking the bidder to propose a price. We're not sure what kind of price we'll see. We may not get bids that are appropriate to move forward.

Kim: Juliet, did you have other purposes in mind for what you thought this would test?

Juliet: No, I think I just hadn't thought about the details. I'm feeling good about it.

Kim: This is a meaty topic and we will probably bring it to the Conservation Advisory Council again.

Wendy Gerlitz: I have a question regarding the last council meeting. The Opower project evaluation results won't be ready until the program has been stopped. I had some concerns about that.

Kim: I'll follow up about that after this meeting.

Diane: A quick update about the Existing Homes bonus incentives. They are available today. Tell your contractors to start using the code and pushing insulation.

5. Public comment and future agenda items input

Don MacOdrum: I have an announcement. The Home Performance Contractors Guild of Oregon is putting on a Home Performance conference. I want to start a discussion that dives into heavier cost-effectiveness issues. Some of you might remember Robin Lebaron from the National Home Performance Council. He's coming out to head up a keynote panel along with other national and local policy leaders. We're seeking attendance from policy folks. It's after the Friday Citizens' Utility Board conference. I am hoping to get 40 or 50 leaders in the policy realm to attend. Many of you will receive invitations. The goal is two-fold: to bring together disparate silos of the Home Performance industry and to facilitate collaboration and institute solutions regarding cost-effectiveness. It's a full-day event on October 29 at the Ambridge Event Center.

Diane: Tomorrow in Washington D.C., policy folks are meeting to talk about rethinking Total Resource Cost Test solutions. Our hope is they can unveil their thinking at this conference.

Kim: I have a budget process announcement. The budget planning process is underway. Energy Trust is committed to an open, transparent process and we invite public and stakeholder participation. Drafts of the budget will be presented at the next two Renewable Energy Advisory Council and Conservation Advisory Council meetings. October will be a dense meeting. In addition, budget and action plan materials will be posted a week before the November 6 board meeting. There will also be a November 26 public hearing at the OPUC, and there may be a live webinar. Watch for information and links in the Synergy newsletter and on Energy Trust's website. Comments are invited. Written comments are due by November 27, email them to info@energytrust.org.

The October Conservation Advisory Council agenda is packed, so there is no call for agenda items. I appreciate the email comments I received from some of you on the last agenda.

There's one thing we didn't talk out today. The last time we met there were requests to hear about Pay for Performance and Strategic Energy Management, and to be addressed by Clean Energy Works Oregon. One of those things didn't happen today. We now have members of Clean Energy Works Oregon who have committed to attending all Conservation Advisory Council meetings, so that will facilitate future conversations.

6. Meeting adjournment

Kim thanked all council members for their participation and adjourned the meeting at 4:20 p.m. The next full council meeting is October 23, 2013.

Glossary of Energy Industry Terms

Glossary provided to the Energy Trust Board of Directors for general use. Definitions and acronyms are compiled from a variety of resources. Energy Trust policies on topics related to any definitions listed below should be referenced for the most up-to-date and comprehensive information. Last updated May 2013.

Above-Market Costs of New Renewable Energy Resources

The portion of the net present value cost of producing power (including fixed and operating costs, delivery, overhead and profit) from a new renewable energy resource that exceeds the market value of an equivalent quantity and distribution (across peak and off-peak periods and seasonally) of power from a non-differentiated source, with the same term of contract. Energy Trust board policy specified the methodology for calculating above-market costs.

Aggregate

Combining retail electricity consumers into a buying group for the purchase of electricity and related services. “Aggregator” is an entity that aggregates.

Air Sealing (Infiltration Control)

Conservation measures, such as caulking, better windows and weatherstripping, which reduce the amount of cold air entering or warm air escaping from a building.

Ampere (Amp)

The unit of measure that tells how much electricity flows through a conductor. It is like using cubic feet per second to measure the flow of water. For example, a 1,200 watt, 120-volt hair dryer pulls 10 amperes of electric current (watts divided by volts).

Anaerobic Digestion

A biochemical process by which organic matter is decomposed by bacteria in the absence of oxygen, producing methane and other byproducts.

Average Megawatt (aMW)

One megawatt of capacity produced continuously over a period of one year. 1 aMW equals 1 megawatt multiplied by the 8,760 hours in a year. 1 aMW equals 8,760 MWh or 8,760,000 kWh.

Avoided Cost

(Regulatory) The amount of money that an electric utility would need to spend for the next increment of electric generation they would need to either produce or purchase if not for the reduction in demand due to energy-efficiency savings or the energy that a co-generator or small-power producer provides. Federal law establishes broad guidelines for determining how much a qualifying facility (QF) gets paid for power sold to the utility.

Base Load

The minimum amount of electric power delivered or required over a given period of time at a steady rate.

Benefit/Cost Ratios

By law, Oregon public purpose funds may be invested only in cost-effective energy-efficiency measures—that is, efficiency measures must cost less than acquiring the energy from conventional sources, unless exempted by the OPUC.

Energy Trust calculates Benefit/Cost ratios (BCR) on a prospective and retrospective basis. Looking forward, all prescriptive measures and custom projects must have a total resource cost test BCR > 1.0 unless the OPUC has approved an exception. As required in the OPUC grant agreement, Energy Trust reports annually how cost effective programs were by comparing total costs to benefits, which also need to exceed 1.0.

Biomass

Solid organic wastes from wood, forest or field residues which can be heated to produce energy to power an electric generator.

Biomass Gas

A medium Btu gas containing methane and carbon dioxide, resulting from the action of microorganisms on organic materials such as a landfill.

Blower Door

Home Performance test conducted by a contractor (or energy auditor) to evaluate a home's air tightness. During this test a powerful fan mounts into the frame of an exterior door and pulls air out of the house to lower the inside air pressure. While the fan operates, the contractor can determine the house's air infiltration rate and better identify specific leaks around the house.

British Thermal Unit

The standard measure of heat energy. The quantity of heat required to raise the temperature of 1 pound of liquid water by 1 degree Fahrenheit at the temperature at which water has its greatest density (approximately 39 degrees Fahrenheit).

Cogeneration (Combined Heat & Power or CHP)

The sequential production of electricity and useful thermal energy, often by the recovery of reject heat from an electric generating plant for use in industrial processes, space or water heating applications. Conversely, may occur by using reject heat from industrial processes to power an electricity generator.

Compact Fluorescent Light Bulbs (CFL)

CFLs combine the efficiency of fluorescent lighting with the convenience of a standard incandescent bulb. There are many styles of compact fluorescent, including exit light fixtures and floodlights (lamps containing reflectors). Many screw into a standard light socket, and most produce a similar color of light as a standard incandescent bulb.

CFLs come with ballasts that are electronic (lightweight, instant, no-flicker starting, and 10–15 percent more efficient) or magnetic (much heavier and slower starting). Other types of CFLs include adaptive circulation and PL and SL lamps and ballasts. CFLs are designed for residential uses; they are also used in table lamps, wall sconces, and hall and ceiling fixtures of hotels, motels, hospitals and other types of commercial buildings with residential-type applications.

Conservation

While not specifically defined in the law or OPUC rules on direct access regulation, "conservation" is defined in the OPUC rule 860-027-0310(1)(a) as follows: Conservation means any reduction in electric power or natural gas consumption as the result of increases in efficiency of energy use, production or distribution. Conservation also includes cost-effective fuel switching.

Although fuel switching is part of the definition, this aspect of the rule has not been operationalized as of March 2013.

Cost Effective

Not specifically defined in SB 1149. The OPUC has a definition which refers to a definition from ORS 469.631 (4) stating that an energy resource, facility or conservation measure during its life cycle results in delivered power costs to the ultimate consumer no greater than the comparable incremental cost of the least-cost alternative new energy resource, facility or conservation measure. Cost comparison under this definition shall include but not be limited to: (a) cost escalations and future availability of fuels; (b) waste disposal and decommissioning cost; (c) transmission and distribution costs; (d) geographic, climatic and other differences in the state; and (e) environmental impact. ORS 757.612 (4) (SB 1149) exempts utilities from the requirements of ORS 469.631 to 469.645 when the public purpose charge is implemented.

By law, Oregon public purpose funds may be invested only in cost-effective energy-efficiency measures—that is, efficiency measures must cost less than acquiring the energy from conventional sources, unless exempted by the OPUC.

Cumulative Savings

Sum of the total annual energy savings over a certain time frame while accounting for measure savings “lives.” (For example, if a measure is installed for each of two years, the cumulative savings would be the sum of the measure installed in the first year, plus the incremental savings from the savings installed in the second year plus the savings in the second year from the measure installed in the first year.)

Decoupling

A rate provision which reduces or eliminates the degree to which utility profits are driven by the volume of electricity or gas sold. Decoupling is thought by its proponents to reduce utility disincentives to support efficiency. There are many specific variants employed in different states and with different utilities.

Direct Access

The ability of a retail electricity consumer to purchase electricity and certain ancillary services from an entity other than the distribution utility.

Economizer Air

A ducting arrangement and automatic control system that allows a heating, ventilation and air conditioning (HVAC) system to supply up to 100 percent outside air to satisfy cooling demands, even if additional mechanical cooling is required.

Energy Management System (EMS)

A system designed to monitor and control building equipment. An EMS can often be used to monitor energy use in a facility, track the performance of various building systems and control the operations of equipment.

ENERGY STAR®

ENERGY STAR is a joint Environmental Protection Agency and Department of Energy program that encourages energy conservation by improving the energy efficiency of a wide range of consumer and commercial products, enhancing energy efficiency in buildings and promoting energy management planning for businesses and other organizations.

Energy Use Intensity (EUI)

A metric that describes a building's energy use relative to its size. It is the total annual energy consumption (kBtu) divided by the total floor space of the building. EUI varies significantly by building type and by the efficiency of the building.

Environmental Protection Agency (EPA)

Founded in 1970, this independent agency was designed to "protect human health and safeguard the natural environment." It regulates a variety of different types of emissions, including the greenhouse gases emitted in energy use. It runs several national end-use programs, like ENERGY STAR, SmartWay, Smart Growth programs and green communities programs.

Evaluation

After-the-fact analysis of the effectiveness and results of programs. *Process and Market Evaluations* study the markets to be addressed and the effectiveness of the program strategy, design and implementation. They are used primarily to improve programs. *Impact evaluations* use post-installation data to improve estimates of energy savings and renewable energy generated.

Feed-in Tariff

A renewable energy policy that typically offers a guarantee of payments to project owners for the total amount of renewable electricity they produce; access to the grid; and stable, long-term contracts.

Footcandle

A unit of illuminance on a surface that is one foot from a uniform point source of light of one candle and is equal to one lumen per square foot

Free Rider

This evaluation term describes energy efficiency program participants who would have taken the recommended actions on their own, even if the program did not exist. Process evaluations include participant survey questions, which lead to the quantification of the level of free rider impacts on programs that is applied as a discounting factor to Energy Trust reported results.

Geothermal

Useful energy derived from the natural heat of the earth as manifested by hot rocks, hot water, hot brines or steam.

Green Tags (Renewable Energy Credits or RECs)

A Green Tag is a tradable commodity that represents the contractual rights to claim the environmental attributes of a certain quantity of renewable electricity. For wind farms, the environmental attributes include the reductions in emissions of pollutants and greenhouse gases that result from the delivery of the wind-generated electricity to the grid.

Here's how emission reductions occur: When wind farms generate electricity, the grid operators allow that electricity to flow into the grid because it is less expensive to operate, once it has been built, than generators that burn fossil fuels. But the electricity grid cannot have more electricity flowing into it than is flowing out to electricity users, so the grid operators have to turn down other generators to compensate. They generally turn down those that burn fossil fuels. By forcing the fossil fuel generators to generate less electricity, wind farms cause them to generate

fewer emissions of pollutants and greenhouse gases. These reductions in emissions are the primary component of Green Tags.

Green Tags were developed as a separate commodity by the energy industry to boost construction of new wind, solar, landfill gas and other renewable energy power plants. Green Tags allow owners of these power plants to receive the full value of the environmental benefits their plants generate. They also allow consumers to create the same environmental benefits as buying green electricity, or to neutralize the pollution from their consumption of fossil fuels.

Green Tags are bought and sold every day in the electricity market. Tens of millions of dollars in Green Tags are under contract today. They are measured in units, like electricity. Each kilowatt hour of electricity that a wind farm produces also creates a one-kilowatt hour Green Tag. Wind farm owners may sell Green Tags to other purchasers, remote or local, to obtain the extra revenues they need for their wind farms to be economically viable.

Gross Savings

Savings that are unadjusted for evaluation factors of free riders, spillover, and savings realization rates. Energy Trust reports all savings in net terms, not gross terms, unless otherwise stated in the publication.

Heat Pump

An HVAC system that works as a two-way air conditioner, moving heat outside in the summer and scavenging heat from the cold outdoors with an electrical system in the winter. Most use forced warm-air delivery systems to move heated air throughout the house.

Heating, Ventilation and Air Conditioning (HVAC)

The mechanical systems that provide thermal comfort and air quality in an indoor space are often grouped together because they are generally interconnected. HVAC systems include: central air conditioners, heat pumps, furnaces, boilers, rooftop units, chillers and packaged systems.

Hydroelectric Power (Hydropower)

The generation of electricity using falling water to turn turbo-electric generators.

Incremental Annual Savings

Energy savings in one year corresponding to the energy-efficiency measures implemented in that same year.

Incremental Cost

The difference in cost relative to a base case, including equipment and labor cost.

Instant-savings Measure (ISM)

Inexpensive energy-efficiency products installed at no charge, such as CFLs, low-flow showerheads and high-performance faucet aerators. Predominately used by the Existing Homes program and multifamily track to provide homeowners and renters with easy-to-install, energy-saving products.

Integrated Resources Planning (Least-Cost Planning)

A power-planning strategy that takes into account all available and reliable resources to meet current and future loads. This strategy is employed by each of the utilities served by Energy Trust, and for the region's electric system by the Northwest Power and Conservation Council.

The term “least-cost” refers to all costs, including capital, labor, fuel, maintenance, decommissioning, known environmental impacts and difficult to quantify ramifications of selecting one resource over another.

Interconnection

For all distributed generation—solar, wind, CHP, fuel cells, etc.—interconnection with the local electric grid provides back-up power and an opportunity to participate in net-metering and sell-back schemes when they are available. It’s important to most distributed generation projects to be interconnected with the grid, but adding small generators at spots along an electric grid can produce a number of safety concerns and other operational issues for a utility. Utilities, then, generally work with their state-level regulatory bodies to develop interconnection standards that clearly delineate the manner in which distributed generation systems may be interconnected.

Joule

A unit of work or energy equal to the amount of work done when the point of application of force of 1 newton is displaced 1 meter in the direction of the force. It takes 1,055 joules to equal a British thermal unit. It takes about 1 million joules to make a pot of coffee.

Kilowatt

One thousand (1,000) watts. A unit of measure of the amount of electricity needed to operate given equipment.

Large Customers (with reference to SB 838)

Customers using more than 1 aMW of electricity a year are not required to pay electric conservation charges under SB 838. Additionally, Energy Trust may not provide them with services funded under SB 838 provisions.

Least Cost

The term “least-cost” refers to all costs, including capital, labor, fuel, maintenance, decommissioning, known environmental impacts and difficult to quantify ramifications of selecting one resource over another.

Levelized Cost

The level of payment necessary each year to recover the total investment and interest payments (at a specified interest rate) over the life of the measure.

Local Energy Conservation

Conservation measures, projects or programs that are installed or implemented within the service territory of an electric company.

Low-income Weatherization

Repairs, weatherization and installation of energy-efficient appliances and fixtures for low-income residences for the purpose of enhancing energy efficiency. In Oregon, SB 1149 directs a portion of public purpose funds to Oregon Housing and Community Services to serve low-income customers. Energy Trust coordinates with low-income agencies and refers eligible customers.

Lumen

A measure of the amount of light available from a light source equivalent to the light emitted by one candle.

Lumens/Watt

A measure of the efficacy of a light fixture; the number of lumens output per watt of power consumed.

Market Transformation

Lasting structural or behavioral change in the marketplace and/or changes to energy codes and equipment standards that increases the adoption of energy-efficient technologies and practices. Market transformation is defined in the Oregon Administrative Rules.

Megawatt

The electrical unit of power that equals one million watts (1,000 kW).

Megawatt Hour

One-thousand kilowatt hours, or an amount of electrical energy that would supply 1,370 typical homes in the Western U.S. for one month. (This is a rounding up to 8,760 kWh/year per home based on an average of 8,549 kWh used per household per year [U.S. DOE EIA, 1997 annual per capita electricity consumption figures]).

Methane

A light hydrocarbon that is the main component of natural gas and marsh gas. It is the product of the anaerobic decomposition of organic matter, enteric fermentation in animals and is one of the greenhouse gases.

Monitoring, Targeting and Reporting (MT&R)

A systematic approach to measure and track energy consumption data by establishing a baseline in order to establish reduction targets, identify opportunities for energy savings and report results.

Municipal Solid Waste

Refuse offering the potential for energy recovery. Technically, residential, institutional and commercial discards. Does not include combustible wood by-products included in the term "mill residue."

Net Metering

An electricity policy for consumers who own (generally small) renewable energy facilities (such as wind, solar power or home fuel cells). "Net," in this context, is used in the sense of meaning "what remains after deductions." In this case, the deduction of any energy outflows from metered energy inflows. Under net metering, a system owner receives retail credit for at least a portion of the electricity they generate.

Net-to-Gross

Net-to-gross ratios are important in determining the actual energy savings attributable to a particular program, as distinct from energy efficiency occurring naturally (in the absence of a program). The net-to-gross ratio equals the net program load impact divided by the gross program load impact. This factor is applied to gross program savings to determine the program's net impact.

Net Savings

Savings that are adjusted for evaluation factors of free riders, spillover and savings realization rates. Energy Trust reports all savings in net terms, not gross terms, unless otherwise stated in the publication.

Nondifferentiated Source (Undifferentiated Source)

Power available from the wholesale market or delivered to retail customers.

Non-energy Benefit (NEB)

The additional benefits created by an energy-efficiency or renewable energy project beyond the energy savings or production of the project. Non-energy benefits often include things like water and sewer savings (e.g. clothes washers, dishwashers), improved comfort (e.g. air sealing, windows), sound deadening (e.g. insulation, windows), property value increase (e.g. windows, solar electric), improved health and productivity and enhanced brand.

Path to Net Zero Pilot (PTNZ)

The Path to Net Zero pilot was launched in 2009 by Energy Trust's New Buildings program to provide increased design, technical assistance, construction, and measurement and reporting incentives to commercial building projects that aimed to achieve exceptional energy performance. Approximately 13 buildings worked with New Buildings to develop strategies to save 60 percent more energy than Oregon's already stringent code through a combination of 50 percent energy efficiency and 10 percent renewable power. The pilot demonstrates that a wide range of buildings can achieve aggressive energy goals using currently available construction methods and technology, as well as by testing innovative design strategies.

Photovoltaic

Direct conversion of sunlight to electric energy through the effects of solar radiation on semi-conductor materials. Photovoltaic systems are one type of solar system eligible for Energy Trust incentives.

Public Utility Commissions

State agencies that regulate, among others, investor-owned utilities operating in the state with a protected monopoly to supply power in assigned service territories.

Public Utility Regulatory Act of 1978 (PURPA)

Federal legislation that requires utilities to purchase electricity from qualified independent power producers at a price that reflects what the utilities would have to pay for the construction of new generating resources. The Act was designed to encourage the development of small-scale cogeneration and renewable resources.

Qualifying Facility (QF)

A power production facility that generates its own power using cogeneration, biomass waste, geothermal energy, or renewable resources, such as solar and wind. Under PURPA, a utility is required to purchase power from a QF at a price equal to that which the utility would otherwise pay to another source, or equivalent to the cost if it were to build its own power plant.

Renewable Energy Resources

- a) Electricity-generation facilities fueled by wind, waste, solar or geothermal power or by low-emission nontoxic biomass based on solid organic fuels from wood, forest and field residues
- b) Dedicated energy crops available on a renewable basis
- c) Landfill gas and digester gas
- d) Hydroelectric facilities located outside protected areas as defined by federal law in effect on July 23, 1999

Renewable Portfolio Standard

A legislative requirement for utilities to meet specified percentages of their electric load with renewable resources by specified dates, or a similar requirement. May be referred to as Renewable Energy Standard.

Retrofit

A retrofit involves the installation of new, usually more efficient equipment into an existing building or process prior to the existing equipment's failure or end of its economic life. In buildings, retrofits may involve either structural enhancements to increase strength, or replacing major equipment central to the building's functions, such as HVAC or water heating systems. In industrial applications, retrofits involve the replacement of functioning equipment with new equipment.

Roof-top Units (RTU)

Packaged heating, ventilating and air conditioning unit that generally provides air conditioning and ventilating services for zones in low-rise buildings. Roof-top units often include a heating section, either resistance electric, heat pump or non-condensing gas (the latter are called "gas-paks"). Roof-top units are the most prevalent comfort conditioning systems for smaller commercial buildings. Generally small (<10 ton) commodity products, but very sophisticated high-efficiency versions are available, as are units larger than 50 tons.

R-Value

A unit of thermal resistance used for comparing insulating values of different material. It is basically a measure of the effectiveness of insulation in stopping heat flow. The higher the R-Value number, a material, the greater its insulating properties and the slower the heat flow through it. The specific value needed to insulate a home depends on climate, type of heating system and other factors.

SB 1149

The Oregon legislation enacted in 1999 allowing for the creation of a third party, nonprofit organization to receive approximately 74 percent of a 3 percent utility surcharge (public purpose charge) and deliver energy-efficiency and renewable energy programs to the funding Oregon ratepayers of Portland General Electric and Pacific Power. Energy Trust was approved by the OPUC to deliver the services. The rest of the surcharge is distributed to school districts and Oregon Housing and Community Services.

SB 838

SB 838, enacted in 2007, augmented Energy Trust's mission in many ways. Most prominently, it provided a vehicle for additional electric efficiency funding for customers under 1 aMW in load, and restructured the renewable energy role to focus on generation plants that produce less than 20 aMW. SB 838 is also the legislation creating the state's Renewable Portfolio Standard and extended Energy Trust's sunset year from 2012 to 2026.

SBW Consulting, Inc

A consulting firm based in Bellevue, WA, with expertise in facility energy assessments, utility conservation programs and program evaluations.

Sectors

For energy planning purposes, the economy is divided into four sectors: residential, commercial, industrial and irrigation.

Self-Directing Consumers

A retail electricity consumer that has used more than one average megawatt of electricity at any one site in the prior calendar year or an aluminum plant that averages more than 100 average megawatts of electricity use in the prior calendar year, that has received final certification from the Oregon Department of Energy for expenditures for new energy conservation or new renewable energy resources and that has notified the electric company that it will pay the public purpose charge, net of credits, directly to the electric company in accordance with the terms of the electric company's tariff regarding public purpose credits.

Societal Cost

Similar to the total resource cost as including the full cost to install a measure including equipment, labor and Energy Trust cost to administer and deliver the program, societal cost also includes any costs beyond those realized by the participant and Energy Trust associated with the energy-saving project. Typically additional societal benefits are seen with energy-efficiency projects that can be difficult to quantify and include in the Societal Cost Test for cost effectiveness.

Solar Power

Using energy from the sun to make electricity through the use of photovoltaic cells.

Solar Thermal

The process of concentrating sunlight on a relatively small area to create the high temperatures needed to vaporize water or other fluids to drive a turbine for generation of electric power.

Spillover

Additional measures that were implemented by the program participant for which the participant did not receive an incentive. They undertook the project on their own, influenced by prior program participation.

Therm

One hundred thousand (100,000) British thermal units (1 therm = 100,000 Btu).

Total Resource Cost

The OPUC has used the "total resource cost" (TRC) test as the primary basis for determining conservation cost-effectiveness as determined in Order No. 94-590 (docket UM 551). SB 1149 allows the "self-directing consumers" to use a simple payback of one to 10 years as the cost-effectiveness criterion.

Tidal Energy

Energy captured from tidal movements of water.

U-Value (U-Factor)

A measure of how well heat is transferred by the entire window—the frame, sash and glass—either into or out of the building. U-Value is the opposite of R-Value. The lower the U-Value number, the better the window will keep heat inside a home on a cold day.

Wave Energy

Energy captured by the cyclical movement of waves in the ocean or large bodies of water.

Watt

A unit of measure of electric power at a point in time, as capacity or demand. One watt of power maintained over time is equal to one joule per second.

Wind Power

Harnessing the energy stored in wind via turbines, which then convert the energy into electricity. Mechanical power of wind can also be used directly.

Weatherization

The activity of making a building (generally a residential structure) more energy efficient by reducing air infiltration, improving insulation and taking other actions to reduce the energy consumption required to heat or cool the building. In practice, “weatherization programs” may also include other measures to reduce energy used for water heating, lighting and other end uses.

Energy Industry Acronyms

AAMA	American Architectural Manufacturers Association	Trade group for window, door manufacturers
A/C	Air Conditioning	
ACEEE	American Council for an Energy-Efficient Economy	Environmental Advocacy, Researcher
AEE	Association of Energy Engineers	
AEO	Annual Energy Outlook	
AESP	Association of Energy Services Professionals	Energy services and energy efficiency trade org
A+E	Architecture + Energy	Outreach program for architects
AFUE	Annual Fuel Utilization Efficiency	The measure of seasonal or annual efficiency of a furnace or boiler
AgriMet	Agricultural Meteorology	Program for soil moisture data
AIA	American Institute of Architects	Trade organization
AIC	Association of Idaho Cities	Local government organization
aMW	Average Megawatt	A way to equally distribute annual energy over all the hours in one year; there are 8,760 hours in a year
AOI	Associated Oregon Industries	
APEM	Association of Professional Energy Managers	
ARI	Air-Conditioning and Refrigeration Institute	AC trade association
ASE	Alliance to Save Energy	Environmental advocacy organization
ASERTTI	Association 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
OEFC	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
SWEET	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	